EDMONTON WATERWORKS
MONTHLY REPORT

May 2024

PROVIDING MORE EPCOR

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2.0 WATER QUALITY

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

Date	Type	Bypass Description
May 1/2	Planned	27 hour shutdown for capital work and maintenance
May 15/16	Planned	29.5 hour shutdown for capital work and maintenance

In May, E.L. Smith Plant had one planned shutdown and three unplanned bypasses.

Date	Type	Bypass Description
May 7	Unplanned	19 minutes bypass due to power feeder fault
May 8	Planned	16 hours shutdown for capital work and maintenance
May 13	Unplanned	55 minutes bypass due to loss of plant service water
May 15	Unplanned	33 minutes bypass due to power feeder fault

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

Chemical Dosing Highlights

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

Chemicals Used for the Month

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

ENV-1.1.2 EDMONTON INCIDENT REPORT SUMMARY – May 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20240509-897820-v1	About 37 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.	May 9, 2024	427795

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)

May 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	11	17	28	281	309
2	56	92	148	284	432
3	58	122	180	300	480
4	59	117	176	299	475
5	60	107	167	283	449
6	60	101	161	287	449
7	60	100	160	281	441
8	65	102	166	126	292
9	75	105	180	300	480
10	75	105	180	301	481
11	75	105	180	288	468
12	76	108	184	280	464
13	80	120	199	289	488
14	71	109	180	294	475
15	8.5	15	24	309	332
16	73	109	182	320	502
17	80	120	200	310	510
18	72	112	184	287	471
19	56	89	146	249	394
20	28	111	140	247	387
21	--	147	147	261	408
22	--	166	166	270	436
23	--	170	170	269	439
24	--	168	168	264	432
25	--	170	170	274	444
26	--	170	170	280	450
27	--	170	170	281	451
28	15	170	185	281	465
29	60	114	174	284	458
30	60	120	180	290	470
31	60	120	180	280	460
Monthly Total	1,394	3,650	5,044	8,650	13,694
Monthly Min	0.0	15	24	126	
Monthly Max	80	170	200	320	
Monthly Avg	45	118	163	279	442

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

May 2024

Day	Rossdale (Plant 1 & Plant 2)			E.L. Smith			Plants Combined	Reservoir Levels (%)
	Flow Meters			Flow Meters			Flow Meters (Both Plants)	
	Min	Max	Total	Min	Max	Total		
1	0.0	103	2.0	196	290	221	223	80.9
2	15	208	123	200	295	229	352	61.0
3	120	206	170	208	294	248	419	65.5
4	84	209	162	204	290	247	409	73.1
5	74	206	156	200	294	234	390	78.3
6	55	207	147	200	283	238	384	80.3
7	102	205	149	199	289	229	378	83.5
8	8.3	204	155	0.0	287	81	236	81.9
9	83	208	165	173	296	263	429	65.5
10	80	210	164	198	296	254	418	69.5
11	87	210	162	198	292	247	410	73.8
12	84	207	166	204	279	237	402	77.2
13	132	209	181	0.0	286	237	418	79.8
14	4.6	207	161	203	294	246	407	80.4
15	--	--	--	243	284	256	254	70.4
16	15	203	148	218	299	272	420	52.2
17	138	203	183	228	282	255	438	63.3
18	85	204	159	201	279	245	405	72.6
19	46	186	130	201	272	212	343	78.2
20	54	190	125	202	213	208	334	76.5
21	79	202	136	202	277	226	361	71.5
22	61	205	155	198	288	234	389	68.2
23	78	208	156	204	297	230	386	68.4
24	83	206	156	202	296	228	384	68.9
25	72	203	157	197	290	239	396	67.2
26	49	202	157	199	293	243	400	70.0
27	43	205	155	201	294	248	403	71.0
28	64	209	155	0.0	329	245	400	73.1
29	70	205	158	202	289	249	407	69.3
30	98	205	166	203	295	249	415	70.9
31	80	205	165	202	295	245	411	71.4
Monthly Tota			4,521			7,297	11,818	
Monthly Min	0.0			0.0				
Monthly Max		210			329			
Monthly Avg			146			235	381	

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

May 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	15	15	15	8.3	8.3	8.3	7.4	7.4	7.4		8.6	14	11	8.3	8.3	8.3	6.1	6.5	6.3	
2	12	15	13	8.2	8.3	8.2	6.5	7.4	6.8		12	12	12	8.3	8.3	8.3	6.2	6.8	6.6	
3	12	13	13	8.3	8.3	8.3	6.1	6.5	6.1		9.6	15	13	8.2	8.3	8.3	6.3	7.0	6.7	
4	9.0	12	12	8.2	8.3	8.2	5.9	6.3	6.2		9.4	13	11	8.2	8.3	8.3	7.0	7.8	7.3	
5	9.0	16	10	8.2	8.3	8.2	5.9	7.6	6.9		9.4	18	15	8.3	8.3	8.3	7.3	10.0	8.5	
6	15	20	17	8.2	8.3	8.2	7.6	10.2	8.8		17	20	18	8.3	8.3	8.3	10.0	12.3	10.6	
7	15	65	40	8.2	8.2	8.2	9.8	15.2	12.7		19	55	40	8.2	8.3	8.2	12.3	14.6	13.5	
8	30	60	45	8.2	8.2	8.2	12.8	15.2	13.5		36	45	36	8.2	8.2	8.2	13.9	14.0	13.9	
9	32	90	55	8.1	8.2	8.2	12.9	18.8	14.7		35	85	60	8.1	8.3	8.2	13.5	21.0	17.1	
10	70	150	100	8.1	8.2	8.1	18.6	27.6	23.4		65	110	95	8.1	8.2	8.1	21.0	29.4	26.5	
11	55	85	65	8.1	8.2	8.1	23.7	30.4	28.5		40	70	55	8.2	8.2	8.2	26.9	32.8	30.3	
12	24	55	38	8.1	8.2	8.1	24.3	27.3	25.6		27	40	34	8.2	8.2	8.2	25.0	27.2	26.0	
13	24	30	25	8.2	8.2	8.2	23.4	24.6	23.8		18	27	24	8.2	8.2	8.2	22.7	25.1	24.2	
14	20	24	22	8.2	8.3	8.2	19.9	24.4	21.4		18	27	23	8.2	8.3	8.2	20.9	22.9	21.8	
15	20	20	20	8.2	8.2	8.2	19.0	20.8	20.7		21	28	26	8.3	8.3	8.3	18.3	20.9	19.1	
16	17	45	25	8.2	8.2	8.2	15.9	19.0	17.1		16	45	36	8.2	8.3	8.3	16.4	18.3	17.1	
17	28	45	36	8.2	8.2	8.2	15.9	16.5	16.2		34	45	36	8.2	8.3	8.2	14.8	17.3	16.1	
18	24	36	31	8.2	8.3	8.2	15.3	16.9	16.3		29	45	35	8.2	8.3	8.2	15.6	16.8	16.1	
19	26	33	30	8.3	8.3	8.3	14.2	15.4	14.9		28	35	32	8.2	8.3	8.3	14.4	15.6	15.1	
20	25	29	27	8.2	8.3	8.3	14.2	15.0	14.5		24	35	28	8.2	8.2	8.2	14.9	15.7	15.1	
21	22	25	22	8.2	8.3	8.3	14.6	14.9	14.7		17	24	21	8.2	8.3	8.3	15.5	16.3	15.8	
22	16	22	19	8.3	8.3	8.3	14.4	16.1	14.8		13	17	16	8.3	8.3	8.3	14.8	15.9	15.4	
23	14	18	16	8.3	8.3	8.3	13.9	15.0	14.4		12	15	14	8.3	8.3	8.3	14.5	15.2	14.9	
24	12	15	13	8.2	8.3	8.3	12.7	14.4	13.7		12	17	15	8.3	8.3	8.3	14.4	15.1	14.6	
25	13	45	28	8.2	8.3	8.3	12.7	19.3	15.1		17	36	28	8.3	8.3	8.3	14.7	20.6	17.3	
26	36	45	40	8.2	8.3	8.2	19.3	23.7	21.1		32	40	35	8.3	8.3	8.3	20.6	26.1	23.5	
27	24	45	32	8.2	8.3	8.2	23.6	25.9	24.8		24	36	30	8.3	8.4	8.3	23.7	26.0	25.1	
28	25	32	28	7.9	8.3	8.2	18.4	25.6	22.7		25	31	27	8.2	8.3	8.2	22.9	25.2	23.9	
29	30	55	40	7.9	8.2	8.1	18.4	24.4	22.2		30	45	39	8.3	8.3	8.3	21.7	25.9	23.8	
30	40	50	45	8.2	8.2	8.2	22.2	24.9	23.4		37	40	38	8.2	8.3	8.3	21.9	25.1	23.4	
31	27	40	32	8.2	8.3	8.3	19.7	22.2	20.3		26	40	31	8.3	8.3	8.3	20.2	25.5	21.0	
Monthly Min/Max/Avg	9.0	150	31	7.9	8.3	8.2	5.9	30.4	16.5		8.6	110	30	8.1	8.4	8.3	6.1	32.8	17.3	

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

May 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	0.07	0.04	1.91	2.00	1.98	7.7	7.9	7.8	0.68	0.70	0.69		0.7	0.06	0.06	0.06	1.88	1.98	1.91	7.9	7.9	7.9	0.77	0.78	0.78	171	0.8
2	0.03	0.06	0.04	1.88	2.06	1.91	7.7	7.9	7.8	0.66	0.68	0.67	170	1.2	0.06	0.07	0.06	1.88	1.94	1.90	7.9	7.9	7.9	0.77	0.79	0.78	173	0.7
3	0.04	0.06	0.04	1.91	2.11	2.06	7.7	7.8	7.8	0.66	0.68	0.68	171	1.1	0.06	0.06	0.06	1.83	1.92	1.87	7.9	7.9	7.9	0.77	0.78	0.78	172	0.6
4	0.03	0.06	0.04	1.96	2.16	2.03	7.8	7.8	7.8	0.67	0.68	0.67	174	0.5	0.06	0.06	0.06	1.83	1.90	1.86	7.8	7.9	7.8	0.77	0.78	0.78	173	0.9
5	0.03	0.07	0.05	1.91	2.11	2.02	7.8	7.8	7.8	0.67	0.67	0.67	174	0.4	0.06	0.06	0.06	1.83	1.88	1.86	7.8	7.9	7.8	0.77	0.79	0.78	171	0.8
6	0.05	0.07	0.05	1.86	2.06	1.95	7.8	7.8	7.8	0.65	0.67	0.66	171	0.8	0.06	0.06	0.06	1.88	1.93	1.90	7.8	7.9	7.9	0.64	0.78	0.70	171	1.0
7	0.05	0.07	0.05	1.86	2.06	2.00	7.7	7.8	7.7	0.62	0.70	0.66	162	0.9	0.06	0.06	0.06	1.86	1.92	1.89	7.9	7.9	7.9	0.63	0.64	0.64	162	1.2
8	0.04	0.09	0.05	1.86	2.06	1.99	7.8	7.8	7.8	0.69	0.70	0.70	163	1.0	0.06	0.06	0.07	1.88	1.92	1.69	7.8	8.0	7.9	0.62	0.66	0.64	169	1.0
9	0.05	0.08	0.06	1.81	2.06	1.96	7.8	7.8	7.8	0.69	0.71	0.70	170	0.9	0.06	0.07	0.06	1.88	1.97	1.92	7.9	8.0	7.9	0.62	0.64	0.63	169	1.0
10	0.04	0.08	0.05	1.81	2.01	1.93	7.7	7.8	7.8	0.68	0.69	0.69	162	0.9	0.06	0.06	0.06	1.88	1.97	1.92	7.7	7.9	7.8	0.61	0.63	0.63	162	1.1
11	0.04	0.07	0.05	1.86	2.16	2.01	7.7	7.8	7.7	0.65	0.68	0.66	164	1.1	0.05	0.06	0.06	1.91	1.95	1.93	7.7	7.9	7.8	0.62	0.63	0.63	162	1.2
12	0.04	0.09	0.06	2.01	2.16	2.08	7.7	7.8	7.8	0.66	0.67	0.66	160	1.2	0.06	0.06	0.06	1.93	2.03	1.99	7.9	7.9	7.9	0.63	0.65	0.65	162	1.2
13	0.05	0.08	0.05	2.01	2.21	2.10	7.8	7.8	7.8	0.66	0.69	0.68	162	1.1	0.06	0.08	0.06	1.93	2.01	1.96	7.9	7.9	7.9	0.65	0.68	0.66	161	1.2
14	0.02	0.07	0.04	1.96	2.08	2.11	7.6	7.8	7.8	0.68	0.71	0.69	158	1.1	0.06	0.06	0.06	1.93	1.95	1.93	7.9	7.9	7.9	0.68	0.70	0.69	163	1.3
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06	0.06	1.93	2.02	1.97	7.9	8.0	7.9	0.70	0.70	0.70	166	1.2
16	0.03	0.06	0.04	1.83	2.23	2.10	7.6	7.8	7.7	0.71	0.73	0.72	169	0.9	0.06	0.06	0.06	1.91	2.03	1.98	7.9	8.0	7.9	0.70	0.71	0.71	166	1.5
17	0.03	0.06	0.04	2.06	2.27	2.23	7.8	7.8	7.8	0.71	0.72	0.72	162	0.9	0.06	0.06	0.06	1.88	1.96	1.92	7.6	7.9	7.8	0.71	0.72	0.72	163	1.1
18	0.03	0.06	0.04	2.01	2.21	2.12	7.7	7.8	7.7	0.71	0.72	0.71	168	0.8	0.05	0.06	0.05	1.86	1.92	1.89	7.7	7.7	7.7	0.70	0.72	0.72	169	1.3
19	0.03	0.05	0.04	1.96	2.16	2.06	7.7	7.8	7.8	0.71	0.73	0.72	168	0.9	0.05	0.05	0.05	1.86	1.98	1.90	7.7	7.7	7.7	0.71	0.72	0.72	170	1.2
20	0.03	0.06	0.04	1.96	2.16	2.07	7.8	7.8	7.8	0.69	0.72	0.71	173	0.9	0.05	0.05	0.05	1.93	1.98	1.97	7.7	7.7	7.7	0.70	0.72	0.71	170	1.3
21	0.03	0.06	0.04	1.96	2.21	2.11	7.8	7.8	7.8	0.69	0.69	0.69	170	0.7	0.05	0.06	0.05	1.94	2.01	1.98	7.7	7.7	7.7	0.69	0.70	0.70	167	1.2
22	0.03	0.05	0.04	1.91	2.16	2.05	7.7	7.8	7.8	0.69	0.70	0.70	169	1.0	0.05	0.06	0.05	1.98	2.07	2.02	7.7	7.7	7.7	0.69	0.70	0.70	169	1.0
23	0.03	0.06	0.04	1.91	2.16	2.03	7.8	7.8	7.8	0.70	0.71	0.71	173	1.0	0.06	0.06	0.06	2.01	2.08	2.04	7.7	7.7	7.7	0.70	0.71	0.71	168	1.5
24	0.03	0.05	0.03	1.96	2.11	2.05	7.8	7.8	7.8	0.70	0.71	0.71	164	0.7	0.06	0.06	0.06	2.01	2.05	2.03	7.7	7.7	7.7	0.70	0.72	0.71	170	1.4
25	0.03	0.05	0.03	1.91	2.06	2.00	7.8	7.8	7.8	0.70	0.71	0.70	169	0.8	0.06	0.06	0.06	1.98	2.03	2.01	7.7	7.7	7.7	0.70	0.72	0.71	165	1.0
26	0.03	0.07	0.05	1.91	2.11	2.02	7.7	7.8	7.7	0.69	0.70	0.69	168	1.1	0.05	0.06	0.05	1.98	2.03	2.00	7.7	7.7	7.7	0.68	0.70	0.69	169	1.1
27	0.04	0.07	0.05	1.86	2.11	1.98	7.7	7.8	7.7	0.68	0.69	0.68	161	1.3	0.05	0.05	0.05	1.98	2.08	2.01	7.7	7.7	7.7	0.68	0.69	0.68	163	1.2
28	0.04	0.07	0.05	1.96	2.21	2.04	7.7	7.8	7.7	0.68	0.68	0.68	161	1.1	0.05	0.05	0.05	2.01	2.12	2.07	7.6	7.8	7.7	0.68	0.70	0.70	162	1.3
29	0.04	0.06	0.05	2.06	2.21	2.15	7.7	7.8	7.7	0.67	0.69	0.68	162	1.0	0.06	0.06	0.06	2.06	2.12	2.09	7.7	7.8	7.7	0.70	0.71	0.71	165	1.4
30	0.03	0.06	0.04	2.01	2.26	2.09	7.7	7.8	7.7	0.67	0.68	0.68	162	1.0	0.05	0.06	0.05	2.09	2.18	2.14	7.7	7.7	7.7	0.70	0.70	0.70	165	1.4
31	0.03	0.05	0.04	2.01	2.26	2.14	7.8	7.9	7.9	0.67	0.68	0.68	166	1.0	0.05	0.06	0.06	2.08	2.20	2.15	7.7	7.7	7.7	0.70	0.71	0.71	164	1.2
Monthly Min/Max/ Avg	0.02	0.09	0.04	1.81	2.27	2.04	7.6	7.9	7.8	0.62	0.73	0.69	167	0.9	0.05	0.08	0.06	1.83	2.20	1.96	7.6	8.0	7.8	0.61	0.79	0.70	167	1.1

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-May	7.0	7.1	7.1	7.7	7.9	7.8	0	4	4
2-May	7.7	7.9	7.8	7.7	7.9	7.8	102	122	113
3-May	8.0	8.0	8.0	7.7	7.8	7.8	166	184	176
4-May	9.0	9.0	9.0	7.8	7.8	7.8	132	150	142
5-May	9.7	9.7	9.7	7.8	7.8	7.8	152	169	160
6-May	10.0	10.0	10.0	7.8	7.8	7.8	136	157	147
7-May	10.2	10.2	10.2	7.7	7.8	7.7	141	163	153
8-May	9.9	10.0	9.9	7.8	7.8	7.8	147	177	165
9-May	10.1	10.2	10.1	7.8	7.8	7.8	139	160	150
10-May	10.8	10.8	10.8	7.7	7.8	7.8	144	162	156
11-May	11.8	11.9	11.9	7.7	7.8	7.7	175	185	182
12-May	12.5	12.5	12.5	7.7	7.8	7.8	142	168	156
13-May	12.9	12.9	12.9	7.8	7.8	7.8	177	198	188
14-May	13.4	13.4	13.4	7.6	7.8	7.8	177	200	191
15-May									
16-May	13.2	13.4	13.4	7.6	7.8	7.7	127	144	137
17-May	13.1	13.2	13.1	7.8	7.8	7.8	167	185	176
18-May	12.2	12.2	12.2	7.7	7.8	7.7	139	155	147
19-May	11.6	11.7	11.6	7.7	7.8	7.8	123	144	133
20-May	11.3	11.3	11.3	7.8	7.8	7.8	101	121	111
21-May	10.4	10.4	10.4	7.8	7.8	7.8	132	154	143
22-May	10.7	10.7	10.7	7.7	7.8	7.8	143	167	156
23-May	11.7	11.8	11.7	7.8	7.8	7.8	143	162	153
24-May	12.3	12.3	12.3	7.8	7.8	7.8	153	168	160
25-May	12.7	12.7	12.7	7.8	7.8	7.8	151	173	163
26-May	13.3	13.4	13.3	7.7	7.8	7.7	150	169	162
27-May	13.3	13.4	13.4	7.7	7.8	7.7	139	165	152
28-May	14.5	14.5	14.5	7.7	7.8	7.7	140	163	151
29-May	15.1	15.2	15.1	7.7	7.8	7.7	138	159	150
30-May	15.0	15.0	15.0	7.7	7.8	7.7	158	176	168
31-May	14.4	14.4	14.4	7.8	7.9	7.9	154	175	168
Monthly Min/Max/Avg.	7.0	15.2	11.6	7.6	7.9	7.8	0	200	146

