



POTABLE WATER SYSTEM ANNUAL REPORT FOR CALENDAR YEAR:

2017

Field Unit: **Northern Prairies**

Park or Site: **Prince Albert NP**

System Number: **21.09**

System Name: **Waskesiu**

SYSTEM DETAILS

Was this system operated in 2017 for potable water uses?

Yes

If "No", rest of report optional, with the exception of Maximo # and your name & date at end.
Note that "potable water uses" includes systems on BWN with potable water uses after boiling.

Number of Months Operated for Potable Water Uses in each System Classification*:

Large: Medium: Small: Micro:

Classification

Maximo Asset Number:

Determined By:

20171

Total Operational Months in 2017:

Type**:

Measured Flow

*In this report, "1st Classification" refers to largest classification, and "2nd Classification" refers to second largest classification.

** Seasonal is a system that, for 60 or more consecutive days per year, is not in operation.

No.	DETAIL		
1	WATER SOURCE: (* Note that a 'Supplied by Others' system must have a Distribution System, as reported in #10 below.)	Surface Water	
2	If 'Supplied By Others' then Items 2 to 7 are <input type="text" value="N/A"/>	Overall treatment type?	
3		Filtration method?	
4		If source is Groundwater (not GUDI), has 'Relief' from Primary Disinfection been granted (Section 1.4)?	N/A
5		Primary Disinfection method:	CL2 & UV
6		If Primary Disinfection is UV without chlorine, and if Adenovirus is a reasonable concern per Standards, is UV Dose sufficient per Table AI.4?	N/A
7		If Chlorination is required in Primary Disinfection to meet Section 1.3.1, is this provided?	<input type="text" value="Yes"/>
8		Treated water storage method:	Combination
9	Treated water storage volume, in cubic metres:	757m3	
10	Does this system include a Distribution System (i.e. at least 500m of PCA piping from origin of provided water)?	<input type="text" value="Yes"/>	
11	If system includes a Distribution System, is the required chlorine-based Secondary Disinfection present in it?	<input type="text" value="Yes"/>	
12	If Medium or Large system, is it eligible for Reduction in Microbiological Sampling Frequency per Section 1.7.3?	<input type="text" value="No"/>	
13	If Year Round, and if all required annual Lead testing was done during the last 3 years, were all results less than half of MAC?	<input type="text" value="No"/>	
14	If Year Round, and if all required THMs testing was done during the last 24 months, were all results less than half of MAC?	<input type="text" value="No"/>	

SANITARY SURVEY

	Survey Frequency Required by Standards*	Last Survey (yyyy-mm-dd)	Next Required Survey (yyyy-mm)	
	1 every 3 years	2016-04-04	2019-07	
* Based on 1 st System Classification only.				

OPERATIONAL CHECKS

PARAMETER	Minimum Testing Frequency Required by Standards		Testing Frequency Actually Performed				Number of Exceedances (incl. chlorine shortfalls)		
	1 st Classification	2 nd Classification	1st Classification		2nd Classification				
Chlorine Residual in Treatment Plant*	1 every day	1 every day	every	Continuously	every	Continuously			
Chlorine Residual in Distribution System *	11 every week	6 every week	8	every	week(s)	5	every	week(s)	
Turbidity - Raw Water (Groundwater systems only)	N/A	N/A	N/A			N/A			
Turbidity-Treated/Provided Water (Surface/GUDI only)	Continuously	1 every day	every	Continuously	every	Continuously			

* Chlorine Residual testing reported in this table excludes the additional Chlorine Residual testing that is required with Microbiological Sampling.

MICROBIOLOGICAL SAMPLING (Both *E.coli* and Total Coliforms)

SAMPLING LOCATION	Minimum Sampling Frequency Required by Standards		Sampling Frequency Actually Performed (for both <i>E.coli</i> and Total Coliforms)				Number of Exceedances		
	1 st Classification	2 nd Classification	1st Classification		2nd Classification		E.coli	Total Coliforms	
Raw Water (Groundwater only)	N/A	N/A	N/A						
Treated / Provided Water (see also * and ** below)	1 every week	1 every 2 weeks	186	every	year(s)	186	every	year(s)	

* For systems with *Distribution Systems*, did at least 50% of the 'Treated/Distributed Water' samples come from system extremities?

