EDMONTON WATERWORKS
MONTHLY REPORT

June 2024

PROVIDING MORE EPCOR

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1.1.1 Operations – Rossdale and E.L. Smith Plants

Plant Bypasses

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

In June, Rossdale Plant had no planned shutdowns and no unplanned bypasses.

Date	Type	Bypass Description

In June, E.L. Smith Plant had one planned shutdown and no unplanned bypasses.

Date	Type	Bypass Description
June 25	Planned	8 hours shutdown for capital work and maintenance works.

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

Chemical Dosing Highlights

In June, 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

nENV-1.1.2 EDMONTON INCIDENT REPORT SUMMARY – June 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20240616-499912-v1	About 172 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.	June 16, 2024	429217

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)

June 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	60	106	166	280	446
2	60	114	174	280	454
3	60	120	180	294	474
4	60	120	180	276	456
5	60	120	180	286	466
6	60	120	180	301	481
7	60	120	180	301	481
8	60	103	163	277	440
9	60	85	145	260	406
10	60	100	160	277	437
11	60	109	169	295	463
12	60	114	174	295	469
13	60	100	160	280	440
14	60	109	169	280	449
15	60	110	170	281	451
16	60	100	160	270	430
17	60	100	160	280	440
18	60	112	172	280	453
19	60	120	180	294	474
20	64	121	185	301	486
21	75	125	200	300	500
22	88	125	213	305	517
23	95	125	220	304	524
24	95	125	220	314	534
25	95	124	219	226	444
26	89	106	195	311	506
27	81	102	183	294	477
28	80	100	180	281	461
29	80	100	180	268	448
30	80	100	180	273	453
Monthly Total	2,061	3,336	5,397	8,562	13,959
Monthly Min	60	85	145	226	
Monthly Max	95	125	220	314	
Monthly Avg	69	111	180	285	465

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

June 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	99	203	149	232	267	250	398	74.2
2	86	206	159	200	294	246	405	70.3
3	131	205	164	203	295	253	416	67.3
4	84	210	165	202	296	234	399	73.8
5	129	209	167	202	298	244	410	69.3
6	51	210	164	200	296	257	421	70.9
7	83	209	167	203	297	258	425	72.0
8	63	208	150	200	295	237	387	75.4
9	74	208	133	198	295	224	357	77.2
10	96	209	147	200	295	240	387	71.9
11	60	208	155	203	296	252	407	67.9
12	70	210	162	240	293	259	421	69.1
13	75	208	147	201	295	242	389	71.1
14	81	210	156	203	296	242	399	68.3
15	123	207	157	198	291	240	396	72.5
16	55	207	147	199	293	235	382	73.0
17	51	210	147	199	296	238	385	71.3
18	73	210	158	195	299	239	397	67.9
19	65	209	167	203	300	251	418	67.8
20	86	280	173	198	298	257	430	66.1
21	87	280	189	203	293	253	442	65.8
22	87	274	201	207	296	256	457	64.3
23	93	297	207	205	299	254	462	68.7
24	100	298	209	202	296	262	471	69.3
25	149	256	206	0.0	281	164	370	76.5
26	88	275	181	168	298	268	449	67.3
27	8.9	272	170	202	278	250	420	71.4
28	99	276	168	202	299	245	413	74.7
29	92	210	168	203	296	229	398	74.5
30	54	209	169	200	294	241	410	72.9
Monthly Tota			5,001			7,320	12,321	
Monthly Min	8.9			0.0				
Monthly Max		298			300			
Monthly Avg			167			244	411	

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

June 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	25	32	29	8.3	8.3	8.3	18.4	19.7	19.2		25	27	26	8.3	8.3	8.3	19.0	21.0	19.7	
2	25	31	27	8.3	8.3	8.3	18.4	21.3	19.5		23	27	25	8.3	8.3	8.3	19.0	21.4	20.7	
3	17	31	22	8.3	8.3	8.3	16.9	20.2	19.1		17	26	19	8.3	8.3	8.3	16.7	20.2	18.5	
4	13	31	20	8.3	8.3	8.3	14.9	17.3	16.4		13	18	16	8.3	8.3	8.3	15.6	17.4	16.5	
5	7.1	17	14	8.3	8.4	8.3	14.4	15.9	15.3		9.4	15	12	8.3	8.4	8.3	14.6	15.7	15.3	
6	7.1	15	12	8.4	8.4	8.4	14.1	14.6	14.4		11	13	12	8.3	8.4	8.3	14.6	15.3	15.0	
7	7.8	16	13	8.4	8.4	8.4	13.5	14.1	13.8		9.1	13	10	8.3	8.4	8.4	13.5	15.3	14.5	
8	9.2	11	11	8.4	8.4	8.4	12.4	13.8	12.9		8.0	9.8	9.2	8.3	8.4	8.3	12.8	13.5	13.2	
9	5.9	12	9.5	8.4	8.4	8.4	12.5	13.0	12.7		8.0	11	9.4	8.3	8.4	8.3	12.5	13.7	13.2	
10	9.7	14	11	8.4	8.4	8.4	12.1	13.0	12.5		7.8	11	8.7	8.3	8.4	8.4	12.5	13.2	12.9	
11	9.7	13	11	8.3	8.4	8.4	10.8	12.9	11.7		7.1	9.2	8.3	8.3	8.4	8.4	10.6	12.6	11.3	
12	9.1	20	11	8.4	8.4	8.4	10.0	12.9	10.4		8.0	9.1	8.6	8.3	8.4	8.3	10.1	10.6	10.3	
13	4.0	9.3	8.4	8.4	8.4	8.4	8.7	10.2	9.6		7.6	9.1	8.5	8.3	8.4	8.4	8.9	10.1	9.4	
14	4.0	8.5	6.0	8.4	8.4	8.4	8.6	9.1	8.9		6.5	8.8	7.4	8.4	8.5	8.4	8.0	9.8	8.7	
15	8.1	14	9.8	8.4	8.4	8.4	7.9	8.7	8.2		7.5	16	11	8.4	8.5	8.4	8.2	8.9	8.5	
16	14	18	16	8.4	8.4	8.4	8.4	8.6	8.5		9.7	15	15	8.4	8.5	8.4	8.5	9.6	9.1	
17	14	18	16	8.4	8.5	8.4	8.0	9.3	8.5		8.7	11	10	8.4	8.4	8.4	8.4	9.1	8.6	
18	10	14	13	8.4	8.5	8.4	7.6	8.9	8.2		7.6	8.7	8.4	8.4	8.4	8.4	7.9	9.0	8.3	
19	8.5	13	12	8.4	8.5	8.4	7.6	7.8	7.7		7.6	9.1	8.4	8.4	8.4	8.4	8.0	8.8	8.3	
20	8.1	12	11	8.4	8.5	8.4	7.5	8.9	8.4		6.5	7.7	7.1	8.3	8.4	8.4	7.7	8.8	8.1	
21	8.1	11	9.8	8.4	8.5	8.4	7.5	8.2	8.0		5.4	6.5	6.0	8.4	8.5	8.4	8.1	8.3	8.2	
22	3.8	11	7.1	8.4	8.5	8.5	7.6	7.8	7.7		5.8	7.2	6.5	8.4	8.5	8.4	7.9	8.6	8.3	
23	4.3	10	8.9	8.4	8.5	8.5	7.6	10.0	8.5		5.3	6.6	5.9	8.3	8.5	8.4	7.9	8.6	8.1	
24	8.2	10	8.8	8.4	8.5	8.4	7.8	8.6	8.0		5.1	7.4	6.2	8.3	8.5	8.3	7.8	8.3	8.0	
25	5.0	9.5	7.0	8.4	8.5	8.5	7.4	8.0	7.6		4.7	12	5.7	8.4	8.5	8.4	7.8	8.5	8.2	
26	3.7	5.1	4.4	8.4	8.5	8.5	7.7	8.0	7.8		8.2	12	10	8.4	8.5	8.5	7.3	7.8	7.5	
27	3.7	8.8	6.3	8.4	8.5	8.5	7.0	8.0	7.5		8.2	13	10	8.3	8.4	8.4	7.0	7.7	7.4	
28	8.8	13	11	8.4	8.5	8.4	7.4	8.0	7.7		9.3	15	13	8.3	8.5	8.3	6.7	8.3	7.7	
29	6.5	12	9.4	8.4	8.5	8.4	7.1	8.1	7.3		8.9	11	9.4	8.4	8.5	8.4	6.7	7.3	7.0	
30	6.3	17	8.3	8.3	8.5	8.4	6.3	8.1	7.1		9.5	40	19	8.4	8.5	8.4	6.1	7.4	6.5	
Monthly Min/Max/Avg	3.7	32	12	8.3	8.5	8.4	6.3	21.3	10.8		4.7	40	11	8.3	8.5	8.4	6.1	21.4	10.9	

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

June 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	0.06	0.04	2.01	2.26	2.12	7.7	7.9	7.8	0.66	0.68	0.67	164	1.0	0.06	0.06	0.06	2.05	2.12	2.09	7.7	7.7	7.7	0.70	0.72	0.72	169	1.4
2	0.03	0.06	0.04	2.11	2.26	2.18	7.7	7.7	7.7	0.67	0.68	0.68	166	1.0	0.06	0.07	0.06	2.08	2.12	2.11	7.7	7.7	7.7	0.71	0.72	0.72	171	1.4
3	0.04	0.07	0.05	2.13	2.36	2.17	7.7	7.7	7.7	0.67	0.68	0.68	174	1.2	0.06	0.06	0.06	2.08	2.13	2.11	7.7	7.8	7.7	0.72	0.72	0.72	178	1.4
4	0.03	0.07	0.05	1.96	2.26	2.13	7.6	7.8	7.7	0.65	0.68	0.66		0.9	0.06	0.06	0.06	2.08	2.22	2.16	7.7	7.8	7.8	0.72	0.74	0.73		1.5
5	0.03	0.06	0.04	2.06	2.32	2.21	7.8	7.9	7.9	0.67	0.69	0.67	172	0.8	0.06	0.06	0.06	2.08	2.19	2.13	7.8	7.8	7.8	0.74	0.76	0.75	171	1.4
6	0.04	0.06	0.05	2.01	2.26	2.11	7.8	7.9	7.9	0.69	0.71	0.70	174	0.9	0.06	0.06	0.06	2.08	2.16	2.12	7.8	7.8	7.8	0.74	0.76	0.76	175	1.3
7	0.03	0.06	0.04	2.11	2.32	2.22	7.6	7.8	7.7	0.69	0.71	0.70	173	0.8	0.06	0.06	0.06	2.12	2.18	2.16	7.7	7.8	7.8	0.74	0.76	0.76	179	1.4
8	0.03	0.07	0.04	2.01	2.32	2.15	7.7	7.8	7.7	0.68	0.69	0.69	177	0.8	0.06	0.06	0.06	2.13	2.18	2.16	7.7	7.7	7.7	0.74	0.76	0.75	178	1.4
9	0.03	0.06	0.04	2.01	2.32	2.14	7.8	7.8	7.8	0.67	0.68	0.68	178	0.9	0.06	0.06	0.06	2.14	2.21	2.18	7.7	7.7	7.7	0.74	0.76	0.75	178	1.4
10	0.03	0.06	0.04	2.11	2.36	2.20	7.8	7.8	7.8	0.67	0.69	0.68	179	1.0	0.06	0.06	0.06	2.13	2.20	2.17	7.7	7.7	7.7	0.74	0.76	0.75	178	1.4
11	0.03	0.06	0.04	2.06	2.26	2.13	7.7	7.8	7.8	0.68	0.70	0.69	181	1.1	0.06	0.09	0.06	2.13	2.20	2.17	7.7	7.8	7.7	0.74	0.76	0.75	181	1.6
12	0.03	0.06	0.04	2.11	2.32	2.18	7.7	7.7	7.7	0.69	0.70	0.69	180	0.7	0.06	0.06	0.06	2.13	2.21	2.17	7.7	7.8	7.8	0.74	0.76	0.76	176	1.3
13	0.03	0.06	0.04	2.11	2.32	2.20	7.7	7.8	7.8	0.69	0.71	0.70	174	0.5	0.06	0.06	0.06	2.11	2.22	2.16	7.7	7.8	7.8	0.74	0.76	0.75	177	1.3
14	0.03	0.06	0.04	2.11	2.32	2.20	7.8	7.8	7.8	0.70	0.72	0.71	182	0.5	0.06	0.06	0.06	2.12	2.18	2.14	7.8	7.8	7.8	0.75	0.76	0.76	181	1.2
15	0.03	0.06	0.04	2.11	2.36	2.22	7.7	7.8	7.8	0.70	0.72	0.71	185	0.5	0.06	0.06	0.06	2.12	2.21	2.15	7.8	7.8	7.8	0.74	0.76	0.76	185	1.1
16	0.04	0.07	0.05	2.16	2.36	2.21	7.8	7.8	7.8	0.69	0.70	0.70	183	0.6	0.06	0.06	0.06	2.10	2.18	2.14	7.7	7.8	7.7	0.74	0.75	0.75	187	1.2
17	0.04	0.06	0.04	2.16	2.36	2.24	7.7	7.8	7.7	0.68	0.69	0.68	182	0.5	0.06	0.06	0.06	2.13	2.19	2.16	7.7	7.7	7.7	0.74	0.74	0.74	182	1.2
18	0.03	0.06	0.04	2.16	2.26	2.23	7.7	7.8	7.8	0.67	0.69	0.68	185	0.4	0.06	0.06	0.06	2.13	2.20	2.17	7.7	7.7	7.7	0.73	0.75	0.74	185	1.0
19	0.03	0.06	0.04	2.11	2.32	2.16	7.7	7.8	7.7	0.67	0.67	0.67	186	0.6	0.06	0.06	0.06	2.13	2.20	2.17	7.7	7.8	7.8	0.74	0.75	0.74	185	1.1
20	0.03	0.05	0.04	2.11	2.26	2.19	7.7	7.7	7.7	0.67	0.67	0.67	185	0.7	0.06	0.06	0.06	2.10	2.22	2.16	7.8	7.8	7.8	0.74	0.75	0.75	186	1.0
21	0.03	0.05	0.04	2.11	2.21	2.15	7.7	7.7	7.7	0.67	0.68	0.68	189	0.7	0.06	0.06	0.06	2.08	2.18	2.15	7.8	7.8	7.8	0.74	0.75	0.75	187	1.0
22	0.03	0.06	0.04	2.01	2.36	2.23	7.7	7.7	7.7	0.67	0.68	0.68	187	0.6	0.06	0.06	0.06	2.04	2.14	2.11	7.8	7.8	7.8	0.75	0.76	0.76	189	1.1
23	0.03	0.06	0.04	1.96	2.22	2.10	7.7	7.7	7.7	0.68	0.69	0.68	190	0.8	0.06	0.06	0.06	2.03	2.10	2.06	7.8	7.9	7.9	0.76	0.76	0.76	191	1.5
24	0.03	0.06	0.04	2.11	2.26	2.19	7.7	7.7	7.7	0.67	0.69	0.68	189	0.7	0.06	0.06	0.06	2.04	2.10	2.08	7.9	7.9	7.9	0.76	0.76	0.76	184	1.2
25	0.03	0.06	0.04	2.16	2.32	2.22	7.7	7.7	7.7	0.67	0.69	0.68	189	0.4	0.06	0.07	0.07	1.98	2.12	2.07	7.8	7.9	7.9	0.62	0.66	0.64	188	0.9
26	0.04	0.07	0.05	2.21	2.32	2.26	7.7	7.7	7.7	0.66	0.67	0.67	189	0.5	0.06	0.06	0.06	1.98	2.11	2.06	7.8	7.8	7.8	0.74	0.76	0.76	190	0.7
27	0.04	0.06	0.05	2.16	2.23	2.19	7.7	7.8	7.7	0.66	0.67	0.67	189	0.8	0.06	0.06	0.06	2.08	2.14	2.11	7.8	7.8	7.8	0.75	0.76	0.76	189	0.9
28	0.03	0.08	0.05	2.16	2.26	2.23	7.7	7.8	7.7	0.65	0.66	0.65	189	0.6	0.06	0.06	0.06	2.08	2.18	2.14	7.8	7.8	7.8	0.74	0.76	0.75	188	1.1
29	0.04	0.06	0.04	2.16	2.26	2.21	7.7	7.7	7.7	0.65	0.66	0.65	181	0.7	0.06	0.06	0.06	2.08	2.12	2.11	7.8	7.8	7.8	0.76	0.78	0.77	183	1.1
30	0.04	0.06	0.04	2.11	2.26	2.18	7.7	7.8	7.8	0.66	0.67	0.66	184	0.5	0.06	0.06	0.06	1.98	2.08	2.04	7.8	7.9	7.9	0.77	0.79	0.78	184	1.1
Monthly Min/Max/ Avg	0.03	0.08	0.04	1.96	2.36	2.19	7.6	7.9	7.7	0.65	0.72	0.68	181	0.7	0.06	0.09	0.06	1.98	2.22	2.13	7.7	7.9	7.8	0.62	0.79	0.75	182	1.2

NOTES: ' -- ' indicates plant offline

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

Date	Temperature (°C)			pH			Hourly Flow (ML per day)		
	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1-Jun	13.8	13.8	13.8	7.7	7.9	7.8	140	159	150
2-Jun	14.2	14.2	14.2	7.7	7.7	7.7	148	167	161
3-Jun	14.9	14.9	14.9	7.7	7.7	7.7	170	188	178
4-Jun	14.5	14.5	14.5	7.6	7.8	7.7	131	154	147
5-Jun	15.3	15.3	15.3	7.8	7.9	7.9	174	195	184
6-Jun	16.0	16.0	16.0	7.8	7.9	7.9	139	165	151
7-Jun	15.9	15.9	15.9	7.6	7.8	7.7	153	176	166
8-Jun	15.9	15.9	15.9	7.7	7.8	7.7	140	161	150
9-Jun	15.0	15.0	15.1	7.8	7.8	7.8	125	145	137
10-Jun	14.3	14.3	14.4	7.8	7.8	7.8	136	153	144
11-Jun	14.8	14.8	14.8	7.7	7.8	7.8	147	172	160
12-Jun	16.0	16.0	16.0	7.7	7.7	7.7	155	177	167
13-Jun	15.7	15.7	15.7	7.7	7.8	7.8	128	150	138
14-Jun	16.4	16.4	16.4	7.8	7.8	7.8	144	160	153
15-Jun	17.2	17.2	17.2	7.7	7.8	7.8	162	184	172
16-Jun	17.2	17.2	17.3	7.8	7.8	7.8	120	143	133
17-Jun	16.7	16.7	16.8	7.7	7.8	7.7	139	166	154
18-Jun	16.2	16.2	16.3	7.7	7.8	7.8	144	162	155
19-Jun	15.6	15.6	15.6	7.7	7.8	7.7	155	178	169
20-Jun	15.6	15.6	15.6	7.7	7.7	7.7	151	169	162
21-Jun	16.6	16.6	16.6	7.7	7.7	7.7	185	210	200
22-Jun	17.9	17.9	17.9	7.7	7.7	7.7	185	214	200
23-Jun	19.6	19.6	19.6	7.7	7.7	7.7	195	230	213
24-Jun	20.7	20.7	20.8	7.7	7.7	7.7	198	230	215
25-Jun	20.3	20.3	20.3	7.7	7.7	7.7	187	211	202
26-Jun	19.3	19.3	19.4	7.7	7.7	7.7	160	185	174
27-Jun	19.2	19.2	19.2	7.7	7.8	7.7	160	188	173
28-Jun	18.2	18.2	18.2	7.7	7.8	7.7	153	182	167
29-Jun	18.3	18.3	18.3	7.7	7.7	7.7	161	179	171
30-Jun	19.6	19.6	19.6	7.7	7.8	7.8	156	178	169
Monthly Min/Max/Avg.	13.8	20.7	16.7	7.6	7.9	7.7	120	230	167

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

Date	Temperature (°C)			pH			Hourly Flow (ML per day)		
	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1-Jun	13.3	13.3	13.3	7.7	7.7	7.7	245	257	251
2-Jun	14.0	14.1	14.0	7.7	7.7	7.7	236	254	245
3-Jun	14.4	14.5	14.4	7.7	7.8	7.7	240	254	247
4-Jun	14.3	14.4	14.4	7.7	7.8	7.8	230	246	239
5-Jun	15.3	15.3	15.3	7.8	7.8	7.8	237	249	241
6-Jun	15.4	15.5	15.5	7.8	7.8	7.8	251	265	257
7-Jun	15.5	15.5	15.5	7.7	7.8	7.8	249	264	256
8-Jun	15.2	15.2	15.2	7.7	7.7	7.7	234	248	241
9-Jun	14.2	14.2	14.2	7.7	7.7	7.7	210	223	217
10-Jun	13.9	13.9	13.9	7.7	7.7	7.7	235	251	245
11-Jun	14.8	14.9	14.9	7.7	7.8	7.7	241	257	249
12-Jun	15.6	15.6	15.6	7.7	7.8	7.8	264	279	271
13-Jun	15.3	15.3	15.3	7.7	7.8	7.8	222	234	228
14-Jun	16.6	16.6	16.6	7.8	7.8	7.8	236	249	242
15-Jun	16.6	16.6	16.6	7.8	7.8	7.8	231	243	237
16-Jun	16.6	16.6	16.6	7.7	7.8	7.7	238	252	244
17-Jun	16.0	16.0	16.0	7.7	7.7	7.7	225	242	234
18-Jun	15.3	15.4	15.4	7.7	7.7	7.7	237	250	245
19-Jun	14.8	14.9	14.9	7.7	7.8	7.8	241	254	249
20-Jun	15.4	15.5	15.4	7.8	7.8	7.8	243	259	253
21-Jun	16.4	16.5	16.4	7.8	7.8	7.8	249	266	257
22-Jun	17.9	17.9	17.9	7.8	7.8	7.8	250	265	258
23-Jun	19.4	19.5	19.4	7.8	7.9	7.9	252	266	258
24-Jun	20.1	20.2	20.2	7.9	7.9	7.9	247	263	254
25-Jun	19.6	19.7	19.7	7.8	7.9	7.9	143	172	160
26-Jun	18.7	18.7	18.7	7.8	7.8	7.8	270	284	278
27-Jun	18.4	18.4	18.4	7.8	7.8	7.8	240	257	249
28-Jun	17.4	17.4	17.4	7.8	7.8	7.8	226	247	236
29-Jun	18.4	18.4	18.4	7.8	7.8	7.8	228	240	235
30-Jun	19.3	19.4	19.4	7.8	7.9	7.9	228	241	235
Monthly Min/Max/Avg.	13.3	20.2	16.3	7.7	7.9	7.8	143	284	244