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-May	7.9	8.0	7.9	7.9	7.9	7.9	216	228	222
2-May	7.3	7.3	7.3	7.9	7.9	7.9	226	241	234
3-May	8.1	8.1	8.1	7.9	7.9	7.9	244	259	252
4-May	8.9	9.0	8.9	7.8	7.9	7.8	236	248	241
5-May	9.6	9.7	9.7	7.8	7.9	7.8	232	244	238
6-May	9.9	9.9	9.9	7.8	7.9	7.9	239	252	246
7-May	10.1	10.1	10.1	7.9	7.9	7.9	212	220	216
8-May	10.5	10.9	10.7	7.8	8.0	7.9	80	108	93
9-May	9.8	9.9	9.8	7.9	8.0	7.9	235	255	245
10-May	10.6	10.7	10.7	7.7	7.9	7.8	245	261	253
11-May	11.9	11.9	11.9	7.7	7.9	7.8	240	256	248
12-May	12.2	12.3	12.2	7.9	7.9	7.9	231	245	237
13-May	12.6	12.6	12.6	7.9	7.9	7.9	234	260	245
14-May	13.2	13.2	13.2	7.9	7.9	7.9	233	246	239
15-May	13.9	14.0	14.0	7.9	8.0	7.9	253	269	262
16-May	13.4	13.4	13.4	7.9	8.0	7.9	252	270	262
17-May	12.5	12.5	12.5	7.6	7.9	7.8	257	269	264
18-May	11.3	11.4	11.4	7.7	7.7	7.7	232	246	239
19-May	11.2	11.2	11.2	7.7	7.7	7.7	213	220	217
20-May	10.2	10.3	10.2	7.7	7.7	7.7	205	210	208
21-May	10.0	10.0	10.0	7.7	7.7	7.7	212	221	216
22-May	10.7	10.7	10.7	7.7	7.7	7.7	234	248	242
23-May	11.7	11.7	11.7	7.7	7.7	7.7	218	229	224
24-May	11.9	12.0	11.9	7.7	7.7	7.7	227	238	232
25-May	12.3	12.4	12.3	7.7	7.7	7.7	225	236	232
26-May	12.8	12.8	12.8	7.7	7.7	7.7	245	256	250
27-May	13.1	13.1	13.1	7.7	7.7	7.7	241	256	248
28-May	13.0	14.2	14.0	7.6	7.8	7.7	227	268	249
29-May	14.5	14.5	14.5	7.7	7.8	7.7	231	247	239
30-May	14.2	14.2	14.2	7.7	7.7	7.7	247	263	255
31-May	13.7	13.8	13.7	7.7	7.7	7.7	238	255	246
Monthly Min/Max/Avg.	7.3	14.5	11.4	7.6	8	7.8	228	243	236

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

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

NOTE: ' -- ' indicates filter offline

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

May 2024

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

NOTES: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

1.2.8 Rossdale Filters 1 - 9 Turbidity (NTU)

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

NOTES: ' -- ' indicates filter offline

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

May 2024

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

NOTES: ' -- ' indicates filter offline

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

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

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

May 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	19	1	0.07	0.07	0.07	5	12	8	0.03	0.04	0.03
2	1	17	9	0.03	0.05	0.04	6	12	9	0.03	0.04	0.03
3	6	11	8	0.05	0.07	0.06	7	12	9	0.02	0.03	0.03
4	5	9	6	0.06	0.07	0.06	6	11	8	0.02	0.04	0.03
5	5	11	7	0.06	0.08	0.06	6	10	8	0.03	0.03	0.03
6	8	18	11	0.06	0.07	0.06	7	11	9	0.03	0.04	0.03
7	7	15	11	0.06	0.09	0.07	7	14	11	0.03	0.04	0.03
8	13	20	16	0.06	0.09	0.06	1	21	6	0.04	0.04	0.02
9	7	13	10	0.04	0.07	0.06	6	14	9	0.02	0.04	0.03
10	4	12	8	0.06	0.08	0.06	4	7	5	0.02	0.03	0.03
11	3	6	4	0.05	0.09	0.06	3	7	4	0.02	0.03	0.03
12	2	6	3	0.05	0.08	0.06	3	7	5	0.02	0.03	0.03
13	2	5	3	0.06	0.10	0.06	3	8	5	0.02	0.03	0.03
14	1	5	2	0.05	0.08	0.06	3	6	4	0.02	0.03	0.03
15	--	--	--	--	--	--	2	6	4	0.02	0.03	0.03
16	1	15	4	0.05	0.08	0.06	4	8	5	0.02	0.03	0.03
17	3	6	4	0.05	0.06	0.05	4	9	6	0.02	0.03	0.03
18	2	7	4	0.05	0.06	0.05	3	6	4	0.02	0.03	0.02
19	2	9	2	0.05	0.06	0.05	3	7	4	0.02	0.03	0.02
20	2	6	3	0.05	0.07	0.05	3	6	4	0.02	0.03	0.02
21	2	6	4	0.05	0.07	0.05	3	6	4	0.02	0.03	0.03
22	2	5	3	0.05	0.09	0.05	3	6	4	0.02	0.03	0.02
23	1	5	2	0.05	0.08	0.05	4	7	5	0.02	0.03	0.03
24	1	4	2	0.05	0.08	0.05	4	7	5	0.02	0.03	0.02
25	1	10	3	0.04	0.04	0.05	4	9	6	0.02	0.03	0.03
26	2	8	3	0.05	0.06	0.05	3	6	4	0.02	0.03	0.02
27	2	7	3	0.05	0.06	0.05	3	6	4	0.02	0.03	0.02
28	1	4	2	0.05	0.05	0.05	2	8	4	0.02	0.03	0.02
29	1	20	2	0.05	0.07	0.05	4	9	6	0.02	0.03	0.03
30	1	4	2	0.05	0.10	0.05	3	6	4	0.02	0.03	0.02
31	1	4	2	0.05	0.07	0.06	3	8	5	0.02	0.03	0.03
Monthly Min/Max/Avg	1	20	5	0.03	0.10	0.06	1	21	6	0.02	0.04	0.03

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

May 2024

Filter	1						2						3						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	35.1	35.8	35.6	28.2	29.4	1.8	35.2	73.3	36.6	31.4	32.5	0.8	--	--	--	--	--	--	93.4	93.4	93.4
2	35.2	36.6	35.8	22.3	26.1	21.4	37.2	43.9	40.9	23.3	27.6	22.5	35.0	36.3	35.7	21.5	25.6	16.8	93.4	94.9	94.1
3	35.0	40.4	37.2	21.2	24.7	23.1	43.4	58.9	44.2	16.8	23.5	2.6	35.2	36.2	35.7	21.2	23.6	22.8	94.4	95.0	94.8
4	35.3	49.5	35.9	16.3	24.8	2.0	35.1	43.6	36.3	22.3	31.5	27.6	35.3	35.9	35.7	19.8	23.6	19.9	94.1	94.8	94.5
5	35.0	36.2	35.6	24.1	28.7	26.4	35.4	39.1	35.9	23.0	29.4	26.9	--	--	--	--	--	--	93.5	94.1	93.9
6	34.8	36.1	35.5	22.2	26.1	24.0	37.6	41.4	39.5	22.1	23.1	13.0	35.0	36.1	35.6	22.3	27.3	20.4	92.4	94.1	93.1
7	34.9	36.5	35.5	17.9	22.5	15.9	34.7	36.5	35.6	20.1	28.9	7.2	34.9	36.1	35.5	22.1	26.1	24.0	91.6	93.1	92.4
8	35.1	36.1	35.6	19.6	19.9	4.3	34.9	36.1	35.5	23.9	29.0	25.8	34.8	36.3	35.5	17.5	22.5	19.8	90.9	91.6	91.3
9	33.9	36.0	35.5	18.9	27.1	22.2	34.9	36.1	35.7	21.1	24.3	22.6	34.6	63.6	35.6	13.6	18.5	10.2	91.2	92.7	91.9
10	35.0	36.4	35.5	19.8	26.4	20.7	35.3	50.8	35.7	10.9	21.6	19.1	34.6	36.3	35.5	17.1	21.8	18.3	90.7	91.8	91.0
11	34.7	36.3	35.5	17.8	20.7	19.3	34.9	36.0	35.5	20.8	25.8	9.1	34.8	36.1	35.5	18.6	21.5	20.2	90.0	90.7	90.4
12	35.0	38.1	35.6	15.4	24.4	4.8	34.9	36.1	35.5	23.4	25.2	24.3	34.9	50.4	35.5	10.4	24.0	19.0	87.7	91.0	89.9
13	34.9	36.5	35.6	22.6	24.5	23.5	34.9	36.2	35.5	21.8	24.1	22.8	34.9	36.2	35.5	18.1	27.5	19.0	89.9	91.0	90.6
14	34.7	37.2	35.5	22.4	27.8	18.7	34.8	50.0	35.6	13.4	36.7	15.4	35.0	38.8	35.5	16.8	30.4	24.0	90.7	91.7	90.8
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	35.0	36.3	35.6	19.6	25.0	19.6	34.9	36.2	35.6	23.8	26.0	22.0	35.0	37.6	35.7	14.3	28.8	2.0	91.5	92.1	91.9
17	34.9	36.2	35.6	21.0	23.3	22.2	35.3	36.3	35.7	22.3	26.2	23.7	34.9	36.1	35.6	23.4	28.0	24.8	91.9	92.2	92.1
18	34.9	36.9	35.5	19.1	24.5	9.7	35.2	39.0	36.7	19.1	25.7	15.2	34.8	36.0	35.6	20.7	25.7	23.3	92.1	92.4	92.2
19	--	--	--	--	--	--	35.1	36.5	35.7	23.4	28.0	24.7	35.0	36.1	35.6	19.9	21.5	6.3	92.2	92.4	92.3
20	34.9	36.0	35.6	23.6	28.8	11.2	34.5	36.2	35.7	21.8	26.7	24.7	--	--	--	--	--	--	92.1	92.6	92.3
21	34.9	36.0	35.5	24.1	28.6	26.6	35.3	44.8	35.7	16.1	26.2	11.1	34.2	36.1	35.6	22.3	28.2	14.2	92.1	92.6	92.3
22	34.9	36.1	35.5	23.5	26.5	24.6	--	--	--	--	--	--	34.9	36.1	35.6	24.5	28.3	26.5	91.0	92.4	91.8
23	34.8	35.6	35.6	23.3	32.9	15.5	34.9	36.4	35.5	20.7	32.6	27.0	34.9	36.3	35.5	20.8	27.1	23.4	90.2	92.6	92.2
24	34.7	36.1	35.5	27.1	31.5	29.5	34.9	36.0	35.6	25.8	30.8	27.5	35.0	35.8	35.7	21.2	22.2	2.3	92.4	95.2	92.8
25	34.9	36.2	35.5	22.3	27.7	25.2	35.3	39.8	35.7	17.5	26.4	19.6	34.4	36.0	35.6	26.8	31.3	25.4	91.4	92.7	92.2
26	34.8	35.8	35.5	16.3	22.8	13.3	35.0	36.0	35.5	26.0	30.7	10.5	34.8	36.0	35.5	25.1	29.0	26.9	90.4	91.4	90.8
27	34.8	36.1	35.5	23.2	32.5	22.0	34.4	36.0	35.5	25.4	31.6	28.1	34.8	38.6	35.5	14.9	25.8	19.8	89.9	90.9	90.3
28	34.8	36.1	35.5	26.6	30.6	28.3	35.0	36.1	35.5	24.6	28.8	26.4	34.9	36.1	35.5	18.3	23.2	10.4	90.9	91.6	91.3
29	34.9	37.9	35.5	16.1	27.9	13.1	34.8	39.1	35.6	11.8	29.8	16.0	34.9	36.0	35.5	22.5	29.3	26.6	90.3	91.9	91.2
30	34.6	36.3	35.5	19.8	31.5	28.0	34.9	36.0	35.5	27.2	30.9	28.4	35.0	36.0	35.5	24.2	27.5	25.8	90.5	91.2	90.9
31	34.9	36.0	35.5	26.8	31.2	29.1	34.7	36.1	35.5	25.1	30.6	28.1	34.9	35.9	35.4	23.0	25.5	9.4	90.9	91.7	91.3
Monthly Total						545.8						572.8						501.4			
Monthly Min/Max/ Avg	33.9	49.5	35.6	15.4	32.9		34.4	73.3	36.3	10.9	36.7		34.2	63.6	35.6	10.4	31.3		87.7	95.2	89.0

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

May 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	93.4	93.4	93.4
2	--	--	--	--	--	--	--	--	--	--	--	--	35.2	36.0	35.6	25.1	30.5	5.1	93.4	94.9	94.1
3	35.3	42.1	38.1	21.8	26.9	21.1	35.3	40.9	35.8	18.8	26.6	12.7	35.1	36.0	35.6	24.3	29.4	27.8	94.4	95.0	94.8
4	34.9	39.8	37.3	22.5	25.4	23.9	35.0	36.4	35.6	23.0	25.7	24.2	35.0	38.0	35.6	21.5	27.4	24.6	94.1	94.8	94.5
5	35.3	51.6	38.4	14.4	24.0	20.3	35.2	39.0	36.1	17.3	23.8	20.7	35.1	45.9	36.0	14.1	21.5	11.0	93.5	94.1	93.9
6	--	--	--	--	--	--	35.0	39.4	37.2	16.9	23.9	10.8	35.1	36.0	35.5	26.4	31.0	12.3	92.4	94.1	93.1
7	34.9	41.3	35.6	18.3	29.8	24.8	34.8	36.0	35.5	22.4	27.7	25.8	34.9	36.0	35.5	25.8	30.3	28.0	91.6	93.1	92.4
8	35.0	36.8	35.6	21.3	27.3	23.3	35.0	36.1	35.5	19.3	25.0	21.3	34.9	36.0	35.5	20.8	26.0	23.2	90.9	91.6	91.3
9	35.0	36.8	35.7	19.0	21.6	20.2	33.9	36.8	35.6	16.5	19.4	16.6	35.0	37.2	35.5	16.1	21.0	12.3	91.2	92.7	91.9
10	34.9	36.5	35.7	17.6	19.5	9.7	34.9	36.0	35.5	18.9	19.9	8.9	34.9	36.1	35.5	23.3	25.9	24.1	90.7	91.8	91.0
11	34.9	36.8	35.6	17.8	22.7	20.2	34.8	36.2	35.5	18.9	23.1	21.7	34.9	36.2	35.5	22.4	24.2	23.3	90.0	90.7	90.4
12	35.0	36.6	35.7	20.7	22.1	21.3	32.0	36.0	35.5	21.5	24.8	22.9	34.9	36.1	35.5	22.4	26.2	24.3	87.7	91.0	89.9
13	35.7	36.7	35.7	18.2	21.3	18.7	34.9	38.1	35.5	14.5	22.0	13.3	35.5	55.2	35.5	22.0	26.3	14.6	89.9	91.0	90.6
14	34.3	37.3	35.6	22.5	34.6	14.7	35.0	37.6	35.6	19.8	32.9	9.6	34.9	36.1	35.5	25.8	35.0	27.1	90.7	91.7	90.8
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	35.0	36.7	35.7	21.4	23.2	19.8	34.8	36.2	35.6	19.2	24.4	19.1	34.9	36.2	35.5	20.5	31.1	15.3	91.5	92.1	91.9
17	34.8	36.8	35.7	19.0	28.2	12.0	34.8	36.4	35.6	19.8	22.8	21.3	34.6	36.1	35.5	24.8	30.5	27.9	91.9	92.2	92.1
18	34.9	36.5	35.7	23.2	27.2	25.3	34.9	36.2	35.6	19.6	22.9	14.2	35.0	36.7	35.5	21.2	26.8	19.5	92.1	92.4	92.2
19	35.0	36.6	35.7	21.5	27.4	23.5	--	--	--	--	--	--	--	--	--	--	--	--	92.2	92.4	92.3
20	35.0	36.9	35.7	19.5	23.3	21.6	35.1	36.0	35.6	24.2	27.6	26.3	--	--	--	--	--	--	92.1	92.6	92.3
21	35.1	37.2	35.8	19.1	23.0	2.7	35.1	36.1	35.6	21.2	26.7	23.8	35.0	36.1	35.6	26.4	31.4	27.1	92.1	92.6	92.3
22	35.0	36.5	35.7	22.8	27.2	12.3	35.1	37.3	35.6	17.2	21.9	11.7	34.9	36.1	35.5	25.6	28.6	27.3	91.0	92.4	91.8
23	34.9	36.6	35.7	24.5	29.9	26.3	--	--	--	--	--	--	35.0	37.6	35.5	17.9	26.8	14.9	90.2	92.6	92.2
24	35.0	38.1	35.7	22.7	26.8	24.6	--	--	--	--	--	--	34.7	36.1	35.5	21.3	35.1	27.8	92.4	95.2	92.8
25	34.9	36.2	35.7	20.1	31.8	18.1	--	--	--	--	--	--	35.0	36.2	35.5	25.8	32.3	29.5	91.4	92.7	92.2
26	34.8	36.3	35.5	25.1	30.6	27.1	--	--	--	--	--	--	34.9	36.2	35.5	21.5	26.1	23.8	90.4	91.4	90.8
27	34.6	36.1	35.5	24.5	28.2	26.5	--	--	--	--	--	--	34.9	44.3	35.6	10.7	22.0	4.4	89.9	90.9	90.3
28	35.0	36.6	35.7	20.1	24.7	11.4	--	--	--	--	--	--	34.9	36.1	35.5	26.8	31.8	24.6	90.9	91.6	91.3
29	34.8	36.8	35.6	21.4	26.4	22.4	--	--	--	--	--	--	35.0	36.0	35.5	27.7	31.3	29.4	90.3	91.9	91.2
30	34.5	36.3	35.5	25.2	29.5	28.2	--	--	--	--	--	--	34.9	36.2	35.5	26.7	30.3	28.5	90.5	91.2	90.9
31	34.9	36.8	35.6	22.9	27.0	24.8	--	--	--	--	--	--	35.0	36.1	35.5	23.2	26.8	3.8	90.9	91.7	91.3
Monthly Total						544.9						325.0						561.8			
Monthly Min/Max/ Avg	34.3	51.6	35.9	14.4	34.6		32.0	40.9	35.7	14.5	32.9		34.6	55.2	35.5	10.7	35.1		87.7	95.2	92.0

