

Annual Drinking Water Quality and Compliance Report 2009

Ministry of Government Services Yarrow Youth Farm Saskatoon, Saskatchewan

Introduction

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 **Yarrow Youth Farm** water quality and sample submission compliance record for the **January 2009 to December 31, 2009** time period.

For more information on minimum sample submission requirements and the meaning of type of sample, please refer to the Ministry of Environment's "**Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202**". Permit requirements for a specific waterworks may require more sampling than outlined in the Ministries 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/hecs-sesc/water/dwgsup.htm>.

The documentation in this report is based on site log books, Saskatchewan Provincial Laboratory and SRC Analytical Laboratories testing. Copies of all records are available on site or the contact information at the end of this report..

This report was completed on **March 31, 2010**.

Water Quality Standards

Bacteriological Quality:

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform	0 Organisms/100 mL	24	26	0 (0%)
Background Bacteria	Less than 200/100 mL			

The owner/operator is responsible to ensure that one hundred percent of all bacteriological samples are submitted as required. All waterworks are required to submit samples for bacteriological water quality, the frequency of monitoring depends on the population served by the waterworks.

Water Disinfection

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

Parameter	Minimum Limit	Free Chlorine Residual Range	Total Chlorine Residual Range	Average Free Chlorine (mg/L)	Average Total Chlorine (mg/L)
Chlorine Residual	0.1 mg/L free 0.5 mg/L total	0.03-0.11	0.99-1.67	0.04	1.18

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual OR 0.5 mg/L total chlorine residual is required at all times throughout the distribution system unless otherwise approved. A proper chlorine submission is defined as a bacteriological sample submission form with both the free and total chlorine residual fields filled out. An adequate chlorine is a result that indicates that the chlorine level is above the regulated minimums. An adequate chlorine may be counted even if the chlorine results were submitted incorrectly. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit.

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

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Total Chlorine Residual	> 0.5	0.99 > 1.75	366	0 (0%)

A minimum of 0.5 milligrams per litre (mg/L) total chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be recorded in operation records. This data includes the number of total chlorine residual tests performed, the overall range of total chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.5 mg/L total chlorine residual.

Note: The reporting of free chlorine residuals is not required because this waterworks receives treated water via a SaskWater pipeline that is supplied by the City of Saskatoon. The City of Saskatoon uses chloramines for disinfection.

Chemical Analysis

Health Category

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

This waterworks is required to submit **0** samples. Treated water is received via a SaskWater pipeline from the City of Saskatoon. A Chemical analysis in the Health Category is not required to be performed on site. The Health Category analysis is performed by the City of Saskatoon as per their **Permit to Operate a Waterworks**.

For further information please refer to the **City of Saskatoon Annual Drinking Water Quality & Compliance Report**.

General Category

All waterworks serving less than 5000 persons are required to submit water samples for General Chemical category ***once every two (2) years*** if a ground water source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

This waterworks is required to submit **0** samples. Treated water is received via a SaskWater pipeline from the City of Saskatoon. A Chemical analysis in this category is not required to be performed on site. The Health Category analysis is performed by the City of Saskatoon as per their ***Permit to Operate a Waterworks***.

For further information please refer to the ***City of Saskatoon Annual Drinking Water Quality & Compliance Report***.

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

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(306) 787-6332**

Copies of this report are available at:

<https://watermon.spm.gov.sk.ca/>