PUBLIC WORKS

Kentville

2019 Annual Report on Town of Kentville Municipal Drinking Water

DIRECTOR OF PUBLIC WORKS AND ENGINEERING DAVID BELL, P.ENG., JIM RAFUSE AND LEROY DILLMAN, SUBMITTED TO NOVA SCOTIA DEPARTMENT OF ENVIRONMENT

Contents

PART 1 - STANDARD SUBMISSIONS

Has the Utility submitted following updates for the next year:

Required Submission	**Yes**	**No**	**N/A**
Contingency Plan	Yes		
Notification Procedure	Yes		
Annual Sampling Plan (including sampling points location)	Yes		
QA/QC	Yes		
Source Water Protection Plan	Yes		
Lab Information			N/A
Operations Manual	Yes		
Staff List and certification	Yes		

PART 2 - WATER TREATMENT PLANT MONITORING

WATER TREATMENT

Table 1. Raw water flow - All Sources

Month	PROSPECT AVE Monthly Volume (m^3)	MITCHELL AVE. Monthly Volume (m^3)	TOTAL Monthly Volume (m^3)
January	80,749.4	11,745.6	92,495.0
February	69,687.2	8,565.6	15,552.8
March	84,812.4	11,651.5	96,463.9
April	83,035.2	11,385.4	94,420.6
May	87,930.6	12,809.4	100,740.0
June	85,897.7	13,972.7	99,870.4
July	99,888.4	15,920.0	115,808.4
August	107,595.5	17,225.8	124,821.3
September	90,040.1	13,748.8	103,788.9
October	88,452.3	15,151.4	103,603.7
November	81,986.4	14,376.5	96,362.90
December	83,344.1	13,138.5	96,482.60
Total for the year	**1,043,419.3**	**159,691.2**	**1,140,410.5**

Table 2. Raw water flow - East End Well Pump # 1 (aka Mitchell East No. 1)

Month	**Total Monthly Volume (m^3)**	**Max Pumping Rate (3-day)(m^3/h)**
January	18,992	62
February	18,154	61
March	20,614	61
April	19,462	62
May	20,443	61
June	19,234	61
July	20,401	60
August	21,202	60
September	19,716	62
October	20,860	61
November	19,301	65
December	20,865	61
Total for the year	**239,244**	**-**
Maximum month	**21,202**	**65**
Average	**19,937**	**61**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit volume: Annual 644,911.200 m^3 30 day 53,006.400 m^3 Withdrawal limit rate: 81.84 m^3/h	

Comments:

Table 3. Raw water flow - East End Well Pump # 2 (aka Mitchell East No. 2)

Month	Total Monthly Volume (m^3)	Max Pumping Rate (3-day)(m^3/h)
January	18,567	65
February	16,190	65
March	18,061	59
April	17,476	64
May	18,182	58
June	17,367	58
July	18,884	57
August	24,885	57
September	17,516	64
October	18,229	59
November	18,808	59
December	19,500	59
Total for the year	**223,665**	**-**
Maximum month	**24,885**	**65**
Average	**18,645**	**60**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit (volume): Annual 477,770.400 m^3 30 day 39,268.800 m^3 Withdrawal limit (rate): 65.46 m^3/h	

Comments:

Table 4. Raw water flow - Bonavista

Month	Total Monthly Volume (m^3)	Max Pumping Rate (3-day)(m^3/h)
January	8,584	53
February	9,002	53
March	9,004	53
April	9,021	53
May	8,828	53
June	8,025	53
July	12,582	54
August	12,545	53
September	8,402	53
October	10,913	53
November	11,394	63
December	13,983	54
Total for the year	**108,300**	**-**
Maximum month	**13,983**	**63**
Average	**10,190**	**54**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit (volume): Annual 239,148.000 m^3 30 day 19,656.000 m^3 Withdrawal limit (rate): 32.7 m^3/h	

Comments: Although the maximum 3 day rate is above the withdrawl limit (rate) for this one well, the average monthly withdrawl is approximately half the approval limit and the maximum month (December) is at 71% of the 30 day limit. The annual withdrawl is at 45% of the annual limit. We will attempt to throttle this well back so it runs longer at a lower pump rate.

Table 5. Raw water flow - West End Well Pump # 1 (aka West End No. 1)

Month	Total Monthly Volume (m^3)	Max Pumping Rate (3-day)(m^3/h)
January	8,757	54
February	9,379	55
March	9,138	56
April	12,487	54
May	9,114	54
Jun	8,412	54
July	14,251	55
August	13,692	55
September	11,668	54
October	8,791	51
November	12,117	51
December	15,073	50
Total for the year	**132,879**	**-**
Maximum month	**15,073**	**56**
Average	**11,073**	**54**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit (volume): Annual 573,429.600 m^3 30 day 47,131.200 m^3 Withdrawal limit (rate): ~76.4 m^3/h	

Comments:

Table 6. Raw water flow - West End Well Pump # 2 (aka West End No. 2)

Month	Total Monthly Volume (m^3)	Max Pumping Rate (3-day)(m^3/h)
January	24,049	63
February	21,562	61
March	32,641	63
April	25,683	61
May	28,503	62
June	29,729	61
July	33,773	61
August	35,978	61
September	30,101	60
October	30,085	61
November	19229	61
December	14,683	66
Total for the year	**326,016**	**-**
Maximum month	**35,978**	**66**
Average	**27,168**	**62**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit (volume): Annual 573,429.600 m^3 30 day 47,131.200 m^3 Withdrawal limit (rate): ~76.4 m^3/h	

Comments:

Table 7. Raw water flow - Mitchell Ave. Well Pump 1D

Month	Total Monthly Volume (m^3)	Max Pumping Rate (3-day)(m^3/h)
January	6,090	46
February	4,842	44
March	5,783	45
April	5,256	46
May	6,458	47
June	6,402	43
July	7,683	44
August	7,737	44
September	6,625	43
October	6,766	41
November	7244	41
December	5,956	43
Total for the year	**76,842**	**-**
Maximum month	**7,737**	**47**
Average	**6,404**	**44**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit (volume): Annual 315,360.000 m^3 30 day 25,920.000 m^3 Withdrawal limit (rate): ~47.1 m^3/h	

Comments:

Table 8. Raw water flow - Mitchell Ave Well Pump 2

Month	Total Monthly Volume (m^3)	Max Pumping Rate (3-day)(m^3/h)
January	5,667	47
February	5,184	47
March	5,873	47
April	6,313	47
May	6,458	62
June	7,272	46
July	8,217	44
August	9,224	43
September	7,324	43
October	8,712	45
November	7134	42
December	6,959	42
Total for the year	**84,337**	**-**
Maximum month	**9,224**	**62**
Average	**7,028**	**46**
Water withdraw Approval No 2003-037109-A01	Withdrawal limit (volume): Annual 329,148.000 m^3 30 day 27,053.250 m^3 Withdrawal limit (rate): ~90.0 m^3/h	

Comments:

Table 9. Filtered water turbidity Kentville is not required to filter raw water

Table 10. Well water turbidity is not sampled from the withdrawal wells

Table 11. Chlorine - Prospect Tank (leaving treatment plant or well)

Month	Chlorine (Disinfectant residual) (mg/l)			CT value
	Minimum this month	How many times below Approval limit (0.2 mg/L)	Maximum this month	How many times $CT_{achieved}$ was less than $CT_{required}$
January	0.88	0	0.92	0
February	0.88	0	0.93	0
March	0.83	0	0.91	0
April	0.85	0	0.93	0
May	0.81	0	0.93	0
June	0.79	0	0.93	0
July	0.88	0	0.93	0
August	0.87	0	0.92	0
September	0.85	0	0.92	0
October	0.89	0	0.94	0
November	080	0	0.91	0
December	0.81	0	0.93	0
If Approval Limits were exceeded provide date of occurrence and date when Department was notified:				
If CT requirements were not met provide date of occurrence and date when Department was notified:				
NOTE: CT values must be calculated daily, or minimum operational conditions must be monitored daily and records kept by Approval Holder				
MINIMUM OPERATIONAL PARAMETERS TO PROVIDE REQUIRED CT (CT calculations for “worst case scenario” must be provided to Department)				
Peak Hourly Flow			223 m^3	
Temperature at CT control Point			5 °C	
Minimum residual at CT control Point			0.50 mg/l	
pH at CT control Point			7.37 to 8.06	
Water level in the tank during peak hourly flow			75%	

Table 12. Chlorine Disinfection – Kentville Kentville Chrysler

Month	Chlorine (Disinfectant residual) (mg/l)			CT value
	Minimum this month	How many times below Approval limit (0.2 mg/L)	Maximum this month	How many times $CT_{achieved}$ was less than $CT_{required}$
January	0.82	0	0.91	0
February	0.84	0	0.92	0
March	0.84	0	0.91	0
April	0.85	0	0.90	0
May	0.78	0	0.93	0
June	0.84	0	0.92	0
July	0.87	0	0.91	0
August	0.87	0	0.92	0
September	0.79	0	0.92	0
October	0.81	0	0.93	0
November	0.85	0	0.94	0
December	0.85	0	0.93	0
If CT requirements were not met provide date of occurrence and date when Department was notified:				
NOTE: CT values must be calculated daily, or minimum operational conditions must be monitored daily and records kept by Approval Holder				
MINIMUM OPERATIONAL PARAMETERS TO PROVIDE REQUIRED CT (CT calculations for “worst case scenario” must be provided to Department)				
Peak Hourly Flow			223 m^3	
Temperature at CT control Point			5 ^oC	
Minimum residual at CT control Point			0.50	
pH at CT control Point			7.37 to 8.08	
Water level in the tank during peak hourly flow			75%	

Table 13. Bacteriological quality Prospect Avenue (leaving treatment plant or GUDI well) - not required

Table 14. Bacteriological quality Mitchell Avenue (leaving treatment plant or GUDI well) - not required

Table 15. Fluoride

Month	Minimum this month (mg/l)	Maximum this month (mg/l)
January	0.60	1.00
February	0.50	0.70
March	0.60	0.90
April	0.60	0.90
May	0.60	0.90
June	0.60	0.90
July	0.50	0.90
August	0.60	0.90
September	0.50	0.90
October	0.60	0.90
November	0.69	0.78
December	0.68	0.72
Comments:		
Action taken:		

Table 16. Aluminum - Kentville does not use aluminum-based coagulants

Table 17. pH - Prospect Raw Water.

Month	Raw water inlet ("Prospect Raw")		CT Control Point ("Prospect Tank")	
	Minimum this month	Maximum this month	Minimum this month	Maximum this month
January	6.50	7.49	7.43	7.77
February	6.41	6.99	7.45	7.79
March	6.50	6.98	7.45	7.77
April	6.36	6.97	7.44	7.83
May	6.32	6.87	7.49	7.70
June	6.31	7.44	7.46	7.78
July	6.28	6.91	7.40	7.81
August	6.21	7.11	7.42	7.74
September	6.27	6.93	7.40	7.77
October	6.30	6.49	7.42	7.68
November	6.14	6.70	7.40	7.81
December	6.18	6.69	7.40	7.93
Comments:				

Table 18. pH - Mitchell Avenue Raw Water.