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

May 2024

Filter	7						8						9						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	35.3	35.9	35.6	34.2	35.6	2.2	35.3	35.9	35.6	29.9	36.3	2.1	35.2	81.9	36.8	34.0	35.3	0.9	93.4	93.4	93.4
2	35.0	36.2	35.6	23.4	27.6	22.7	35.0	36.2	35.6	25.0	30.5	24.5	34.9	36.4	35.6	23.8	27.6	23.1	93.4	94.9	94.1
3	34.6	36.2	35.6	22.9	27.0	25.0	35.2	36.2	35.6	23.0	28.0	25.7	35.0	35.9	35.7	23.2	26.3	14.7	94.4	95.0	94.8
4	35.1	43.7	35.6	17.1	25.8	11.3	35.2	38.4	35.7	19.6	26.4	16.1	33.9	36.2	35.6	26.4	35.6	19.9	94.1	94.8	94.5
5	35.2	36.0	35.6	25.5	34.6	8.1	35.0	36.1	35.6	26.8	35.6	16.5	35.1	36.2	35.6	26.9	33.4	30.8	93.5	94.1	93.9
6	35.0	36.4	35.7	22.1	32.6	19.4	34.9	36.5	35.6	26.5	32.2	28.7	34.9	36.2	35.6	22.6	27.5	25.0	92.4	94.1	93.1
7	--	--	--	--	--	--	35.1	36.0	35.6	22.4	27.0	24.0	35.2	44.4	35.6	12.9	23.1	3.6	91.6	93.1	92.4
8	35.0	36.1	35.5	20.5	25.2	17.2	35.0	36.9	35.6	14.8	23.0	10.0	35.0	36.1	35.5	21.3	26.3	12.2	90.9	91.6	91.3
9	32.1	36.1	35.5	22.6	25.0	23.5	35.0	36.6	35.6	20.8	26.5	20.8	34.8	36.2	35.5	23.4	25.9	24.4	91.2	92.7	91.9
10	34.9	36.1	35.5	20.1	23.1	21.5	34.9	36.0	35.6	22.7	25.6	24.1	34.9	36.2	35.5	21.0	24.1	22.5	90.7	91.8	91.0
11	34.9	44.4	35.5	10.6	25.8	16.0	34.9	36.2	35.5	20.1	23.3	21.8	34.7	45.4	35.5	12.0	21.7	16.2	90.0	90.7	90.4
12	34.9	38.2	35.5	23.7	25.8	24.7	35.0	38.9	35.6	14.8	25.3	14.4	33.8	36.1	35.5	21.4	30.9	16.2	87.7	91.0	89.9
13	35.0	36.3	35.5	21.5	24.4	23.2	34.9	36.0	35.5	20.8	26.6	25.1	34.8	36.2	35.6	26.7	29.3	28.1	89.9	91.0	90.6
14	35.1	37.8	35.5	18.3	35.1	18.0	34.9	36.3	35.6	25.1	34.4	23.8	35.0	37.1	35.6	21.6	30.2	19.3	90.7	91.7	90.8
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	35.0	36.3	35.5	23.9	26.5	21.7	35.0	36.1	35.6	23.1	27.3	22.6	34.9	36.1	35.5	23.6	27.6	19.0	91.5	92.1	91.9
17	35.0	36.2	35.5	22.7	27.6	24.4	34.9	44.7	35.6	12.8	28.2	19.4	34.9	36.2	35.5	21.2	26.8	11.9	91.9	92.2	92.1
18	34.9	35.7	35.6	24.9	26.5	9.5	35.1	36.0	35.6	24.7	31.9	25.4	34.9	36.2	35.6	23.8	30.4	27.8	92.1	92.4	92.2
19	35.1	36.2	35.6	24.6	30.0	26.3	34.9	36.1	35.6	25.2	29.5	27.4	34.9	36.1	35.6	24.2	28.2	26.5	92.2	92.4	92.3
20	35.0	36.1	35.6	25.2	28.2	27.2	35.0	45.1	35.6	12.5	27.3	17.6	35.2	38.6	35.6	17.8	25.7	1.1	92.1	92.6	92.3
21	35.0	42.7	35.5	21.6	27.3	24.2	35.3	35.8	35.6	20.7	21.4	0.6	34.9	36.0	35.6	25.7	27.7	9.1	92.1	92.6	92.3
22	35.5	35.6	35.6	21.7	23.2	22.5	34.8	36.0	35.6	20.7	31.4	29.0	34.9	36.1	35.6	25.7	30.1	28.3	91.0	92.4	91.8
23	--	--	--	--	--	--	34.8	36.5	35.6	26.7	31.7	29.0	35.0	36.3	35.6	25.9	30.9	28.1	90.2	92.6	92.2
24	--	--	--	--	--	--	35.1	36.1	35.6	23.7	29.5	26.2	34.8	35.8	35.6	24.5	31.8	24.6	92.4	95.2	92.8
25	--	--	--	--	--	--	35.1	35.7	35.6	21.5	32.4	14.0	35.0	36.2	35.6	29.7	35.1	32.5	91.4	92.7	92.2
26	--	--	--	--	--	--	35.0	36.0	35.6	30.5	34.7	31.9	35.0	36.1	35.6	27.3	31.4	29.3	90.4	91.4	90.8
27	35.1	36.2	35.6	25.8	35.5	18.6	35.1	36.1	35.6	27.1	32.6	30.6	34.9	40.2	35.6	13.8	32.5	13.1	89.9	90.9	90.3
28	35.0	36.0	35.6	27.5	31.2	28.9	35.2	36.4	35.6	24.1	27.3	2.8	34.9	36.2	35.6	28.3	32.5	30.0	90.9	91.6	91.3
29	34.7	36.0	35.6	25.6	29.3	27.3	--	--	--	--	--	--	35.1	36.1	35.6	27.9	31.1	29.1	90.3	91.9	91.2
30	35.3	36.9	35.6	25.4	28.9	1.0	35.0	36.0	35.6	31.6	36.7	15.9	35.0	38.2	35.6	16.7	28.4	16.0	90.5	91.2	90.9
31	35.1	36.0	35.6	31.1	36.0	18.3	35.1	36.1	35.6	30.7	35.9	33.0	34.9	36.1	35.6	28.3	31.8	25.6	90.9	91.7	91.3
Monthly Total						482.7						603.0						608.9			
Monthly Min/Max/ Avg	32.1	44.4	35.6	10.6	36.0		34.8	45.1	35.6	12.5	36.7		33.8	81.9	35.6	12.0	35.6		87.7	95.2	92.0

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

May 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	50.1	60.9	55.0	65.2	88.2	78.0	47.8	57.3	51.7	62.7	85.3	75.5	49.0	59.0	53.3	70.5	93.0	83.2	--	--	--	--	--	--	94.8	95.1	95.0
2	47.9	60.1	53.7	68.8	93.8	79.2	48.1	91.4	63.9	65.2	90.1	76.8	45.9	55.9	51.9	71.8	99.1	84.4	--	--	--	--	--	--	94.5	95.2	94.8
3	47.2	53.7	49.8	74.6	94.6	86.1	45.9	86.3	71.3	73.0	92.9	83.6	45.4	89.7	62.7	79.5	99.9	92.0	--	--	--	--	--	--	93.8	95.2	94.7
4	44.9	92.8	74.1	73.8	97.5	86.3	72.4	84.3	77.5	72.6	92.7	83.8	47.9	86.9	78.3	80.1	101.5	92.3	--	--	--	--	--	--	94.3	95.0	94.5
5	50.9	92.2	82.3	69.0	94.0	81.2	66.0	85.1	75.6	66.2	90.9	78.8	50.3	87.1	77.6	73.7	100.8	86.6	--	--	--	--	--	--	93.8	94.5	94.0
6	68.4	80.2	73.0	71.4	93.4	82.6	61.2	71.1	65.9	68.3	91.3	80.1	64.4	76.0	69.0	75.8	98.9	88.2	--	--	--	--	--	--	92.9	94.5	93.3
7	64.6	77.0	70.1	61.1	89.3	80.5	58.0	70.4	63.1	60.0	87.4	78.1	61.9	74.3	66.9	64.7	93.7	85.9	--	--	--	--	--	--	92.4	92.9	92.7
8	65.9	80.3	33.1	71.5	89.5	30.5	58.5	71.5	69.8	68.9	86.5	29.4	63.6	70.9	68.7	75.3	93.7	32.2	--	--	--	--	--	--	92.6	92.8	92.6
9	55.1	73.5	63.1	77.3	98.3	87.7	51.4	69.0	58.4	75.0	95.6	85.3	53.6	71.9	60.8	84.0	103.4	93.7	--	--	--	--	--	--	91.5	93.2	92.4
10	47.2	57.1	51.7	76.8	94.9	87.3	45.1	76.7	63.3	74.4	93.8	85.0	45.1	67.8	49.5	82.2	101.9	93.5	--	--	--	--	--	--	90.5	91.6	91.1
11	45.2	80.7	53.7	71.2	96.4	83.7	48.6	75.1	60.2	69.9	93.6	81.9	50.8	77.2	62.0	77.7	100.3	89.8	--	--	--	--	--	--	90.3	90.8	90.6
12	46.6	58.1	52.3	70.3	91.0	81.2	48.0	72.1	54.5	67.1	91.2	79.0	46.7	59.7	53.3	75.6	96.9	87.0	--	--	--	--	--	--	90.5	91.1	90.7
13	45.8	55.8	50.0	41.2	95.0	83.1	47.8	77.2	63.8	40.1	94.0	80.9	47.1	58.0	51.2	45.9	100.3	88.7	--	--	--	--	--	--	90.2	90.7	90.5
14	49.9	57.5	53.9	70.1	96.1	85.5	48.2	56.5	52.5	69.2	94.3	83.3	51.6	59.5	55.7	75.2	101.9	91.4	--	--	--	--	--	--	90.7	91.5	91.2
15	53.1	60.1	55.5	55.7	96.4	89.4	50.6	57.5	53.1	55.9	93.8	87.1	54.3	88.6	62.7	60.6	102.2	95.7	--	--	--	--	--	--	91.2	91.8	91.6
16	52.8	62.9	57.4	83.6	100.2	93.3	50.9	59.2	54.4	80.4	97.8	90.8	54.5	62.0	57.9	89.9	106.2	99.9	--	--	--	--	--	--	91.7	92.3	91.9
17	53.7	65.8	58.3	75.5	99.8	88.1	50.4	63.4	55.5	74.3	97.1	85.6	53.1	64.2	58.7	81.7	105.7	94.1	--	--	--	--	--	--	91.7	92.3	92.0
18	61.2	73.0	67.0	72.5	94.5	84.0	59.0	70.1	64.1	70.3	91.8	81.5	63.2	73.8	68.0	77.4	98.6	89.5	--	--	--	--	--	--	92.2	92.6	92.4
19	63.5	84.8	74.4	61.7	87.7	73.6	63.0	83.1	71.5	58.6	85.7	71.2	66.5	84.6	74.9	64.1	92.4	78.0	--	--	--	--	--	--	92.4	92.6	92.5
20	69.2	83.0	76.8	58.7	82.8	71.9	65.0	82.4	74.5	57.3	79.1	69.4	70.4	86.8	78.9	62.7	86.8	76.4	--	--	--	--	--	--	92.5	92.8	92.6
21	64.3	75.3	69.4	64.2	84.1	76.4	61.3	73.1	66.4	63.1	79.8	73.8	64.0	78.2	70.6	70.1	88.4	81.1	--	--	--	--	--	--	92.0	92.6	92.4
22	59.1	98.8	65.2	66.3	88.3	79.9	60.5	73.0	63.6	65.6	86.4	77.4	61.5	96.9	66.7	71.7	93.2	85.2	--	--	--	--	--	--	91.9	92.3	92.1
23	58.2	64.3	61.1	68.3	86.9	79.1	58.8	66.5	62.3	65.7	84.7	76.8	60.3	68.2	63.7	72.4	92.2	84.4	--	--	--	--	--	--	91.6	92.0	91.8
24	57.7	68.1	62.6	67.6	84.5	78.2	59.0	70.1	63.5	64.6	82.9	75.7	59.6	72.0	65.0	72.6	90.7	82.9	--	--	--	--	--	--	91.4	91.9	91.8
25	49.0	64.9	56.1	69.8	90.9	81.3	48.8	65.4	57.0	65.4	87.2	78.7	50.6	66.9	58.5	73.1	97.3	86.6	--	--	--	--	--	--	90.1	92.0	91.5
26	49.0	57.5	54.0	72.2	91.1	82.9	48.7	58.5	54.4	69.8	87.3	80.7	51.2	60.0	56.7	78.0	94.0	88.3	--	--	--	--	--	--	90.7	91.4	91.1
27	47.2	59.0	54.1	74.9	90.9	84.4	48.6	61.5	54.6	72.9	88.8	82.2	50.4	59.4	55.9	79.2	96.5	90.4	--	--	--	--	--	--	90.9	91.7	91.3
28	47.9	59.2	53.0	73.1	89.1	83.0	48.3	58.0	53.7	70.6	86.8	80.5	49.9	61.4	55.3	77.3	93.8	88.3	--	--	--	--	--	--	90.7	91.5	91.1
29	45.5	77.6	53.3	73.1	93.6	84.2	46.3	73.8	52.0	70.0	91.6	81.8	45.2	53.9	50.3	78.7	98.9	90.1	--	--	--	--	--	--	90.4	91.2	90.7
30	50.2	81.1	55.2	74.3	95.6	86.2	49.6	78.4	58.3	70.7	95.5	83.8	46.8	55.4	52.4	78.6	102.0	91.9	--	--	--	--	--	--	90.4	91.4	91.0
31	49.1	59.9	52.7	72.6	89.6	83.3	49.0	58.5	52.0	68.9	86.8	80.6	50.7	60.6	53.6	77.9	94.7	88.8	--	--	--	--	--	--	90.9	91.2	91.1
Monthly Total						2,512.3						2,438.9						2,680.7						0.0			
Monthly Min/Max/ Avg	44.9	98.8	59.4	41.2	100.2		45.1	91.4	61.4	40.1	97.8		45.1	96.9	61.6	45.9	106.2		--	--	--	--	--		90.1	95.2	92.2

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

May 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	8.6	8.6	8.6	17	17	17	7.0	7.0	7.0	7.2	7.3	7.3	10	13	12	7.0	7.0	7.0
2	8.5	9.0	8.8	17	21	20	7.0	7.0	7.0	7.2	7.3	7.2	9.3	12	11	7.0	7.0	7.0
3	8.4	8.6	8.5	18	21	20	7.0	7.0	7.0	7.2	7.3	7.2	9.4	13	11	7.0	7.0	7.0
4	8.4	8.8	8.6	18	20	19	7.0	7.0	7.0	7.2	7.3	7.3	9.9	13	11	7.0	7.0	7.0
5	8.5	8.9	8.7	18	20	19	7.0	7.0	7.0	7.3	7.3	7.3	11	14	12	7.0	7.0	7.0
6	8.7	9.0	8.9	19	21	20	7.0	7.0	7.0	7.2	7.4	7.3	10	15	13	7.0	7.0	7.0
7	8.9	9.1	9.0	18	21	20	7.0	7.0	7.0	7.2	7.3	7.3	9.8	13	12	7.0	7.0	7.0
8	8.9	9.1	9.0	19	21	20	7.0	7.0	7.0	7.2	7.4	7.3	10.0	14	12	7.0	7.0	7.0
9	9.0	9.2	9.1	20	22	21	7.0	7.0	7.0	7.2	7.3	7.3	9.1	13	11	7.0	7.0	7.0
10	9.2	9.7	9.4	21	25	24	7.0	7.0	7.0	7.3	7.4	7.3	11	14	13	7.0	7.0	7.0
11	9.6	10.1	9.8	24	27	25	7.0	7.0	7.0	7.3	7.3	7.3	11	14	13	7.0	7.0	7.0
12	9.5	10.0	9.8	24	26	24	7.0	7.0	7.0	7.3	7.3	7.3	11	14	13	7.0	7.0	7.0
13	9.5	9.7	9.6	24	26	25	7.0	7.0	7.0	7.3	7.5	7.3	11	15	13	7.0	7.0	7.0
14	9.5	9.9	9.7	20	26	24	7.0	7.0	7.0	7.3	7.4	7.3	13	15	14	7.0	7.0	7.0
15	--	--	--	--	--	--	--	--	--	7.3	7.4	7.4	13	17	16	7.0	7.0	7.0
16	9.3	10.2	9.9	22	29	27	7.0	7.0	7.0	7.3	7.4	7.4	13	17	15	7.0	7.0	7.0
17	9.3	9.6	9.5	22	26	24	7.0	7.0	7.0	7.3	7.4	7.3	12	15	14	7.0	7.0	7.0
18	9.3	9.5	9.3	22	24	23	7.0	7.0	7.0	7.0	7.3	7.3	11	14	12	6.8	7.0	7.0
19	9.4	9.9	9.7	21	24	23	7.0	7.0	7.0	7.3	7.4	7.3	12	15	13	7.0	7.0	7.0
20	9.6	10.4	9.9	20	23	21	7.0	7.0	7.0	7.2	7.3	7.3	11	14	12	7.0	7.0	7.0
21	9.5	10.0	9.8	19	21	20	7.0	7.0	7.0	7.2	7.3	7.3	11	13	12	7.0	7.0	7.0
22	9.4	9.9	9.6	20	23	21	7.0	7.0	7.0	7.3	7.3	7.3	11	15	13	7.0	7.0	7.0
23	9.6	10.1	9.9	21	23	22	7.0	7.0	7.0	7.2	7.4	7.3	11	15	13	7.0	7.0	7.0
24	9.8	10.2	9.9	21	22	22	7.0	7.0	7.0	7.3	7.4	7.3	12	15	13	7.0	7.0	7.0
25	9.7	10.0	9.8	20	23	22	7.0	7.0	7.0	7.3	7.3	7.3	12	14	13	7.0	7.0	7.0
26	10.0	10.4	10.1	22	24	23	7.0	7.0	7.0	7.3	7.4	7.3	11	15	13	7.0	7.0	7.0
27	10.0	10.6	10.2	21	24	23	7.0	7.0	7.0	7.3	7.4	7.4	14	17	15	7.0	7.0	7.0
28	9.5	11.0	10.3	23	28	26	7.0	7.0	7.0	7.3	7.4	7.4	13	17	15	7.0	7.0	7.0
29	9.6	10.6	10.4	25	29	27	7.0	7.0	7.0	7.4	7.5	7.4	15	19	17	7.0	7.0	7.0
30	9.9	10.2	10.1	24	27	26	7.0	7.0	7.0	7.3	7.4	7.4	14	18	16	7.0	7.0	7.0
31	9.7	10.0	9.9	24	26	25	7.0	7.0	7.0	7.3	7.5	7.4	14	18	17	7.0	7.0	7.0
Monthly Min/Max/Avg	8.4	11.0	9.5	17	29	22	7.0	7.0	7.0	7.0	7.5	7.3	9.1	19	13	6.8	7.0	7.0

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

May 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	29.6	30.1	33.3	694	1,035	1,729	19,272
2	31.2	31.1	35.7	3,576	5,925	9,501	20,930
3	30.0	30.0	37.4	3,608	7,526	11,135	23,114
4	29.2	29.3	40.9	3,570	7,057	10,627	25,205
5	28.8	28.9	46.0	3,564	6,348	9,911	26,825
6	34.5	34.4	53.4	4,264	7,180	11,444	31,672
7	42.0	42.0	64.7	5,193	8,656	13,848	37,451
8	46.1	46.0	66.9	6,150	9,622	15,772	15,904
9	55.0	55.0	74.8	8,511	11,917	20,428	46,317
10	83.2	83.2	109	12,868	18,015	30,884	67,543
11	93.0	93.0	118	14,387	20,143	34,530	69,940
12	87.8	87.6	96.9	13,767	19,523	33,290	55,997
13	72.8	72.8	91.9	11,937	17,939	29,876	54,666
14	74.8	74.8	88.2	10,998	16,785	27,783	53,522
15	66.7	66.5	79.7	1,176	2,064	3,240	50,770
16	59.2	59.2	67.7	8,895	13,323	22,217	44,738
17	54.7	54.7	64.4	9,019	13,528	22,547	41,112
18	56.5	56.4	72.8	8,353	13,029	21,382	43,109
19	52.5	52.6	68.1	6,109	9,668	15,777	34,941
20	51.6	51.7	68.0	3,006	11,873	14,879	34,630
21	--	54.4	66.5	--	16,511	16,511	35,828
22	--	52.4	61.1	--	17,945	17,945	34,012
23	--	53.4	57.5	--	18,728	18,728	31,900
24	--	51.8	56.1	--	17,966	17,966	30,518
25	--	54.6	71.6	--	19,148	19,148	40,530
26	--	69.3	100	--	24,288	24,288	58,020
27	--	79.2	101	--	27,750	27,750	58,672
28	77.7	79.4	86.5	2,327	27,828	30,155	50,108
29	75.1	75.1	85.4	9,286	17,607	26,893	50,062
30	73.7	73.8	87.9	9,114	18,251	27,365	52,478
31	67.2	67.2	77.0	8,318	16,632	24,949	44,464
Monthly Total				168,692	443,809	612,501	1,284,250
Monthly Avg	57.2	57.7	71.9	7,029	14,316	19,758	41,427

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

May 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	0.29	0.29	0.22	3	5	8	62
2	0.27	0.24	0.20	15	22	37	57
3	0.25	0.25	0.19	15	30	45	55
4	0.25	0.25	0.20	15	29	44	59
5	0.25	0.25	0.19	15	27	42	55
6	0.25	0.24	0.19	15	24	39	53
7	0.27	0.27	0.19	16	27	43	54
8	0.32	0.32	0.20	21	32	53	23
9	0.35	0.35	0.20	26	37	63	60
10	0.38	0.38	0.22	29	40	69	66
11	0.33	0.40	0.21	25	42	67	61
12	0.40	0.40	0.17	30	43	73	47
13	0.40	0.40	0.17	32	48	80	48
14	0.40	0.40	0.17	29	44	72	50
15	0.39	0.39	0.17	3	6	9	52
16	0.40	0.40	0.17	29	44	73	56
17	0.40	0.40	0.18	32	48	80	55
18	0.40	0.40	0.18	29	45	73	51
19	0.36	0.36	0.18	20	32	52	44
20	0.31	0.30	0.18	9	34	42	44
21	0.31	0.30	0.18	0	44	44	46
22	0.31	0.30	0.17	0	50	50	47
23	0.31	0.34	0.17	0	58	58	47
24	0.31	0.35	0.17	0	59	59	46
25	0.31	0.35	0.19	0	60	60	52
26	0.31	0.36	0.22	0	61	61	62
27	0.31	0.38	0.23	0	64	64	63
28	0.40	0.40	0.21	6	68	74	58
29	0.38	0.38	0.20	23	44	67	58
30	0.40	0.40	0.19	24	48	72	54
31	0.40	0.40	0.19	24	48	72	52
Monthly Total				483	1,261	1,744	1,638
Monthly Avg	0.33	0.34	0.19	16	41	56	53

