EDMONTON WATERWORKS
MONTHLY REPORT

August 2024

PROVIDING MORE EPCOR

TABLE OF CONTENTS

2.0 WATER QUALITY

2.1 HIGHLIGHTS

2.2 SUMMARY OF ANALYSES PERFORMED

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 August, Rossdale Plant had 2 planned shutdowns and 1 unplanned bypass.

Date	Type	Bypass Description
Aug 1	Planned	4 hours shutdown for maintenance work
Aug 12	Planned	7.75 hours shutdown to switch production flumes
Aug 21	Unplanned	1 hour bypass for maintenance troubleshooting

In August, E.L. Smith Plant had no shutdowns and 3 planned bypasses.

Date	Type	Bypass Description
Aug 1	Planned	1.41 hours bypass for maintenance troubleshooting
Aug 7	Planned	0.5 hours bypass for maintenance troubleshooting
Aug 8	Planned	0.87 hours bypass for maintenance 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 August, there were zero instances of chlorinated waste released at the outfall structure at Rossdale Water Treatment Plant.
- During the month of August, there were zero instances of chlorinated waste released at the outfall structure at E.L. Smith Water Treatment Plant.

Chemical Dosing Highlights

In August, 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 – August 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20240811-801105-v1	About 15m^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 a nearby ditch south of Poplar Lake. Water did not enter the lake.	August 11, 2024	431617
ENV-20240813-451656-v1	On August 11, 2024 at 20:30 hrs, EPCOR Operations collected a sample from a manual air vent off a water transmission main. The main was fully isolated and was being recommissioned following a repair due to a main-break. WOn August 13, 2024 at 11:06 hrs, the laboratory results indicated that the sample failed for total coliforms. AEPA was notified of these lab results on July 13, 2024 at 11:15 hrs. Following the failed sample, an EPCOR emergency response member was dispatched to site to collect four (4) resamples: 1. One (1) at the original source location; 2. One (1) from a secondary source at the original sample location; 3. One (1) from less than five (5) service locations upstream from the original sample location, and; 4. One (1) from less than five (5) services downstream from the original sample location. On August 15, 2024 at 16:34 hrs, the lab reported that all four (4) resamples passed.	August 13, 2024	431689
ENV-20240821-563003)	During Analytical Operations' routine monthly review of analytical data, prior to electronically uploading to APEA, a reporting error was discovered. Data were incorrectly reported internally as part of a total coliform positive event from July 4, 2024 (EPCOR Incident: ENV-20240706-796174-v1). One of four follow-up resamples also tested positive for coliforms but was incorrectly transcribed on the field sheets and reported back as a non-detect.	August 21, 2024	429948

ENV-20240822-291278-v1	On August 21, 2024 at 02:15 hrs, EPCOR collected a sample from Hydrant 3083.On August 22, 2024 at 12:44 hrs, the laboratory results indicated that the sample failed for total coliforms. AEP was notified of these lab results on August 22, 2024 at 13:14 hrs. Following the failed sample, an EPCOR emergency response member was dispatched to site to collect four (4) resamples on August 22, 2024. After Samples were collected the hydrant control valve on H3083 was closed as a precautionary measure. On August 24, 2024 at 15:07hrs, the lab reported that 4 out of the 4 resamples passed.	August 22, 2024	432095
ENV-20240822-372111-v1	On August 21, 2024 at 03:29 hrs, EPCOR Operations collected a sample from Hydrant 22249. On August 22, 2024 at 15:18 hrs, the laboratory results indicated that the sample failed for total coliforms. AEPA was notified of these lab results on August 22, 2024 at 15:29 hrs. Following the failed sample, an EPCOR emergency response member was dispatched to site to collect four (4) resamples on August 22, 2024. After Samples were collected the hydrant control valve on H22249 was closed as a precautionary measure. On August 24, 2024 at 15:07hrs, the lab reported that 4 out of the 4 resamples passed.	August 22, 2024	432108
ENV-20240824-118767-v1	About 163 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed	August 24, 2024	432187
ENV-20240825-037858-v1	About 84 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby storm catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed.	August 25, 2024	432207

1.1.3 Alberta Environment Operator Certifications

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

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

Title	Alberta Environment Certification Level
Operations Engineer	
Operations Engineer	WWC I
Day Foreman	WT IV
HEI Foreman	WT IV
Training Operator Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT III
Operations Foreman	WT IV
Operations Foreman	WT IV
Lead Hand, Operator	WT III
Lead Hand, Operator	WT II
Lead Hand, Operator	WT III
Lead Hand, Operator	WT III
Lead Hand, Operator	WT II, WD II, WWT I, WWC I
Operator I	WT III, WWT II,
Operator I	WT II
Operator I	WT III, WWT III
Operator I	WT II
Operator I	WT II, WD I, WWT II, WWC I
Operator I	WT II, WD I
Operator I	WT III, WD I, WWT II, WWC I

1.1.3 Alberta Environment Operator Certifications

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

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - NETWORK MAINTENANCE

Senior Manager, Maintenance and Construction

Manager, Distribution Maintenance

Manager, Dist. Maint Schedule

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

Labourer III	WD I
Labourer II	WD I
Labourer II	WD I

1.1.3 Alberta Environment Operator Certifications

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

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)
WATER DISTRIBUTION (WD) - NETWORK MAINTENANCE

Senior Manager, Maintenance and Construction
Manager, Maintenance and Construction
Manager, Dist. Maint Scheduling

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

1.1.3 Alberta Environment Operator Certifications

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

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - FIELD OPERATIONS

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

1.1.3 Alberta Environment Operator Certifications

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

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - CUSTOMER SERVICE

Senior Manager, Customer Service

Manager, Dispatch

Manager, Inspections and Customer Service

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

1.1.3 Alberta Environment Operator Certifications

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

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)
WATER METERING (WD)

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

1.2.1 Raw Water Intake (ML)

August 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	77	119	196	311	507
2	92	152	245	321	566
3	95	155	250	321	571
4	83	135	218	284	502
5	61	106	167	248	415
6	60	100	160	241	401
7	60	113	173	253	426
8	70	120	190	303	493
9	80	131	211	321	532
10	74	136	210	316	526
11	63	123	186	301	487
12	54	88	143	304	446
13	90	120	210	321	531
14	90	120	210	307	517
15	75	110	185	280	465
16	60	100	160	272	432
17	60	100	160	261	421
18	67	111	178	265	442
19	70	114	184	277	460
20	74	114	188	270	459
21	80	103	182	299	481
22	80	112	192	298	490
23	76	116	192	288	480
24	68	108	177	269	445
25	64	108	172	247	419
26	60	120	180	263	443
27	60	120	180	281	461
28	60	119	179	281	460
29	60	118	178	281	459
30	60	120	180	281	461
31	60	120	180	280	460
Monthly Total	2,183	3,630	5,813	8,844	14,658
Monthly Min	54	88	143	241	
Monthly Max	95	155	250	321	
Monthly Avg	70	117	188	285	473

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

August 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	0.0	279	169	165	296	250	418	69.2
2	191	306	236	202	298	269	505	59.5
3	160	303	240	247	295	270	511	64.0
4	154	283	206	200	282	243	449	77.2
5	48	206	156	193	284	214	371	79.8
6	55	206	151	194	287	207	358	76.0
7	80	205	163	195	285	214	377	67.7
8	103	207	180	200	287	257	436	65.5
9	140	297	202	198	294	276	478	67.9
10	163	272	200	245	290	273	473	74.3
11	50	298	174	203	294	261	435	79.0
12	6.1	206	115	238	300	261	376	74.5
13	157	207	199	245	294	282	481	61.3
14	136	266	194	198	297	265	459	67.9
15	53	255	171	198	284	245	416	73.7
16	85	209	149	199	288	244	393	68.7
17	84	211	150	200	287	223	372	68.5
18	80	212	167	200	279	235	402	69.0
19	95	210	173	200	294	239	412	70.0
20	93	212	177	200	296	240	417	65.1
21	20	214	166	200	299	261	427	64.0
22	102	212	181	201	295	260	441	63.4
23	91	211	180	202	295	253	433	67.0
24	0.0	209	166	202	286	235	402	66.3
25	125	208	162	200	298	218	380	68.0
26	123	205	169	202	297	233	402	63.4
27	80	209	170	204	298	248	417	61.6
28	69	210	168	205	298	251	419	62.7
29	74	212	168	204	298	247	414	66.3
30	59	209	168	204	300	246	414	65.9
31	101	208	170	206	296	241	411	68.6
Monthly Tota			5,440			7,659	13,099	
Monthly Min	0.0			165				
Monthly Max		306			300			
Monthly Avg			175			247	423	

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

August 2024

Day	Rossdale									E.L. Smith								
	Turbidity (NTU)			pH			Colour (TCU)			Turbidity (NTU)			pH			Colour (TCU)		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	2.7	3.9	3.7	8.5	8.5	8.5	4.2	4.5	4.4	3.4	4.2	3.9	8.4	8.5	8.4	3.2	4.6	4.1
2	2.4	2.7	2.5	8.5	8.5	8.5	4.0	4.3	4.1	3.2	3.7	3.4	8.4	8.5	8.5	4.5	5.0	4.8
3	2.2	2.4	2.4	8.5	8.5	8.5	4.1	4.3	4.2	3.2	4.3	3.6	8.5	8.5	8.5	4.3	4.9	4.4
4	2.2	2.4	2.3	8.4	8.5	8.5	3.9	4.3	4.1	3.0	4.1	3.6	8.5	8.5	8.5	4.2	5.5	5.0
5	2.4	18	10	8.3	8.5	8.4	3.9	11.5	6.1	2.9	20	8.6	8.4	8.5	8.4	4.3	5.4	4.5
6	4.3	11	7.1	8.5	8.5	8.5	4.1	5.4	4.4	5.6	14	9.0	8.4	8.4	8.4	4.3	4.9	4.5
7	3.2	4.3	3.5	8.4	8.5	8.5	3.5	4.5	3.9	5.6	8.1	7.2	8.4	8.4	8.4	4.2	4.8	4.4
8	4.1	6.1	5.4	8.4	8.6	8.4	4.5	7.0	5.6	7.2	17	10	8.3	8.4	8.4	4.8	7.4	7.0
9	6.1	45	23	8.3	8.6	8.4	7.0	8.6	7.5	17	40	34	8.3	8.3	8.3	7.4	13.5	8.9
10	45	55	50	8.3	8.4	8.3	8.6	16.5	13.2	39	50	45	8.3	8.4	8.3	13.5	17.5	16.3
11	35	55	40	8.3	8.4	8.4	14.6	17.1	16.0	26	39	33	8.3	8.4	8.4	15.3	17.1	16.1
12	20	35	25	8.4	8.4	8.4	12.4	15.3	14.4	14	26	19	8.4	8.5	8.4	13.2	15.3	13.8
13	9.2	20	16	8.4	8.5	8.4	10.3	12.4	12.0	8.6	14	11	8.5	8.5	8.5	10.5	14.0	12.0
14	5.7	9.4	8.9	8.3	8.5	8.4	8.5	10.3	10.1	5.8	8.6	7.4	8.4	8.5	8.5	8.2	10.5	9.6
15	5.4	7.1	6.3	8.4	8.5	8.5	7.2	8.5	8.0	4.2	5.8	5.1	8.4	8.5	8.4	7.0	8.4	8.0
16	5.4	9.0	7.2	8.4	8.5	8.4	6.3	8.9	7.6	4.2	7.3	5.9	8.4	8.5	8.4	6.6	7.0	6.8
17	6.7	9.1	8.2	8.4	8.5	8.4	6.5	7.2	6.8	3.9	7.2	6.1	8.4	8.5	8.4	5.2	6.9	6.6
18	4.5	6.7	6.0	8.4	8.5	8.5	5.8	6.5	6.1	3.9	6.0	4.5	8.4	8.5	8.4	5.9	6.3	6.1
19	4.5	26	17	8.3	8.5	8.4	5.8	6.5	6.2	6.0	28	19	8.3	8.4	8.4	6.2	8.9	7.6
20	13	17	16	8.4	8.4	8.4	6.5	10.1	8.8	13	17	15	8.4	8.4	8.4	8.9	10.4	10.0
21	13	31	20	8.3	8.4	8.3	8.8	11.8	9.8	13	36	27	8.3	8.4	8.4	9.4	10.3	9.8
22	13	22	19	8.3	8.4	8.4	8.8	9.7	9.5	15	24	18	8.4	8.5	8.4	9.3	10.1	9.8
23	8.0	13	11	8.4	8.5	8.5	9.3	9.8	9.5	8.0	15	10	8.3	8.5	8.5	9.1	10.8	9.7
24	7.3	8.0	7.9	8.5	8.7	8.5	8.5	9.8	9.0	5.8	10	7.7	8.3	8.5	8.4	8.0	9.1	8.5
25	5.0	7.3	6.9	8.4	8.5	8.4	7.7	8.9	8.6	4.5	6.0	5.4	8.4	8.5	8.5	7.5	8.7	8.1
26	3.6	5.0	4.4	8.4	8.5	8.4	7.0	7.7	7.5	3.3	4.8	4.1	8.4	8.5	8.4	7.1	8.0	7.5
27	3.6	5.4	4.3	8.5	8.5	8.5	6.5	7.2	6.9	3.2	3.7	3.5	8.4	8.5	8.4	6.1	7.3	6.9
28	4.5	6.1	5.1	8.4	8.5	8.5	6.5	7.7	7.0	3.3	3.9	3.5	8.4	8.5	8.5	5.8	7.3	6.3
29	3.8	5.3	4.8	8.4	8.5	8.5	5.3	7.1	6.5	3.4	4.6	4.2	8.4	8.5	8.5	5.5	6.3	6.0
30	3.8	11	7.2	8.4	8.5	8.4	5.3	6.4	5.6	3.4	11	7.9	8.4	8.5	8.4	5.5	6.8	6.1
31	8.2	13	9.6	8.4	8.4	8.4	6.4	12.5	8.5	8.1	19	12	8.4	8.4	8.4	6.8	18.0	10.5
Monthly Min/Max/Avg	2.2	55	12	8.3	8.7	8.4	3.5	17.1	7.8	2.9	50	12	8.3	8.5	8.4	3.2	18.0	8.1

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

August 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	0.03	0.05	0.04	2.16	2.26	2.22	7.9	7.9	7.9	0.66	0.67	0.67	174	0.5	0.06	0.07	0.07	2.05	2.12	2.08	7.7	7.7	7.7	0.76	0.77	0.76	173	0.7
2	0.03	0.05	0.04	2.16	2.32	2.25	7.9	7.9	7.9	0.66	0.67	0.66	173	0.4	0.06	0.06	0.06	2.08	2.19	2.14	7.7	7.7	7.7	0.76	0.77	0.77	178	0.7
3	0.03	0.05	0.04	2.21	2.32	2.28	7.9	7.9	7.9	0.66	0.67	0.67	169	0.5	0.06	0.07	0.06	2.02	2.18	2.10	7.7	7.8	7.7	0.77	0.78	0.78	162	0.7
4	0.02	0.05	0.03	2.16	2.36	2.24	7.9	7.9	7.9	0.66	0.68	0.67	177	0.3	0.06	0.07	0.06	2.03	2.12	2.07	7.7	7.8	7.7	0.76	0.78	0.77	167	0.6
5	0.02	0.05	0.03	2.01	2.16	2.11	7.8	7.9	7.9	0.64	0.67	0.67	180	0.3	0.06	0.06	0.06	2.07	2.14	2.10	7.7	7.7	7.7	0.74	0.76	0.76	177	0.6
6	0.02	0.05	0.04	2.01	2.22	2.09	7.8	7.9	7.8	0.64	0.66	0.65	168	0.3	0.06	0.06	0.06	2.12	2.19	2.15	7.7	7.8	7.8	0.75	0.75	0.75	170	0.5
7	0.03	0.05	0.04	2.16	2.32	2.24	7.9	7.9	7.9	0.66	0.67	0.67	178	0.2	0.06	0.06	0.06	2.14	2.23	2.20	7.8	7.8	7.8	0.75	0.75	0.75	176	0.7
8	0.03	0.04	0.03	2.21	2.32	2.27	7.8	7.9	7.9	0.66	0.74	0.67	168	0.2	0.06	0.06	0.06	2.15	2.23	2.21	7.7	7.8	7.7	0.75	0.76	0.75	170	0.7
9	0.03	0.04	0.04	2.11	2.26	2.19	7.8	7.8	7.8	0.66	0.67	0.66	174	0.2	0.06	0.06	0.06	1.99	2.24	2.09	7.7	7.7	7.7	0.75	0.76	0.76	172	0.6
10	0.03	0.05	0.04	2.11	2.32	2.20	7.8	7.8	7.8	0.64	0.67	0.66	169	0.5	0.06	0.06	0.06	2.03	2.10	2.07	7.7	7.7	7.7	0.73	0.75	0.74	173	0.9
11	0.03	0.04	0.03	2.16	2.32	2.25	7.7	7.8	7.7	0.63	0.65	0.64	173	0.7	0.06	0.06	0.06	2.03	2.14	2.11	7.7	7.7	7.7	0.73	0.74	0.73	173	1.0
12	0.03	0.04	0.03	2.06	2.36	2.18	7.8	7.9	7.9	0.65	0.66	0.65	175	0.8	0.06	0.06	0.06	2.04	2.16	2.11	7.7	7.8	7.8	0.73	0.75	0.75	175	1.1
13	0.02	0.04	0.03	2.16	2.36	2.28	7.8	8.0	7.9	0.65	0.70	0.66	174	0.6	0.05	0.06	0.06	2.05	2.11	2.08	7.8	7.8	7.8	0.75	0.77	0.76	172	1.3
14	0.02	0.03	0.03	2.16	2.36	2.27	7.9	8.1	8.0	0.67	0.70	0.68	177	0.5	0.06	0.06	0.06	2.02	2.12	2.07	7.8	7.8	7.8	0.77	0.78	0.78	177	1.1
15	0.02	0.03	0.03	2.21	2.32	2.24	7.9	7.9	7.9	0.68	0.69	0.69	177	0.5	0.06	0.06	0.06	2.02	2.08	2.05	7.8	7.8	7.8	0.78	0.79	0.78	177	0.8
16	0.02	0.03	0.03	2.06	2.32	2.17	7.9	7.9	7.9	0.67	0.69	0.68	170	0.3	0.06	0.06	0.06	2.03	2.09	2.06	7.8	7.8	7.8	0.76	0.78	0.78	169	0.7
17	0.03	0.03	0.03	2.11	2.22	2.16	7.9	7.9	7.9	0.67	0.68	0.68	166	0.4	0.06	0.06	0.06	2.02	2.12	2.05	7.8	7.8	7.8	0.77	0.78	0.77	169	1.1
18	0.03	0.03	0.03	2.11	2.22	2.16	7.8	7.9	7.9	0.67	0.68	0.68	168	0.4	0.06	0.06	0.06	2.10	2.17	2.13	7.8	7.9	7.8	0.77	0.78	0.78	168	1.0
19	0.03	0.03	0.03	2.16	2.26	2.22	7.9	7.9	7.9	0.68	0.69	0.69	166	0.5	0.06	0.06	0.06	2.08	2.18	2.12	7.8	7.8	7.8	0.76	0.78	0.78	170	1.0
20	0.03	0.04	0.04	2.11	2.26	2.16	7.7	7.9	7.9	0.66	0.69	0.68	172	0.6	0.06	0.06	0.06	2.06	2.12	2.10	7.8	7.8	7.8	0.75	0.77	0.76	174	0.9
21	0.03	0.04	0.03	2.11	2.26	2.19	7.7	7.7	7.7	0.66	0.67	0.67	170	0.7	0.06	0.06	0.06	2.08	2.13	2.10	7.8	7.9	7.8	0.76	0.78	0.77	169	1.1
22	0.03	0.04	0.03	2.11	2.22	2.16	7.7	7.7	7.7	0.66	0.67	0.66	173	0.4	0.06	0.06	0.06	2.07	2.17	2.10	7.8	7.9	7.8	0.77	0.78	0.78	174	1.2
23	0.03	0.04	0.03	2.11	2.32	2.18	7.7	7.8	7.8	0.66	0.70	0.66	171	0.4	0.06	0.06	0.06	2.08	2.18	2.11	7.7	7.8	7.8	0.77	0.78	0.78	175	1.0
24	0.03	0.04	0.03	2.11	2.26	2.19	7.7	7.8	7.8	0.67	0.68	0.67	174	0.3	0.06	0.06	0.06	2.08	2.22	2.11	7.7	7.7	7.7	0.77	0.78	0.78	174	0.9
25	0.03	0.04	0.03	2.11	2.21	2.16	7.8	7.8	7.8	0.66	0.67	0.67	170	0.3	0.06	0.06	0.06	2.05	2.21	2.11	7.7	7.8	7.7	0.77	0.78	0.78	173	1.0
26	0.03	0.04	0.03	2.11	2.26	2.21	7.8	7.9	7.8	0.66	0.67	0.67	170	0.7	0.06	0.06	0.06	2.03	2.21	2.14	7.8	7.8	7.8	0.78	0.79	0.79	172	0.9
27	0.03	0.04	0.03	2.11	2.26	2.20	7.8	7.9	7.9	0.67	0.67	0.67	170	0.7	0.06	0.06	0.06	2.08	2.22	2.14	7.7	7.8	7.7	0.68	0.80	0.73	170	0.8
28	0.03	0.04	0.04	2.11	2.26	2.19	7.9	7.9	7.9	0.67	0.68	0.68	174	0.6	0.06	0.06	0.06	2.09	2.28	2.18	7.5	7.7	7.7	0.69	0.70	0.69	174	0.8
29	0.03	0.04	0.04	2.21	2.26	2.23	7.8	7.9	7.8	0.66	0.67	0.66	169	0.4	0.05	0.06	0.06	2.09	2.30	2.20	7.6	7.7	7.6	0.69	0.70	0.70	169	0.8
30	0.04	0.04	0.04	2.11	2.26	2.18	7.8	7.8	7.8	0.66	0.67	0.67	171	0.2	0.06	0.06	0.06	2.05	2.28	2.18	7.5	7.6	7.6	0.70	0.72	0.72	166	0.6
31	0.04	0.04	0.04	2.11	2.21	2.15	7.7	7.8	7.8	0.66	0.68	0.67	174	0.5	0.06	0.06	0.06	2.05	2.26	2.16	7.7	7.7	7.7	0.72	0.73	0.72	173	0.9
Monthly Min/Max/ Avg	0.02	0.05	0.03	2.01	2.36	2.20	7.7	8.1	7.8	0.63	0.74	0.67	172	0.5	0.05	0.07	0.06	1.99	2.30	2.12	7.5	7.9	7.7	0.68	0.80	0.76	172	0.9