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

June 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	2	1	1	2	1	1	8	3	1	3	1	--	--	--	1	14	3	1	5	2	1	6	2	1	4	2
2	1	1	1	1	14	3	1	3	2	1	15	3	--	--	--	1	3	2	1	3	1	3	17	6	1	2	1
3	--	--	--	1	4	2	1	3	1	1	4	2	3	16	5	1	2	1	1	3	2	1	11	3	1	11	2
4	1	7	3	1	3	1	1	2	1	1	3	2	2	7	4	--	--	--	3	10	4	1	6	2	1	4	2
5	1	3	2	1	1	1	1	10	3	--	--	--	1	3	2	3	13	5	1	5	3	1	2	1	1	2	1
6	1	2	1	2	8	3	1	4	2	1	11	3	1	3	2	1	5	3	1	4	2	1	19	3	1	2	1
7	--	--	--	1	4	2	1	2	1	1	4	2	3	13	6	1	3	2	1	3	2	1	5	2	2	12	3
8	1	7	4	1	3	2	1	2	1	1	3	2	2	6	4	--	--	--	3	13	5	1	4	2	1	4	2
9	1	4	2	1	2	1	2	8	3	1	12	2	1	6	3	--	--	--	2	6	3	--	--	--	1	3	2
10	1	4	2	--	--	--	1	5	3	2	6	4	1	4	2	2	17	5	1	7	3	3	20	6	1	3	2
11	1	2	1	1	9	3	1	3	2	1	4	2	--	--	--	1	5	3	1	6	2	2	6	3	3	14	6
12	3	11	5	1	4	3	1	2	1	1	3	2	4	14	6	1	3	2	--	--	--	1	5	3	2	6	4
13	2	7	4	1	4	2	3	11	5	--	--	--	3	8	5	1	3	2	5	16	7	2	4	3	2	6	4
14	1	12	3	1	2	1	1	5	3	2	18	5	2	5	3	3	18	6	3	9	5	4	16	7	1	4	3
15	1	19	2	3	9	5	1	3	2	2	17	4	1	4	2	3	6	4	2	8	4	3	8	5	3	13	5
16	--	--	--	2	5	4	4	34	6	2	24	3	4	16	7	2	6	3	2	5	3	3	8	4	3	6	4
17	--	--	--	2	5	3	3	6	4	4	24	9	4	8	6	2	5	3	4	13	6	2	5	4	2	6	4
18	--	--	--	2	5	3	2	16	4	3	7	5	2	7	5	3	17	6	3	9	6	4	31	7	3	5	4
19	2	24	5	--	--	--	1	4	2	1	11	3	3	5	4	1	6	3	1	6	3	2	6	4	3	11	4
20	1	4	3	2	13	4	3	11	5	1	2	1	3	15	6	1	3	1	1	3	2	1	4	2	2	6	4
21	1	3	2	1	37	3	2	22	4	--	--	--	3	7	5	1	17	4	4	15	6	1	3	2	1	4	3
22	1	14	4	1	2	1	1	29	2	2	15	5	1	6	3	2	7	4	2	10	4	3	18	6	1	5	2
23	2	6	4	1	11	4	1	2	1	1	5	3	1	18	3	1	5	3	1	6	3	3	7	4	3	15	5
24	1	9	2	2	5	3	3	11	5	1	3	1	4	9	6	1	3	2	1	19	4	2	5	3	3	7	4
25	1	2	1	1	4	2	2	5	3	1	15	4	3	8	5	4	12	6	4	8	6	1	17	4	2	6	4
26	3	12	5	1	2	1	2	4	3	3	6	4	2	6	4	3	7	5	3	7	5	4	8	6	5	16	7
27	2	6	4	3	14	6	4	10	6	2	5	3	3	5	3	2	7	4	3	6	5	3	7	5	4	9	6
28	1	5	3	2	6	4	3	9	5	--	--	--	6	22	9	2	5	3	6	30	9	3	6	4	3	7	5
29	1	4	2	1	4	2	1	16	3	4	13	7	4	10	6	6	22	9	4	12	7	--	--	--	2	5	4
30	3	17	5	2	2	2	1	5	2	2	7	4	2	7	4	3	9	6	2	8	5	--	--	--	4	15	7
Monthly Min/Max/Avg	1	24	3	1	37	3	1	34	3	1	24	3	1	22	4	1	22	4	1	30	4	1	31	4	1	16	4

NOTE: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

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

June 2024

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

NOTES: ' -- ' indicates filter offline

1.2.8 Rossdale Filters 1 - 9 Turbidity (NTU)

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

NOTES: ' -- ' indicates filter offline

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

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

June 2024

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

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

June 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	3	2	0.05	0.08	0.07	4	9	6	0.02	0.03	0.03
2	1	4	2	0.05	0.07	0.06	3	8	5	0.02	0.03	0.03
3	1	3	2	0.05	0.07	0.05	3	7	4	0.02	0.03	0.03
4	1	4	2	0.05	0.07	0.05	3	6	4	0.02	0.03	0.03
5	1	4	2	0.04	0.06	0.06	5	9	6	0.03	0.03	0.03
6	2	5	2	0.05	0.07	0.06	5	7	5	0.03	0.03	0.03
7	1	3	2	0.05	0.08	0.06	4	8	6	0.03	0.03	0.03
8	2	22	3	0.05	0.08	0.06	5	9	7	0.03	0.03	0.03
9	1	4	2	0.05	0.07	0.06	5	10	7	0.03	0.03	0.03
10	2	6	3	0.05	0.08	0.06	6	10	7	0.03	0.03	0.03
11	2	4	3	0.05	0.07	0.06	5	9	7	0.03	0.04	0.03
12	2	5	3	0.03	0.05	0.04	6	11	7	0.03	0.03	0.03
13	3	6	4	0.05	0.07	0.06	6	16	9	0.03	0.03	0.03
14	3	6	4	0.05	0.07	0.06	5	12	8	0.03	0.03	0.03
15	3	6	4	0.03	0.10	0.06	6	10	8	0.03	0.03	0.03
16	3	9	4	0.05	0.07	0.06	6	9	7	0.02	0.03	0.03
17	4	7	5	0.06	0.06	0.06	6	11	8	0.03	0.03	0.03
18	3	7	5	0.06	0.08	0.06	6	11	8	0.03	0.03	0.03
19	2	7	3	0.05	0.06	0.06	5	9	7	0.02	0.03	0.03
20	2	4	3	0.05	0.07	0.06	5	10	8	0.02	0.03	0.03
21	2	11	3	0.05	0.08	0.06	6	11	7	0.03	0.03	0.03
22	3	12	3	0.06	0.07	0.06	6	11	8	0.03	0.03	0.03
23	3	5	3	0.06	0.07	0.06	7	11	8	0.03	0.03	0.03
24	3	5	4	0.06	0.07	0.06	7	12	10	0.03	0.04	0.03
25	3	6	4	0.06	0.08	0.06	1	41	7	0.01	0.04	0.02
26	4	6	5	0.05	0.07	0.06	8	14	10	0.03	0.03	0.03
27	4	6	5	0.05	0.07	0.06	6	10	8	0.03	0.03	0.03
28	4	8	5	0.06	0.06	0.06	6	13	9	0.02	0.03	0.03
29	4	7	5	0.06	0.05	0.06	6	12	8	0.03	0.03	0.03
30	3	12	5	0.06	0.07	0.06	6	11	8	0.02	0.03	0.03
Monthly Min/Max/Avg	1	22	3	0.03	0.10	0.06	1	41	7	0.01	0.04	0.03

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

June 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	34.7	36.1	35.5	22.8	27.2	24.4	35.0	36.3	35.6	21.3	25.6	6.9	34.3	36.0	35.6	22.7	32.2	11.1	87.8	91.8	91.1
2	34.8	50.3	35.6	23.1	24.2	2.8	34.7	36.0	35.5	29.1	30.5	19.8	34.9	36.0	35.5	27.5	30.9	28.7	87.8	91.7	90.9
3	--	--	--	--	--	--	34.9	36.0	35.5	26.3	30.0	28.2	34.9	36.2	35.5	23.5	28.1	25.8	90.5	91.6	90.9
4	34.8	36.2	35.5	24.0	28.8	23.8	34.9	36.1	35.7	24.5	26.6	25.4	34.9	36.1	35.6	20.3	23.8	3.9	91.6	92.8	91.8
5	34.8	35.9	35.5	26.6	31.0	28.5	35.4	48.2	35.8	16.4	24.9	4.2	35.0	36.2	35.5	23.4	32.2	24.5	92.0	92.8	92.4
6	34.9	35.9	35.5	24.5	29.2	18.6	34.9	36.0	35.5	29.2	30.4	9.2	34.4	36.2	35.5	24.5	27.4	25.9	91.2	92.4	91.9
7	--	--	--	--	--	--	34.8	36.0	35.5	27.5	30.2	28.7	34.5	36.2	35.5	21.8	24.9	23.2	91.6	92.4	91.8
8	34.9	36.3	35.6	21.9	25.0	21.0	34.8	36.2	35.7	22.4	28.1	24.8	34.6	59.2	35.6	12.3	24.5	3.3	91.6	93.5	92.5
9	35.1	36.3	35.6	22.0	25.4	22.9	35.4	36.8	36.0	20.0	23.1	19.3	34.7	36.2	35.5	22.1	23.0	15.0	91.9	92.6	92.2
10	34.9	36.1	35.5	21.3	26.8	23.1	--	--	--	--	--	--	34.8	36.2	35.6	22.5	27.5	23.9	92.1	92.4	92.2
11	34.3	41.4	36.1	14.1	21.7	4.5	34.8	36.1	35.6	25.1	32.0	22.6	34.9	36.1	35.5	21.5	24.8	23.0	92.1	92.8	92.5
12	34.9	36.1	35.6	24.5	25.2	7.7	34.8	36.1	35.6	24.4	31.1	28.2	34.9	35.8	35.6	21.7	23.5	5.1	92.3	93.3	92.7
13	34.9	36.2	35.6	23.8	28.3	25.5	35.3	39.3	36.6	21.7	25.0	23.4	34.8	36.3	35.6	24.5	28.1	23.3	93.2	93.7	93.4
14	34.9	36.3	35.5	23.0	26.6	24.7	38.1	40.1	38.9	19.8	22.1	3.7	35.0	36.1	35.6	22.5	25.4	23.9	93.2	93.7	93.4
15	34.8	49.3	35.6	12.1	23.4	5.1	35.2	37.4	35.8	23.0	25.8	8.1	34.7	54.0	35.6	17.2	24.0	15.9	93.0	93.5	93.3
16	--	--	--	--	--	--	35.2	36.2	35.7	23.8	25.8	24.7	35.0	36.1	35.5	22.6	27.6	8.9	92.7	93.3	93.2
17	--	--	--	--	--	--	35.2	37.0	35.9	22.5	24.2	23.2	34.8	36.1	35.5	24.4	27.5	26.4	92.7	93.2	92.9
18	--	--	--	--	--	--	35.2	35.7	35.9	23.3	25.4	13.4	34.9	36.2	35.5	23.6	27.1	25.1	92.9	93.7	93.1
19	34.9	36.1	35.5	24.5	29.3	27.8	--	--	--	--	--	--	34.9	36.9	35.5	21.1	25.1	14.7	93.3	93.8	93.5
20	34.7	36.0	35.5	24.1	28.5	25.8	34.8	36.2	35.5	29.4	33.7	30.1	34.9	36.2	35.6	27.6	28.4	6.7	93.2	93.9	93.5
21	34.8	36.1	35.5	21.7	24.5	23.2	34.9	36.2	35.6	24.7	29.8	26.9	34.8	36.1	35.5	26.4	30.5	28.1	92.9	93.8	93.3
22	34.6	37.1	35.5	19.3	29.1	13.1	35.3	42.0	37.7	19.8	25.2	22.2	34.8	36.3	35.5	21.6	27.3	24.0	92.9	93.5	93.1
23	34.8	36.1	35.5	25.4	29.0	27.3	34.9	44.9	35.9	17.6	30.6	15.7	34.9	36.5	35.6	17.5	22.0	17.3	93.2	93.5	93.4
24	34.8	36.0	35.5	22.5	25.9	24.2	34.8	36.2	35.5	26.6	29.7	28.1	34.5	36.2	35.5	29.4	31.3	18.7	93.1	93.5	93.3
25	34.7	35.6	35.6	19.4	22.9	16.8	35.1	37.4	35.7	21.6	26.9	24.5	34.9	36.1	35.5	24.6	30.1	27.7	93.1	93.2	93.1
26	34.8	36.1	35.5	28.3	32.7	26.5	36.5	56.5	39.1	14.5	21.9	11.9	34.9	35.8	35.7	23.5	25.1	3.7	93.1	93.5	93.3
27	34.8	36.1	35.5	25.9	30.3	27.7	34.6	36.2	35.5	26.9	33.4	28.2	34.3	36.4	35.5	22.7	31.3	14.8	93.3	94.0	93.6
28	34.7	36.0	35.5	22.4	26.3	23.7	34.9	36.2	35.5	28.1	31.1	29.8	34.4	36.5	35.5	27.0	29.7	28.4	92.6	94.0	93.4
29	35.0	51.4	35.6	13.5	23.2	2.5	35.1	38.1	36.3	23.2	28.3	25.1	34.6	36.3	35.5	22.7	27.7	24.8	93.5	93.9	93.8
30	34.8	36.1	35.5	29.1	33.6	31.8	37.6	46.5	38.7	17.8	23.3	0.3	34.9	38.2	35.9	11.2	22.9	12.1	93.8	94.6	94.0
Monthly Total						502.9						556.6						557.8			
Monthly Min/Max/ Avg	34.3	51.4	35.6	12.1	33.6		34.6	56.5	36.1	14.5	33.7		34.3	59.2	35.6	11.2	32.2		87.8	94.6	92.8

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

June 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	35.2	36.4	35.8	21.8	23.2	3.4	--	--	--	--	--	--	34.7	36.1	35.5	27.9	34.3	29.7	87.8	91.8	91.1
2	34.3	36.1	35.5	25.0	31.8	24.7	--	--	--	--	--	--	35.0	36.1	35.5	26.3	33.4	29.1	87.8	91.7	90.9
3	34.9	36.4	35.5	23.8	27.0	25.6	35.0	36.1	35.6	24.2	31.5	8.8	34.9	36.6	35.5	23.1	26.9	18.0	90.5	91.6	90.9
4	34.9	36.4	35.7	23.1	24.2	16.2	35.0	36.1	35.6	27.8	30.2	28.9	--	--	--	--	--	--	91.6	92.8	91.8
5	--	--	--	--	--	--	35.1	36.1	35.6	24.4	28.3	26.0	35.1	36.0	35.5	25.7	32.1	12.7	92.0	92.8	92.4
6	34.8	36.2	35.5	27.1	32.0	22.6	35.2	36.4	35.6	21.7	24.9	5.8	34.9	36.1	35.5	28.8	31.5	30.1	91.2	92.4	91.9
7	34.9	36.2	35.5	26.6	29.7	27.9	35.0	36.0	35.6	27.5	30.7	13.0	35.0	36.1	35.5	25.7	29.2	16.9	91.6	92.4	91.8
8	34.9	36.7	35.7	20.3	26.9	22.8	34.9	36.3	35.6	24.0	30.5	26.3	--	--	--	--	--	--	91.6	93.5	92.5
9	35.0	39.2	35.7	17.6	23.0	8.8	35.0	36.1	35.6	22.0	24.9	23.1	--	--	--	--	--	--	91.9	92.6	92.2
10	34.9	36.8	35.7	22.9	27.8	24.7	35.0	42.4	35.6	13.4	23.5	12.9	34.9	36.1	35.5	26.1	31.3	27.0	92.1	92.4	92.2
11	35.0	36.7	35.7	23.1	26.3	24.5	--	--	--	--	--	--	35.0	36.0	35.5	27.7	30.5	28.9	92.1	92.8	92.5
12	34.9	36.9	35.7	21.7	25.2	17.6	35.1	36.2	35.6	25.6	28.5	21.7	34.1	36.1	35.5	23.0	28.9	25.8	92.3	93.3	92.7
13	--	--	--	--	--	--	35.0	36.2	35.6	23.9	26.5	25.3	34.9	35.5	35.7	22.3	23.2	3.3	93.2	93.7	93.4
14	35.1	36.7	35.7	21.8	23.3	19.2	35.0	36.3	35.6	22.8	26.3	24.0	35.0	36.0	35.5	25.0	26.3	11.4	93.2	93.7	93.4
15	35.0	39.2	36.3	20.0	26.6	22.9	34.9	36.6	35.6	18.6	23.2	6.8	34.0	36.2	35.5	24.2	30.7	26.4	93.0	93.5	93.3
16	35.8	38.6	37.4	14.7	21.5	14.4	35.0	36.2	35.6	23.0	24.4	19.4	35.0	36.1	35.5	22.9	25.2	24.0	92.7	93.3	93.2
17	34.9	36.6	35.7	26.5	27.6	11.6	34.9	36.3	35.6	22.4	23.3	22.7	34.9	35.5	35.7	22.0	26.5	3.5	92.7	93.2	92.9
18	34.9	36.7	35.7	25.1	29.0	26.9	35.1	36.5	35.6	21.3	25.1	23.1	35.0	36.1	35.5	26.2	32.9	28.7	92.9	93.7	93.1
19	35.0	36.7	35.7	24.5	27.9	26.0	35.3	46.9	35.8	14.9	24.5	1.4	35.1	36.1	35.5	28.8	33.0	31.0	93.3	93.8	93.5
20	35.1	44.3	35.8	16.9	25.0	12.4	35.0	36.0	35.6	23.9	28.3	13.5	35.0	36.1	35.5	23.1	29.1	25.6	93.2	93.9	93.5
21	--	--	--	--	--	--	35.0	36.3	35.6	25.5	30.3	27.1	35.0	42.6	35.5	14.2	31.7	14.4	92.9	93.8	93.3
22	34.9	36.7	35.7	27.3	32.2	26.9	34.8	36.2	35.6	21.2	26.0	23.1	34.9	36.0	35.5	28.3	34.6	31.0	92.9	93.5	93.1
23	35.1	37.1	35.7	23.4	28.6	26.1	35.0	35.7	35.6	18.8	28.1	14.4	34.9	37.0	35.5	24.3	30.8	27.3	93.2	93.5	93.4
24	34.9	38.5	36.2	20.3	24.0	22.1	35.0	36.6	35.6	25.7	27.9	27.0	34.9	36.3	35.5	20.9	24.6	17.1	93.1	93.5	93.3
25	34.9	39.1	36.3	19.5	28.1	18.2	35.0	36.0	35.6	23.0	26.9	24.9	34.8	36.1	35.5	21.3	31.3	24.8	93.1	93.2	93.1
26	34.8	36.7	35.7	24.6	26.6	25.4	34.9	39.0	35.6	20.9	23.6	22.0	34.8	38.9	35.5	25.9	29.8	28.2	93.1	93.5	93.3
27	34.9	51.9	35.7	13.9	25.0	11.6	35.3	38.1	35.6	18.4	21.1	1.4	35.0	36.8	35.5	24.1	29.1	27.4	93.3	94.0	93.6
28	--	--	--	--	--	--	35.1	36.2	35.6	27.7	31.1	29.7	35.1	35.8	36.1	22.8	24.1	1.2	92.6	94.0	93.4
29	34.8	36.7	35.7	27.3	31.7	28.2	35.1	36.1	35.6	25.9	29.9	27.5	35.0	36.2	35.5	26.7	35.8	13.8	93.5	93.9	93.8
30	34.9	36.9	35.7	26.3	30.3	27.9	34.8	36.1	35.6	22.3	26.5	23.9	35.0	36.0	35.5	31.5	35.6	33.2	93.8	94.6	94.0
Monthly Total						538.6						523.6						590.6			
Monthly Min/Max/ Avg	34.3	51.9	35.8	13.9	32.2		34.8	46.9	35.6	13.4	31.5		34.0	42.6	35.6	14.2	35.8		87.8	94.6	92.8

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

June 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	34.7	36.0	35.6	27.4	33.1	31.3	35.1	37.2	35.6	25.2	31.7	18.4	35.0	36.1	35.6	27.9	32.8	31.2	87.8	91.8	91.1
2	35.1	36.0	35.6	27.5	31.8	29.0	35.0	36.0	35.6	26.7	33.2	8.4	34.9	50.2	35.6	27.9	32.0	22.0	87.8	91.7	90.9
3	35.2	38.3	35.6	18.6	28.2	5.5	35.0	36.1	35.6	29.3	34.8	31.8	34.8	36.1	35.6	29.8	35.5	26.7	90.5	91.6	90.9
4	35.1	35.9	35.6	20.9	26.4	7.5	35.2	36.1	35.6	30.3	33.4	31.8	35.1	36.1	35.6	30.6	34.3	32.7	91.6	92.8	91.8
5	35.1	36.1	35.6	24.8	34.3	28.0	35.2	36.2	35.6	26.3	30.9	17.3	35.0	36.1	35.6	28.1	32.3	29.9	92.0	92.8	92.4
6	35.0	36.0	35.6	27.1	29.8	28.3	35.1	36.2	35.6	30.5	32.7	30.6	35.1	37.4	35.6	22.9	29.2	1.1	91.2	92.4	91.9
7	35.3	35.8	36.3	26.2	27.6	1.0	35.1	36.3	35.6	28.4	31.4	30.3	34.9	36.1	35.6	29.9	34.7	31.5	91.6	92.4	91.8
8	35.2	36.0	35.6	20.9	31.1	7.8	35.0	36.1	35.6	24.3	30.8	20.2	34.9	36.6	35.6	22.8	33.8	28.8	91.6	93.5	92.5
9	35.1	36.0	35.6	23.1	26.4	25.0	--	--	--	--	--	--	34.8	36.2	35.6	21.3	25.1	23.3	91.9	92.6	92.2
10	35.1	36.0	35.6	24.3	30.1	26.6	35.0	36.1	35.6	26.3	32.1	11.8	35.0	35.9	35.5	22.3	26.7	2.4	92.1	92.4	92.2
11	34.3	37.1	35.6	24.3	28.0	19.7	34.6	35.9	35.6	28.3	33.2	30.3	35.0	36.1	35.6	30.0	32.2	7.7	92.1	92.8	92.5
12	--	--	--	--	--	--	35.0	36.4	35.6	25.5	32.2	29.1	34.8	36.1	35.6	24.0	36.5	31.3	92.3	93.3	92.7
13	35.1	36.0	35.6	25.4	31.7	8.8	35.0	38.9	35.6	16.8	26.5	17.5	34.9	36.2	35.6	24.0	26.2	25.2	93.2	93.7	93.4
14	35.1	36.0	35.6	26.9	31.6	29.3	33.8	36.0	35.6	20.8	27.1	3.5	34.8	37.5	35.6	20.8	27.6	21.9	93.2	93.7	93.4
15	33.5	36.0	35.6	21.7	28.7	25.3	35.1	36.0	35.6	26.0	32.0	28.7	33.7	36.1	35.6	21.6	36.5	24.0	93.0	93.5	93.3
16	35.1	36.0	35.6	22.3	23.5	4.6	35.0	36.1	35.6	26.5	28.9	27.6	35.0	36.2	35.6	27.2	29.8	28.5	92.7	93.3	93.2
17	35.1	36.0	35.6	20.3	26.2	21.4	35.1	35.6	35.6	27.3	28.7	15.6	34.9	36.2	35.6	26.3	28.0	26.9	92.7	93.2	92.9
18	35.2	36.1	35.6	24.5	31.9	27.9	35.0	36.1	35.6	26.4	34.2	17.8	35.0	35.4	36.3	25.9	26.8	1.0	92.9	93.7	93.1
19	35.1	36.1	35.6	27.3	31.2	29.5	35.1	36.2	35.6	28.2	31.4	30.1	34.9	36.1	35.6	22.1	32.1	13.0	93.3	93.8	93.5
20	35.4	35.9	35.6	26.3	28.2	29.5	35.2	36.0	35.6	27.9	32.2	29.6	35.0	36.2	35.6	29.9	35.7	33.0	93.2	93.9	93.5
21	35.2	36.1	35.6	29.5	33.7	26.2	35.0	42.5	35.6	14.7	28.4	18.6	35.0	36.1	35.6	25.5	32.5	28.5	92.9	93.8	93.3
22	35.1	36.1	35.6	28.6	33.2	30.6	35.1	36.0	35.6	26.4	35.4	19.5	35.1	41.7	35.6	14.7	27.3	15.4	92.9	93.5	93.1
23	35.1	36.1	35.6	24.2	29.2	26.4	35.0	36.1	35.6	24.6	34.1	30.4	34.9	36.1	35.6	25.2	31.7	29.3	93.2	93.5	93.4
24	35.1	40.5	35.6	17.9	31.1	19.2	35.0	36.3	35.6	25.7	29.2	28.0	35.0	36.2	35.6	25.2	30.4	29.4	93.1	93.5	93.3
25	35.1	36.0	35.6	27.7	31.2	29.4	35.0	36.1	35.6	24.1	31.7	20.4	34.9	36.3	35.6	25.3	29.4	26.5	93.1	93.2	93.1
26	35.1	36.0	35.6	26.3	28.6	27.2	35.0	36.2	35.6	27.3	33.2	29.7	34.9	36.0	35.6	27.2	30.2	12.9	93.1	93.5	93.3
27	34.5	35.7	35.8	26.5	28.6	6.1	34.9	36.1	35.6	26.3	32.4	28.1	34.9	36.1	35.6	27.0	34.1	32.2	93.3	94.0	93.6
28	35.1	35.9	35.6	30.2	36.0	14.2	35.1	36.5	35.6	21.6	30.2	16.1	34.9	36.1	35.6	29.0	32.7	30.5	92.6	94.0	93.4
29	35.1	36.0	35.6	31.6	35.6	33.5	--	--	--	--	--	--	35.0	36.2	35.6	26.4	30.7	18.1	93.5	93.9	93.8
30	35.1	36.0	35.6	28.8	33.1	30.5	--	--	--	--	--	--	34.9	36.1	35.6	21.5	32.0	13.9	93.8	94.6	94.0
Monthly Total						629.4						621.0						678.9			
Monthly Min/Max/ Avg	33.5	40.5	35.6	17.9	36.0		33.8	42.5	35.6	14.7	35.4		33.7	50.2	35.6	14.7	36.5		87.8	94.6	92.8