NOTES: ' -- ' indicates system offline or primary polymer not being used

- Primary polymer consumption (kg) at 100% by weight mixed at the sites to required solution
- NSF limit for Praestol DW 27AG is **1.00 mg/L**

1.2.19 Carbon Chemical Consumption

May 2024

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

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

1.2.20 Sodium Hypochlorite Chemical Consumption

May 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	0.54	0.61	761	1,268	2,248	3.27	120,709
2	2.83	2.85	19,691	32,925	56,593	3.01	112,687
3	2.72	2.72	19,850	41,369	66,068	3.13	123,609
4	2.70	2.70	20,046	39,460	64,864	3.20	125,897
5	2.70	2.79	20,239	37,170	62,047	3.28	122,107
6	2.91	2.95	21,849	37,308	63,460	3.42	129,471
7	2.99	2.99	22,390	37,310	64,838	3.41	125,835
8	2.95	2.94	23,844	37,333	65,453	3.47	52,655
9	2.92	2.86	27,366	37,576	68,051	3.48	137,696
10	2.91	2.88	27,279	37,743	69,134	3.68	145,483
11	3.03	3.03	28,443	39,816	74,061	3.77	142,704
12	2.98	2.98	28,330	40,250	74,465	3.77	139,091
13	3.01	3.01	29,958	44,956	82,102	3.77	143,244
14	3.03	2.99	27,029	40,688	72,657	3.77	145,988
15	0.73	0.62	785	1,173	1,961	3.71	150,714
16	2.85	2.75	25,918	37,555	66,669	3.39	142,844
17	2.71	2.66	27,045	39,925	70,792	3.24	132,016
18	2.57	2.53	23,068	35,432	61,562	3.18	120,060
19	2.75	2.57	19,371	28,665	50,855	3.47	113,427
20	2.85	2.73	10,085	37,987	51,716	3.51	113,997
21	--	2.74	--	50,499	54,851	3.50	120,259
22	--	2.89	--	59,995	65,234	3.61	128,119
23	--	2.85	--	60,562	64,641	3.56	125,950
24	--	2.80	--	58,868	63,486	3.43	118,994
25	--	2.85	--	60,562	67,095	3.46	124,898
26	--	2.92	--	62,046	66,917	3.50	129,096
27	--	3.01	--	63,916	69,562	3.59	132,589
28	0.06	2.99	105	63,491	69,338	3.87	143,234
29	3.20	3.18	23,981	45,220	75,499	3.83	143,210
30	2.97	2.97	22,278	44,614	72,483	3.78	144,053
31	3.11	3.11	23,357	46,709	74,550	3.76	138,624
Monthly Total			493,068	1,302,391	1,933,255		3,989,260
Monthly Avg	2.58	2.73	20,544	42,013	62,363	3.51	128,686

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

May 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.20	0.22	2	61
2	0.24	0.21	33	60
3	0.26	0.23	46	68
4	0.26	0.24	44	72
5	0.24	0.24	39	68
6	0.25	0.23	38	67
7	0.26	0.22	40	63
8	0.25	0.24	39	27
9	0.24	0.26	42	78
10	0.24	0.23	41	70
11	0.24	0.18	41	51
12	0.24	0.14	42	39
13	0.24	0.15	46	44
14	0.24	0.16	41	47
15	0.00	0.15	0	46
16	0.24	0.14	39	45
17	0.24	0.14	45	43
18	0.24	0.14	41	40
19	0.24	0.14	33	35
20	0.24	0.14	31	35
21	0.24	0.14	34	37
22	0.24	0.14	39	38
23	0.24	0.14	40	38
24	0.24	0.14	39	37
25	0.24	0.14	40	38
26	0.24	0.14	39	39
27	0.24	0.14	39	39
28	0.24	0.14	39	39
29	0.24	0.14	40	40
30	0.24	0.14	42	41
31	0.24	0.14	42	40
Monthly Total			1,152	1,485
Monthly Avg	0.23	0.17	37	48

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

May 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.56	--	23	--
2	0.61	--	436	--
3	0.61	--	564	--
4	0.61	--	544	--
5	0.61	--	516	--
6	0.61	--	493	--
7	0.61	--	493	--
8	0.61	--	505	--
9	0.61	--	555	--
10	0.61	--	542	--
11	0.61	--	539	--
12	0.61	--	552	--
13	0.61	--	605	--
14	0.61	--	548	--
15	--	--	--	--
16	0.61	--	515	--
17	0.61	--	603	--
18	0.61	--	545	--
19	0.61	--	432	--
20	0.61	--	416	--
21	0.61	--	447	--
22	0.61	--	512	--
23	0.61	--	528	--
24	0.61	--	521	--
25	0.61	--	526	--
26	0.61	--	523	--
27	0.61	--	525	--
28	0.64	--	545	--
29	0.66	--	566	--
30	0.66	--	597	--
31	0.66	--	598	--
Monthly Total			15,315	--
Monthly Avg	0.61	--	511	--

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

May 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.58	1,410
2	0.58	1,433
3	0.58	1,558
4	0.58	1,562
5	0.58	1,467
6	0.58	1,493
7	0.58	1,455
8	0.58	543
9	0.58	1,582
10	0.58	1,580
11	0.58	1,518
12	0.58	1,470
13	0.58	1,502
14	0.58	1,548
15	0.58	1,618
16	0.58	1,689
17	0.58	1,593
18	0.58	1,515
19	0.58	1,324
20	0.58	1,295
21	0.58	1,375
22	0.58	1,441
23	0.58	1,428
24	0.58	1,407
25	0.58	1,465
26	0.58	1,496
27	0.59	1,547
28	0.61	1,558
29	0.62	1,609
30	0.62	1,662
31	0.62	1,602
Monthly Total		45,749
Monthly Avg	0.59	1,476

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

May 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	1.24	5.48	19	2,591
2	2.24	5.62	529	2,701
3	2.28	6.17	702	3,228
4	2.60	6.59	808	3,459
5	2.41	7.69	708	3,794
6	2.44	10.2	675	5,143
7	4.29	13.4	1,231	6,532
8	5.94	14.7	1,677	2,702
9	7.79	16.0	2,432	8,510
10	11.4	22.9	3,506	12,196
11	16.7	27.9	5,046	14,275
12	17.7	24.0	5,502	11,881
13	14.1	21.5	4,880	10,856
14	13.8	20.9	4,158	10,861
15	--	19.0	--	10,358
16	11.2	15.1	3,189	8,579
17	8.61	13.4	2,893	7,180
18	8.12	17.2	2,514	8,750
19	8.16	15.4	1,948	6,846
20	6.62	15.2	1,557	6,606
21	7.49	14.8	1,900	6,828
22	7.62	14.1	2,230	6,815
23	8.22	12.2	2,465	5,872
24	7.89	11.9	2,338	5,619
25	7.77	14.1	2,305	6,939
26	10.2	21.7	2,986	10,912
27	13.6	24.1	3,972	12,370
28	14.3	21.7	4,201	10,929
29	11.9	18.6	3,475	9,510
30	12.3	20.2	3,870	10,592
31	11.8	16.8	3,697	8,486
Monthly Total			77,415	241,920
Monthly Avg	8.69	15.7	2,580	7,804

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
May 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.39	0.66	14	717
2	0.64	0.66	397	729
3	0.65	0.66	523	792
4	0.65	0.66	505	794
5	0.65	0.66	479	747
6	0.63	0.66	442	760
7	0.63	0.66	440	740
8	0.63	0.65	454	275
9	0.63	0.66	500	805
10	0.63	0.66	488	810
11	0.63	0.67	486	784
12	0.64	0.68	505	769
13	0.64	0.68	553	786
14	0.66	0.67	515	798
15	--	0.67	--	834
16	0.67	0.67	492	870
17	0.67	0.67	577	821
18	0.67	0.67	522	782
19	0.67	0.67	412	684
20	0.65	0.67	387	665
21	0.65	0.64	415	680
22	0.65	0.64	476	711
23	0.65	0.64	490	705
24	0.65	0.64	485	695
25	0.65	0.64	490	723
26	0.65	0.64	485	738
27	0.65	0.64	486	753
28	0.65	0.64	486	738
29	0.65	0.64	489	750
30	0.65	0.64	513	768
31	0.65	0.64	513	740
Monthly Total			14,018	22,962
Monthly Avg	0.64	0.66	467	741

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

May 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	11.5	12.9	783	2,062	26	61
2	18.3	12.4	1,177	1,971	25	62
3	21.2	15.7	521	2,230	9.4	54
4	17.8	21.2	651	2,994	14	54
5	19.1	18.1	519	2,375	10	50
6	13.9	17.8	520	2,360	14	50
7	19.2	14.0	522	1,963	10	53
8	13.3	21.6	389	2,470	11	43
9	15.3	11.4	573	1,274	14	42
10	8.32	14.5	340	1,626	16	48
11	14.2	19.5	651	2,130	18	42
12	10.9	18.5	520	2,166	18	45
13	11.3	17.0	521	2,381	18	53
14	21.6	15.5	1,075	2,031	19	50
15	17.0	14.2	1,149	2,021	26	54
16	19.2	13.2	1,706	1,757	34	50
17	11.6	11.1	521	1,673	17	57
18	12.5	11.5	782	1,434	24	44
19	9.94	13.9	391	1,394	15	38
20	14.0	10.4	521	1,109	14	41
21	17.3	12.3	521	1,298	12	40
22	13.1	19.8	391	1,978	11	38
23	29.1	20.6	1,043	2,192	14	40
24	20.3	22.5	652	2,232	12	38
25	19.5	21.5	651	2,059	13	36
26	11.6	17.3	391	1,772	13	39
27	16.5	17.7	649	1,616	15	34
28	10.2	17.1	780	1,754	29	39
29	15.8	14.6	653	1,407	16	37
30	14.1	13.8	521	1,526	14	42
31	17.4	16.7	651	1,178	14	36
Monthly Total			20,735	58,434	516	1,411
Monthly Avg	15.7	16.1	669	1,885	17	46

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

May 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)		344	0.0	108	35	21	508	60.14			455.95		
Solids (kg)	TSS	639,908	0	4,101			644,010						
	Aluminium	26,603	0	1,420			28,022						
# of Bypasses						2		Min	Max	Avg	Min	Max	Avg
pH								5.9	8.0	7.5	6.6	8.3	7.6
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								1.20	20.0	10.1	0.63	20.0	9.04

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

May 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		686	13	369	217	37	0.6	29	1,350	1,411		
Solids (kg)	TSS	729,580	284	34,358					764,222			
	Aluminium	55,290	28	11,893					67,211			
# of Bypasses						4				Min	Max	Avg
pH										6.30	7.53	7.09
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.02	20.0	7.73

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

May 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

2024 - HIGH 5-DAY DEMAND

	PLANTS PROD (ML/d)	RES. GAIN / LOSS (%)	RES. GAIN / LOSS (ML)	TOTAL DEMAND (ML)
27-May-2024	403	-0.6	-3.8	407
28-May-2024	400	-2.1	-13.5	413
29-May-2024	407	-1.2	-7.5	414
30-May-2024	415	2.1	13.0	402
31-May-2024	411	1.7	10.6	400
			AVERAGE:	**407**

Year to Date Data	2024	2023	% CHANGE
TOTAL PRODUCTION TO DATE (ML)	55,925	56,931	(1.8)
AVG. DAILY DEMAND TO DATE (ML)	368	377	(2.4)
PEAK DAILY DEMAND TO DATE (ML)	422	487	(13.4)
PEAK HOURLY DEMAND TO DATE (ML)	530	641	(17.3)
HIGH 5-DAY AVERAGE TO DATE (ML)	407	472	(13.8)

Peak daily demand of 422 ML/d occurred on May 14, 2024

Peak hourly demand of 530 ML/d occurred on May 14, 2024 at 19:00

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

May 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	1.54	1.59	1.56	1.74	1.90	1.84	1.61	1.68	1.64	1.80	1.94	1.85	1.72	1.89	1.79	1.39	1.48	1.45
2	1.51	1.55	1.53	1.79	1.85	1.82	1.58	1.63	1.60	1.85	1.95	1.87	1.70	1.87	1.80	1.42	1.49	1.45
3	1.61	1.90	1.65	1.70	1.87	1.82	1.56	1.75	1.58	1.85	1.91	1.87	1.72	1.86	1.80	1.20	1.47	1.44
4	1.62	1.85	1.63	1.70	1.86	1.81	1.57	1.64	1.61	1.83	1.94	1.85	1.69	1.84	1.78	1.25	1.47	1.45
5	1.61	1.87	1.62	1.69	1.87	1.80	1.61	1.66	1.64	1.82	1.94	1.85	1.65	1.84	1.77	1.21	1.47	1.44
6	1.50	1.77	1.60	1.71	1.89	1.79	1.44	1.78	1.65	1.82	1.93	1.84	1.67	1.85	1.77	1.22	1.47	1.43
7	1.57	1.83	1.63	1.67	1.84	1.79	1.61	1.72	1.63	1.80	1.88	1.83	1.67	1.82	1.76	1.31	1.49	1.38
8	1.48	1.62	1.55	1.61	1.83	1.76	1.55	1.72	1.61	1.75	1.92	1.79	1.68	1.81	1.73	1.03	1.44	1.41
9	1.51	1.70	1.53	1.71	1.84	1.78	1.49	1.60	1.56	1.79	1.88	1.81	1.61	1.80	1.72	1.09	1.44	1.41
10	1.49	1.73	1.50	1.68	1.96	1.80	1.43	1.58	1.54	1.77	1.85	1.80	1.66	1.75	1.72	1.16	1.42	1.38
11	1.49	1.49	1.49	1.67	1.87	1.79	1.41	1.60	1.56	1.75	1.85	1.77	1.59	1.77	1.71	1.08	1.39	1.37
12	1.50	1.72	1.51	1.65	1.85	1.76	1.31	1.62	1.57	1.71	1.88	1.75	1.60	1.76	1.70	1.11	1.39	1.36
13	1.48	1.76	1.50	1.71	1.79	1.74	1.57	1.60	1.59	1.74	1.90	1.77	1.59	1.78	1.72	0.92	1.37	1.31
14	1.46	1.69	1.48	1.58	1.77	1.71	1.52	1.61	1.58	1.75	1.89	1.78	1.66	1.74	1.71	0.90	1.35	1.29
15	1.39	1.50	1.46	1.54	1.72	1.65	1.45	1.62	1.53	1.67	1.82	1.73	1.65	1.71	1.68	0.95	1.34	1.31
16	1.38	1.50	1.45	1.55	1.70	1.64	1.37	1.51	1.48	1.72	1.91	1.75	1.70	1.79	1.73	0.98	1.33	1.30
17	--	--	--	1.60	1.75	1.71	1.47	1.61	1.54	1.72	1.92	1.76	1.66	1.76	1.73	1.23	1.35	1.27
18	--	--	--	1.56	1.71	1.66	1.59	1.64	1.62	1.73	1.90	1.76	1.61	1.73	1.68	0.94	1.29	1.26
19	1.52	1.77	1.53	1.60	1.67	1.64	1.55	1.63	1.60	1.69	1.81	1.74	1.52	1.67	1.63	1.02	1.27	1.24
20	1.48	1.68	1.50	1.52	1.66	1.62	1.47	1.60	1.57	1.69	1.76	1.72	1.48	1.65	1.61	1.17	1.26	1.22
21	1.39	1.50	1.46	1.50	1.64	1.61	1.49	1.59	1.52	1.69	1.87	1.72	1.62	1.69	1.67	1.14	1.23	1.19
22	1.47	1.83	1.49	1.54	1.68	1.64	1.41	1.57	1.51	1.66	1.84	1.72	1.62	1.72	1.68	1.05	1.22	1.18
23	1.41	1.78	1.47	1.55	1.69	1.65	1.42	1.59	1.50	1.73	1.90	1.76	1.68	1.74	1.70	1.13	1.20	1.17
24	1.39	1.64	1.43	1.57	1.72	1.68	1.46	1.55	1.51	1.73	1.92	1.78	1.70	2.00	1.72	1.10	1.20	1.16
25	1.39	1.81	1.42	1.58	1.74	1.70	1.47	1.61	1.54	1.72	1.88	1.77	1.64	1.76	1.72	0.99	1.18	1.15
26	1.38	1.83	1.41	1.59	1.78	1.69	1.52	1.68	1.54	1.76	1.91	1.78	1.63	1.77	1.72	1.10	1.16	1.13
27	1.38	1.73	1.40	1.64	1.73	1.68	1.42	1.60	1.54	1.74	1.89	1.77	1.62	1.74	1.70	1.07	1.14	1.10
28	1.36	1.79	1.38	1.63	1.80	1.73	1.40	1.61	1.52	1.75	1.83	1.78	1.55	1.78	1.72	1.07	1.18	1.12
29	1.34	1.52	1.36	1.67	1.83	1.74	1.43	1.57	1.55	1.73	1.85	1.76	1.70	1.80	1.74	1.10	1.17	1.13
30	1.35	1.60	1.37	1.66	1.82	1.76	1.43	1.62	1.56	1.76	1.87	1.82	1.64	1.87	1.78	1.10	1.26	1.16
31	1.37	1.81	1.42	1.63	1.79	1.74	1.56	1.73	1.57	1.79	1.91	1.84	1.59	1.86	1.78	1.04	1.24	1.21
Monthly Min/Max/Avg	1.34	1.90	1.49	1.50	1.96	1.73	1.31	1.78	1.57	1.66	1.95	1.79	1.48	2.00	1.73	0.90	1.49	1.29

NOTES: '--' Indication Analyzer Offline

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

May 2024

Reservoir	Rosslyn 1			Londonderry			N. Jasper Place			Rosslyn 2			Thorncliffe			Blackmud Creek		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1.59	1.73	1.66	1.55	1.81	1.65	1.55	1.85	1.57	1.71	1.74	1.73	1.53	1.94	1.66	1.54	1.60	1.56
2	1.62	1.63	1.62	1.57	1.70	1.63				1.66	1.71	1.70	1.58	1.96	1.62	1.52	1.59	1.55
3				1.54	1.73	1.62				1.70	2.13	1.71				1.52	1.58	1.55
4				1.55	1.71	1.62	1.51	1.82	1.53	1.71	2.09	1.72				1.49	1.57	1.53
5	--	--	--	1.47	1.71	1.61	1.48	1.83	1.53	1.72	2.16	1.75	1.59	1.94	1.61	1.48	1.56	1.53
6	1.67	1.68	1.67	1.48	1.70	1.61	1.40	1.79	1.54	1.72	2.12	1.74	--	--	--	1.48	1.56	1.53
7	--	--	--	1.43	1.63	1.55	1.48	1.81	1.50	1.71	2.05	1.73	1.55	1.95	1.56	1.50	1.57	1.54
8	1.56	1.64	1.61	1.45	1.67	1.58	1.35	1.75	1.48	1.69	2.05	1.70	1.51	1.91	1.53	1.45	1.55	1.52
9	--	--	--	1.54	1.66	1.58	1.46	1.57	1.48	1.65	1.69	1.67	1.51	1.90	1.57	1.45	1.51	1.49
10	--	--	--	1.44	1.66	1.56	1.47	1.75	1.48	1.54	1.70	1.64	1.51	1.90	1.51	1.44	1.51	1.48
11	--	--	--	1.39	1.62	1.55	1.48	1.70	1.49	1.50	1.71	1.62	1.51	1.90	1.53	1.45	1.55	1.51
12	--	--	--	1.42	1.61	1.54	1.47	1.84	1.48	1.60	1.90	1.61	1.44	1.96	1.54	1.46	1.55	1.51
13	1.62	1.62	1.62	1.45	1.71	1.55	1.45	1.68	1.47	1.56	1.61	1.60	1.51	1.95	1.58	1.45	1.54	1.50
14	--	--	--	1.42	1.68	1.57	1.40	1.74	1.43	1.59	2.12	1.60	1.47	1.91	1.49	1.44	1.51	1.48
15	--	--	--	1.35	1.57	1.50	1.36	1.80	1.39	1.59	1.60	1.59	1.42	1.95	1.44	1.41	1.49	1.47
16	1.49	1.50	1.49	1.39	1.56	1.47	1.36	1.83	1.40	1.49	1.58	1.56	1.41	1.42	1.42	1.45	1.52	1.48
17	--	--	--	1.38	1.60	1.51	--	--	--	1.51	2.16	1.54	--	--	--	1.45	1.52	1.48
18	--	--	--	1.42	1.61	1.50	1.36	1.75	1.39	1.46	1.60	1.57	1.44	1.85	1.45	1.41	1.49	1.46
19	--	--	--	1.35	1.61	1.51	1.38	1.73	1.40	1.47	1.59	1.58	1.42	1.82	1.43	1.37	1.45	1.42
20	--	--	--	1.41	1.63	1.46	1.25	1.65	1.34	1.46	1.58	1.57	1.40	1.88	1.42	1.34	1.43	1.39
21	1.48	1.61	1.58	1.40	1.61	1.49	1.29	1.68	1.31	1.47	1.57	1.55	1.36	1.88	1.38	1.35	1.44	1.40
22	--	--	--	1.40	1.69	1.55	1.35	1.77	1.40	1.50	1.56	1.54	1.44	1.94	1.68	1.38	1.46	1.42
23	--	--	--	1.43	1.76	1.57	1.40	1.80	1.43	1.54	2.10	1.55	1.41	1.97	1.44	1.37	1.47	1.43
24	--	--	--	1.43	1.74	1.63	1.40	1.75	1.43	1.55	2.10	1.57	1.38	1.95	1.45	1.40	1.50	1.45
25				1.47	1.80	1.68	1.30	1.81	1.42	1.56	2.08	1.58	1.41	1.95	1.47	1.41	1.49	1.45
26				1.44	1.79	1.66	1.43	1.79	1.45	1.50	1.59	1.58	1.48	1.94	1.50	1.40	1.49	1.45
27	1.60	1.60	1.60	1.55	1.80	1.67	1.40	1.78	1.42	1.52	1.58	1.57	1.46	1.91	1.47	1.40	1.48	1.45
28				1.40	1.73	1.63	1.39	1.82	1.41	1.47	1.56	1.54	1.49	2.02	1.52	1.41	1.49	1.45
29	--	--	--	1.47	1.80	1.67	1.31	1.82	1.38	1.47	1.54	1.52	1.40	2.03	1.44	1.40	1.50	1.46
30	--	--	--	1.47	1.83	1.71	1.43	1.88	1.45	1.42	1.53	1.51	1.40	2.08	1.43	1.43	1.52	1.48
31	--	--	--	1.57	1.88	1.70	1.45	1.79	1.46	1.50	1.71	1.58	1.35	2.05	1.41	1.44	1.52	1.49
Monthly Min/Max/Avg	1.48	1.73	1.61	1.35	1.88	1.58	1.25	1.88	1.44	1.42	2.16	1.61	1.35	2.08	1.50	1.34	1.60	1.48

