Water

Decew

<u>Grimsby</u>

Rosehill

Welland

Niagara Falls

Port Colborne

Niagara Falls Water Treatment Plant - 2023 Annual Water

Quality Report Water Quality Reports This annual water quality report summarizes the quality of drinking water from the Niagara Falls Water Treatment Plant, drinking water system number 220002084, from Jan.

This report satisfies the requirements of Ontario Regulation 170/03 - Drinking Water

purification process:

A conventional surface water treatment plant incorporates the following steps in its Zebra mussel control

Description of drinking water system

• Travelling screens Coagulation Flocculation • Sedimentation

 Filtration • Disinfection

1 to Dec. 31, 2023.

Systems.

The plant has a rated daily flow capacity of 145,475 m3/day. Primary disinfection is

achieved through utilizing sodium hypochlorite and ultraviolet light as enhancement. The Niagara Falls Water Treatment Plant supplies water to the City of Niagara Falls

• Sodium Hypochlorite

• Aluminum Sulphate

(260002304), parts of the City of Thorold (260004313) and parts of the Town of Niagaraon-the-Lake (260001380). The Niagara Falls Water Treatment Plant is located at 3599 Macklem St. in Niagara Falls.

Monetary expenses incurred To ensure safe and efficient operations, the following major repairs or upgrade projects

Water treatment plant infrastructure • Plant SCADA upgrade - \$458,471.08

The water treatment chemicals used over this reporting period are:

• Plant upgrade pH - \$20,510,269.98

took place:

• Plant SCADA network - \$178,133.70

• Plant structure upgrade - \$7,228,048.20

• Thorold and Niagara Falls trunk - \$14,355,351.56

Summary of adverse water quality incidents

The following table summarizes the notices of adverse water quality incidents submitted in accordance with the Safe Drinking Water Act. Adverse water quality incidents are reported to the Spills Action Centre and the Medical Officer of Health.

Corrective action

Not applicable

results

(minimum

number) -

(maximum

number)

0 - 840

Range of HPC results

0 - 13

0 - 19

Range of results

0.098 - 1.409

number) -

(maximum

Prescribed

standard*

0.006

0.01

1.0

5.0

0.005

0.05

Unit of

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

measure

number)

0.31 - 1.51

(minimum number) -

(maximum number)

Notice of issue

Not applicable

Unit of

Not applicable

measure

CFU/100ml

CFU/100ml

CFU/100ml

Unit of measure

Unit of measure

Unit of

Exceedance

No

No

No

No

No

No

measure

NTU*

mg/L

CFU/mL

CFU/mL

resolution

Adverse condition

Not applicable

Incident date

No incident to report

Where there have been no adverse water quality incidents for the reporting period, the table will show "NIL".

Water quality test results

Drinking Water systems, during this reporting period.

indicates that the sample result is below the lowest possible detection limit for the parameter. Microbiological testing Microbiological testing carried out under Schedule 10 of Ontario Regulation 170/03 -

Reported results that are shown with "ND" (non-detect) instead of a numerical value

Prescribed Location Number of Range of total Range of E.Coli or Fecal Coliform samples standard*

results

(minimum

number) -

(maximum

number)

0 - 170

52 Raw Treated 52

Quality Standards.

Location

Operational testing

Parameter

Filter turbidity

Treated chlorine

Additional testing

issued

Drinking Water

Licence Issue 12

Aug. 13, 2021

Inorganic testing

Parameter

Antimony

Arsenic

Barium

Boron

Cadmium

Chromium

1,1-Dichloroethylene

(vinylidene chloride)

1,2-Dichlorobenzene

1,2-Dichloroethane

1,4-Dichlorobenzene

Tetrachlorophenol

2,4,6-Trichlorophenol

2,4-Dichlorophenoxy

acetic acid (2,4-D)

2-4 Dichlorophenol

chlorophenoxyacetic

2-Methyl-4-

acid (MCPA)

Atrazine + N-

Carbofuran

Paraquat

Phorate

Picloram

Polychlorinated

Biphenyls (PCB)

Prometryne

Simazine

Terbufos

Tetrachloroethylene

THM - Distribution

(latest running

Triallate

Trifluralin

Standards.

systems.