Yes

** For Micro Groundwater systems on *Relief*, total annual number of samples:

Required by Stds:

Actually Taken:

CHEMICAL TESTING

Has the one-time Full Characterization (Tables A, B, C & D) of the <u>Raw</u> water been performed?	<input type="text" value="Yes"/>	If "Yes", provide actual date (yyyy-mm-dd):	2012-01
		If "No", provide planned date (yyyy-mm):	

PERIODIC CHEMICAL TESTING

PARAMETER	Min. Testing Frequency Required by Standards*	Last Actual Test (yyyy-mm)	Next Req'd Test (yyyy-mm)
Inorganic & Organic (Tables A & B) of the <u>treated/provided</u> water	1 every year	2017-09	2018-09
Lead in <u>Distribution System</u>	1 every year	2016-01	ASAP

PARAMETER	Min. Testing Frequency Required by Standards*	Testing Frequency Actually Performed		
THMs in <u>Distribution System</u>	1 every 90 days	4	every	1 year(s)
Nitrates & Nitrites of the <u>treated/provided</u> water	1 every 120 days	186	every	1 year(s)

* Based on 1st System Classification only.

EXCEEDANCES IN CHEMICAL TESTING

PARAMETER (add clarifications if needed)	MAC	Actual Value
THM	100	109.3

IMPROVEMENTS / EQUIPMENT REPLACEMENT / CALIBRATIONS

DATE (yyyy-mm-dd)	DESCRIPTION	COST (\$)
2017-10-17	2100 P Portable Turbimeter	\$270.00
2017-10-17	1720 E Online Influent Turbidity meter (Sensor)	\$205.00
2017-10-17	1720 E Online Effluent Turbidity meter (Sensor)	\$205.00
2017-10-17	DR 890 Colorimeter	\$220.00
2017-10-17	DR 900 Coorimeter	\$220.00
2017-10-17	Lab Instruments	\$160.00
2017-10-17	CL Online Chlorine Analyser	\$1066.00

ATTACHED REPORTS*

DESCRIPTION OF REPORT	Number of Pages
21.09_THM Results and ExceedencesPotableWaterAnnualReport2017	4
21.09_Organics-InorganicstestsPotableWaterAnnualReport2017	4
21.09_PotableWaterAnnualReportAdverseResultsReport2017	1
21.09_PotableWaterAnnualReportAdverseresultsReport2017Lead	1

* Required attachments include Incident Response Reports, Results of general Organic/Inorganic (Tables A & B) and Full Characterization (Tables A, B,C, & D) group tests, and Sanitary Surveys.

GENERAL COMMENTS

(Note: To start a new line, press <Alt> <Enter>)

THM - exceeds established guidelines. Prince Albert National Park has entered into a contract with a Consultant to analyze/ study our water and provide options to reduce our production of THM. Results of study due by March 30, 2018.

Also the Lead test indicated for the firehall all the piping will be removed and replaced in the summer of 2018.The piping at the Fire Hall was replaced by Parks Canada staff in 2018 to prevent any unintentional use of the water for human consumption.

Please note ** the attached Before and after testing results for the Lead at PANP - Fire Hall.

COMPLIANCE

In 2017, was this system in 100% compliance with the Potable Water Guidelines and Standards for Parks Canada Agency?*

* "Compliance" includes all minimum requirements in green sections above having been met as should be reflected in the corresponding yellow sections.

In 2017, have all tests required by the Standards, and the Sanitary Survey if applicable, been performed?

In 2017, did any test results indicate any exceedances outside of the limits permitted under the Standards?

AUTHOR IDENTIFICATION

(Report must be prepared by the *Primary Technical Support Person* assigned to this Potable Water System)

PRIMARY TECHNICAL SUPPORT PERSON (PTSP) <small>(This typed name and date constitutes a digital signature)</small>	DATE <small>(yyyy-mm-dd)</small>	PTSP's SIGNATURE <small>(For the copy that the PTSP must submit to the Field Unit Superintendent)</small>
Kurt Smith	2018-09-11	_____