Month	Raw water inlet ("Mitchell Raw")		CT Control Point ("Kentville Chrysler")	
	Minimum this month	Maximum this month	Minimum this month	Maximum this month
January	6.38	7.69	7.40	8.04
February	6.31	7.61	7.49	7.90
March	6.37	7.68	7.63	7.89
April	6.19	7.61	7.50	7.91
May	6.26	7.53	7.57	7.80
June	6.24	7.54	7.50	8.03
July	6.19	7.60	7.48	8.04
August	6.22	7.61	7.51	8.05
September	6.08	7.50	7.45	7.91
October	6.18	7.51	7.45	7.69
November	6.09	7.53	7.42	7.83
December	6.12	7.47	7.40	7.93
Comments:				

Table 19. Guidelines for Monitoring Public Drinking Water Supplies (Section 33 of Regulations).
See Part 3 for laboratory results

Parameter	Health based guideline	AO [or OG]	Raw mg/l (maximum this year)	Treated (maximum this year)	Date	Location
Alkalinity	-	-	N/A	76 mg/L	June 27, 2019	Kentville Chrysler
Aluminum	100 ug/L	-	N/A	7 ug/L	June 27, 2019	Belcher St. Tank
Ammonia	-	-	N/A	0.04 ug/L	June 27, 2019	Kentville Chrysler
Antimony	6 ug/L	-	N/A	<2 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler
Arsenic	10 ug/L	-	N/A	2 ug/L	June 27, 2019	Kentville Chrysler
Barium	1000 ug/L	-	N/A	37 ug/L	June 27, 2019	Belcher St. Tank
Boron	5000 ug/L	-	N/A	12	June 27, 2019	Belcher St. Tank
Cadmium	5 ug/L	-	N/A	<0.09 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler
Calcium	-	-	N/A	28.1 mg/L	June 27, 2019	Belcher St. Tank
Chloride	-	250 mg/L	N/A	94 mg/L	June 27, 2019	Kentville Chrysler
Chromium	50 ug/L	-	N/A	<1 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler
Colour	-	<15	N/A	8	June 27, 2019	Kentville Chrysler
Conductivity	Umho/cm	-	N/A	569	June 27, 2019	Kentville Chrysler
Copper	-	1000 ug/L	N/A	13	June 27, 2019	Kentville Chrysler
Fluoride	1.5 mg/L	-	N/A	0.57 mg/L	June 27, 2019	Kentville Chrysler
Hardness	-	-	N/A	93.2 mg/l	June 27, 2019	Belcher St. Tank
Iron	-	300 ug/L	N/A	73 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler

Parameter	Health based guideline	AO [or OG]	Raw mg/l (maximum this year)	Treated (maximum this year)	Date	Location
Lead	5 ug/L	-	N/A	<0.5 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler
Magnesium	-	-	N/A	5.6 mg/L	June 27, 2019	Belcher St. Tank
Manganese	-	20 ug/L	N/A	<2 ug/L	June 27, 2019	Belcher St tank, Kentville Chrysler
Nitrate - nitrogen	10 mg/L	-	N/A	0.96 mg/L	June 27, 2019	Kentville Chrysler
pH	-	6.5-8.5	N/A	8.01	June 27, 2019	Belcher St. Tank
Potassium	-	-	N/A	2.9 mg/L	June 27, 2019	Belcher St. Tank
Selenium	50 ug/L	-	N/A	<1 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler
Sodium	-	200 mg/L	N/A	72.4	June 27, 2019	Kentville Chrysler
Sulphate	-	500 mg/L	N/A	12 mg/L	June 27, 2019	Kentville Chrysler
Total Dissolved Solids (TDS)	-	500 mg/L	N/A	264 mg/L	June 27, 2019	Kentville Chrysler
Total Organic Carbon	-	-	N/A	1.2 mg/L	June 27, 2019	Kentville Chrysler
Turbidity	See Approval	-	N/A	0.7	June 27, 2019	Kentville Chrysler
Uranium	20 ug/L	-	N/A	0.5 ug/L	June 27, 2019	Kentville Chrysler
Zinc	-	5000 ug/L	N/A	<5 ug/L	June 27, 2019	Belcher St. Tank, Kentville Chrysler

Has any of the parameter exceeded Guidelines No.
If Yes provide date of occurrence and date when Department was notified:
Action taken:
Certified Lab: AGAT Laboratories

Table 20. Prospect Avenue Raw Water turbidity from distribution points

Month	Minimum NTU	Maximum NTU
January	0.09	0.19
February	0.13	0.21
March	0.14	0.21
April	0.09	0.23
May	0.09	0.20
June	0.08	0.20
July	0.09	0.23
August	0.10	0.18
September	0.08	0.24
October	0.12	0.22
November	0.09	0.20
December	0.11	0.21

Table 21. Mitchell Avenue Raw Water turbidity

Month	Minimum NTU	Maximum NTU
January	0.17	0.26
February	0.18	0.28
March	0.16	0.27
April	0.09	0.28
May	0.07	0.29
June	0.12	0.26
July	0.04	0.24
August	0.08	0.23
September	0.13	0.24
October	0.10	0.24
November	0.09	0.26
December	0.12	0.25

WASTE TREATMENT

Waste water discharge – This does not apply to the Kentville Water Utility

PART 3 - WATER DISTRIBUTION SYSTEM MONITORING

Table 22 A. Distribution System Bacteriology and Disinfection Residual

Site : A	4 Locations: Public Works 875 West Main Street, Research Station, Belcher St. Booster Stn, Camp Aldershot										
Month	*E.coli*				Total Coliforms				Free chlorine residual		
	Present	Absent	Total number of samples	% Absent	Present	Absent	Total number of samples	% Absent	Min mg/l	Max mg/l	No. below Approval Limits
January	0	20	4 samples X 5 weeks	100	0	20	4 X 5	100	0.68	0.85	0
February	0	16	4 X 4	100	0	16	4 X 4	100	0.70	0.92	0
March	0	16	4 X 4	100	0	16	4 X 4	100	0.68	0.86	0
April	0	16	4 X 4	100	0	16	4 X 4	100	0.67	0.83	0
May	0	20	4 X 5	100	0	20	4 X 5	100	0.68	0.92	0
June	0	16	4 X 4	100	0	16	4 X 4	100	0.72	0.90	0
July	0	20	4 X 5	100	0	20	4 X 5	100	0.73	0.85	0
August	0	16	4 X 4	100	0	16	4 X 4	100	0.73	0.84	0
September	0	16	4 X 4	100	0	16	4 X 4	100	0.63	0.84	0
October	0	20	4 X 5	100	0	20	4 X 5	100	0.73	0.92	0
November	0	20	5 X 4	100	0	20	5 X 4	100	0.73	0.90	0
December	0	25	5 X 5	100	0	25	5 X 5	100	0.73	0.91	0
If Approval limits exceeded, provide date of occurrence and date when epartment was notified:											

Table 22 B. Distribution System Bacteriology and Disinfection Residual

Site : B	2 Locations: Kentville Chrysler, Scott Slipp Nissan both in the Kentville Business Park										
Month	*E.coli*				Total Coliforms				Free chlorine residual		
	Present	Absent	Total number of samples	% Absent	Present	Absent	Total number of samples	% Absent	Min mg/l	Max mg/l	No. below 0.2 mg/l
January	0	10	2 samples X 5 weeks	100	0	10	2 X 5	100	0.82	0.90	0
February	0	8	2 X 4	100	0	8	2 X 4	100	0.84	0.92	0
March	0	8	2 X 4	100	0	8	2 X 4	100	0.87	0.91	0
April	0	8	2 X 4	100	0	8	2 X 4	100	0.82	0.90	0
May	0	10	2 X 5	100	0	10	2 X 5	100	0.82	0.92	0
June	0	8	2 X 4	100	0	8	2 X 4	100	0.84	0.90	0
July	0	10	2 X 5	100	0	10	2 X 5	100	0.80	0.90	0
August	0	8	2 X 4	100	0	8	2 X 4	100	0.84	0.91	0
September	0	8	2 X 4	100	0	8	2 X 4	100	0.79	0.91	0
October	0	10	2 X 5	100	0	10	2 X 5	100	0.86	0.91	0
November	0	8	2 X 4	100	0	8	2 X 4	100	0.85	0.90	0
December	0	10	2 X 5	100	0	10	2 X 5	100	0.85	0.92	0
Was E.Coli or Total Coliform present in any sample this year No											
If Yes provide date of occurrence and date when Department was notified:											
Action taken:											

Table 23. Distribution System THM's (Quarterly)

Month	Site A Location: Belcher Street Tank	Site B Location: Coldbrook Village Park	Site C Location:
	THM total ug/l	THM total ug/l	THM total ug/l
January			
February			
March 28, 2019	1	4	
April			
May			
June 27, 2019	3	6	
July			
August			
September 18, 2019	<1	6	
October			
November			
December 19, 2019	1	5	
Annual Average			
Limits			
Comments:	*Testing can be reduced to annual if all sites have less than 10ug/L for 4 years.* *2019: Criteria achieved. Request for reduction from quarterly to annual THM sampling.*		

Table 24. Distribution System HAA5 (Quarterly)

Month	Site A Location: Kentville Chrysler	Site B Location: Belcher Street Tank	Site C Location:
	HAA5 total ug/l	HAA5 total ug/l	HAA5 total ug/l
January			
February			
March 28, 2019	<4.0	<4.0	
April			
May			
June			
July			
August			
September			
October			
November			
December			
Annual Average			
Limits			
Comments:	***Confirmed by NSE to move from quarterly to annual sampling of HAA5s, May 10, 2019.***		

Table 25. Distribution System Turbidity

Month	Site A - Public Works Location: 875 West Main Street		Site B – Kentville Chrysler Location: 800 Park Street		Site C – Chester Avenue Location: 6060 Hwy 12/Chester Avenue	
	min NTU	max NTU	min NTU	max NTU	min NTU	max NTU
January	0.16	0.24	0.09	0.21	0.12	0.20
February	0.13	0.23	0.08	0.23	0.12	0.18
March	0.15	0.25	0.08	0.20	0.05	0.19
April	0.11	0.26	0.08	0.20	0.05	0.23
May	0.10	0.21	0.06	0.21	0.07	0.17
June	0.10	0.22	0.08	0.19	0.08	0.23
July	0.09	0.17	0.05	0.17	0.08	0.23
August	0.10	0.21	0.07	0.17	0.06	0.18
September	0.10	0.20	0.07	0.18	0.07	0.21
October	0.10	0.19	0.07	0.19	0.09	0.19
November	0.10	0.28	0.07	0.16	0.09	0.19
December	0.08	0.19	0.08	0.17	0.09	0.19
If Approval limits were exceeded provide date of occurrence and date when Department was notified:						
Action taken:						

Month	Site D – Research Station Location: 32 Main Street		Site E – Town Hall Location: 354 Main Street		Site F – Belcher Street Booster Stn. Location: 259 Belcher Street	
	min NTU	max NTU	min NTU	max NTU	min NTU	max NTU
January	0.14	0.25	0.13	0.20	0.14	0.22
February	0.11	0.24	0.11	0.21	0.10	0.21
March	0.10	0.28	0.05	0.21	0.10	0.20
April	0.08	0.24	0.05	0.21	0.09	0.22
May	0.09	0.28	0.09	0.19	0.09	0.26
June	0.11	0.24	0.09	0.21	0.10	0.24
July	0.08	0.25	0.07	0.19	0.08	0.23
August	0.07	0.18	0.09	0.19	0.08	0.19
September	0.09	0.24	0.10	0.19	0.08	0.21
October	0.10	0.19	0.08	0.19	0.08	0.19
November	0.10	0.21	0.12	0.20	0.80	0.27
December	0.11	0.19	0.12	0.20	0.13	0.26
If Approval limits were exceeded provide date of occurrence and date when Department was notified:						
Action taken:						

