

2.2.1 Bacteriological Data: Water Treatment Plants

September 2017

Treated Water Entering the Distribution System

	ROSSDALE			E.L. SMITH			YTD (combined)			Limit	Unit
	# Samples	# +ve	% +ve	# Samples	# +ve	% +ve	# Samples	# +ve	% +ve	Approval	
Coliforms, total	30	0	0	30	0	0	546	0	0	0/100 mL	PA/100 mL
E. coli	30	0	0	30	0	0	546	0	0	0/100 mL	PA/100 mL
Heterotrophic Plate Count	30	0	0	30	0	0	545	7	1	N/A	CFU/mL

Water Entering the Plant Reservoir

	ROSSDALE			E.L. SMITH			YTD (combined)			Limit	Unit
	# Samples	# +ve	% +ve	# Samples	# +ve	% +ve	# Samples	# +ve	% +ve	Approval	
Coliforms, total	30	0	0	30	0	0	546	0	0	N/A	PA/100 mL
E. coli	30	0	0	30	0	0	546	0	0	N/A	PA/100 mL
Heterotrophic Plate Count	30	0	0	30	1	3	545	8	1	N/A	CFU/mL

Raw River Water Entering the Treatment Plants

	ROSSDALE			E.L. SMITH			YTD (combined)			Limit	Unit
	# Samples	# +ve	% +ve	# Samples	# +ve	% +ve	# Samples	# +ve	% +ve	Approval	
Coliforms, total	30	30	100	5	5	100	319	319	100	N/A	MPN/100 mL
E. coli	30	30	100	5	5	100	319	319	100	N/A	MPN/100 mL
Heterotrophic Plate Count	1	1	100	1	1	100	20	20	100	N/A	CFU/mL

2.2.2 Bacteriological Data: Distribution System

September 2017

	Coliforms, total			E. coli			HPC		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
January									
FIELD DISTRIBUTION	107	0	0.0	107	0	0.0	107	2	1.9
FIELD DISTRIBUTION - PLPH	62	0	0.0	62	0	0.0	0		0.0
FIELD RESERVOIR	48	0	0.0	48	0	0.0	48	0	0.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	48	0	0.0	0		0.0
Monthly	217	0	0.0	217	0	0.0	155	2	1.3
February									
FIELD DISTRIBUTION	111	0	0.0	111	0	0.0	106	3	2.8
FIELD DISTRIBUTION - PLPH	54	1	1.9	54	0	0.0	0		0.0
FIELD RESERVOIR	48	0	0.0	48	0	0.0	48	2	4.2
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	48	0	0.0	0		0.0
Monthly	213	1	0.5	213	0	0.0	154	5	3.2
March									
FIELD DISTRIBUTION	106	0	0.0	106	0	0.0	106	8	7.5
FIELD DISTRIBUTION - PLPH	56	1	1.8	56	0	0.0	0		0.0
FIELD RESERVOIR	58	0	0.0	58	0	0.0	58	0	0.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	58	0	0.0	58	0	0.0	0		0.0
Monthly	220	1	0.5	220	0	0.0	164	8	4.9
April									
FIELD DISTRIBUTION	107	0	0.0	107	0	0.0	107	6	5.6
FIELD DISTRIBUTION - PLPH	56	0	0.0	56	0	0.0	0		0.0
FIELD RESERVOIR	44	0	0.0	44	0	0.0	44	0	0.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	55	0	0.0	55	0	0.0	0		0.0
Monthly	207	0	0.0	207	0	0.0	151	6	4.0
May									
FIELD DISTRIBUTION	157	0	0.0	157	0	0.0	157	6	3.8
FIELD DISTRIBUTION - PLPH	56	0	0.0	56	0	0.0	0		0.0
FIELD RESERVOIR	58	0	0.0	58	0	0.0	58	2	3.4
FIELD RESERVOIR - PLPH (duplicate-not counted)	57	0	0.0	57	0	0.0	0		0.0
Monthly	271	0	0.0	271	0	0.0	215	8	3.7
June									
FIELD DISTRIBUTION	156	1	0.6	156	0	0.0	156	8	5.1
FIELD DISTRIBUTION - PLPH	55	1	1.8	55	1	1.8	0		0.0
FIELD RESERVOIR	48	0	0.0	48	0	0.0	48	3	6.3
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	48	0	0.0	0		0.0
Monthly	259	2	0.8	259	1	0.4	204	11	5.4