NOTES: ' -- ' indicates plant offline

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

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

NOTE: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

1.2.8 Rossdale Filters 1 - 9 Turbidity (NTU)

August 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	0.07	0.03	0.03	0.06	0.03	0.01	0.04	0.02	0.01	0.02	0.02	0.03	0.06	0.04	0.02	0.06	0.03	0.03	0.05	0.04	0.02	0.05	0.03	0.02	0.03	0.03
2	0.02	0.04	0.03	0.02	0.04	0.03	0.01	0.02	0.02	0.01	0.05	0.02	0.02	0.03	0.03	0.01	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.07	0.03
3	0.02	0.04	0.02	0.03	0.06	0.03	0.01	0.04	0.02	0.01	0.04	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.07	0.03	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.03	0.02	0.01	0.02	0.01	0.03	0.06	0.04	0.01	0.04	0.01	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.06	0.03	0.02	0.04	0.02	0.01	0.03	0.01	0.01	0.04	0.01	0.02	0.04	0.03	--	--	--	0.02	0.02	0.02	0.03	0.06	0.04	0.02	0.02	0.02
6	0.02	0.04	0.02	--	--	--	0.01	0.01	0.01	0.03	0.06	0.04	0.02	0.04	0.02	0.01	0.07	0.03	0.02	0.04	0.02	0.02	0.03	0.02	0.05	0.06	0.06
7	0.02	0.02	0.02	0.03	0.06	0.03	--	--	--	0.01	0.03	0.01	0.02	0.05	0.02	0.01	0.01	0.01	0.03	0.05	0.04	0.02	0.02	0.02	0.02	0.05	0.02
8	--	--	--	0.03	0.03	0.03	0.02	0.04	0.03	0.01	0.03	0.01	0.04	0.06	0.04	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
9	0.03	0.06	0.03	0.02	0.03	0.03	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.04	0.03	0.01	0.06	0.02	0.02	0.03	0.02	0.02	0.06	0.03	0.02	0.02	0.02
10	0.02	0.03	0.03	0.03	0.05	0.03	0.01	0.02	0.01	0.01	0.07	0.03	0.02	0.04	0.03	0.01	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.07	0.03
11	0.02	0.04	0.02	0.02	0.07	0.03	0.01	0.04	0.03	0.01	0.03	0.02	0.02	0.04	0.03	0.01	0.01	0.01	0.03	0.06	0.03	0.02	0.02	0.02	0.02	0.02	0.02
12	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.03	0.02	0.01	0.04	0.02	0.02	0.05	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.05	0.02
13	0.02	0.02	0.02	--	--	--	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.03	0.12	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.04	0.02	0.02	0.02	0.04
14	0.02	0.05	0.02	0.03	0.05	0.03	0.01	0.01	0.01	0.01	0.03	0.01	0.02	0.04	0.03	0.01	0.02	0.01	0.03	0.06	0.03	0.02	0.02	0.02	0.02	0.06	0.02
15	0.02	0.06	0.03	0.02	0.03	0.02	0.01	0.04	0.02	0.01	0.02	0.01	0.03	0.05	0.04	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.02
16	0.02	0.02	0.02	0.02	0.04	0.02	0.01	0.01	0.01	--	--	--	0.03	0.03	0.03	0.01	0.04	0.01	0.02	0.02	0.02	0.02	0.05	0.02	0.04	0.05	0.05
17	0.01	0.03	0.02	--	--	--	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.03	0.02	0.01	0.05	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.04	0.02
18	0.04	0.05	0.05	0.03	0.05	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.04	0.02	0.01	0.02	0.01	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.02
19	0.02	0.04	0.03	0.03	0.03	0.03	0.02	0.04	0.02	0.01	0.03	0.01	--	--	--	0.01	0.01	0.01	0.03	0.03	0.03	0.02	0.05	0.03	0.02	0.02	0.02
20	0.02	0.03	0.02	0.02	0.03	0.03	0.01	0.02	0.01	0.01	0.03	0.01	0.03	0.08	0.04	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.06	0.03
21	0.02	0.04	0.02	0.02	0.05	0.03	0.01	0.04	0.01	0.01	0.06	0.02	0.02	0.05	0.03	0.01	0.03	0.02	0.02	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.02
22	0.03	0.05	0.04	0.03	0.04	0.03	0.01	0.01	0.01	0.01	0.03	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.03	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02
23	0.02	0.03	0.03	0.02	0.04	0.03	0.02	0.07	0.03	0.01	0.03	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.03	0.03	0.03	--	--	--	0.02	0.02	0.02
24	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.06	0.02	0.01	0.02	0.01	0.03	0.06	0.04	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.05	0.02	--	--	--
25	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.06	0.02	0.02	0.05	0.03	0.03	0.05	0.03	--	--	--	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.05	0.03
26	0.02	0.03	0.02	0.03	0.06	0.04	0.01	0.06	0.02	0.01	0.04	0.02	0.02	0.04	0.03	0.01	0.05	0.02	--	--	--	0.02	0.02	0.02	0.02	0.02	0.02
27	0.02	0.06	0.03	0.02	0.03	0.03	--	--	--	0.01	0.02	0.01	0.02	0.05	0.02	0.01	0.02	0.01	0.04	0.05	0.05	0.02	0.02	0.02	0.02	0.02	0.02
28	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.02	0.01	0.03	0.01	--	--	--	0.01	0.03	0.01	0.02	0.04	0.03	0.02	0.05	0.03	0.02	0.02	0.02
29	0.02	0.03	0.02	0.02	0.04	0.02	0.01	0.02	0.02	--	--	--	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.05	0.03
30	0.02	0.06	0.02	--	--	--	0.01	0.01	0.01	0.02	0.05	0.02	0.02	0.05	0.03	0.02	0.05	0.03	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
31	0.03	0.04	0.03	0.04	0.05	0.04	0.01	0.02	0.01	0.01	0.04	0.02	0.02	0.04	0.03	0.02	0.02	0.02	0.04	0.06	0.05	--	--	--	0.02	0.02	0.02
Monthly Min/Max/Avg	0.01	0.07	0.02	0.02	0.07	0.03	0.01	0.07	0.02	0.01	0.07	0.02	0.01	0.08	0.03	0.01	0.07	0.01	0.02	0.07	0.03	0.02	0.06	0.02	0.01	0.07	0.02

NOTES: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

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

August 2024

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

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

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

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

August 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	34.9	36.4	35.6	28.7	30.6	16.6	35.2	37.5	36.0	27.8	33.8	25.4	34.5	38.9	35.6	22.7	32.2	21.1	94.9	95.5	95.1
2	34.8	36.1	35.6	27.8	32.5	30.9	35.1	38.6	35.9	27.5	31.3	17.0	34.3	36.7	35.6	27.1	30.3	28.8	95.1	95.7	95.4
3	34.9	36.9	35.7	25.2	30.7	27.9	34.9	36.4	35.7	30.1	35.0	32.5	34.3	37.4	35.7	24.5	33.0	15.9	95.4	95.9	95.7
4	35.1	51.1	36.8	17.7	26.6	14.0	35.1	37.8	36.1	30.5	33.9	32.0	34.9	36.3	35.6	31.9	36.2	34.2	95.5	96.0	95.8
5	34.6	36.2	35.5	28.3	35.3	27.8	34.9	55.7	37.7	16.9	31.3	24.0	34.3	37.1	35.5	25.2	34.5	28.9	92.8	96.0	94.5
6	34.8	38.3	35.8	24.6	33.9	31.5	--	--	--	--	--	--	33.9	68.5	37.1	14.2	28.4	25.2	95.2	95.9	95.6
7	37.4	45.2	39.6	13.1	26.0	21.2	35.1	40.3	38.3	28.6	31.3	15.0	--	--	--	--	--	--	95.6	95.9	95.9
8	--	--	--	--	--	--	34.8	39.5	37.4	26.9	29.7	28.5	33.8	36.7	35.6	25.9	28.5	12.7	94.4	95.9	95.4
9	34.8	36.0	35.6	28.3	30.2	15.1	35.2	37.8	36.3	24.5	27.4	25.7	34.3	36.5	35.6	25.0	27.8	26.1	94.2	94.8	94.6
10	34.9	35.9	35.5	25.6	29.9	27.5	35.1	57.9	35.8	12.4	24.8	5.9	34.6	36.2	35.5	22.7	26.5	24.3	92.0	94.2	93.0
11	34.8	36.3	35.5	23.9	28.3	26.5	34.9	36.2	35.5	28.6	30.5	24.5	34.7	36.1	35.4	12.4	28.5	5.1	92.4	93.5	93.0
12	34.8	35.9	35.6	24.2	30.3	14.9	34.9	36.5	35.5	21.7	29.6	10.3	34.8	36.3	35.5	20.7	28.6	20.9	93.4	93.8	93.6
13	34.8	36.1	35.5	27.8	32.5	30.0	--	--	--	--	--	--	34.4	36.6	35.5	26.4	31.3	28.2	92.9	94.1	93.9
14	34.7	35.7	35.6	27.4	30.1	12.5	34.8	57.6	43.7	25.8	30.9	28.1	34.8	36.1	35.8	26.0	28.1	2.5	92.9	93.8	93.3
15	34.2	36.1	35.6	25.0	30.1	28.0	54.7	72.3	63.3	24.7	29.8	27.8	34.7	36.8	35.6	24.6	27.9	16.8	92.9	94.4	94.2
16	34.6	36.0	35.6	24.8	27.4	26.0	65.4	82.2	70.1	21.1	25.5	22.0	34.8	36.2	35.6	23.9	27.3	25.1	93.8	94.6	94.2
17	35.4	36.0	35.6	22.9	26.1	22.0	--	--	--	--	--	--	34.7	36.3	35.6	21.9	26.2	23.3	93.8	95.0	94.7
18	35.1	35.9	35.6	24.7	25.1	1.5	35.1	38.4	36.6	24.9	26.3	17.7	34.9	40.1	36.0	20.4	24.3	13.0	93.8	95.1	94.7
19	34.9	36.3	35.6	22.8	25.4	24.4	35.2	37.6	35.9	22.8	25.7	24.6	34.2	36.6	35.6	23.7	27.1	19.6	94.1	94.9	94.4
20	34.9	36.3	35.6	22.3	26.5	24.2	34.7	36.6	35.7	22.0	26.2	24.0	34.7	36.3	35.5	23.7	26.2	25.2	92.9	94.2	93.5
21	34.8	38.6	35.6	19.3	26.4	22.7	35.1	62.2	35.8	23.8	25.9	4.7	34.6	36.2	35.5	20.8	25.6	22.6	93.5	94.0	93.6
22	35.0	35.9	35.5	24.6	25.3	2.3	34.8	36.5	35.6	22.8	37.0	27.7	34.8	57.5	35.6	14.8	22.7	11.7	93.6	94.1	93.9
23	34.8	36.1	35.5	25.1	29.8	27.8	34.7	36.2	35.5	26.7	30.9	28.9	34.7	36.2	35.5	26.6	28.2	14.0	92.1	93.6	93.2
24	34.8	36.1	35.5	26.2	31.4	28.0	34.9	36.3	35.6	24.3	30.1	27.2	34.5	36.4	35.5	26.4	31.6	28.5	92.1	93.8	93.4
25	34.7	36.1	35.5	21.9	26.8	23.9	35.2	42.5	35.7	17.4	24.7	3.2	34.4	36.3	35.5	24.1	27.3	25.5	93.2	94.1	93.5
26	35.1	37.8	36.4	17.9	24.1	2.6	35.0	36.1	35.5	30.9	35.5	10.1	34.7	35.8	35.6	22.1	24.5	14.3	93.7	94.2	94.0
27	34.7	36.0	35.5	29.4	33.8	19.1	34.9	36.2	35.5	30.1	32.8	31.3	--	--	--	--	--	--	93.8	94.6	94.3
28	34.8	36.5	35.6	27.3	30.7	29.1	35.2	36.5	35.7	25.2	30.3	27.2	34.6	36.4	35.5	26.6	32.6	14.4	94.1	94.7	94.5
29	34.9	36.2	35.6	23.0	28.2	26.0	35.3	46.8	36.9	19.2	25.6	13.3	34.2	36.7	35.6	25.9	31.4	29.3	94.1	95.2	94.8
30	35.0	39.8	37.3	21.1	29.3	20.4	--	--	--	--	--	--	34.8	36.3	35.6	22.9	27.9	25.2	95.1	95.3	95.2
31	34.9	36.1	35.6	28.3	32.6	30.0	35.0	36.1	35.5	25.6	33.9	15.4	34.5	58.7	35.6	12.8	23.6	11.6	92.7	95.1	94.1
Monthly Total						654.3						574.0						593.6			
Monthly Min/Max/ Avg	34.2	51.1	35.8	13.1	35.3		34.7	82.2	38.6	12.4	37.0		33.8	68.5	35.6	12.4	36.2		92.0	96.0	94.3

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

August 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	35.0	38.1	36.0	26.6	32.0	24.7	35.1	36.1	35.6	24.1	28.8	22.4	35.2	35.7	35.7	26.7	32.4	19.2	94.9	95.5	95.1
2	35.0	37.9	36.3	26.1	30.2	15.6	35.0	36.5	35.6	25.4	28.2	26.7	33.8	36.0	35.6	26.8	32.9	30.7	95.1	95.7	95.4
3	34.2	37.7	35.8	26.5	32.9	31.2	35.1	45.2	36.7	19.5	27.0	23.8	35.2	39.5	35.6	26.4	32.4	30.8	95.4	95.9	95.7
4	34.8	44.1	38.7	24.8	30.6	27.6	35.1	37.1	35.6	24.6	32.6	8.6	35.0	36.3	35.6	26.4	29.9	20.9	95.5	96.0	95.8
5	40.2	56.8	46.4	15.8	26.1	8.8	34.9	36.4	35.6	28.5	34.8	31.5	--	--	--	--	--	--	92.8	96.0	94.5
6	42.2	44.8	43.6	23.3	23.6	2.0	35.0	41.2	36.2	23.1	30.4	28.2	35.1	36.0	35.6	26.7	37.3	15.9	95.2	95.9	95.6
7	38.4	47.3	42.2	22.6	28.2	25.4	39.9	46.4	42.1	13.2	24.0	12.0	35.2	36.1	35.6	26.4	31.3	29.9	95.6	95.9	95.9
8	34.9	41.2	36.7	24.9	30.0	27.4	33.5	36.5	35.6	23.9	28.5	9.3	35.0	36.3	35.6	23.3	28.4	27.2	94.4	95.9	95.4
9	34.8	37.1	35.9	24.1	27.0	12.9	34.0	36.1	35.6	25.6	28.0	26.5	35.2	35.9	35.6	25.6	31.6	15.8	94.2	94.8	94.6
10	34.7	36.8	35.6	25.3	28.5	26.5	34.9	36.1	35.6	22.9	26.2	24.6	35.2	36.1	35.6	27.3	33.6	30.7	92.0	94.2	93.0
11	34.5	37.0	35.7	22.5	25.7	24.3	35.1	36.0	35.6	22.9	24.8	6.7	35.0	36.4	35.6	29.6	31.8	31.1	92.4	93.5	93.0
12	34.8	36.7	35.8	22.4	28.6	11.9	34.8	36.1	35.6	23.2	28.9	18.2	35.1	35.7	35.7	25.0	30.3	10.0	93.4	93.8	93.6
13	34.8	36.8	35.7	27.1	31.9	29.4	35.0	36.0	35.6	25.9	27.7	26.8	35.2	36.0	35.6	27.0	32.6	12.6	92.9	94.1	93.9
14	34.8	37.0	35.7	26.3	29.4	27.6	35.0	36.5	35.6	24.6	26.9	25.3	35.1	35.9	35.6	28.9	32.1	30.2	92.9	93.8	93.3
15	34.8	39.2	35.7	21.4	26.6	11.7	35.7	43.1	37.9	15.4	20.7	7.1	35.1	36.0	35.6	26.8	29.8	28.6	92.9	94.4	94.2
16	--	--	--	--	--	--	34.3	38.8	36.1	20.2	28.1	24.1	35.3	35.7	36.2	27.4	28.0	1.9	93.8	94.6	94.2
17	36.8	38.7	37.5	23.0	23.3	2.0	35.1	36.3	35.6	24.0	27.0	25.1	34.7	36.0	35.6	21.2	27.0	14.1	93.8	95.0	94.7
18	35.1	38.8	36.4	23.1	28.0	25.2	35.1	38.3	36.4	21.9	24.7	22.0	35.2	36.0	35.6	24.0	26.8	25.6	93.8	95.1	94.7
19	35.0	37.8	35.9	22.4	25.4	24.2	--	--	--	--	--	--	35.2	36.0	35.6	24.7	29.2	25.9	94.1	94.9	94.4
20	34.8	35.9	35.9	22.5	23.0	12.9	34.2	36.4	35.6	23.4	27.7	22.8	35.2	35.7	35.8	25.7	26.9	2.6	92.9	94.2	93.5
21	34.7	47.8	35.7	16.4	28.0	21.7	35.0	36.1	35.6	23.8	27.7	25.4	35.2	35.9	35.6	21.8	27.8	15.7	93.5	94.0	93.6
22	35.0	36.8	35.7	23.4	33.5	26.9	35.0	36.2	35.6	24.0	28.0	25.1	35.1	36.0	35.6	26.0	34.7	29.2	93.6	94.1	93.9
23	34.6	36.9	35.7	22.1	25.6	24.2	35.1	36.2	35.6	22.9	25.6	11.9	35.1	35.9	35.6	28.4	33.2	31.3	92.1	93.6	93.2
24	34.8	36.7	35.7	21.6	25.5	6.4	34.7	36.0	35.6	26.4	29.7	10.9	34.5	45.3	35.6	14.0	31.7	15.7	92.1	93.8	93.4
25	34.9	36.5	35.7	27.3	32.5	8.9	35.0	36.2	35.6	26.4	30.0	27.4	--	--	--	--	--	--	93.2	94.1	93.5
26	34.8	36.7	35.7	26.6	31.4	29.3	35.1	36.0	35.6	23.9	28.8	26.2	35.1	35.9	35.6	21.4	35.7	28.5	93.7	94.2	94.0
27	34.8	36.8	35.7	23.4	27.4	26.2	34.1	49.7	35.6	14.5	24.6	22.2	35.2	36.0	35.6	29.3	33.3	32.0	93.8	94.6	94.3
28	35.1	39.6	37.5	21.5	24.2	11.9	--	--	--	--	--	--	35.2	36.0	35.6	25.6	30.0	27.9	94.1	94.7	94.5
29	--	--	--	--	--	--	34.8	36.2	35.6	27.6	31.4	24.3	35.2	35.6	35.8	24.6	25.8	4.3	94.1	95.2	94.8
30	35.0	36.5	35.7	27.2	35.3	25.8	35.0	36.4	35.6	24.8	29.5	27.6	34.9	36.0	35.6	26.2	31.5	10.9	95.1	95.3	95.2
31	34.8	36.8	35.7	26.0	31.7	29.8	35.1	35.9	35.6	21.9	25.7	21.4	35.2	35.9	35.6	30.9	35.1	32.5	92.7	95.1	94.1
Monthly Total						582.3						614.3						631.5			
Monthly Min/Max/ Avg	34.2	56.8	36.9	15.8	35.3		33.5	49.7	36.0	13.2	34.8		33.8	45.3	35.7	14.0	37.3		92.0	96.0	94.3

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

August 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	34.0	36.1	35.6	29.9	31.6	26.7	35.1	37.6	35.6	21.3	33.2	22.6	35.0	38.3	35.6	22.8	31.0	8.4	94.9	95.5	95.1
2	34.6	36.1	35.6	28.7	33.1	30.9	35.1	36.1	35.6	27.7	33.6	31.5	34.4	36.3	35.6	26.7	34.9	28.3	95.1	95.7	95.4
3	35.1	38.6	35.6	23.9	35.3	20.7	35.3	36.2	35.6	27.4	33.5	31.2	35.0	36.4	35.6	27.1	34.8	32.6	95.4	95.9	95.7
4	34.8	36.1	35.6	33.6	38.1	36.2	35.2	44.7	35.7	19.8	29.9	8.0	35.0	36.2	35.6	30.7	34.5	32.5	95.5	96.0	95.8
5	34.5	36.1	35.6	29.9	36.9	33.2	35.1	36.0	35.6	31.2	32.4	2.9	35.0	36.8	35.8	30.3	32.6	4.5	92.8	96.0	94.5
6	35.1	42.9	35.6	19.2	31.7	17.6	34.9	36.1	35.6	27.5	38.0	32.8	35.2	36.2	35.6	27.2	27.9	0.3	95.2	95.9	95.6
7	35.3	36.3	35.7	25.8	31.0	6.2	35.1	36.2	35.6	27.0	31.1	29.0	34.9	36.2	35.6	26.5	32.5	29.5	95.6	95.9	95.9
8	35.1	36.1	35.6	25.8	31.0	29.8	34.0	53.6	35.6	13.8	32.0	20.9	34.9	36.3	35.6	22.7	30.3	29.0	94.4	95.9	95.4
9	35.1	36.1	35.6	27.0	29.6	28.0	34.5	36.1	35.6	26.1	32.4	29.0	34.9	36.1	35.6	25.4	28.6	26.9	94.2	94.8	94.6
10	34.2	43.1	35.6	13.6	27.5	12.6	34.9	36.3	35.6	28.1	33.6	30.6	34.8	36.2	35.6	25.3	32.3	23.7	92.0	94.2	93.0
11	35.2	36.0	35.6	30.6	32.3	8.6	34.6	37.6	35.6	21.4	32.2	23.7	34.8	36.1	35.6	28.9	31.1	30.1	92.4	93.5	93.0
12	34.3	36.1	35.6	24.0	31.8	23.5	34.2	36.1	35.6	21.5	33.2	10.4	34.8	45.5	35.6	14.6	31.7	14.2	93.4	93.8	93.6
13	35.1	35.6	35.7	29.2	30.4	17.3	35.0	36.5	35.6	27.7	32.0	30.1	34.8	36.2	35.6	28.1	32.5	30.8	92.9	94.1	93.9
14	35.0	36.0	35.6	29.8	31.5	16.7	34.9	36.0	35.6	28.1	33.5	30.4	34.0	50.5	35.6	28.9	34.1	31.1	92.9	93.8	93.3
15	34.4	36.1	35.6	27.7	30.8	29.8	35.1	40.9	35.6	17.3	31.4	11.3	35.1	35.7	35.6	30.4	32.5	19.0	92.9	94.4	94.2
16	35.1	36.4	35.6	27.5	29.8	28.5	35.1	36.1	35.6	26.5	32.6	25.3	35.1	36.0	35.6	30.7	31.8	1.4	93.8	94.6	94.2
17	35.1	36.1	35.6	24.8	27.9	12.7	35.1	36.1	35.6	27.8	29.2	28.5	34.7	37.4	35.6	24.5	30.9	26.4	93.8	95.0	94.7
18	35.1	36.0	35.6	23.9	29.4	11.5	35.0	36.1	35.6	24.7	30.6	27.2	34.9	36.3	35.6	24.8	31.1	28.4	93.8	95.1	94.7
19	34.9	36.1	35.6	23.9	31.1	27.0	35.0	36.1	35.6	25.9	33.0	18.1	34.8	35.8	35.7	28.4	29.9	15.8	94.1	94.9	94.4
20	35.1	36.1	35.6	27.7	29.2	28.5	35.0	36.0	35.6	27.5	31.0	29.4	34.8	36.1	35.5	26.5	32.2	13.4	92.9	94.2	93.5
21	35.1	37.6	35.6	21.5	28.6	7.3	35.0	36.1	35.6	24.8	31.0	28.0	34.9	36.2	35.6	24.2	32.3	27.8	93.5	94.0	93.6
22	35.0	36.1	35.6	25.6	34.4	10.0	35.1	41.1	35.6	16.3	32.1	24.7	34.7	36.9	35.6	25.6	34.3	28.1	93.6	94.1	93.9
23	35.1	36.1	35.6	29.8	34.9	31.9	--	--	--	--	--	--	34.8	50.3	35.6	11.6	29.4	17.6	92.1	93.6	93.2
24	34.0	36.4	35.6	26.3	35.0	31.5	34.3	36.1	35.6	26.8	38.0	24.4	--	--	--	--	--	--	92.1	93.8	93.4
25	35.1	37.9	35.6	22.6	28.2	18.9	35.0	36.1	35.6	29.9	34.8	31.1	34.9	36.3	35.6	27.2	35.9	27.7	93.2	94.1	93.5
26	--	--	--	--	--	--	35.1	36.2	35.6	28.0	33.6	30.8	35.0	36.2	35.6	27.0	34.9	32.1	93.7	94.2	94.0
27	35.3	36.0	35.6	26.2	31.5	1.9	35.1	35.6	35.7	28.4	29.9	11.3	34.9	36.3	35.6	27.0	32.3	30.3	93.8	94.6	94.3
28	35.1	36.1	35.6	29.7	35.1	31.5	32.7	36.1	35.6	26.6	36.2	28.7	35.1	36.4	35.6	26.8	28.5	3.9	94.1	94.7	94.5
29	35.0	37.2	35.6	26.0	33.8	30.8	34.7	37.3	35.6	26.5	35.1	31.8	34.8	36.1	35.6	30.5	36.3	13.3	94.1	95.2	94.8
30	35.1	42.4	35.6	19.4	30.3	6.3	35.2	36.1	35.6	27.7	31.3	23.3	35.0	36.3	35.6	33.4	37.5	35.1	95.1	95.3	95.2
31	35.2	35.9	35.6	30.6	31.6	3.1	--	--	--	--	--	--	35.0	36.1	35.6	27.6	34.5	31.1	92.7	95.1	94.1
Monthly Total						619.4						707.2						673.5			
Monthly Min/Max/ Avg	34.0	43.1	35.6	13.6	38.1		32.7	53.6	35.6	13.8	38.0		34.0	50.5	35.6	11.6	37.5		92.0	96.0	94.3