Month	Site G – Medical Center Location: 81 Exhibition Street		Site H – Camp Aldershot Location: Lanzy Road		Site I – Scott Drive Sampling Station Location: Scott Drive	
	min NTU	max NTU	min NTU	max NTU	min NTU	Max NTU
January	0.12	0.23	0.13	0.23	0.14	0.22
February	0.10	0.19	0.07	0.21	0.15	0.19
March	0.09	0.26	0.08	0.20	0.10	0.23
April	0.08	0.22	0.06	0.21	0.10	0.22
May	0.06	0.25	0.07	0.21	0.08	0.20
June	0.12	0.21	0.08	0.25	0.10	0.24
July	0.09	0.19	0.06	0.20	0.06	0.20
August	0.08	0.18	0.09	0.18	0.07	0.19
September	0.09	0.19	0.06	0.21	0.09	0.20
October	0.08	0.19	0.06	0.20	0.11	0.19
November	0.10	0.21	0.09	0.22	0.09	0.19
December	0.10	0.19	0.08	0.29	0.09	0.20
If Approval limits were exceeded provide date of occurrence and date when Department was notified:						
Action taken:						

Month	Site J – Elizabeth Drive Sampling Station Location: Balsor Subdivision		Site K – Morris Crescent Sampling Station Location: Eaglecrest Subdivision	
	min NTU	max NTU	min NTU	max NTU
January	0.11	0.22	0.10	0.21
February	0.10	0.20	0.10	0.21
March	0.12	0.23	0.09	0.20
April	0.08	0.21	0.06	0.22
May	0.05	0.20	0.08	0.19
June	0.02	0.18	0.08	0.23
July	0.07	0.20	0.07	0.17
August	0.07	0.19	0.07	0.17
September	0.07	0.21	0.06	0.21
October	0.08	0.21	0.09	0.20
November	0.08	0.21	0.07	0.18
December	0.09	0.20	010	0.26
If Approval limits were exceeded provide date of occurrence and date when Department was notified:				
Action taken:				

Table 26. Distribution System Lead

Month* (specify date sampled)	Site A Location: Belcher Street Tank		Site B Location: Kentville Chrysler		Site C Location: Donald Hiltz	
	min ug/l	max ug/l	min ug/l	max ug/l	min ug/l	max ug/l
May						
June	<0.5	<0.5	<0.5	<0.5	No sample	No sample
July						
August						
September						
October						
If Approval limits were exceeded provide date of occurrence and date when Department was notified:						

Note: Residential samples were not collected in 2019.

Table 27. Distribution System Langelier Index.

Month	Site A - Belcher Street Reservoir Location: _ Belcher Street		Site B – Kentville Chrysler Location: Pelton Drive, Kentville	
	Parameter 1 20 C	Parameter 2 4 C	Parameter 1 20 C	Parameter 2 4 C
January				
February				
March 28, 2019	-0.28	-0.60	-0.35	-0.67
April				
May				
June				
July				
August				
September 18, 2019	-0.29	-0.61	-0.30	-0.62
October				
November				
December 19, 2019	-0.34	-0.66	-0.33	-0.65
Comments:				

Table 28. Storage tank chlorine residual

Month	Storage Tank Prospect Avenue ("Prospect Tank")			Storage Tank Kentville Business Park ("Kentville Chrysler")		
	Min mg/l	Max mg/l	Number of times residual was less than 0.2 mg/l	Min mg/l	Max mg/l	Number of times residual was less than 0.2 mg/l
January	0.88	0.92	0	0.82	0.91	0
February	0.88	0.93	0	0.84	0.92	0
March	0.83	0.91	0	0.84	0.91	0
April	0.85	0.93	0	0.85	0.90	0
May	0.81	0.93	0	0.78	0.93	0
June	0.79	0.93	0	0.84	0.92	0
July	0.88	0.93	0	0.87	0.91	0
August	0.87	0.92	0	0.87	0.92	0
September	0.85	0.92	0	0.79	0.92	0
October	0.89	0.94	0	0.81	0.93	0
November	0.80	0.91	0	0.85	0.94	0
December	0.81	0.93	0	0.85	0.82	0
Action taken:						
Certified Lab:						

SOURCE WATER PROTECTION PLAN ANNUAL UPDATE CHECKLIST

Yearly review of the source water protection (SWP) plan is required. The review should consider questions including, but not limited, those listed below. Every five years, or whenever significant changes to the municipal water system or risks to its source occur, the municipal unit should consider revising the plan. Otherwise, updates may be added to the original source water protection plans in an appropriately identified appendix.

QUESTIONS TO CONSIDER IN ANNUAL UPDATE
How many source water committee meetings have been held in the past year? Have there been any changes to committee membership? **The Sourcewater Protection Advisory Group met 4 times in 2019 (March, September, November and December). One member has resigned from the committee and currently looking for a replacement.**
Have there been any changes made to the committee terms of reference? **There have been no changes made to the terms of reference for the Sourcewater Protection Advisory Group.**
Have changes to the system infrastructure been made (e.g. wells constructed or decommissioned)? **There have been no changes made to the system infrastructure.**
Have any new risks to the watershed or aquifer area been identified? For example: have new land uses which could impact the source water commenced (or existing uses changed or ceased) within the watershed or aquifer area? have recreational uses of concern continued, declined or increased with the past year within the watershed or aquifer area? **There have been no new risks identified for the protected aquifer area.**
If new risks have been identified, what risk reduction strategies will be employed? **n/a**
Have any accidents/emergencies not considered in the contingency plan occurred within the watershed or aquifer area within the past year? **There have been no accidents or emergencies in the aquifer area in 2019.**
Has source water monitoring (differs from regulatory compliance monitoring) been undertaken? Please describe the results. **There has been no sourcewater monitoring in 2019.**
Has your contingency plan been reviewed and contact information updated? **The sourcewater protection plan contingency plan and contact information have been updated in 2019.**
Have any accidents/emergencies not considered in the contingency plan occurred within the watershed or aquifer area within the past year? **There have been no accidents or emergencies in the aquifer area in 2019.**

DESCRIPTION OF ANY EMERGENCY AND UPSET CONDITIONS AND CORRECTIVE ACTION

No emergencies and no corrective action required.

RECORD OF ANY VIOLATIONS OF APPROVAL AND CORRECTIVE ACTIONS TAKEN:

There have been no violations of approvals for operation or for withdrawal.

SUMMARY OF COMPLAINTS RECEIVED AND CORRECTIVE ACTIONS:

There have not been complaints and no corrective action was required.

AUTHORIZATION

I certify that information provided in this report is a complete and accurate representation of Water System operation.

Offences under the Environment Act:

158 A person who

(a) knowingly provides false or misleading information pursuant to a requirement under this Act to provide information;
(b) provides false or misleading information pursuant to a requirement under this Act to provide information;
(c) does not provide information as required pursuant to this Act;
(d) hinders or obstructs an inspector or administrator who is exercising powers or carrying out duties, or attempting to do so, pursuant to this Act;
(e) knowingly contravenes a term or condition of an approval, an environmental assessment approval, a temporary approval, a certificate of variance or a certificate of qualification;

Name of the person in overall direct responsible charge:
Director of Engineering & Public Works, David Bell Signature D. Bell

Manager responsible for water system Operators:
James Rafuse Signature James Rafuse

LeRoy Dillman Signature LeRoy Dillman

APPENDIX A: Health-related Guidelines for Canadian Drinking Water Quality (Section 35 of Regulations). *Next sample event, 2023.*

Parameter	Units	Maximum Acceptable Concentration	September 27, 2018								
			Prospect Tank	Donald Hiltz Connector	Mitchell #1 D	Mitchell #2 C	Bona-vista	West End #1	West End #2	Mitchell East #1	Mitchell East #2
Bacteria: 1) Total Coliforms 2) *E.coli*	cfu	None per 100 mL	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Aldicarb	µg/L		<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Bendiocarb	µg/L		<2	<2	<2	<2	<2	<2	<2	<2	<2
Carbofuran	µg/L	90	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbaryl	µg/L	90	<5	<5	<5	<5	<5	<5	<5	<5	<5
Diuron	µg/L	150	<10	<10	<10	<10	<10	<10	<10	<10	<10
Diquat	µg/L	70	<1	<1	<1	<1	<1	<1	<1	<1	<1
Paraquat	ug/L	10	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Haloacetic Acids*	ug/L	80									
Chloroacetic Acid	ug/L	5	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Bromoacetic Acid	ug/L	120	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Dichloroacetic Acid	ug/L	0.9, 0.0003 AO	1.3	1.7	1.4	1.46	1.3	1.4	1.4	1.3	1.4
Dibromoacetic Acid	ug/L	100	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroacetic Acid	ug/L	9	0.2	0.3	0.2	0.22	0.2	0.2	0.3	0.3	0.2
Bromochloroacetic Acid	%		<0.2	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2-Bromobutanoic acid	µg/L		109	110	121	117	106	119	127	104	109
Bromoxynil	µg/L	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Dicamba	µg/L	120	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	µg/L	0.9, 0.0003 AO	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2,4-D	µg/L	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diclofop-methyl	µg/L	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dinoseb	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MCPA	µg/L		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Pentachlorophenol	µg/L	0.06, 0.03 AO	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Picloram	µg/L	190	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-Tetrachlorophenol	µg/L	100, 1 AO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	µg/L	5, 2 AO	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Glyphosate	mg/L	280	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Aldrin	ug/L		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	ug/L		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Aldrin + Dieldrin	ug/L		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Methoxychlor	µg/L		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Phorate	µg/L	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	µg/L	20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Terbufos	µg/L	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	µg/L	90	<1	<1	<1	<1	<1	<1	<1	<1	<1
Diazinon	µg/L	20	<1	<1	<1	<1	<1	<1	<1	<1	<1

Malathion	µg/L	190	<5	<5	<5	<5	<5	<5	<5	<5	<5
Parathion	µg/L		<1	<1	<1	<1	<1	<1	<1	<1	<1
Azinphos-methyl	µg/L	20	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzo(a)pyrene	ug/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trifluralin	µg/L	45	<1	<1	<1	<1	<1	<1	<1	<1	<1
Simazine	µg/L	10	<1	<1	<1	<1	<1	<1	<1	<1	<1
Atrazine	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Atrazine + N-dealkylated metabolites **	µg/L	5									
Metribuzin	µg/L	80	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Cyanazine	µg/L		<1	<1	<1	<1	<1	<1	<1	<1	<1
Metolachlor	µg/L	50	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
Benzene	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	ug/L		<0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	ug/L		<0.1	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L		<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	ug/L		<0.1	2.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	ug/L	200, 3 AO	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	ug/L	5, 1 AO	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethylene	ug/L	14	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Ethylbenzene	ug/L	2.4 AO	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	ug/L	80, 30 AO	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethylene	ug/L	30	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	ug/L		<0.2	0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethylene	ug/L	5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	ug/L	2	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Xylenes (Total)	ug/L	300 AO	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methylene Chloride (Dichloromethane)	ug/L	50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Methyl-t-Butyl-Ether (MTBE)	ug/L	15 AO	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene-d8	%		115	85	94	95	97	96	78	76	94
4-Bromofluorobenzene	%		74	76	88	96	93	91	91	97	87
Total Aluminum	ug/L	100 OG AO	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Antimony	ug/L	6	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Arsenic	ug/L	10	<2	<2	<2	3	<2	<2	<2	<2	<2
Total Barium	ug/L	1000	31	36	46	14	12	32	32	36	23
Total Boron	ug/L	5000	12	14	14	8	7	9	11	14	8
Total Cadmium	ug/L	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total Chromium	ug/L	50	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Copper	ug/L	1000 AO	2	22	3	<2	3	5	3	3	3
Total Iron	ug/L	300 AO	<50	<50	63	<50	<50	<50	<50	<50	<50
Total Lead	ug/L	10	<0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Total Manganese	ug/L	50 AO	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Selenium	ug/L	10	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Uranium	ug/L	20	0.4	<0.1	<0.1	1.0	1.0	<0.1	<0.1	<0.1	0.1
Total Zinc	ug/L	5000 AO	14	<5	6	<5	<5	<5	<5	5	<5
Total Sodium	mg/L	200 AO	53.1	82.8	93.9	5.4	3.9	34.1	38.5	60.1	28.5
Mercury	ug/L	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH		6.5-8.5 AO	7.98	8.02	6.78	8.04	8.04	7.55	7.54	6.99	7.57
Turbidity	NTU	0.1	1	0.7	1.3	0.9	0.5	0.5	1.7	0.4	0.8
True Color	TCU	15 AO	5	5	5	<5	<5	11	<5	5	<5
Chloride	mg/L	250 AO	68	96	152	45	22	57	63	89	58
Fluoride	mg/L	1.5	0.57	0.48	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Nitrate as N	mg/L	10	0.89	0.94	1.08	0.29	0.84	0.85	0.94	0.92	0.92
Sulphate	mg/L	500 AO	9	13	18	9	4	8	9	11	8
Sulphide	mg/L	0.05 AO	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Free Cyanide	mg/L	0.2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Dissolved Solids	mg/L	500 AO	280	220	380	220	160	200	240	280	240
Bromate	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlorate	mg/L	1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chlorite	mg/L	1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloramines - Total	mg/L	3.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Radionuclides - Gross Alpha	Bq/L	0.5	<0.12	<0.16	<0.16	<0.10	0.12	<0.10	<0.10	<0.12	<0.10
Radionuclides - Gross Beta	Bq/L	1.0	0.17	0.10	0.17	0.07	0.08	0.06	<0.06	0.08	<0.06
Nitriloacetic Acid (NTA)	mg/L	0.4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Microcystin - LR	ug/L	1.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
N-Nitrosodimethylamine (NDMA)	ug/L	0.04	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008