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

June 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	45.2	71.9	50.4	73.9	89.6	84.3	45.3	78.8	55.5	71.7	88.5	82.2	45.2	55.6	49.5	79.8	95.1	90.5	--	--	--	--	--	--	90.2	90.9	90.7
2	68.4	78.1	71.5	70.8	94.6	85.1	66.3	75.4	68.7	69.6	92.0	82.5	44.9	79.5	62.7	76.4	93.2	86.0	--	--	--	--	--	--	90.1	90.7	90.3
3	49.5	80.7	66.2	75.2	99.2	89.5	48.5	75.7	61.8	73.5	97.9	86.8	49.0	58.1	52.9	70.5	96.1	87.4	--	--	--	--	--	--	90.2	91.3	90.8
4	48.9	63.2	56.6	65.9	95.9	81.9	47.6	64.4	55.5	64.0	93.7	79.6	52.1	69.2	59.8	67.7	98.9	83.6	--	--	--	--	--	--	91.0	91.7	91.4
5	48.6	60.4	52.6	66.6	95.1	84.7	48.0	58.3	51.6	64.4	93.6	82.3	52.2	63.8	55.9	69.9	96.2	86.5	--	--	--	--	--	--	91.1	92.0	91.3
6	47.5	55.2	50.4	77.9	96.2	89.1	46.4	55.8	50.0	75.6	94.8	86.8	51.2	58.7	53.7	80.0	97.6	91.1	--	--	--	--	--	--	91.1	91.5	91.3
7	46.7	51.3	49.2	78.7	95.9	89.5	46.3	50.7	48.1	74.9	94.4	87.0	49.9	54.3	52.0	80.6	98.7	91.4	--	--	--	--	--	--	90.5	91.2	91.0
8	48.2	62.1	55.2	66.7	95.9	81.8	48.3	62.3	54.1	65.5	93.8	79.6	52.2	65.5	58.5	68.8	96.6	83.5	--	--	--	--	--	--	90.5	91.5	91.3
9	55.2	62.6	57.8	65.9	85.1	78.5	54.2	62.4	56.9	65.3	83.2	76.5	57.9	65.6	61.2	67.5	85.7	79.9	--	--	--	--	--	--	91.2	91.6	91.3
10	51.0	62.5	55.3	68.0	92.6	82.3	50.7	61.0	55.1	66.8	89.2	80.1	53.9	66.0	58.5	70.7	92.5	84.6	--	--	--	--	--	--	91.2	91.6	91.5
11	51.3	62.5	57.1	64.5	97.3	87.2	51.0	62.7	56.7	63.6	94.0	85.0	54.4	67.5	60.7	66.4	97.8	89.1	--	--	--	--	--	--	91.5	92.3	91.8
12	55.5	66.1	59.1	70.8	98.4	88.9	55.4	65.1	59.2	70.3	96.0	86.6	58.4	68.9	62.7	72.7	99.9	91.2	--	--	--	--	--	--	92.2	93.7	92.5
13	57.8	72.1	64.8	69.2	88.8	83.4	57.1	74.3	65.0	70.0	88.1	81.3	61.0	77.6	68.8	73.4	90.4	85.6	--	--	--	--	--	--	91.9	93.7	92.6
14	59.3	71.6	64.1	72.8	91.3	83.9	58.9	74.4	64.3	71.1	89.0	82.0	63.0	77.5	68.4	74.2	94.3	86.1	--	--	--	--	--	--	91.3	92.9	92.5
15	60.9	70.9	66.6	70.7	91.9	83.1	61.8	71.4	67.2	69.2	88.7	80.8	66.6	75.8	71.0	73.2	93.2	85.2	--	--	--	--	--	--	92.3	92.9	92.6
16	60.9	75.1	66.5	67.3	91.2	81.1	60.3	74.3	66.8	66.4	90.3	79.3	64.2	78.2	70.7	69.9	92.1	83.3	--	--	--	--	--	--	92.6	92.8	92.7
17	59.5	72.2	65.8	72.1	90.0	83.0	58.4	73.0	66.2	69.8	86.8	80.8	62.9	77.6	70.0	73.8	91.4	85.1	--	--	--	--	--	--	92.4	93.1	92.7
18	61.1	72.9	65.8	72.7	90.4	83.4	60.4	73.2	66.8	70.5	87.5	81.0	65.2	77.2	70.3	74.1	92.1	85.5	--	--	--	--	--	--	92.1	93.1	92.6
19	56.9	68.5	62.8	76.4	95.9	87.4	57.3	70.0	63.3	74.8	94.4	85.1	61.6	73.1	66.9	79.0	98.7	89.6	--	--	--	--	--	--	92.3	93.0	92.7
20	53.5	64.6	59.9	78.5	101.1	90.2	54.2	65.1	60.1	75.8	97.7	88.2	57.0	69.2	64.0	81.4	100.1	92.4	--	--	--	--	--	--	92.2	92.7	92.5
21	52.8	62.3	56.8	76.9	98.4	88.3	51.4	61.7	56.9	74.3	95.4	86.4	55.4	96.2	61.8	79.0	99.0	90.2	--	--	--	--	--	--	92.2	92.3	92.3
22	51.9	59.7	56.1	77.0	99.0	90.2	52.7	59.7	56.3	74.0	97.4	87.9	55.3	62.9	59.6	79.3	100.4	92.4	--	--	--	--	--	--	91.9	92.5	92.2
23	51.8	60.7	55.4	77.2	100.3	89.7	50.5	60.2	55.6	75.5	96.8	87.5	53.7	63.4	59.0	79.8	101.4	91.7	--	--	--	--	--	--	92.1	92.4	92.3
24	52.5	61.2	55.4	76.6	102.7	92.4	52.8	61.9	55.2	74.6	101.3	90.2	56.2	65.5	58.6	79.4	103.3	94.7	--	--	--	--	--	--	92.2	93.4	92.6
25	53.9	272.4	57.7	61.5	102.5	62.2	53.2	252.0	62.8	58.2	100.0	60.9	56.5	256.6	67.3	61.4	103.7	64.0	--	--	--	--	--	--	92.4	92.7	92.6
26	55.2	63.5	58.6	77.7	101.8	92.7	54.4	65.6	58.5	76.8	99.6	90.5	57.9	69.1	61.6	81.5	103.6	95.1	--	--	--	--	--	--	92.6	93.0	92.8
27	58.3	72.5	65.7	71.7	99.9	87.0	59.6	72.0	65.7	69.0	96.5	84.8	61.0	76.1	69.3	73.0	100.1	89.2	--	--	--	--	--	--	92.6	93.2	92.9
28	61.0	73.1	66.0	71.9	94.7	84.9	61.0	74.4	66.1	72.1	89.6	82.7	63.4	76.2	69.6	73.8	93.0	86.8	--	--	--	--	--	--	92.6	93.1	92.9
29	66.2	85.4	73.1	67.6	89.0	79.6	66.1	83.5	72.5	66.3	85.2	77.8	70.3	87.8	76.8	68.8	90.2	81.3	--	--	--	--	--	--	93.0	93.6	93.2
30	72.1	86.4	77.3	66.7	97.9	82.3	70.8	84.8	76.9	62.5	95.0	80.4	74.3	89.6	80.6	67.9	99.3	84.4	--	--	--	--	--	--	93.5	94.1	93.7
Monthly Total						2,547.5						2,482.7						2,607.3						0.0			
Monthly Min/Max/ Avg	45.2	272.4	60.7	61.5	102.7		45.3	252.0	60.6	58.2	101.3		44.9	256.6	63.4	61.4	103.7		--	--	--	--	--		90.1	94.1	92.1

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

June 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	9.6	10.4	10.1	23	25	25	7.0	7.0	7.0	7.3	7.4	7.3	13	17	15	7.0	7.0	7.0
2	9.9	10.4	10.2	23	27	25	7.0	7.0	7.0	7.3	7.5	7.4	14	20	17	7.0	7.0	7.0
3	10.1	10.5	10.3	26	30	28	7.0	7.0	7.0	7.3	7.5	7.4	14	19	17	7.0	7.0	7.0
4	10.0	10.3	10.1	25	27	26	7.0	7.0	7.0	7.3	7.5	7.4	15	19	17	7.0	7.0	7.0
5	10.1	10.6	10.3	27	30	29	7.0	7.0	7.0	7.4	7.5	7.4	16	20	18	7.0	7.0	7.0
6	10.0	10.3	10.2	27	30	28	7.0	7.0	7.0	7.4	7.5	7.4	16	19	17	7.0	7.0	7.0
7	10.1	10.5	10.3	28	30	29	7.0	7.0	7.0	7.4	7.5	7.4	15	21	17	7.0	7.0	7.0
8	9.9	11.2	10.7	27	34	31	7.0	7.0	7.0	7.3	7.5	7.4	14	20	17	7.0	7.0	7.0
9	10.7	11.3	11.0	31	34	33	7.0	7.0	7.0	7.4	7.5	7.4	16	19	17	7.0	7.0	7.0
10	10.0	10.7	10.3	28	32	29	7.0	7.0	7.0	7.3	7.4	7.4	14	18	16	7.0	7.0	7.0
11	9.8	10.7	10.3	27	31	29	7.0	7.0	7.0	7.4	7.5	7.4	16	19	18	7.0	7.0	7.0
12	9.8	10.7	10.2	26	32	29	7.0	7.0	7.0	7.4	7.5	7.4	17	22	19	7.0	7.0	7.0
13	10.3	10.6	10.5	30	32	31	7.0	7.0	7.0	7.4	7.5	7.4	15	21	18	7.0	7.0	7.0
14	10.2	10.8	10.4	30	37	34	7.0	7.0	7.0	7.4	7.5	7.5	18	22	20	7.0	7.0	7.0
15	9.5	10.9	10.4	29	37	33	6.3	7.0	7.0	7.4	7.5	7.4	16	21	19	7.0	7.0	7.0
16	10.3	10.7	10.5	31	34	33	7.0	7.0	7.0	7.4	7.6	7.5	18	23	20	7.0	7.0	7.0
17	10.4	10.6	10.5	32	33	32	7.0	7.0	7.0	7.4	7.5	7.4	16	21	18	7.0	7.0	7.0
18	9.9	10.5	10.1	30	33	32	7.0	7.0	7.0	7.4	7.5	7.5	16	21	19	7.0	7.0	7.0
19	9.8	10.1	9.9	29	32	30	7.0	7.0	7.0	7.4	7.4	7.4	16	19	18	7.0	7.0	7.0
20	9.7	10.0	9.8	28	30	28	7.0	7.0	7.0	7.3	7.5	7.4	15	20	17	7.0	7.0	7.0
21	9.7	10.1	9.9	28	32	31	7.0	7.0	7.0	7.4	7.5	7.4	16	20	18	7.0	7.0	7.0
22	9.9	10.3	10.2	31	34	33	7.0	7.0	7.0	7.4	7.5	7.5	16	22	20	7.0	7.0	7.0
23	10.2	10.8	10.6	33	38	36	7.0	7.0	7.0	7.5	7.7	7.5	19	29	23	7.0	7.0	7.0
24	10.3	11.1	10.7	34	39	37	7.0	7.0	7.0	7.1	7.6	7.5	22	26	24	6.5	7.0	7.0
25	10.2	10.8	10.6	37	39	38	7.0	7.0	7.0	7.5	7.6	7.5	20	27	23	7.0	7.0	7.0
26	10.5	11.1	10.8	33	37	34	7.0	7.0	7.0	7.4	7.6	7.5	18	23	21	7.0	7.0	7.0
27	10.5	11.0	10.8	31	34	32	7.0	7.0	7.0	7.4	7.5	7.5	17	22	21	7.0	7.0	7.0
28	10.5	10.8	10.6	30	33	31	7.0	7.0	7.0	7.5	7.6	7.5	20	26	22	7.0	7.0	7.0
29	10.3	10.8	10.6	30	32	31	7.0	7.0	7.0	7.4	7.5	7.5	19	23	21	7.0	7.0	7.0
30	10.5	11.1	10.9	30	34	33	7.0	7.0	7.0	7.5	7.6	7.5	21	26	23	7.0	7.0	7.0
Monthly Min/Max/Avg	9.5	11.3	10.4	23	39	31	6.3	7.0	7.0	7.1	7.7	7.5	13	29	19	6.5	7.0	7.0

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

June 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	70.0	69.7	69.4	8,655	15,213	23,868	40,100
2	72.0	72.1	80.7	8,902	16,914	25,816	46,628
3	78.2	78.2	74.0	9,679	19,359	29,038	44,885
4	78.1	78.1	65.3	9,658	19,316	28,974	37,162
5	57.6	57.5	59.9	7,125	14,237	21,362	35,287
6	55.0	55.0	57.5	6,804	13,608	20,411	35,621
7	52.4	52.4	56.1	6,482	12,959	19,442	34,812
8	48.4	48.5	51.3	5,992	10,281	16,273	29,287
9	46.4	46.4	48.9	5,736	8,170	13,906	26,263
10	45.9	45.9	46.2	5,673	9,457	15,130	26,355
11	45.8	45.6	42.7	5,662	10,225	15,888	25,972
12	40.0	40.1	37.7	4,950	9,460	14,410	22,930
13	37.6	37.6	35.4	4,648	7,747	12,395	20,423
14	33.9	33.9	33.4	4,199	7,630	11,828	19,252
15	30.2	30.3	31.9	3,736	6,884	10,620	18,479
16	30.4	30.4	33.9	3,761	6,269	10,031	18,856
17	30.0	30.0	31.6	3,716	6,195	9,911	18,212
18	31.7	31.8	30.9	3,917	7,355	11,271	17,867
19	34.9	34.9	30.2	4,314	8,626	12,940	18,315
20	32.6	32.7	30.5	4,295	8,178	12,473	18,911
21	30.0	30.0	31.1	4,639	7,732	12,371	19,218
22	33.4	33.4	32.0	6,026	8,621	14,647	20,104
23	33.0	33.0	32.1	6,464	8,505	14,970	20,098
24	33.0	33.0	33.2	6,463	8,504	14,966	21,494
25	32.0	32.0	35.1	6,268	8,149	14,417	16,340
26	30.9	30.8	31.7	5,644	6,755	12,400	20,326
27	30.0	30.0	29.3	5,011	6,315	11,326	17,747
28	30.0	30.0	29.6	4,950	6,188	11,138	17,104
29	28.7	28.7	28.9	4,726	5,911	10,637	16,020
30	28.0	28.0	30.4	4,619	5,773	10,392	17,067
Monthly Total				172,716	290,536	463,251	741,134
Monthly Avg	42.0	42.0	42.0	5,757	9,685	15,442	24,704

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

June 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	0.40	0.40	0.19	24	42	66	52
2	0.40	0.40	0.19	24	46	70	52
3	0.40	0.40	0.19	24	48	72	56
4	0.40	0.40	0.19	24	48	72	52
5	0.40	0.40	0.19	24	48	72	54
6	0.38	0.40	0.18	23	48	71	53
7	0.40	0.40	0.17	24	48	72	51
8	0.37	0.37	0.17	22	37	60	47
9	0.35	0.35	0.17	21	30	51	44
10	0.35	0.35	0.17	21	35	56	47
11	0.35	0.35	0.15	21	38	59	44
12	0.34	0.35	0.15	21	39	60	44
13	0.30	0.30	0.15	18	30	48	42
14	0.30	0.30	0.15	18	33	51	42
15	0.30	0.30	0.14	18	33	51	40
16	0.30	0.30	0.14	18	30	48	38
17	0.30	0.30	0.13	18	30	48	37
18	0.27	0.27	0.12	16	30	47	34
19	0.25	0.25	0.12	15	30	45	35
20	0.25	0.25	0.13	16	30	46	39
21	0.25	0.25	0.13	19	31	50	40
22	0.27	0.27	0.14	24	34	58	43
23	0.30	0.30	0.14	29	38	66	43
24	0.26	0.26	0.15	25	33	58	48
25	0.25	0.25	0.16	24	31	55	36
26	0.25	0.25	0.16	22	27	49	50
27	0.25	0.25	0.16	20	26	46	47
28	0.25	0.25	0.17	20	25	45	46
29	0.25	0.25	0.17	20	25	45	46
30	0.25	0.25	0.17	20	25	45	46
Monthly Total				632	1,048	1,680	1,349
Monthly Avg	0.31	0.31	0.16	21	35	56	45

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 DW27AG is **1.00 mg/L**

1.2.19 Carbon Chemical Consumption

June 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	--	--	1.20	--	--	--	334
18	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--
Monthly Total				--	--	--	334
Monthly Avg	--	--	1.20	--	--	--	334

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

June 2024

Day	Rossdale					E.L. Smith	
	Dosage (mg/L)		Consumption (kg)			Dosage (mg/L)	Consumption (kg)
	Plant 1	Plant 2	Plant 1	Plant 2	Plant Total		
1	3.39	3.31	25,390	43,774	76,274	3.74	137,799
2	3.54	3.55	26,552	50,446	83,815	3.97	146,393
3	3.35	3.35	25,131	50,262	79,395	3.86	149,502
4	3.39	3.30	25,414	49,511	79,952	3.93	142,630
5	3.23	3.17	24,207	47,553	75,650	3.94	147,991
6	3.31	3.28	24,821	49,184	80,682	3.92	154,867
7	3.22	3.21	24,137	48,140	76,499	4.10	162,448
8	3.36	3.30	25,183	42,382	72,688	4.11	149,669
9	3.36	3.34	25,225	35,696	65,808	4.00	137,106
10	3.37	3.36	25,307	42,032	71,530	3.93	142,798
11	3.39	3.36	25,441	45,580	76,296	3.92	152,060
12	3.48	3.47	26,063	49,662	82,389	3.91	151,727
13	3.50	3.42	26,227	42,789	73,232	3.91	143,918
14	3.42	3.38	25,660	46,025	77,516	4.02	147,985
15	3.42	3.38	25,629	46,610	78,573	3.85	142,245
16	3.45	3.36	25,889	42,047	74,655	3.92	138,958
17	3.45	3.42	25,868	42,697	73,825	3.89	143,277
18	3.37	3.33	25,240	46,732	76,567	3.90	143,868
19	3.18	3.24	23,825	48,658	77,371	3.85	149,127
20	3.23	3.19	25,784	48,427	79,089	3.85	152,360
21	3.25	3.21	30,419	50,226	87,234	3.92	154,779
22	3.37	3.25	36,907	50,768	93,653	4.03	161,817
23	3.38	3.26	40,170	50,993	98,891	4.09	163,405
24	3.30	3.16	39,132	49,325	95,319	4.08	168,394
25	3.25	3.11	38,633	47,960	92,211	3.88	115,304
26	3.20	3.08	35,398	40,936	81,575	3.94	161,049
27	3.20	3.03	32,345	38,645	76,114	4.08	157,666
28	3.24	3.07	32,451	38,402	75,144	3.95	145,828
29	3.30	3.10	33,001	38,746	77,555	4.09	144,562
30	3.28	3.08	32,773	38,539	77,497	3.96	142,141
Monthly Total			858,219	1,362,747	2,387,000		4,451,674
Monthly Avg	3.34	3.27	28,607	45,425	79,567	3.95	148,389

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

June 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.24	0.14	38	39
2	0.24	0.14	40	39
3	0.24	0.14	41	41
4	0.24	0.14	41	39
5	0.24	0.14	41	40
6	0.24	0.14	42	42
7	0.24	0.14	42	42
8	0.24	0.14	37	39
9	0.24	0.15	33	38
10	0.24	0.16	37	43
11	0.24	0.16	39	47
12	0.24	0.16	40	47
13	0.24	0.16	37	45
14	0.24	0.16	39	45
15	0.24	0.16	39	45
16	0.24	0.16	37	43
17	0.24	0.16	37	45
18	0.24	0.17	40	48
19	0.24	0.18	42	52
20	0.24	0.16	43	48
21	0.24	0.16	47	48
22	0.24	0.16	50	49
23	0.24	0.16	52	49
24	0.24	0.16	52	50
25	0.24	0.16	52	36
26	0.24	0.19	45	58
27	0.24	0.20	43	59
28	0.24	0.21	42	58
29	0.24	0.19	42	52
30	0.24	0.17	42	45
Monthly Total			1,250	1,370
Monthly Avg	0.24	0.16	42	46