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

August 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	73.3	86.9	79.3	68.9	106.3	92.1	70.4	85.9	75.1	67.2	101.4	90.2	72.4	87.2	77.2	69.9	108.5	94.8	--	--	--	--	--	--	94.6	94.9	94.8
2	46.6	88.9	56.4	82.6	102.0	94.2	75.1	85.3	80.3	79.9	99.9	91.7	77.9	87.3	82.6	86.0	103.6	96.1	--	--	--	--	--	--	94.6	95.5	95.1
3	47.0	51.8	49.3	76.1	104.1	94.9	76.4	86.5	80.6	75.5	104.9	92.8	78.7	86.7	82.4	77.6	104.9	97.4	--	--	--	--	--	--	95.0	95.3	95.2
4	49.9	63.4	57.4	64.3	105.1	84.9	50.8	91.9	64.6	63.5	104.5	83.0	48.5	93.4	62.8	66.5	107.4	87.0	--	--	--	--	--	--	95.0	95.5	95.4
5	61.4	68.9	65.3	59.9	82.0	74.4	59.9	66.9	63.5	60.7	79.4	73.0	57.2	63.4	60.5	63.6	82.3	76.4	--	--	--	--	--	--	95.3	95.6	95.5
6	63.5	75.6	67.7	59.3	78.0	72.2	62.8	74.6	66.3	57.5	76.2	70.3	60.5	72.6	63.4	60.6	78.9	73.2	--	--	--	--	--	--	95.6	95.8	95.7
7	50.2	76.3	65.3	43.5	96.5	74.7	49.2	74.1	63.7	47.0	95.4	73.0	46.3	69.8	60.4	46.9	97.3	76.7	--	--	--	--	--	--	95.3	95.8	95.6
8	43.3	90.6	59.8	50.2	96.3	81.8	46.7	112.9	65.0	45.5	95.5	78.3	45.3	107.1	64.5	51.7	97.1	85.2	48.4	50.4	49.5	59.0	72.7	29.5	94.1	95.3	94.6
9	46.7	82.0	56.8	65.2	82.3	75.4	45.9	75.5	53.9	60.4	75.7	69.3	45.3	86.2	68.2	67.8	84.8	77.8	41.1	51.2	46.6	52.5	67.8	63.6	93.3	94.5	94.0
10	56.1	69.3	61.1	69.2	87.7	79.6	54.7	69.6	60.2	63.7	80.9	73.2	55.6	69.0	60.9	70.8	88.7	81.0	41.4	50.9	45.1	46.1	52.6	49.5	91.4	93.3	92.6
11	58.6	66.2	60.9	65.9	81.0	75.7	56.8	65.9	59.9	60.8	75.4	69.5	57.4	65.5	60.4	67.2	81.4	76.5	42.3	47.8	44.5	43.3	48.9	47.1	91.7	92.0	91.8
12	58.2	66.5	61.5	65.9	83.6	76.6	56.2	65.0	60.3	60.9	77.0	70.5	57.3	64.1	60.6	68.2	84.2	77.9	43.0	47.3	45.3	46.3	51.1	47.7	91.8	92.5	92.0
13	59.6	105.8	68.3	64.9	87.3	81.0	58.5	106.6	67.7	60.6	79.1	74.2	59.7	71.7	65.4	66.4	86.9	82.2	43.7	50.6	46.8	45.7	52.2	50.4	91.9	92.9	92.4
14	63.4	76.4	69.8	73.2	102.3	87.3	58.6	75.0	67.7	67.0	101.2	83.5	60.3	80.4	68.3	74.0	101.8	88.1	44.8	107.2	47.3	36.2	52.7	20.0	92.6	93.4	92.9
15	70.5	85.2	75.3	75.0	91.7	85.5	66.9	79.9	71.9	72.9	90.2	83.3	68.6	82.6	73.8	75.1	90.6	85.7	--	--	--	--	--	--	93.2	93.8	93.3
16	49.3	89.6	76.6	70.2	94.9	84.9	71.1	84.4	76.8	69.3	92.5	82.5	72.3	87.2	78.3	71.4	93.7	84.7	--	--	--	--	--	--	93.7	94.0	93.8
17	49.8	54.2	51.9	68.4	84.0	77.9	48.8	94.9	79.1	65.6	81.2	75.7	48.9	97.5	82.1	67.1	83.3	77.5	--	--	--	--	--	--	94.0	94.3	94.2
18	46.1	60.8	51.0	71.6	94.3	81.5	46.7	74.2	52.5	68.3	92.7	79.1	46.5	78.6	53.3	68.1	92.0	80.9	--	--	--	--	--	--	94.2	94.4	94.3
19	44.8	83.7	62.5	72.0	93.5	83.6	64.1	85.8	73.1	68.9	91.7	81.2	68.4	89.6	76.9	72.7	91.5	83.9	--	--	--	--	--	--	93.5	94.5	94.0
20	61.3	70.4	65.6	66.7	94.8	83.5	57.7	64.9	61.5	65.0	94.1	81.5	62.9	69.4	65.9	68.9	93.8	83.5	--	--	--	--	--	--	92.5	93.5	93.0
21	60.2	65.4	62.9	76.5	96.2	90.0	57.1	62.4	59.6	74.8	94.7	87.8	60.9	67.6	63.6	76.4	95.4	90.3	--	--	--	--	--	--	92.9	93.3	93.1
22	56.6	68.7	59.8	79.0	98.6	91.0	53.3	62.3	56.4	75.3	97.8	88.7	57.1	66.8	60.6	79.5	98.4	91.3	--	--	--	--	--	--	92.6	93.1	92.8
23	56.6	67.7	61.0	75.4	95.2	87.9	53.6	64.1	58.2	73.3	93.8	85.4	57.2	68.0	62.0	75.2	94.5	87.9	--	--	--	--	--	--	92.5	92.9	92.7
24	61.2	76.2	68.6	67.0	92.0	82.2	59.0	71.7	65.0	64.8	89.5	79.9	63.2	81.5	69.4	67.6	90.6	82.2	--	--	--	--	--	--	92.8	93.9	93.2
25	46.7	86.5	71.2	60.8	87.1	76.7	65.7	81.2	72.1	58.7	84.2	74.4	71.0	87.4	79.3	60.4	82.4	74.7	--	--	--	--	--	--	93.5	93.9	93.7
26	71.8	79.0	76.2	67.2	88.1	80.3	68.2	77.5	72.5	65.6	86.2	78.0	75.5	84.2	79.8	66.6	88.1	78.8	--	--	--	--	--	--	93.6	94.4	94.0
27	68.9	76.1	71.7	75.1	91.1	85.7	64.6	76.3	68.2	73.7	89.3	83.1	71.7	80.5	74.3	76.1	90.8	86.0	--	--	--	--	--	--	93.5	93.8	93.7
28	64.5	82.4	74.9	75.9	91.6	86.2	66.3	77.0	70.6	71.9	89.8	84.1	72.2	108.5	77.6	76.0	90.8	86.6	--	--	--	--	--	--	93.8	94.2	94.0
29	47.8	64.5	51.4	76.0	91.0	85.6	74.8	83.5	79.1	72.5	90.1	82.9	79.7	91.9	85.1	75.6	91.0	85.8	--	--	--	--	--	--	94.1	94.9	94.4
30	46.0	74.5	54.3	70.2	93.8	85.5	67.8	84.8	75.3	70.1	91.1	83.0	74.3	91.9	81.4	71.9	92.7	85.7	--	--	--	--	--	--	94.1	94.9	94.4
31	49.5	74.8	64.8	65.4	93.4	83.9	46.3	70.9	61.5	61.8	89.6	81.5	50.3	75.9	66.7	65.4	92.6	84.2	--	--	--	--	--	--	91.5	94.3	93.5
Monthly Total						2,576.6						2,484.7						2,600.0						307.7			
Monthly Min/Max/ Avg	43.3	105.8	63.8	43.5	106.3		45.9	112.9	67.2	45.5	104.9		45.3	108.5	69.9	46.9	108.5		41.1	107.2	46.4	36.2	72.7		91.4	95.8	93.9

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

August 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	10.2	11.9	10.7	37	43	40	7.0	7.0	7.0	7.6	7.8	7.7	26	33	30	7.0	7.0	7.0
2	10.2	10.5	10.4	39	43	41	7.0	7.0	7.0	7.7	7.8	7.8	27	34	31	7.0	7.0	7.0
3	10.0	10.4	10.3	38	42	39	7.0	7.0	7.0	7.6	7.8	7.7	25	32	29	7.0	7.0	7.0
4	10.2	10.9	10.6	37	42	39	7.0	7.0	7.0	7.6	7.8	7.7	25	32	28	7.0	7.0	7.0
5	10.5	11.3	10.9	32	39	36	7.0	7.0	7.0	7.6	7.8	7.7	25	32	28	7.0	7.0	7.0
6	10.5	11.3	10.9	32	40	34	7.0	7.0	7.0	7.5	7.8	7.6	22	32	25	7.0	7.0	7.0
7	10.2	11.3	10.8	34	42	38	7.0	7.0	7.0	7.5	7.7	7.6	22	27	25	7.0	7.0	7.0
8	10.2	10.6	10.4	34	37	35	7.0	7.0	7.0	7.4	7.7	7.5	17	27	22	6.9	7.0	7.0
9	9.8	10.8	10.3	32	39	36	7.0	7.0	7.0	7.4	7.6	7.5	16	23	20	7.0	7.0	7.0
10	9.8	10.5	10.1	32	35	34	7.0	7.0	7.0	7.5	7.6	7.5	20	24	22	7.0	7.0	7.0
11	10.4	10.9	10.7	33	36	34	7.0	7.0	7.0	7.5	7.6	7.5	20	26	23	7.0	7.0	7.0
12	10.6	11.3	10.8	30	38	35	7.0	7.0	7.0	7.5	7.6	7.6	22	26	24	7.0	7.0	7.0
13	10.1	11.2	10.9	34	38	36	6.3	7.0	7.0	7.5	7.6	7.6	20	26	24	7.0	7.0	7.0
14	10.7	11.3	11.0	38	41	39	7.0	7.0	7.0	7.5	7.7	7.6	22	28	26	7.0	7.0	7.0
15	10.9	11.4	11.1	39	42	40	7.0	7.0	7.0	7.6	7.8	7.7	26	32	29	7.0	7.0	7.0
16	11.2	11.5	11.4	37	42	40	7.0	7.0	7.0	7.5	7.8	7.6	20	31	27	7.0	7.0	7.0
17	10.7	11.3	11.0	39	41	40	7.0	7.0	7.0	7.5	7.6	7.6	20	27	24	7.0	7.0	7.0
18	10.4	11.0	10.7	36	40	39	7.0	7.0	7.0	7.5	7.6	7.6	21	26	24	7.0	7.0	7.0
19	10.5	10.9	10.7	37	42	40	7.0	7.0	7.0	7.5	7.6	7.6	20	27	24	7.0	7.0	7.0
20	10.6	10.9	10.8	36	41	39	7.0	7.0	7.0	7.5	7.7	7.6	22	28	25	7.0	7.0	7.0
21	10.7	11.9	11.3	37	44	39	7.0	7.0	7.0	7.5	7.6	7.5	20	26	23	7.0	7.0	7.0
22	10.3	11.5	10.8	31	40	37	7.0	7.0	7.0	7.4	7.6	7.5	17	24	22	7.0	7.0	7.0
23	10.4	10.7	10.5	34	38	36	7.0	7.0	7.0	7.4	7.6	7.5	19	24	22	7.0	7.0	7.0
24	10.6	10.9	10.7	33	37	35	7.0	7.0	7.0	7.5	7.6	7.6	22	26	23	7.0	7.0	7.0
25	9.9	10.8	10.5	30	36	34	7.0	7.0	7.0	7.4	7.6	7.5	19	25	23	7.0	7.0	7.0
26	10.0	10.3	10.1	29	34	32	7.0	7.0	7.0	7.5	7.6	7.5	20	25	23	7.0	7.0	7.0
27	9.9	10.3	10.1	30	34	32	7.0	7.0	7.0	7.5	7.6	7.5	19	26	23	7.0	7.0	7.0
28	9.9	10.2	10.1	29	34	32	7.0	7.0	7.0	7.5	7.6	7.5	20	26	22	7.0	7.0	7.0
29	9.5	10.0	9.8	27	30	29	7.0	7.0	7.0	7.4	7.5	7.5	19	22	20	7.0	7.0	7.0
30	8.4	9.9	9.8	16	30	28	7.0	7.0	7.0	7.4	7.5	7.5	18	22	20	7.0	7.0	7.0
31	9.6	9.9	9.8	27	30	28	7.0	7.0	7.0	7.5	7.6	7.5	20	25	22	7.0	7.0	7.0
Monthly Min/Max/Avg	8.4	11.9	10.6	16	44	36	6.3	7.0	7.0	7.4	7.8	7.6	16	34	24	6.9	7.0	7.0

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

August 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	23.9	23.8	22.2	3,776	5,852	9,628	14,243
2	24.2	24.2	24.6	4,615	7,608	12,224	16,248
3	25.0	25.0	23.4	4,897	7,990	12,886	15,455
4	25.0	25.0	25.7	4,247	6,967	11,214	15,054
5	30.7	30.7	26.1	3,864	6,680	10,544	13,355
6	25.0	25.0	22.4	3,093	5,154	8,247	11,120
7	25.0	25.0	21.3	3,093	5,792	8,885	11,114
8	27.4	27.3	28.1	3,932	6,759	10,690	17,564
9	30.7	30.8	35.9	5,069	8,303	13,372	23,751
10	50.2	50.5	61.6	7,692	14,153	21,845	40,100
11	69.2	69.3	62.4	9,051	17,529	26,580	38,686
12	62.5	62.5	52.5	6,984	11,384	18,368	32,879
13	50.1	50.0	46.2	9,292	12,376	21,668	30,574
14	38.4	38.4	38.9	7,126	9,500	16,626	24,637
15	34.8	34.8	31.7	5,389	7,863	13,252	18,347
16	31.9	31.9	27.0	3,948	6,584	10,532	15,111
17	27.8	27.8	26.2	3,434	5,724	9,158	14,087
18	26.0	26.0	24.4	3,589	5,916	9,505	13,324
19	25.0	25.0	31.2	3,607	5,854	9,461	17,776
20	33.8	33.8	39.9	5,177	7,949	13,125	22,245
21	38.9	39.0	39.0	6,391	8,243	14,634	24,041
22	37.0	37.0	38.7	6,099	8,532	14,631	23,768
23	37.0	37.0	38.1	5,804	8,855	14,659	22,654
24	34.6	34.6	34.2	4,882	7,730	12,611	18,967
25	31.2	31.2	32.3	4,114	6,947	11,061	16,496
26	29.7	29.7	30.6	3,677	7,352	11,029	16,563
27	27.0	27.0	26.6	3,341	6,675	10,015	15,444
28	27.0	27.0	25.3	3,340	6,655	9,995	14,680
29	26.7	26.5	24.6	3,282	6,466	9,748	14,239
30	25.0	25.0	26.1	3,092	6,185	9,278	15,108
31	30.1	30.2	40.0	3,729	7,474	11,203	23,133
Monthly Total				149,624	247,052	396,676	610,762
Monthly Avg	33.3	33.3	33.1	4,827	7,969	12,796	19,702

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

August 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	0.25	0.25	0.15	19	30	49	48
2	0.21	0.21	0.16	20	33	52	51
3	0.20	0.20	0.14	19	31	50	45
4	0.20	0.20	0.14	16	27	44	40
5	0.23	0.23	0.14	14	25	39	35
6	0.20	0.20	0.14	12	20	32	34
7	0.20	0.20	0.14	12	23	35	35
8	0.22	0.21	0.14	15	26	41	43
9	0.25	0.25	0.14	20	33	53	46
10	0.27	0.27	0.16	20	36	56	51
11	0.30	0.30	0.19	19	37	56	58
12	0.30	0.30	0.20	16	26	43	61
13	0.30	0.30	0.19	27	36	63	61
14	0.30	0.30	0.18	27	36	63	55
15	0.25	0.25	0.15	19	27	46	41
16	0.25	0.25	0.14	15	25	40	38
17	0.25	0.25	0.14	15	25	40	37
18	0.25	0.25	0.14	17	28	44	37
19	0.25	0.25	0.16	18	28	46	44
20	0.25	0.25	0.16	19	29	47	43
21	0.25	0.25	0.16	20	26	46	48
22	0.25	0.25	0.16	20	28	48	48
23	0.25	0.25	0.16	19	29	48	46
24	0.25	0.25	0.16	17	27	44	43
25	0.25	0.25	0.16	16	27	43	40
26	0.25	0.25	0.14	15	30	45	36
27	0.25	0.25	0.13	15	30	45	37
28	0.25	0.25	0.13	15	30	45	36
29	0.25	0.25	0.12	15	30	44	34
30	0.25	0.25	0.14	15	30	45	39
31	0.25	0.25	0.17	15	30	45	48
Monthly Total				540	895	1,436	1,356
Monthly Avg	0.25	0.25	0.15	17	29	46	44

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

August 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

August 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	2.76	2.66	26,358	39,665	69,898	3.88	159,018
2	2.74	2.73	31,694	52,087	89,186	3.84	161,991
3	2.75	2.68	32,654	51,967	90,729	3.59	151,587
4	2.76	2.64	28,439	44,622	79,125	3.48	130,175
5	2.70	2.67	20,624	35,252	61,088	3.44	112,247
6	2.73	2.72	20,484	33,978	58,437	3.30	104,590
7	2.84	2.75	21,287	38,656	65,001	3.32	110,399
8	2.81	2.75	24,466	41,247	72,119	3.47	138,268
9	2.84	2.73	28,420	44,583	79,529	3.53	148,794
10	2.96	2.92	27,469	49,587	82,352	3.76	156,067
11	2.93	2.93	23,253	44,973	72,452	3.88	153,305
12	2.96	2.90	20,066	32,065	55,177	4.04	161,472
13	3.08	2.96	34,604	44,329	84,081	4.28	180,628
14	3.12	2.95	35,087	44,260	86,315	4.10	165,960
15	3.10	2.95	29,073	40,397	74,593	3.95	145,835
16	3.08	3.01	23,108	37,587	65,507	3.94	140,854
17	3.04	2.99	22,805	37,427	64,973	3.91	134,209
18	3.00	3.00	25,138	41,458	72,147	3.57	124,440
19	3.00	2.99	26,249	42,419	73,629	3.67	133,393
20	3.00	3.00	27,820	42,817	75,933	3.65	129,729
21	3.00	2.94	29,861	37,678	72,263	3.72	146,263
22	3.00	2.89	30,012	40,458	75,476	3.87	151,828
23	2.93	2.79	27,860	40,495	73,003	4.00	151,752
24	2.78	2.74	23,716	37,045	65,075	4.14	146,291
25	2.75	2.75	21,978	37,146	63,401	4.10	133,296
26	2.76	2.77	20,699	41,502	66,826	4.05	139,994
27	2.89	2.89	21,692	43,332	69,308	4.03	149,181
28	2.92	2.87	21,912	42,867	70,357	3.88	143,285
29	2.94	2.92	21,937	43,131	70,122	3.71	137,153
30	2.90	2.84	21,748	42,567	68,327	3.73	137,737
31	2.94	2.86	22,013	42,937	70,119	3.98	146,917
Monthly Total			792,524	1,288,534	2,236,547		4,426,658
Monthly Avg	2.90	2.84	25,565	41,566	72,147	3.80	142,795

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

August 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.19	0.19	36	59
2	0.19	0.21	46	66
3	0.19	0.18	48	58
4	0.19	0.17	41	49
5	0.19	0.18	31	45
6	0.25	0.18	38	43
7	0.29	0.19	49	47
8	0.29	0.21	54	64
9	0.29	0.22	60	72
10	0.29	0.20	60	62
11	0.29	0.16	52	48
12	0.29	0.16	39	49
13	0.28	0.16	58	51
14	0.28	0.16	56	49
15	0.28	0.18	50	49
16	0.29	0.20	45	54
17	0.29	0.22	45	57
18	0.29	0.22	50	57
19	0.29	0.21	52	59
20	0.29	0.20	53	55
21	0.29	0.20	50	60
22	0.29	0.20	54	60
23	0.29	0.20	54	58
24	0.29	0.20	50	54
25	0.29	0.21	48	53
26	0.29	0.24	50	63
27	0.29	0.23	51	65
28	0.29	0.23	51	64
29	0.29	0.24	50	67
30	0.29	0.24	51	67
31	0.29	0.24	51	68
Monthly Total			1,523	1,772
Monthly Avg	0.27	0.20	49	57

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

August 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.67	--	658	--
2	0.67	--	848	--
3	0.67	--	870	--
4	0.67	--	755	--
5	0.67	--	570	--
6	0.66	--	536	--
7	0.66	--	584	--
8	0.66	--	638	--
9	0.65	--	706	--
10	0.65	--	707	--
11	0.65	--	618	--
12	0.65	--	459	--
13	0.65	--	698	--
14	0.64	--	689	--
15	0.64	--	606	--
16	0.64	--	520	--
17	0.64	--	519	--
18	0.64	--	579	--
19	0.64	--	605	--
20	0.64	--	617	--
21	0.64	--	594	--
22	0.64	--	626	--
23	0.64	--	632	--
24	0.64	--	581	--
25	0.64	--	561	--
26	0.64	--	586	--
27	0.64	--	587	--
28	0.64	--	588	--
29	0.64	--	582	--
30	0.64	--	588	--
31	0.64	--	589	--
Monthly Total			19,295	--
Monthly Avg	0.65	--	622	--

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

August 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.67	1,904
2	0.67	1,935
3	0.67	1,957
4	0.67	1,750
5	0.67	1,535
6	0.67	1,479
7	0.67	1,541
8	0.67	1,885
9	0.67	1,962
10	0.67	1,942
11	0.67	1,843
12	0.67	1,869
13	0.67	1,971
14	0.67	1,912
15	0.67	1,743
16	0.67	1,727
17	0.67	1,584
18	0.67	1,655
19	0.67	1,705
20	0.67	1,705
21	0.67	1,836
22	0.67	1,859
23	0.67	1,791
24	0.67	1,674
25	0.67	1,548
26	0.67	1,625
27	0.67	1,746
28	0.67	1,761
29	0.67	1,743
30	0.67	1,741
31	0.67	1,711
Monthly Total		54,641
Monthly Avg	0.67	1,763

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

August 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	--	0.90	--	496
2	--	1.58	--	889
3	--	1.24	--	705
4	--	1.41	--	718
5	--	1.74	--	777
6	--	2.01	--	867
7	--	1.38	--	621
8	--	2.34	--	1,286
9	--	4.16	--	2,379
10	1.95	9.79	702	5,544
11	8.47	11.7	2,620	6,283
12	8.50	9.87	2,031	5,385
13	6.80	8.24	2,789	4,741
14	3.77	6.08	1,520	3,390
15	2.05	4.17	741	2,123
16	1.50	2.73	463	1,376
17	1.11	2.83	340	1,307
18	--	2.99	--	1,444
19	--	3.76	--	1,872
20	--	5.62	--	2,794
21	--	6.26	--	3,355
22	--	5.17	--	2,801
23	--	4.08	--	2,130
24	--	3.56	--	1,741
25	--	2.92	--	1,318
26	--	2.89	--	1,372
27	--	1.48	--	754
28	--	1.69	--	870
29	--	2.94	--	1,497
30	--	2.28	--	1,158
31	--	4.15	--	2,074
Monthly Total			11,206	64,068
Monthly Avg	4.27	3.93	1,401	2,067

