



Drinking Water Quality and Compliance City of Martensville, 2016 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 **City of Martensville** water quality and sample submission compliance records for the **January to December 2016** time period. This report was completed on **March 30, 2017**. Readers should refer to Saskatchewan 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

Parameter/Location	Limit	Regular Sample Required	Regular Samples Submitted	# of Positive Regular Submitted (Percentage)
Total Coliform and E. coli	0 organisms/100 mL	156	157	1 * Re-tested, follow-up tests clear
E. coli	0 organisms/100 ml	156	157	1 * Re-tested, follow-up tests clear
Background Bacteria	Less than 200 organisms/100 mL	156	157	0

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

Parameter	Limit (mg/L)	Test Level Range	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.87 – 2.01 (total)	156	157	0

Turbidity – Turbidity measured in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Limit (NTU)	Test Level Range	Turbidity (NTU)	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Turbidity	1.0	0.01 – 0.09	NA	156	157	0

Water Disinfection – Total Chlorine Residual for Water Entering Distribution System – From Water Reservoir and Pumping Station Records**Water Reservoir and Pumping Station (508 6th Avenue South, Martensville)**

Parameter	Limit (mg/L)	Test Level Range	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Total Chlorine	at least 0.5	<u>0.94 – 1.94</u>	<u>366</u>	<u>366</u>	<u>0</u>

Water Reservoir and Pumping Station (709 Reddekopp Drive, Martensville)

Parameter	Limit (mg/L)	Test Level Range	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Total Chlorine	at least 0.5	<u>1.05 – 1.90</u>	<u>366</u>	<u>366</u>	<u>0</u>

Water Reservoir and Pumping Station (120 16th Avenue, Martensville)

Parameter	Limit (mg/L)	Test Level Range	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Total Chlorine	at least 0.5	<u>0.91 – 1.92</u>	<u>366</u>	<u>366</u>	<u>0</u>

Turbidity – Turbidity for Water Entering Distribution System – From Water Reservoir and Pumping Station Records**Water Reservoir and Pumping Station (508 6th Avenue South, Martensville)**

Parameter	Limit (NTU)	Test Level Range	Turbidity (NTU)	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Turbidity	<u>1.0</u>	<u>0.07 – 0.24</u>	<u>NA</u>	<u>366</u>	<u>366</u>	<u>0</u>

Water Reservoir and Pumping Station (709 Reddekopp Drive, Martensville)

Parameter	Limit (NTU)	Test Level Range	Turbidity (NTU)	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Turbidity	<u>1.0</u>	<u>0.07 – 0.23</u>	<u>NA</u>	<u>366</u>	<u>366</u>	<u>0</u>

Water Reservoir and Pumping Station (120 16th Avenue, Martensville)

Parameter	Limit (NTU)	Test Level Range	Turbidity (NTU)	# Tests Required	# Tests Performed	# Tests Not Meeting Requirements
Turbidity	<u>1.0</u>	<u>0.09 – 0.24</u>	<u>NA</u>	<u>366</u>	<u>366</u>	<u>0</u>

Chemical – Health Category

Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Results	# Samples Exceeding Limit	# Samples Required	# Samples Submitted
Arsenic	0.010		_____	_____	_____	_____
Barium	1.0		_____	_____	_____	_____
Boron		5.0	_____	_____	_____	_____
Bromate	0.01		_____	_____	_____	_____
Cadmium	0.005		_____	_____	_____	_____
Chlorate	1.0		_____	_____	_____	_____
Chlorate	1.0		_____	_____	_____	_____
Chromium	0.05		_____	_____	_____	_____
Fluoride (avg.*)	1.5		_____	_____	_____	_____
Lead	0.01		_____	_____	_____	_____
Nitrate (avg.*)	45.0		_____	_____	_____	_____
Selenium	0.01		_____	_____	_____	_____
Uranium	0.02		_____	_____	_____	_____

REFER TO,
City of Saskatoon, Saskatoon.ca for
information on treated water supply

Chemical – Trihalomethanes (THMs) and Haloacetic Acids (HAAs)

Parameter	Limit (mg/L)	Sample Result (average)	# Samples Required	# Samples Submitted
Trihalomethanes	0.1	<u>0.03775</u>	4 (1 every 3 months)	4 _____
Haloacetic Acids	0.080	<u>0.02708</u>	4 (1 every 3 months)	3 _____

(Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for Trihalomethanes and Haloacetic Acids. Waterworks using groundwater sources beyond the influence of surface water do not need to report trihalomethanes and haloacetic acids, since sampling and analysis will not likely have been performed), unless otherwise specified in the waterworks permit to operate.