* Total Haloacetic Acids were sampled at Kentville Chrysler and Belcher Street and both samples had <4.0 ug/L

** Atrazine + N-dealkylated metabolites is a parameter that is not part of the pesticide suite analysis package and was not sampled.

PART 3 - WATER SAMPLE RESULTS

PUBLIC WORKS

Kentville

NOVA SCOTIA
Environment
Environmental Monitoring and Compliance

2nd Floor
136 Exhibition Street
Kentville, Nova Scotia
Canada B4N 4E5

902 679-6086 T
902 679-6186 F
www.gov.ns.ca

May 10, 2019

Mr. Mark Phillips
Chief Administrative Officer
354 Main Street
Kentville, NS, B4N 1K6

RE: Request for reduction of HAA sampling frequency for the Town of Kentville

Dear Mr. Phillips:

This is in response to your request to reduce the sampling frequency for HAA's in the water distribution system for the Town of Kentville from quarterly to annual.

Information provided indicates that four consecutive quarterly samples have been within the specification for the 2018 calendar year, so the frequency for HAA5 can be reduced to annual sampling for the Kentville Chrysler and Belcher Street Tank sampling locations. If future sample results exceed the concentration of 0.01 mg/L, then quarterly sampling must be re-instated until four consecutive quarterly sample results are within the required limits.

Please note, if new sampling points are added to the monitoring plan, they will need to be sampled quarterly until four consecutive samples average below 0.01 mg/L.

Feel free to contact me at (902) 679-6086 with any questions that you may have.

Regards,

Katherine MacLeod, P.Eng.
Regional Engineer

AGAT Laboratories

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
http://www.agatlabs.com

CLIENT NAME: TOWN OF KENTVILLE
354 MAIN ST.
KENTVILLE, NS B4N1K6
(902) 679-2521

ATTENTION TO: David Bell

PROJECT:

AGAT WORK ORDER: 19X558058

TRACE ORGANICS REVIEWED BY: Amy Hunter, Trace Organics Supervisor, B.Sc.

WATER ANALYSIS REVIEWED BY: Jason Coughtrey, Inorganics Supervisor

DATE REPORTED: Jan 02, 2020

PAGES (INCLUDING COVER): 7

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19X558058

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: David Bell

SAMPLING SITE:

SAMPLED BY:

Trihalomethanes in Water

DATE RECEIVED: 2019-12-19

DATE REPORTED: 2020-01-02

					SAMPLE DESCRIPTION:	Belcher Street Tank	Coldbrook Village Park Drive
					SAMPLE TYPE:	Water	Water
					DATE SAMPLED:	2019-12-19	2019-12-19
Parameter	**Unit**	**G / S**	**RDL**	**Date Prepared**	**Date Analyzed**	**818134**	**818135**
Chloroform	ug/L		1	2019-12-20	2019-12-31	<1	<1
Bromodichloromethane	ug/L		1	2019-12-20	2019-12-31	<1	2
Dibromochloromethane	ug/L		1	2019-12-20	2019-12-31	1	3
Bromoform	ug/L		1	2019-12-20	2019-12-31	<1	<1
Total Trihalomethanes	ug/L	100	1	2019-12-31	2019-12-31	1	5
Surrogate	**Unit**	**Acceptable Limits**					
Toluene-d8	%	60-140		2019-12-20	2019-12-31	94	94
4-Bromofluorobenzene	%	60-140		2019-12-20	2019-12-31	84	79

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2019-06
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19X558058

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: David Bell

SAMPLING SITE:

SAMPLED BY:

Corrosion / Langelier Index

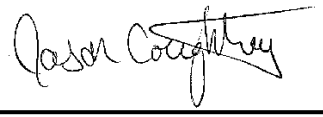
DATE RECEIVED: 2019-12-19

DATE REPORTED: 2020-01-02

Parameter	Unit	G / S	RDL	Date Prepared	Date Analyzed	Kentville Chrysler	Belcher Street Tank
SAMPLE DESCRIPTION:						Kentville Chrysler	Belcher Street Tank
SAMPLE TYPE:						Water	Water
DATE SAMPLED:						2019-12-19	2019-12-19
Total Iron	ug/L		50	2019-12-23	2019-12-23	96	66
pH				2019-12-20	2019-12-20	7.95	7.97
Hardness	mg/L			2019-12-23	2019-12-23	98.4	95.0
Langelier Index (@20C)	NA			2019-12-31	2019-12-31	-0.34	-0.33
Langelier Index (@ 4C)	NA			2019-12-31	2019-12-31	-0.66	-0.65
Saturation pH (@ 20C)	NA			2019-12-31	2019-12-31	8.29	8.30
Saturation pH (@ 4C)	NA			2019-12-31	2019-12-31	8.61	8.62

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to CCME (D Water)
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.
Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X558058

PROJECT:

ATTENTION TO: David Bell

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Jan 02, 2020			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Trihalomethanes in Water															
Chloroform	1	818022	< 1	< 1	NA	< 1	81%	60%	140%	81%	60%	140%	62%	60%	140%
Bromodichloromethane	1	818022	< 1	< 1	NA	< 1	80%	70%	130%	79%	60%	140%	60%	60%	140%
Dibromochloromethane	1	818022	< 1	< 1	NA	< 1	79%	70%	130%	78%	60%	140%	NA	60%	140%
Bromoform	1	818022	< 1	< 1	NA	< 1	79%	70%	130%	75%	60%	140%	NA	60%	140%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution. Matrix spike performed on a different sample than the duplicate.
If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By:

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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X558058

PROJECT:

ATTENTION TO: David Bell

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Jan 02, 2020			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Corrosion / Langelier Index															
Total Iron	816293		98	116	NA	< 50	112%	80%	120%	98%	80%	120%	120%	70%	130%
pH	818133	818133	7.95	7.94	0.1%	<	101%	80%	120%	NA	80%	120%	NA	80%	120%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

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Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X558058

PROJECT:

ATTENTION TO: David Bell

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Chloroform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromodichloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Dibromochloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromoform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Total Trihalomethanes	VOL-120-5001	EPA SW846 5230/8260	GC/MS
Toluene-d8			GC/MS
4-Bromofluorobenzene			GC/MS
Water Analysis			
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE
Hardness			
Langelier Index (@20C)			CALCULATION
Langelier Index (@ 4C)			CALCULATION
Saturation pH (@ 20C)			CALCULATION
Saturation pH (@ 4C)			CALCULATION

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Chain of Custody Record

Laboratory Use Only
Arrival Condition: ☐ Good ☐ Poor (see notes)
Arrival Temperature: 3, 4, 3
Hold Time:
AGAT Job Number: 19X558058
Notes: Cooler, Ice.

Report Information
Company: Town of Kentville
Contact: David Bell
Address: 354 Main Street
Kentville, Nova Scotia, B4N 1K6
Phone: 902-679-2521 Fax:
Client Project #:
AGAT Quotation:
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):
1. Name: David Bell Carla Macdonald
Email: dbell@kentville.ca cmacdonald@kentville.ca
2. Name: Leslie Seamone
Email: l.seamone@ableinc.ca

Report Format
☐ Single Sample per page
☑ Multiple Sample per page
☐ Excel Format Included
☐ Export:

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days
Date Required:

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/Credit Card#: 00308

Regulatory Requirements (Check):
☑ List Guidelines on Report ☐ Do not list Guidelines on Report
☐ PIRI
☐ Tier 1 ☐ Res ☐ Pot ☐ Coarse
☐ Tier 2 ☐ Com ☐ N/Pot ☐ Fine
☐ Gas ☐ Fuel ☐ Lube
☑ CCME ☑ CDWQ
☐ Industrial ☐ NSEQS-Cont Sites
☐ Commercial ☐ HRM 101
☐ Res/Park ☐ Storm Water
☐ Agricultural ☐ Waste Water
☐ FWAL
☐ Sediment ☐ Other

Drinking Water Sample: ☐ Yes ☐ No **Salt Water Sample:** ☐ Yes ☐ No
Reg. No.:

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments – Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: ☐ Total ☐ Diss ☐ Available	Mercury	☐ BOD ☐ CBOD	pH	☐ TSS ☐ TDS ☐ VSS	Langliers Index & Corrosion Index	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIRI) ☐ low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC ☐ P/A ☐ MPN ☐ MF	☐ HPC ☐ Pseudomonas	Fecal Coliform ☐ MPN ☐ MF	Other: Langliers Index & Corro	Other:
Kentville Chysler	December 19 2019		3									✓															
Belcher Street Tank	December 19 2019		6									✓							✓								
Coldbrook Village Park Drive	December 19 2019		3									✓							✓								

Samples Relinquished By (Print Name): Leslie Seamone
Date/Time: Dec 19/19
Samples Received By (Print Name):
Date/Time: 19 Dec 19
Samples Relinquished By (Sign):
Date/Time: Dec 19/19 1455
Samples Received By (Sign):
Date/Time: 1455

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

Page 1 of 1
N°:

Document ID: DW-133-1501-0002
Date revised: January 2016

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CLIENT NAME: TOWN OF KENTVILLE
354 MAIN ST.
KENTVILLE, NS B4N1K6
(902) 679-2521

ATTENTION TO: Richard Boyd

PROJECT:

AGAT WORK ORDER: 19X519376

TRACE ORGANICS REVIEWED BY: Amy Hunter, Trace Organics Supervisor, B.Sc.