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
August 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.61	0.66	521	839
2	0.62	0.66	679	852
3	0.62	0.66	702	861
4	0.62	0.66	609	771
5	0.62	0.66	460	678
6	0.62	0.66	437	654
7	0.63	0.66	486	681
8	0.63	0.66	534	830
9	0.63	0.66	595	864
10	0.63	0.66	596	856
11	0.63	0.66	522	813
12	0.63	0.66	386	824
13	0.63	0.66	593	869
14	0.63	0.66	591	843
15	0.63	0.66	520	765
16	0.63	0.65	446	751
17	0.63	0.65	446	689
18	0.63	0.65	497	720
19	0.63	0.65	519	741
20	0.63	0.65	529	741
21	0.63	0.65	508	798
22	0.63	0.65	537	807
23	0.63	0.65	542	778
24	0.63	0.65	499	728
25	0.63	0.65	482	674
26	0.63	0.65	502	707
27	0.63	0.65	504	760
28	0.63	0.65	504	765
29	0.63	0.65	500	758
30	0.63	0.65	505	757
31	0.63	0.65	504	743
Monthly Total			16,255	23,915
Monthly Avg	0.63	0.65	524	771

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

August 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	39.3	36.8	2,741	4,652	27	65
2	30.1	21.8	712	3,092	9.1	54
3	30.5	18.4	743	2,574	9.4	53
4	30.2	18.8	916	2,328	12	44
5	31.2	16.9	837	1,696	10	35
6	24.4	19.1	572	1,773	9.0	35
7	28.7	18.1	701	1,906	9.4	40
8	38.4	27.2	973	3,149	9.7	49
9	34.9	19.0	766	2,402	8.5	48
10	31.8	18.8	827	2,248	10.0	45
11	28.8	17.5	929	2,053	12	43
12	43.3	20.3	3,070	2,231	27	45
13	34.9	15.7	936	1,738	10	42
14	69.1	23.7	2,430	2,333	13	45
15	43.7	20.7	1,629	2,019	14	37
16	24.9	29.1	686	2,273	11	30
17	21.9	22.7	577	2,425	10	41
18	26.6	27.7	708	2,299	10	32
19	26.3	23.0	708	2,405	10	40
20	36.3	27.1	1,346	2,344	14	33
21	35.3	16.6	1,665	1,772	18	40
22	33.5	19.9	1,280	2,084	15	40
23	47.9	17.9	1,437	1,875	12	38
24	25.8	18.8	686	1,744	10	35
25	26.9	22.8	693	1,858	9.9	31
26	28.8	22.7	812	2,085	11	33
27	27.1	25.2	696	2,386	9.9	36
28	27.9	24.8	815	2,182	11	32
29	45.9	26.1	1,178	2,529	9.9	37
30	26.9	30.1	811	2,917	12	37
31	26.8	23.3	677	2,565	9.7	42
Monthly Total			33,559	71,940	374	1,255
Monthly Avg	33.2	22.3	1,083	2,321	12	40

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

August 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)		196	0.0	114	37	25	372	60.14			314.09		
Solids (kg)	TSS	144,229	0	4,328			148,557						
	Aluminium	17,125	0	1,498			18,623						
# of Bypasses						3		Min	Max	Avg	Min	Max	Avg
pH								6.8	8.0	7.6	6.7	7.9	7.6
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								0.73	20.0	8.04	1.26	20.0	6.50

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

August 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		623	0.0	328	136	52	1.8	30	1,171	1,255		
Solids (kg)	TSS	285,017	0	14,681					299,698			
	Aluminium	25,650	0	5,082					30,732			
# of Bypasses						3				Min	Max	Avg
pH										6.51	7.63	7.46
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.16	20.0	5.46

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

August 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

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)	96,053	95,565	0.5
AVG. DAILY DEMAND TO DATE (ML)	394	394	0.0
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

August 2024

Reservoir	Papaschase 1			Ormsby			Clareview Discharge			Millwoods Discharge			Kaskitayo			Discovery Park		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1.22	2.00	1.31	1.73	1.92	1.85	1.58	1.71	1.65	1.88	1.99	1.92	1.92	2.07	2.02	1.08	1.11	1.10
2	1.17	1.55	1.19	1.77	1.91	1.86	1.57	1.64	1.61	1.93	2.00	1.95	2.01	2.25	2.05	1.08	1.41	1.26
3	--	--	--	1.87	1.98	1.93	1.61	1.74	1.68	1.94	2.01	1.98	1.78	2.14	2.07	1.36	1.41	1.39
4	1.41	2.01	1.46	1.77	1.88	1.83	1.68	1.77	1.73	1.87	1.98	1.90	1.97	2.10	2.03	1.32	1.40	1.36
5	1.42	1.99	1.45	1.76	1.87	1.81	1.68	1.75	1.71	1.87	1.97	1.91	1.91	2.05	1.97	1.26	1.33	1.30
6	1.40	1.94	1.44	1.67	1.82	1.75	1.59	1.71	1.66	1.86	1.96	1.90	1.77	1.99	1.93	1.25	1.34	1.30
7	1.27	1.91	1.38	1.66	1.77	1.72	1.56	1.64	1.61	1.86	1.96	1.91	1.76	1.98	1.93	1.30	1.34	1.33
8	1.32	1.97	1.39	1.66	1.83	1.78	1.54	1.61	1.57	1.89	1.98	1.92	1.85	2.12	2.01	1.28	1.32	1.31
9	1.37	1.92	1.42	1.81	1.90	1.85	1.51	1.68	1.59	1.91	2.00	1.94	1.99	2.15	2.07	1.28	1.32	1.31
10	--	--	--	1.76	1.88	1.83	1.62	1.67	1.64	1.86	1.96	1.90	1.99	2.10	2.04	1.27	1.31	1.30
11	--	--	--	1.75	1.87	1.81	1.56	1.70	1.64	1.84	1.92	1.87	1.77	2.05	2.01	1.25	1.30	1.28
12	1.29	1.60	1.38	1.70	1.88	1.81	1.54	1.63	1.59	1.85	1.92	1.88	1.96	2.08	2.04	1.23	1.27	1.26
13	1.26	1.68	1.30	1.73	1.89	1.83	1.49	1.57	1.53	1.87	1.92	1.88	1.97	2.12	2.02	1.23	1.29	1.27
14	--	--	--	1.79	1.90	1.85	1.52	1.63	1.59	1.84	1.93	1.88	1.92	2.06	2.00	1.24	1.27	1.26
15	1.28	1.87	1.31	1.73	1.86	1.80	1.51	1.64	1.61	1.80	1.92	1.85	1.84	2.04	1.99	1.23	1.26	1.25
16	1.28	1.86	1.33	1.72	1.83	1.78	1.48	1.61	1.58	1.84	1.92	1.87	1.90	2.06	1.99	1.20	1.24	1.22
17	1.25	1.45	1.26	1.68	1.81	1.75	1.54	1.59	1.56	1.81	1.90	1.85	1.94	2.04	1.98	1.16	1.20	1.18
18	1.41	1.96	1.51	1.63	1.73	1.68	1.52	1.57	1.54	1.81	1.90	1.85	1.83	2.03	1.96	1.10	1.16	1.14
19	1.42	1.89	1.44	1.61	1.71	1.67	1.49	1.60	1.55	1.87	1.96	1.90	1.97	2.06	2.01	1.10	1.14	1.13
20	1.31	1.39	1.36	1.64	1.79	1.73	1.48	1.58	1.54	1.88	1.97	1.91	1.99	2.10	2.04	1.10	1.13	1.12
21	1.27	1.83	1.30	1.67	1.82	1.78	1.51	1.57	1.54	1.86	1.95	1.91	1.88	2.10	2.05	1.07	1.17	1.14
22	1.25	1.85	1.30	1.70	1.82	1.78	1.46	1.56	1.54	1.89	1.94	1.91	1.78	2.06	2.01	1.13	1.16	1.15
23	1.22	1.90	1.29	1.73	1.98	1.78	1.50	1.56	1.54	1.85	1.94	1.89	1.92	2.03	1.99	1.09	1.14	1.12
24	1.25	1.79	1.31	1.69	1.81	1.75	1.48	1.56	1.52	1.84	1.92	1.88	1.90	2.07	2.02	1.08	1.11	1.10
25	1.25	1.91	1.38	1.65	1.77	1.71	1.36	1.58	1.55	1.79	1.91	1.83	1.75	1.99	1.94	1.04	1.08	1.06
26	1.34	1.91	1.38	1.64	1.75	1.69	1.44	1.58	1.56	1.80	1.91	1.85	1.77	2.09	1.99	1.03	1.07	1.05
27	1.35	1.93	1.39	1.59	1.71	1.67	1.41	1.59	1.54	1.83	1.93	1.88	1.83	2.06	2.02	1.02	1.21	1.13
28	1.43	1.94	1.47	1.67	1.81	1.77	1.46	1.55	1.52	1.88	1.99	1.93	1.95	2.09	2.02	1.16	1.20	1.18
29	1.44	1.97	1.51	1.73	1.85	1.79	1.46	1.60	1.54	1.87	1.96	1.93	1.86	2.07	2.02	1.12	1.17	1.14
30	1.21	1.94	1.41	1.73	1.86	1.78	1.45	1.59	1.56	1.97	2.17	1.99	1.94	2.12	2.07	1.10	1.13	1.12
31	1.36	1.94	1.44	1.70	1.87	1.80	1.55	1.60	1.58	1.97	2.05	2.00	1.93	2.14	2.09	1.09	1.12	1.11
Monthly Min/Max/Avg	1.17	2.01	1.37	1.59	1.98	1.78	1.36	1.77	1.59	1.79	2.17	1.90	1.75	2.25	2.01	1.02	1.41	1.20

NOTES: '--' Indication Analyzer Offline

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

August 2024

Reservoir	Rosslyn 1			Londonderry			N. Jasper Place			Rosslyn 2			Thorncliffe			Blackmud Creek		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1.59	1.62	1.61	1.29	1.74	1.55	1.28	1.94	1.31	1.40	1.47	1.46	1.38	2.05	1.41	1.42	1.54	1.46
2				1.18	1.77	1.56	1.27	1.94	1.29	1.45	1.89	1.48	1.35	2.10	1.39	1.43	1.62	1.47
3				1.45	1.79	1.60	1.33	1.99	1.35	1.54	2.24	1.57	1.46	2.06	1.49	1.43	1.55	1.48
4				1.49	1.79	1.59				1.67	2.33	1.69				1.41	1.56	1.46
5	--	--	--	1.29	1.79	1.60	1.28	1.97	1.32	1.65	2.28	1.69	1.41	2.05	1.45	1.37	1.52	1.41
6	--	--	--	1.34	1.74	1.57	1.26	1.89	1.29	1.62	1.66	1.63	1.39	2.06	1.43	1.38	1.52	1.43
7	--	--	--	1.37	1.68	1.53	1.21	1.97	1.24	1.50	1.59	1.57	1.28	2.10	1.38	1.38	1.54	1.43
8	--	--	--	1.46	1.70	1.60	1.26	2.02	1.31	1.31	1.52	1.51	1.31	2.12	1.36	1.38	1.56	1.44
9	--	--	--	1.39	1.76	1.59	--	--	--	1.35	1.71	1.48	1.37	2.08	1.64	1.41	1.57	1.47
10	--	--	--	1.29	1.75	1.65	--	--	--	1.53	1.65	1.57	--	--	--	1.41	1.53	1.45
11	--	--	--	1.33	1.75	1.62	1.28	1.91	1.30	1.54	2.26	1.55	1.34	2.03	1.37	1.40	1.55	1.44
12	1.49	1.60	1.57	1.36	1.76	1.59	1.20	1.93	1.23	1.47	1.53	1.50	1.30	2.05	1.33	1.40	1.53	1.45
13	--	--	--	1.41	1.67	1.54	--	--	--	1.32	1.47	1.45	1.30	1.32	1.31	1.39	1.52	1.45
14	--	--	--	1.32	1.69	1.53	1.24	1.95	1.35	1.27	1.43	1.42	1.20	2.05	1.22	1.38	1.50	1.43
15	--	--	--	1.34	1.64	1.50	1.29	1.92	1.31	1.30	1.45	1.44	1.18	2.04	1.20	1.37	1.49	1.41
16	--	--	--	1.30	1.62	1.45	1.26	1.93	1.28	1.24	1.44	1.42	1.15	2.04	1.18	1.39	1.47	1.42
17	--	--	--	1.34	1.65	1.45	1.26	1.94	1.28	1.41	1.43	1.42	--	--	--	1.36	1.46	1.40
18	--	--	--	1.32	1.66	1.50	1.18	1.99	1.27	1.20	1.44	1.42	1.21	2.06	1.24	1.35	1.45	1.39
19	1.56	1.57	1.57	1.33	1.68	1.52	1.21	1.97	1.26	1.26	1.44	1.42	1.16	2.08	1.19	1.35	1.48	1.41
20	--	--	--	1.31	1.71	1.51	1.14	1.92	1.20	1.29	1.44	1.42	1.16	2.07	1.19	1.39	1.50	1.43
21	1.57	1.58	1.58	1.23	1.74	1.50	1.21	1.97	1.24	1.43	2.01	1.46	1.27	2.08	1.31	1.39	1.51	1.43
22				1.33	1.61	1.41	1.33	1.97	1.44	1.28	1.48	1.46				1.38	1.47	1.41
23				1.22	1.63	1.48	1.36	1.93	1.39	1.39	1.49	1.48	1.39	2.11	1.42	1.38	1.47	1.41
24				1.32	1.66	1.49	1.35	1.94	1.54	1.36	1.51	1.50	1.29	2.07	1.33	1.37	1.49	1.41
25	--	--	--	1.17	1.64	1.41	1.27	1.85	1.29	1.31	1.54	1.52	1.29	2.08	1.33	1.35	1.47	1.40
26	--	--	--	1.27	1.66	1.49	1.24	1.29	1.26	1.48	1.55	1.54	1.12	2.11	1.57	1.34	1.45	1.39
27	--	--	--	1.36	1.73	1.50	1.29	1.85	1.31	1.41	1.52	1.50	1.49	2.12	1.54	1.36	1.50	1.42
28	--	--	--	1.33	1.67	1.49	1.22	1.89	1.33	1.30	1.49	1.48	1.42	2.12	1.59	1.39	1.53	1.45
29	--	--	--	1.32	1.68	1.55	1.28	1.87	1.36	1.53	2.19	1.57	1.51	2.15	1.58	1.39	1.51	1.45
30	--	--	--	1.39	1.69	1.55	1.36	1.96	1.38	1.54	2.18	1.58	1.50	2.19	1.54	1.38	1.53	1.45
31	1.60	1.60	1.60	1.52	1.72	1.61	1.31	2.02	1.43	1.59	2.25	1.61	1.49	2.20	1.57	1.41	1.57	1.48
Monthly Min/Max/Avg	1.49	1.62	1.59	1.17	1.79	1.53	1.14	2.02	1.32	1.20	2.33	1.51	1.12	2.20	1.39	1.34	1.62	1.43

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Chemical Consumption

August 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.90	0.90	650	989
2	0.90	0.90	913	1,003
3	0.90	0.90	900	1,040
4	0.90	0.90	752	873
5	0.90	0.90	610	830
6	0.90	0.90	567	856
7	0.90	0.90	593	804
8	0.90	0.90	706	959
9	0.90	0.90	864	1,014
10	0.90	0.90	764	1,031
11	0.90	0.90	696	977
12	0.90	0.90	408	1,028
13	0.90	0.90	736	1,038
14	0.90	0.90	772	988
15	0.90	0.90	624	911
16	0.90	0.90	574	946
17	0.90	0.90	584	874
18	0.90	0.90	615	899
19	0.90	0.90	683	890
20	0.90	0.90	657	893
21	0.90	0.90	626	975
22	0.90	0.90	683	989
23	0.90	0.90	677	935
24	0.90	0.90	614	901
25	0.90	0.90	658	862
26	0.90	0.90	624	898
27	0.90	0.90	641	923
28	0.90	0.90	634	984
29	0.90	0.90	654	914
30	0.90	0.90	641	927
31	0.90	0.90	649	931
Monthly Total			20,769	29,082
Monthly Avg	0.90	0.90	670	938

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

August 2024

Date and Time Reported	Location of Mainbreak	Repaired (Time)	Size	Type**
8/5/2024 20:07	11804-129 AVENUE NW	8/5/2024 22:29	150	CI
8/5/2024 22:36	12216-ST ALBERT TRAIL NW	8/6/2024 21:00	150	CI
8/8/2024 13:41	10800-134 AVENUE NW	8/9/2024 20:28	300	CI
8/14/2024 19:09	10119-143 STREET NW	8/15/2024 19:01	50	AC
8/15/2024 21:31	7908-110 STREET NW	8/15/2024 22:03	50	AC
8/17/2024 21:40	11232-100 AVENUE NW	8/18/2024 20:45	150	CI
8/24/2024 20:21	7914-159 STREET NW	8/25/2024 15:20	200	CI
8/25/2024 15:20	7914-159 STREET NW	8/25/2024 21:00	200	CI
8/25/2024 19:58	14603-95 AVENUE NW	8/26/2024 1:55	150	CI
8/25/2024 21:05	7914-159 STREET NW	8/26/2024 0:30	200	CI
8/26/2024 22:37	8724-72 STREET NW	8/27/2024 4:30	200	CI
8/27/2024 21:01	12916-112 AVENUE NW	8/28/2024 1:02	50	AC
8/28/2024 1:51	12912-112 AVENUE NW	8/28/2024 17:20	50	AC
8/28/2024 15:29	7024-82 AVENUE NW		457	Steel
8/28/2024 17:20	12912-112 AVENUE NW	8/28/2024 19:12	0	
8/28/2024 19:35	12912-112 AVENUE NW	8/28/2024 22:54	0	

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	
Oct-24	
Nov-24	
Dec-24	
YTD 2024	**139**

**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

August 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO3/L	62	114	119	8	141	484
Aluminum	mg/L	2	0.072	0.036	0.023	0.090	16
Arsenic	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	16
Bromate Dissolved	mg/L	8	<0.005	<0.005	<0.005	<0.005	70
Bromodichloromethane	µg/L	61	1.5	1.1	<0.5	2.6	485
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	16
Calcium Hardness	mg/L CaCO3	60	113	116	96	141	476
Chlorate Dissolved	mg/L	8	0.177	0.183	<0.100	0.332	70
Chloride Dissolved	mg/L	8	5.81	6.35	4.78	12.10	70
Chlorite Dissolved	mg/L	8	<0.01	<0.20	<0.20	<0.20	70
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	16
Colour	TCU	62	1.0	0.9	<0.5	1.9	484
Conductivity	µS/cm	8	388	403	342	453	70
Copper	mg/L	2	<0.0020	<0.0050	<0.0050	<0.0050	16
Cryptosporidium	oocysts/100L	2	<0.1	<0.1	<0.1	<0.1	12
Fluoride	mg/L	62	0.67	0.68	0.62	0.79	484
Giardia	cysts/100L	2	<0.1	<0.1	<0.1	<0.1	12
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	16
Lead	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	16
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	16
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	16
Nitrate (as N) Dissolved	mg/L	8	0.013	0.060	<0.010	0.170	70
Nitrite (as N) Dissolved	mg/L	8	<0.01	<0.01	<0.01	0.02	70
pH	N/A	62	7.9	7.9	7.6	8.3	485
Potassium	mg/L	2	0.80	0.80	0.70	1.10	16
Sodium	mg/L	2	13.35	11.70	6.80	18.90	16
Sulphate Dissolved	mg/L	8	71.4	73.2	59.5	95.1	70
Total Chlorine	N/A	62	2.21	2.16	1.87	2.40	484
Total Dissolved Solids	mg/L	2	244	233	195	252	16
Total Hardness	mg/L CaCO3	60	172	177	145	218	476
Total Organic Carbon	mg/L C	8	1.7	1.5	0.9	2.8	70
Trihalomethanes	µg/L	61	26.7	16.4	5.1	39.9	485
Turbidity	NTU	62	0.06	<0.04	<0.04	0.16	484
Uranium	mg/L	2	<0.0005	<0.0005	<0.0005	0.0006	16
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	16
Bacteriological Data							
Coliforms, total	PA/100mL	62	Absent	Absent	Absent	Absent	484
E. coli	PA/100mL	62	Absent	Absent	Absent	Absent	484

2.1.3 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	**Total**
Water Treatment Plant	# Tests	10,442	9,566	10,736	10,143	9,855	10,053	10,306	10,156	81,257
	# Samples	261	248	326	269	264	260	268	273	2,169
Field Reservoirs	# Tests	1,936	1,721	1,695	1,883	1,734	2,006	2,225	1,917	15,117
	# Samples	63	52	52	65	49	53	66	54	454
Routine Distribution System	# Tests	2,740	2,879	2,734	2,845	2,901	2,692	2,424	2,401	21,616
	# Samples	146	153	146	153	144	124	99	106	1,071
System Depressurization/Repair	# Tests	1,050	720	555	675	660	630	628	480	5,398
	# Samples	70	48	37	45	44	42	42	32	360
Customer Complaints	# Tests	1,395	651	1,209	1,488	1,023	1,209	1,009	1,731	9,715
	# Samples	15	7	13	16	11	13	11	19	105
Total	# Tests	17,563	15,537	16,929	17,034	16,173	16,590	16,592	16,685	133,103
	# Samples	555	508	574	548	512	492	486	484	4,159

Additional Testing

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	**Total**
New Watermain Testing	# Tests	80	30	0	10	135	160	495	275	1,185
	# Samples	17	6	0	2	27	32	99	55	238
Water Treatment Plant Waste Discharge	# Tests	168	43	173	117	300	327	284	595	2,007
	# Samples	56	33	36	45	55	51	50	52	378
Quality Control	# Tests	5,961	6,042	6,091	5,937	6,055	6,793	8,719	8,020	53,618
	# Samples	1,187	1,056	1,193	1,186	1,244	1,418	1,629	1,747	10,660
Distribution Water Enhanced Surveillance	# Tests	0	0	0	0	0	540	1,337	1,091	2,968
	# Samples	0	0	0	0	0	20	53	45	118
Externally Contracted Analyses	# Tests	405	672	316	307	949	798	832	595	4,874
	# Samples	134	120	157	136	140	122	139	130	1,078
Total	# Tests	6,614	6,787	6,580	6,371	7,439	8,618	11,667	10,576	64,652
	# Samples	1,394	1,215	1,386	1,369	1,466	1,643	1,970	2,029	12,472

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	**Total**
Total	# Tests	24,177	22,324	23,509	23,405	23,612	25,208	28,259	27,261	197,755
	# Samples	1,825	1,611	1,848	1,793	1,842	2,022	2,327	2,399	15,667

2.1.4 QUALITY ASSURANCE – August 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 September 2022 and supersedes all previous electronic and printed versions, including the Sixth Edition published 1996. Guideline limits are listed as Maximum Acceptable Concentrations (MACs), Aesthetic Objectives (AO) or Operational Guidelines (OG). The latest edition of the Health Canada Guidelines includes parameter types, commons sources, health considerations and application of the guideline.

In addition, for treated water in the distribution system, total chlorine residual values under 0.5 mg/L are not necessarily violations of the approval, but do require immediate follow-up action and re-sampling. A violation of the current *Approval-to-Operate* (638-04-01) 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 AEP *Approval-to-Operate* limits, including the MACs for the GCDWQ parameters listed Schedule 4.

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

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

Current month: **1** 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	1	1
Complaint Samples	0	0
Random Samples	0	2
Reservoirs	0	0
TOTAL (Distribution)	1	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	0
Turbidity > 1 NTU	0	0
Chlorine < 1 mg/L or > 2.4 mg/L	0	0
Cryptosporidium ≥ 1/1000 L	0	0
Giardia ≥ 1/1000 L	0	0
Other	0	2
Total Variances + Violations	0 + 0 = 0	2 + 0 = 2

Notes: 1) Variance statistics include any violations.