General Chemical

Parameter	Aesthetic Objectives * (mg/L)	Sample Results (average)	# Samples Required	# Samples Submitted
Alkalinity	500	_____	_____	_____
Bicarbonate	No Objective	_____	_____	_____
Calcium	No Objective	_____	_____	_____
Carbonate	No Objective	_____	_____	_____
Chloride	250	_____	_____	_____
Conductivity	No Objective	_____	_____	_____
Hardness	800	_____	_____	_____
Magnesium	200	_____	_____	_____
PH	No Objective	_____	_____	_____
Sodium	300	_____	_____	_____
Sulphate	500	_____	_____	_____
Total dissolved Solids	1500	_____	_____	_____

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Chemical – Pesticides

Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Result	# Samples Exceeding MAC/IMAC	#Samples Required	# Samples Submitted
Atrazine		0.005	_____	_____	_____	_____
Bromoxynil		0.005	_____	_____	_____	_____
Carbofuran	0.09		_____	_____	_____	_____
Chlorpyrifos	0.09		_____	_____	_____	_____
Dicamba	0.12		_____	_____	_____	_____
2,4-D*		0.1	_____	_____	_____	_____
Diclofop-methyl	0.009		_____	_____	_____	_____
Dimethoate		0.2	_____	_____	_____	_____
Malathion	0.19		_____	_____	_____	_____
MCPA	0.10		_____	_____	_____	_____
Pentachlorophenol	0.06		_____	_____	_____	_____
Picloram		0.19	_____	_____	_____	_____
Trifluralin		0.045	_____	_____	_____	_____

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information on treated water supply

Chemical – Cyanide and Mercury

Parameter	Limit MAC (mg/L)	Sample Results	# Samples Exceeding MAC	# Samples Required	# Samples Submitted
Cyanide	0.2	_____	_____	_____	_____
Mercury	0.001	_____	_____	_____	_____

Algal Toxins –Microcystin-LR

Date of last sample: _____

Parameter	Limit MAC (mg/L)	Sample Results	# Samples Exceeding MAC	# Samples Required	# Samples Submitted
Microcystin LR	0.0015	_____	_____	_____	_____

REFER TO,
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information on treated water supply

Chemical – Synthetic Organic Chemicals

Samples for synthetic organic chemicals were submitted on *(insert dates)*. Sample results indicated that the provincial drinking water quality standards were not exceeded. *(Use this one if review indicates that there were no exceedences)*. **(OR)** Samples exceeded provincial water quality standards only for the following parameters: *(Use only the applicable portion of table below for which values have been exceeded)*.

Parameter/Location	Limit MAC	Limit IMAC	Sample Result(s)	# Samples Exceeding Limit	# Samples Required	# Samples Submitted
Benzene	0.005	_____	_____	_____	_____	_____
Benzo(a)pyrene	0.00001	_____	_____	_____	_____	_____
Carbon Tetrachloride	0.005	_____	_____	_____	_____	_____
Cichlorobenzene, 1,2	0.02	_____	_____	_____	_____	_____
Dichlorobenzene, 1,4	0.005	_____	_____	_____	_____	_____
Dichloroethylene, 1,1	0.014	_____	_____	_____	_____	_____
Dichloromethane	0.05	_____	_____	_____	_____	_____
Dichlorophenol, 2,4	0.9	_____	_____	_____	_____	_____
Monochlorobenzene	0.08	_____	_____	_____	_____	_____
Tetrachlorophenol, 2,3,4,6	0.1	_____	_____	_____	_____	_____
Trichloroethylene	0.05	_____	_____	_____	_____	_____
Trichlorophenol, 2,4,6	0.005	_____	_____	_____	_____	_____
Vinyl Chloride	0.002	_____	_____	_____	_____	_____

REFER TO,
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information on treated water supply

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

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