

Drinking Water Quality and Compliance Village of Silton for Annual Notice to Consumers

Introduction

The Water Security Agency and the Ministry of 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 Village of Silton water quality and sample submission compliance record for the 2021 time period. This report was completed on June 21st, 2022. Readers should refer to Water Security Agency's [Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EPB 502](#) 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 department's 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/ewh-semt/pubs/water-eau/index_e.html.

Water Quality Standards

Bacteriological Quality

HYGIENIC SYSTEM

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform	0 Organisms/100 mL	12	12	0
E. coli	0 Organisms/100 mL	12	12	0
Background Bacteria	Less than 200/100 mL			

Water Disinfection –

HYGIENIC SYSTEM

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.5 mg/L total	.52 – 2.10		12	12	100%

Chlorine Residual for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.1 mg/L free		..42 -2.10	12	12	100%

Water Disinfection – Free Chlorine Residual for Water Entering Distribution System from Waterworks Records- From Water Treatment Plant Records

Hygienic System

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	.01 -2.10_	365	11



Chemical – Health Category

All waterworks serving less than 5000 persons are required to submit water samples for SE’s Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

The last sample for Chemical Health analysis was submitted on Oct. 21st, 2020. Samples exceeded provincial water quality standards for the following parameters:

Manganese Result .87 mg/L Sask Guideline < .05

Parameter	Limit MAC(mg/L)	Limit IMAC (mg/L)	Sample Result(s)	# Samples Exceeding Limit	
Arsenic	0.010		.60		Results expressed as average values for communities or waterworks that fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrates.
Barium	1.0		17.0		
Boron	5.		.1		
Bromate	0.01		na		
Cadmium	0.005		<0.15		
Chlorate	1.0		na		
Chlorite	1.0		na		
Chromium	0.05		<0.30		
Fluoride (avg*)	1.5		.25		
Lead	0.01		.07		
Nitrate (avg.*)	45.0		4.1		
Selenium	0.01		10.1		
Uranium	0.02		12.3		

General Chemical

Parameter	Aesthetic Objectives * (mg/L)	Sample Results (average)	# Samples Required	# Samples Submitted
Alkalinity	500	320	1	1
Bicarbonate	No Objective	390	1	1
Calcium	No Objective	193	1	1
Carbonate	No Objective	0	1	1
Chloride	250	0	1	1
Conductivity	No Objective	1412	1	1
Hardness	800	791	1	1
Magnesium	200	75	1	1
PH	No Objective	7.6	1	1
Sodium	300	30	1	1
Sulphate	500	486.9	1	1
Total dissolved Solids	1500	1209	1	1

All waterworks serving less than 5000 persons are required to submit water samples for SE’s General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required in 2020 and submitted on Oct 2020. Sample results indicated that there were no exceedences of the provincial aesthetic objectives for the General Chemical category.

*Objectives apply to certain characteristics of or substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where they do not constitute a health

hazards. The aesthetic objectives for several parameters (including hardness as CaCO₃, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.

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

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Environment