WATER ANALYSIS REVIEWED BY: Michelle Hildebrand, Inorganics Analyst, B.Sc, P.Chem

DATE REPORTED: Sep 26, 2019

PAGES (INCLUDING COVER): 7

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

NOTES

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Certificate of Analysis

AGAT WORK ORDER: 19X519376

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Trihalomethanes in Water

DATE RECEIVED: 2019-09-18

DATE REPORTED: 2019-09-26

						SAMPLE DESCRIPTION:	**Belcher Street Tank**	**Coldbrook Village Park Drive**
						SAMPLE TYPE:	**Water**	**Water**
						DATE SAMPLED:	**2019-09-18**	**2019-09-18**
Parameter	**Unit**	**G / S: A**	**G / S: B**	**RDL**	**Date Prepared**	**Date Analyzed**	**537849**	**537850**
Chloroform	ug/L		1.8	1	2019-09-20	2019-09-24	<1[<B]	<1[<B]
Bromodichloromethane	ug/L			1	2019-09-20	2019-09-24	<1	2
Dibromochloromethane	ug/L			1	2019-09-20	2019-09-24	<1	4
Bromoform	ug/L			1	2019-09-20	2019-09-24	<1	<1
Total Trihalomethanes	ug/L	100		1	2019-09-24	2019-09-24	<1[<A]	6[<A]
Surrogate	**Unit**		**Acceptable Limits**					
Toluene-d8	%		60-140		2019-09-20	2019-09-24	93	120
4-Bromofluorobenzene	%		60-140		2019-09-20	2019-09-24	97	89

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to Canadian Drinking Water Quality - updated 2019-06, B Refers to CCME FWAL - update 2015
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19X519376

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Corrosion / Langelier Index

DATE RECEIVED: 2019-09-18

DATE REPORTED: 2019-09-26

							Kentville	Belcher Street
						SAMPLE DESCRIPTION:	Chysler	Tank
						SAMPLE TYPE:	Water	Water
						DATE SAMPLED:	2019-09-18	2019-09-18
Parameter	Unit	G / S: A	G / S: B	RDL	Date Prepared	Date Analyzed	537825	537849
Total Iron	ug/L	300	300 AO	50	2019-09-20	2019-09-20	86[<A]	86[<A]
pH		6.5-9.0	7.0-10.5 OG		2019-09-19	2019-09-19	7.96	7.97
Hardness	mg/L				2019-09-20	2019-09-20	102	101
Langelier Index (@20C)	NA				2019-09-25	2019-09-25	-0.29	-0.30
Langelier Index (@ 4C)	NA				2019-09-25	2019-09-25	-0.61	-0.62
Saturation pH (@ 20C)	NA				2019-09-25	2019-09-25	8.25	8.27
Saturation pH (@ 4C)	NA				2019-09-25	2019-09-25	8.57	8.59

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to CCME FWAL - update 2015, B Refers to Canadian Drinking Water Quality - updated 2019-06
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By: Michelle Hildebrand

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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X519376

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Sep 26, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Trihalomethanes in Water															
Chloroform	1	538300	<1	<1	NA	< 1	92%	60%	140%	96%	60%	140%	NA	60%	140%
Bromodichloromethane	1	538300	2	2	NA	< 1	NA	70%	130%	91%	60%	140%	NA	60%	140%
Dibromochloromethane	1	538300	2	2	NA	< 1	84%	70%	130%	86%	60%	140%	NA	60%	140%
Bromoform	1	538300	<1	<1	NA	< 1	82%	70%	130%	105%	60%	140%	NA	60%	140%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution. Matrix spike performed on a different sample than the duplicate.
If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By:

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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X519376

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Sep 26, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Corrosion / Langelier Index															
Total Iron	540681		92	97	NA	< 50	112%	80%	120%	105%	80%	120%	98%	70%	130%
pH	538783		8.03	8.05	0.2%	<	101%	80%	120%	NA	80%	120%	NA	80%	120%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By: Michelle Hildebrand

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Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X519376

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Chloroform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromodichloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Dibromochloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromoform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Total Trihalomethanes	VOL-120-5001	EPA SW846 5230/8260	GC/MS
Toluene-d8			GC/MS
4-Bromofluorobenzene			GC/MS
Water Analysis			
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE
Hardness			
Langelier Index (@20C)			CALCULATION
Langelier Index (@ 4C)			CALCULATION
Saturation pH (@ 20C)			CALCULATION
Saturation pH (@ 4C)			CALCULATION

Results relate only to the items tested. Results apply to samples as received.

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Chain of Custody Record

Laboratory Use Only

Arrival Condition: ☐ Good ☐ Poor (see notes)
Arrival Temperature: 8.6, 6.7, 10.8
Hold Time:
AGAT Job Number: 19x519376
Notes:

Report Information

Company: Town of Kentville
Contact: Richard Boyd
Address: 354 Main Street
Kentville, Nova Scotia, B4N 1K6
Phone: 902-679-2521 Fax:
Client Project #:
AGAT Quotation:
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):

1. Name: Richard Boyd Jennifer West
   Email: rboyd@kentville.ca jwest@kentville.ca
2. Name: Leslie Seamone
   Email: l.seamone@ableinc.ca

Report Format

☐ Single Sample per page
☑ Multiple Sample per page
☐ Excel Format Included
☐ Export:

Turnaround Time Required (TAT)

Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days
Date Required:

Invoice To Same Yes ☑ / No ☐

Company:
Contact:
Address:
Phone: Fax:
PO/Credit Card#: 00308

Regulatory Requirements (Check):

☑ List Guidelines on Report ☐ Do not list Guidelines on Report
☐ PIRI
☐ Tier 1 ☐ Res ☐ Pot ☐ Coarse
☐ Tier 2 ☐ Com ☐ N/Pot ☐ Fine
☐ Gas ☐ Fuel ☐ Lube

☑ CCME ☑ CDWQ
☐ Industrial ☐ NSEQS-Cont Sites
☐ Commercial ☐ HRM 101
☐ Res/Park ☐ Storm Water
☐ Agricultural ☐ Waste Water
☐ FWAL
☐ Sediment ☐ Other

Drinking Water Sample: ☐ Yes ☐ No **Salt Water Sample:** ☐ Yes ☐ No
Reg. No.:

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments – Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: ☐ Total ☐ Diss ☐ Available	Mercury	☐ BOD ☐ CBOD	pH	☐ TSS ☐ TDS ☐ VSS	Langliers Index & Corrosion Index	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIRI) ☐ low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC ☐ P/A ☐ MPN ☐ MF	☐ HPC ☐ Pseudomonas	Fecal Coliform ☐ MPN ☐ MF	Other: Langliers Index & Corro	Other:
Kentville Chysler	September 18 2019		3									✓															
Belcher Street Tank	September 18 2019		6									✓							✓								
Coldbrook Village Park Drive	September 18 2019		3																✓								

Samples Relinquished By (Print Name): Leslie Seamone
Date/Time: Sept 18/19
Samples Relinquished By (Sign):
Date/Time: Sept 18/19
Samples Received By (Print Name):
Date/Time: Sept 18 14:46
Samples Received By (Sign):

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

Page 1 of 1
No:

Document ID: DIV-133-1501.002

Date revised: January 2016

AGAT Laboratories

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CLIENT NAME: TOWN OF KENTVILLE
354 MAIN ST.
KENTVILLE, NS B4N1K6
(902) 679-2521

ATTENTION TO: Richard Boyd

PROJECT:

AGAT WORK ORDER: 19X485824

TRACE ORGANICS REVIEWED BY: Amy Hunter, Trace Organics Supervisor, B.Sc.

WATER ANALYSIS REVIEWED BY: Courtney O Brien, Data Reporter, B.Eng., EIT

DATE REPORTED: Jul 09, 2019

PAGES (INCLUDING COVER): 12

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

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Certificate of Analysis

AGAT WORK ORDER: 19X485824

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Trihalomethanes in Water

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-09

Parameter	Unit	G / S	RDL	Date Prepared	Date Analyzed	SAMPLE DESCRIPTION: Belcher Street Tank	SAMPLE DESCRIPTION: Coldbrook Village Park Drive
					SAMPLE TYPE:	Water	Water
					DATE SAMPLED:	2019-06-27	2019-06-27
						309829	309858
Chloroform	ug/L		1	2019-07-02	2019-07-03	<1	1
Bromodichloromethane	ug/L		1	2019-07-02	2019-07-03	1	2
Dibromochloromethane	ug/L		1	2019-07-02	2019-07-03	2	3
Bromoform	ug/L		1	2019-07-02	2019-07-03	<1	<1
Total Trihalomethanes	ug/L	100	1	2019-07-03	2019-07-03	3	6
Surrogate	**Unit**	**Acceptable Limits**					
Toluene-d8	%	60-140		2019-07-02	2019-07-03	103	103
4-Bromofluorobenzene	%	60-140		2019-07-02	2019-07-03	72	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2019-06
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Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

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AGAT WORK ORDER: 19X485824

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-09

Parameter	Unit	G / S	RDL	Date Prepared	Date Analyzed	SAMPLE DESCRIPTION: Kentville Chysler	Belcher Street Tank
					SAMPLE TYPE:	Water	Water
					DATE SAMPLED:	2019-06-27	2019-06-27
						309828	309829
pH		7.0-10.5		2019-06-28	2019-06-28	7.98	8.01
Reactive Silica as SiO2	mg/L		0.5	2019-07-03	2019-07-03	11.2	12.0
Chloride	mg/L	250 AO	1	2019-06-29	2019-06-29	94	67
Fluoride	mg/L	1.5	0.12	2019-06-29	2019-06-29	0.57	0.38
Sulphate	mg/L	500 AO	2	2019-06-29	2019-06-29	12	9
Alkalinity	mg/L		5	2019-06-28	2019-06-28	76	71
True Color	TCU	15 AO	5			8	6
Turbidity	NTU	0.1-1	0.1	2019-07-08	2019-07-08	0.7	0.5
Electrical Conductivity	umho/cm		1	2019-06-28	2019-06-28	569	446
Nitrate + Nitrite as N	mg/L		0.05	2019-06-29	2019-06-29	1.24	1.13
Nitrate as N	mg/L	10	0.05	2019-06-29	2019-06-29	0.96	0.92
Nitrite as N	mg/L	1.0	0.05	2019-06-29	2019-06-29	0.28	0.21
Ammonia as N	mg/L		0.03	2019-07-03	2019-07-03	0.04	<0.03
Total Organic Carbon	mg/L		0.5	2019-07-03	2019-07-03	1.2	0.9
Ortho-Phosphate as P	mg/L		0.01	2019-07-02	2019-07-02	0.03	0.04
Total Sodium	mg/L	200 AO	0.1	2019-07-02	2019-07-02	72.4	51.9
Total Potassium	mg/L		0.1	2019-07-02	2019-07-02	2.7	2.9
Total Calcium	mg/L		0.1	2019-07-02	2019-07-02	27.1	28.1
Total Magnesium	mg/L		0.1	2019-07-02	2019-07-02	4.7	5.6
Bicarb. Alkalinity (as CaCO3)	mg/L		5	2019-06-28	2019-06-28	76	71
Carb. Alkalinity (as CaCO3)	mg/L		10	2019-06-28	2019-06-28	<10	<10
Hydroxide	mg/L		5	2019-06-28	2019-06-28	<5	<5
Calculated TDS	mg/L	500 AO	1	2019-07-03	2019-07-03	264	212
Hardness	mg/L			2019-07-02	2019-07-02	87.0	93.2
Langelier Index (@20C)	NA			2019-07-03	2019-07-03	-0.34	-0.31
Langelier Index (@ 4C)	NA			2019-07-03	2019-07-03	-0.66	-0.63
Saturation pH (@ 20C)	NA			2019-07-03	2019-07-03	8.32	8.32
Saturation pH (@ 4C)	NA			2019-07-03	2019-07-03	8.64	8.64
Anion Sum	me/L			2019-06-29	2019-06-29	4.51	3.58