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

June 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.66	--	543	--
2	0.66	--	574	--
3	0.67	--	601	--
4	0.67	--	600	--
5	0.67	--	603	--
6	0.67	--	607	--
7	0.67	--	609	--
8	0.67	--	546	--
9	0.67	--	484	--
10	0.67	--	537	--
11	0.67	--	568	--
12	0.67	--	587	--
13	0.67	--	536	--
14	0.67	--	569	--
15	0.67	--	576	--
16	0.67	--	536	--
17	0.67	--	533	--
18	0.67	--	577	--
19	0.67	--	611	--
20	0.67	--	629	--
21	0.67	--	681	--
22	0.67	--	726	--
23	0.67	--	756	--
24	0.67	--	754	--
25	0.67	--	752	--
26	0.67	--	661	--
27	0.67	--	626	--
28	0.67	--	612	--
29	0.67	--	612	--
30	0.67	--	612	--
Monthly Total			18,218	--
Monthly Avg	0.67	--	607	--

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

June 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.62	1,629
2	0.61	1,582
3	0.63	1,683
4	0.63	1,582
5	0.63	1,635
6	0.63	1,724
7	0.63	1,728
8	0.63	1,580
9	0.63	1,515
10	0.63	1,594
11	0.63	1,685
12	0.63	1,721
13	0.64	1,634
14	0.65	1,677
15	0.65	1,658
16	0.65	1,622
17	0.65	1,657
18	0.65	1,664
19	0.65	1,747
20	0.65	1,804
21	0.65	1,767
22	0.65	1,802
23	0.65	1,792
24	0.65	1,848
25	0.65	1,243
26	0.65	1,851
27	0.65	1,738
28	0.65	1,692
29	0.65	1,589
30	0.65	1,643
Monthly Total		50,087
Monthly Avg	0.64	1,670

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

June 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	9.09	14.8	2,590	7,628
2	10.1	16.5	3,055	8,368
3	11.6	17.3	3,529	9,132
4	13.4	14.0	4,176	6,839
5	11.5	12.2	3,562	6,189
6	7.19	11.3	2,230	6,043
7	5.30	10.3	1,650	5,529
8	5.39	8.75	1,529	4,285
9	4.63	7.58	1,151	3,561
10	4.20	7.21	1,167	3,561
11	4.19	6.62	1,225	3,459
12	3.80	5.31	1,165	2,830
13	2.84	4.64	780	2,321
14	2.16	4.67	640	2,351
15	1.32	3.57	392	1,779
16	0.76	2.63	210	1,280
17	--	1.96	--	978
18	--	1.43	--	712
19	--	1.99	--	1,040
20	--	2.31	--	1,251
21	--	2.35	--	1,248
22	--	2.99	--	1,618
23	--	3.21	--	1,728
24	--	3.68	--	2,040
25	--	3.64	--	1,361
26	--	2.10	--	1,169
27	--	1.26	--	657
28	--	1.69	--	859
29	--	1.97	--	942
30	--	2.06	--	1,018
Monthly Total			29,052	91,776
Monthly Avg	6.10	6.00	1,816	3,059

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
June 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.65	0.64	466	753
2	0.65	0.64	491	743
3	0.65	0.64	508	772
4	0.65	0.64	508	718
5	0.65	0.64	510	743
6	0.65	0.64	513	782
7	0.65	0.64	515	785
8	0.65	0.64	462	718
9	0.65	0.64	410	690
10	0.65	0.64	455	725
11	0.65	0.64	481	766
12	0.65	0.64	496	782
13	0.65	0.64	454	734
14	0.65	0.64	481	739
15	0.63	0.64	470	731
16	0.62	0.64	433	715
17	0.62	0.63	430	719
18	0.62	0.63	466	722
19	0.62	0.63	493	757
20	0.62	0.63	508	782
21	0.62	0.63	549	765
22	0.62	0.63	585	781
23	0.62	0.63	610	776
24	0.62	0.63	608	800
25	0.62	0.63	607	537
26	0.62	0.63	533	803
27	0.61	0.63	499	754
28	0.61	0.63	486	738
29	0.61	0.65	485	712
30	0.61	0.65	486	737
Monthly Total			14,996	22,278
Monthly Avg	0.63	0.64	500	743

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

June 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	20.8	11.8	912	1,022	17	33
2	15.5	13.6	602	1,270	15	36
3	19.8	11.5	830	1,306	16	43
4	16.9	16.8	653	1,938	15	44
5	15.4	18.4	521	2,195	13	44
6	19.2	18.6	782	2,247	16	46
7	19.2	16.3	651	1,949	13	45
8	20.1	15.3	652	1,689	12	42
9	16.1	18.2	521	1,792	12	37
10	19.7	17.1	649	1,723	13	38
11	14.3	13.0	496	1,533	13	45
12	23.1	12.3	728	1,266	12	38
13	20.3	12.9	683	1,325	13	39
14	13.7	13.3	445	1,382	12	39
15	17.3	12.1	598	1,360	13	43
16	14.7	14.8	481	1,410	13	36
17	17.7	15.2	607	1,723	13	43
18	22.9	21.0	840	2,348	14	43
19	21.8	20.2	708	2,360	12	44
20	18.6	19.3	591	2,348	12	46
21	24.8	16.1	712	2,070	11	49
22	20.3	14.6	597	1,913	11	50
23	33.4	14.4	1,074	1,942	12	52
24	24.9	13.0	707	1,833	11	54
25	27.5	17.4	861	2,886	12	63
26	23.1	14.6	838	1,723	14	45
27	30.3	26.3	1,020	3,145	13	45
28	25.5	21.0	753	2,090	11	38
29	23.2	24.0	691	2,607	11	41
30	26.1	21.5	739	1,908	11	34
Monthly Total			20,945	56,302	388	1,294
Monthly Avg	20.9	16.5	698	1,877	13	43

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

June 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)		264	0.0	104	27	0.0	395	58.20			329.88		
Solids (kg)	TSS	119,638	0	3,909			123,546						
	Aluminium	20,372	0	1,353			21,725						
# of Bypasses						0		Min	Max	Avg	Min	Max	Avg
pH								6.2	8.0	7.7	6.4	7.8	7.6
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								0.89	20.0	9.15	1.64	20.0	5.97

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

June 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		676	0.0	339	161	28	0.6	29	1,234	1,294		
Solids (kg)	TSS	293,332	0	22,556					315,888			
	Aluminium	31,565	0	7,808					39,372			
# of Bypasses						1				Min	Max	Avg
pH										6.58	7.61	7.37
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.09	20.0	6.14

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

June 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

2024 - HIGH 5-DAY DEMAND

	PLANTS PROD (ML/d)	RES. GAIN / LOSS (%)	RES. GAIN / LOSS (ML)	TOTAL DEMAND (ML)
20-Jun-2024	430	-1.6	-10.3	440
21-Jun-2024	442	-2.2	-13.9	456
22-Jun-2024	458	2.7	16.9	441
23-Jun-2024	462	2.5	16.0	446
24-Jun-2024	471	5.1	31.8	439
			AVERAGE:	444

Year to Date Data	2024	2023	% CHANGE
TOTAL PRODUCTION TO DATE (ML)	68,245	70,326	(3.0)
AVG. DAILY DEMAND TO DATE (ML)	375	389	(3.6)
PEAK DAILY DEMAND TO DATE (ML)	456	545	(16.4)
PEAK HOURLY DEMAND TO DATE (ML)	573	751	(23.8)
HIGH 5-DAY AVERAGE TO DATE (ML)	444	530	(16.2)

Peak daily demand of 456 ML/d occurred on June 21, 2024

Peak hourly demand of 573 ML/d occurred on June 23, 2024 at 11:00

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

June 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	1.35	1.82	1.37	1.64	1.82	1.76	1.57	1.63	1.60	1.78	1.94	1.84	1.72	1.87	1.79	1.12	1.23	1.21
2	1.36	1.93	1.43	1.66	1.79	1.74	1.48	1.64	1.59	1.81	1.92	1.86	1.65	1.88	1.79	1.01	1.20	1.19
3	--	--	--	1.74	1.85	1.79	1.58	1.65	1.62	1.85	1.93	1.88	1.76	1.85	1.80	1.04	1.20	1.16
4	1.38	1.91	1.39	1.71	1.90	1.80	1.57	1.67	1.63	1.76	1.94	1.86	1.76	1.99	1.70	1.11	1.29	1.20
5	1.37	1.88	1.40	1.66	1.90	1.80	1.54	1.66	1.60	1.82	2.03	1.86	1.89	2.08	1.98	1.24	1.58	1.43
6	1.36	1.65	1.38	1.76	1.90	1.81	1.50	1.67	1.61	1.82	1.96	1.87	1.85	2.01	1.97	1.58	1.59	1.59
7	1.39	1.61	1.43	1.68	1.88	1.81	1.55	1.66	1.62	1.83	1.98	1.89	1.86	2.05	1.97	1.56	1.59	1.57
8	1.44	1.62	1.46	1.77	1.91	1.83	1.60	1.81	1.62	1.82	2.06	1.88	1.71	2.08	1.97	1.51	1.56	1.54
9	1.40	1.93	1.47	1.68	1.85	1.80	1.61	1.63	1.62	1.84	1.95	1.88	1.78	1.98	1.92	1.47	1.51	1.50
10	1.47	1.48	1.47	1.70	1.83	1.77	1.56	1.63	1.59	1.85	1.95	1.89	1.75	2.03	1.97	1.39	1.47	1.43
11	1.38	1.87	1.47	1.70	1.88	1.79	1.51	1.58	1.55	1.83	2.06	1.89	1.85	2.04	1.98	1.28	1.41	1.40
12	1.38	1.76	1.41	1.66	1.85	1.81	1.48	1.64	1.58	1.84	1.96	1.89	1.80	2.16	2.01	1.34	1.38	1.36
13	1.31	1.92	1.34	1.66	1.87	1.78	1.60	1.65	1.63	1.84	2.10	1.89	1.93	2.05	1.99	1.27	1.34	1.32
14	1.32	1.35	1.34	1.68	1.99	1.84	1.55	1.65	1.61	1.86	2.07	1.90	1.93	2.14	2.00	1.26	1.31	1.30
15	1.36	1.99	1.46	1.76	1.96	1.90	1.59	1.65	1.62	1.84	2.07	1.90	1.88	2.07	2.00	1.21	1.30	1.28
16	1.41	1.77	1.46	1.76	1.91	1.85	1.57	1.65	1.62	1.83	2.10	1.89	1.82	2.05	2.00	1.21	1.28	1.25
17	1.39	1.98	1.45	1.68	1.81	1.76	1.55	1.61	1.58	1.83	1.97	1.89	1.88	2.09	2.03	1.14	1.23	1.21
18	1.42	2.00	1.47	1.70	1.85	1.71	1.49	1.64	1.57	1.83	2.05	1.88	1.86	2.12	2.02	1.14	1.21	1.19
19	1.44	1.99	1.49	1.74	1.83	1.79	1.54	1.65	1.59	1.89	2.02	1.92	1.94	2.17	2.05	1.16	1.28	1.21
20	1.40	2.02	1.47	1.67	1.87	1.81	1.58	1.68	1.63	1.91	2.10	1.97	1.92	2.17	2.07	1.23	1.26	1.26
21	1.54	1.92	1.58	1.73	1.86	1.81	1.60	1.69	1.65	1.90	2.17	1.96	2.02	2.13	2.08	1.22	1.27	1.25
22	1.46	1.94	1.52	1.76	1.86	1.80	1.59	1.70	1.65	1.93	2.14	1.97	1.99	2.13	2.09	1.20	1.26	1.24
23	1.36	1.93	1.53	1.75	1.88	1.83	1.56	1.77	1.69	1.87	2.03	1.94	1.88	2.10	2.06	1.21	1.24	1.23
24	1.43	1.92	1.53	1.79	1.89	1.84	1.65	1.69	1.67	1.89	2.02	1.94	1.95	2.09	2.02	1.17	1.22	1.21
25	1.44	1.96	1.53	1.68	1.92	1.83	1.59	1.68	1.65	1.82	2.09	1.88	1.92	2.06	1.99	1.17	1.31	1.25
26	1.15	1.68	1.48	1.70	1.86	1.81	1.58	1.67	1.63	1.84	1.95	1.89	1.84	2.03	1.96	1.25	1.28	1.27
27	1.14	1.88	1.48	1.75	1.88	1.81	1.57	1.65	1.61	1.82	2.07	1.87	1.91	2.06	1.96	1.23	1.28	1.26
28	1.36	1.87	1.51	1.69	1.83	1.76	1.54	1.62	1.58	1.84	2.09	1.87	1.91	2.15	1.95	1.21	1.25	1.24
29	1.22	1.89	1.52	1.66	1.77	1.71	1.47	1.59	1.55	1.82	2.09	1.86	1.85	2.06	1.95	1.20	1.24	1.22
30	1.20	1.75	1.45	1.57	1.76	1.66	1.54	1.59	1.57	1.83	2.06	1.87	1.87	2.02	1.96	1.18	1.21	1.20
Monthly Min/Max/Avg	1.14	2.02	1.46	1.57	1.99	1.79	1.47	1.81	1.61	1.76	2.17	1.89	1.65	2.17	1.97	1.01	1.59	1.30

NOTES: '--' Indication Analyzer Offline

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

June 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				1.53	1.82	1.72	1.42	1.90	1.45	1.59	1.84	1.65	1.31	2.01	1.41	1.45	1.55	1.50
2				1.52	1.87	1.73	1.36	1.87	1.43	1.52	1.62	1.59	1.37	2.02	1.41	1.43	1.52	1.48
3	1.65	1.65	1.65	1.61	1.85	1.76	1.33	1.80	1.36	1.48	1.61	1.59	1.37	1.38	1.37	1.42	1.52	1.48
4	1.65	1.65	1.65	1.68	1.94	1.77	1.34	1.90	1.43	1.51	1.65	1.61	1.43	2.07	1.50	1.44	1.53	1.49
5				1.51	1.92	1.72	1.37	1.69	1.40	1.54	1.60	1.59	1.45	2.06	1.48	1.44	1.52	1.49
6				1.44	1.85	1.70	1.35	1.86	1.37	1.48	1.59	1.58	1.42	2.08	1.45	1.44	1.53	1.47
7				1.38	1.78	1.62	1.32	1.85	1.34	1.45	1.59	1.58	1.46	2.10	1.60	1.42	1.51	1.47
8				1.52	1.84	1.63	1.34	1.90	1.35	1.43	1.60	1.56	1.44	2.08	1.49	1.43	1.53	1.48
9	--	--	--	1.46	1.75	1.61	1.25	1.90	1.33	1.49	2.07	1.55	1.40	2.08	1.43	1.43	1.50	1.47
10	1.60	1.60	1.60	1.46	1.81	1.62	1.24	1.73	1.31	1.50	1.55	1.55	1.29	2.09	1.40	1.42	1.52	1.48
11	--	--	--	1.48	1.69	1.57	1.29	1.61	1.35	1.54	1.61	1.59	1.32	2.09	1.36	1.43	1.54	1.49
12	--	--	--	1.46	1.77	1.58	--	--	--	1.50	1.63	1.60	--	--	--	1.45	1.53	1.50
13	1.63	1.63	1.63	1.49	1.74	1.59	1.31	1.89	1.35	1.43	1.61	1.57	1.42	2.09	1.46	1.46	1.55	1.50
14	--	--	--	1.44	1.67	1.52	1.39	1.78	1.40	1.49	1.58	1.57	1.48	2.28	1.51	1.45	1.55	1.50
15	--	--	--	1.42	1.73	1.56	1.39	2.00	1.46	1.47	1.59	1.58	1.48	2.14	1.53	1.46	1.56	1.50
16	--	--	--	1.46	1.76	1.60	1.37	1.97	1.48	1.47	1.62	1.57	1.56	2.13	1.60	1.44	1.53	1.49
17	1.66	1.68	1.67	1.40	1.76	1.61	1.31	1.84	1.45	1.48	1.57	1.55	1.51	2.10	1.54	1.43	1.58	1.51
18	--	--	--	1.44	1.78	1.59	1.41	1.93	1.43	1.40	1.54	1.53	1.49	2.11	1.55	1.44	1.53	1.50
19	--	--	--	1.48	1.74	1.58	1.37	1.74	1.44	1.38	1.52	1.51	1.50	2.12	1.56	1.45	1.56	1.50
20	--	--	--	1.45	1.75	1.59	1.38	1.89	1.45	1.40	1.51	1.50	1.46	2.13	1.49	1.46	1.56	1.51
21				1.44	1.73	1.55	1.41	1.78	1.44	1.44	1.57	1.55	1.56	2.12	1.58	1.45	1.57	1.53
22	1.63	1.63	1.63	1.47	1.75	1.57	1.45	1.82	1.47	1.39	1.56	1.55	1.54	2.10	1.57	1.47	1.57	1.52
23	1.51	1.69	1.64	1.46	1.72	1.58	1.46	1.87	1.48	1.57	1.59	1.59	1.59	2.10	1.62	1.45	1.56	1.51
24	1.65	1.66	1.66	1.46	1.67	1.53	1.38	1.92	1.47	1.44	1.62	1.60	1.55	2.10	1.60	1.43	1.52	1.48
25				1.41	1.68	1.51	1.40	1.86	1.42	1.45	1.64	1.63	1.48	2.09	1.52	1.40	1.50	1.45
26				1.42	1.70	1.52	1.39	1.65	1.41	1.52	1.62	1.61	1.35	2.06	1.51	1.38	1.46	1.42
27				1.39	1.66	1.51	1.40	1.91	1.42	1.47	1.62	1.61	1.52	2.08	1.57	1.40	1.48	1.44
28				1.40	1.65	1.49	1.34	1.92	1.40	1.59	2.15	1.61	1.41	2.09	1.51	1.42	1.50	1.45
29	--	--	--	1.36	1.68	1.51	1.37	1.89	1.40	1.46	1.59	1.58	1.47	2.07	1.50	1.39	1.50	1.45
30	--	--	--	1.40	1.70	1.52	1.34	1.95	1.44	1.59	2.09	1.62	1.40	2.07	1.43	1.40	1.50	1.45
Monthly Min/Max/Avg	1.51	1.69	1.64	1.36	1.94	1.60	1.24	2.00	1.41	1.38	2.15	1.58	1.29	2.28	1.50	1.38	1.58	1.48

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Chemical Consumption

June 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.90	0.90	565	952
2	0.90	0.90	618	935
3	0.90	0.90	667	935
4	0.90	0.90	562	908
5	0.90	0.90	694	914
6	0.90	0.90	574	975
7	0.90	0.90	630	972
8	0.90	0.90	568	912
9	0.90	0.90	518	826
10	0.88	0.90	531	926
11	0.90	0.90	605	943
12	0.90	0.90	637	1,031
13	0.90	0.90	524	866
14	0.90	0.90	576	919
15	0.90	0.90	654	896
16	0.90	0.90	503	916
17	0.90	0.90	586	901
18	0.90	0.90	587	928
19	0.90	0.90	635	943
20	0.90	0.90	629	957
21	0.90	0.90	750	975
22	0.90	0.90	761	979
23	0.90	0.90	807	976
24	0.90	0.84	813	905
25	0.90	0.90	758	596
26	0.90	0.90	671	1,066
27	0.90	0.90	654	939
28	0.90	0.90	626	902
29	0.90	0.90	647	889
30	0.90	0.90	640	890
Monthly Total			18,989	27,674
Monthly Avg	0.90	0.90	633	922

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

June 2024

Date and Time Reported	Location of Mainbreak	Repaired (Time)	Size	Type**
06/05/2024 16:07:31	9519-86 STREET NW	06/06/2024 02:19:00	150	CI
06/12/2024 13:45:00	4620-GATEWAY BOULEVARD NW	06/13/2024 17:37:00	300	AC
06/16/2024 21:12:39	15110-87 AVENUE NW	06/17/2024 16:45:00	300	CI
06/17/2024 20:56:00	8716-151 STREET NW	06/18/2024 02:50:57	300	CI
06/23/2024 13:49:18	11342-122 STREET NW	06/23/2024 23:40:40	200	PVC
06/24/2024 02:39:57	9135-83 AVENUE NW	06/24/2024 22:50:51	150	PVC
06/24/2024 23:12:00	9135-83 AVENUE NW	06/25/2024 03:30:00	150	CI
06/27/2024 17:18:46	14104-30 STREET NW	06/27/2024 20:41:00	150	AC

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	
Aug-24	
Sep-24	
Oct-24	
Nov-24	
Dec-24	
YTD 2024	**112**

**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

June 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO3/L	60	121	120	8	141	360
Aluminum	mg/L	2	0.032	0.031	0.023	0.089	12
Arsenic	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	12
Bromate Dissolved	mg/L	8	<0.005	<0.005	<0.005	<0.005	52
Bromodichloromethane	µg/L	60	1.5	1.0	<0.5	2.2	362
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	12
Calcium Hardness	mg/L CaCO3	58	120	116	96	141	356
Chlorate Dissolved	mg/L	8	0.183	0.183	<0.100	0.332	52
Chloride Dissolved	mg/L	8	7.56	6.46	4.78	12.10	52
Chlorite Dissolved	mg/L	8	<0.01	<0.20	<0.20	<0.20	52
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	12
Colour	TCU	60	0.9	0.9	<0.5	1.9	360
Conductivity	µS/cm	8	413	404	342	453	52
Copper	mg/L	2	<0.0020	<0.0050	<0.0050	<0.0050	12
Cryptosporidium	oocysts/100L	2	<0.1	<0.1	<0.1	<0.1	8
Fluoride	mg/L	60	0.68	0.69	0.62	0.79	360
Giardia	cysts/100L	2	<0.1	<0.1	<0.1	<0.1	8
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	12
Lead	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	12
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	12
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	12
Nitrate (as N) Dissolved	mg/L	8	0.025	0.080	<0.010	0.170	52
Nitrite (as N) Dissolved	mg/L	8	<0.01	<0.01	<0.01	0.02	52
pH	N/A	60	7.8	7.9	7.6	8.3	361
Potassium	mg/L	2	0.90	0.85	0.70	1.10	12
Sodium	mg/L	2	17.76	11.15	6.80	18.90	12
Sulphate Dissolved	mg/L	8	75.7	73.7	59.5	95.1	52
Total Chlorine	N/A	60	2.22	2.13	1.87	2.38	360
Total Dissolved Solids	mg/L	2	239	233	220	252	12
Total Hardness	mg/L CaCO3	58	182	177	145	218	356
Total Organic Carbon	mg/L C	8	2.1	1.3	0.9	2.8	52
Trihalomethanes	µg/L	60	30.3	12.0	5.1	37.8	362
Turbidity	NTU	60	0.05	<0.04	<0.04	0.09	360
Uranium	mg/L	2	<0.0005	<0.0005	<0.0005	0.0006	12
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	12
Bacteriological Data							
Coliforms, total	PA/100mL	60	Absent	Absent	Absent	Absent	360
E. coli	PA/100mL	60	Absent	Absent	Absent	Absent	360

2.1.3 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	Feb	Mar	Apr	May	Jun	**Total**
Water Treatment Plant	# Tests	10,442	9,566	10,736	10,143	9,855	10,053	60,795
	# Samples	261	248	326	269	264	260	1,628
Field Reservoirs	# Tests	1,936	1,721	1,695	1,883	1,734	2,006	10,975
	# Samples	63	52	52	65	49	53	334
Routine Distribution System	# Tests	2,740	2,879	2,734	2,845	2,901	2,692	16,791
	# Samples	146	153	146	153	144	124	866
System Depressurization/Repair	# Tests	1,050	720	555	675	660	630	4,290
	# Samples	70	48	37	45	44	42	286
Customer Complaints	# Tests	1,395	651	1,209	1,488	1,023	1,209	6,975
	# Samples	15	7	13	16	11	13	75
Total	# Tests	17,563	15,537	16,929	17,034	16,173	16,590	99,826
	# Samples	555	508	574	548	512	492	3,189

Additional Testing

		Jan	Feb	Mar	Apr	May	Jun	**Total**
New Watermain Testing	# Tests	80	30	0	10	135	160	415
	# Samples	17	6	0	2	27	32	84
Water Treatment Plant Waste Discharge	# Tests	168	43	173	117	300	327	1,128
	# Samples	56	33	36	45	55	52	277
Quality Control	# Tests	5,961	6,042	6,091	5,937	6,055	6,793	36,879
	# Samples	1,187	1,056	1,193	1,186	1,244	1,418	7,284
Distribution Water Enhanced Surveillance	# Tests	0	0	0	0	0	540	540
	# Samples	0	0	0	0	0	20	20
Externally Contracted Analyses	# Tests	405	672	316	307	949	798	3,447
	# Samples	134	120	157	136	140	122	809
Total	# Tests	6,614	6,787	6,580	6,371	7,439	8,618	42,409
	# Samples	1,394	1,215	1,386	1,369	1,466	1,644	8,474

		Jan	Feb	Mar	Apr	May	Jun	**Total**
Total	# Tests	24,177	22,324	23,509	23,405	23,612	25,208	142,235
	# Samples	1,825	1,611	1,848	1,793	1,842	2,023	10,942

2.1.4 QUALITY ASSURANCE – June 2024

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

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

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

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

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

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

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

Current month: **0** YTD Total: **2**

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

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

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

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

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

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

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	0
Total Variances + Violations	0 + 0 = 0	0 + 0 = 0

Notes: 1) Variance statistics include any violations.