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Chemical Consumption

May 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.95	0.90	15	844
2	0.90	0.90	462	884
3	0.90	0.90	663	964
4	0.90	0.90	544	916
5	0.90	0.90	606	903
6	0.90	0.90	548	930
7	0.90	0.90	587	821
8	0.90	0.90	628	329
9	0.90	0.90	571	944
10	0.90	0.90	592	963
11	0.90	0.90	675	936
12	0.90	0.90	605	900
13	0.90	0.82	713	844
14	0.90	0.75	691	754
15	--	0.90	--	993
16	0.90	0.90	547	999
17	0.90	0.90	670	996
18	0.90	0.90	553	908
19	0.90	0.90	502	814
20	0.90	0.90	422	788
21	0.90	0.90	541	828
22	0.90	0.90	599	921
23	0.90	0.90	581	850
24	0.90	0.90	606	880
25	0.90	0.90	619	879
26	0.90	0.90	609	946
27	0.90	0.90	581	941
28	0.90	0.95	573	937
29	0.90	0.90	566	905
30	0.90	0.90	636	966
31	0.90	0.90	637	933
Monthly Total			17,140	27,415
Monthly Avg	0.90	0.89	571	884

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

May 2024

Date and Time Reported	Location of Mainbreak	Repaired (Time)	Size	Type**
05/05/2024 13:55:00	8715-80 AVENUE NW	05/05/2024 21:00:34	150	CI
05/05/2024 21:55:46	8715-80 AVENUE NW	05/06/2024 02:15:08	150	CI
05/09/2024 12:32:17	6504-89 AVENUE NW	05/09/2024 21:49:00	200	CI
05/10/2024 02:31:19	251-WAKINA DRIVE NW	05/10/2024 22:30:00	150	AC
05/15/2024 17:15:10	4127-114 STREET NW	05/16/2024 00:35:46	150	AC
05/16/2024 20:42:34	18440-57 AVENUE NW		0	[None]
05/21/2024 22:43:31	7908-110 STREET NW	05/22/2024 16:30:15	100	AC
05/22/2024 16:30:06	7908-110 STREET NW	05/22/2024 18:44:00	100	AC
05/28/2024 19:03:29	13424-91 STREET NW	05/29/2024 01:40:30	150	CI
05/28/2024 22:23:00	12212 - ST ALBERT TRAIL NW	05/29/2024 21:18:13	150	CI
05/31/2024 01:38:57	10800-134 AVENUE NW	05/31/2024 04:45:00	300	PVC

Month	Total Breaks By Month
Jan-24	35
Feb-24	28
Mar-24	13
Apr-24	18
May-24	11
Jun-24	
Jul-24	
Aug-24	
Sep-24	
Oct-24	
Nov-24	
Dec-24	
YTD 2024	**105**

**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

May 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO3/L	60	113	118	8	141	300
Aluminum	mg/L	2	0.043	0.031	0.023	0.089	10
Arsenic	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	10
Bromate Dissolved	mg/L	8	<0.003	<0.005	<0.005	<0.005	44
Bromodichloromethane	µg/L	60	1.2	0.9	<0.5	1.9	302
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	10
Calcium Hardness	mg/L CaCO3	58	112	114	96	141	298
Chlorate Dissolved	mg/L	8	0.177	0.148	<0.100	0.332	44
Chloride Dissolved	mg/L	8	7.71	6.24	4.78	12.10	44
Chlorite Dissolved	mg/L	8	<0.20	<0.20	<0.20	<0.20	44
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	10
Colour	TCU	60	1.1	0.9	<0.5	1.9	300
Conductivity	µS/cm	8	403	400	342	453	44
Copper	mg/L	2	<0.0020	<0.0050	<0.0050	<0.0050	10
Cryptosporidium	oocysts/100L	2	<0.1	<0.1	<0.1	<0.1	6
Fluoride	mg/L	60	0.67	0.69	0.62	0.79	300
Giardia	cysts/100L	2	<0.1	<0.1	<0.1	<0.1	6
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	10
Lead	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	10
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	10
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	10
Nitrate (as N) Dissolved	mg N/L	8	0.06	0.08	<0.01	0.17	44
Nitrite (as N) Dissolved	mg N/L	8	<0.005	<0.01	<0.05	0.02	44
pH	N/A	60	7.9	7.9	7.6	8.2	301
Potassium	mg/L	2	1.00	0.80	0.70	1.10	10
Sodium	mg/L	2	14.63	10.80	6.80	17.00	10
Sulphate Dissolved	mg/L	8	76.9	73.7	59.5	95.1	44
Total Chlorine	N/A	60	2.07	2.12	1.87	2.34	300
Total Dissolved Solids	mg/L	2	230	229	220	252	10
Total Hardness	mg/L CaCO3	58	167	174	145	218	298
Total Organic Carbon	mg/L C	8	2.3	1.3	0.9	2.8	44
Trihalomethanes	µg/L	60	21.4	10.7	5.1	32.7	302
Turbidity	NTU	60	0.05	<0.04	<0.04	0.09	300
Uranium	mg/L	2	<0.0005	<0.0005	<0.0005	0.0006	10
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	10
Bacteriological Data							
Coliforms, total	PA/100mL	60	Absent	Absent	Absent	Absent	300
E. coli	PA/100mL	60	Absent	Absent	Absent	Absent	300

2.1.3 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	Feb	Mar	Apr	May	**Total**
Water Treatment Plant	# Tests	10,442	9,566	10,736	10,143	9,855	50,742
	# Samples	261	248	326	269	264	1,368
Field Reservoirs	# Tests	1,936	1,721	1,695	1,883	1,734	8,969
	# Samples	63	52	52	65	49	281
Routine Distribution System	# Tests	2,740	2,879	2,734	2,845	2,901	14,099
	# Samples	146	153	146	153	144	742
System Depressurization/Repair	# Tests	1,050	720	555	675	660	3,660
	# Samples	70	48	37	45	44	244
Customer Complaints	# Tests	1,395	651	1,209	1,488	1,023	5,766
	# Samples	15	7	13	16	11	62
Total	# Tests	17,563	15,537	16,929	17,034	16,173	83,236
	# Samples	555	508	574	548	512	2,697

Additional Testing

		Jan	Feb	Mar	Apr	May	**Total**
New Watermain Testing	# Tests	80	30	0	10	135	255
	# Samples	17	6	0	2	27	52
Water Treatment Plant Waste Discharge	# Tests	168	43	173	117	300	801
	# Samples	56	33	36	45	55	225
Quality Control	# Tests	5,961	6,042	6,091	5,937	6,055	30,086
	# Samples	1,187	1,056	1,193	1,186	1,244	5,866
Externally Contracted Analyses	# Tests	405	672	316	307	949	2,649
	# Samples	134	120	157	136	140	687
Total	# Tests	6,614	6,787	6,580	6,371	7,439	33,791
	# Samples	1,394	1,215	1,386	1,369	1,466	6,830

		Jan	Feb	Mar	Apr	May	**Total**
Total	# Tests	24,177	22,324	23,509	23,405	23,612	117,027
	# Samples	1,825	1,611	1,848	1,793	1,842	8,919

2.1.4 QUALITY ASSURANCE – May 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	11	43
Chlorine < 1 mg/L or > 2.4 mg/L	0	5
Single Positive Coliform	0	2
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	0	0
Aluminium[2] > 0.20 (or 0.1) mg/L	2	4
Iron > 0.300 mg/L	2	4
Other	0	0
Total Variances + Violations	15 + 0 = 15	58 + 2 = 60

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

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

2.2.2 Bacteriological Data: Distribution System

May 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

May 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
Year to Date	1,356	2	0.1	0	0.0	615	0.33	0.10	2.93

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

May 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
Year to Date	62	0	0.0	0	0.0	62	0.29	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				
Year to Date	244	0	0.0	0	0.0				

2.2.3 Giardia and Cryptosporidium

May 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

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

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

May 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	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	2	<0.2	<0.2	<0.2	2	1.5	
Physical																		
Colour (TCU)	1.1	0.7	1.5	29	1.1	0.6	1.6	31	0.9	<0.5	1.9	149	0.9	<0.5	1.8	151	(15)	10
Conductivity (uS/cm)	384	379	390	4	415	405	425	4	394	342	439	22	404	351	453	22		<1
FPA-Intensity (N/A)	1.25	1.12	1.38	5	1.08	0.88	1.50	5	1.19	0.75	1.88	32	1.06	0.62	2.12	32		
pH (N/A)	7.9	7.8	8.1	29	7.8	7.6	8.0	31	7.9	7.7	8.1	150	7.9	7.6	8.2	151	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	223	223	223	1	235	235	235	1	230	223	252	5	235	220	250	5	(500)	
Turbidity (NTU)	0.05	<0.04	0.07	29	0.05	<0.04	0.09	31	<0.04	<0.04	0.07	149	0.05	<0.04	0.09	151		0.3
Primary Inorganics (mg/L)																		
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0003	<0.0002	<0.0005	5	<0.0003	<0.0002	<0.0005	5	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5	0.01	
Barium	0.060	0.060	0.060	1	0.059	0.059	0.059	1	0.057	0.050	0.062	5	0.056	0.049	0.060	5	2	
Boron	0.010	0.010	0.010	1	0.009	0.009	0.009	1	0.010	0.009	0.010	5	0.009	0.008	0.010	5	2	
Bromate, dissolved	<0.003	<0.003	<0.003	4	<0.003	<0.003	<0.003	4	<0.005	<0.003	<0.005	22	<0.005	<0.003	<0.005	22	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved	0.30	0.30	0.30	4	<0.10	<0.10	<0.10	4	0.24	0.18	0.33	22	<0.09	<0.05	0.12	22	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	4	<0.200	<0.200	<0.200	4	<0.040	<0.005	<0.200	22	<0.040	<0.005	<0.200	22	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	5	<0.004	<0.002	<0.005	5	2 (1)	
Fluoride	0.68	0.63	0.76	29	0.67	0.62	0.74	31	0.69	0.63	0.76	149	0.70	0.62	0.79	151	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	5	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0026	<0.00020	<0.0050	2	<0.0026	<0.00020	<0.0050	2	<0.0009	<0.00005	<0.0050	7	<0.0009	<0.00005	<0.0050	7	0.001	
Nitrate (as N) Dissolved	0.07	0.02	0.17	4	0.06	<0.01	0.17	4	0.08	0.01	0.17	22	0.08	<0.01	0.17	22	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	0.010	<0.005	0.020	22	<0.010	<0.005	0.020	22	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.0003	0.0002	0.0003	5	0.0002	0.0002	0.0003	5	0.05	
Total Chlorine	2.09	1.91	2.25	29	2.06	1.88	2.24	31	2.14	1.91	2.34	149	2.09	1.87	2.32	151	>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	5	<0.0005	<0.0005	0.0005	5	0.02	

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

May 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Primary Organics (ug/L)																		
2,4-D				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	100	
Atrazine				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Benzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	5	
Benzo(a)pyrene	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2	0.04	
Bromoxynil				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152	2	
Chlorobenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	80 (30)	
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	90	
Cyanazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Diazinon				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1		
Dicamba				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	149	<0.5	<0.5	<0.5	151	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	150	<0.5	<0.5	<3.0	152	14	
Dichlorophenol (2,4)				0				0	<0.3	<0.3	<0.3	1	<0.3	<0.3	<0.3	1		
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Dimethoate				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	20	
Diuron				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1		
Ethylbenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	140 (1.6)	
Glyphosate				0				0	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	280	
Haloacetic Acids, (HAA5)	22.1	22.1	22.1	1	21.4	21.4	21.4	1	18.6	16.3	22.1	5	16.1	13.7	21.4	5	80	40
Malathion				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	190	
MCPA				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	100	
Methylene Chloride	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	50	
Metolachlor				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1		
Metribuzin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	80	
NDMA	<0.0027	<0.0027	<0.0027	1	<0.0018	<0.0018	<0.0018	1	<0.0023	<0.0009	<0.0060	5	<0.0022	<0.0009	<0.0060	5	0.040	10
NTA (mg/L)	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	2	<0.4	<0.4	<0.4	2	0.4	
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	60 (30)	
Perfluorooctane sulfonic acid (PFOS)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2	0.6	
Perfluorooctanoic acid (PFOA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2	0.0002	
Phorate				0				0	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1		
Picloram				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Simazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Terbufos				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Tetrachloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	10	
Toluene	<0.5	<0.5	1.1	29	<0.6	<0.5	1.6	31	<0.5	<0.5	1.6	150	<0.6	<0.5	3.3	152	60 (24)	

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

May 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	29	<1.0	<1.0	<1.0	31	<1.0	<1.0	<2.5	150	<1.0	<1.0	<2.5	152	90	
Trichloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	5	
Trifluralin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Trihalomethanes	23.7	14.4	32.7	29	19.9	12.4	26.4	31	13.6	6.6	32.7	150	11.2	5.1	26.4	152	100	50
Vinyl Chloride	<1	<1	<1	29	<1	<1	<1	31	<1	<1	<1	149	<1	<1	<1	151	2	

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

May 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)	112	104	120	29	114	108	119	31	118	99	141	149	118	8	140	151		
Aluminum	0.057	0.057	0.057	1	0.034	0.034	0.034	1	0.046	0.023	0.089	5	0.041	0.026	0.089	5	2.9	0.1/0.2
Ammonia as NH3	0.13	0.12	0.15	5	0.10	0.09	0.14	5	0.13	0.08	0.16	34	0.11	0.08	0.15	34		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4	<0.02	<0.01	<0.05	22	<0.02	<0.01	<0.05	22		
Calcium	43.7	43.7	43.7	1	44.2	44.2	44.2	1	47.0	43.7	51.3	5	47.3	44.2	51.4	5		
Calcium Hardness Calculated	109	109	109	1	110	110	110	1	109	109	109	1	110	110	110	1		
Chloride Dissolved	7.15	5.98	8.97	4	8.06	6.41	9.62	4	6.52	4.78	11.40	22	6.93	5.61	12.10	22	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	5	<0.07	<0.07	<0.07	5		
Hardness, Ca (mg CaCO3/L)	112	108	116	28	113	109	115	30	117	98	141	148	115	96	138	150		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	(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	5	<0.001	<0.001	<0.001	5		
Lithium	0.0036	0.0036	0.0036	1	0.0033	0.0033	0.0033	1	0.0035	0.0031	0.0040	5	0.0033	0.0030	0.0037	5		
Magnesium	12.8	12.8	12.8	1	12.6	12.6	12.6	1	13.8	12.8	15.0	5	13.9	12.6	15.1	5		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0008	0.0008	1	0.0009	0.0007	0.0010	5	0.0008	0.0007	0.0009	5		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	<0.0005	<0.0005	<0.0005	5		
Phosphate,Ortho (as P)	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	7	<0.02	<0.02	<0.02	6		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	5	<0.02	<0.02	<0.02	5		
Potassium	1.0	1.0	1.0	1	1.0	1.0	1.0	1	0.9	0.7	1.1	5	0.9	0.7	1.0	5		
Silicon	1.58	1.58	1.58	1	1.64	1.64	1.64	1	1.95	1.58	2.27	5	1.94	1.64	2.23	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5		
Sodium	10.8	10.8	10.8	1	17.0	17.0	17.0	1	9.7	6.8	11.5	5	12.1	7.4	17.0	5	(200)	
Strontium	0.437	0.437	0.437	1	0.426	0.426	0.426	1	0.453	0.429	0.488	5	0.448	0.423	0.478	5	7.0	
Sulphate Dissolved	70.9	61.7	79.9	4	80.6	72.0	90.1	4	72.2	59.5	86.8	22	76.0	60.4	95.1	22	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	5	<0.0004	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)	167	158	174	28	167	161	173	30	176	149	218	148	175	145	211	150		
Total Hardness Calculated	162	162	162	1	162	162	162	1	162	162	162	1	162	162	162	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	5	<0.001	<0.001	<0.001	5		

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

May 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Aldicarb				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Aldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1		
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	5	<1	<1	<1	5		
Bromodichloromethane	1.3	0.8	1.9	29	1.0	0.7	1.5	31	1.0	<0.5	1.9	150	0.8	<0.5	1.5	152		16
Bromoform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152		
Carbaryl				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1		
Carbofuran				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1		
Chloroform	22.0	12.50	31.4	29	18.5	10.80	24.8	31	12.3	5.70	31.4	150	10.1	4.30	24.8	152		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	5	<1	<1	<1	5		
Dibromochloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloroacetic acid	11.10	11.10	11.10	1	11.4	11.4	11.4	1	9.46	7.98	11.10	5	8.4	7.0	11.4	5		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dieldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	(15)	
MIBK	<1	<1	<1	29	<1	<1	<1	31	<1	<1	<1	150	<1	<1	<1	152		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	5	<1	<1	<1	5		
Monochloroacetic acid	1.12	1.12	1.12	1	<1	<1	<1	1	<1.02	<1.00	1.12	5	<1	<1	<1	5		
Parathion				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Perfluorobutanoic acid (PFBA)	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<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)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluorohexane sulfonic acid (PFHxS)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2		
Perfluorohexanoic acid (PFHxA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluorononanoic acid (PFNA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3		
Perfluoropentanoic acid (PFPeA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<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	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152		
Total Organic Carbon	2.4	2.0	2.8	4	2.2	1.9	2.5	4	1.5	1.0	2.8	22	1.4	0.9	2.5	22		
Total Volatile Organics (NonTHM)	1.5	<1.0	3.5	29	1.4	<1.0	3.4	31	1.3	<1.0	3.8	150	1.3	<1.0	5.5	152		
Total Volatile Organics (Unknown)	0.5	0.5	0.5	1	1.2	1.2	1.2	1	1.1	<0.5	7.7	37	1.3	<0.5	3.6	40		
Triallate				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		

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

May 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	9.89	9.89	9.89	1	10.00	10.00	10.00	1	8.88	7.95	10.30	5	7.68	6.22	10.00	5		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Xylene (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Xylene (1,4)	<0.5	<0.5	0.6	29	<0.5	<0.5	0.7	31	<0.5	<0.5	0.6	150	<0.5	<0.5	0.9	152		