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September 2017

	Coliforms, total			E. coli			HPC		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
July									
FIELD DISTRIBUTION	148	0	0.0	148	0	0.0	148	12	8.1
FIELD DISTRIBUTION - PLPH	54	1	1.9	54	0	0.0	0		0.0
FIELD RESERVOIR	49	0	0.0	49	0	0.0	48	1	2.1
FIELD RESERVOIR - PLPH (duplicate-not counted)	42	0	0.0	42	0	0.0	0		0.0
Monthly	251	1	0.4	251	0	0.0	196	13	6.6
August									
FIELD DISTRIBUTION	128	0	0.0	128	0	0.0	128	5	3.9
FIELD DISTRIBUTION - PLPH	55	0	0.0	55	0	0.0	0		0.0
FIELD RESERVOIR	60	0	0.0	60	0	0.0	60	0	0.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	60	0	0.0	60	0	0.0	0		0.0
Monthly	243	0	0.0	243	0	0.0	188	5	2.7
September									
FIELD DISTRIBUTION	139	0	0.0	139	0	0.0	138	8	5.8
FIELD DISTRIBUTION - PLPH	55	0	0.0	55	0	0.0	0		0.0
FIELD RESERVOIR	49	0	0.0	49	0	0.0	49	1	2.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	60	0	0.0	60	0	0.0	0		0.0
Monthly	243	0	0.0	243	0	0.0	187	9	4.8
Year to Date	2,124	5	0.2	2,124	1	0.0	1,614	67	4.2

Guidelines for Canadian Drinking Water Quality recommend 180 bacteriological samples for a city the size of Edmonton. Total Coliform and E.coli testing is required in the AEP Approval. HPC bacteria testing is additional testing and is not required by approval.

Testing conducted by Laboratory for Public Health are labelled with PLPH.

*follow up on June positive E. coli as per Alberta Environment and Parks (AEP) all showed negative results which suggests that the positive result was due to recent plumbing work. New faucet/pipes that were not exposed to a disinfection agent after installation which could have been a factor in the positive result.

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Samples from Depressurizations

	Coliforms, total			E. coli			Heterotrophic Plate Count		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
January	64	0	0.0	64	0	0.0	0	0	0.0
February	65	0	0.0	65	0	0.0	0	0	0.0
March	65	0	0.0	65	0	0.0	0	0	0.0
April	42	0	0.0	42	0	0.0	0	0	0.0
May	70	0	0.0	70	0	0.0	0	0	0.0
June	121	4	3.3	121	0	0.0	12	2	16.7
July	89	4	4.5	89	0	0.0	0	0	0.0
August	60	1	1.7	60	0	0.0	0	0	0.0
September	64	0	0.0	64	0	0.0	0	0	0.0
YTD	640	9	1.4	640	0	0.0	12	2	16.7

Samples from Complaints

	Coliforms, total			E. coli			Heterotrophic Plate Count		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
January	9	0	0.0	9	0	0.0	9	1	11.1
February	9	0	0.0	9	0	0.0	9	0	0.0
March	6	0	0.0	6	0	0.0	6	1	16.7
April	12	0	0.0	12	0	0.0	12	1	8.3
May	11	0	0.0	11	0	0.0	11	2	18.2
June	5	0	0.0	5	0	0.0	5	0	0.0
July	9	0	0.0	9	0	0.0	9	1	11.1
August	5	0	0.0	5	0	0.0	5	0	0.0
September	4	0	0.0	4	0	0.0	4	0	0.0
YTD	70	0	0.0	70	0	0.0	70	6	8.6