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

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

Variance Category[1]	This Month	YTD
Turbidity > 1 NTU	27	111
Chlorine < 1 mg/L or > 2.4 mg/L	0	10
Single Positive Coliform	2	9
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	0	1
Aluminium[2] > 0.20 (or 0.1) mg/L	11	27
Iron > 0.300 mg/L	0	4
Other	0	3
Total Variances + Violations	40 + 1 = 41	165 + 3 = 168

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

2.1.4.7 **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

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
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	189	0	0.0	0	0.0	123	0.43	0.10	3.85
July									
Complaint Water	11	0	0.0	0	0.0	11	0.64	0.24	1.66
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	176	2	1.1	0	0.0	136	0.37	0.11	2.40
August									
Complaint Water	19	0	0.0	0	0.0	19	4.04	0.10	42.04
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	177	0	0.0	0	0.0	135	0.88	0.10	42.04

2.2.2 Bacteriological Data: Distribution System

2024

Year to Date	2,066	4	0.2	0	0.0	1,009	0.42	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 AEP Approval. At least 95 of the 195 samples must be tested at ProvLab each month according to our Operations Program.

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

2.2.2 Bacteriological Data: Distribution System

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
Year to Date	105	0	0.0	0	0.0	105	0.93	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				
Year to Date	360	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	

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	

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

August 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	3	<0.2	<0.2	<0.2	3	1.5	
Physical																		
Colour (TCU)	0.9	<0.5	1.2	31	1.0	<0.5	1.4	31	0.9	<0.5	1.9	241	0.9	<0.5	1.8	243	(15)	10
Conductivity (uS/cm)	386	373	399	4	389	382	405	4	396	342	439	35	406	351	453	35		<1
FPA-Intensity (N/A)	1.16	1.00	1.38	5	0.94	0.75	1.25	5	1.16	0.75	1.88	45	1.03	0.62	2.12	45		
pH (N/A)	7.9	7.8	8.2	31	7.9	7.6	8.0	31	7.9	7.7	8.3	242	7.8	7.6	8.2	243	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	240	240	240	1	247	247	247	1	228	195	252	8	234	217	250	8	(500)	
Turbidity (NTU)	<0.05	<0.04	0.08	31	0.06	<0.04	0.16	31	<0.04	<0.04	0.08	241	0.05	<0.04	0.16	243		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	8	<0.0004	<0.0002	<0.0005	8	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	8	<0.0002	<0.0002	<0.0002	8	0.01	
Barium	0.068	0.068	0.068	1	0.067	0.067	0.067	1	0.062	0.050	0.073	8	0.061	0.049	0.072	8	2	
Boron	0.012	0.012	0.012	1	0.012	0.012	0.012	1	0.010	0.009	0.012	8	0.010	0.008	0.012	8	2	
Bromate, dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.003	<0.005	35	<0.005	<0.003	<0.005	35	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002	8	0.007	
Chlorate Dissolved	0.23	0.21	0.25	4	0.14	0.12	0.18	4	0.24	0.18	0.33	35	0.11	<0.05	0.23	35	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.027	<0.005	<0.200	35	<0.027	<0.005	<0.200	35	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002	8	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	8	<0.003	<0.002	<0.005	8	2 (1)	
Fluoride	0.67	0.63	0.70	31	0.67	0.63	0.72	31	0.68	0.63	0.76	241	0.69	0.62	0.79	243	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	8	<0.0002	<0.0002	<0.0002	8	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	8	<0.002	<0.002	<0.002	8	0.12 (0.02)	
Mercury	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	<0.0011	<0.00005	<0.0050	11	<0.0011	<0.00005	<0.0050	11	0.001	
Nitrate (as N) Dissolved	0.01	<0.01	0.02	4	0.01	<0.01	0.02	4	0.06	<0.01	0.17	35	0.06	<0.01	0.17	35	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.010	<0.005	0.020	35	<0.010	<0.005	0.020	35	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	8	0.0003	0.0002	0.0003	8	0.05	
Total Chlorine	2.26	2.16	2.40	31	2.18	2.05	2.30	31	2.18	1.91	2.40	241	2.12	1.87	2.32	243	>1.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0006	8	<0.0005	<0.0005	0.0005	8	0.02	

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

August 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	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3	100	
Atrazine				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3	5	
Benzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	242	<0.5	<0.5	<0.5	243	5	
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3	0.04	
Bromoxynil				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243	2	
Chlorobenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	80 (30)	
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3	90	
Cyanazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Diazinon				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3		
Dicamba				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	241	<0.5	<0.5	<0.5	242	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<3.0	242	<0.5	<0.5	<3.0	243	14	
Dichlorophenol (2,4)				0				0	<0.2	<0.2	<0.3	3	<0.2	<0.2	<0.3	3		
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Dimethoate				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3	20	
Diuron				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3		
Ethylbenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	140 (1.6)	
Glyphosate				0				0	<0.3	<0.2	<0.5	3	<0.3	<0.2	<0.5	3	280	
Haloacetic Acids, (HAA5)	27.2	27.2	27.2	1	32.9	32.9	32.9	1	24.4	16.3	47.1	8	23.1	13.7	42.3	8	80	40
Malathion				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3	190	
MCPA				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3	100	
Methylene Chloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	50	
Metolachlor				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3		
Metribuzin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3	80	
NDMA	<0.0036	<0.0036	<0.0036	1	<0.0036	<0.0036	<0.0036	1	<0.0026	<0.0009	<0.0060	8	<0.0022	<0.0009	<0.0060	8	0.040	10
NTA (mg/L)	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	3	<0.4	<0.4	<0.4	3	0.4	
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3	0.6	
Perfluorooctanoic acid (PFOA)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3	0.0002	
Phorate				0				0	<0.25	<0.25	<0.25	3	<0.25	<0.25	<0.25	3		
Picloram				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3		
Simazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Terbufos				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3		
Tetrachloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	10	
Toluene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.6	242	<0.5	<0.5	3.3	243	60 (24)	

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

August 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)																		
Total Xylenes	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1.0	30	<1.0	<1.0	<2.5	242	<1.0	<1.0	<2.5	243	90	
Trichloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	5	
Trifluralin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Trihalomethanes	26.2	19.8	36.3	31	27.0	17.0	35.6	30	19.5	6.6	39.9	242	18.3	5.1	39.5	243	100	50
Vinyl Chloride	<1	<1	<1	31	<1	<1	<1	30	<1	<1	<1	241	<1	<1	<1	242	2	
Radionuclides (Bq/L)																		
Cesium-137				0				0	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	10	
Gross Alpha				0				0	<0.12	<0.12	<0.12	1	<0.15	<0.15	<0.15	1	(0.5)	
Gross Beta				0				0	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	(1.0)	
Iodine-131				0				0	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	6	
Lead-210				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	0.2	
Radium-226				0				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.5	
Strontium-90				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Tritium				0				0	<40	<40	<40	1	<40	<40	<40	1	7000	

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

August 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)	113	105	119	31	115	111	121	31	117	99	141	241	118	8	140	243		
Aluminum	0.064	0.064	0.064	1	0.077	0.077	0.077	1	0.052	0.023	0.090	8	0.047	0.026	0.089	8	2.9	0.1/0.2
Ammonia as NH3	0.13	0.08	0.16	14	0.13	0.11	0.14	14	0.13	0.08	0.17	75	0.12	0.08	0.17	75		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002	8		
Bromide Dissolved	<0.03	<0.03	<0.03	4	<0.03	<0.03	<0.03	4	<0.02	<0.01	<0.05	35	<0.02	<0.01	<0.05	35		
Calcium	47.1	47.1	47.1	1	46.5	46.5	46.5	1	47.2	43.7	51.3	8	47.3	44.2	51.4	8		
Calcium Hardness Calculated	118	118	118	1	116	116	116	1	116	109	125	4	116	110	124	4		
Chloride Dissolved	5.91	5.37	6.99	4	5.75	4.85	6.66	4	6.31	4.78	11.40	35	7.01	4.85	12.10	35	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002	8		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	8	<0.07	<0.07	<0.07	8		
Hardness, Ca (mg CaCO3/L)	113	105	116	30	114	106	118	30	117	98	141	237	116	96	138	239		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	8	<0.005	<0.005	<0.005	8	(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	8	<0.001	<0.001	<0.001	8		
Lithium	0.0043	0.0043	0.0043	1	0.004	0.004	0.004	1	0.0038	0.0031	0.0043	8	0.003	0.003	0.004	8		
Magnesium	13.6	13.6	13.6	1	13.6	13.6	13.6	1	13.7	12.6	15.0	8	13.7	12.6	15.1	8		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0008	0.0008	1	0.0009	0.0007	0.0010	8	0.0008	0.0007	0.0009	8		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	8	<0.0005	<0.0005	0.0005	8		
Phosphate,Ortho (as P)	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	16	<0.02	<0.02	<0.02	14		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	8	<0.02	<0.02	<0.02	8		
Potassium	0.8	0.8	0.8	1	0.8	0.8	0.8	1	0.9	0.7	1.1	8	0.9	0.7	1.0	8		
Silicon	2.20	2.20	2.20	1	2.12	2.12	2.12	1	2.04	1.58	2.27	8	2.03	1.64	2.27	8		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002	8		
Sodium	12.3	12.3	12.3	1	14.1	14.1	14.1	1	10.8	6.8	16.1	8	14.0	7.4	18.9	8	(200)	
Strontium	0.428	0.428	0.428	1	0.423	0.423	0.423	1	0.441	0.385	0.488	8	0.437	0.408	0.478	8	7.0	
Sulphate Dissolved	71.2	64.1	79.5	4	71.5	68.5	76.8	4	72.6	59.5	86.8	35	75.6	60.4	95.1	35	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	8	<0.0003	<0.0002	<0.0005	8		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8	<0.0005	<0.0005	<0.0005	8		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8	<0.0005	<0.0005	<0.0005	8		
Total Hardness (mg/L CaCO3)	172	166	180	30	172	162	178	30	177	149	218	237	176	145	211	239		
Total Hardness Calculated	174	174	174	1	172	172	172	1	171	162	182	4	170	162	180	4		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8	<0.0005	<0.0005	<0.0005	8		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	8	<0.005	<0.005	<0.005	8	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001	8		

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

August 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)																		
Aldicarb				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Aldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3		
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	8	<1	<1	<1	8		
Bromodichloromethane	1.6	1.0	2.6	31	1.5	1.0	2.4	30	1.2	<0.5	2.6	242	1.0	<0.5	2.4	243		16
Bromoform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243		
Carbaryl				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3		
Carbofuran				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3		
Chloroform	24.4	17.30	34.4	31	25.3	14.80	33.6	30	18.0	5.70	38.7	242	17.0	4.30	37.7	243		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	8	<1	<1	<1	8		
Dibromochloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloroacetic acid	12.40	12.40	12.40	1	16.5	16.5	16.5	1	11.85	7.98	21.10	8	11.6	7.0	19.8	8		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dieldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.5	242	<0.5	<0.5	<0.5	243	(15)	
MIBK	<1	<1	<1	31	<1	<1	<1	30	<1	<1	<1	242	<1	<1	<1	243		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	8	<1	<1	<1	8		
Monochloroacetic acid	<1.00	<1.00	<1.00	1	<1.00	<1.00	<1.00	1	<1.09	<1.00	1.58	8	<1.12	<1.00	1.68	8		
Parathion				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Perfluorobutanoic acid (PFBA)				0				0	<0.83	<0.02	<2.00	5	<0.83	<0.02	<2.00	5		
Perfluorodecanoic Acid (PFDA)				0				0	<2	<2	<2	2	<2	<2	<2	2		
Perfluorododecanoic Acid (PFDoA)				0				0	<2	<2	<2	2	<2	<2	<2	2		
Perfluoroheptanoic acid (PFHpA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3		
Perfluorohexanoic acid (PFHxA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluorononanoic acid (PFNA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluoropentanoic Acid (PFPeA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluoroundecanoic Acid (PFUnA)				0				0	<2	<2	<2	2	<2	<2	<2	2		
Styrene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243		
Total Organic Carbon	1.6	1.4	1.8	4	1.7	1.3	2.1	4	1.6	1.0	2.8	35	1.5	0.9	2.5	35		
Total Volatile Organics (NonTHM)	2.7	1.7	3.9	31	3	1	4	30	2.0	<1.0	6.1	242	2	<1	6	243		
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	3	<0.1	<0.1	<0.1	3		

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

August 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)																		
Trichloroacetic acid	14.80	14.80	14.80	1	16.40	16.40	16.40	1	12.10	7.95	24.40	8	11.06	6.22	20.80	8		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Xylene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Xylene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	242	<0.5	<0.5	0.9	243		

TABLE EXPLANATIONS:

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

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

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

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

August 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)	<0.05	<0.04	0.09	31	0.05	<0.04	0.08	31	<0.04	<0.04	0.13	241	0.05	<0.04	0.09	243		0.3
UV 254 %T ****	<94.6	<93.1	<96.2	31	<94.2	<92.5	<96.2	31	<94.2	<90.1	<96.9	241	<94.2	<90.9	<98.9	243		
Primary Inorganics (mg/L)																		
Bromate, dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.003	<0.005	35	<0.005	<0.003	<0.005	35	0.01	
Chlorate Dissolved	0.23	0.21	0.27	4	0.14	0.12	0.17	4	0.23	0.18	0.34	35	0.11	<0.05	0.20	35	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.027	<0.005	<0.200	35	<0.027	<0.005	<0.200	35	1	
Nitrate (as N) Dissolved	<0.01	<0.01	0.01	4	<0.01	<0.01	0.01	4	0.06	<0.01	0.17	35	0.06	<0.01	0.16	35	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.010	<0.005	0.020	35	<0.010	<0.005	0.020	35	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243	2	
Chlorobenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	241	<0.5	<0.5	<0.5	242	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<3.0	242	<0.5	<0.5	<3.0	243	14	
Ethylbenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	10	
Toluene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	4.1	242	<0.5	<0.5	1.8	243	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1.0	30	<1.0	<1.0	<2.5	242	<1.0	<1.0	<2.5	243	90	
Trichloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	5	
Trihalomethanes	22.8	14.1	30.4	31	20.9	14.0	27.3	30	16.0	5.3	38.4	242	14.3	3.7	33.7	243	100	50
Vinyl Chloride	<1	<1	<1	31	<1	<1	<1	30	<1	<1	<1	241	<1	<1	<1	242	2	
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.13	0.08	0.18	14	0.12	0.08	0.16	14	0.12	0.08	0.18	75	0.11	0.06	0.17	75		
Bromide Dissolved	<0.03	<0.03	<0.03	4	<0.03	<0.03	<0.03	4	<0.02	<0.01	<0.05	35	<0.02	<0.01	<0.05	35		
Chloride Dissolved	5.95	5.31	7.03	4	5.70	4.63	6.71	4	6.59	4.65	19.90	35	7.01	4.63	12.90	35	(250)	
Sulphate Dissolved	70.9	63.8	79.3	4	71.7	68.4	77.5	4	73.2	59.2	95.8	35	75.6	59.8	95.3	35	(500)	

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

August 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Bromodichloromethane	1.4	1.0	2.3	31	1.3	0.8	2.1	30	1.0	<0.5	2.3	242	0.9	<0.5	2.1	243		16
Bromoform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243		
Chloroform	21.2	12.20	29.0	31	19.4	12.40	26.2	30	14.7	4.60	37.4	242	13.1	3.00	33.2	243		
Dibromochloromethane	<0.5	<0.5	0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.5	242	<0.5	<0.5	<0.5	243		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243	(15)	
MIBK	<1	<1	<1	31	<1	<1	<1	30	<1	<1	<1	242	<1	<1	<1	243		
Styrene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243		
Total Volatile Organics (NonTHM)	2.8	1.6	3.9	31	2.6	1.5	4.2	30	2.0	<1.0	6.5	242	1.9	<1.0	6.7	243		
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	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Xylene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243		
Xylene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.3	242	<0.5	<0.5	0.6	243		

TABLE EXPLANATIONS:

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

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

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

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

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

August 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Microbiological										
Microcystin	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	4	1.5	
Physical										
Colour (TCU)				0	0.8	0.6	1.1	3	(15)	10
pH (N/A)	7.8	7.6	8.0	59	7.8	7.6	8.0	221	(7.0 - 10.5)	7.3 - 8.3
Total Dissolved Solids (mg/L)				0	240	227	261	3	(500)	
Turbidity (NTU)	0.26	0.05	1.73	105	0.25	<0.04	5.03	1070		1.0
UV 254 %T				0	<92.2	<90.1	<93.7	3		
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	3	0.01	
Barium				0	0.064	0.057	0.074	3	2	
Boron				0	0.010	0.009	0.011	3	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	17	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved				0	0.18	<0.08	0.30	17	1	
Chlorite Dissolved				0	<0.039	<0.005	<0.200	17	1	
Chromium				0	0.0002	<0.0002	0.0003	3	0.05	
Copper				0	<0.004	<0.002	<0.005	3	2 (1)	
Fluoride				0	0.68	0.65	0.74	3	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese				0	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury				0	<0.00180	<0.00005	<0.00500	6	0.001	
Nitrate (as N) Dissolved	0.03	<0.01	0.06	59	0.05	<0.01	0.18	240	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	59	<0.008	<0.005	0.020	240	1	
Selenium				0	0.0003	<0.0002	0.0003	3	0.05	
Strontium				0	0.450	0.438	0.466	3	7.0	
Total Chlorine	1.78	1.07	2.19	105	1.89	0.86	2.44	1068	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	3	0.02	

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

August 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	<0.12	<0.05	<0.25	3	100	
Atrazine				0	<0.05	<0.05	<0.05	3	5	
Atrazine+N-Dealkylated Metabolites				0	<0.1	<0.1	<0.1	1	0.005	
Azinphos-methyl				0	<0.1	<0.1	<0.1	3	0.02	
Benzene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	5	
Benzo(a)pyrene				0	<0.005	<0.005	<0.005	3	0.04	
Bromoxynil				0	<0.12	<0.05	<0.25	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	2	
Chlorobenzene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	80 (30)	
Chlorpyrifos				0	<0.1	<0.1	<0.1	3	90	
Cyanazine				0	<0.1	<0.1	<0.1	3		
Diazinon				0	<0.025	<0.025	<0.025	3		
Dicamba				0	<0.2	<0.1	<0.5	3	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	14	
Dichlorophenol (2,4)				0	<0.2	<0.2	<0.3	3		
Diclofop-methyl				0	<0.1	<0.1	<0.1	3		
Dimethoate				0	<0.05	<0.05	<0.05	3	20	
Diquat				0	<1	<1	<1	3	0.05	
Diuron				0	<0.05	<0.05	<0.05	3		
Ethylbenzene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	140 (1.6)	
Glyphosate				0	<0.3	<0.2	<0.5	3	280	
Malathion				0	<0.025	<0.025	<0.025	3	190	
MCPA				0	<0.12	<0.05	<0.25	3	100	
Methylene Chloride	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	50	
Metolachlor				0	<0.025	<0.025	<0.025	3		
Metribuzin				0	<0.1	<0.1	<0.1	3	80	
NDMA (µg/L)	<0.00500	<0.00450	<0.00520	3	<0.00330	<0.00100	0.00690	24	0.040	10
Nitrilotriacetic acid	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	3	0.4	
Paraquat				0	<1	<1	<1	1	0.07	
Pentachlorophenol				0	<0.7	<0.5	<1.0	3	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0	<0.008	<0.002	<0.020	3	0.0006	
Perfluorooctanoic acid (PFOA)				0	<0.008	<0.002	<0.020	3	0.0002	
Phorate				0	<0.25	<0.25	<0.25	3		
Picloram				0	<0.2	<0.1	<0.5	3		
Simazine				0	<0.1	<0.1	<0.1	3		
Terbufos				0	<0.5	<0.5	<0.5	3		

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

August 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Primary Organics (ug/L) **										
Tetrachloroethylene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	10	
Tetrachlorophenol (2,3,4,6)				0	<0.5	<0.5	<0.5	3	100 (1)	
Toluene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	60 (24)	
Total Xylenes	<1	<1	<1	7	<1	<1	<1	49	90	
Trichloroethylene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	5	
Trichlorophenol (2,4,6)				0	<0.3	<0.2	<0.5	3	5 (2)	
Trifluralin				0	<0.1	<0.1	<0.1	3		
Vinyl Chloride	<1	<1	<1	7	<1	<1	<1	49	2	

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

August 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	119	116	121	3		
Alkalinity, PHP (mg CaCO3/L)				0	<3	<3	<3	3		
Aluminum				0	0.042	0.014	0.093	3	2.9	0.1/0.2
Ammonia as N	0.19	0.18	0.20	3	0.15	0.09	0.24	20		
Beryllium				0	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved				0	<0.03	<0.01	<0.05	17		
Calcium				0	48.6	46.5	51.8	3		
Chloride Dissolved				0	6.62	4.87	8.73	17	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	3		
Free Chlorine				0	<0.07	<0.07	<0.07	3		
Iron				0	0.008	<0.005	0.013	3	(0.3)	0.3
Lanthanum				0	<0.001	<0.001	<0.001	3		
Lithium				0	0.0037	0.0034	0.0042	3		
Magnesium				0	14.3	13.4	15.3	3		
Molybdenum				0	0.0009	0.0007	0.0010	3		
Nickel				0	0.0007	<0.0005	0.0010	3		
Phosphorus				0	1.00	0.91	1.05	3		
Potassium				0	0.8	0.8	0.9	3		
Silicon				0	2.26	1.78	2.59	3		
Silver				0	<0.0002	<0.0002	<0.0002	3		
Sodium				0	12.6	11.2	13.5	3	(200)	
Sulphate Dissolved				0	71.4	59.0	82.4	17	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	3		
Tin				0	<0.0005	<0.0005	<0.0005	3		
Titanium				0	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	179	171	183	3		
Total Kjeldahl Nitrogen				0	0.5	0.4	0.5	2		
Total Kjeldahl Nitrogen (TKN)				0	0.4	0.4	0.4	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	3		
Zinc				0	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium				0	<0.001	<0.001	<0.001	3		

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

August 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
2,4,5-T				0	<0.12	<0.05	<0.25	3		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)				0	<0.008	<0.002	<0.020	3		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)				0	<0.008	<0.002	<0.020	3		
a-chlordane				0	<0.008	<0.008	<0.008	3		
Alachlor				0	<0.05	<0.05	<0.05	3		
Aldicarb				0	<0.1	<0.1	<0.1	3		
Aldrin				0	<0.008	<0.008	<0.008	3		
Ametryn				0	<0.025	<0.025	<0.025	3		
Atrazine Desethyl				0	<0.025	<0.025	<0.025	3		
Bendiocarb				0	<0.025	<0.025	<0.025	3		
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	48		
Bromodichloromethane	1.7	1.4	2.1	7	1.1	<0.5	2.1	49		16
Bromoform	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Carbaryl				0	<0.05	<0.05	<0.05	3		
Carbofuran				0	<0.025	<0.025	<0.025	3		
Chloroform	29.0	27.0	31.9	7	20.7	7.6	39.1	49		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	48		
Dibromochloromethane	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Dichloroacetic acid	15.08	11.90	17.80	6	11.32	5.90	23.50	48		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Dieldrin				0	<0.008	<0.008	<0.008	3		
Dinoseb				0	<0.12	<0.05	<0.25	3		
gamma-hexachlorocyclohexane				0	<0.008	<0.008	<0.008	3		
g-chlordane				0	<0.008	<0.008	<0.008	3		
Heptachlor				0	<0.008	<0.008	<0.008	3		
Heptachlor Epoxide				0	<0.008	<0.008	<0.008	3		
Methoxychlor				0	<0.008	<0.008	<0.008	3		
Methyl Parathion				0	<0.1	<0.1	<0.1	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49	(15)	
MIBK	<1	<1	<1	7	<1	<1	<1	49		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	48		
Monochloroacetic acid	<1	<1	<1	6	1	<1	2	48		
op-DDT				0	<0.004	<0.004	<0.004	3		
Oxychlordane				0	<0.008	<0.008	<0.008	3		
Parathion				0	<0.1	<0.1	<0.1	3		
Perfluorobutane sulfonic acid (PFBS)				0	<0.008	<0.002	<0.020	3		