Certified By: CoBrien

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Certificate of Analysis

AGAT WORK ORDER: 19X485824

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-09

						SAMPLE DESCRIPTION:	Kentville Chysler	Belcher Street Tank
						SAMPLE TYPE:	Water	Water
						DATE SAMPLED:	2019-06-27	2019-06-27
Parameter	Unit	G / S	RDL	Date Prepared	Date Analyzed		309828	309829
Cation sum	me/L			2019-07-03	2019-07-03		4.96	4.20
% Difference/ Ion Balance	%			2019-07-03	2019-07-03		4.8	8.0
Total Aluminum	ug/L	100 OG AO	5	2019-07-02	2019-07-02		<5	7
Total Antimony	ug/L	6	2	2019-07-02	2019-07-02		<2	<2
Total Arsenic	ug/L	10	2	2019-07-02	2019-07-02		2	<2
Total Barium	ug/L	2000	5	2019-07-02	2019-07-02		32	37
Total Beryllium	ug/L		2	2019-07-02	2019-07-02		<2	<2
Total Bismuth	ug/L		2	2019-07-02	2019-07-02		<2	<2
Total Boron	ug/L	5000	5	2019-07-02	2019-07-02		11	12
Total Cadmium	ug/L	5	0.09	2019-07-02	2019-07-02		<0.09	<0.09
Total Chromium	ug/L	50	1	2019-07-02	2019-07-02		<1	<1
Total Cobalt	ug/L		1	2019-07-02	2019-07-02		<1	<1
Total Copper	ug/L	1000 AO	1	2019-07-02	2019-07-02		13	5
Total Iron	ug/L	300 AO	50	2019-07-02	2019-07-02		<50	72
Total Lead	ug/L	5	0.5	2019-07-02	2019-07-02		<0.5	<0.5
Total Manganese	ug/L	20 AO	2	2019-07-02	2019-07-02		<2	<2
Total Molybdenum	ug/L		2	2019-07-02	2019-07-02		<2	<2
Total Nickel	ug/L		2	2019-07-02	2019-07-02		<2	<2
Total Phosphorous	mg/L		0.02	2019-07-02	2019-07-02		0.05	0.07
Total Selenium	ug/L	50	1	2019-07-02	2019-07-02		<1	<1
Total Silver	ug/L		0.1	2019-07-02	2019-07-02		<0.1	<0.1
Total Strontium	ug/L	7000	5	2019-07-02	2019-07-02		163	162
Total Thallium	ug/L		0.1	2019-07-02	2019-07-02		<0.1	<0.1
Total Tin	ug/L		2	2019-07-02	2019-07-02		<2	<2
Total Titanium	ug/L		2	2019-07-02	2019-07-02		<2	<2
Total Uranium	ug/L	20	0.1	2019-07-02	2019-07-02		0.5	0.2
Total Vanadium	ug/L		2	2019-07-02	2019-07-02		3	3
Total Zinc	ug/L	5000 AO	5	2019-07-02	2019-07-02		<5	<5

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AGAT WORK ORDER: 19X485824

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Standard Water Analysis + Total Metals

DATE RECEIVED: 2019-06-27

DATE REPORTED: 2019-07-09

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2019-06
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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X485824

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Jul 09, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Trihalomethanes in Water															
Chloroform	1	307378	< 1	< 1	NA	< 1	94%	60%	140%	94%	60%	140%	108%	60%	140%
Bromodichloromethane	1	307378	< 1	< 1	NA	< 1	85%	70%	130%	85%	60%	140%	98%	60%	140%
Dibromochloromethane	1	307378	< 1	< 1	NA	< 1	88%	70%	130%	83%	60%	140%	95%	60%	140%
Bromoform	1	307378	< 1	< 1	NA	< 1	86%	70%	130%	83%	60%	140%	89%	60%	140%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution. Matrix spike performed on a different sample than the duplicate.
If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X485824

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Water Analysis

RPT Date: Jul 09, 2019

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Standard Water Analysis + Total Metals															
pH	1	309734	8.07	8.06	0.1%	<	101%	80%	120%		80%	120%		80%	120%
Reactive Silica as SiO2	308467		<0.5	<0.5	NA	< 0.5	115%	80%	120%	96%	80%	120%	110%	80%	120%
Chloride	308521		393	401	2.0%	< 1	84%	80%	120%	NA	80%	120%	NA	80%	120%
Fluoride	308521		<0.12	<0.12	NA	< 0.12	106%	80%	120%	NA	80%	120%	94%	80%	120%
Sulphate	308521		<2	<2	NA	< 2	107%	80%	120%	NA	80%	120%	96%	80%	120%
Alkalinity	1	309734	92	91	1.1%	< 5	96%	80%	120%		80%	120%		80%	120%
True Color	311693		33	29	12.9%	< 5	80%	80%	120%	NA			NA		
Turbidity	311690		310	301	2.9%	< 0.1	95%	80%	120%	NA			NA		
Electrical Conductivity	1	309734	215	215	0.0%	< 1	102%	80%	120%		80%	120%		80%	120%
Nitrate as N	308521		0.09	0.08	NA	< 0.05	102%	80%	120%	NA	80%	120%	92%	80%	120%
Nitrite as N	308521		0.84	0.82	2.4%	< 0.05	96%	80%	120%	NA	80%	120%	NA	80%	120%
Ammonia as N	308718		0.11	0.13	NA	< 0.03	102%	80%	120%	104%	80%	120%	100%	80%	120%
Total Organic Carbon	304324		2.1	2.5	NA	< 0.5	115%	80%	120%	NA	80%	120%	91%	80%	120%
Ortho-Phosphate as P	308969		0.01	<0.01	NA	< 0.01	93%	80%	120%	101%	80%	120%	105%	80%	120%
Total Sodium	309742		9.8	8.9	9.1%	< 0.1	107%	80%	120%	110%	80%	120%	NA	70%	130%
Total Potassium	309742		<0.1	<0.1	NA	< 0.1	110%	80%	120%	114%	80%	120%	104%	70%	130%
Total Calcium	309742		<0.1	<0.1	NA	< 0.1	104%	80%	120%	107%	80%	120%	106%	70%	130%
Total Magnesium	309742		<0.1	<0.1	NA	< 0.1	112%	80%	120%	119%	80%	120%	108%	80%	120%
Bicarb. Alkalinity (as CaCO3)	1	309734	92	91	1.1%	< 5		80%	120%		80%	120%		80%	120%
Carb. Alkalinity (as CaCO3)	1	309734	<10	<10	NA	< 10		80%	120%		80%	120%		80%	120%
Hydroxide	1	309734	<5	<5	NA	< 5		80%	120%		80%	120%		80%	120%
Total Aluminum	309742		NA	NA	NA	< 5	116%	80%	120%	NA	80%	120%	111%	70%	130%
Total Antimony	309742		<2	<2	NA	< 2	NA	80%	120%	120%	80%	120%	100%	70%	130%
Total Arsenic	309742		<2	<2	NA	< 2	96%	80%	120%	106%	80%	120%	92%	70%	130%
Total Barium	309742		<5	<5	NA	< 5	99%	80%	120%	107%	80%	120%	101%	70%	130%
Total Beryllium	309742		<2	<2	NA	< 2	96%	80%	120%	111%	80%	120%	104%	70%	130%
Total Bismuth	309742		<2	<2	NA	< 2	99%	80%	120%	115%	80%	120%	100%	70%	130%
Total Boron	309742		117	106	9.3%	< 5	92%	80%	120%	105%	80%	120%	NA	70%	130%
Total Cadmium	309742		<0.09	<0.09	NA	< 0.09	102%	80%	120%	106%	80%	120%	91%	70%	130%
Total Chromium	309742		<1	<1	NA	< 1	96%	80%	120%	107%	80%	120%	78%	70%	130%
Total Cobalt	309742		<1	<1	NA	< 1	108%	80%	120%	111%	80%	120%	92%	70%	130%
Total Copper	309742		<1	<1	NA	< 1	109%	80%	120%	112%	80%	120%	82%	70%	130%
Total Iron	309742		<50	<50	NA	< 50	101%	80%	120%	109%	80%	120%	77%	70%	130%
Total Lead	309742		<0.5	<0.5	NA	< 0.5	104%	80%	120%	116%	80%	120%	101%	70%	130%
Total Manganese	309742		<2	<2	NA	< 2	107%	80%	120%	110%	80%	120%	88%	70%	130%
Total Molybdenum	309742		<2	<2	NA	< 2	96%	80%	120%	103%	80%	120%	91%	70%	130%
Total Nickel	309742		<2	3	NA	< 2	109%	80%	120%	115%	80%	120%	91%	70%	130%
Total Phosphorous	309742		0.02	<0.02	NA	< 0.02	110%	80%	120%	114%	80%	120%	93%	70%	130%
Total Selenium	309742		<1	<1	NA	< 1	84%	80%	120%	103%	80%	120%	82%	70%	130%

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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X485824

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Water Analysis (Continued)

RPT Date: Jul 09, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Total Silver	309742		<0.1	<0.1	NA	< 0.1	100%	80%	120%	112%	80%	120%	94%	70%	130%
Total Strontium	309742		<5	<5	NA	< 5	106%	80%	120%	111%	80%	120%	86%	70%	130%
Total Thallium	309742		<0.1	<0.1	NA	< 0.1	108%	80%	120%	112%	80%	120%	100%	70%	130%
Total Tin	309742		<2	<2	NA	< 2	94%	80%	120%	106%	80%	120%	94%	70%	130%
Total Titanium	309742		<2	<2	NA	< 2	104%	80%	120%	105%	80%	120%	102%	70%	130%
Total Uranium	309742		<0.1	<0.1	NA	< 0.1	107%	80%	120%	114%	80%	120%	101%	70%	130%
Total Vanadium	309742		<2	<2	NA	< 2	104%	80%	120%	108%	80%	120%	84%	70%	130%
Total Zinc	309742		<5	<5	NA	< 5	104%	80%	120%	108%	80%	120%	76%	70%	130%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By: CoBrien

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Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
http://www.agatlabs.com

Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X485824

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Chloroform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromodichloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Dibromochloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromoform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Total Trihalomethanes	VOL-120-5001	EPA SW846 5230/8260	GC/MS
Toluene-d8			GC/MS
4-Bromofluorobenzene			GC/MS

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http://www.agatlabs.com

Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X485824

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE
Reactive Silica as SiO2	INOR-121-6027	SM 4500-SiO2 F	COLORIMETER
Chloride	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Fluoride	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Alkalinity	INOR-121-6001	SM 2320 B	
True Color	INOR-121-6014	SM 2120 C	NEPHELOMETER
Turbidity	INOR-121-6022	SM 2130 B	NEPHELOMETER
Electrical Conductivity	INOR-121-6001	SM 2510 B	PC TITRATE
Nitrate + Nitrite as N	INORG-121-6005	SM 4110 B	CALCULATION
Nitrate as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INORG-121-6005	SM 4110 B	ION CHROMATOGRAPH
Ammonia as N	INOR-121-6047	SM 4500-NH3 H	COLORIMETER
Total Organic Carbon	INOR-121-6026	SM 5310 B	TOC ANALYZER
Ortho-Phosphate as P	INOR-121-6012	SM 4500-P G	COLORIMETER
Total Sodium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Potassium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Calcium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Magnesium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Bicarb. Alkalinity (as CaCO3)	INORG-121-6001	SM 2320 B	PC TITRATE
Carb. Alkalinity (as CaCO3)	INORG-121-6001	SM 2320 B	PC TITRATE
Hydroxide	INORG-121-6001	SM 2320 B	PC-TITRATE
Calculated TDS	CALCULATION	SM 1030E	CALCULATION
Hardness	CALCULATION	SM 2340B	CALCULATION
Langelier Index (@20C)	CALCULATION	CALCULATION	CALCULATION
Langelier Index (@ 4C)	CALCULATION	CALCULATION	CALCULATION
Saturation pH (@ 20C)	CALCULATION	CALCULATION	CALCULATION
Saturation pH (@ 4C)	CALCULATION	CALCULATION	CALCULATION
Anion Sum	CALCULATION	SM 1030E	CALCULATION
Cation sum	CALCULATION	SM 1030E	CALCULATION
% Difference/ Ion Balance	CALCULATION	SM 1030E	CALCULATION
Total Aluminum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Antimony	MET121-6104 & MET-121-6105	SM 3125	ICP-MS
Total Arsenic	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Barium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Beryllium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Bismuth	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Boron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cadmium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