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

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

Variance Category[1]	This Month	YTD
Turbidity > 1 NTU	14	57
Chlorine < 1 mg/L or > 2.4 mg/L	1	6
Single Positive Coliform	0	2
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	1	1
Aluminium[2] > 0.20 (or 0.1) mg/L	2	6
Iron > 0.300 mg/L	0	4
Other	0	0
Total Variances + Violations	18 + 0 = 18	76 + 2 = 78

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

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

2.2.2 Bacteriological Data: Distribution System

June 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

June 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
Year to Date	1,599	2	0.1	0	0.0	738	0.35	0.10	3.85

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

June 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
Year to Date	75	0	0.0	0	0.0	75	0.31	0.10	1.50
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				
Year to Date	286	0	0.0	0	0.0				

2.2.3 Giardia and Cryptosporidium

June 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

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

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

June 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	2	<0.2	<0.2	<0.2	2	1.5	
Physical																		
Colour (TCU)	0.8	<0.5	1.1	30	1.1	<0.5	1.7	30	0.9	<0.5	1.9	179	0.9	<0.5	1.8	181	(15)	10
Conductivity (uS/cm)	406	402	410	4	418	411	425	4	396	342	439	26	406	351	453	26		<1
FPA-Intensity (N/A)	1.06	1.00	1.12	4	1.02	0.62	1.50	4	1.17	0.75	1.88	36	1.06	0.62	2.12	36		
pH (N/A)	7.9	7.7	8.3	30	7.8	7.6	8.0	30	7.9	7.7	8.3	180	7.8	7.6	8.2	181	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	240	240	240	1	238	238	238	1	232	223	252	6	235	220	250	6	(500)	
Turbidity (NTU)	<0.04	<0.04	0.06	30	0.05	<0.04	0.09	30	<0.04	<0.04	0.07	179	0.05	<0.04	0.09	181		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	6	<0.0004	<0.0002	<0.0005	6	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6	0.01	
Barium	0.068	0.068	0.068	1	0.067	0.067	0.067	1	0.059	0.050	0.068	6	0.058	0.049	0.067	6	2	
Boron	0.011	0.011	0.011	1	0.010	0.010	0.010	1	0.010	0.009	0.011	6	0.009	0.008	0.010	6	2	
Bromate, dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.003	<0.005	26	<0.005	<0.003	<0.005	26	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6	0.007	
Chlorate Dissolved	0.22	0.21	0.24	4	0.16	0.13	0.23	4	0.24	0.18	0.33	26	<0.10	<0.05	0.23	26	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.035	<0.005	<0.200	26	<0.035	<0.005	<0.200	26	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	6	<0.004	<0.002	<0.005	6	2 (1)	
Fluoride	0.68	0.64	0.72	30	0.67	0.63	0.71	30	0.69	0.63	0.76	179	0.69	0.62	0.79	181	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	6	<0.0002	<0.0002	<0.0002	6	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	6	<0.002	<0.002	<0.002	6	0.12 (0.02)	
Mercury	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	<0.0008	<0.00005	<0.0050	8	<0.0008	<0.00005	<0.0050	8	0.001	
Nitrate (as N) Dissolved	0.03	0.01	0.05	4	0.02	0.01	0.03	4	0.07	0.01	0.17	26	0.07	<0.01	0.17	26	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	26	<0.010	<0.005	0.020	26	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	6	0.0003	0.0002	0.0003	6	0.05	
Total Chlorine	2.25	2.14	2.38	30	2.21	2.06	2.31	30	2.16	1.91	2.38	179	2.11	1.87	2.32	181	>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	6	<0.0005	<0.0005	0.0005	6	0.02	

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

June 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	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	<0.15	<0.05	<0.25	2	100	
Atrazine	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2	5	
Benzene	<0.5	<0.5	0.6	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	180	<0.5	<0.5	<0.5	182	5	
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2	0.04	
Bromoxynil	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	<0.15	<0.05	<0.25	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182	2	
Chlorobenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	80 (30)	
Chlorpyrifos	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2	90	
Cyanazine	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Diazinon	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2		
Dicamba	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.3	<0.1	<0.5	2	<0.3	<0.1	<0.5	2	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	179	<0.5	<0.5	<0.5	181	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<3.0	180	<0.5	<0.5	<3.0	182	14	
Dichlorophenol (2,4)	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	<0.3	<0.2	<0.3	2	<0.3	<0.2	<0.3	2		
Diclofop-methyl	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Dimethoate	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2	20	
Diuron	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2		
Ethylbenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	140 (1.6)	
Glyphosate	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.4	<0.2	<0.5	2	<0.4	<0.2	<0.5	2	280	
Haloacetic Acids, (HAA5)	28.2	28.2	28.2	1	28.6	28.6	28.6	1	20.2	16.3	28.2	6	18.2	13.7	28.6	6	80	40
Malathion	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2	190	
MCPA	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	<0.15	<0.05	<0.25	2	100	
Methylene Chloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	50	
Metolachlor	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2		
Metribuzin	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2	80	
NDMA	<0.0028	<0.0028	<0.0028	1	<0.0019	<0.0019	<0.0019	1	<0.0024	<0.0009	<0.0060	6	<0.0021	<0.0009	<0.0060	6	0.040	10
NTA (mg/L)				0				0	<0.4	<0.4	<0.4	2	<0.4	<0.4	<0.4	2	0.4	
Pentachlorophenol	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	2	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2	0.6	
Perfluorooctanoic acid (PFOA)				0				0	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2	0.0002	
Phorate	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	2	<0.25	<0.25	<0.25	2		
Picloram	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.3	<0.1	<0.5	2	<0.3	<0.1	<0.5	2		
Simazine	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Terbufos	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	2		
Tetrachloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	10	
Toluene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.6	180	<0.6	<0.5	3.3	182	60 (24)	

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

June 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	30	<1.0	<1.0	<1.0	30	<1.0	<1.0	<2.5	180	<1.0	<1.0	<2.5	182	90	
Trichloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	5	
Trifluralin	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Trihalomethanes	30.2	23.7	35.1	30	30.3	24.5	37.8	30	16.4	6.6	35.1	180	14.4	5.1	37.8	182	100	50
Vinyl Chloride	<1	<1	<1	30	<1	<1	<1	30	<1	<1	<1	179	<1	<1	<1	181	2	
Radionuclides (Bq/L)																		
Cesium-137	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	10	
Gross Alpha	<0.12	<0.12	<0.12	1	<0.15	<0.15	<0.15	1	<0.12	<0.12	<0.12	1	<0.15	<0.15	<0.15	1	(0.5)	
Gross Beta	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	(1.0)	
Iodine-131	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	6	
Lead-210	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	0.2	
Radium-226	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.5	
Strontium-90	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Tritium	<40	<40	<40	1	<40	<40	<40	1	<40	<40	<40	1	<40	<40	<40	1	7000	

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

June 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)	119	107	125	30	122	115	129	30	118	99	141	179	118	8	140	181		
Aluminum	0.027	0.027	0.027	1	0.035	0.035	0.035	1	0.043	0.023	0.089	6	0.040	0.026	0.089	6	2.9	0.1/0.2
Ammonia as NH3	0.12	0.11	0.14	13	0.11	0.09	0.12	13	0.13	0.08	0.16	47	0.11	0.08	0.15	47		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6		
Bromide Dissolved	<0.03	<0.03	<0.03	4	<0.03	<0.03	<0.03	4	<0.02	<0.01	<0.05	26	<0.02	<0.01	<0.05	26		
Calcium	45.3	45.3	45.3	1	45.3	45.3	45.3	1	46.7	43.7	51.3	6	47.0	44.2	51.4	6		
Calcium Hardness Calculated	113	113	113	1	113	113	113	1	111	109	113	2	112	110	113	2		
Chloride Dissolved	6.33	5.87	7.03	4	8.40	7.98	8.78	4	6.49	4.78	11.40	26	7.16	5.61	12.10	26	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	6	<0.07	<0.07	<0.07	6		
Hardness, Ca (mg CaCO3/L)	119	105	126	29	120	113	126	29	117	98	141	177	116	96	138	179		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	6	<0.005	<0.005	<0.005	6	(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	6	<0.001	<0.001	<0.001	6		
Lithium	0.0042	0.0042	0.0042	1	0.0033	0.0033	0.0033	1	0.0036	0.0031	0.0042	6	0.0033	0.0030	0.0037	6		
Magnesium	12.6	12.6	12.6	1	13.1	13.1	13.1	1	13.6	12.6	15.0	6	13.8	12.6	15.1	6		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0008	0.0008	1	0.0009	0.0007	0.0010	6	0.0008	0.0007	0.0009	6		
Nickel	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	<0.0005	<0.0005	0.0005	6	<0.0005	<0.0005	0.0005	6		
Phosphate,Ortho (as P)				0				0	<0.02	<0.02	<0.02	7	<0.02	<0.02	<0.02	6		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	6	<0.02	<0.02	<0.02	6		
Potassium	0.9	0.9	0.9	1	0.9	0.9	0.9	1	0.9	0.7	1.1	6	0.9	0.7	1.0	6		
Silicon	2.24	2.24	2.24	1	2.15	2.15	2.15	1	2.00	1.58	2.27	6	1.97	1.64	2.23	6		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6		
Sodium	16.1	16.1	16.1	1	18.9	18.9	18.9	1	10.8	6.8	16.1	6	13.3	7.4	18.9	6	(200)	
Strontium	0.385	0.385	0.385	1	0.408	0.408	0.408	1	0.441	0.385	0.488	6	0.442	0.408	0.478	6	7.0	
Sulphate Dissolved	75.2	71.0	83.5	4	76.0	73.1	80.6	4	72.7	59.5	86.8	26	76.0	60.4	95.1	26	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	6	<0.0004	<0.0002	<0.0005	6		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6	<0.0005	<0.0005	<0.0005	6		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6	<0.0005	<0.0005	<0.0005	6		
Total Hardness (mg/L CaCO3)	181	164	190	29	182	169	191	29	177	149	218	177	176	145	211	179		
Total Hardness Calculated	165	165	165	1	167	167	167	1	164	162	165	2	165	162	167	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6	<0.0005	<0.0005	<0.0005	6		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	6	<0.005	<0.005	<0.005	6	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	6	<0.001	<0.001	<0.001	6		

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

June 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	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Aldrin	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2	<0.008	<0.008	<0.008	2		
Azinphos-methyl	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	6	<1	<1	<1	6		
Bromodichloromethane	1.6	1.0	2.2	30	1.4	0.7	2.0	30	1.1	<0.5	2.2	180	0.9	<0.5	2.0	182		16
Bromoform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182		
Carbaryl	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2		
Carbofuran	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2		
Chloroform	28.3	21.80	32.9	30	28.6	22.50	36.0	30	15.0	5.70	32.9	180	13.1	4.30	36.0	182		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	6	<1	<1	<1	6		
Dibromochloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloroacetic acid	14.00	14.00	14.00	1	14.5	14.5	14.5	1	10.22	7.98	14.00	6	9.4	7.0	14.5	6		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dieldrin	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2	<0.008	<0.008	<0.008	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.5	180	<0.5	<0.5	<0.5	182	(15)	
MIBK	<1	<1	<1	30	<1	<1	<1	30	<1	<1	<1	180	<1	<1	<1	182		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	6	<1	<1	<1	6		
Monochloroacetic acid	1.00	1.00	1.00	1	1.24	1.24	1.24	1	<1.02	<1.00	1.12	6	<1.04	<1.00	1.24	6		
Parathion	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Perfluorobutanoic acid (PFBA)				0				0	<0.71	<0.02	<2.00	3	<0.71	<0.02	<2.00	3		
Perfluorodecanoic Acid (PFDA)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Perfluorododecanoic Acid (PFDoA)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Perfluoroheptanoic acid (PFHpA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2		
Perfluorohexanoic acid (PFHxA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluorononanoic acid (PFNA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluoropentanoic acid (PFPeA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluoroundecanoic Acid (PFUnA)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Styrene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182		
Total Organic Carbon	2.1	1.8	2.4	4	2.1	1.8	2.3	4	1.6	1.0	2.8	26	1.5	0.9	2.5	26		
Total Volatile Organics (NonTHM)	3.4	1.2	6.1	30	3	1	6	30	1.7	<1.0	6.1	180	2	<1	6	182		
Total Volatile Organics (Unknown)				0				0	1.1	<0.5	7.7	37	1.3	<0.5	3.6	40		
Triallate	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2		

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

June 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	13.20	13.20	13.20	1	12.90	12.90	12.90	1	9.60	7.95	13.20	6	8.55	6.22	12.90	6		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Xylene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Xylene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	180	<0.5	<0.5	0.9	182		

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

June 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	30	0.05	<0.04	0.07	30	<0.04	<0.04	0.13	179	0.05	<0.04	0.09	181		0.3
UV 254 %T ****	<93.2	<91.1	<94.8	30	<92.6	<90.9	<94.1	30	<94.1	<90.1	<96.9	179	<94.3	<90.9	<98.9	181		
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	26	<0.005	<0.003	<0.005	26	0.01	
Chlorate Dissolved	0.23	0.22	0.25	4	0.15	0.12	0.20	4	0.23	0.18	0.34	26	<0.10	<0.05	0.20	26	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.035	<0.005	<0.200	26	<0.035	<0.005	<0.200	26	1	
Nitrate (as N) Dissolved	0.03	<0.01	0.05	4	0.02	0.01	0.03	4	0.07	<0.01	0.17	26	0.07	<0.01	0.16	26	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	26	<0.010	<0.005	0.020	26	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182	2	
Chlorobenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	179	<0.5	<0.5	<0.5	181	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<3.0	180	<0.5	<0.5	<3.0	182	14	
Ethylbenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	10	
Toluene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.6	<0.5	4.1	180	<0.5	<0.5	1.8	182	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	30	<1.0	<1.0	<1.0	30	<1.0	<1.0	<2.5	180	<1.0	<1.0	<2.5	182	90	
Trichloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	5	
Trihalomethanes	24.6	19.6	30.6	30	22.5	18.4	28.0	30	13.1	5.3	30.6	180	11.2	3.7	28.0	182	100	50
Vinyl Chloride	<1	<1	<1	30	<1	<1	<1	30	<1	<1	<1	179	<1	<1	<1	181	2	
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.11	0.08	0.13	13	0.10	0.06	0.14	13	0.12	0.08	0.16	47	0.11	0.06	0.16	47		
Bromide Dissolved	<0.03	<0.03	<0.03	4	<0.03	<0.03	<0.03	4	<0.02	<0.01	<0.05	26	<0.02	<0.01	<0.05	26		
Chloride Dissolved	6.44	5.70	7.97	4	8.3	7.8	8.7	4	6.89	4.65	19.90	26	7.2	5.5	12.9	26	(250)	
Sulphate Dissolved	75.4	70.9	83.2	4	75.6	72.7	80.7	4	73.3	59.2	95.8	26	76.1	59.8	95.3	26	(500)	

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

June 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	0.8	2.0	30	1.2	0.8	1.7	30	0.9	<0.5	2.0	180	0.8	<0.5	1.7	182		16
Bromoform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182		
Chloroform	22.8	18.20	28.5	30	20.9	17.10	26.1	30	11.9	4.60	28.5	180	10.1	3.00	26.1	182		
Dibromochloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182	(15)	
MIBK	<1	<1	<1	30	<1	<1	<1	30	<1	<1	<1	180	<1	<1	<1	182		
Styrene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182		
Total Volatile Organics (NonTHM)	3.1	1.4	5.9	30	3.3	1.3	6.7	30	1.6	<1.0	6.5	180	1.6	<1.0	6.7	182		
Total Volatile Organics (Unknown)				0				0	1.0	<0.5	1.9	35	1.1	<0.5	2.1	39		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Xylene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182		
Xylene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.3	180	<0.5	<0.5	0.6	182		

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)

June 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Microbiological										
Microcystin				0	<0.2	<0.2	<0.2	2	1.5	
Physical										
Colour (TCU)				0	0.7	0.6	0.7	2	(15)	10
pH (N/A)	7.7	7.6	7.9	56	7.7	7.6	8.0	100	(7.0 - 10.5)	7.3 - 8.3
Total Dissolved Solids (mg/L)				0	230	227	233	2	(500)	
Turbidity (NTU)	0.23	0.05	3.06	124	0.23	<0.04	5.03	866		1.0
UV 254 %T				0	<93.2	<92.7	<93.7	2		
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.059	0.057	0.061	2	2	
Boron				0	0.010	0.009	0.010	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.003	<0.005	12	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved	0.18	0.12	0.24	2	0.18	<0.08	0.30	12	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	2	<0.054	<0.005	<0.200	12	1	
Chromium				0	0.0003	<0.0002	0.0003	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.70	0.65	0.74	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury				0	<0.00140	<0.00005	<0.00500	4	0.001	
Nitrate (as N) Dissolved	0.04	<0.01	0.17	56	0.06	<0.01	0.18	120	10	
Nitrite (as N) Dissolved	<0.007	<0.005	<0.010	56	<0.006	<0.005	0.020	120	1	
Selenium				0	0.0003	<0.0002	0.0003	2	0.05	
Strontium				0	0.456	0.445	0.466	2	7.0	
Total Chlorine	1.83	0.95	2.39	124	1.93	0.86	2.44	864	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	

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

June 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	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	100	
Atrazine	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	5	
Atrazine+N-Dealkylated Metabolites				0	<0.1	<0.1	<0.1	1	0.005	
Azinphos-methyl	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	0.02	
Benzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	5	
Benzo(a)pyrene				0	<0.005	<0.005	<0.005	2	0.04	
Bromoxynil	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	2	
Chlorobenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	80 (30)	
Chlorpyrifos	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	90	
Cyanazine	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Diazinon	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Dicamba	<0.5	<0.5	<0.5	1	<0.3	<0.1	<0.5	2	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	14	
Dichlorophenol (2,4)	<0.2	<0.2	<0.2	1	<0.3	<0.2	<0.3	2		
Diclofop-methyl	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Dimethoate	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	20	
Diquat	<1	<1	<1	1	<1	<1	<1	2	0.05	
Diuron	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2		
Ethylbenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	140 (1.6)	
Glyphosate	<0.5	<0.5	<0.5	1	<0.4	<0.2	<0.5	2	280	
Malathion	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	190	
MCPA	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	100	
Methylene Chloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	50	
Metolachlor	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Metribuzin	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	80	
NDMA (µg/L)	<0.00330	<0.00250	<0.00460	3	<0.00310	<0.00100	0.00690	18	0.040	10
Nitrilotriacetic acid				0	<0.4	<0.4	<0.4	2	0.4	
Paraquat				0	<1	<1	<1	1	0.07	
Pentachlorophenol	<1.0	<1.0	<1.0	1	<0.8	<0.5	<1.0	2	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0	<0.011	<0.002	<0.020	2	0.0006	
Perfluorooctanoic acid (PFOA)				0	<0.011	<0.002	<0.020	2	0.0002	
Phorate	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	2		
Picloram	<0.5	<0.5	<0.5	1	<0.3	<0.1	<0.5	2		
Simazine	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Terbufos	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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

June 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	6	<0.5	<0.5	<0.5	36	10	
Tetrachlorophenol (2,3,4,6)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	100 (1)	
Toluene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	60 (24)	
Total Xylenes	<1	<1	<1	6	<1	<1	<1	36	90	
Trichloroethylene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	5	
Trichlorophenol (2,4,6)	<0.2	<0.2	<0.2	1	<0.4	<0.2	<0.5	2	5 (2)	
Trifluralin	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Vinyl Chloride	<1	<1	<1	6	<1	<1	<1	36	2	