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

August 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Perfluorobutanoic acid (PFBA)				0	<0.05	<0.02	<0.10	3		
Perfluoroheptanoic acid (PFHpA)				0	<0.008	<0.002	<0.020	3		
Perfluorohexane sulfonic acid (PFHxS)				0	<0.008	<0.002	<0.020	3		
Perfluorohexanoic acid (PFHxA)				0	<0.008	<0.002	<0.020	3		
Perfluorononanoic acid (PFNA)				0	<0.008	<0.002	<0.020	3		
Perfluoropentanoic acid (PFPeA)				0	<0.008	<0.002	<0.020	3		
pp-DDD				0	<0.004	<0.004	<0.004	3		
pp-DDE				0	<0.004	<0.004	<0.004	3		
pp-DDT				0	<0.004	<0.004	<0.004	3		
Prometon				0	<0.025	<0.025	<0.025	3		
Prometryne				0	<0.025	<0.025	<0.025	1		
Propazine				0	<0.025	<0.025	<0.025	3		
Styrene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Temephos				0	<0.25	<0.25	<0.25	3		
Terbutryn				0	<0.025	<0.025	<0.025	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Total Organic Carbon	1.6	1.2	2.0	59	1.8	1.2	2.7	212		
Total Volatile Organics (NonTHM)	3	2	4	7	2	<1	5	49		
Total Volatile Organics (Unknown)				0	1.0	<0.5	1.9	11		
Triallate				0	<0.1	<0.1	<0.1	3		
Trichloroacetic acid	16.43	12.90	19.60	6	10.83	5.40	24.30	48		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Xylene (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		
Xylene (1,4)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	49		

TABLE EXPLANATIONS:

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

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

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

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

August 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	<0.5	1.7	19	0.9	<0.5	1.9	105	(15)	10
pH (N/A)	7.8	7.7	8.1	19	7.8	7.6	8.1	105	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.27	0.07	0.93	19	0.45	<0.04	2.89	105		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	19	<0.0004	<0.0002	<0.0005	105	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	19	<0.0002	<0.0002	<0.0002	105	0.01	
Barium	0.063	<0.002	0.072	19	0.062	<0.002	0.093	105	2	
Boron	0.012	0.011	0.014	19	0.012	0.007	0.036	105	2	
Cadmium	<0.0002	<0.0002	<0.0002	19	<0.0002	<0.0002	<0.0002	105	0.007	
Chromium	<0.0002	<0.0002	<0.0002	19	<0.0002	<0.0002	<0.0002	105	0.05	
Copper	0.004	<0.002	0.016	19	<0.004	<0.002	0.048	105	2 (1)	
Lead	0.0003	<0.0002	0.0011	19	0.0002	<0.0002	0.0011	105	0.005	
Manganese	0.002	<0.002	0.004	19	0.002	<0.002	0.008	105	0.12 (0.02)	
Mercury	<0.00020	<0.00020	<0.00020	19	<0.00020	<0.00020	<0.00020	99	0.001	
Nitrate (as N) Dissolved	0.03	0.03	0.03	1	0.03	0.03	0.03	1	10	
Nitrite (as N) Dissolved	<0.01	<0.01	<0.01	1	<0.01	<0.01	<0.01	1	1	
Selenium	0.0003	<0.0002	0.0003	19	0.0003	<0.0002	0.0004	105	0.05	
Strontium	0.428	<0.002	0.497	19	0.444	<0.002	0.501	105	7.0	
Total Chlorine	1.70	1.05	2.21	19	1.80	0.75	2.27	105	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	19	0.0005	<0.0005	0.0006	105	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	2	
Chlorobenzene	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	14	
Ethylbenzene	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	10	
Toluene	<0.5	<0.5	<0.5	19	0.6	<0.5	3.4	105	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	19	1.0	<1.0	1.2	105	90	
Trichloroethylene	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	5	
Vinyl Chloride	<1	<1	<1	19	<1	<1	<1	105	2	

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

August 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	0.089	0.018	0.305	19	0.078	0.012	0.955	105	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	19	<0.0002	<0.0002	<0.0002	105		
Calcium	45.4	<0.1	48.7	19	47.9	<0.1	54.3	105		
Cobalt	0.0002	<0.0002	0.0004	19	0.0002	<0.0002	0.0006	105		
Iron	0.033	<0.005	0.146	19	0.062	<0.005	0.401	105	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	19	<0.001	<0.001	<0.001	105		
Lithium	0.0039	<0.0002	0.0045	19	0.0039	<0.0002	0.0076	105		
Magnesium	13.1	<0.1	14.6	19	13.7	<0.1	16.4	105		
Molybdenum	0.0008	0.0007	0.0010	19	0.0008	0.0006	0.0011	105		
Nickel	<0.0005	<0.0005	<0.0005	19	0.0006	<0.0005	0.0028	105		
Phosphorus	0.96	0.84	1.17	19	0.99	0.33	1.62	105		
Potassium	0.8	0.3	1.3	19	0.9	0.3	2.8	105		
Silicon	2.04	1.67	2.34	19	2.10	1.63	2.69	105		
Silver	<0.0002	<0.0002	<0.0002	19	<0.0002	<0.0002	<0.0002	105		
Sodium	15.3	8.2	98.7	19	12.4	6.6	98.7	105	(200)	
Thallium	<0.0002	<0.0002	<0.0002	19	<0.0003	<0.0002	<0.0005	105		
Tin	<0.0005	<0.0005	<0.0005	19	<0.0005	<0.0005	<0.0005	105		
Titanium	<0.0005	<0.0005	<0.0005	19	<0.0005	<0.0005	<0.0005	105		
Total Hardness (mg/L CaCO3)	167	<2	182	19	176	<2	201	105		
Vanadium	<0.0005	<0.0005	<0.0005	19	<0.0005	<0.0005	<0.0005	105		
Zinc	0.005	<0.005	0.012	19	0.005	<0.005	0.023	105	(5.0)	
Zirconium	<0.001	<0.001	<0.001	19	<0.001	<0.001	<0.001	105		

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

August 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	1.6	1.2	2.0	19	1.3	<0.5	2.1	105		16
Bromoform	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Chloroform	28.1	21.4	35.2	19	19.9	5.6	37.6	105		
Dibromochloromethane	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105	(15)	
MIBK	<1	<1	<1	19	<1	<1	<1	105		
Styrene	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Total Volatile Organics (NonTHM)	3.1	1.9	4.1	19	2.3	<1.0	6.9	105		
Total Volatile Organics (Unknown)				0	3.2	<0.5	13.8	17		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Xylene (1,2)	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	105		
Xylene (1,4)	<0.5	<0.5	<0.5	19	0.5	<0.5	1.1	105		

TABLE EXPLANATIONS:

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

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

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

2.2.7 Castledowns Reservoir

August 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	1.3	0.6	2.0	3	(15)	10
Conductivity (uS/cm)				0	404	391	421	3		
Odour				0	Inoff	Inoff	Inoff	3		
pH (N/A)	7.9	7.7	8.1	4	7.8	7.7	8.1	15	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.09	0.16	4	0.13	0.06	0.46	31		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	3	0.01	
Barium				0	0.059	0.051	0.069	3	2	
Boron				0	0.010	0.009	0.011	3	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	4	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved				0	0.120	0.050	0.143	4	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	4	1	
Chromium				0	<0.0002	<0.0002	<0.0002	3	0.05	
Copper				0	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride				0	0.70	0.66	0.75	3	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese				0	<0.002	<0.002	0.003	3	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.020	0.010	0.030	4	0.046	0.010	0.170	17	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	17	1	
Selenium				0	0.0003	0.0002	0.0004	3	0.05	
Strontium				0	0.440	0.431	0.453	3	7.0	
Total Chlorine	1.72	1.68	1.76	4	1.77	1.27	2.06	31	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.7	<0.5	1.0	3	5	
Carbon Tetrachloride				0	<0.7	<0.5	1.0	3	2	
Chlorobenzene				0	<0.67	<0.50	1.00	3	80 (30)	
Dichlorobenzene (1,2)				0	<0.67	<0.50	1.00	3		
Dichlorobenzene (1,4)				0	<0.7	<0.5	1.0	3	5 (1)	
Dichloroethane (1,2)				0	<0.7	<0.5	1.0	3	5	
Dichloroethylene (1,1)				0	<0.7	<0.5	1.0	3	14	
Ethylbenzene				0	<0.67	<0.50	1.00	3	140 (1.6)	
Methylene Chloride				0	<0.7	<0.5	1.0	3	50	
Tetrachloroethylene				0	<0.7	<0.5	1.0	3	10	
Toluene				0	<0.67	<0.50	1.00	3	60 (24)	
Total Xylenes				0	<1	<1	<1	3	90	
Trichloroethylene				0	<0.67	<0.50	1.00	3	5	
Vinyl Chloride				0	<1.3	<1.0	2.0	3	2	

2.2.7 Castledowns Reservoir

August 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	118	112	122	3		
Aluminum				0	0.048	0.022	0.090	3	2.9	0.1/0.2
Ammonia as NH3	0.20	0.19	0.20	4	0.18	0.14	0.28	14		
Beryllium				0	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved				0	<0.020	<0.010	<0.030	4		
Calcium				0	47.6	45.5	49.5	3		
Calcium Hardness				0	121	121	121	1		
Calcium Hardness Calculated				0	119	114	124	2		
Chloride Dissolved				0	7.2	6.2	7.7	4	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	3		
Iron				0	0.029	<0.005	0.078	3	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	3		
Lithium				0	0.0034	0.0030	0.0040	3		
Magnesium				0	13.7	13.3	14.0	3		
Molybdenum				0	0.0008	0.0008	0.0009	3		
Nickel				0	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.87	0.86	0.90	8	0.88	0.86	0.92	24		
Phosphorus				0	0.96	0.87	1.02	3		
Potassium				0	0.93	0.80	1.20	3		
Silicon				0	2.07	1.67	2.33	3		
Silver				0	<0.0002	<0.0002	<0.0002	3		
Sodium				0	12.4	9.9	14.1	3	(200)	
Sulphate Dissolved				0	73.5	69.6	76.9	4	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	3		
Tin				0	<0.0005	<0.0005	<0.0005	3		
Titanium				0	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated				0	175	168	181	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	3		
Zinc				0	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	3		

2.2.7 Castledowns Reservoir

August 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	3		16
Bromoform				0	<0.7	<0.5	1.0	3		
Chloroform				0	20.3	6.9	35.6	3		
Dibromochloromethane				0	<0.67	<0.50	1.00	3		
Dichlorobenzene (1,3)				0	<0.67	<0.50	1.00	3		
Dichloroethylene, cis (1,2)				0	<0.67	<0.50	1.00	3		
Dichloroethylene, trans (1,2)				0	<0.67	<0.50	1.00	3		
Dichloropropane (1,2)				0	<0.7	<0.5	1.0	3		
Methyl t-Butyl Ether (MTBE)				0	<0.7	<0.5	1.0	3	(15)	
MIBK				0	<1.3	<1.0	2.0	3		
Styrene				0	<0.67	<0.50	1.00	3		
Tetrachloroethane (1,1,2,2)				0	<0.7	<0.5	1.0	3		
Total Organic Carbon	1.7	1.4	2.0	4	1.7	0.9	2.3	15		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	3		
Total Volatile Organics (Unknown)				0	0.7	0.7	0.7	1		
Trichlorobenzene (1,2,4)				0	<0.7	<0.5	1.0	3		
Trichloroethane (1,1,1)				0	<0.7	<0.5	1.0	3		
Xylene (1,2)				0	<0.7	<0.5	1.0	3		
Xylene (1,4)				0	<0.7	<0.5	1.0	3		

TABLE EXPLANATIONS:

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

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

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

2.2.8 Clareview Reservoir

August 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	0.7	1.0	5	(15)	10
Conductivity (uS/cm)	390	390	390	1	397	368	421	5		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	5		
pH (N/A)	7.9	7.7	8.0	4	7.8	7.7	8.1	18	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.12	0.15	4	0.15	0.10	0.26	35		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.067	0.067	0.067	1	0.063	0.056	0.068	5	2	
Boron	0.013	0.013	0.013	1	0.010	0.008	0.013	5	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	5	0.007	
Chlorate Dissolved	0.217	0.217	0.217	1	0.205	0.172	0.229	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	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.68	0.65	0.71	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.023	0.020	0.030	4	0.053	0.020	0.180	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	19	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	5	0.05	
Strontium	0.480	0.480	0.480	1	0.447	0.405	0.481	5	7.0	
Total Chlorine	1.69	1.63	1.78	4	1.85	1.60	2.09	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	5	2	

2.2.8 Clareview Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	117	117	117	1	118	109	129	5		
Aluminum	0.173	0.173	0.173	1	0.065	0.023	0.173	5	2.9	0.1/0.2
Ammonia as NH3	0.22	0.21	0.22	4	0.20	0.15	0.22	16		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.027	<0.010	<0.050	6		
Calcium	46.9	46.9	46.9	1	47.3	43.7	51.3	5		
Calcium Hardness				0	124	118	130	2		
Calcium Hardness Calculated	117	117	117	1	114	109	117	3		
Chloride Dissolved	5.8	5.8	5.8	1	6.2	5.5	7.0	6	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Iron	0.012	0.012	0.012	1	0.014	0.012	0.018	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0043	0.0043	0.0043	1	0.0037	0.0032	0.0043	5		
Magnesium	14.5	14.5	14.5	1	13.9	12.2	14.9	5		
Molybdenum	0.0010	0.0010	0.0010	1	0.0008	0.0006	0.0010	5		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Ortho_P	0.87	0.86	0.88	8	0.88	0.86	0.92	26		
Phosphorus	0.94	0.94	0.94	1	0.95	0.91	0.96	5		
Potassium	0.80	0.80	0.80	1	0.86	0.70	1.10	5		
Silicon	1.61	1.61	1.61	1	1.95	1.61	2.13	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Sodium	8.4	8.4	8.4	1	11.3	7.2	16.2	5	(200)	
Sulphate Dissolved	70.4	70.4	70.4	1	70.9	59.6	76.4	6	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	188	177	198	2		
Total Hardness Calculated	177	177	177	1	169	160	177	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		

2.2.8 Clareview Reservoir

August 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	2.2	2.2	2.2	1	1.6	0.9	2.2	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Chloroform	23.0	23.0	23.0	1	23.4	13.9	34.8	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Total Organic Carbon	1.6	1.5	1.8	4	1.8	1.3	2.5	18		
Total Volatile Organics (NonTHM)	4.0	4.0	4.0	1	2.3	<1.0	4.0	5		
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	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

2.2.9 Discovery Park Reservoir

August 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	0.7	<0.5	1.0	6	(15)	10
Conductivity (uS/cm)	392	392	392	1	398	367	420	6		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	6		
pH (N/A)	8.0	7.9	8.0	4	8.0	7.8	8.1	19	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.33	0.10	1.09	5	0.14	0.06	1.09	37		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0002	<0.0005	6	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	6	0.01	
Barium	0.069	0.069	0.069	1	0.062	0.054	0.069	6	2	
Boron	0.012	0.012	0.012	1	0.010	0.008	0.012	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	0.163	0.163	0.163	1	0.120	<0.090	0.163	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	0.68	0.68	0.68	1	0.69	0.65	0.77	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	0.025	0.020	0.030	4	0.050	0.020	0.190	20	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	20	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	6	0.05	
Strontium	0.463	0.463	0.463	1	0.441	0.410	0.474	6	7.0	
Total Chlorine	1.20	1.10	1.31	5	1.40	1.10	1.68	37	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	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	

2.2.9 Discovery Park Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	117	117	117	1	118	111	126	6		
Aluminum	0.200	0.200	0.200	1	0.072	0.021	0.200	6	2.9	0.1/0.2
Ammonia as NH3	0.25	0.22	0.30	4	0.21	<0.05	0.30	18		
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	48.3	48.3	48.3	1	46.0	43.9	48.3	6		
Calcium Hardness				0	119	113	124	2		
Calcium Hardness Calculated	121	121	121	1	115	110	121	4		
Chloride Dissolved	6.6	6.6	6.6	1	7.1	6.0	8.4	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	0.0041	0.0041	0.0041	1	0.0033	0.0030	0.0041	6		
Magnesium	14.4	14.4	14.4	1	13.6	12.7	14.4	6		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0009	6		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0006	6		
Ortho_P	0.95	0.86	1.04	8	0.91	0.86	1.04	26		
Phosphorus	1.00	1.00	1.00	1	0.98	0.91	1.02	6		
Potassium	0.80	0.80	0.80	1	0.87	0.80	1.00	6		
Silicon	1.78	1.78	1.78	1	1.92	1.57	2.21	6		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6		
Sodium	9.3	9.3	9.3	1	13.3	7.4	19.4	6	(200)	
Sulphate Dissolved	70.8	70.8	70.8	1	73.2	58.6	81.0	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	178	174	182	2		
Total Hardness Calculated	180	180	180	1	170	162	180	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		

2.2.9 Discovery Park Reservoir

August 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	1.8	1.8	1.8	1	1.3	0.7	1.8	6		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Chloroform	23.3	23.3	23.3	1	23.5	11.7	37.8	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	1.5	1.3	1.7	4	1.7	1.2	2.4	19		
Total Volatile Organics (NonTHM)	3.8	3.8	3.8	1	2.4	<1.0	3.8	6		
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	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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

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

2.2.10 Kaskitayo Reservoir

August 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	1.1	0.5	1.6	4	(15)	10
Conductivity (uS/cm)				0	405	370	426	4		
Odour				0	Inoff	Inoff	Inoff	4		
pH (N/A)	7.7	7.7	7.8	4	7.8	7.6	7.9	18	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.07	0.18	4	0.09	0.05	0.19	35		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic				0	<0.0002	<0.0002	0.0002	4	0.01	
Barium				0	0.063	0.056	0.069	4	2	
Boron				0	0.009	0.008	0.010	4	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	4	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved				0	<0.102	<0.080	0.126	4	1	
Chlorite Dissolved				0	<0.054	<0.005	<0.200	4	1	
Chromium				0	<0.0002	<0.0002	<0.0002	4	0.05	
Copper				0	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride				0	0.69	0.65	0.74	4	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese				0	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.023	0.010	0.040	4	0.044	<0.010	0.170	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	19	1	
Selenium				0	0.0003	0.0002	0.0003	4	0.05	
Strontium				0	0.442	0.385	0.483	4	7.0	
Total Chlorine	1.86	1.78	1.90	4	1.99	1.78	2.23	35	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	4	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	4	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	4	10	
Toluene				0	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes				0	<1	<1	<1	4	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	4	2	

2.2.10 Kaskitayo Reservoir

August 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	123	118	128	4		
Aluminum				0	0.045	0.022	0.097	4	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.18	4	0.16	0.11	0.20	17		
Beryllium				0	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved				0	<0.025	<0.010	<0.050	4		
Calcium				0	47.3	43.3	51.2	4		
Calcium Hardness				0	124	118	129	2		
Calcium Hardness Calculated				0	113	108	118	2		
Chloride Dissolved				0	7.2	6.0	8.2	4	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	4		
Iron				0	<0.005	<0.005	<0.005	4	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	4		
Lithium				0	0.0032	0.0029	0.0036	4		
Magnesium				0	13.7	11.8	15.1	4		
Molybdenum				0	0.0008	0.0006	0.0009	4		
Nickel				0	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.91	0.82	1.02	8	0.92	0.82	1.02	26		
Phosphorus				0	0.94	0.87	0.98	4		
Potassium				0	0.88	0.70	1.10	4		
Silicon				0	2.04	1.93	2.16	4		
Silver				0	<0.0002	<0.0002	<0.0002	4		
Sodium				0	14.2	7.4	22.0	4	(200)	
Sulphate Dissolved				0	73.7	60.7	79.6	4	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	4		
Tin				0	<0.0005	<0.0005	<0.0005	4		
Titanium				0	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	184	178	190	2		
Total Hardness Calculated				0	166	157	175	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	4		
Zinc				0	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	4		

2.2.10 Kaskitayo Reservoir

August 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	1.2	0.7	1.8	4		16
Bromoform				0	<0.5	<0.5	<0.5	4		
Chloroform				0	20.8	9.8	31.6	4		
Dibromochloromethane				0	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	4	(15)	
MIBK				0	<1.0	<1.0	<1.0	4		
Styrene				0	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	4		
Total Organic Carbon	1.7	1.3	2.0	4	1.8	1.2	2.6	18		
Total Volatile Organics (NonTHM)				0	2.1	<1.0	4.1	4		
Total Volatile Organics (Unknown)				0	1.1	1.1	1.1	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	4		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	4		
Xylene (1,2)				0	<0.5	<0.5	<0.5	4		
Xylene (1,4)				0	<0.5	<0.5	<0.5	4		

TABLE EXPLANATIONS:

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

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

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

2.2.11 Londonderry Reservoir

August 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	3	(15)	10
Conductivity (uS/cm)				0	395	390	405	3		
Odour				0	Inoff	Inoff	Inoff	3		
pH (N/A)	7.9	7.8	8.1	4	7.8	7.7	8.1	17	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.10	0.14	4	0.13	0.06	0.52	35		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	3	0.01	
Barium				0	0.059	0.052	0.068	3	2	
Boron				0	0.011	0.010	0.012	3	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	4	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved				0	0.221	0.188	0.238	4	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	4	1	
Chromium				0	<0.0002	<0.0002	<0.0002	3	0.05	
Copper				0	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride				0	0.70	0.66	0.73	3	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese				0	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.023	0.020	0.030	4	0.052	0.020	0.180	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.008	<0.005	0.010	19	1	
Selenium				0	0.0003	0.0002	0.0003	3	0.05	
Strontium				0	0.436	0.412	0.459	3	7.0	
Total Chlorine	1.73	1.69	1.78	4	1.92	1.68	2.25	35	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.7	<0.5	1.0	3	5	
Carbon Tetrachloride				0	<0.7	<0.5	1.0	3	2	
Chlorobenzene				0	<0.67	<0.50	1.00	3	80 (30)	
Dichlorobenzene (1,2)				0	<0.67	<0.50	1.00	3		
Dichlorobenzene (1,4)				0	<0.7	<0.5	1.0	3	5 (1)	
Dichloroethane (1,2)				0	<0.7	<0.5	1.0	3	5	
Dichloroethylene (1,1)				0	<0.7	<0.5	1.0	3	14	
Ethylbenzene				0	<0.67	<0.50	1.00	3	140 (1.6)	
Methylene Chloride				0	<0.7	<0.5	1.0	3	50	
Tetrachloroethylene				0	<0.7	<0.5	1.0	3	10	
Toluene				0	<0.67	<0.50	1.00	3	60 (24)	
Total Xylenes				0	<1	<1	<1	3	90	
Trichloroethylene				0	<0.67	<0.50	1.00	3	5	
Vinyl Chloride				0	<1.3	<1.0	2.0	3	2	

2.2.11 Londonderry Reservoir

August 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	110	121	3		
Aluminum				0	0.041	0.018	0.082	3	2.9	0.1/0.2
Ammonia as NH3	0.20	0.19	0.22	4	0.19	0.14	0.22	16		
Beryllium				0	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved				0	<0.020	<0.010	<0.030	4		
Calcium				0	47.8	44.6	49.5	3		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	118	111	124	2		
Chloride Dissolved				0	6.4	5.7	7.2	4	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	3		
Iron				0	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	3		
Lithium				0	0.0038	0.0033	0.0043	3		
Magnesium				0	13.9	13.3	14.3	3		
Molybdenum				0	0.0009	0.0008	0.0010	3		
Nickel				0	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.88	0.86	0.90	8	0.89	0.86	0.92	26		
Phosphorus				0	0.96	0.89	1.03	3		
Potassium				0	1.00	0.80	1.40	3		
Silicon				0	2.16	1.83	2.35	3		
Silver				0	<0.0002	<0.0002	<0.0002	3		
Sodium				0	10.9	9.8	13.0	3	(200)	
Sulphate Dissolved				0	73.3	72.9	74.0	4	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	3		
Tin				0	<0.0005	<0.0005	<0.0005	3		
Titanium				0	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated				0	174	166	182	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	3		
Zinc				0	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	3		

