

2.2.1 Bacteriological Data: Water Treatment Plants

October 2016

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	31	0	0	31	0	0	612	1	0	0/100 mL	PA/100 mL
E. coli	31	0	0	31	0	0	612	1	0	0/100 mL	PA/100 mL
Heterotrophic Plate Count	31	0	0	31	0	0	611	13	2	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	31	0	0	31	0	0	611	0	0	N/A	PA/100 mL
E. coli	31	0	0	31	0	0	611	0	0	N/A	PA/100 mL
Heterotrophic Plate Count	31	2	6	31	0	0	610	7	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	31	31	100	4	4	100	349	349	100	N/A	MPN/100 mL
E. coli	31	31	100	4	3	75	349	348	100	N/A	MPN/100 mL
Heterotrophic Plate Count	1	1	100	1	1	100	20	20	100	N/A	CFU/mL

January: Incorrect sampling procedure produced a false *E. coli* result at E.L. Smith WTP.

2.2.2 Bacteriological Data: Distribution System

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	Coliforms, total			E. coli			HPC		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
January									
FIELD DISTRIBUTION	115	0	0.0	115	0	0.0	115	9	7.8
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	0	0.0	0		0.0
FIELD RESERVOIR	48	0	0.0	48	0	0.0	48	1	2.1
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	163	10	6.1
February									
FIELD DISTRIBUTION	110	0	0.0	110	0	0.0	110	1	0.9
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	0	0.0	0		0.0
FIELD RESERVOIR	47	0	0.0	47	0	0.0	47	0	0.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	47	0	0.0	47	0	0.0	0		0.0
Monthly	211	0	0.0	211	0	0.0	157	1	0.6
March									
FIELD DISTRIBUTION	107	0	0.0	107	0	0.0	107	2	1.9
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	0	0.0	0		0.0
FIELD RESERVOIR	60	0	0.0	60	0	0.0	60	2	3.3
FIELD RESERVOIR - PLPH (duplicate-not counted)	59	0	0.0	59	0	0.0	0		0.0
Monthly	221	0	0.0	221	0	0.0	167	4	2.4
April									
FIELD DISTRIBUTION	110	0	0.0	110	0	0.0	110	1	0.9
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	0	0.0	0		0.0
FIELD RESERVOIR	44	0	0.0	44	0	0.0	44	2	4.5
FIELD RESERVOIR - PLPH (duplicate-not counted)	44	0	0.0	44	0	0.0	0		0.0
Monthly	208	0	0.0	208	0	0.0	154	3	1.9
May									
FIELD DISTRIBUTION	112	1	0.9	112	0	0.0	112	4	3.6
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	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	214	1	0.5	214	0	0.0	160	4	2.5
June									
FIELD DISTRIBUTION	105	0	0.0	105	0	0.0	105	3	2.9
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	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	219	0	0.0	219	0	0.0	165	3	1.8

Guidelines for Canadian Drinking Water Quality recommend 180 bacteriological samples for a city the size of Edmonton. HPC are not required.

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

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	Coliforms, total			E. coli			HPC		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
July									
FIELD DISTRIBUTION	108	0	0.0	108	0	0.0	108	9	8.3
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	0	0.0	0		0.0
FIELD RESERVOIR	47	0	0.0	47	0	0.0	47	0	0.0
FIELD RESERVOIR - PLPH (duplicate-not counted)	47	0	0.0	47	0	0.0	0		0.0
Monthly	209	0	0.0	209	0	0.0	155	9	5.8
August									
FIELD DISTRIBUTION	111	1	0.9	111	0	0.0	111	8	7.2
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	0	0.0	0		0.0
FIELD RESERVOIR	60	0	0.0	60	0	0.0	60	1	1.7
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	48	0	0.0	0		0.0
Monthly	225	1	0.4	225	0	0.0	171	9	5.3
September									
FIELD DISTRIBUTION	109	0	0.0	109	0	0.0	108	0	0.0
FIELD DISTRIBUTION - PLPH	54	0	0.0	54	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	211	0	0.0	211	0	0.0	156	0	0.0
October									
FIELD DISTRIBUTION	104	0	0.0	104	0	0.0	103	2	1.9
FIELD DISTRIBUTION - PLPH	56	0	0.0	56	0	0.0	0		0.0
FIELD RESERVOIR	48	0	0.0	48	0	0.0	48	1	2.1
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	48	0	0.0	0		0.0
Monthly	208	0	0.0	208	0	0.0	151	3	2.0
Year to Date	2,143	2	0.1	2,143	0	0.0	1,599	46	2.9

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October 2016

Samples from Depressurizations

	Coliforms, total			E. coli			Heterotrophic Plate Count		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
January	46	0	0.0	46	0	0.0	0	0	0.0
February	50	0	0.0	50	0	0.0	0	0	0.0
March	70	0	0.0	70	0	0.0	0	0	0.0
April	72	0	0.0	72	0	0.0	0	0	0.0
May	76	1	1.3	76	0	0.0	2	0	0.0
June	91	0	0.0	91	0	0.0	0	0	0.0
July	100	1	1.0	100	0	0.0	0	0	0.0
August	106	4	3.8	106	0	0.0	5	0	0.0
September	92	2	2.2	92	1	1.1	1	0	0.0
October	66	1	1.5	66	0	0.0	0	0	0.0
YTD	769	9	1.2	769	1	0.1	8	0	0.0

Samples from Complaints

	Coliforms, total			E. coli			Heterotrophic Plate Count		
	Count	# +ve	% +ve	Count	# +ve	% +ve	Count	# +ve	% +ve
January	11	0	0.0	11	0	0.0	11	0	0.0
February	12	0	0.0	12	0	0.0	12	0	0.0
March	16	0	0.0	16	0	0.0	16	0	0.0
April	17	0	0.0	17	0	0.0	17	0	0.0
May	19	0	0.0	19	0	0.0	19	0	0.0
June	16	0	0.0	16	0	0.0	16	0	0.0
July	11	0	0.0	11	0	0.0	11	1	9.1
August	13	0	0.0	13	0	0.0	13	0	0.0
September	18	0	0.0	18	0	0.0	17	1	5.9
October	24	1	4.2	24	0	0.0	24	2	8.3
YTD	157	1	0.6	157	0	0.0	156	4	2.6

The positive *E. coli* in September was confirmed to be a false positive sample due to a compromised sample point.