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

May 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	0.07	29	0.05	<0.04	0.08	31	<0.04	<0.04	0.13	149	0.05	<0.04	0.09	151		0.3
UV 254 %T ****	<92.3	<90.1	<95.6	29	<92.7	<90.9	<95.2	31	<94.3	<90.1	<96.9	149	<94.7	<90.9	<98.9	151		
Primary Inorganics (mg/L)																		
Bromate, dissolved	<0.003	<0.003	<0.003	4	<0.003	<0.003	<0.003	4	<0.005	<0.003	<0.005	22	<0.005	<0.003	<0.005	22	0.01	
Chlorate Dissolved	0.25	0.20	0.30	4	<0.10	<0.10	<0.10	4	0.23	0.18	0.34	22	<0.09	<0.05	0.12	22	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	4	<0.200	<0.200	<0.200	4	<0.040	<0.005	<0.200	22	<0.040	<0.005	<0.200	22	1	
Nitrate (as N) Dissolved	0.06	<0.01	0.17	4	0.06	<0.01	0.16	4	0.08	<0.01	0.17	22	0.08	<0.01	0.16	22	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.010	<0.005	0.020	22	<0.010	<0.005	0.020	22	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152	2	
Chlorobenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	149	<0.5	<0.5	<0.5	151	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	150	<0.5	<0.5	<3.0	152	14	
Ethylbenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	10	
Toluene	<0.5	<0.5	0.9	29	<0.5	<0.5	0.7	31	<0.6	<0.5	4.1	150	<0.5	<0.5	1.8	152	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	29	<1.0	<1.0	<1.0	31	<1.0	<1.0	<2.5	150	<1.0	<1.0	<2.5	152	90	
Trichloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	5	
Trihalomethanes	18.4	11.8	25.6	29	15.8	9.8	20.8	31	10.8	5.3	25.6	150	9.0	3.7	20.8	152	100	50
Vinyl Chloride	<1	<1	<1	29	<1	<1	<1	31	<1	<1	<1	149	<1	<1	<1	151	2	
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.12	0.11	0.14	5	0.10	0.07	0.14	5	0.13	0.09	0.16	34	0.11	0.07	0.16	34		
Bromide Dissolved	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4	<0.02	<0.01	<0.05	22	<0.02	<0.01	<0.05	22		
Chloride Dissolved	6.52	5.43	7.15	4	8.1	6.9	9.2	4	6.97	4.65	19.90	22	6.9	5.5	12.9	22	(250)	
Sulphate Dissolved	72.2	63.7	80.9	4	81.9	73.8	91.0	4	72.9	59.2	95.8	22	76.2	59.8	95.3	22	(500)	

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

May 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	1.1	0.7	1.5	29	0.9	0.6	1.1	31	0.9	<0.5	1.5	150	0.7	<0.5	1.1	152		16
Bromoform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152		
Chloroform	16.9	10.00	24.3	29	14.5	8.40	19.7	31	9.7	4.60	24.3	150	8.0	3.00	19.7	152		
Dibromochloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152	(15)	
MIBK	<1	<1	<1	29	<1	<1	<1	31	<1	<1	<1	150	<1	<1	<1	152		
Styrene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152		
Total Volatile Organics (NonTHM)	1.5	<1.0	3.5	29	1.4	<1.0	3.5	31	1.3	<1.0	6.5	150	<1.3	<1.0	3.5	152		
Total Volatile Organics (Unknown)				0	1.4	1.4	1.4	1	1.0	<0.5	1.9	35	1.1	<0.5	2.1	39		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Xylene (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152		
Xylene (1,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	1.3	150	<0.5	<0.5	0.6	152		

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)

May 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Microbiological										
Microcystin	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	2	1.5	
Physical										
Colour (TCU)	0.6	0.6	0.6	1	0.7	0.6	0.7	2	(15)	10
pH (N/A)	7.7	7.6	8.0	37	7.7	7.6	8.0	44	(7.0 - 10.5)	7.3 - 8.3
Total Dissolved Solids (mg/L)	227	227	227	1	230	227	233	2	(500)	
Turbidity (NTU)	0.27	<0.04	3.77	144	0.23	<0.04	5.03	742		1.0
UV 254 %T	<93.7	<93.7	<93.7	1	<93.2	<92.7	<93.7	2		
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.01	
Barium	0.061	0.061	0.061	1	0.059	0.057	0.061	2	2	
Boron	0.010	0.010	0.010	1	0.010	0.009	0.010	2	2	
Bromate Dissolved	<0.003	<0.003	<0.003	3	<0.004	<0.003	<0.005	10	0.01	
Cadmium	<0.0002	<0.0002	<0.002	1	<0.0002	<0.0002	<0.0002	2	0.007	
Chlorate Dissolved	0.20	<0.10	0.30	3	0.17	<0.08	0.30	10	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	3	<0.064	<0.005	<0.200	10	1	
Chromium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.65	0.65	0.65	1	0.70	0.65	0.74	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.00260	<0.00020	<0.00500	2	<0.00140	<0.00005	<0.00500	4	0.001	
Nitrate (as N) Dissolved	0.08	<0.01	0.18	57	0.08	<0.01	0.18	64	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	57	<0.006	<0.005	0.020	64	1	
Selenium	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0003	2	0.05	
Strontium	0.466	0.466	0.466	1	0.456	0.445	0.466	2	7.0	
Total Chlorine	1.81	1.05	2.07	142	1.94	0.86	2.44	740	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2	0.02	

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

May 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Primary Organics (ug/L) **										
2,4-D				0	<0.05	<0.05	<0.05	1	100	
Atrazine				0	<0.05	<0.05	<0.05	1	5	
Atrazine+N-Dealkylated Metabolites				0	<0.1	<0.1	<0.1	1	0.005	
Azinphos-methyl				0	<0.1	<0.1	<0.1	1	0.02	
Benzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	5	
Benzo(a)pyrene	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.04	
Bromoxynil				0	<0.05	<0.05	<0.05	1	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	2	
Chlorobenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	80 (30)	
Chlorpyrifos				0	<0.1	<0.1	<0.1	1	90	
Cyanazine				0	<0.1	<0.1	<0.1	1		
Diazinon				0	<0.025	<0.025	<0.025	1		
Dicamba				0	<0.1	<0.1	<0.1	1	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	14	
Dichlorophenol (2,4)				0	<0.3	<0.3	<0.3	1		
Diclofop-methyl				0	<0.1	<0.1	<0.1	1		
Dimethoate				0	<0.05	<0.05	<0.05	1	20	
Diquat				0	<1	<1	<1	1	0.05	
Diuron				0	<0.05	<0.05	<0.05	1		
Ethylbenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	140 (1.6)	
Glyphosate				0	<0.2	<0.2	<0.2	1	280	
Malathion				0	<0.025	<0.025	<0.025	1	190	
MCPA				0	<0.05	<0.05	<0.05	1	100	
Methylene Chloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	50	
Metolachlor				0	<0.025	<0.025	<0.025	1		
Metribuzin				0	<0.1	<0.1	<0.1	1	80	
NDMA (µg/L)	<0.00320	<0.00210	<0.00490	3	<0.00300	<0.00100	0.00690	15	0.040	10
Nitrilotriacetic acid	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	2	0.4	
Paraquat				0	<1	<1	<1	1	0.07	
Pentachlorophenol				0	<0.5	<0.5	<0.5	1	60 (30)	
Perfluorooctane sulfonic acid (PFOS)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	0.0006	
Perfluorooctanoic acid (PFOA)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	0.0002	
Phorate				0	<0.25	<0.25	<0.25	1		
Picloram				0	<0.1	<0.1	<0.1	1		
Simazine				0	<0.1	<0.1	<0.1	1		
Terbufos				0	<0.5	<0.5	<0.5	1		

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

May 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	30	10	
Tetrachlorophenol (2,3,4,6)				0	<0.5	<0.5	<0.5	1	100 (1)	
Toluene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	60 (24)	
Total Xylenes	<1	<1	<1	6	<1	<1	<1	30	90	
Trichloroethylene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	5	
Trichlorophenol (2,4,6)				0	<0.5	<0.5	<0.5	1	5 (2)	
Trifluralin				0	<0.1	<0.1	<0.1	1		
Vinyl Chloride	<1	<1	<1	6	<1	<1	<1	30	2	

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

May 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	116	116	116	1	119	116	121	2		
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	2		
Aluminum	0.014	0.014	0.014	1	0.016	0.014	0.018	2	2.9	0.1/0.2
Ammonia as N	0.15	0.13	0.18	3	0.14	0.10	0.24	12		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.05	<0.05	<0.05	3	<0.03	<0.01	<0.05	10		
Calcium	46.5	46.5	46.5	1	47.0	46.5	47.4	2		
Chloride Dissolved	6.68	5.91	7.06	3	6.28	4.87	7.56	10	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	2		
Iron	<0.005	<0.005	<0.005	1	0.009	<0.005	0.013	2	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	2		
Lithium	0.0036	0.0036	0.0036	1	0.0035	0.0034	0.0036	2		
Magnesium	13.4	13.4	13.4	1	14.4	13.4	15.3	2		
Molybdenum	0.0009	0.0009	0.0009	1	0.0010	0.0009	0.0010	2		
Nickel	0.0010	0.0010	0.0010	1	0.0008	<0.0005	0.0010	2		
Phosphorus	1.05	1.05	1.05	1	0.98	0.91	1.05	2		
Potassium	0.9	0.9	0.9	1	0.9	0.8	0.9	2		
Silicon	1.78	1.78	1.78	1	2.09	1.78	2.40	2		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Sodium	13.2	13.2	13.2	1	12.2	11.2	13.2	2	(200)	
Sulphate Dissolved	65.3	64.1	66.4	3	67.8	59.0	75.1	10	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	171	171	171	1	177	171	183	2		
Total Kjeldahl Nitrogen				0	0.4	0.4	0.4	1		
Total Kjeldahl Nitrogen (TKN)	0.4	0.4	0.4	1	0.4	0.4	0.4	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	2		

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

May 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
2,4,5-T				0	<0.05	<0.05	<0.05	1		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
a-chlordane				0	<0.008	<0.008	<0.008	1		
Alachlor				0	<0.05	<0.05	<0.05	1		
Aldicarb				0	<0.1	<0.1	<0.1	1		
Aldrin				0	<0.008	<0.008	<0.008	1		
Ametryn				0	<0.025	<0.025	<0.025	1		
Atrazine Desethyl				0	<0.025	<0.025	<0.025	1		
Bendiocarb				0	<0.025	<0.025	<0.025	1		
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	30		
Bromodichloromethane	1.4	1.1	1.9	6	1.1	0.6	1.9	30		16
Bromoform	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Carbaryl				0	<0.05	<0.05	<0.05	1		
Carbofuran				0	<0.025	<0.025	<0.025	1		
Chloroform	14.7	13.0	17.5	6	12.9	7.6	20.0	30		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	30		
Dibromochloromethane	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Dichloroacetic acid	9.57	7.71	11.00	6	8.53	5.90	11.00	30		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Dieldrin				0	<0.008	<0.008	<0.008	1		
Dinoseb				0	<0.05	<0.05	<0.05	1		
gamma-hexachlorocyclohexane				0	<0.008	<0.008	<0.008	1		
g-chlordane				0	<0.008	<0.008	<0.008	1		
Heptachlor				0	<0.008	<0.008	<0.008	1		
Heptachlor Epoxide				0	<0.008	<0.008	<0.008	1		
Methoxychlor				0	<0.008	<0.008	<0.008	1		
Methyl Parathion				0	<0.1	<0.1	<0.1	1		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30	(15)	
MIBK	<1	<1	<1	6	<1	<1	<1	30		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	30		
Monochloroacetic acid	<1	<1	<1	6	<1	<1	<1	30		
op-DDT				0	<0.004	<0.004	<0.004	1		
Oxychlordane				0	<0.008	<0.008	<0.008	1		
Parathion				0	<0.1	<0.1	<0.1	1		
Perfluorobutane sulfonic acid (PFBS)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		

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

May 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)	<0.02	<0.02	<0.02	1	<0.06	<0.02	<0.10	2		
Perfluoroheptanoic acid (PFHpA)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
Perfluorohexane sulfonic acid (PFHxS)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
Perfluorohexanoic acid (PFHxA)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
Perfluorononanoic acid (PFNA)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
Perfluoropentanoic acid (PFPeA)	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2		
pp-DDD				0	<0.004	<0.004	<0.004	1		
pp-DDE				0	<0.004	<0.004	<0.004	1		
pp-DDT				0	<0.004	<0.004	<0.004	1		
Prometon				0	<0.025	<0.025	<0.025	1		
Prometryne				0	<0.025	<0.025	<0.025	1		
Propazine				0	<0.025	<0.025	<0.025	1		
Styrene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Temephos				0	<0.25	<0.25	<0.25	1		
Terbutryn				0	<0.025	<0.025	<0.025	1		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Total Organic Carbon	2.2	1.4	2.6	35	2.2	1.3	2.6	36		
Total Volatile Organics (NonTHM)	1.2	<1.0	1.5	6	1.2	<1.0	2.2	30		
Total Volatile Organics (Unknown)				0	0.9	<0.5	1.6	9		
Triallate				0	<0.1	<0.1	<0.1	1		
Trichloroacetic acid	8.08	6.32	9.52	6	7.66	5.40	9.74	30		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Xylene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		
Xylene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	30		

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

May 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.0	<0.5	1.9	11	0.8	<0.5	1.9	62	(15)	10
pH (N/A)	7.8	7.6	8.0	11	7.8	7.6	8.1	62	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.64	0.05	2.44	11	0.42	<0.04	2.89	62		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	11	<0.0004	<0.0002	<0.0005	62	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	11	<0.0002	<0.0002	<0.0002	62	0.01	
Barium	0.067	0.060	0.093	11	0.058	0.048	0.093	62	2	
Boron	0.010	0.009	0.014	11	0.011	0.007	0.036	62	2	
Cadmium	<0.0002	<0.0002	<0.0002	11	<0.0002	<0.0002	<0.0002	62	0.007	
Chromium	<0.0002	<0.0002	<0.0002	11	<0.0002	<0.0002	<0.0002	62	0.05	
Copper	0.003	<0.002	0.008	11	<0.005	<0.002	0.048	62	2 (1)	
Lead	0.0003	<0.0002	0.0010	11	0.0002	<0.0002	0.0010	62	0.005	
Manganese	0.002	<0.002	0.004	11	0.002	<0.002	0.006	62	0.12 (0.02)	
Mercury	<0.00020	<0.00020	<0.00020	11	<0.00020	<0.00020	<0.00020	56	0.001	
Selenium	<0.0002	<0.0002	<0.0002	11	0.0002	<0.0002	0.0003	62	0.05	
Strontium	0.423	0.388	0.452	11	0.441	0.388	0.491	62	7.0	
Total Chlorine	1.68	1.52	2.10	11	1.87	1.24	2.27	62	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	11	0.0005	<0.0005	0.0006	62	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	2	
Chlorobenzene	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	14	
Ethylbenzene	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	10	
Toluene	<0.5	<0.5	<0.5	11	0.6	<0.5	3.4	62	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	11	1.0	<1.0	1.2	62	90	
Trichloroethylene	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	5	
Vinyl Chloride	<1	<1	<1	11	<1	<1	<1	62	2	

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

May 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Aluminum	0.124	0.017	0.955	11	0.061	0.012	0.955	62	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	11	<0.0002	<0.0002	<0.0002	62		
Calcium	46.4	45.3	47.5	11	47.7	39.9	54.3	62		
Cobalt	<0.0002	<0.0002	<0.0002	11	0.0002	<0.0002	0.0006	62		
Iron	0.086	<0.005	0.343	11	0.058	<0.005	0.401	62	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	11	<0.001	<0.001	<0.001	62		
Lithium	0.0036	0.0030	0.0043	11	0.0036	0.0026	0.0076	62		
Magnesium	12.4	11.8	13.0	11	13.6	11.3	16.4	62		
Molybdenum	0.0007	0.0007	0.0008	11	0.0008	0.0006	0.0011	62		
Nickel	0.0008	<0.0005	0.0012	11	0.0006	<0.0005	0.0012	62		
Phosphorus	1.07	0.91	1.62	11	0.99	0.33	1.62	62		
Potassium	1.1	0.9	1.2	11	1.0	0.7	2.8	62		
Silicon	2.16	1.79	2.44	11	2.11	1.63	2.69	62		
Silver	<0.0002	<0.0002	<0.0002	11	<0.0002	<0.0002	<0.0002	62		
Sodium	17.1	12.5	20.8	11	12.3	6.6	20.8	62	(200)	
Thallium	<0.0002	<0.0002	<0.0002	11	<0.0003	<0.0002	<0.0005	62		
Tin	<0.0005	<0.0005	<0.0005	11	<0.0005	<0.0005	<0.0005	62		
Titanium	<0.0005	<0.0005	<0.0005	11	<0.0005	<0.0005	<0.0005	62		
Total Hardness (mg/L CaCO3)	167	163	170	11	175	147	201	62		
Vanadium	<0.0005	<0.0005	<0.0005	11	<0.0005	<0.0005	<0.0005	62		
Zinc	<0.005	<0.005	<0.005	11	0.005	<0.005	0.023	62	(5.0)	
Zirconium	<0.001	<0.001	<0.001	11	<0.001	<0.001	<0.001	62		

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

May 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	1.3	0.9	1.6	11	1.1	<0.5	1.6	62		16
Bromoform	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Chloroform	24.5	15.9	33.6	11	13.9	5.6	33.6	62		
Dibromochloromethane	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62	(15)	
MIBK	<1	<1	<1	11	<1	<1	<1	62		
Styrene	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Total Volatile Organics (NonTHM)	1.5	<1.0	3.6	11	1.5	<1.0	6.1	62		
Total Volatile Organics (Unknown)	5.7	5.7	5.7	1	1.9	<0.5	7.7	14		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Xylene (1,2)	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	62		
Xylene (1,4)	<0.5	<0.5	<0.5	11	0.5	<0.5	1.1	62		

TABLE EXPLANATIONS:

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

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

2.2.7 Castledowns Reservoir

May 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	1	7.8	7.8	7.8	3	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.07	0.06	0.09	3	0.13	0.06	0.46	19		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	0.087	0.030	0.170	3	0.086	0.030	0.170	5	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	3	<0.007	<0.005	0.010	5	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	1.79	1.64	1.91	3	1.79	1.27	2.06	19	>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

May 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 asNH3	0.16	0.15	0.17	2	0.16	0.15	0.17	2		
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	0.88	0.88	0.88	1	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

May 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	2.1	2.1	2.1	1	1.4	0.9	2.1	3		
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

May 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	0.8	0.7	1.0	3	(15)	10
Conductivity (uS/cm)	396	396	396	1	395	368	421	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.8	7.8	7.8	3	7.8	7.8	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.16	0.14	0.17	4	0.13	0.10	0.23	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	3	0.01	
Barium	0.063	0.063	0.063	1	0.060	0.056	0.063	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.010	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	0.200	0.200	0.200	1	0.188	0.172	0.200	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.65	0.65	0.65	1	0.67	0.65	0.71	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.075	0.030	0.170	4	0.080	0.030	0.170	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0003	3	0.05	
Strontium	0.405	0.405	0.405	1	0.446	0.405	0.481	3	7.0	
Total Chlorine	1.77	1.71	1.88	4	1.94	1.71	2.09	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	3	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3	2	

2.2.8 Clareview Reservoir

May 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	109	109	109	1	119	109	129	3		
Aluminum	0.024	0.024	0.024	1	0.042	0.023	0.078	3	2.9	0.1/0.2
Ammonia as NH3	0.18	0.17	0.20	3	0.18	0.17	0.20	3		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	43.7	43.7	43.7	1	47.7	43.7	51.3	3		
Calcium Hardness				0	124	118	130	2		
Calcium Hardness Calculated	109	109	109	1	109	109	109	1		
Chloride Dissolved	6.7	6.7	6.7	1	6.0	5.5	6.7	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	0.018	0.018	0.018	1	0.014	0.012	0.018	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0036	0.0036	0.0036	1	0.0035	0.0032	0.0038	3		
Magnesium	12.2	12.2	12.2	1	13.8	12.2	14.9	3		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0009	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.86	0.86	0.86	1	0.87	0.86	0.92	7		
Phosphorus	0.96	0.96	0.96	1	0.94	0.91	0.96	3		
Potassium	1.10	1.10	1.10	1	0.87	0.70	1.10	3		
Silicon	1.95	1.95	1.95	1	2.00	1.93	2.13	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	16.2	16.2	16.2	1	11.3	7.2	16.2	3	(200)	
Sulphate Dissolved	69.2	69.2	69.2	1	68.4	59.6	76.3	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	188	177	198	2		
Total Hardness Calculated	160	160	160	1	160	160	160	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.8 Clareview Reservoir