2.2.11 Londonderry Reservoir

August 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	1.0	1.4	3		16
Bromoform				0	<0.7	<0.5	1.0	3		
Chloroform				0	19.1	8.5	34.3	3		
Dibromochloromethane				0	<0.67	<0.50	1.00	3		
Dichlorobenzene (1,3)				0	<0.67	<0.50	1.00	3		
Dichloroethylene, cis (1,2)				0	<0.67	<0.50	1.00	3		
Dichloroethylene, trans (1,2)				0	<0.67	<0.50	1.00	3		
Dichloropropane (1,2)				0	<0.7	<0.5	1.0	3		
Methyl t-Butyl Ether (MTBE)				0	<0.7	<0.5	1.0	3	(15)	
MIBK				0	<1.3	<1.0	2.0	3		
Styrene				0	<0.67	<0.50	1.00	3		
Tetrachloroethane (1,1,2,2)				0	<0.7	<0.5	1.0	3		
Total Organic Carbon	1.6	1.4	1.7	4	1.7	1.0	2.5	17		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	3		
Trichlorobenzene (1,2,4)				0	<0.7	<0.5	1.0	3		
Trichloroethane (1,1,1)				0	<0.7	<0.5	1.0	3		
Xylene (1,2)				0	<0.7	<0.5	1.0	3		
Xylene (1,4)				0	<0.7	<0.5	1.0	3		

TABLE EXPLANATIONS:

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

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

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

2.2.12 Millwoods Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.9	0.9	0.9	1	0.9	<0.5	1.2	4	(15)	10
Conductivity (uS/cm)	384	384	384	1	398	384	418	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.7	7.7	7.8	4	7.8	7.7	8.0	17	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.07	0.15	4	0.10	0.06	0.20	35		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	4	0.01	
Barium	0.065	0.065	0.065	1	0.061	0.051	0.071	4	2	
Boron	0.013	0.013	0.013	1	0.011	0.009	0.013	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.162	0.162	0.162	1	0.131	0.090	0.171	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride	0.67	0.67	0.67	1	0.69	0.67	0.72	4	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.020	0.010	0.040	4	0.043	0.010	0.160	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.008	<0.005	0.010	19	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	4	0.05	
Strontium	0.481	0.481	0.481	1	0.451	0.422	0.481	4	7.0	
Total Chlorine	1.89	1.86	1.93	4	1.99	1.79	2.21	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5	2	

2.2.12 Millwoods Reservoir

August 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	112	112	112	1	117	112	123	4		
Aluminum	0.168	0.168	0.168	1	0.073	0.022	0.168	4	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.19	4	0.17	0.11	0.19	17		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.020	<0.010	<0.030	4		
Calcium	46.6	46.6	46.6	1	47.5	45.2	49.6	4		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated	116	116	116	1	118	113	124	3		
Chloride Dissolved	5.6	5.6	5.6	1	6.5	5.6	7.2	4	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0041	0.0041	0.0041	1	0.0037	0.0031	0.0041	4		
Magnesium	14.3	14.3	14.3	1	14.1	13.3	14.5	4		
Molybdenum	0.0010	0.0010	0.0010	1	0.0009	0.0007	0.0011	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.91	0.86	1.00	8	0.90	0.86	1.00	26		
Phosphorus	0.96	0.96	0.96	1	0.96	0.90	1.01	4		
Potassium	0.80	0.80	0.80	1	0.88	0.80	1.10	4		
Silicon	1.56	1.56	1.56	1	1.98	1.56	2.39	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	8.9	8.9	8.9	1	11.9	8.9	13.3	4	(200)	
Sulphate Dissolved	71.5	71.5	71.5	1	73.7	71.5	76.8	4	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated	175	175	175	1	176	168	184	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		

2.2.12 Millwoods Reservoir

August 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	2.2	2.2	2.2	1	1.2	0.7	2.2	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Chloroform	20.1	20.1	20.1	1	16.5	6.8	37.4	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Total Organic Carbon	1.7	1.4	2.0	4	1.8	0.9	2.6	17		
Total Volatile Organics (NonTHM)	3.6	3.6	3.6	1	1.5	<1.0	3.6	5		
Total Volatile Organics (Unknown)				0	1.3	1.3	1.3	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

2.2.13 North Jasper Place Reservoir

August 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	0.6	1.0	5	(15)	10
Conductivity (uS/cm)	400	400	400	1	402	367	421	5		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	5		
pH (N/A)	7.9	7.8	8.0	4	7.8	7.7	8.0	18	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.11	0.16	4	0.11	0.05	0.24	35		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.066	0.066	0.066	1	0.061	0.054	0.068	5	2	
Boron	0.014	0.014	0.014	1	0.010	0.008	0.014	5	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	5	0.007	
Chlorate Dissolved	0.147	0.147	0.147	1	0.116	<0.080	0.147	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	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.68	0.64	0.71	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.023	0.020	0.030	4	0.055	0.020	0.190	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	19	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	5	0.05	
Strontium	0.460	0.460	0.460	1	0.444	0.416	0.481	5	7.0	
Total Chlorine	1.31	1.25	1.35	4	1.68	1.25	2.07	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	5	2	

2.2.13 North Jasper Place Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	118	118	118	1	118	112	128	5		
Aluminum	0.091	0.091	0.091	1	0.053	0.024	0.102	5	2.9	0.1/0.2
Ammonia as NH3	0.25	0.24	0.25	4	0.21	0.16	0.25	16		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.027	<0.010	<0.050	6		
Calcium	46.8	46.8	46.8	1	46.6	43.9	51.0	5		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	117	117	117	1	113	110	117	3		
Chloride Dissolved	6.6	6.6	6.6	1	7.0	6.0	8.0	6	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0041	0.0041	0.0041	1	0.0034	0.0030	0.0041	5		
Magnesium	14.0	14.0	14.0	1	13.6	12.2	14.7	5		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0005	0.0009	5		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.85	0.82	0.90	8	0.88	0.82	0.96	26		
Phosphorus	0.98	0.98	0.98	1	0.97	0.92	1.00	5		
Potassium	0.80	0.80	0.80	1	0.84	0.70	1.00	5		
Silicon	1.92	1.92	1.92	1	1.96	1.78	2.09	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Sodium	11.0	11.0	11.0	1	13.3	7.2	19.0	5	(200)	
Sulphate Dissolved	72.1	72.1	72.1	1	72.9	59.5	80.4	6	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	184	173	194	2		
Total Hardness Calculated	175	175	175	1	167	160	175	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		

2.2.13 North Jasper Place Reservoir

August 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	1.8	1.8	1.8	1	1.4	0.9	1.8	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Chloroform	26.7	26.7	26.7	1	22.7	12.7	36.0	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Total Organic Carbon	1.6	1.5	1.7	4	1.8	1.2	2.4	17		
Total Volatile Organics (NonTHM)	3.4	3.4	3.4	1	2.2	<1.0	3.4	5		
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	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

2.2.14 Ormsby Reservoir

August 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	3	(15)	10
Conductivity (uS/cm)				0	409	395	424	3		
Odour				0	Inoff	Inoff	Inoff	3		
pH (N/A)	7.7	7.7	7.8	4	7.8	7.7	8.0	17	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.07	0.22	4	0.11	0.05	0.28	35		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	3	0.01	
Barium				0	0.060	0.051	0.071	3	2	
Boron				0	0.011	0.010	0.011	3	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	3	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved				0	0.091	0.060	0.132	3	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	3	1	
Chromium				0	<0.0002	<0.0002	<0.0002	3	0.05	
Copper				0	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride				0	0.69	0.67	0.71	3	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese				0	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.023	0.020	0.030	4	0.043	0.010	0.170	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.008	<0.005	0.010	19	1	
Selenium				0	0.0003	0.0002	0.0003	3	0.05	
Strontium				0	0.440	0.424	0.458	3	7.0	
Total Chlorine	1.73	1.62	1.88	4	1.92	1.62	2.15	35	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	4	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	4	2	
Chlorobenzene				0	<0.63	<0.50	1.00	4	80 (30)	
Dichlorobenzene (1,2)				0	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	4	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	4	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	4	14	
Ethylbenzene				0	<0.63	<0.50	1.00	4	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	4	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	4	10	
Toluene				0	<0.63	<0.50	1.00	4	60 (24)	
Total Xylenes				0	<1	<1	<1	4	90	
Trichloroethylene				0	<0.63	<0.50	1.00	4	5	
Vinyl Chloride				0	<1.3	<1.0	2.0	4	2	

2.2.14 Ormsby Reservoir

August 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	119	112	123	3		
Aluminum				0	0.062	0.023	0.130	3	2.9	0.1/0.2
Ammonia as NH3	0.19	0.16	0.20	4	0.17	0.11	0.20	17		
Beryllium				0	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved				0	<0.017	<0.010	<0.030	3		
Calcium				0	46.9	43.9	49.6	3		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	117	110	124	2		
Chloride Dissolved				0	7.2	6.3	7.7	3	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	3		
Iron				0	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	3		
Lithium				0	0.0034	0.0030	0.0040	3		
Magnesium				0	13.7	13.1	14.2	3		
Molybdenum				0	0.0009	0.0007	0.0011	3		
Nickel				0	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.88	0.84	0.92	8	0.90	0.84	0.98	26		
Phosphorus				0	0.97	0.88	1.04	3		
Potassium				0	0.97	0.80	1.30	3		
Silicon				0	2.13	1.68	2.39	3		
Silver				0	<0.0002	<0.0002	<0.0002	3		
Sodium				0	13.8	12.9	14.4	3	(200)	
Sulphate Dissolved				0	75.5	73.6	77.8	3	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	3		
Tin				0	<0.0005	<0.0005	<0.0005	3		
Titanium				0	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	173	164	182	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	3		
Zinc				0	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	3		

2.2.14 Ormsby Reservoir

August 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	1.0	0.8	1.1	4		16
Bromoform				0	<0.6	<0.5	1.0	4		
Chloroform				0	15.8	6.6	38.1	4		
Dibromochloromethane				0	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,3)				0	<0.63	<0.50	1.00	4		
Dichloroethylene, cis (1,2)				0	<0.63	<0.50	1.00	4		
Dichloroethylene, trans (1,2)				0	<0.63	<0.50	1.00	4		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	4		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	4	(15)	
MIBK				0	<1.3	<1.0	2.0	4		
Styrene				0	<0.63	<0.50	1.00	4		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	4		
Total Organic Carbon	1.6	1.3	1.8	4	1.8	0.9	2.5	17		
Total Volatile Organics (NonTHM)				0	<1.1	<1.0	1.2	4		
Total Volatile Organics (Unknown)				0	0.9	0.6	1.2	2		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	4		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	4		
Xylene (1,2)				0	<0.6	<0.5	1.0	4		
Xylene (1,4)				0	<0.6	<0.5	1.0	4		

TABLE EXPLANATIONS:

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

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

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

2.2.15 Papaschase 1 Reservoir

August 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	0.8	0.7	1.0	3	(15)	10
Conductivity (uS/cm)				0	398	379	408	3		
Odour				0	Inoff	Inoff	Inoff	3		
pH (N/A)	7.8	7.8	7.9	4	7.8	7.6	8.0	17	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.09	0.15	4	0.15	0.09	0.26	35		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	3	0.01	
Barium				0	0.060	0.050	0.071	3	2	
Boron				0	0.010	0.008	0.011	3	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	3	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved				0	0.236	0.190	0.261	3	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	3	1	
Chromium				0	<0.0002	<0.0002	<0.0002	3	0.05	
Copper				0	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride				0	0.71	0.68	0.75	3	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese				0	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.023	0.020	0.030	4	0.046	0.010	0.160	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.008	<0.005	0.010	19	1	
Selenium				0	0.0003	0.0002	0.0003	3	0.05	
Strontium				0	0.437	0.423	0.455	3	7.0	
Total Chlorine	1.77	1.49	2.09	4	1.90	1.48	2.15	35	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	4	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	4	2	
Chlorobenzene				0	<0.63	<0.50	1.00	4	80 (30)	
Dichlorobenzene (1,2)				0	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	4	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	4	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	4	14	
Ethylbenzene				0	<0.63	<0.50	1.00	4	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	4	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	4	10	
Toluene				0	<0.63	<0.50	1.00	4	60 (24)	
Total Xylenes				0	<1	<1	<1	4	90	
Trichloroethylene				0	<0.63	<0.50	1.00	4	5	
Vinyl Chloride				0	<1.3	<1.0	2.0	4	2	

2.2.15 Papaschase 1 Reservoir

August 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	110	120	3		
Aluminum				0	0.044	0.019	0.091	3	2.9	0.1/0.2
Ammonia as NH3	0.21	0.17	0.24	4	0.19	0.11	0.25	17		
Beryllium				0	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved				0	<0.017	<0.010	<0.030	3		
Calcium				0	48.1	45.1	50.1	3		
Calcium Hardness				0	123	123	123	1		
Calcium Hardness Calculated				0	118	113	123	2		
Chloride Dissolved				0	6.5	5.8	7.5	3	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	3		
Iron				0	0.014	0.010	0.016	3	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	3		
Lithium				0	0.0037	0.0033	0.0045	3		
Magnesium				0	14.0	13.1	14.5	3		
Molybdenum				0	0.0009	0.0007	0.0011	3		
Nickel				0	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.86	0.84	0.86	8	0.86	0.84	0.88	26		
Phosphorus				0	0.93	0.88	0.97	3		
Potassium				0	0.90	0.80	1.10	3		
Silicon				0	2.15	1.68	2.39	3		
Silver				0	<0.0002	<0.0002	<0.0002	3		
Sodium				0	10.7	9.4	11.4	3	(200)	
Sulphate Dissolved				0	72.9	70.0	75.2	3	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	3		
Tin				0	<0.0005	<0.0005	<0.0005	3		
Titanium				0	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	175	167	182	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	3		
Zinc				0	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	3		

2.2.15 Papaschase 1 Reservoir

August 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	1.0	0.7	1.6	4		16
Bromoform				0	<0.6	<0.5	1.0	4		
Chloroform				0	16.5	7.8	35.1	4		
Dibromochloromethane				0	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,3)				0	<0.63	<0.50	1.00	4		
Dichloroethylene, cis (1,2)				0	<0.63	<0.50	1.00	4		
Dichloroethylene, trans (1,2)				0	<0.63	<0.50	1.00	4		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	4		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	4	(15)	
MIBK				0	<1.3	<1.0	2.0	4		
Styrene				0	<0.63	<0.50	1.00	4		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	4		
Total Organic Carbon	1.5	1.3	1.7	4	1.7	0.9	2.5	17		
Total Volatile Organics (NonTHM)				0	<1.1	<1.0	1.3	4		
Total Volatile Organics (Unknown)				0	<0.5	<0.5	<0.5	1		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	4		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	4		
Xylene (1,2)				0	<0.6	<0.5	1.0	4		
Xylene (1,4)				0	<0.6	<0.5	1.0	4		

TABLE EXPLANATIONS:

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

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

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

2.2.16 Papaschase 2 Reservoir

August 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	1.0	0.7	1.4	5	(15)	10
Conductivity (uS/cm)	385	385	385	1	397	375	430	5		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	5		
pH (N/A)	7.8	7.8	7.8	4	7.8	7.6	7.9	18	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.15	0.11	0.23	4	0.10	0.05	0.26	35		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.065	0.065	0.065	1	0.062	0.055	0.067	5	2	
Boron	0.013	0.013	0.013	1	0.010	0.008	0.013	5	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved	0.230	0.230	0.230	1	0.200	0.108	0.300	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.044	<0.005	<0.200	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.70	0.66	0.74	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.025	0.020	0.040	4	0.049	<0.010	0.170	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.008	<0.005	0.010	19	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	5	0.05	
Strontium	0.464	0.464	0.464	1	0.448	0.400	0.477	5	7.0	
Total Chlorine	1.85	1.80	1.90	4	1.96	1.73	2.17	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	5	2	

2.2.16 Papaschase 2 Reservoir

August 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	111	111	111	1	117	109	128	5		
Aluminum	0.157	0.157	0.157	1	0.072	0.023	0.157	5	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.21	4	0.18	0.13	0.21	17		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.026	<0.010	<0.050	5		
Calcium	46.4	46.4	46.4	1	47.7	43.0	52.2	5		
Calcium Hardness				0	123	116	130	2		
Calcium Hardness Calculated	116	116	116	1	116	107	124	3		
Chloride Dissolved	6.3	6.3	6.3	1	6.6	5.8	7.2	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0044	0.0044	0.0044	1	0.0038	0.0030	0.0044	5		
Magnesium	14.2	14.2	14.2	1	13.8	12.2	14.8	5		
Molybdenum	0.0010	0.0010	0.0010	1	0.0008	0.0006	0.0010	5		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Ortho_P	0.85	0.80	0.92	8	0.87	0.80	0.92	26		
Phosphorus	0.95	0.95	0.95	1	0.95	0.89	0.98	5		
Potassium	0.80	0.80	0.80	1	0.84	0.70	1.10	5		
Silicon	1.55	1.55	1.55	1	1.95	1.55	2.14	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Sodium	8.7	8.7	8.7	1	11.0	7.0	17.1	5	(200)	
Sulphate Dissolved	71.1	71.1	71.1	1	70.5	59.9	79.4	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	186	177	194	2		
Total Hardness Calculated	174	174	174	1	171	158	181	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		

2.2.16 Papaschase 2 Reservoir

August 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	2.2	2.2	2.2	1	1.4	0.8	2.2	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Chloroform	20.8	20.8	20.8	1	19.5	9.9	26.9	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Total Organic Carbon	1.6	1.4	1.8	4	1.8	1.2	2.6	18		
Total Volatile Organics (NonTHM)	3.8	3.8	3.8	1	2.8	<1.0	5.9	5		
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	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

2.2.17 Rosslyn 1 Reservoir

August 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	1.4	3	(15)	10
Conductivity (uS/cm)				0	402	397	408	3		
Odour				0	Inoff	Inoff	Inoff	3		
pH (N/A)	7.9	7.7	8.1	4	7.8	7.7	8.1	16	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.17	0.12	0.24	4	0.16	0.08	0.53	33		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	3	0.01	
Barium				0	0.059	0.053	0.069	3	2	
Boron				0	0.012	0.010	0.014	3	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	4	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved				0	0.184	0.158	0.204	4	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	4	1	
Chromium				0	<0.0002	<0.0002	<0.0002	3	0.05	
Copper				0	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride				0	0.70	0.66	0.73	3	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese				0	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.023	0.020	0.030	4	0.046	0.020	0.190	17	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	17	1	
Selenium				0	0.0003	0.0002	0.0003	3	0.05	
Strontium				0	0.440	0.426	0.459	3	7.0	
Total Chlorine	1.63	1.55	1.68	4	1.82	1.55	2.07	33	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.7	<0.5	1.0	3	5	
Carbon Tetrachloride				0	<0.7	<0.5	1.0	3	2	
Chlorobenzene				0	<0.67	<0.50	1.00	3	80 (30)	
Dichlorobenzene (1,2)				0	<0.67	<0.50	1.00	3		
Dichlorobenzene (1,4)				0	<0.7	<0.5	1.0	3	5 (1)	
Dichloroethane (1,2)				0	<0.7	<0.5	1.0	3	5	
Dichloroethylene (1,1)				0	<0.7	<0.5	1.0	3	14	
Ethylbenzene				0	<0.67	<0.50	1.00	3	140 (1.6)	
Methylene Chloride				0	<0.7	<0.5	1.0	3	50	
Tetrachloroethylene				0	<0.7	<0.5	1.0	3	10	
Toluene				0	<0.67	<0.50	1.00	3	60 (24)	
Total Xylenes				0	<1	<1	<1	3	90	
Trichloroethylene				0	<0.67	<0.50	1.00	3	5	
Vinyl Chloride				0	<1.3	<1.0	2.0	3	2	

2.2.17 Rosslyn 1 Reservoir

August 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	3		
Aluminum				0	0.049	0.020	0.096	3	2.9	0.1/0.2
Ammonia as NH3	0.22	0.20	0.23	4	0.20	0.14	0.23	14		
Beryllium				0	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved				0	<0.020	<0.010	<0.030	4		
Calcium				0	48.0	45.2	49.8	3		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	118	113	123	2		
Chloride Dissolved				0	6.7	5.8	7.6	4	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	3		
Iron				0	0.009	0.007	0.011	3	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	3		
Lithium				0	0.0036	0.0032	0.0041	3		
Magnesium				0	14.1	13.4	14.6	3		
Molybdenum				0	0.0009	0.0008	0.0010	3		
Nickel				0	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.88	0.86	0.90	8	0.88	0.86	0.90	26		
Phosphorus				0	0.96	0.91	1.00	3		
Potassium				0	1.07	0.80	1.50	3		
Silicon				0	2.13	1.76	2.35	3		
Silver				0	<0.0002	<0.0002	<0.0002	3		
Sodium				0	11.9	10.7	14.4	3	(200)	
Sulphate Dissolved				0	74.0	73.4	74.6	4	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	3		
Tin				0	<0.0005	<0.0005	<0.0005	3		
Titanium				0	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	183	183	183	1		
Total Hardness Calculated				0	175	168	181	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	3		
Zinc				0	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	3		

2.2.17 Rosslyn 1 Reservoir

August 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	3		16
Bromoform				0	<0.7	<0.5	1.0	3		
Chloroform				0	18.7	8.9	33.5	3		
Dibromochloromethane				0	<0.67	<0.50	1.00	3		
Dichlorobenzene (1,3)				0	<0.67	<0.50	1.00	3		
Dichloroethylene, cis (1,2)				0	<0.67	<0.50	1.00	3		
Dichloroethylene, trans (1,2)				0	<0.67	<0.50	1.00	3		
Dichloropropane (1,2)				0	<0.7	<0.5	1.0	3		
Methyl t-Butyl Ether (MTBE)				0	<0.7	<0.5	1.0	3	(15)	
MIBK				0	<1.3	<1.0	2.0	3		
Styrene				0	<0.67	<0.50	1.00	3		
Tetrachloroethane (1,1,2,2)				0	<0.7	<0.5	1.0	3		
Total Organic Carbon	1.6	1.4	1.7	4	1.7	1.0	2.5	16		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	3		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)				0	<0.7	<0.5	1.0	3		
Trichloroethane (1,1,1)				0	<0.7	<0.5	1.0	3		
Xylene (1,2)				0	<0.7	<0.5	1.0	3		
Xylene (1,4)				0	<0.7	<0.5	1.0	3		

TABLE EXPLANATIONS:

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

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

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

2.2.18 Rosslyn 2 Reservoir

August 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	5	(15)	10
Conductivity (uS/cm)	392	392	392	1	396	369	419	5		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	5		
pH (N/A)	7.9	7.7	8.1	4	7.8	7.7	8.1	18	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.10	0.13	4	0.11	0.07	0.18	35		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.067	0.067	0.067	1	0.062	0.054	0.067	5	2	
Boron	0.012	0.012	0.012	1	0.010	0.008	0.012	5	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	5	0.007	
Chlorate Dissolved	0.203	0.203	0.203	1	0.190	0.147	0.206	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	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.68	0.67	0.71	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.025	0.020	0.030	4	0.047	0.020	0.170	18	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	18	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	5	0.05	
Strontium	0.474	0.474	0.474	1	0.452	0.419	0.482	5	7.0	
Total Chlorine	1.42	1.35	1.54	4	1.71	1.34	2.08	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5	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	

2.2.18 Rosslyn 2 Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	119	119	119	1	119	111	127	5		
Aluminum	0.170	0.170	0.170	1	0.067	0.025	0.170	5	2.9	0.1/0.2
Ammonia as NH3	0.25	0.24	0.27	4	0.22	0.17	0.27	16		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.027	<0.010	<0.050	6		
Calcium	48.0	48.0	48.0	1	47.2	44.5	51.0	5		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	120	120	120	1	115	111	120	3		
Chloride Dissolved	6.0	6.0	6.0	1	6.4	5.6	7.4	6	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	0.007	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0042	0.0042	0.0042	1	0.0036	0.0031	0.0042	5		
Magnesium	14.4	14.4	14.4	1	13.9	12.7	14.9	5		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	5		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.86	0.84	0.90	8	0.88	0.84	0.92	26		
Phosphorus	0.96	0.96	0.96	1	0.96	0.90	0.99	5		
Potassium	0.80	0.80	0.80	1	0.84	0.70	1.00	5		
Silicon	1.73	1.73	1.73	1	1.93	1.70	2.14	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Sodium	8.5	8.5	8.5	1	11.3	7.1	16.5	5	(200)	
Sulphate Dissolved	70.7	70.7	70.7	1	71.8	59.4	78.7	6	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	186	178	194	2		
Total Hardness Calculated	179	179	179	1	170	163	179	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		

