

**Drinking Water Quality and Compliance**  
**Annual Notice to Consumers**

Saskatchewan Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to operate a waterworks. The following is a summary of the Avonlea water quality and sample submission compliance record for the January 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021 time period. This report was completed on January 6<sup>th</sup>, 2022. Readers should refer to Saskatchewan Environment's "Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202" for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the departments monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information is available from: [http://www.hc-sc.gc.ca/ehp/ehd/catalogue/bch\\_pubs/dwgsup\\_doc/dwgsup.doc.htm](http://www.hc-sc.gc.ca/ehp/ehd/catalogue/bch_pubs/dwgsup_doc/dwgsup.doc.htm).

**Water Quality Standards**

**Bacteriological Quality**

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform and Background Bacteria	0 Organisms/100ml Less than 200/100ml	52	52	0 (0%)

**Water Disinfection – Chlorine Residual in Distribution System for the test Results Submitted with Bacteriological Samples**

Parameter	Minimum Limit	Free Chlorine Residual Range	Total Chlorine Residual Range	# Tests Required	# Tests Submitted	#Adequate Chlorine %
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.10 – 1.56 mg/L	0.35 – 1.98 mg/L	52	52	100 %

**Water Disinfection – Water Entering Distribution System from Waterworks Records**

Parameter	Limit (Min)	Test Level Range	# Tests Meeting Requirements	# Tests Required	# Tests Performed
Free Chlorine Residual	0.13	0.10 – 1.56	365 (100%)	365	365

**Turbidity – From Water Plant Records leaving filtration unit**

Parameter	Limit (NTU)	Test Level Range	# Tests Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# Tests Performed
Turbidity	<0.1	0.02 – 0.10	365 (100%)	0.10	365	365

**Chemical – Health Category**

All waterworks serving less than 5000 persons are required to submit water samples for Saskatchewan Environment's "Chemical Health" category once every 2 years. The "Chemical Health" category includes analysis for arsenic, barium, boron, cadmium, fluoride, lead, nitrate, selenium and uranium. The results for Nitrate, Fluoride and Manganese are an average of quarterly samples.

The last sample for "Chemical Health" analysis was submitted on Nov 15/21(Prov. Lab). Sample results indicated that the provincial drinking water quality standards were not exceeded. This is a bi-annual test, next test summer 2023.

Parameter	Sask.Guidline	Unit	Result
Boron	<5.0	mg/L	0.1
Iron	<0.3	mg/L	<0.1
Manganese	<0.05	mg/L	<0.01
Aluminum	<100	µg/L	31.8
Arsenic	<25	µg/L	1.5
Barium	<1000	µg/L	5.9
Cadmium	<5	µg/L	<0.15
Chromium	<50	µg/L	<0.19
Copper	<1000	µg/L	<8.29
Fluoride (dissolved)	1.5	mg/L	<0.05
Nitrate	<45	mg/L	0.3
Lead	<10	µg/L	<0.07
Selenium	<10	µg/L	<1.13
Uranium	<20	µg/L	0.20
Zinc	<5000	µg/L	<4.00

**Chemical Trihalomethanes and Haloacetic Acids**

Parameter	Limit (µg)	Sample Result (average)	Sample Required	# Samples Submitted
Trihalomethanes	100 µg/L	53.8 µg/L	4	4
Haloacetic Acids	80 µg/L	42.75 µg/L	4	4

*(Note: Only water samples derived from surface water or groundwater under the influence of surface water are required to monitor for trihalomethanes. Waterworks using groundwater sources beyond the influence of surface water do not need to report trihalomethanes, since sampling and analysis will not likely have been performed).*

More information on water quality and sample submission performance may be obtained from:

Village of Avonlea

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