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

June 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	2		
Alkalinity, PHP (mg CaCO3/L)				0	<3	<3	<3	2		
Aluminum				0	0.016	0.014	0.018	2	2.9	0.1/0.2
Ammonia as N	0.16	0.13	0.18	2	0.14	0.10	0.24	14		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.03	<0.03	<0.03	2	<0.03	<0.01	<0.05	12		
Calcium				0	47.0	46.5	47.4	2		
Chloride Dissolved	7.66	6.59	8.73	2	6.51	4.87	8.73	12	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Free Chlorine				0	<0.07	<0.07	<0.07	2		
Iron				0	0.009	<0.005	0.013	2	(0.3)	0.3
Lanthanum				0	<0.001	<0.001	<0.001	2		
Lithium				0	0.0035	0.0034	0.0036	2		
Magnesium				0	14.4	13.4	15.3	2		
Molybdenum				0	0.0010	0.0009	0.0010	2		
Nickel				0	0.0008	<0.0005	0.0010	2		
Phosphorus				0	0.98	0.91	1.05	2		
Potassium				0	0.9	0.8	0.9	2		
Silicon				0	2.09	1.78	2.40	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	12.2	11.2	13.2	2	(200)	
Sulphate Dissolved	80.0	77.5	82.4	2	69.8	59.0	82.4	12	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	177	171	183	2		
Total Kjeldahl Nitrogen				0	0.4	0.4	0.4	1		
Total Kjeldahl Nitrogen (TKN)				0	0.4	0.4	0.4	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.001	<0.001	<0.001	2		

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

June 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	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)				0	<0.011	<0.002	<0.020	2		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)				0	<0.011	<0.002	<0.020	2		
a-chlordane	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Alachlor	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2		
Aldicarb	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Aldrin	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Ametryn	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Atrazine Desethyl	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Bendiocarb	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	36		
Bromodichloromethane	1.1	0.6	1.4	6	1.1	0.6	1.9	36		16
Bromoform	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Carbaryl	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2		
Carbofuran	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Chloroform	33.7	29.9	37.4	6	16.3	7.6	37.4	36		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	36		
Dibromochloromethane	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Dichloroacetic acid	14.13	13.10	15.30	6	9.47	5.90	15.30	36		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Dieldrin	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Dinoseb	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2		
gamma-hexachlorocyclohexane	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
g-chlordane	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Heptachlor	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Heptachlor Epoxide	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Methoxychlor	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Methyl Parathion	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36	(15)	
MIBK	<1	<1	<1	6	<1	<1	<1	36		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	36		
Monochloroacetic acid	1.20	1.10	1.31	6	1.03	<1.00	1.31	36		
op-DDT	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	2		
Oxychlordane	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2		
Parathion	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Perfluorobutane sulfonic acid (PFBS)				0	<0.011	<0.002	<0.020	2		

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

June 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	<0.06	<0.02	<0.10	2		
Perfluoroheptanoic acid (PFHpA)				0	<0.011	<0.002	<0.020	2		
Perfluorohexane sulfonic acid (PFHxS)				0	<0.011	<0.002	<0.020	2		
Perfluorohexanoic acid (PFHxA)				0	<0.011	<0.002	<0.020	2		
Perfluorononanoic acid (PFNA)				0	<0.011	<0.002	<0.020	2		
Perfluoropentanoic acid (PFPeA)				0	<0.011	<0.002	<0.020	2		
pp-DDD	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	2		
pp-DDE	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	2		
pp-DDT	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	2		
Prometon	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Prometryne				0	<0.025	<0.025	<0.025	1		
Propazine	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Styrene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Temephos	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	2		
Terbutryn	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Total Organic Carbon	2.1	1.6	2.7	56	2.1	1.3	2.7	92		
Total Volatile Organics (NonTHM)	3.3	3.0	3.6	6	1.6	<1.0	3.6	36		
Total Volatile Organics (Unknown)				0	0.9	<0.5	1.6	9		
Triallate	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2		
Trichloroacetic acid	12.07	10.70	13.00	6	8.40	5.40	13.00	36		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Xylene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		
Xylene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	36		

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

June 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.8	0.6	1.2	13	0.8	<0.5	1.9	75	(15)	10
pH (N/A)	7.8	7.7	7.9	13	7.8	7.6	8.1	75	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.65	0.11	1.62	13	0.46	<0.04	2.89	75		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	13	<0.0004	<0.0002	<0.0005	75	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	75	0.01	
Barium	0.069	0.066	0.073	13	0.060	0.048	0.093	75	2	
Boron	0.012	0.010	0.015	13	0.011	0.007	0.036	75	2	
Cadmium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	75	0.007	
Chromium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	75	0.05	
Copper	0.002	<0.002	0.003	13	<0.004	<0.002	0.048	75	2 (1)	
Lead	<0.0002	<0.0002	<0.0002	13	0.0002	<0.0002	0.0010	75	0.005	
Manganese	0.003	<0.002	0.008	13	0.002	<0.002	0.008	75	0.12 (0.02)	
Mercury				0				0	0.001	
Selenium	0.0003	0.0003	0.0003	13	0.0002	<0.0002	0.0003	75	0.05	
Strontium	0.467	0.410	0.492	13	0.446	0.388	0.492	75	7.0	
Total Chlorine	1.75	1.39	2.05	13	1.85	1.24	2.27	75	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	13	0.0005	<0.0005	0.0006	75	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	2	
Chlorobenzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	14	
Ethylbenzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	10	
Toluene	<0.5	<0.5	<0.5	13	0.6	<0.5	3.4	75	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	13	1.0	<1.0	1.2	75	90	
Trichloroethylene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	5	
Vinyl Chloride	<1	<1	<1	13	<1	<1	<1	75	2	

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

June 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	0.064	0.018	0.148	13	0.062	0.012	0.955	75	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	75		
Calcium	50.7	46.3	53.0	13	48.2	39.9	54.3	75		
Cobalt	0.0002	<0.0002	0.0003	13	0.0002	<0.0002	0.0006	75		
Iron	0.119	<0.005	0.282	13	0.069	<0.005	0.401	75	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	13	<0.001	<0.001	<0.001	75		
Lithium	0.0045	0.0033	0.0050	13	0.0038	0.0026	0.0076	75		
Magnesium	14.4	12.8	15.0	13	13.7	11.3	16.4	75		
Molybdenum	0.0009	0.0008	0.0010	13	0.0008	0.0006	0.0011	75		
Nickel	0.0007	<0.0005	0.0028	13	0.0006	<0.0005	0.0028	75		
Phosphorus	0.99	0.89	1.06	13	0.99	0.33	1.62	75		
Potassium	0.8	0.8	0.9	13	1.0	0.7	2.8	75		
Silicon	2.10	1.95	2.30	13	2.10	1.63	2.69	75		
Silver	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	75		
Sodium	11.1	8.5	18.9	13	12.1	6.6	20.8	75	(200)	
Thallium	<0.0002	<0.0002	<0.0002	13	<0.0003	<0.0002	<0.0005	75		
Tin	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	75		
Titanium	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	75		
Total Hardness (mg/L CaCO3)	186	169	194	13	177	147	201	75		
Vanadium	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	75		
Zinc	<0.005	<0.005	<0.005	13	0.005	<0.005	0.023	75	(5.0)	
Zirconium	<0.001	<0.001	<0.001	13	<0.001	<0.001	<0.001	75		

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

June 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	1.7	1.4	2.1	13	1.2	<0.5	2.1	75		16
Bromoform	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Chloroform	27.8	22.4	34.7	13	16.3	5.6	34.7	75		
Dibromochloromethane	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75	(15)	
MIBK	<1	<1	<1	13	<1	<1	<1	75		
Styrene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Total Volatile Organics (NonTHM)	4.4	1.9	6.9	13	2.0	<1.0	6.9	75		
Total Volatile Organics (Unknown)	3.8	3.8	3.8	1	2.0	<0.5	7.7	15		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Xylene (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	75		
Xylene (1,4)	<0.5	<0.5	<0.5	13	0.5	<0.5	1.1	75		

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

June 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	1.2	2	(15)	10
Conductivity (uS/cm)				0	396	391	400	2		
Odour				0	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	3	7.8	7.8	7.8	6	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.11	0.14	3	0.13	0.06	0.46	22		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.054	0.051	0.056	2	2	
Boron				0	0.009	0.009	0.009	2	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	2	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved				0	0.097	0.050	0.143	2	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	2	1	
Chromium				0	<0.0002	<0.0002	<0.0002	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.73	0.70	0.75	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	0.003	<0.002	0.003	2	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.030	0.020	0.040	3	0.065	0.020	0.170	8	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	3	<0.008	<0.005	0.010	8	1	
Selenium				0	0.0003	0.0002	0.0003	2	0.05	
Strontium				0	0.445	0.437	0.453	2	7.0	
Total Chlorine	1.80	1.78	1.83	3	1.79	1.27	2.06	22	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	2	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	2	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	2	10	
Toluene				0	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes				0	<1	<1	<1	2	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	2	2	

2.2.7 Castledowns Reservoir

June 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	2		
Aluminum				0	0.027	0.022	0.031	2	2.9	0.1/0.2
Ammonia as	0.16	0.16	0.16	3	0.16	0.15	0.17	5		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved				0	<0.010	<0.010	<0.010	2		
Calcium				0	46.6	45.5	47.7	2		
Calcium Hardness				0	121	121	121	1		
Calcium Hardness Calculated				0	114	114	114	1		
Chloride Dissolved				0	6.8	6.2	7.4	2	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Iron				0	0.042	<0.005	0.078	2	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	2		
Lithium				0	0.0031	0.0030	0.0032	2		
Magnesium				0	13.5	13.3	13.7	2		
Molybdenum				0	0.0009	0.0008	0.0009	2		
Nickel				0	<0.0005	<0.0005	<0.0005	2		
Ortho_P				0	0.88	0.86	0.92	6		
Phosphorus				0	0.95	0.87	1.02	2		
Potassium				0	1.00	0.80	1.20	2		
Silicon				0	1.94	1.67	2.21	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	12.0	9.9	14.1	2	(200)	
Sulphate Dissolved				0	71.0	69.6	72.3	2	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated				0	168	168	168	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	2		

2.2.7 Castledowns Reservoir

June 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	2		16
Bromoform				0	<0.5	<0.5	<0.5	2		
Chloroform				0	12.7	6.9	18.4	2		
Dibromochloromethane				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	2	(15)	
MIBK				0	<1.0	<1.0	<1.0	2		
Styrene				0	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	2		
Total Organic Carbon	2.0	1.9	2.3	3	1.7	0.9	2.3	6		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	2		
Total Volatile Organics (Unknown)				0	0.7	0.7	0.7	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	2		
Xylene (1,2)				0	<0.5	<0.5	<0.5	2		
Xylene (1,4)				0	<0.5	<0.5	<0.5	2		

TABLE EXPLANATIONS:

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

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

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

2.2.8 Clareview Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.0	1.0	1.0	1	0.9	0.7	1.0	4	(15)	10
Conductivity (uS/cm)	409	409	409	1	399	368	421	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.9	7.8	8.1	4	7.9	7.8	8.1	9	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.18	0.14	0.26	4	0.14	0.10	0.26	26		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.068	0.068	0.068	1	0.062	0.056	0.068	4	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.218	0.218	0.218	1	0.195	0.172	0.218	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.054	<0.005	<0.200	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	0.69	0.69	0.69	1	0.68	0.65	0.71	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	0.065	0.020	0.180	4	0.074	0.020	0.180	10	10	
Nitrite (as N) Dissolved	<0.009	<0.005	<0.010	4	<0.008	<0.005	0.010	10	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.420	0.420	0.420	1	0.439	0.405	0.481	4	7.0	
Total Chlorine	1.78	1.75	1.82	4	1.92	1.71	2.09	26	>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	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4	2	

2.2.8 Clareview Reservoir

June 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	114	114	114	1	118	109	129	4		
Aluminum	0.026	0.026	0.026	1	0.038	0.023	0.078	4	2.9	0.1/0.2
Ammonia as NH3	0.20	0.18	0.21	4	0.19	0.17	0.21	7		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.025	<0.010	<0.050	4		
Calcium	46.4	46.4	46.4	1	47.4	43.7	51.3	4		
Calcium Hardness				0	124	118	130	2		
Calcium Hardness Calculated	116	116	116	1	113	109	116	2		
Chloride Dissolved	7.0	7.0	7.0	1	6.2	5.5	7.0	4	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	0.018	0.018	0.018	1	0.015	0.012	0.018	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0038	0.0038	0.0038	1	0.0036	0.0032	0.0038	4		
Magnesium	13.3	13.3	13.3	1	13.7	12.2	14.9	4		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P				0	0.87	0.86	0.92	7		
Phosphorus	0.96	0.96	0.96	1	0.95	0.91	0.96	4		
Potassium	0.90	0.90	0.90	1	0.88	0.70	1.10	4		
Silicon	2.13	2.13	2.13	1	2.04	1.93	2.13	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	14.3	14.3	14.3	1	12.1	7.2	16.2	4	(200)	
Sulphate Dissolved	76.4	76.4	76.4	1	70.4	59.6	76.4	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	188	177	198	2		
Total Hardness Calculated	171	171	171	1	166	160	171	2		
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		

2.2.8 Clareview Reservoir

June 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	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Chloroform	34.8	34.8	34.8	1	23.5	13.9	34.8	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Total Organic Carbon	2.1	1.8	2.5	4	2.0	1.3	2.5	9		
Total Volatile Organics (NonTHM)	3.2	3.2	3.2	1	1.8	<1.0	3.2	4		
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	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.9 Discovery Park Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	<0.5	<0.5	<0.5	2	0.7	<0.5	1.0	5	(15)	10
Conductivity (uS/cm)	420	419	420	2	399	367	420	5		
Odour	Inoff	Inoff	Inoff	2	Inoff	Inoff	Inoff	5		
pH (N/A)	8.0	7.9	8.1	5	8.0	7.8	8.1	10	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.09	0.20	5	0.10	0.06	0.20	27		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	2	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.069	0.068	0.069	2	0.061	0.054	0.069	5	2	
Boron	0.010	0.010	0.010	2	0.009	0.008	0.010	5	2	
Bromate Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.003	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved	0.128	0.127	0.129	2	0.111	<0.090	0.129	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	2	<0.044	<0.005	<0.200	5	1	
Chromium	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5	0.05	
Copper	<0.002	<0.002	<0.002	2	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.65	0.65	0.65	2	0.69	0.65	0.77	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	2	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.070	0.040	0.190	5	0.065	0.020	0.190	11	10	
Nitrite (as N) Dissolved	<0.009	<0.005	<0.010	5	<0.008	<0.005	0.010	11	1	
Selenium	0.0003	0.0003	0.0003	2	0.0003	0.0002	0.0003	5	0.05	
Strontium	0.414	0.410	0.418	2	0.436	0.410	0.474	5	7.0	
Total Chlorine	1.36	1.27	1.43	5	1.45	1.13	1.68	27	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	2	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	10	
Toluene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes	<1	<1	<1	2	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	2	<1.0	<1.0	<1.0	5	2	

2.2.9 Discovery Park Reservoir

June 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	117	118	2	118	111	126	5		
Aluminum	0.046	0.045	0.047	2	0.046	0.021	0.093	5	2.9	0.1/0.2
Ammonia as NH3	0.21	0.19	0.22	5	0.20	0.17	0.23	9		
Beryllium	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	2	<0.026	<0.010	<0.050	5		
Calcium	45.9	45.7	46.0	2	45.5	43.9	46.2	5		
Calcium Hardness				0	119	113	124	2		
Calcium Hardness Calculated	115	114	115	2	113	110	115	3		
Chloride Dissolved	8.4	8.4	8.4	2	7.2	6.0	8.4	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5		
Iron	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	2	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0031	0.0031	0.0031	2	0.0032	0.0030	0.0034	5		
Magnesium	13.2	13.1	13.3	2	13.4	12.7	14.2	5		
Molybdenum	0.0009	0.0008	0.0009	2	0.0008	0.0006	0.0009	5		
Nickel	0.0006	0.0005	0.0006	2	<0.0005	<0.0005	0.0006	5		
Ortho_P				0	0.89	0.86	0.92	7		
Phosphorus	1.01	1.00	1.02	2	0.97	0.91	1.02	5		
Potassium	0.90	0.90	0.90	2	0.88	0.80	1.00	5		
Silicon	2.18	2.15	2.21	2	1.94	1.57	2.21	5		
Silver	<0.0002	<0.0002	<0.0002	2	<0.0002	<0.0002	<0.0002	5		
Sodium	19.3	19.2	19.4	2	14.1	7.4	19.4	5	(200)	
Sulphate Dissolved	80.7	80.4	81.0	2	73.6	58.6	81.0	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	2	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	2	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	2	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	178	174	182	2		
Total Hardness Calculated	169	168	170	2	167	162	170	3		
Vanadium	<0.0005	<0.0005	<0.0005	2	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	2	<0.0010	<0.0010	<0.0010	5		

2.2.9 Discovery Park Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.5	1.5	1.5	2	1.2	0.7	1.5	5		16
Bromoform	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5		
Chloroform	36.9	35.9	37.8	2	23.5	11.7	37.8	5		
Dibromochloromethane	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5	(15)	
MIBK	<1.0	<1.0	<1.0	2	<1.0	<1.0	<1.0	5		
Styrene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5		
Total Organic Carbon	2.2	2.0	2.4	5	1.9	1.2	2.4	10		
Total Volatile Organics (NonTHM)	3.2	2.9	3.5	2	2.1	<1.0	3.5	5		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5		
Xylene (1,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	5		
Xylene (1,4)	<0.5	<0.5	<0.5	2	<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

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

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.5	0.5	0.5	1	1.1	0.5	1.6	4	(15)	10
Conductivity (uS/cm)	413	413	413	1	405	370	426	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.7	7.7	7.9	4	7.8	7.6	7.9	9	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.06	0.14	4	0.08	0.05	0.14	26		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.069	0.069	0.069	1	0.063	0.056	0.069	4	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.126	0.126	0.126	1	<0.102	<0.080	0.126	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.054	<0.005	<0.200	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	0.65	0.65	0.65	1	0.69	0.65	0.74	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	0.063	0.020	0.170	4	0.058	<0.010	0.170	10	10	
Nitrite (as N) Dissolved	<0.009	<0.005	<0.010	4	<0.008	<0.005	0.010	10	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.440	0.440	0.440	1	0.442	0.385	0.483	4	7.0	
Total Chlorine	1.94	1.88	1.99	4	2.03	1.83	2.23	26	>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	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4	2	

2.2.10 Kaskitayo Reservoir

June 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	126	126	126	1	123	118	128	4		
Aluminum	0.038	0.038	0.038	1	0.045	0.022	0.097	4	2.9	0.1/0.2
Ammonia as NH3	0.16	0.14	0.18	4	0.16	0.14	0.18	8		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.025	<0.010	<0.050	4		
Calcium	47.1	47.1	47.1	1	47.3	43.3	51.2	4		
Calcium Hardness				0	124	118	129	2		
Calcium Hardness Calculated	118	118	118	1	113	108	118	2		
Chloride Dissolved	8.2	8.2	8.2	1	7.2	6.0	8.2	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	0.0033	0.0033	0.0033	1	0.0032	0.0029	0.0036	4		
Magnesium	13.9	13.9	13.9	1	13.7	11.8	15.1	4		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P				0	0.93	0.88	1.02	7		
Phosphorus	0.98	0.98	0.98	1	0.94	0.87	0.98	4		
Potassium	0.90	0.90	0.90	1	0.88	0.70	1.10	4		
Silicon	1.99	1.99	1.99	1	2.04	1.93	2.16	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	15.2	15.2	15.2	1	14.2	7.4	22.0	4	(200)	
Sulphate Dissolved	75.9	75.9	75.9	1	73.7	60.7	79.6	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	184	178	190	2		
Total Hardness Calculated	175	175	175	1	166	157	175	2		
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		

2.2.10 Kaskitayo Reservoir

June 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	1.2	0.7	1.8	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Chloroform	31.6	31.6	31.6	1	20.8	9.8	31.6	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Total Organic Carbon	2.2	1.8	2.6	4	2.0	1.2	2.6	9		
Total Volatile Organics (NonTHM)	4.1	4.1	4.1	1	2.1	<1.0	4.1	4		
Total Volatile Organics (Unknown)				0	1.1	1.1	1.1	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

June 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	2	(15)	10
Conductivity (uS/cm)				0	391	390	391	2		
Odour				0	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.9	4	7.8	7.7	7.9	8	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.24	0.06	0.49	4	0.12	0.06	0.49	26		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.054	0.052	0.056	2	2	
Boron				0	0.011	0.010	0.012	2	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	2	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved				0	0.213	0.188	0.238	2	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	2	1	
Chromium				0	<0.0002	<0.0002	<0.0002	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.72	0.70	0.73	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.068	0.030	0.180	4	0.074	0.030	0.180	10	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	4	<0.007	<0.005	0.010	10	1	
Selenium				0	0.0003	0.0002	0.0003	2	0.05	
Strontium				0	0.436	0.412	0.459	2	7.0	
Total Chlorine	1.82	1.71	1.94	4	1.98	1.71	2.25	26	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	2	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	2	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	2	10	
Toluene				0	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes				0	<1	<1	<1	2	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	2	2	

2.2.11 Londonderry Reservoir

June 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	2		
Aluminum				0	0.021	0.018	0.023	2	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.20	4	0.18	0.17	0.20	7		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved				0	<0.010	<0.010	<0.010	2		
Calcium				0	46.9	44.6	49.2	2		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	111	111	111	1		
Chloride Dissolved				0	6.4	5.7	7.2	2	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Iron				0	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	2		
Lithium				0	0.0036	0.0033	0.0039	2		
Magnesium				0	13.8	13.3	14.3	2		
Molybdenum				0	0.0009	0.0008	0.0010	2		
Nickel				0	<0.0005	<0.0005	<0.0005	2		
Ortho_P				0	0.90	0.86	0.92	7		
Phosphorus				0	0.96	0.89	1.03	2		
Potassium				0	1.10	0.80	1.40	2		
Silicon				0	2.09	1.83	2.35	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	11.4	9.8	13.0	2	(200)	
Sulphate Dissolved				0	73.2	72.9	73.4	2	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated				0	166	166	166	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	2		

2.2.11 Londonderry Reservoir

June 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	1.0	1.4	2		16
Bromoform				0	<0.5	<0.5	<0.5	2		
Chloroform				0	11.5	8.5	14.5	2		
Dibromochloromethane				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	2	(15)	
MIBK				0	<1.0	<1.0	<1.0	2		
Styrene				0	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	2		
Total Organic Carbon	2.1	1.7	2.5	4	1.9	1.0	2.5	8		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	2		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	2		
Xylene (1,2)				0	<0.5	<0.5	<0.5	2		
Xylene (1,4)				0	<0.5	<0.5	<0.5	2		

TABLE EXPLANATIONS:

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

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

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

2.2.12 Millwoods Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.9	<0.5	1.2	2	(15)	10
Conductivity (uS/cm)				0	396	389	402	2		
Odour				0	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.7	8.0	4	7.8	7.7	8.0	8	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.13	4	0.09	0.06	0.15	26		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.054	0.051	0.056	2	2	
Boron				0	0.010	0.009	0.010	2	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	2	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved				0	0.095	0.090	0.100	2	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	2	1	
Chromium				0	<0.0002	<0.0002	<0.0002	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.70	0.68	0.72	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.060	0.020	0.160	4	0.057	0.020	0.160	10	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	4	<0.007	<0.005	0.010	10	1	
Selenium				0	0.0003	0.0002	0.0003	2	0.05	
Strontium				0	0.442	0.422	0.461	2	7.0	
Total Chlorine	1.93	1.88	1.96	4	2.03	1.79	2.21	26	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	3	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	3	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	3	10	
Toluene				0	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes				0	<1	<1	<1	3	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	3	2	