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Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X485824

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Total Chromium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Cobalt	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Copper	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Lead	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Manganese	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Molybdenum	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Nickel	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Phosphorous	MET-121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Selenium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Silver	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Strontium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Thallium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Tin	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Titanium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Uranium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Vanadium	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
Total Zinc	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Chain of Custody Record

Laboratory Use Only
Arrival Condition: ☐ Good ☐ Poor (see notes)
Arrival Temperature: 1.8, 0.6, 1.3
Hold Time:
AGAT Job Number: 19X485824
Notes:

Report Information
Company: Town of Kentville
Contact: Richard Boyd
Address: 354 Main Street
Kentville, Nova Scotia, B4N 1K6
Phone: 902-679-2521 Fax:
Client Project #:
AGAT Quotation:
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):
1. Name: Richard Boyd Jennifer West
Email: rboyd@kentville.ca jwest@kentville.ca
2. Name: Leslie Seamone
Email: l.seamone@ableinc.ca

Report Format
☐ Single Sample per page
☑ Multiple Sample per page
☐ Excel Format Included
☐ Export:

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days
Date Required:

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/Credit Card#: 00308

Regulatory Requirements (Check):
☑ List Guidelines on Report ☐ Do not list Guidelines on Report
☐ PIRI
☐ Tier 1 ☐ Res ☐ Pot ☐ Coarse
☐ Tier 2 ☐ Com ☐ N/Pot ☐ Fine
☐ Gas ☐ Fuel ☐ Lube
☑ CCME ☑ CDWQ
☐ Industrial ☐ NSEQS-Cont Sites
☐ Commercial ☐ HRM 101
☐ Res/Park ☐ Storm Water
☐ Agricultural ☐ Waste Water
☐ FWAL
☐ Sediment ☐ Other

Drinking Water Sample: ☐ Yes ☐ No **Salt Water Sample:** ☐ Yes ☐ No
Reg. No.:

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments – Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: ☐ Total ☐ Diss ☐ Available	Mercury	☐ BOD ☐ CBOD	pH	☐ TSS ☐ TDS ☐ VSS	Langliers Index & Corrosion Index	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIRI) ☐ low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC ☐ P/A ☐ MPN ☐ MF	☐ HPC ☐ Pseudomonas	Fecal Coliform ☐ MPN ☐ MF	Other: Langliers Index & Corro	Other:
Kentville Chysler	June 27 2019		3									✓															
Belcher Street Tank	June 27 2019		6									✓							✓								
Coldbrook Village Park Drive	June 27 2019		3									✓							✓								

Samples Relinquished By (Print Name): Leslie Seamone
Date/Time: June 27/19
Samples Received By (Print Name):
Date/Time: June 27/19
Samples Relinquished By (Sign):
Date/Time: June 27/19 3:03
Samples Received By (Sign):
Date/Time: 15:03

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

Page 1 of 1
N°:

Document ID: DW-133-1501.007
Date revised: January 2018

AGAT Laboratories

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http://www.agatlabs.com

CLIENT NAME: TOWN OF KENTVILLE
354 MAIN ST.
KENTVILLE, NS B4N1K6
(902) 679-2521

ATTENTION TO: Mark Phillips

PROJECT:

AGAT WORK ORDER: 19X467559

TRACE ORGANICS REVIEWED BY: Amy Hunter, Trace Organics Supervisor, B.Sc.

DATE REPORTED: May 24, 2019

PAGES (INCLUDING COVER): 5

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

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Certificate of Analysis

AGAT WORK ORDER: 19X467559

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Mark Phillips

SAMPLING SITE:

SAMPLED BY:

Atlantic RBCA Tier 1 Hydrocarbons in Water (Version 3.0)

DATE RECEIVED: 2019-05-15

DATE REPORTED: 2019-05-24

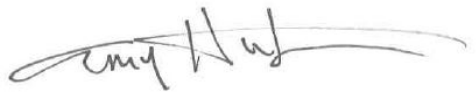
					SAMPLE DESCRIPTION:	Public Works Monitoring Well
					SAMPLE TYPE:	Water
					DATE SAMPLED:	2019-05-15
Parameter	**Unit**	**G / S**	**RDL**	**Date Prepared**	**Date Analyzed**	**197335**
Benzene	mg/L		0.001	2019-05-16	2019-05-17	<0.001
Toluene	mg/L		0.001	2019-05-16	2019-05-17	<0.001
Ethylbenzene	mg/L		0.001	2019-05-16	2019-05-17	<0.001
Xylene (Total)	mg/L		0.002	2019-05-16	2019-05-17	<0.002
C6-C10 (less BTEX)	mg/L		0.01	2019-05-16	2019-05-17	<0.01
>C10-C16 Hydrocarbons	mg/L		0.05	2019-05-21	2019-05-22	<0.05
>C16-C21 Hydrocarbons	mg/L		0.10	2019-05-21	2019-05-22	<0.10
>C21-C32 Hydrocarbons	mg/L		0.1	2019-05-21	2019-05-22	<0.1
Modified TPH (Tier 1)	mg/L		0.1	2019-05-22	2019-05-22	<0.1
Resemblance Comment				2019-05-21	2019-05-22	NR
Return to Baseline at C32				2019-05-21	2019-05-22	Y
Surrogate	**Unit**	**Acceptable Limits**				
Isobutylbenzene - EPH	%	70-130		2019-05-21	2019-05-22	85
Isobutylbenzene - VPH	%	70-130		2019-05-16	2019-05-17	108
n-Dotriacontane - EPH	%	70-130		2019-05-21	2019-05-22	87

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

197335 Resemblance Comment Key:
GF - Gasoline Fraction
WGF - Weathered Gasoline Fraction
GR - Product in Gasoline Range
FOF - Fuel Oil Fraction
WFOF - Weathered Fuel Oil Fraction
FR - Product in Fuel Oil Range
LOF - Lube Oil Fraction
LR - Lube Range
UC - Unidentified Compounds
NR - No Resemblance
NA - Not Applicable

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X467559

PROJECT:

ATTENTION TO: Mark Phillips

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: May 24, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Atlantic RBCA Tier 1 Hydrocarbons in Water (Version 3.0)															
Benzene	1	197384	0.011	0.008	31.6%	< 0.001	99%	70%	130%	84%	70%	130%			
Toluene	1	197384	< 0.001	< 0.001	NA	< 0.001	100%	70%	130%	91%	70%	130%			
Ethylbenzene	1	197384	0.003	0.003	NA	< 0.001	99%	70%	130%	91%	70%	130%			
Xylene (Total)	1	197384	< 0.002	< 0.002	NA	< 0.002	102%	70%	130%	92%	70%	130%			
C6-C10 (less BTEX)	1	197384	0.03	0.03	NA	< 0.01	88%	70%	130%	86%	70%	130%	75%	70%	130%
>C10-C16 Hydrocarbons	1	TW	1.44	1.62	11.8%	< 0.05	114%	70%	130%	95%	70%	130%	97%	70%	130%
>C16-C21 Hydrocarbons	1	TW	4.86	5.23	7.3%	< 0.10	116%	70%	130%	95%	70%	130%	97%	70%	130%
>C21-C32 Hydrocarbons	1	TW	2.29	2.60	12.7%	< 0.1	98%	70%	130%	95%	70%	130%	97%	70%	130%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution. VPH matrix spike performed on different sample than duplicate.
If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By:

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Results relate only to the items tested. Results apply to samples as received.

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FAX (902)468-8924
http://www.agatlabs.com

Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X467559

PROJECT:

ATTENTION TO: Mark Phillips

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Benzene	VOL-120-5013	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS
Toluene	VOL-120-5013	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS
Ethylbenzene	VOL-120-5013	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS
Xylene (Total)	VOL-120-5013	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS
C6-C10 (less BTEX)	VOL-120-5013	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS
>C10-C16 Hydrocarbons	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/FID
>C16-C21 Hydrocarbons	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/FID
>C21-C32 Hydrocarbons	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/FID
Modified TPH (Tier 1)	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	CALCULATION
Resemblance Comment	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS/FID
Return to Baseline at C32	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/FID
Isobutylbenzene - EPH	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/FID
Isobutylbenzene - VPH	VOL-120-5013	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/MS
n-Dotriacontane - EPH	ORG-120-5101	Atlantic RBCA Guidelines for Laboratories Tier 1	GC/FID

Results relate only to the items tested. Results apply to samples as received.

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P: 902.468.8718 • F: 902.468.8924

Chain of Custody Record

Laboratory Use Only
Arrival Condition: ☐ Good ☐ Poor (see notes)
Arrival Temperature: 2°, 4°, 4°
Hold Time:
AGAT Job Number: 19x467559
Notes:

Report Information
Company: Town of Kentville
Contact: Mark Phillips
Address: 354 Main Street
Kentville, Nova Scotia, B4N 1K6
Phone: 902-679-2501 Fax:
Client Project #:
AGAT Quotation:
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):
1. Name: Mark Phillips
Email: mphillips@kentville.ca
2. Name: Leslie Seamone
Email: l.seamone@ableinc.ca

Report Format
☐ Single Sample per page
☑ Multiple Sample per page
☐ Excel Format Included
☐ Export:

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days
Date Required:

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/Credit Card#: PO # 3543

Regulatory Requirements (Check):
☐ List Guidelines on Report ☐ Do not list Guidelines on Report
☐ PIRI
☐ Tier 1 ☐ Res ☐ Pot ☐ Coarse
☐ Tier 2 ☐ Com ☐ N/Pot ☐ Fine
☐ Gas ☐ Fuel ☐ Lube
☐ CCME ☐ CDWQ
☐ Industrial ☐ NSEQS-Cont Sites
☐ Commercial
☐ Res/Park ☐ HRM 101
☐ Agricultural ☐ Storm Water
☐ FWAL ☐ Waste Water
☐ Sediment ☐ Other

Drinking Water Sample: ☐ Yes ☐ No **Salt Water Sample:** ☐ Yes ☐ No
Reg. No.:

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments – Site/Sample Info. Sample Containment
Public Works monitoring well	May 15 2019		5	

Field Filtered/Preserved	Standard Water Analysis	Metals: ☐ Total ☐ Diss ☐ Available	Mercury	☐ BOD ☐ CBOD	pH	☐ TSS ☐ TDS ☐ VSS	Langliers Index & Corrosion Index	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIRI) ☐ low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC ☐ P/A ☐ MPN ☐ MF	☐ HPC ☐ Pseudomonas	Fecal Coliform ☐ MPN ☐ MF	Other:	Other:
										✓												

Samples Relinquished By (Print Name)	Date/Time	Samples Received By (Print Name)	Date/Time
Leslie Seamone	May 15 2019		15/May/19
Samples Relinquished By (Sign)	Date/Time	Samples Received By (Sign)	Date/Time
	May 15/19		16:00

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

Page 1 of 1
N°:

Document ID: DW-133-1001-002 Date revised: January 2016

AGAT Laboratories

11 Morris Drive, Unit 122
Dartmouth, Nova Scotia
CANADA B3B 1M2
TEL (902)468-8718
FAX (902)468-8924
http://www.agatlabs.com

CLIENT NAME: TOWN OF KENTVILLE
354 MAIN ST.
KENTVILLE, NS B4N1K6
(902) 679-2521

ATTENTION TO: Richard Boyd

PROJECT:

AGAT WORK ORDER: 19X451121

TRACE ORGANICS REVIEWED BY: Amy Hunter, Trace Organics Supervisor, B.Sc.