2.2.18 Rosslyn 2 Reservoir

August 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	1.8	1.8	1.8	1	1.4	1.0	1.9	6		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	6		
Chloroform	23.9	23.9	23.9	1	23.4	14.6	35.3	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	1.5	1.4	1.7	4	1.8	1.3	2.4	18		
Total Volatile Organics (NonTHM)	3.8	3.8	3.8	1	2.1	<1.0	3.8	6		
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	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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

2.2.19 Thorncliff Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.7	0.7	0.7	1	0.8	<0.5	1.1	5	(15)	10
Conductivity (uS/cm)	393	393	393	1	400	368	420	5		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	5		
pH (N/A)	7.8	7.6	7.8	4	7.8	7.6	8.0	18	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.08	0.18	4	0.12	0.05	0.33	36		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.067	0.067	0.067	1	0.062	0.055	0.067	5	2	
Boron	0.012	0.012	0.012	1	0.010	0.008	0.012	5	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved	0.143	0.143	0.143	1	0.110	<0.080	0.143	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.044	<0.005	<0.200	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.65	0.65	0.65	1	0.69	0.64	0.77	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.023	0.010	0.030	4	0.047	<0.010	0.180	19	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	19	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	5	0.05	
Strontium	0.468	0.468	0.468	1	0.446	0.413	0.476	5	7.0	
Total Chlorine	1.54	1.26	2.15	4	1.73	1.26	2.23	36	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5	2	

2.2.19 Thorncliff Reservoir

August 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	116	116	116	1	117	110	129	5		
Aluminum	0.194	0.194	0.194	1	0.079	0.027	0.194	5	2.9	0.1/0.2
Ammonia as NH3	0.22	0.15	0.26	4	0.20	0.15	0.26	17		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.026	<0.010	<0.050	5		
Calcium	47.6	47.6	47.6	1	46.9	43.7	50.4	5		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	119	119	119	1	114	109	119	3		
Chloride Dissolved	6.3	6.3	6.3	1	6.9	6.0	8.1	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0040	0.0040	0.0040	1	0.0034	0.0030	0.0040	5		
Magnesium	14.5	14.5	14.5	1	13.8	12.4	14.7	5		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	5		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.83	0.66	0.92	8	0.88	0.66	0.92	32		
Phosphorus	0.99	0.99	0.99	1	0.98	0.93	1.01	5		
Potassium	0.80	0.80	0.80	1	0.84	0.70	1.00	5		
Silicon	1.72	1.72	1.72	1	1.94	1.72	2.11	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Sodium	9.4	9.4	9.4	1	13.0	7.3	18.3	5	(200)	
Sulphate Dissolved	72.0	72.0	72.0	1	72.7	59.6	79.7	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	182	174	189	2		
Total Hardness Calculated	178	178	178	1	169	160	178	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		

2.2.19 Thorncliff Reservoir

August 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	2.1	2.1	2.1	1	1.4	0.8	2.1	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Chloroform	26.2	26.2	26.2	1	21.6	10.9	31.1	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Total Organic Carbon	1.5	1.5	1.6	4	1.8	1.2	2.3	18		
Total Volatile Organics (NonTHM)	3.7	3.7	3.7	1	2.2	<1.0	3.7	5		
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	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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 Parks (AEP) Operating Approval 638-04-00. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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

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

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

August 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	26.9	20.0	39.4	4		
03-SR				0				0	19.0	19.0	19.0	1		
04-SR	29.4	29.4	29.4	1	25.4	15.8	36.3	4	23.7	14.9	36.3	6		
07-RI				0	13.5	9.7	17.3	2	13.2	9.7	17.3	3		
07-SR				0	13.6	10.7	16.4	2	16.0	10.7	20.9	3		
10-SR				0				0	19.8	19.8	19.8	1		
14-RI				0				0	21.6	21.6	21.6	1		
15-SR				0				0	18.3	11.4	25.2	2		
19-SR				0	40.3	40.3	40.3	1	40.3	40.3	40.3	1		
20-DE				0	37.1	37.1	37.1	1	37.1	37.1	37.1	1		
21-DE				0	16.4	16.4	16.4	1	16.4	16.4	16.4	1		
21-SR				0				0	14.4	13.9	14.9	2		
24-SR				0	14.0	13.3	14.6	2	14.0	13.3	14.6	2		
26-DE				0				0	17.0	15.8	18.1	2		
27-SR				0				0	17.5	17.5	17.5	1		
30-SR	30.6	30.6	30.6	1	23.2	8.6	37.0	4	23.2	8.6	37.0	4		
31-DE	33.5	33.5	33.5	1	20.8	13.0	33.5	3	20.5	13.0	33.5	5		
31-RI	34.0	34.0	34.0	1	25.8	15.8	34.0	4	25.6	15.8	34.0	5		
32-SR	29.4	29.4	29.4	1	20.7	12.0	29.4	2	22.0	12.0	29.4	4		
36-DE				0				0	24.2	24.2	24.2	1		
37-SR				0	34.3	34.3	34.3	1	34.3	34.3	34.3	1		
40-SR	28.9	28.9	28.9	1	19.9	9.1	32.2	5	19.6	9.1	32.2	7		
41-SR				0	9.6	9.6	9.6	1	9.6	9.6	9.6	1		
7-RI	30.7	30.7	30.7	1	30.7	30.7	30.7	1	30.7	30.7	30.7	1		
EDMONTON S4				0	24.1	13.0	35.1	2	24.1	13.0	35.1	2		
	Total Count			7				40				64		

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

August 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	19.8	13.9	32.7	8	19.8	13.9	32.7	8		
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	28.0	19.8	41.1	4		
03-SR				0				0	19.6	19.6	19.6	1		
04-SR	29.5	29.5	29.5	1	26.3	19.1	36.2	4	24.7	19.1	36.2	6		
07-RI				0	16.6	14.2	19.0	2	16.2	14.2	19.0	3		
07-SR				0	15.0	12.9	17.0	2	18.1	12.9	24.5	3		
10-SR				0				0	21.5	21.5	21.5	1		
14-RI				0				0	22.5	22.5	22.5	1		
15-SR				0				0	18.9	14.2	23.5	2		
19-SR				0	49.3	49.3	49.3	1	49.3	49.3	49.3	1		
20-DE				0	29.3	29.3	29.3	1	29.3	29.3	29.3	1		
21-DE				0	16.3	16.3	16.3	1	16.3	16.3	16.3	1		
21-SR				0				0	19.0	16.8	21.1	2		
24-SR				0	17.3	14.0	20.5	2	17.3	14.0	20.5	2		
26-DE				0				0	19.7	17.7	21.7	2		
27-SR				0				0	18.0	18.0	18.0	1		
30-SR	33.1	33.1	33.1	1	23.0	11.3	33.1	4	23.0	11.3	33.1	4		
31-DE				0	17.6	14.7	20.5	2	18.2	13.4	24.0	4		
31-RI	34.8	34.8	34.8	1	23.7	14.0	34.8	4	23.9	14.0	34.8	5		
32-SR	37.4	37.4	37.4	1	27.9	18.4	37.4	2	26.9	18.4	37.4	4		
36-DE				0				0	23.8	23.8	23.8	1		
37-SR				0	27.3	27.3	27.3	1	27.3	27.3	27.3	1		
40-SR	29.5	29.5	29.5	1	19.8	12.0	29.5	5	20.8	12.0	29.5	7		
41-SR				0	12.6	12.6	12.6	1	12.6	12.6	12.6	1		
7-RI	24.8	24.8	24.8	1	24.8	24.8	24.8	1	24.8	24.8	24.8	1		
EDMONTON S4				0	32.7	15.7	49.6	2	32.7	15.7	49.6	2		
	Total Count			6				47				71		

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

August 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	<0.002	<0.001	<0.004	5	<0.002	<0.001	<0.004	5		
03-SR				0				0	0.002	0.002	0.002	1		
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		
15-SR				0				0	0.002	0.002	0.002	1		
20-DE				0	<0.003	<0.003	<0.003	1	<0.003	<0.003	<0.003	1		
20-OF				0				0	<0.002	<0.002	<0.002	1		
21-DE				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
21-SR				0				0	<0.001	<0.001	<0.001	1		
24-SR				0	<0.002	<0.001	<0.002	2	<0.002	<0.001	<0.002	2		
26-DE				0				0	<0.002	<0.001	<0.002	2		
30-SR	<0.005	<0.005	<0.005	1	<0.004	<0.003	<0.005	2	<0.004	<0.003	<0.005	2		
31-DE				0	<0.006	<0.006	<0.006	1	<0.006	<0.002	0.011	3		
31-RI	<0.005	<0.005	<0.005	1	<0.005	<0.003	0.007	3	<0.005	<0.003	0.007	3		
32-SR				0				0	0.002	0.002	0.002	1		
36-DE				0				0	0.002	0.002	0.002	1		
40-SR				0	<0.004	<0.002	<0.006	3	<0.003	<0.002	<0.006	5		
7-RI	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
EDMONTON S4				0	<0.001	<0.001	<0.002	2	<0.001	<0.001	<0.002	2		
		Total Count		3				24				36		

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

August 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	21.3	7.8	36.2	3	19.9	7.8	36.2	5		
Clareview Reservoir	25.4	25.4	25.4	1	25.1	15.4	36.9	5	25.7	15.4	36.9	7		
Discovery Park Reservoir	25.3	25.3	25.3	1	25.0	13.1	39.7	6	25.2	13.1	39.7	8		
Kaskitayo Reservoir				0	22.2	10.8	33.4	4	23.2	10.8	33.4	6		
Londonderry Reservoir				0	20.2	9.8	34.7	3	20.5	9.8	34.7	5		
Millwoods Reservoir	22.4	22.4	22.4	1	17.8	7.8	38.3	5	18.3	7.8	38.3	7		
North Jasper Place Reservoir	28.6	28.6	28.6	1	24.4	14.0	37.9	5	25.9	14.0	37.9	7		
Ormsby Reservoir				0	16.9	7.7	39.0	4	17.8	7.7	39.0	6		
Papaschase Reservoir 1				0	17.5	8.8	35.4	4	19.1	8.8	35.4	7		
Papaschase Reservoir 2	23.2	23.2	23.2	1	21.2	11.0	28.8	5	22.8	11.0	33.1	7		
Rosslyn Reservoir 1				0	19.8	10.0	33.8	3	20.6	10.0	33.8	5		
Rosslyn Reservoir 2	26.0	26.0	26.0	1	25.2	16.1	37.5	6	26.2	16.1	37.5	9		
Thorncliff Reservoir	28.5	28.5	28.5	1	23.2	12.2	32.9	5	24.3	12.2	32.9	7		
		Total Count		7				58				86		

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

August 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	20.0	12.5	40.7	8	20.0	12.5	40.7	8		
		Total Count		0				8				8		

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

August 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	3	<0.2	<0.2	<0.2	3
Physical																
Colour (TCU)	8.1	4.0	15.6	31	8.2	4.2	16.7	31	10.2	4.0	43.8	241	10.4	4.2	43.6	243
Conductivity (uS/cm)	355	345	366	4	350	344	356	4	361	311	415	35	355	311	416	35
FPA-Intensity (N/A)	0.41	0.31	0.56	5	0.46	0.38	0.56	5	0.81	0.25	2.38	45	0.85	0.38	2.25	45
pH (N/A)	8.4	8.4	8.4	1	8.4	8.4	8.4	1	8.2	8.1	8.4	8	8.3	8.1	8.4	8
Total Dissolved Solids (mg/L)	224	224	224	1	216	216	216	1	210	186	231	8	210	184	240	8
Total Suspended Solids	10.4	10.4	10.4	1	10.4	10.4	10.4	1	18.1	<2.5	53.7	8	34.4	<2.5	154.0	8
Turbidity (NTU)	8	1	38	31	10	2	41	31	11	1	367	241	14	1	257	243
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	8	<0.0004	<0.0002	<0.0005	8
Arsenic	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.0005	0.0002	0.0011	8	0.0007	0.0002	0.0022	8
Barium	0.077	0.077	0.077	1	0.076	0.076	0.076	1	0.078	0.058	0.125	8	0.086	0.057	0.180	8
Boron	0.014	0.014	0.014	1	0.015	0.015	0.015	1	0.012	0.009	0.018	8	0.012	0.008	0.022	8
Cadmium^				0				0	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Cadmium^^	<0.00002	<0.00002	<0.00002	1	<0.00002	<0.00002	<0.00002	1	0.00003	<0.00002	0.00004	5	0.00004	<0.00002	0.00008	5
Chromium	0.0011	0.0011	0.0011	1	0.0011	0.0011	0.0011	1	0.0014	<0.0002	0.0053	8	0.0021	<0.0002	0.0099	8
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.004	<0.002	0.005	8	<0.004	<0.002	0.006	8
Fluoride	0.12	0.11	0.13	4	0.12	0.11	0.12	4	0.11	0.08	0.14	35	0.11	0.08	0.13	35
Lead	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0005	<0.0002	0.0013	8	0.0007	<0.0002	0.0027	8
Manganese	0.010	0.010	0.010	1	0.011	0.011	0.011	1	0.016	<0.002	0.050	8	0.023	0.003	0.080	8
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0011	<0.0001	<0.0050	11	<0.0011	<0.0001	<0.0050	11
Nitrate (as N) Dissolved	0.01	<0.01	0.02	4	<0.01	<0.01	<0.01	4	0.06	<0.01	0.19	35	0.05	<0.01	0.18	35
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.009	<0.005	<0.010	35	<0.009	<0.005	<0.010	35
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	8	0.0003	<0.0002	0.0005	8
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	8	<0.03	<0.03	<0.03	8
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	0.0006	<0.0005	0.0007	8	<0.0006	<0.0005	0.0008	8

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

August 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	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3
Atrazine				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Benzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3
Bromoxynil				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3
Carbon Tetrachloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243
Chlorobenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Cyanazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Diazinon				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
Dicamba				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dichloroethane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	241	<0.5	<0.5	<0.5	242
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<3.0	242	<0.5	<0.5	<3.0	243
Dichlorophenol (2,4)				0				0	<0.2	<0.2	<0.3	3	<0.2	<0.2	<0.3	3
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Dimethoate				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Diuron				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Ethylbenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Glyphosate				0				0	<0.3	<0.2	<0.5	3	<0.3	<0.2	<0.5	3
Malathion				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
MCPA				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3
Methylene Chloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Metolachlor				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
Metribuzin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
NDMA (µg/L)				0				0	<0.0009	<0.0009	<0.0009	1	<0.00099	<0.00099	<0.00099	1
Nitrilotriacetic acid	<0.40	<0.40	<0.40	1	<0.40	<0.40	<0.40	1	<0.40	<0.40	<0.40	3	<0.40	<0.40	<0.40	3
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3
Perfluorooctanoic acid (PFOA)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3
Phorate				0				0	<0.25	<0.25	<0.25	3	<0.25	<0.25	<0.25	3
Picloram				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3
Simazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Terbufos				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3
Tetrachloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Toluene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.7	242	<0.5	<0.5	2.9	243
Total Xylenes	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1.0	30	<1.0	<1.0	<2.5	242	<1.0	<1.0	<2.5	243
Trichloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Trifluralin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3

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

August 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) **																
Trihalomethanes	<1.0	<1.0	1.1	31	<1	<1	<1	30	<1.0	<1.0	1.1	242	<1	<1	1	243
Vinyl Chloride	<1	<1	<1	31	<1	<1	<1	30	<1	<1	<1	241	<1	<1	<1	242
Radionuclides (Bq/L)																
Cesium-137				0				0	<0.2	<0.2	<0.2	1	<0.1	<0.1	<0.1	1
Gross Alpha				0				0	<0.14	<0.14	<0.14	1	<0.15	<0.15	<0.15	1
Gross Beta				0				0	0.07	0.07	0.07	1	<0.07	<0.07	<0.07	1
Iodine-131				0				0	<0.3	<0.3	<0.3	1	<0.2	<0.2	<0.2	1
Lead-210				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Radium-226				0				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1
Strontium-90				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Tritium				0				0	<40	<40	<40	1	<40	<40	<40	1

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

August 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	130	4	125	123	127	4	129	117	149	35	129	112	152	35
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	8	<3	<3	<3	8
Aluminum	0.747	0.747	0.747	1	0.661	0.661	0.661	1	1.060	0.108	4.200	8	1.512	0.078	7.370	8
Ammonia as NH3	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4	<0.05	<0.05	0.09	46	<0.06	<0.05	0.14	46
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	0.0002	8
Calcium Hardness	113	112	114	3	113	112	114	3	117	102	138	31	116	99	140	31
Calcium Hardness Calculated	115	115	115	1	115	115	115	1	120	115	127	4	124	114	147	4
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.0004	<0.0002	0.0008	8	0.0005	<0.0002	0.0018	8
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	8	<0.07	<0.07	<0.07	8
Iron	0.411	0.411	0.411	1	0.429	0.429	0.429	1	0.705	0.051	2.110	8	1.085	0.075	4.850	8
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.001	8	<0.001	<0.001	0.003	8
Lithium	0.0050	0.0050	0.0050	1	0.0050	0.0050	0.0050	1	0.0046	0.0033	0.0076	8	0.0049	0.0033	0.0104	8
Magnesium	13.9	13.9	13.9	1	13.9	13.9	13.9	1	14.1	13.3	15.4	8	14.4	13.2	16.6	8
Molybdenum	0.0009	0.0009	0.0009	1	0.0009	0.0009	0.0009	1	0.0009	0.0007	0.0010	8	0.0009	0.0008	0.0011	8
Nickel	0.0010	0.0010	0.0010	1	0.0011	0.0011	0.0011	1	0.0015	0.0005	0.0034	8	0.0019	<0.0005	0.0066	8
Ortho_P	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	7	<0.02	<0.02	<0.02	7
Orthophosphate, total				0				0	0.03	<0.02	0.04	2	0.03	<0.02	0.04	2
Phosphorus	0.03	0.03	0.03	1	0.03	0.03	0.03	1	0.04	<0.02	0.09	8	0.05	<0.02	0.15	8
Potassium	1.0	1.0	1.0	1	0.9	0.9	0.9	1	1.2	0.7	2.2	8	1.3	0.7	3.2	8
Silicon	3.32	3.32	3.32	1	3.24	3.24	3.24	1	4.06	1.99	11.20	8	5.12	1.74	18.10	8
Silver^				0				0	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Silver^^	<0.00002	<0.00002	<0.00002	1	<0.00002	<0.00002	<0.00002	1	<0.00002	<0.00002	<0.00002	5	<0.00002	<0.00002	0.00003	5
Sodium	4.5	4.5	4.5	1	4.3	4.3	4.3	1	5.0	3.8	7.0	8	4.4	3.8	5.1	8
Strontium	0.436	0.436	0.436	1	0.431	0.431	0.431	1	0.449	0.419	0.499	8	0.450	0.418	0.504	8
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	8	<0.0003	<0.0002	<0.0005	8
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	8	<0.0005	<0.0005	<0.0005	8
Titanium	0.0229	0.0229	0.0229	1	0.0188	0.0188	0.0188	1	0.0283	0.0015	0.1140	8	0.0420	0.0017	0.2010	8
Total Hardness (mg/L CaCO3)	170	168	173	3	172	170	174	3	177	153	211	31	176	155	203	31
Total Hardness Calculated	172	172	172	1	173	173	173	1	176	170	187	4	184	169	216	4
Total Kjeldahl Nitrogen	0.2	0.2	0.2	1	0.1	0.1	0.1	1	0.2	0.1	0.4	7	0.2	<0.1	0.5	7
Total Kjeldahl Nitrogen (TKN)				0				0	0.3	<0.1	1.0	27	0.6	<0.1	9.4	28
Vanadium	0.0022	0.0022	0.0022	1	0.0020	0.0020	0.0020	1	0.0027	<0.0005	0.0106	8	0.0040	<0.0005	0.0198	8
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.006	<0.005	0.011	8	0.007	<0.005	0.020	8
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.003	8	0.002	<0.001	0.005	8

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

August 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) ***																
Aldicarb				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Aldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Bromodichloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Bromoform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243
Carbaryl				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Carbofuran				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
Chloroform	<0.5	<0.5	0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.5	242	<0.5	<0.5	<0.5	243
Dibromochloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dichloropropane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Dieldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
MIBK	<1	<1	<1	31	<1	<1	<1	30	<1	<1	<1	242	<1	<1	<1	243
Parathion				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1
Perfluorobutanoic acid (PFBA)				0				0	<0.83	<0.02	<2.00	5	<0.83	<0.02	<2.00	5
Perfluorodecanoic Acid (PFDA)				0				0	<2	<2	<2	2	<2	<2	<2	2
Perfluorododecanoic Acid (PFDoA)				0				0	<2	<2	<2	2	<2	<2	<2	2
Perfluoroheptanoic Acid (PFHpA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3
Perfluorohexanoic acid (PFHxA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluorononanoic acid (PFNA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluoropentanoic Acid (PFPeA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluoroundecanoic Acid (PFUnA)				0				0	<2	<2	<2	2	<2	<2	<2	2
Styrene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	242	<0.5	<0.5	<1.0	243
Total Organic Carbon	2.4	1.6	3.3	4	2.5	1.6	3.2	4	2.6	1.1	5.4	35	2.6	1.2	5.9	35
Total Volatile Organics (NonTHM)	2.7	1.7	4.1	31	2.8	1.9	4.0	30	1.9	<1.0	6.2	242	1.9	<1.0	6.1	243
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	3	<0.1	<0.1	<0.1	3
Trichloroacetic acid				0				0	<1	<1	<1	1	<1	<1	<1	1
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Xylene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	242	<0.5	<0.5	<0.5	243
Xylene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	242	<0.5	<0.5	0.9	243

Table Explanations:

^: Data from January 1 until March 31

^^: Data from April 1 onwards

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

(Lab Neutralization Tank in Water Excellence Lab Building)

Date	pH**
07-Aug-2024	7.25
15-Aug-2024	7.8
19-Aug-2024	7.84
30-Aug-2024	7.91

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

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Ammonia as N	0.05	mg/L
Ammonia as NH3	0.05	mg/L
Benzene	0.5	µg/L
Bromodichloromethane	0.5	µg/L
Bromoform	0.5	µg/L
Carbon Tetrachloride	0.5	µg/L
Cellular ATP	0.1	pg/mL
Chlorobenzene	0.5	µg/L
Chloroform	0.5	µg/L
Coliforms, total	1	PA/100mL
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
Methyl t-Butyl Ether (MTBE)	0.5	µg/L
Methylene Chloride	0.5	µg/L
MIBK	1.0	µg/L
Nitrate (as N) Dissolved	0.01	mg/L
Nitrite (as N) Dissolved	0.01	mg/L
Ortho_P	0.02	mg/L as P
Orthophosphate, total	0.02	mg/L as P
Run1	10	RLU
Run2	10	RLU
Run3	10	RLU
Styrene	0.5	µg/L
Tetrachloroethane (1,1,2,2)	0.5	µg/L
Tetrachloroethylene	0.5	µg/L
Toluene	0.5	µg/L
Total Organic Carbon	0.6	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
Vinyl Chloride	1.0	µg/L
Xylene (1,2)	0.5	µg/L
Xylene (1,4)	0.5	µg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Contract Lab Analysis		
Bromochloroacetic acid	1.00	ug/L
Dibromoacetic acid	1.00	ug/L
Dichloroacetic acid	1.00	ug/L
Haloacetic Acids, total (HAA5)	5.00	ug/L
Microcystin	0.20	µg/L
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00450	µg/L
Nitrilotriacetic acid	0.40	mg/L
Total Organic Carbon	0.5	mg/L
Trichloroacetic acid	1.00	ug/L

2.2.24 EXPLANATION OF NOTATIONS USED

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

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