2.2.12 Millwoods Reservoir

June 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	123	2		
Aluminum				0	0.023	0.022	0.023	2	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.17	4	0.17	0.15	0.18	8		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved				0	<0.010	<0.010	<0.010	2		
Calcium				0	46.8	45.2	48.4	2		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	113	113	113	1		
Chloride Dissolved				0	6.7	6.1	7.2	2	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Iron				0	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	2		
Lithium				0	0.0032	0.0031	0.0033	2		
Magnesium				0	13.7	13.3	14.1	2		
Molybdenum				0	0.0009	0.0007	0.0011	2		
Nickel				0	<0.0005	<0.0005	<0.0005	2		
Ortho_P				0	0.90	0.88	0.96	7		
Phosphorus				0	0.96	0.90	1.01	2		
Potassium				0	0.95	0.80	1.10	2		
Silicon				0	1.98	1.67	2.29	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	13.0	12.7	13.3	2	(200)	
Sulphate Dissolved				0	73.2	71.5	74.8	2	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	168	168	168	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	2		

2.2.12 Millwoods Reservoir

June 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	0.7	1.0	3		16
Bromoform				0	<0.5	<0.5	<0.5	3		
Chloroform				0	8.3	6.8	9.9	3		
Dibromochloromethane				0	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	3	(15)	
MIBK				0	<1.0	<1.0	<1.0	3		
Styrene				0	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.2	1.8	2.6	4	1.9	0.9	2.6	8		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	1.1	3		
Total Volatile Organics (Unknown)				0	1.3	1.3	1.3	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	3		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	3		
Xylene (1,2)				0	<0.5	<0.5	<0.5	3		
Xylene (1,4)				0	<0.5	<0.5	<0.5	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

2.2.13 North Jasper Place Reservoir

June 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	1.0	4	(15)	10
Conductivity (uS/cm)	416	416	416	1	402	367	421	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.9	7.8	8.0	4	7.8	7.8	8.0	9	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.15	4	0.09	0.05	0.21	26		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0003	4	0.01	
Barium	0.068	0.068	0.068	1	0.060	0.054	0.068	4	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.117	0.117	0.117	1	<0.102	<0.080	0.117	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.054	<0.005	<0.200	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	0.69	0.69	0.69	1	0.68	0.64	0.71	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	0.075	0.030	0.190	4	0.078	0.030	0.190	10	10	
Nitrite (as N) Dissolved	<0.009	<0.005	<0.010	4	<0.008	<0.005	0.010	10	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.419	0.419	0.419	1	0.440	0.416	0.481	4	7.0	
Total Chlorine	1.52	1.47	1.55	4	1.79	1.47	2.07	26	>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	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4	2	

2.2.13 North Jasper Place Reservoir

June 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	113	113	113	1	118	112	128	4		
Aluminum	0.025	0.025	0.025	1	0.044	0.024	0.102	4	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.20	4	0.18	0.16	0.20	7		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.025	<0.010	<0.050	4		
Calcium	45.1	45.1	45.1	1	46.6	43.9	51.0	4		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	113	113	113	1	112	110	113	2		
Chloride Dissolved	8.0	8.0	8.0	1	6.9	6.0	8.0	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	0.0030	0.0030	0.0030	1	0.0032	0.0030	0.0036	4		
Magnesium	13.1	13.1	13.1	1	13.5	12.2	14.7	4		
Molybdenum	0.0008	0.0008	0.0008	1	0.0007	0.0005	0.0009	4		
Nickel	0.0005	0.0005	0.0005	1	<0.0005	<0.0005	0.0005	4		
Ortho_P				0	0.90	0.88	0.96	7		
Phosphorus	1.00	1.00	1.00	1	0.97	0.92	1.00	4		
Potassium	0.90	0.90	0.90	1	0.85	0.70	1.00	4		
Silicon	2.09	2.09	2.09	1	1.97	1.78	2.09	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	19.0	19.0	19.0	1	13.8	7.2	19.0	4	(200)	
Sulphate Dissolved	80.4	80.4	80.4	1	72.4	59.5	80.4	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	184	173	194	2		
Total Hardness Calculated	167	167	167	1	164	160	167	2		
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		

2.2.13 North Jasper Place Reservoir

June 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	1.6	1.6	1.6	1	1.3	0.9	1.6	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Chloroform	36.0	36.0	36.0	1	21.8	12.7	36.0	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Total Organic Carbon	2.2	1.9	2.4	4	1.9	1.2	2.4	9		
Total Volatile Organics (NonTHM)	3.4	3.4	3.4	1	1.9	<1.0	3.4	4		
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	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.14 Ormsby Reservoir

June 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	2	(15)	10
Conductivity (uS/cm)				0	402	395	408	2		
Odour				0	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.7	8.0	4	7.8	7.7	8.0	8	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.06	0.14	4	0.09	0.05	0.14	26		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.054	0.051	0.057	2	2	
Boron				0	0.011	0.010	0.011	2	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	2	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved				0	0.070	0.060	0.080	2	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	2	1	
Chromium				0	<0.0002	<0.0002	<0.0002	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.70	0.68	0.71	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.063	0.020	0.170	4	0.056	0.010	0.170	10	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	4	<0.007	<0.005	0.010	10	1	
Selenium				0	0.0003	0.0002	0.0003	2	0.05	
Strontium				0	0.441	0.424	0.458	2	7.0	
Total Chlorine	1.83	1.78	1.89	4	1.97	1.71	2.15	26	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	3	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	3	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	3	10	
Toluene				0	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes				0	<1	<1	<1	3	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	3	2	

2.2.14 Ormsby Reservoir

June 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	123	2		
Aluminum				0	0.028	0.023	0.032	2	2.9	0.1/0.2
Ammonia as NH3	0.17	0.15	0.18	4	0.16	0.15	0.18	8		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved				0	<0.010	<0.010	<0.010	2		
Calcium				0	45.6	43.9	47.3	2		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	110	110	110	1		
Chloride Dissolved				0	6.9	6.3	7.5	2	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Iron				0	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	2		
Lithium				0	0.0031	0.0030	0.0032	2		
Magnesium				0	13.5	13.1	13.8	2		
Molybdenum				0	0.0010	0.0008	0.0011	2		
Nickel				0	<0.0005	<0.0005	<0.0005	2		
Ortho_P				0	0.91	0.84	0.98	7		
Phosphorus				0	0.94	0.88	1.00	2		
Potassium				0	1.05	0.80	1.30	2		
Silicon				0	2.01	1.68	2.33	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	13.7	12.9	14.4	2	(200)	
Sulphate Dissolved				0	74.3	73.6	75.0	2	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	164	164	164	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	2		

2.2.14 Ormsby Reservoir

June 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	3		16
Bromoform				0	<0.5	<0.5	<0.5	3		
Chloroform				0	8.3	6.6	10.1	3		
Dibromochloromethane				0	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	3	(15)	
MIBK				0	<1.0	<1.0	<1.0	3		
Styrene				0	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.2	1.8	2.5	4	1.9	0.9	2.5	8		
Total Volatile Organics (NonTHM)				0	<1.1	<1.0	1.2	3		
Total Volatile Organics (Unknown)				0	0.9	0.6	1.2	2		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	3		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	3		
Xylene (1,2)				0	<0.5	<0.5	<0.5	3		
Xylene (1,4)				0	<0.5	<0.5	<0.5	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

2.2.15 Papaschase 1 Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.9	0.7	1.0	2	(15)	10
Conductivity (uS/cm)				0	393	379	407	2		
Odour				0	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.6	8.0	4	7.8	7.6	8.0	8	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.18	0.16	0.19	4	0.14	0.10	0.26	26		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.054	0.050	0.058	2	2	
Boron				0	0.009	0.008	0.010	2	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	2	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved				0	0.226	0.190	0.261	2	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	2	1	
Chromium				0	<0.0002	<0.0002	<0.0002	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.72	0.69	0.75	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.068	0.020	0.160	4	0.061	0.020	0.160	10	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	4	<0.007	<0.005	0.010	10	1	
Selenium				0	0.0003	0.0002	0.0003	2	0.05	
Strontium				0	0.439	0.423	0.455	2	7.0	
Total Chlorine	1.82	1.51	2.11	4	1.91	1.48	2.15	26	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	3	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	3	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	3	10	
Toluene				0	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes				0	<1	<1	<1	3	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	3	2	

2.2.15 Papaschase 1 Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	115	110	120	2		
Aluminum				0	0.020	0.019	0.021	2	2.9	0.1/0.2
Ammonia as NH3	0.20	0.17	0.25	4	0.19	0.15	0.25	8		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved				0	<0.010	<0.010	<0.010	2		
Calcium				0	47.6	45.1	50.1	2		
Calcium Hardness				0	123	123	123	1		
Calcium Hardness Calculated				0	113	113	113	1		
Chloride Dissolved				0	6.9	6.3	7.5	2	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Iron				0	0.013	0.010	0.015	2	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	2		
Lithium				0	0.0034	0.0033	0.0034	2		
Magnesium				0	13.8	13.1	14.5	2		
Molybdenum				0	0.0009	0.0007	0.0011	2		
Nickel				0	<0.0005	<0.0005	<0.0005	2		
Ortho_P				0	0.87	0.86	0.88	7		
Phosphorus				0	0.93	0.88	0.97	2		
Potassium				0	0.95	0.80	1.10	2		
Silicon				0	2.04	1.68	2.39	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	11.4	11.3	11.4	2	(200)	
Sulphate Dissolved				0	71.8	70.0	73.6	2	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated				0	167	167	167	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	2		

2.2.15 Papaschase 1 Reservoir

June 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	3		16
Bromoform				0	<0.5	<0.5	<0.5	3		
Chloroform				0	10.3	7.8	12.2	3		
Dibromochloromethane				0	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	3	(15)	
MIBK				0	<1.0	<1.0	<1.0	3		
Styrene				0	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.2	1.9	2.5	4	1.9	0.9	2.5	8		
Total Volatile Organics (NonTHM)				0	<1.1	<1.0	1.3	3		
Total Volatile Organics (Unknown)				0	<0.5	<0.5	<0.5	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	3		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	3		
Xylene (1,2)				0	<0.5	<0.5	<0.5	3		
Xylene (1,4)				0	<0.5	<0.5	<0.5	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

2.2.16 Papaschase 2 Reservoir

June 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	1.1	0.7	1.4	4	(15)	10
Conductivity (uS/cm)	400	400	400	1	400	375	430	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.7	7.9	4	7.8	7.6	7.9	9	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.05	0.26	4	0.09	0.05	0.26	26		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.067	0.067	0.067	1	0.062	0.055	0.067	4	2	
Boron	0.011	0.011	0.011	1	0.010	0.008	0.011	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.202	0.202	0.202	1	0.193	0.108	0.300	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.054	<0.005	<0.200	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	0.72	0.72	0.72	1	0.71	0.66	0.74	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	0.065	0.020	0.170	4	0.067	<0.010	0.170	10	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	4	<0.007	<0.005	0.010	10	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	4	0.05	
Strontium	0.456	0.456	0.456	1	0.445	0.400	0.477	4	7.0	
Total Chlorine	1.94	1.89	1.99	4	2.01	1.80	2.17	26	>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	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4	2	

2.2.16 Papaschase 2 Reservoir

June 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	119	109	128	4		
Aluminum	0.069	0.069	0.069	1	0.051	0.023	0.084	4	2.9	0.1/0.2
Ammonia as NH3	0.18	0.17	0.18	4	0.18	0.16	0.19	8		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.025	<0.010	<0.050	4		
Calcium	49.7	49.7	49.7	1	48.1	43.0	52.2	4		
Calcium Hardness				0	123	116	130	2		
Calcium Hardness Calculated	124	124	124	1	116	107	124	2		
Chloride Dissolved	7.0	7.0	7.0	1	6.7	5.8	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	0.0042	0.0042	0.0042	1	0.0036	0.0030	0.0042	4		
Magnesium	13.8	13.8	13.8	1	13.7	12.2	14.8	4		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P				0	0.89	0.86	0.92	7		
Phosphorus	0.96	0.96	0.96	1	0.95	0.89	0.98	4		
Potassium	0.80	0.80	0.80	1	0.85	0.70	1.10	4		
Silicon	2.02	2.02	2.02	1	2.05	1.93	2.14	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	10.1	10.1	10.1	1	11.6	7.0	17.1	4	(200)	
Sulphate Dissolved	71.5	71.5	71.5	1	70.4	59.9	79.4	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	186	177	194	2		
Total Hardness Calculated	181	181	181	1	170	158	181	2		
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		

2.2.16 Papaschase 2 Reservoir

June 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	1.6	1.6	1.6	1	1.2	0.8	1.6	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Chloroform	24.5	24.5	24.5	1	19.2	9.9	26.9	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Total Organic Carbon	2.1	1.8	2.5	4	2.0	1.2	2.6	9		
Total Volatile Organics (NonTHM)	5.9	5.9	5.9	1	2.6	<1.0	5.9	4		
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	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.17 Rosslyn 1 Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	1.0	0.6	1.4	2	(15)	10
Conductivity (uS/cm)				0	399	397	400	2		
Odour				0	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	4	7.8	7.7	7.9	7	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.16	0.10	0.25	4	0.15	0.08	0.53	24		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	2	0.01	
Barium				0	0.055	0.053	0.056	2	2	
Boron				0	0.012	0.010	0.014	2	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	2	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved				0	0.167	0.158	0.175	2	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	2	1	
Chromium				0	<0.0002	<0.0002	<0.0002	2	0.05	
Copper				0	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride				0	0.72	0.71	0.73	2	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese				0	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.070	0.020	0.190	4	0.065	0.020	0.190	8	10	
Nitrite (as N) Dissolved	<0.008	<0.005	<0.010	4	<0.008	<0.005	0.010	8	1	
Selenium				0	0.0003	0.0002	0.0003	2	0.05	
Strontium				0	0.443	0.426	0.459	2	7.0	
Total Chlorine	1.75	1.71	1.80	4	1.89	1.71	2.07	24	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	2	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	2	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	2	10	
Toluene				0	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes				0	<1	<1	<1	2	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	2	2	

2.2.17 Rosslyn 1 Reservoir

June 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	2		
Aluminum				0	0.026	0.020	0.032	2	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.20	4	0.19	0.18	0.20	5		
Beryllium				0	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved				0	<0.010	<0.010	<0.010	2		
Calcium				0	47.5	45.2	49.8	2		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated				0	113	113	113	1		
Chloride Dissolved				0	6.7	5.8	7.6	2	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	2		
Iron				0	0.008	0.007	0.008	2	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	2		
Lithium				0	0.0034	0.0032	0.0035	2		
Magnesium				0	14.0	13.4	14.6	2		
Molybdenum				0	0.0009	0.0008	0.0010	2		
Nickel				0	<0.0005	<0.0005	<0.0005	2		
Ortho_P				0	0.89	0.86	0.90	7		
Phosphorus				0	0.96	0.91	1.00	2		
Potassium				0	1.15	0.80	1.50	2		
Silicon				0	2.06	1.76	2.35	2		
Silver				0	<0.0002	<0.0002	<0.0002	2		
Sodium				0	12.6	10.7	14.4	2	(200)	
Sulphate Dissolved				0	74.0	73.4	74.6	2	(500)	
Thallium				0	<0.0004	<0.0002	<0.0005	2		
Tin				0	<0.0005	<0.0005	<0.0005	2		
Titanium				0	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)				0	183	183	183	1		
Total Hardness Calculated				0	168	168	168	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	2		
Zinc				0	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	2		

2.2.17 Rosslyn 1 Reservoir

June 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	0.8	1.5	2		16
Bromoform				0	<0.5	<0.5	<0.5	2		
Chloroform				0	11.3	8.9	13.7	2		
Dibromochloromethane				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	2	(15)	
MIBK				0	<1.0	<1.0	<1.0	2		
Styrene				0	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	2		
Total Organic Carbon	2.1	1.7	2.5	4	1.8	1.0	2.5	7		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	2		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	2		
Xylene (1,2)				0	<0.5	<0.5	<0.5	2		
Xylene (1,4)				0	<0.5	<0.5	<0.5	2		

TABLE EXPLANATIONS:

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

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

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

2.2.18 Rosslyn 2 Reservoir

June 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	0.6	0.9	4	(15)	10
Conductivity (uS/cm)	409	409	409	1	397	369	419	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.7	7.9	4	7.8	7.7	7.9	9	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.07	0.12	4	0.10	0.07	0.14	26		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.01	
Barium	0.067	0.067	0.067	1	0.061	0.054	0.067	4	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.206	0.206	0.206	1	0.184	0.147	0.206	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.054	<0.005	<0.200	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	0.68	0.68	0.68	1	0.69	0.67	0.71	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	0.033	0.030	0.040	3	0.062	0.030	0.170	9	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	3	<0.008	<0.005	0.010	9	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	4	0.05	
Strontium	0.419	0.419	0.419	1	0.447	0.419	0.482	4	7.0	
Total Chlorine	1.51	1.48	1.54	4	1.81	1.48	2.08	26	>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	<0.5	<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	

2.2.18 Rosslyn 2 Reservoir

June 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	119	111	127	4		
Aluminum	0.027	0.027	0.027	1	0.041	0.025	0.081	4	2.9	0.1/0.2
Ammonia as NH3	0.21	0.20	0.22	4	0.20	0.18	0.22	7		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.025	<0.010	<0.050	4		
Calcium	45.3	45.3	45.3	1	47.0	44.5	51.0	4		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	113	113	113	1	112	111	113	2		
Chloride Dissolved	7.4	7.4	7.4	1	6.4	5.6	7.4	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	<0.006	<0.005	0.007	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0035	0.0035	0.0035	1	0.0035	0.0031	0.0037	4		
Magnesium	13.0	13.0	13.0	1	13.7	12.7	14.9	4		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	4		
Nickel	0.0005	0.0005	0.0005	1	<0.0005	<0.0005	0.0005	4		
Ortho_P				0	0.89	0.88	0.92	7		
Phosphorus	0.97	0.97	0.97	1	0.96	0.90	0.99	4		
Potassium	0.90	0.90	0.90	1	0.85	0.70	1.00	4		
Silicon	2.14	2.14	2.14	1	1.98	1.70	2.14	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	16.5	16.5	16.5	1	12.0	7.1	16.5	4	(200)	
Sulphate Dissolved	78.7	78.7	78.7	1	71.4	59.4	78.7	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	186	178	194	2		
Total Hardness Calculated	167	167	167	1	165	163	167	2		
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		

2.2.18 Rosslyn 2 Reservoir

June 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	1.9	1.9	1.9	1	1.4	1.0	1.9	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	5		
Chloroform	35.3	35.3	35.3	1	23.3	14.6	35.3	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	2.2	1.8	2.4	4	1.9	1.3	2.4	9		
Total Volatile Organics (NonTHM)	3.4	3.4	3.4	1	1.7	<1.0	3.4	5		
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	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

2.2.19 Thorncliff Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	<0.5	<0.5	<0.5	1	0.8	<0.5	1.1	4	(15)	10
Conductivity (uS/cm)	416	416	416	1	402	368	420	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.9	7.7	8.0	4	7.8	7.7	8.0	9	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.13	4	0.09	0.05	0.20	26		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0003	4	0.01	
Barium	0.067	0.067	0.067	1	0.061	0.055	0.067	4	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.003	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.120	0.120	0.120	1	<0.102	<0.080	0.120	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.054	<0.005	<0.200	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	0.64	0.64	0.64	1	0.70	0.64	0.77	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	0.073	0.030	0.180	4	0.063	<0.010	0.180	10	10	
Nitrite (as N) Dissolved	<0.009	<0.005	<0.010	4	<0.008	<0.005	0.010	10	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.424	0.424	0.424	1	0.440	0.413	0.476	4	7.0	
Total Chlorine	1.57	1.42	1.64	4	1.83	1.42	2.23	26	>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	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	5	
Carbon Tetrachloride	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	2	
Chlorobenzene	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4	80 (30)	
Dichlorobenzene (1,2)	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,4)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	5 (1)	
Dichloroethane (1,2)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	5	
Dichloroethylene (1,1)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	14	
Ethylbenzene	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4	140 (1.6)	
Methylene Chloride	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	50	
Tetrachloroethylene	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	10	
Toluene	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4	5	
Vinyl Chloride	2.0	2.0	2.0	1	<1.3	<1.0	2.0	4	2	

2.2.19 Thorncliff Reservoir

June 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	114	114	114	1	118	110	129	4		
Aluminum	0.040	0.040	0.040	1	0.050	0.027	0.101	4	2.9	0.1/0.2
Ammonia as NH3	0.19	0.17	0.20	4	0.18	0.16	0.20	8		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.025	<0.010	<0.050	4		
Calcium	46.0	46.0	46.0	1	46.8	43.7	50.4	4		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	115	115	115	1	112	109	115	2		
Chloride Dissolved	8.1	8.1	8.1	1	7.0	6.0	8.1	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	0.0031	0.0031	0.0031	1	0.0032	0.0030	0.0036	4		
Magnesium	13.2	13.2	13.2	1	13.6	12.4	14.7	4		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0009	4		
Nickel	0.0005	0.0005	0.0005	1	<0.0005	<0.0005	0.0005	4		
Ortho_P				0	0.90	0.88	0.92	10		
Phosphorus	1.01	1.01	1.01	1	0.98	0.93	1.01	4		
Potassium	0.90	0.90	0.90	1	0.85	0.70	1.00	4		
Silicon	2.11	2.11	2.11	1	2.00	1.83	2.11	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	18.3	18.3	18.3	1	13.9	7.3	18.3	4	(200)	
Sulphate Dissolved	79.7	79.7	79.7	1	72.9	59.6	79.7	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	182	174	189	2		
Total Hardness Calculated	169	169	169	1	165	160	169	2		
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		

2.2.19 Thorncliff Reservoir

June 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.5	1.5	1.5	1	1.2	0.8	1.6	4		16
Bromoform	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4		
Chloroform	31.1	31.1	31.1	1	20.4	10.9	31.1	4		
Dibromochloromethane	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,3)	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4		
Dichloroethylene, cis (1,2)	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4		
Dichloroethylene, trans (1,2)	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4		
Dichloropropane (1,2)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4		
Methyl t-Butyl Ether (MTBE)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4	(15)	
MIBK	2.0	2.0	2.0	1	<1.3	<1.0	2.0	4		
Styrene	1.00	1.00	1.00	1	<0.63	<0.50	1.00	4		
Tetrachloroethane (1,1,2,2)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4		
Total Organic Carbon	2.1	1.9	2.3	4	1.9	1.2	2.3	9		
Total Volatile Organics (NonTHM)	3.1	3.1	3.1	1	1.9	<1.0	3.1	4		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4		
Trichloroethane (1,1,1)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4		
Xylene (1,2)	1.0	1.0	1.0	1	<0.6	<0.5	1.0	4		
Xylene (1,4)	1.0	1.0	1.0	1	<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