WATER ANALYSIS REVIEWED BY: Jason Coughtrey, Inorganics Supervisor

DATE REPORTED: Apr 05, 2019

PAGES (INCLUDING COVER): 8

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (902) 468-8718

NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Results relate only to the items tested. Results apply to samples as received.
All reportable information as specified by ISO 17025:2017 is available from AGAT Laboratories upon request

AGAT Laboratories

11 Morris Drive, Unit 122
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TEL (902)468-8718
FAX (902)468-8924
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19X451121

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Haloacetic Acids (water)

DATE RECEIVED: 2019-03-28

DATE REPORTED: 2019-04-05

						SAMPLE DESCRIPTION:	Kentville Chysler	Belcher Street Tank
						SAMPLE TYPE:	Water	Water
						DATE SAMPLED:	2019-03-28	2019-03-28
Parameter	**Unit**	**G / S**	**RDL**	**Date Prepared**	**Date Analyzed**		**9999163**	**9999172**
Chloroacetic Acid	ug/L		1.7	2019-03-29	2019-04-04		<1.7	<1.7
Bromoacetic Acid	ug/L		0.2	2019-03-29	2019-04-04		<0.2	<0.2
Dichloroacetic Acid	ug/L		0.2	2019-03-29	2019-04-04		1.5	1.1
Trichloroacetic Acid	ug/L		0.2	2019-03-29	2019-04-04		<0.2	<0.2
Bromochloroacetic Acid	ug/L		0.3	2019-03-29	2019-04-04		0.3	<0.3
Dibromoacetic Acid	ug/L		0.1	2019-03-29	2019-04-04		0.5	0.3
Total Haloacetic Acids	ug/L	80	4.0	2019-04-04	2019-04-04		<4.0	<4.0
HAA5	ug/L	80	4.0	2019-04-04	2019-04-04		<4.0	<4.0
Surrogate	**Unit**	**Acceptable Limits**						
2-Bromobutanoic acid	%	70-130		2019-03-29	2019-04-04		105	102

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2019-06
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 19X451121

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Trihalomethanes in Water

DATE RECEIVED: 2019-03-28

DATE REPORTED: 2019-04-05

					SAMPLE DESCRIPTION:	Belcher Street Tank	Coldbrook Village Park Drive
					SAMPLE TYPE:	Water	Water
					DATE SAMPLED:	2019-03-28	2019-03-28
Parameter	**Unit**	**G / S**	**RDL**	**Date Prepared**	**Date Analyzed**	**9999172**	**9999180**
Chloroform	ug/L		1	2019-03-29	2019-04-01	<1	<1
Bromodichloromethane	ug/L		1	2019-03-29	2019-04-01	<1	1
Dibromochloromethane	ug/L		1	2019-03-29	2019-04-01	1	2
Bromoform	ug/L		1	2019-03-29	2019-04-01	<1	1
Total Trihalomethanes	ug/L	100	1	2019-04-01	2019-04-01	1	4
Surrogate	**Unit**	**Acceptable Limits**					
Toluene-d8	%	60-140		2019-03-29	2019-04-01	94	95
4-Bromofluorobenzene	%	60-140		2019-03-29	2019-04-01	101	101

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2019-06
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Certificate of Analysis

AGAT WORK ORDER: 19X451121

PROJECT:

CLIENT NAME: TOWN OF KENTVILLE

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Corrosion / Langelier Index

DATE RECEIVED: 2019-03-28

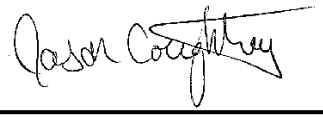
DATE REPORTED: 2019-04-05

						SAMPLE DESCRIPTION:	Kentville Chysler Tank	Belcher Street Tank
						SAMPLE TYPE:	Water	Water
						DATE SAMPLED:	2019-03-28	2019-03-28
Parameter	Unit	G / S	RDL	Date Prepared	Date Analyzed		9999163	9999172
Total Iron	ug/L	300 AO	50	2019-03-29	2019-03-29		53	90
pH		7.0-10.5		2019-03-29	2019-03-29		7.89	7.93
Hardness	mg/L			2019-03-29	2019-03-29		95.8	105
Langelier Index (@20C)	NA			2019-04-02	2019-04-02		-0.35	-0.28
Langelier Index (@ 4C)	NA			2019-04-02	2019-04-02		-0.67	-0.60
Saturation pH (@ 20C)	NA			2019-04-02	2019-04-02		8.24	8.21
Saturation pH (@ 4C)	NA			2019-04-02	2019-04-02		8.56	8.53

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Canadian Drinking Water Quality - updated 2019-06
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Halifax (unless marked by *)

Certified By:



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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X451121

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Apr 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Haloacetic Acids (water)															
Chloroacetic Acid	1	9996756	< 1.7	< 1.7	NA	< 1.7	93%	70%	130%	78%	60%	130%	115%	70%	130%
Bromoacetic Acid	1	9996756	< 0.2	< 0.2	NA	< 0.2	123%	70%	130%	90%	60%	130%	97%	70%	130%
Dichloroacetic Acid	1	9996756	9.5	10.4	9.0%	< 0.2	89%	70%	130%	127%	60%	130%	119%	70%	130%
Trichloroacetic Acid	1	9996756	3.4	4.5	27.8%	< 0.2	83%	70%	130%	96%	60%	130%	97%	70%	130%
Bromochloroacetic Acid	1	9996756	3.4	3.7	8.5%	< 0.3	83%	70%	130%	80%	60%	130%	80%	70%	130%
Dibromoacetic Acid	1	9996756	2.2	2.3	4.4%	< 0.1	101%	70%	130%	92%	60%	130%	97%	70%	130%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution.
If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Trihalomethanes in Water															
Chloroform	1	9996756	14	14	0.0%	< 1	118%	60%	140%	117%	60%	140%	105%	60%	140%
Bromodichloromethane	1	9996756	15	16	6.5%	< 1	102%	70%	130%	100%	60%	140%	100%	60%	140%
Dibromochloromethane	1	9996756	12	13	8.0%	< 1	99%	70%	130%	97%	60%	140%	99%	60%	140%
Bromoform	1	9996756	1	1	NA	< 1	102%	70%	130%	98%	60%	140%	88%	60%	140%

Comments: If Matrix spike value is NA, the spiked analyte concentration was lower than that of the matrix contribution. Matrix spike performed on different sample than duplicate.
If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

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Quality Assurance

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X451121

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

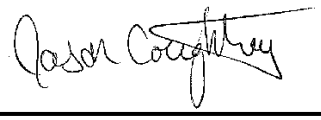
SAMPLED BY:

Water Analysis

RPT Date: Apr 05, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Corrosion / Langelier Index															
Total Iron	1		67	56	NA	< 50	95%	80%	120%	98%	80%	120%	NA	70%	130%
pH	9999163	9999163	7.89	7.95	0.8%	<	102%	80%	120%	NA	80%	120%	NA	80%	120%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By:



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Method Summary

CLIENT NAME: TOWN OF KENTVILLE

AGAT WORK ORDER: 19X451121

PROJECT:

ATTENTION TO: Richard Boyd

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Chloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Bromoacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Dichloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Trichloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Bromochloroacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
Dibromoacetic Acid	ORG-120-5110	EPA 552.3	GC/ECD
2-Bromobutanoic acid	ORG-120-5110	EPA 552.3	GC/ECD
Total Haloacetic Acids	ORG-120-5110	EPA 552.3	GC/ECD
HAA5	ORG-120-5110	EPA 552.3	GC/ECD
Chloroform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromodichloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Dibromochloromethane	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Bromoform	VOL-120-5001	EPA SW846 5230B/8260	GC/MS
Total Trihalomethanes	VOL-120-5001	EPA SW846 5230/8260	GC/MS
Toluene-d8			GC/MS
4-Bromofluorobenzene			GC/MS
Water Analysis			
Total Iron	MET121-6104 & MET-121-6105	modified from SM 3125/SM 3030 B/SM 3030 D	ICP-MS
pH	INOR-121-6001	SM 4500 H+B	PC TITRATE
Hardness			
Langelier Index (@20C)			CALCULATION
Langelier Index (@ 4C)			CALCULATION
Saturation pH (@ 20C)			CALCULATION
Saturation pH (@ 4C)			CALCULATION

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Chain of Custody Record

Laboratory Use Only
Arrival Condition: ☐ Good ☐ Poor (see notes)
Arrival Temperature: 3.0, 3.8, 2.3
Hold Time:
AGAT Job Number: 19X451121
Notes:

Report Information
Company: Town of Kentville
Contact: Richard Boyd
Address: 354 Main Street
Kentville, Nova Scotia, B4N 1K6
Phone: 902-679-2521 Fax:
Client Project #:
AGAT Quotation:
Please Note: If quotation number is not provided client will be billed full price for analysis.

Report Information (Please print):
1. Name: Richard Boyd Jennifer West
Email: rboyd@kentville.ca jwest@kentville.ca
2. Name: Leslie Seamone
Email: l.seamone@ableinc.ca

Report Format
☐ Single Sample per page
☑ Multiple Sample per page
☐ Excel Format Included
☐ Export:

Turnaround Time Required (TAT)
Regular TAT ☑ 5 to 7 working days
Rush TAT ☐ Same day ☐ 1 day ☐ 2 days ☐ 3 days
Date Required:

Invoice To Same Yes ☑ / No ☐
Company:
Contact:
Address:
Phone: Fax:
PO/Credit Card#: 2030

Regulatory Requirements (Check):
☑ List Guidelines on Report ☐ Do not list Guidelines on Report
☐ PIRI
☐ Tier 1 ☐ Res ☐ Pot ☐ Coarse
☐ Tier 2 ☐ Com ☐ N/Pot ☐ Fine
☐ Gas ☐ Fuel ☐ Lube
☑ CCME ☑ CDWQ
☐ Industrial ☐ NSEQS-Cont Sites
☐ Commercial ☐ HRM 101
☐ Res/Park ☐ Storm Water
☐ Agricultural ☐ Waste Water
☐ FWAL
☐ Sediment ☐ Other

Drinking Water Sample: ☐ Yes ☐ No **Salt Water Sample:** ☐ Yes ☐ No
Reg. No.:

Sample Identification	Date/Time Sampled	Sample Matrix	# Containers	Comments – Site/Sample Info. Sample Containment	Field Filtered/Preserved	Standard Water Analysis	Metals: ☐ Total ☐ Diss ☐ Available	Mercury	☐ BOD ☐ CBOD	pH	☐ TSS ☐ TDS ☐ VSS	Langliers Index & Corrosion Index	Total Phosphorus	Phenols	Tier 1: TPH/BTEX (PIRI) ☐ low level	Tier 2: TPH/BTEX Fractionation	CCME-CWS TPH/BTEX	VOC	THM	HAA	PAH	PCB	TC + EC ☐ P/A ☐ MPN ☐ MF	☐ HPC ☐ Pseudomonas	Fecal Coliform ☐ MPN ☐ MF	Other: Langliers Index & Corro	Other:
Kentville Chysler	March 28 2019		6									✓								✓							
Belcher Street Tank	March 28 2019		9									✓							✓	✓							
Coldbrook Village Park Drive	March 28 2019		3																✓								

Samples Relinquished By (Print Name)	Date/Time	Samples Received By (Print Name)	Date/Time
Leslie Seamone	March 28/19		Mar 28/19
Samples Relinquished By (Sign): 2:55	Date/Time March 28/19	Samples Received By (Sign):	Date/Time 14:57

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

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Date revised: January 2016