May 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	3		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Chloroform	26.1	26.1	26.1	1	19.7	13.9	26.1	3		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.3	2.1	2.5	3	1.9	1.3	2.5	5		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.4	<1.0	1.8	3		
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	3		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.9 Discovery Park Reservoir

May 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	1.0	3	(15)	10
Conductivity (uS/cm)	379	379	379	1	385	367	408	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.9	7.8	8.0	3	7.9	7.8	8.0	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.13	4	0.09	0.06	0.16	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0003	3	0.01	
Barium	0.056	0.056	0.056	1	0.056	0.054	0.057	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	<0.100	<0.100	<0.100	1	<0.099	<0.090	0.108	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.71	0.68	0.77	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.043	0.020	0.060	4	0.060	0.020	0.100	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	0.0002	0.0002	0.0002	1	0.0003	0.0002	0.0003	3	0.05	
Strontium	0.436	0.436	0.436	1	0.451	0.436	0.474	3	7.0	
Total Chlorine	1.28	1.13	1.38	4	1.47	1.13	1.68	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	3	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3	2	

2.2.9 Discovery Park Reservoir

May 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	118	111	126	3		
Aluminum	0.023	0.023	0.023	1	0.046	0.021	0.093	3	2.9	0.1/0.2
Ammonia as NH3	0.20	0.17	0.23	4	0.20	0.17	0.23	4		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	43.9	43.9	43.9	1	45.2	43.9	46.2	3		
Calcium Hardness				0	119	113	124	2		
Calcium Hardness Calculated	110	110	110	1	110	110	110	1		
Chloride Dissolved	7.2	7.2	7.2	1	6.5	6.0	7.2	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0032	0.0032	0.0032	1	0.0032	0.0030	0.0034	3		
Magnesium	12.7	12.7	12.7	1	13.6	12.7	14.2	3		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0009	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.88	0.88	0.88	1	0.89	0.86	0.92	7		
Phosphorus	1.00	1.00	1.00	1	0.95	0.91	1.00	3		
Potassium	1.00	1.00	1.00	1	0.87	0.80	1.00	3		
Silicon	1.57	1.57	1.57	1	1.79	1.57	1.90	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	12.9	12.9	12.9	1	10.6	7.4	12.9	3	(200)	
Sulphate Dissolved	73.5	73.5	73.5	1	68.9	58.6	74.7	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	178	174	182	2		
Total Hardness Calculated	162	162	162	1	162	162	162	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.9 Discovery Park Reservoir

May 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	1.4	1.4	1.4	1	1.1	0.7	1.4	3		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Chloroform	15.0	15.0	15.0	1	14.6	11.7	17.1	3		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Total Organic Carbon	1.7	1.3	1.9	3	1.5	1.2	1.9	5		
Total Volatile Organics (NonTHM)	1.4	1.4	1.4	1	1.4	<1.0	1.9	3		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

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

May 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.3	1.3	1.3	1	1.3	1.1	1.6	3	(15)	10
Conductivity (uS/cm)	412	412	412	1	403	370	426	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.8	7.6	7.8	3	7.8	7.6	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.06	0.06	0.07	4	0.08	0.05	0.14	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	3	0.01	
Barium	0.065	0.065	0.065	1	0.060	0.056	0.065	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	<0.100	<0.100	<0.100	1	<0.093	<0.080	0.100	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.66	0.66	0.66	1	0.71	0.66	0.74	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.038	<0.010	0.060	4	0.055	<0.010	0.100	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0003	3	0.05	
Strontium	0.385	0.385	0.385	1	0.442	0.385	0.483	3	7.0	
Total Chlorine	1.88	1.83	1.95	4	2.04	1.83	2.23	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	3	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3	2	

2.2.10 Kaskitayo Reservoir

May 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	121	118	128	3		
Aluminum	0.023	0.023	0.023	1	0.047	0.022	0.097	3	2.9	0.1/0.2
Ammonia as NH3	0.16	0.15	0.17	4	0.16	0.15	0.17	4		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	43.3	43.3	43.3	1	47.4	43.3	51.2	3		
Calcium Hardness				0	124	118	129	2		
Calcium Hardness Calculated	108	108	108	1	108	108	108	1		
Chloride Dissolved	8.0	8.0	8.0	1	6.8	6.0	8.0	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0030	0.0030	0.0030	1	0.0032	0.0029	0.0036	3		
Magnesium	11.8	11.8	11.8	1	13.7	11.8	15.1	3		
Molybdenum	0.0007	0.0007	0.0007	1	0.0007	0.0006	0.0008	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	1.02	1.02	1.02	1	0.93	0.88	1.02	7		
Phosphorus	0.87	0.87	0.87	1	0.92	0.87	0.98	3		
Potassium	1.10	1.10	1.10	1	0.87	0.70	1.10	3		
Silicon	2.16	2.16	2.16	1	2.06	1.93	2.16	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	22.0	22.0	22.0	1	13.9	7.4	22.0	3	(200)	
Sulphate Dissolved	78.7	78.7	78.7	1	73.0	60.7	79.6	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	184	178	190	2		
Total Hardness Calculated	157	157	157	1	157	157	157	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.10 Kaskitayo Reservoir

May 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	1.0	0.7	1.6	3		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Chloroform	28.3	28.3	28.3	1	17.2	9.8	28.3	3		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.3	2.0	2.6	3	1.9	1.2	2.6	5		
Total Volatile Organics (NonTHM)	1.4	1.4	1.4	1	1.5	<1.0	2.0	3		
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	3		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.11 Londonderry Reservoir

May 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	7.8	2	7.8	7.7	7.8	4	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.08	0.10	4	0.10	0.07	0.22	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	0.052	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	0.075	0.030	0.170	4	0.078	0.030	0.170	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	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	1.79	1.73	1.86	4	2.01	1.73	2.25	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	

2.2.11 Londonderry Reservoir

May 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	0.18	0.17	0.19	3	0.18	0.17	0.19	3		
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	0.86	0.86	0.86	1	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

May 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	2.2	2.2	2.2	2	1.7	1.0	2.2	4		
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

May 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)	7.7	7.7	7.8	2	7.7	7.7	7.8	4	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.15	4	0.09	0.06	0.15	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	0.010	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	0.043	0.020	0.070	4	0.055	0.020	0.080	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	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	1.86	1.79	1.95	4	2.05	1.79	2.21	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	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

May 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	0.15	0.18	4	0.17	0.15	0.18	4		
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	0.88	0.88	0.88	1	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

May 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	2.1	2.3	2	1.7	0.9	2.3	4		
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

May 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	1.0	3	(15)	10
Conductivity (uS/cm)	404	404	404	1	397	367	421	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.8	7.8	7.9	3	7.8	7.8	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.07	0.21	4	0.09	0.05	0.21	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0003	3	0.01	
Barium	0.059	0.059	0.059	1	0.058	0.054	0.060	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.010	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	<0.100	<0.100	<0.100	1	<0.097	<0.080	0.110	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.64	0.64	0.64	1	0.68	0.64	0.71	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.073	0.040	0.160	4	0.080	0.040	0.160	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0003	3	0.05	
Strontium	0.416	0.416	0.416	1	0.447	0.416	0.481	3	7.0	
Total Chlorine	1.62	1.48	1.75	4	1.84	1.48	2.07	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	3	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3	2	

2.2.13 North Jasper Place Reservoir

May 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	112	112	112	1	119	112	128	3		
Aluminum	0.025	0.025	0.025	1	0.050	0.024	0.102	3	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.18	3	0.17	0.16	0.18	3		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	43.9	43.9	43.9	1	47.1	43.9	51.0	3		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	110	110	110	1	110	110	110	1		
Chloride Dissolved	7.6	7.6	7.6	1	6.6	6.0	7.6	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0032	0.0032	0.0032	1	0.0033	0.0030	0.0036	3		
Magnesium	12.2	12.2	12.2	1	13.6	12.2	14.7	3		
Molybdenum	0.0007	0.0007	0.0007	1	0.0007	0.0005	0.0009	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.88	0.88	0.88	1	0.90	0.88	0.96	7		
Phosphorus	0.98	0.98	0.98	1	0.96	0.92	0.98	3		
Potassium	1.00	1.00	1.00	1	0.83	0.70	1.00	3		
Silicon	1.78	1.78	1.78	1	1.92	1.78	2.08	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	17.3	17.3	17.3	1	12.1	7.2	17.3	3	(200)	
Sulphate Dissolved	72.0	72.0	72.0	1	69.7	59.5	77.6	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	184	173	194	2		
Total Hardness Calculated	160	160	160	1	160	160	160	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.13 North Jasper Place Reservoir

May 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	0.9	1.5	3		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Chloroform	20.1	20.1	20.1	1	17.0	12.7	20.1	3		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.0	2.0	2.0	3	1.7	1.2	2.0	5		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.4	<1.0	2.1	3		
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	3		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.14 Ormsby Reservoir

May 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	7.8	2	7.8	7.7	7.8	4	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.07	0.05	0.09	4	0.09	0.05	0.13	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	0.057	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	0.038	0.010	0.060	4	0.052	0.010	0.080	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	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	1.78	1.71	1.87	4	2.00	1.71	2.15	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	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

May 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	0.16	0.15	0.17	4	0.16	0.15	0.17	4		
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	0.90	0.90	0.90	1	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

May 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	2.1	2.3	2	1.7	0.9	2.3	4		
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

May 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	7.7	7.8	2	7.8	7.7	7.8	4	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.18	0.15	0.26	4	0.14	0.10	0.26	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	0.050	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	0.043	0.030	0.060	4	0.057	0.030	0.090	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	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	1.78	1.48	1.95	4	1.92	1.48	2.15	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	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

May 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	0.19	0.15	0.23	4	0.19	0.15	0.23	4		
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	0.86	0.86	0.86	1	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

May 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	2.1	2.1	2.1	2	1.6	0.9	2.1	4		
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

May 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.4	1.4	1.4	1	1.2	0.9	1.4	3	(15)	10
Conductivity (uS/cm)	396	396	396	1	400	375	430	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.7	7.6	7.9	3	7.8	7.6	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.06	0.12	4	0.08	0.06	0.12	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	3	0.01	
Barium	0.065	0.065	0.065	1	0.060	0.055	0.065	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.010	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	0.300	0.300	0.300	1	0.190	0.108	0.300	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.66	0.66	0.66	1	0.70	0.66	0.74	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.055	<0.010	0.130	4	0.068	<0.010	0.130	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0003	3	0.05	
Strontium	0.400	0.400	0.400	1	0.441	0.400	0.477	3	7.0	
Total Chlorine	1.86	1.80	1.91	4	2.02	1.80	2.17	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	3	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3	2	

2.2.16 Papaschase 2 Reservoir

May 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	109	109	109	1	119	109	128	3		
Aluminum	0.028	0.028	0.028	1	0.045	0.023	0.084	3	2.9	0.1/0.2
Ammonia as NH3	0.18	0.16	0.19	4	0.18	0.16	0.19	4		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	43.0	43.0	43.0	1	47.5	43.0	52.2	3		
Calcium Hardness				0	123	116	130	2		
Calcium Hardness Calculated	107	107	107	1	107	107	107	1		
Chloride Dissolved	6.8	6.8	6.8	1	6.6	5.8	7.2	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0035	0.0035	0.0035	1	0.0034	0.0030	0.0038	3		
Magnesium	12.2	12.2	12.2	1	13.7	12.2	14.8	3		
Molybdenum	0.0007	0.0007	0.0007	1	0.0007	0.0006	0.0008	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.86	0.86	0.86	1	0.89	0.86	0.92	7		
Phosphorus	0.97	0.97	0.97	1	0.95	0.89	0.98	3		
Potassium	1.10	1.10	1.10	1	0.87	0.70	1.10	3		
Silicon	2.09	2.09	2.09	1	2.05	1.93	2.14	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	17.1	17.1	17.1	1	12.1	7.0	17.1	3	(200)	
Sulphate Dissolved	70.6	70.6	70.6	1	70.0	59.9	79.4	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	186	177	194	2		
Total Hardness Calculated	158	158	158	1	158	158	158	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.16 Papaschase 2 Reservoir

May 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	1.1	0.8	1.5	3		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Chloroform	26.9	26.9	26.9	1	17.5	9.9	26.9	3		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.4	2.1	2.6	3	1.9	1.2	2.6	5		
Total Volatile Organics (NonTHM)	1.5	1.5	1.5	1	1.4	<1.0	1.8	3		
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	3		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

2.2.17 Rosslyn 1 Reservoir

May 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)	7.9	7.9	7.9	1	7.8	7.7	7.9	3	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.25	0.11	0.38	2	0.14	0.08	0.53	20		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	0.035	0.030	0.040	2	0.060	0.030	0.090	4	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	2	<0.008	<0.005	0.010	4	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	1.80	1.73	1.86	2	1.92	1.73	2.07	20	>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

May 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	0.18	0.18	0.18	1	0.18	0.18	0.18	1		
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	0.88	0.88	0.88	1	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

May 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	2.2	2.2	2.2	1	1.5	1.0	2.2	3		
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

May 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.8	0.8	0.8	1	0.8	0.6	0.9	3	(15)	10
Conductivity (uS/cm)	391	391	391	1	393	369	419	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.8	7.8	7.9	3	7.9	7.8	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.09	0.10	4	0.10	0.08	0.14	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.01	
Barium	0.061	0.061	0.061	1	0.059	0.054	0.061	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	0.200	0.200	0.200	1	0.177	0.147	0.200	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.67	0.67	0.67	1	0.69	0.67	0.71	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.068	0.030	0.170	4	0.077	0.030	0.170	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	<0.0002	0.0003	3	0.05	
Strontium	0.443	0.443	0.443	1	0.456	0.443	0.482	3	7.0	
Total Chlorine	1.63	1.55	1.77	4	1.86	1.55	2.08	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	10	
Toluene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes	<1	<1	<1	2	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	2	<1.0	<1.0	<1.0	4	2	

2.2.18 Rosslyn 2 Reservoir

May 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	121	114	127	3		
Aluminum	0.030	0.030	0.030	1	0.045	0.025	0.081	3	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.20	3	0.19	0.18	0.20	3		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	44.5	44.5	44.5	1	47.6	44.5	51.0	3		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	111	111	111	1	111	111	111	1		
Chloride Dissolved	6.9	6.9	6.9	1	6.1	5.6	6.9	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	0.007	0.007	0.007	1	<0.006	<0.005	0.007	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0035	0.0035	0.0035	1	0.0034	0.0031	0.0037	3		
Magnesium	12.7	12.7	12.7	1	14.0	12.7	14.9	3		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0009	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.88	0.88	0.88	1	0.89	0.88	0.92	7		
Phosphorus	0.99	0.99	0.99	1	0.95	0.90	0.99	3		
Potassium	1.00	1.00	1.00	1	0.83	0.70	1.00	3		
Silicon	1.70	1.70	1.70	1	1.92	1.70	2.12	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	13.5	13.5	13.5	1	10.5	7.1	13.5	3	(200)	
Sulphate Dissolved	71.1	71.1	71.1	1	69.0	59.4	76.5	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	186	178	194	2		
Total Hardness Calculated	163	163	163	1	163	163	163	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.18 Rosslyn 2 Reservoir

May 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	1.4	1.2	1.6	2	1.2	1.0	1.6	4		16
Bromoform	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4		
Chloroform	23.9	21.3	26.5	2	20.3	14.6	26.5	4		
Dibromochloromethane	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4	(15)	
MIBK	<1.0	<1.0	<1.0	2	<1.0	<1.0	<1.0	4		
Styrene	<0.50	<0.50	<0.50	2	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4		
Total Organic Carbon	2.1	1.9	2.2	3	1.8	1.3	2.2	5		
Total Volatile Organics (NonTHM)	<1.2	<1.0	1.3	2	1.3	<1.0	1.8	4		
Total Volatile Organics (Unknown)				0	1.9	1.9	1.9	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4		
Xylene (1,2)	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	4		
Xylene (1,4)	<0.5	<0.5	<0.5	2	<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

2.2.19 Thorncliff Reservoir

May 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	1.1	3	(15)	10
Conductivity (uS/cm)	402	402	402	1	397	368	420	3		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	3		
pH (N/A)	7.8	7.7	7.9	3	7.8	7.7	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.07	0.11	4	0.09	0.05	0.20	22		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0003	3	0.01	
Barium	0.061	0.061	0.061	1	0.059	0.055	0.061	3	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	3	2	
Bromate Dissolved	<0.003	<0.003	<0.003	1	<0.004	<0.003	<0.005	3	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	<0.100	<0.100	<0.100	1	<0.096	<0.080	0.109	3	1	
Chlorite Dissolved	<0.200	<0.200	<0.200	1	<0.070	<0.005	<0.200	3	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	3	2 (1)	
Fluoride	0.66	0.66	0.66	1	0.71	0.66	0.77	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	0.001	
Nitrate (as N) Dissolved	0.040	<0.010	0.070	4	0.057	<0.010	0.100	6	10	
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.007	<0.005	0.010	6	1	
Selenium	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0003	3	0.05	
Strontium	0.413	0.413	0.413	1	0.445	0.413	0.476	3	7.0	
Total Chlorine	1.59	1.51	1.67	4	1.88	1.51	2.23	22	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	3	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	3	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3	2	

2.2.19 Thorncliff Reservoir

May 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	110	110	110	1	119	110	129	3		
Aluminum	0.033	0.033	0.033	1	0.054	0.027	0.101	3	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.19	4	0.17	0.16	0.19	4		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	<0.050	<0.050	<0.050	1	<0.023	<0.010	<0.050	3		
Calcium	43.7	43.7	43.7	1	47.0	43.7	50.4	3		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated	109	109	109	1	109	109	109	1		
Chloride Dissolved	7.7	7.7	7.7	1	6.6	6.0	7.7	3	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		
Lithium	0.0031	0.0031	0.0031	1	0.0032	0.0030	0.0036	3		
Magnesium	12.4	12.4	12.4	1	13.8	12.4	14.7	3		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0006	0.0009	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Ortho_P	0.90	0.90	0.90	1	0.90	0.88	0.92	10		
Phosphorus	1.00	1.00	1.00	1	0.96	0.93	1.00	3		
Potassium	1.00	1.00	1.00	1	0.83	0.70	1.00	3		
Silicon	1.83	1.83	1.83	1	1.96	1.83	2.10	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3		
Sodium	18.0	18.0	18.0	1	12.4	7.3	18.0	3	(200)	
Sulphate Dissolved	73.8	73.8	73.8	1	70.6	59.6	78.3	3	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)				0	182	174	189	2		
Total Hardness Calculated	160	160	160	1	160	160	160	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	3		

2.2.19 Thorncliff Reservoir

May 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	1.1	0.8	1.6	3		16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Chloroform	21.4	21.4	21.4	1	16.8	10.9	21.4	3		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	3		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	3		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Total Organic Carbon	2.0	1.9	2.1	3	1.7	1.2	2.1	5		
Total Volatile Organics (NonTHM)	1.5	1.5	1.5	1	1.4	<1.0	1.8	3		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	3		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<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

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

May 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
Trihalomethanes (ug/L)													100	50
01-SR				0	15.1	15.1	15.1	1	15.1	15.1	15.1	1		
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	19.9	19.9	19.9	1	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	16.4	16.4	16.4	1	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		
19-SR				0				0	26.8	26.8	26.8	1		
21-DE	16.4	16.4	16.4	1	16.4	16.4	16.4	1	16.4	16.4	16.4	1		
21-SR				0				0	16.5	13.9	20.7	3		
24-SR	14.6	14.6	14.6	1	14.0	13.3	14.6	2	14.0	13.3	14.6	2		
26-DE				0				0	19.7	15.8	25.3	3		
27-SR				0				0	17.5	17.5	17.5	1		
28-SR				0				0	21.6	21.6	21.6	1		
30-SR	16.5	16.5	16.5	1	12.6	8.6	16.5	2	12.6	8.6	16.5	2		
31-DE				0	14.5	13.0	15.9	2	19.1	13.0	26.8	5		
31-RI	15.8	15.8	15.8	1	18.7	15.8	21.6	2	22.2	15.8	26.8	4		
32-SR				0	12.0	12.0	12.0	1	22.7	12.0	30.8	6		
36-DE				0				0	27.4	24.2	30.6	2		
40-SR				0	12.7	9.1	16.4	3	18.9	9.1	30.2	7		
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				23				65		