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

June 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	38.9	38.9	38.9	1	27.0	15.1	38.9	2	27.0	15.1	38.9	2		
02-SR				0	20.0	20.0	20.0	1	22.8	20.0	28.3	3		
03-SR				0				0	23.0	19.0	27.0	2		
04-SR				0	17.9	15.8	19.9	2	19.1	14.9	25.9	4		
05-RI				0				0	28.5	28.5	28.5	1		
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	19.6	10.7	30.5	4		
10-SR				0				0	19.8	19.8	19.8	1		
11-SR				0				0	25.8	25.8	25.8	1		
14-RI				0				0	27.4	21.6	33.1	2		
15-SR				0				0	21.8	11.4	28.9	3		
20-DE	37.1	37.1	37.1	1	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	37.0	37.0	37.0	1	20.7	8.6	37.0	3	20.7	8.6	37.0	3		
31-DE				0	14.5	13.0	15.9	2	19.1	13.0	26.8	5		
31-RI	31.8	31.8	31.8	1	23.1	15.8	31.8	3	23.5	15.8	31.8	4		
32-SR				0	12.0	12.0	12.0	1	23.0	12.0	30.8	5		
36-DE				0				0	27.4	24.2	30.6	2		
37-SR	34.3	34.3	34.3	1	34.3	34.3	34.3	1	34.3	34.3	34.3	1		
40-SR	32.2	32.2	32.2	1	17.6	9.1	32.2	4	20.5	9.1	32.2	8		
41-SR				0	9.6	9.6	9.6	1	9.6	9.6	9.6	1		
EDMONTON S4				0	13.0	13.0	13.0	1	13.0	13.0	13.0	1		
	Total Count			6				29				65		

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

June 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	15.7	13.9	19.0	6	15.7	13.9	19.0	6		
01-SR	26.7	26.7	26.7	1	21.8	16.8	26.7	2	21.8	16.8	26.7	2		
02-SR				0	19.8	19.8	19.8	1	23.6	19.8	25.6	3		
03-SR				0				0	23.3	19.6	27.0	2		
04-SR				0	19.7	19.1	20.2	2	20.6	19.1	23.9	4		
05-RI				0				0	26.4	26.4	26.4	1		
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	22.3	12.9	34.9	4		
10-SR				0				0	21.5	21.5	21.5	1		
11-SR				0				0	25.2	25.2	25.2	1		
14-RI				0				0	26.7	22.5	30.9	2		
15-SR				0				0	24.1	14.2	34.6	3		
20-DE	29.3	29.3	29.3	1	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	29.6	29.6	29.6	1	19.6	11.3	29.6	3	19.6	11.3	29.6	3		
31-DE				0	17.6	14.7	20.5	2	19.5	13.4	25.0	5		
31-RI	26.6	26.6	26.6	1	19.9	14.0	26.6	3	21.2	14.0	26.6	4		
32-SR				0	18.4	18.4	18.4	1	25.0	18.4	31.0	5		
36-DE				0				0	26.8	23.8	29.7	2		
37-SR	27.3	27.3	27.3	1	27.3	27.3	27.3	1	27.3	27.3	27.3	1		
40-SR	24.9	24.9	24.9	1	17.4	12.0	24.9	4	20.0	12.0	26.4	7		
41-SR				0	12.6	12.6	12.6	1	12.6	12.6	12.6	1		
EDMONTON S4				0	15.7	15.7	15.7	1	15.7	15.7	15.7	1		
	Total Count			6				35				70		

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

June 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	0.001	0.001	0.001	3	0.001	0.001	0.001	3		
03-SR				0				0	0.003	0.002	0.004	2		
04-SR				0	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
05-RI				0				0	0.004	0.004	0.004	1		
07-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	0.004	<0.002	0.005	2		
15-SR				0				0	0.001	<0.001	0.002	2		
20-DE	<0.003	<0.003	<0.003	1	<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	<0.003	<0.003	<0.003	1	<0.003	<0.003	<0.003	1		
31-DE				0	<0.006	<0.006	<0.006	1	<0.006	<0.002	0.011	3		
31-RI	<0.003	<0.003	<0.003	1	0.005	<0.003	0.007	2	0.005	<0.003	0.007	2		
32-SR				0				0	0.002	0.002	0.002	1		
36-DE				0				0	0.002	<0.001	0.002	2		
40-SR	<0.005	<0.005	<0.005	1	<0.004	<0.002	<0.006	3	<0.004	<0.002	<0.006	6		
EDMONTON S4				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
		Total Count		3				18				36		

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

June 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	13.8	7.8	19.8	2	18.5	7.8	28.8	5		
Clareview Reservoir	36.9	36.9	36.9	1	25.1	15.4	36.9	4	26.7	15.4	36.9	7		
Discovery Park Reservoir	38.6	37.4	39.7	2	25.0	13.1	39.7	5	25.2	13.1	39.7	8		
Kaskitayo Reservoir	33.4	33.4	33.4	1	22.2	10.8	33.4	4	24.0	10.8	33.4	8		
Londonderry Reservoir				0	12.9	9.8	16.0	2	19.4	9.8	29.2	5		
Millwoods Reservoir				0	9.5	7.8	11.1	3	16.0	7.8	28.8	6		
North Jasper Place Reservoir	37.9	37.9	37.9	1	23.3	14.0	37.9	4	25.4	14.0	37.9	7		
Ormsby Reservoir				0	9.6	7.7	11.4	3	16.4	7.7	30.1	6		
Papaschase Reservoir 1				0	11.5	8.8	13.9	3	18.8	8.8	32.9	7		
Papaschase Reservoir 2	26.4	26.4	26.4	1	20.8	11.0	28.8	4	23.6	11.0	33.1	7		
Rosslyn Reservoir 1				0	12.8	10.0	15.5	2	21.5	10.0	30.0	6		
Rosslyn Reservoir 2	37.5	37.5	37.5	1	25.0	16.1	37.5	5	26.6	16.1	37.5	9		
Thorncliff Reservoir	32.9	32.9	32.9	1	21.9	12.2	32.9	4	24.0	12.2	32.9	7		
		Total Count		8				45				88		

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

June 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	13.9	12.5	17.1	6	13.9	12.5	17.1	6		
		Total Count		0				6				6		

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

June 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	2	<0.2	<0.2	<0.2	2
Physical																
Colour (TCU)	10.8	6.6	19.8	30	10.7	6.4	21.1	30	11.0	5.2	43.8	179	11.2	4.7	43.6	181
Conductivity (uS/cm)	369	356	381	4	363	342	377	4	361	311	415	26	353	311	416	26
FPA-Intensity (N/A)	0.36	0.25	0.50	4	0.49	0.38	0.75	4	0.90	0.25	2.38	36	0.95	0.38	2.25	36
pH (N/A)	8.3	8.3	8.3	1	8.4	8.4	8.4	1	8.2	8.1	8.3	6	8.2	8.1	8.4	6
Total Dissolved Solids (mg/L)	196	196	196	1	195	195	195	1	212	196	231	6	213	195	240	6
Total Suspended Solids	17.3	17.3	17.3	1	27.6	27.6	27.6	1	14.2	<2.5	53.7	6	18.5	<2.5	72.7	6
Turbidity (NTU)	8	1	63	30	10	3	26	30	11	1	367	179	11	1	224	181
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	6	<0.0004	<0.0002	<0.0005	6
Arsenic	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	0.0004	0.0002	0.0009	6	0.0004	0.0002	0.0010	6
Barium	0.080	0.080	0.080	1	0.082	0.082	0.082	1	0.070	0.058	0.088	6	0.071	0.057	0.095	6
Boron	0.013	0.013	0.013	1	0.012	0.012	0.012	1	0.011	0.009	0.013	6	0.010	0.008	0.012	6
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	<0.00002	<0.00002	0.00003	3	0.00003	<0.00002	0.00004	3
Chromium	0.0013	0.0013	0.0013	1	0.0015	0.0015	0.0015	1	0.0008	<0.0002	0.0027	6	0.0009	<0.0002	0.0032	6
Copper	0.002	0.002	0.002	1	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	6	<0.004	<0.002	<0.005	6
Fluoride	0.12	0.12	0.13	4	0.12	0.12	0.12	4	0.11	0.08	0.13	26	0.11	0.08	0.12	26
Lead	0.0005	0.0005	0.0005	1	0.0004	0.0004	0.0004	1	0.0004	<0.0002	0.0011	6	0.0004	<0.0002	0.0012	6
Manganese	0.022	0.022	0.022	1	0.017	0.017	0.017	1	0.015	<0.002	0.050	6	0.015	0.003	0.057	6
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0008	<0.0001	<0.0050	8	<0.0008	<0.0001	<0.0050	8
Nitrate (as N) Dissolved	0.03	0.02	0.05	4	0.02	<0.01	0.02	4	0.08	<0.01	0.19	26	0.06	<0.01	0.18	26
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.009	<0.005	<0.010	26	<0.009	<0.005	<0.010	26
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	6	0.0003	<0.0002	0.0003	6
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	6	<0.03	<0.03	<0.03	6
Uranium	0.0006	0.0006	0.0006	1	<0.0005	<0.0005	<0.0005	1	0.0006	0.0005	0.0006	6	<0.0006	<0.0005	0.0006	6

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

June 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	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	<0.15	<0.05	<0.25	2
Atrazine	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2
Benzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2
Bromoxynil	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	<0.15	<0.05	<0.25	2
Carbon Tetrachloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182
Chlorobenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Chlorpyrifos	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Cyanazine	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Diazinon	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2
Dicamba	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.3	<0.1	<0.5	2	<0.3	<0.1	<0.5	2
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dichloroethane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	179	<0.5	<0.5	<0.5	181
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<3.0	180	<0.5	<0.5	<3.0	182
Dichlorophenol (2,4)	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	<0.3	<0.2	<0.3	2	<0.3	<0.2	<0.3	2
Diclofop-methyl	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Dimethoate	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2
Diuron	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2
Ethylbenzene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Glyphosate	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.4	<0.2	<0.5	2	<0.4	<0.2	<0.5	2
Malathion	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2
MCPA	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.15	<0.05	<0.25	2	<0.15	<0.05	<0.25	2
Methylene Chloride	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Metolachlor	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2
Metribuzin	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
NDMA (µg/L)				0				0	<0.0009	<0.0009	<0.0009	1	<0.00099	<0.00099	<0.00099	1
Nitrilotriacetic acid				0				0	<0.40000	<0.400000	<0.40	2	<0.40	<0.40	<0.40	2
Pentachlorophenol	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	2
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2
Perfluorooctanoic acid (PFOA)				0				0	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2
Phorate	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	2	<0.25	<0.25	<0.25	2
Picloram	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.3	<0.1	<0.5	2	<0.3	<0.1	<0.5	2
Simazine	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Terbufos	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	2
Tetrachloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Toluene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.7	180	<0.5	<0.5	2.9	182
Total Xylenes	<1.0	<1.0	<1.0	30	<1.0	<1.0	<1.0	30	<1.0	<1.0	<2.5	180	<1.0	<1.0	<2.5	182
Trichloroethylene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Trifluralin	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2

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

June 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	<1	<1	30	<1	<1	1	30	<1	<1	<1	180	<1	<1	1	182
Vinyl Chloride	<1	<1	<1	30	<1	<1	<1	30	<1	<1	<1	179	<1	<1	<1	181
Radionuclides (Bq/L)																
Cesium-137	<0.2	<0.2	<0.2	1	<0.1	<0.1	<0.1	1	<0.2	<0.2	<0.2	1	<0.1	<0.1	<0.1	1
Gross Alpha	<0.14	<0.14	<0.14	1	<0.15	<0.15	<0.15	1	<0.14	<0.14	<0.14	1	<0.15	<0.15	<0.15	1
Gross Beta	0.07	0.07	0.07	1	<0.07	<0.07	<0.07	1	0.07	0.07	0.07	1	<0.07	<0.07	<0.07	1
Iodine-131	<0.3	<0.3	<0.3	1	<0.2	<0.2	<0.2	1	<0.3	<0.3	<0.3	1	<0.2	<0.2	<0.2	1
Lead-210	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Radium-226	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1
Strontium-90	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Tritium	<40	<40	<40	1	<40	<40	<40	1	<40	<40	<40	1	<40	<40	<40	1

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

June 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	134	128	136	4	135	129	137	4	129	117	149	26	128	112	151	26
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	6	<3	<3	<3	6
Aluminum	1.000	1.000	1.000	1	1.100	1.100	1.100	1	0.588	0.108	1.900	6	0.677	0.078	2.540	6
Ammonia as NH3	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4	<0.05	<0.05	0.09	37	<0.06	<0.05	0.14	37
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002	6
Calcium Hardness	116	103	124	3	119	116	122	3	117	102	138	24	116	99	140	24
Calcium Hardness Calculated	115	115	115	1	114	114	114	1	118	115	121	2	117	114	120	2
Cobalt	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0008	6	0.0003	<0.0002	0.0009	6
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	6	<0.07	<0.07	<0.07	6
Iron	0.719	0.719	0.719	1	0.744	0.744	0.744	1	0.520	0.051	1.990	6	0.567	0.075	2.240	6
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.001	6	<0.001	<0.001	0.001	6
Lithium	0.0052	0.0052	0.0052	1	0.0045	0.0045	0.0045	1	0.0041	0.0033	0.0052	6	0.0039	0.0033	0.0054	6
Magnesium	13.3	13.3	13.3	1	13.2	13.2	13.2	1	14.1	13.3	15.4	6	14.1	13.2	15.3	6
Molybdenum	0.0009	0.0009	0.0009	1	0.0009	0.0009	0.0009	1	0.0009	0.0007	0.0010	6	0.0009	0.0008	0.0010	6
Nickel	0.0019	0.0019	0.0019	1	0.0022	0.0022	0.0022	1	0.0013	0.0005	0.0031	6	0.0013	<0.0005	0.0032	6
Ortho_P				0				0	<0.02	<0.02	<0.02	6	<0.02	<0.02	<0.02	6
Phosphorus	0.05	0.05	0.05	1	0.04	0.04	0.04	1	0.04	<0.02	0.08	6	0.03	<0.02	0.08	6
Potassium	1.2	1.2	1.2	1	1.1	1.1	1.1	1	1.0	0.7	1.5	6	1.0	0.7	1.6	6
Silicon	3.96	3.96	3.96	1	4.39	4.39	4.39	1	2.99	1.99	5.38	6	3.27	1.74	6.88	6
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	3	<0.00002	<0.00002	<0.00002	3
Sodium	7.0	7.0	7.0	1	4.7	4.7	4.7	1	5.1	3.8	7.0	6	4.4	3.8	5.1	6
Strontium	0.419	0.419	0.419	1	0.418	0.418	0.418	1	0.454	0.419	0.499	6	0.454	0.418	0.504	6
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	6	<0.0004	<0.0002	<0.0005	6
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	6	<0.0005	<0.0005	<0.0005	6
Titanium	0.0287	0.0287	0.0287	1	0.0319	0.0319	0.0319	1	0.0150	0.0015	0.0503	6	0.0194	0.0017	0.0756	6
Total Hardness (mg/L CaCO3)	183	179	187	3	183	179	186	3	176	153	211	24	176	155	203	24
Total Hardness Calculated	170	170	170	1	169	169	169	1	173	170	176	2	173	169	176	2
Total Kjeldahl Nitrogen	0.2	0.2	0.2	1	0.2	0.2	0.2	1	0.2	0.1	0.2	5	0.2	<0.1	0.2	5
Total Kjeldahl Nitrogen (TKN)				0				0	0.3	<0.1	1.0	27	0.6	<0.1	9.4	28
Vanadium	0.0024	0.0024	0.0024	1	0.0026	0.0026	0.0026	1	0.0014	<0.0005	0.0041	6	0.0017	<0.0005	0.0054	6
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.006	<0.005	0.008	6	<0.006	<0.005	0.008	6
Zirconium	0.001	0.001	0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.001	6	<0.001	<0.001	0.002	6

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

June 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	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Aldrin	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2	<0.008	<0.008	<0.008	2
Azinphos-methyl	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Bromodichloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Bromoform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182
Carbaryl	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	2	<0.05	<0.05	<0.05	2
Carbofuran	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	2	<0.025	<0.025	<0.025	2
Chloroform	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dibromochloromethane	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dichloropropane (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Dieldrin	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	2	<0.008	<0.008	<0.008	2
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
MIBK	<1	<1	<1	30	<1	<1	<1	30	<1	<1	<1	180	<1	<1	<1	182
Parathion	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1
Perfluorobutanoic acid (PFBA)				0				0	<0.71	<0.02	<2.00	3	<0.71	<0.02	<2.00	3
Perfluorodecanoic Acid (PFDA)				0				0	<2	<2	<2	1	<2	<2	<2	1
Perfluorododecanoic Acid (PFDoA)				0				0	<2	<2	<2	1	<2	<2	<2	1
Perfluoroheptanoic acid (PFHpA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2
Perfluorohexanoic acid (PFHxA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluorononanoic acid (PFNA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluoropentanoic acid (PFPeA)				0				0	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluoroundecanoic Acid (PFUnA)				0				0	<2	<2	<2	1	<2	<2	<2	1
Styrene	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	180	<0.5	<0.5	<1.0	182
Total Organic Carbon	3.2	2.7	4.2	4	3.1	2.5	4.0	4	2.7	1.1	5.4	26	2.7	1.2	5.9	26
Total Volatile Organics (NonTHM)	3.2	1.1	6.2	30	3.1	1.2	6.1	30	1.6	<1.0	6.2	180	1.6	<1.0	6.1	182
Total Volatile Organics (Unknown)				0				0	<0.8	<0.5	1.0	21	<0.7	<0.5	1.1	27
Triallate	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	2	<0.1	<0.1	<0.1	2
Trichloroacetic acid				0				0	<1	<1	<1	1	<1	<1	<1	1
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Xylene (1,2)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	180	<0.5	<0.5	<0.5	182
Xylene (1,4)	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	180	<0.5	<0.5	0.9	182

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-Jun-2024	8
10-Jun-2024	7.46
18-Jun-2024	6.44
27-Jun-2024	6.83

**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
Bromate Dissolved	0.005	mg/L
Bromide Dissolved	0.03	mg/L
Bromodichloromethane	0.5	µg/L
Bromoform	0.5	µg/L
Carbon Tetrachloride	0.5	µg/L
Cellular ATP	0.1	pg/mL
Chlorate Dissolved	0.01	mg/L
Chloride Dissolved	0.3	mg/L
Chlorite Dissolved	0.005	mg/L
Chlorobenzene	0.5	µg/L
Chloroform	0.5	µg/L
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
Orthophosphate, total	0.02	mg/L as P
Styrene	0.5	µg/L
Sulphate Dissolved	0.5	mg/L
Tetrachloroethane (1,1,2,2)	0.5	µg/L
Tetrachloroethylene	0.5	µg/L
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		
2,3,4,6-Tetrachlorophenol	0.50	µg/L
2,4,5-T	0.250	µg/L
2,4,6-Trichlorophenol	0.20	µg/L
2,4-D	0.250	µg/L
2,4-Dichlorophenol	0.20	µg/L
a-chlordane	0.0080	µg/L
Alachlor	0.050	µg/L
Aldicarb	0.100	µg/L
Aldrin	0.0080	µg/L
Aldrin + Dieldrin	0.011	µg/L
Ametryn	0.0250	µg/L
Atrazine	0.050	µg/L
Atrazine + N-dealkylated metabolites	0.10	µg/L
Atrazine Desethyl	0.0250	µg/L
Azinphos-methyl	0.100	µg/L
Bendiocarb	0.0250	µg/L
Bromochloroacetic acid	1.00	ug/L
Bromoxynil	0.250	µg/L
Carbaryl	0.050	µg/L
Carbofuran	0.0250	µg/L
Cesium-137	0.2	Bq/L
Chlordane, total	0.011	µg/L
Chlorpyrifos	0.10	µg/L
Cyanazine	0.100	µg/L
DDD, total	0.0060	µg/L
DDE, 2,4'-	0.0040	µg/L
DDE, total	0.0060	µg/L
DDT + metabolites, total	0.010	µg/L
DDT, total	0.0060	µg/L
Diazinon	0.0250	µg/L
Dibromoacetic acid	1.00	ug/L
Dicamba	0.50	µg/L
Dichloroacetic acid	1.00	ug/L
Diclofop-methyl	0.100	µg/L
Dieldrin	0.0080	µg/L
Dimethoate	0.050	µg/L
Dimethoate and Omethoate (as Dimethoate)	0.21	µg/L
Dinoseb	0.250	µg/L
Diquat	1.0	µg/L
Diuron	0.050	µg/L
gamma-hexachlorocyclohexane	0.0080	µg/L
g-chlordane	0.0080	µg/L
Glyphosate	0.50	µg/L
Gross Alpha	0.15	Bq/L
Gross Beta	0.07	Bq/L
Haloacetic Acids, total (HAA5)	5.00	ug/L
Heptachlor	0.0080	µg/L
Heptachlor + Heptachlor epoxide	0.011	µg/L
Heptachlor Epoxide	0.0080	µg/L
Iodine-131	0.4	Bq/L
Lead-210	0.02	Bq/L
Malathion	0.0250	µg/L
MCPA	0.250	µg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Methoxychlor	0.0080	µg/L
Methyl Parathion	0.10	µg/L
Metolachlor	0.0250	µg/L
Metribuzin	0.100	µg/L
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00290	µg/L
Nitrate-Nitrite Nitrogen	0.01	mg N/L
Nitrate-Nitrogen	0.01	mg N/L
Nitrite-Nitrogen	0.005	mg N/L
Omethoate	0.050	µg/L
Omethoate (as dimethoate)	0.16	µg/L
op-DDT	0.0040	µg/L
Oxychlordane	0.0080	µg/L
Paraquat (as dichloride)	1.0	µg/L
Parathion	0.10	µg/L
Pentachlorophenol	1.00	µg/L
Phorate	0.250	µg/L
Picloram	0.50	µg/L
pp-DDD	0.0040	µg/L
pp-DDE	0.0040	µg/L
pp-DDT	0.0040	µg/L
Prometon	0.0250	µg/L
Prometryn	0.0250	µg/L
Propazine	0.0250	µg/L
Radium-226	0.005	Bq/L
Simazine	0.100	µg/L
Strontium-90	0.05	Bq/L
Temephos	0.250	µg/L
Terbufos	0.50	µg/L
Terbutryn	0.0250	µg/L
Triallate	0.100	µg/L
Trichloroacetic acid	1.00	ug/L
Trifluralin	0.10	µg/L
Tritium	40	Bq/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