

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

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	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

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

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

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

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

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

**2.2.2 Bacteriological Data: Distribution System
2024**

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

**2.2.2 Bacteriological Data: Distribution System
2024**

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

**2.2.2 Bacteriological Data: Distribution System
2024**

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

**2.2.2 Bacteriological Data: Distribution System
2024**

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

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

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

**2.2.2 Bacteriological Data: Distribution System
2024**

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)						
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max			
Samples from Complaints												
January	15	0	0.0	0	0.0	15	0.36	0.14	1.50			
February	7	0	0.0	0	0.0	7	0.17	0.12	0.32			
March	13	0	0.0	0	0.0	13	0.18	0.11	0.42			
April	16	0	0.0	0	0.0	16	0.35	0.12	0.75			
May	11	0	0.0	0	0.0	11	0.27	0.10	0.49			
June	13	0	0.0	0	0.0	13	0.39	0.11	0.91			
July	11	0	0.0	0	0.0	11	0.64	0.24	1.66			
August	19	0	0.0	0	0.0	19	4.04	0.10	42.04			
September	13	0	0.0	0	0.0	13	0.48	0.14	1.12			
October	10	0	0.0	0	0.0	10	0.25	0.11	0.39			
November	8	0	0.0	0	0.0	7	0.29	0.11	0.62			
December	4	0	0.0	0	0.0	4	0.15	0.10	0.22			
	Year to Date			140	0	0.0	0	0.0	139	0.79	0.10	42.04
Samples from Depressurizations												
January	70	0	0.0	0	0.0							
February	48	0	0.0	0	0.0							
March	37	0	0.0	0	0.0							
April	45	0	0.0	0	0.0							
May	44	0	0.0	0	0.0							
June	42	0	0.0	0	0.0							
July	42	0	0.0	0	0.0							
August	32	0	0.0	0	0.0							
September	48	0	0.0	0	0.0							
October	49	0	0.0	0	0.0							
November	55	0	0.0	0	0.0							
December	36	0	0.0	0	0.0							
	Year to Date			548	0	0.0	0	0.0				