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

May 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				0	16.8	16.8	16.8	1	16.8	16.8	16.8	1		
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	20.2	20.2	20.2	1	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	17.0	17.0	17.0	1	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		
19-SR				0				0	26.1	26.1	26.1	1		
21-DE	16.3	16.3	16.3	1	16.3	16.3	16.3	1	16.3	16.3	16.3	1		
21-SR				0				0	18.9	16.8	21.1	3		
24-SR	20.5	20.5	20.5	1	17.3	14.0	20.5	2	17.3	14.0	20.5	2		
26-DE				0				0	20.8	17.7	22.9	3		
27-SR				0				0	18.0	18.0	18.0	1		
28-SR				0				0	23.0	23.0	23.0	1		
30-SR	17.8	17.8	17.8	1	14.6	11.3	17.8	2	14.6	11.3	17.8	2		
31-DE				0	17.6	14.7	20.5	2	19.5	13.4	25.0	5		
31-RI	14.0	14.0	14.0	1	16.6	14.0	19.2	2	20.5	14.0	24.9	4		
32-SR				0	18.4	18.4	18.4	1	24.3	18.4	31.0	6		
36-DE				0				0	26.8	23.8	29.7	2		
40-SR				0	14.8	12.0	18.7	3	19.1	12.0	26.4	6		
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				29				70		

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

May 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-OF				0				0	<0.002	<0.002	<0.002	1		
21-DE	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
21-SR				0				0	<0.002	<0.001	0.002	2		
24-SR	<0.002	<0.002	<0.002	1	<0.002	<0.001	<0.002	2	<0.002	<0.001	<0.002	2		
26-DE				0				0	<0.002	<0.001	<0.002	3		
30-SR	<0.003	<0.003	<0.003	1	<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	0.007	0.007	0.007	1	0.008	0.007	0.010	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	<0.004	<0.002	<0.006	2	<0.003	<0.002	<0.006	5		
EDMONTON S4				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
		Total Count		3				15				36		

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

May 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	19.1	7.8	28.8	6		
Clareview Reservoir	27.9	27.9	27.9	1	21.1	15.4	27.9	3	25.0	15.4	33.5	6		
Discovery Park Reservoir	16.6	16.6	16.6	1	15.9	13.1	18.1	3	20.8	13.1	29.8	6		
Kaskitayo Reservoir	30.2	30.2	30.2	1	18.5	10.8	30.2	3	22.7	10.8	30.2	7		
Londonderry Reservoir				0	12.9	9.8	16.0	2	20.2	9.8	29.2	6		
Millwoods Reservoir				0	9.5	7.8	11.1	3	17.0	7.8	28.8	7		
North Jasper Place Reservoir	21.9	21.9	21.9	1	18.4	14.0	21.9	3	23.3	14.0	35.7	6		
Ormsby Reservoir				0	9.6	7.7	11.4	3	17.4	7.7	30.1	7		
Papaschase Reservoir 1				0	11.5	8.8	13.9	3	19.8	8.8	32.9	8		
Papaschase Reservoir 2	28.8	28.8	28.8	1	18.9	11.0	28.8	3	23.1	11.0	33.1	6		
Rosslyn Reservoir 1				0	12.8	10.0	15.5	2	22.1	10.0	30.0	7		
Rosslyn Reservoir 2	25.7	23.4	27.9	2	21.9	16.1	27.9	4	25.3	16.1	32.6	8		
Thorncliff Reservoir	23.3	23.3	23.3	1	18.2	12.2	23.3	3	22.5	12.2	31.6	6		
		Total Count		8				37				86		

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

May 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

May 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	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	2	<0.2	<0.2	<0.2	2
Physical																
Colour (TCU)	16.8	7.0	28.6	29	17.1	6.5	31.6	31	11.0	5.2	43.8	149	11.3	4.7	43.6	151
Conductivity (uS/cm)	339	327	347	4	331	319	339	4	359	311	415	22	351	311	416	22
FPA-Intensity (N/A)	0.79	0.56	1.12	5	0.79	0.44	1.00	5	0.97	0.38	2.38	32	1.00	0.44	2.25	32
pH (N/A)	8.3	8.3	8.3	1	8.3	8.3	8.3	1	8.2	8.1	8.3	5	8.2	8.1	8.3	5
Total Dissolved Solids (mg/L)	208	208	208	1	207	207	207	1	215	208	231	5	216	201	240	5
Total Suspended Solids	53.7	53.7	53.7	1	72.7	72.7	72.7	1	13.6	<2.5	53.7	5	16.7	<2.5	72.7	5
Turbidity (NTU)	21	5	68	29	28	7	102	31	11	1	367	149	12	1	224	151
Primary Inorganics (mg/L) **																
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0003	<0.0002	<0.0005	5	<0.0003	<0.0002	<0.0005	5
Arsenic	0.0009	0.0009	0.0009	1	0.0010	0.0010	0.0010	1	0.0004	0.0002	0.0009	5	0.0004	0.0002	0.0010	5
Barium	0.088	0.088	0.088	1	0.095	0.095	0.095	1	0.068	0.058	0.088	5	0.069	0.057	0.095	5
Boron	0.012	0.012	0.012	1	0.012	0.012	0.012	1	0.010	0.009	0.012	5	0.010	0.008	0.012	5
Cadmium^				0				0	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Cadmium^^	0.00003	0.00003	0.00003	1	0.00004	0.00004	0.00004	1	0.00003	<0.00002	0.00003	2	0.00003	<0.00002	0.00004	2
Chromium	0.0027	0.0027	0.0027	1	0.0032	0.0032	0.0032	1	0.0007	<0.0002	0.0027	5	0.0008	<0.0002	0.0032	5
Copper	0.004	0.004	0.004	1	0.003	0.003	0.003	1	<0.004	<0.002	<0.005	5	<0.004	<0.002	<0.005	5
Fluoride	0.11	0.10	0.11	4	0.11	0.10	0.12	4	0.11	0.08	0.13	22	0.11	0.08	0.12	22
Lead	0.0011	0.0011	0.0011	1	0.0012	0.0012	0.0012	1	0.0004	<0.0002	0.0011	5	0.0004	<0.0002	0.0012	5
Manganese	0.050	0.050	0.050	1	0.057	0.057	0.057	1	0.013	<0.002	0.050	5	0.015	0.003	0.057	5
Mercury	<0.0026	<0.0002	<0.0050	2	<0.0026	<0.0002	<0.0050	2	<0.0009	<0.0001	<0.0050	7	<0.0009	<0.0001	<0.0050	7
Nitrate (as N) Dissolved	0.07	<0.01	0.19	4	0.06	<0.01	0.18	4	0.08	<0.01	0.19	22	0.07	<0.01	0.18	22
Nitrite (as N) Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.009	<0.005	<0.010	22	<0.009	<0.005	<0.010	22
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	5	0.0003	<0.0002	0.0003	5
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	5	<0.03	<0.03	<0.03	5
Uranium	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	0.0006	0.0005	0.0006	5	0.0006	<0.0005	0.0006	5

TABLE EXPLANATIONS:
^ Data from January 1 to March 31.Detection limit 0.0002 mg/L
^^ Data from April 1 on wards. Detection limit increased to 0.00002 mg/L.

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

May 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Primary Organics (ug/L) **																
2,4-D				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Atrazine				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Benzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Benzo(a)pyrene	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	2
Bromoxynil				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Carbon Tetrachloride	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152
Chlorobenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Cyanazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Diazinon				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
Dicamba				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dichloroethane (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	149	<0.5	<0.5	<0.5	151
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	150	<0.5	<0.5	<3.0	152
Dichlorophenol (2,4)				0				0	<0.3	<0.3	<0.3	1	<0.3	<0.3	<0.3	1
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Dimethoate				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Diuron				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Ethylbenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Glyphosate				0				0	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1
Malathion				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
MCPA				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Methylene Chloride	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Metolachlor				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
Metribuzin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
NDMA (µg/L)				0				0	<0.0009	<0.0009	<0.0009	1	<0.00099	<0.00099	<0.00099	1
Nitrilotriacetic acid	<0.40	<0.40	<0.40	1	<0.40	<0.40	<0.40	1	<0.40	<0.40	<0.40	2	<0.40	<0.40	<0.40	2
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Perfluorooctane sulfonic acid (PFOS)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2
Perfluorooctanoic acid (PFOA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2
Phorate				0				0	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1
Picloram				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Simazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Terbufos				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Tetrachloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Toluene	<0.5	<0.5	0.9	29	<0.6	<0.5	1.5	31	<0.5	<0.5	1.7	150	<0.6	<0.5	2.9	152
Total Xylenes	<1.0	<1.0	<1.0	29	<1.0	<1.0	<1.0	31	<1.0	<1.0	<2.5	150	<1.0	<1.0	<2.5	152
Trichloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Trifluralin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1

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

May 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	29	<1	<1	<1	31	<1	<1	<1	150	<1	<1	<1	152
Vinyl Chloride	<1	<1	<1	29	<1	<1	<1	31	<1	<1	<1	149	<1	<1	<1	151
Secondary Inorganics (mg/L) ***																
Alkalinity Total	129	124	131	4	127	124	132	4	128	117	149	22	127	112	151	22
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	5	<3	<3	<3	5
Aluminum	1.900	1.900	1.900	1	2.540	2.540	2.540	1	0.506	0.108	1.900	5	0.593	0.078	2.540	5
Ammonia as NH3	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	4	<0.05	<0.05	0.09	33	<0.06	<0.05	0.14	33
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002	5
Calcium Hardness	111	108	113	3	110	106	114	3	117	102	138	21	115	99	140	21
Calcium Hardness Calculated	121	121	121	1	120	120	120	1	121	121	121	1	120	120	120	1
Cobalt	0.0008	0.0008	0.0008	1	0.0009	0.0009	0.0009	1	0.0003	<0.0002	0.0008	5	0.0003	<0.0002	0.0009	5
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	5	<0.07	<0.07	<0.07	5
Iron	1.990	1.990	1.990	1	2.240	2.240	2.240	1	0.480	0.051	1.990	5	0.532	0.075	2.240	5
Lanthanum	0.001	0.001	0.001	1	0.001	0.001	0.001	1	<0.001	<0.001	0.001	5	<0.001	<0.001	0.001	5
Lithium	0.0052	0.0052	0.0052	1	0.0054	0.0054	0.0054	1	0.0039	0.0033	0.0052	5	0.0038	0.0033	0.0054	5
Magnesium	13.4	13.4	13.4	1	13.7	13.7	13.7	1	14.2	13.4	15.4	5	14.3	13.4	15.3	5
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0008	0.0008	1	0.0009	0.0007	0.0010	5	0.0009	0.0008	0.0010	5
Nickel	0.0031	0.0031	0.0031	1	0.0032	0.0032	0.0032	1	0.0011	0.0005	0.0031	5	0.0011	<0.0005	0.0032	5
Ortho_P	<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
Phosphorus	0.08	0.08	0.08	1	0.08	0.08	0.08	1	0.03	<0.02	0.08	5	0.03	<0.02	0.08	5
Potassium	1.5	1.5	1.5	1	1.6	1.6	1.6	1	1.0	0.7	1.5	5	1.0	0.7	1.6	5
Silicon	5.38	5.38	5.38	1	6.88	6.88	6.88	1	2.80	1.99	5.38	5	3.04	1.74	6.88	5
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	2	<0.00002	<0.00002	<0.00002	2
Sodium	6.2	6.2	6.2	1	5.1	5.1	5.1	1	4.7	3.8	6.2	5	4.3	3.8	5.1	5
Strontium	0.436	0.436	0.436	1	0.445	0.445	0.445	1	0.460	0.429	0.499	5	0.461	0.425	0.504	5
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	5	<0.0004	<0.0002	<0.0005	5
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	<0.0005	<0.0005	<0.0005	5
Titanium	0.0503	0.0503	0.0503	1	0.0756	0.0756	0.0756	1	0.0122	0.0015	0.0503	5	0.0169	0.0017	0.0756	5
Total Hardness (mg/L CaCO3)	166	159	173	3	161	157	164	3	175	153	211	21	175	155	203	21
Total Hardness Calculated	176	176	176	1	176	176	176	1	176	176	176	1	176	176	176	1
Total Kjeldahl Nitrogen				0				0	0.2	0.1	0.2	4	0.2	<0.1	0.2	4
Total Kjeldahl Nitrogen (TKN)	0.2	0.2	0.2	1	0.2	0.2	0.2	1	0.3	<0.1	1.0	27	0.6	<0.1	9.4	28
Vanadium	0.0041	0.0041	0.0041	1	0.0054	0.0054	0.0054	1	0.0012	<0.0005	0.0041	5	0.0015	<0.0005	0.0054	5
Zinc	0.008	0.008	0.008	1	0.008	0.008	0.008	1	<0.006	<0.005	0.008	5	<0.006	<0.005	0.008	5
Zirconium	0.001	0.001	0.001	1	0.002	0.002	0.002	1	<0.001	<0.001	0.001	5	<0.001	<0.001	0.002	5

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

May 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Secondary Organics (ug/L) ***																
Aldicarb				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Aldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Bromodichloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Bromoform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152
Carbaryl				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Carbofuran				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
Chloroform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dibromochloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dichloropropane (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Dieldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
MIBK	<1	<1	<1	29	<1	<1	<1	31	<1	<1	<1	150	<1	<1	<1	152
Parathion				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1
Perfluorobutanoic acid (PFBA)	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<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)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluorohexane sulfonic acid (PFHxS)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.011	<0.002	<0.020	2	<0.011	<0.002	<0.020	2
Perfluorohexanoic acid (PFHxA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluorononanoic acid (PFNA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.674	<0.002	<2.000	3	<0.674	<0.002	<2.000	3
Perfluoropentanoic acid (PFPeA)	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<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	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	150	<0.5	<0.5	<1.0	152
Total Organic Carbon	4.6	3.6	5.4	4	4.4	3.6	5.3	4	2.6	1.1	5.4	22	2.6	1.2	5.9	22
Total Volatile Organics (NonTHM)	1.4	<1.0	3.6	29	1.4	<1.0	3.2	31	<1.3	<1.0	3.6	150	<1.3	<1.0	5.6	152
Total Volatile Organics (Unknown)	0.6	0.6	0.6	1	1.1	1.1	1.1	1	<0.8	<0.5	1.0	21	<0.7	<0.5	1.1	27
Triallate				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Trichloroacetic acid				0				0	<1	<1	<1	1	<1	<1	<1	1
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Xylene (1,2)	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	150	<0.5	<0.5	<0.5	152
Xylene (1,4)	<0.5	<0.5	<0.5	29	<0.5	<0.5	0.6	31	<0.5	<0.5	0.6	150	<0.5	<0.5	0.9	152

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

(Lab Neutralization Tank in Water Excellence Lab Building)

Date	pH**
02-May-2024	7.29
09-May-2024	7.68
16-May-2024	7.99
23-May-2024	7.69
30-May-2024	7.68

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

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Alkalinity phenolphthalein	3	mg CaCO3/L
Alkalinity Total	6	mg CaCO3/L
Aluminum	0.005	mg/L
Ammonia as N	0.05	mg/L
Ammonia as NH3	0.05	mg/L
Antimony	0.0005	mg/L
Arsenic	0.0002	mg/L
Barium	0.002	mg/L
Benzene	0.5	µg/L
Beryllium	0.0002	mg/L
Bicarbonate	3	mg CaCO3/L
Boron	0.005	mg/L
Bromodichloromethane	0.5	µg/L
Bromoform	0.5	µg/L
Cadmium	0.0002	mg/L
Calcium	0.1	mg/L
Carbon Tetrachloride	0.5	µg/L
Carbonate	3	mg/L CaCO3
Cellular ATP	0.1	pg/mL
Chlorobenzene	0.5	µg/L
Chloroform	0.5	µg/L
Chromium	0.0002	mg/L
Cobalt	0.0002	mg/L
Coliforms, total	1	PA/100mL
Colour	0.5	TCU
Copper	0.002	mg/L
Dibromochloromethane	0.5	µg/L
Dichlorobenzene (1,2)	0.5	µg/L
Dichlorobenzene (1,3)	0.5	µg/L
Dichlorobenzene (1,4)	0.5	µg/L
Dichloroethane (1,2)	0.5	µg/L
Dichloroethylene (1,1)	0.5	µg/L
Dichloroethylene, cis (1,2)	0.5	µg/L
Dichloroethylene, trans (1,2)	0.5	µg/L
Dichloropropane (1,2)	0.5	µg/L
Dissolved Organic Carbon	0.6	mg/L
E. coli	1	PA/100mL
Ethylbenzene	0.5	µg/L
Fluoride	0.05	mg/L
Free Chlorine	0.07	mg/L
Iron	0.005	mg/L
Lanthanum	0.001	mg/L
Lead	0.0002	mg/L
Lithium	0.0002	mg/L
Magnesium	0.1	mg/L
Manganese	0.002	mg/L
Mercury	0.0002	mg/L
Methyl t-Butyl Ether (MTBE)	0.5	µg/L
Methylene Chloride	0.5	µg/L
MIBK	1.0	µg/L
Molybdenum	0.0002	mg/L
Nickel	0.0005	mg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Ortho_P	0.02	mg/L as P
Orthophosphate, dissolved	0.02	mg/L
Orthophosphate, total	0.02	mg/L
Phosphorus	0.02	mg/L
Potassium	0.1	mg/L
Selenium	0.0002	mg/L
Silicon	0.05	mg/L
Silver	0.0002	mg/L
Sodium	0.1	mg/L
Strontium	0.002	mg/L
Styrene	0.5	µg/L
Tetrachloroethane (1,1,2,2)	0.5	µg/L
Tetrachloroethylene	0.5	µg/L
Thallium	0.0002	mg/L
Tin	0.0005	mg/L
Titanium	0.0005	mg/L
Toluene	0.5	µg/L
Total Dissolved Solids	25	mg/L
Total Hardness Calculated	2	mg/L CaCO3
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
Uranium	0.0005	mg/L
UV 254 % Transmittance	99.8	%T/cm
Vanadium	0.0005	mg/L
Vinyl Chloride	1.0	µg/L
Xylene (1,2)	0.5	µg/L
Xylene (1,4)	0.5	µg/L
Zinc	0.005	mg/L
Zirconium	0.001	mg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Contract Lab Analysis		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	0.0020	µg/L
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	0.0020	µg/L
Benzo(a)pyrene	0.0050	ug/L
Bromate Dissolved	0.003	mg/L
Bromide Dissolved	0.05	mg/L
Bromochloroacetic acid	1.00	ug/L
Chlorate Dissolved	0.1	mg/L
Chloride Dissolved	0.05	mg/L
Chlorite Dissolved	0.2	mg/L
Dibromoacetic acid	1.00	ug/L
Dichloroacetic acid	1.00	ug/L
Haloacetic Acids, total (HAA5)	5.00	ug/L
Mercury	0.0050	µg/L
Microcystin	0.20	µg/L
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00490	µg/L
Nitrate-Nitrite Nitrogen	0.01	mg N/L
Nitrate-Nitrogen	0.01	mg N/L
Nitrilotriacetic acid	0.40	mg/L
Nitrite-Nitrogen	0.005	mg N/L
Perfluorobutane sulfonic acid (PFBS)	0.0020	µg/L
Perfluorobutanoic acid [PFBA]	0.020	µg/L
Perfluoroheptanoic acid [PFHpA]	0.0020	µg/L
Perfluorohexanesulfonic acid [PFHxS]	0.0020	µg/L
Perfluorohexanoic acid [PFHxA]	0.0020	µg/L
Perfluorononanoic acid [PFNA]	0.0020	µg/L
Perfluorooctanesulfonic acid [PFOS]	0.0020	µg/L
Perfluorooctanoic acid (PFOA)	0.0020	µg/L
Perfluoropentanoic acid (PFPeA)	0.0020	µg/L
Sulphate Dissolved	0.2	mg/L
Total Cyanide	0.0200	mg/L
Total Kjeldahl Nitrogen (TKN)	0.1	mg/L
Total Sulphide (as S)	0.0015	mg/L
Trichloroacetic acid	1.00	ug/L

2.2.24 EXPLANATION OF NOTATIONS USED

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

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