Contact Us

A - Z Services

Vinyl Chloride

annual average)

Trichloroethylene

Pentachlorophenol

4

4

4

4

4

4

4

4

4

4

4

4

Nov. 6

ND

ND

ND

ND

ND

ND

ND

ND

0.020

ND

ND

ND

ND

*Prescribed standards are copied from Ontario Regulation 169/03 - Ontario Drinking Water Quality

Carbon tetrachloride

Alachlor

2,3,4,6-

Standards.

Microcystin

Number

samples

of

4

4

4

4

4

4

0 0 Not detectable Distribution 155 0 0 Not detectable

*Prescribed standards are copied from Ontario Regulation 169/03 - Ontario Drinking Water

Heterotrophic plate count testing (HPC) is conducted on some treated and distribution

system samples. The heterotrophic plate count test is used as a tool to monitor overall

Number of samples

quality, but the results are not indicators of water safety. There is no prescribed standard

Operational testing carried out under Schedule 7 of Ontario Regulation 170/03 - Drinking

Water Systems, during this reporting period. An analyzer continuously monitors the water

treatment process and records results on a predetermined frequency. Where continuous

Number of samples

monitors are used, 8760 is reflected as the number of samples.

8760

8760

52 Treated Distribution 155

for heterotrophic plate count.

Heterotrophic plate count testing

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument. Date of legal Result value or Location: Requirement Date instrument sampled range (minimum parameter

*NTU (nephelometric turbidity units) is a unit that measures the lack of water clarity.

Municipal Environmental Monthly < 3 - 39 8 (annual mg/L Drinking Water Discharge: Total (January average) Licence Issue 12 Suspended to Solids Aug. 13, 2021 December) Municipal Raw: Microcystin Weekly ND - 0.00015 <=0.0015 mg/L Drinking Water (June to Licence Issue 12 October) Aug. 13, 2021 Municipal Treated: Weekly ND - 0.00015 <=0.0015 mg/L

(June to

October)

*Prescribed standards are copied from Ontario Regulation 169/03 - Ontario Drinking Water Quality

Range of

(minimum

number)-

(maximum

0.021 - 0.022

number)

ND

ND

ND

ND

< 0.001 -

0.002

results

Inorganic parameter testing carried out under Schedule 13 of Ontario Regulation 170/03 -

Drinking Water Systems, during this reporting period. Inorganic substances include heavy

metals and dissolved minerals that may be present in treated drinking water.

Last

date

Nov. 6

Nov. 6

Nov. 6

Nov. 6

Nov. 6

Nov. 6

sample

Drinking Water	eter testing co Systems, duri	ng this repor	ting period. Trace		measure mg/L mg/L tion 170/03 -	No				
type Treated	of samples 4	sample date Nov. 6	results (min to max)	o standard 0.010	measure mg/L	No				
type	of samples	sample date	results (min to max)	o standard	measure					
	of	sample	results (min to			Exceedance				
*Prescribed standards are copied from Ontario Regulation 169/03 - Ontario Drinking Water Quality Standards. The prescribed standard for sodium is copied from Ontario Regulation 170/03 - Drinking Water Systems. Lead testing Lead testing carried out under Schedule 15.1 of Ontario Regulation 170/03 - Drinking Water Systems, during this reporting period.										
Uranium	4	Nov. 6	< 0.001	0.02	mg/L	No				
Sodium	6	Nov. 6	8.32 - 12.5	20	mg/L	No				
Selenium	4	Nov. 6	< 0.0005 - 0.008	0.05	mg/L	No				
Nitrite	12	Dec. 4	< 0.05	10.0	mg/L	No				
	12	Dec. 4	0.1 - 0.39	1.0	mg/L	No				
Nitrate		Nov. 6	< 0.0001	0.001	mg/L	No				
Mercury Nitrate	4									

number)-

number)

ND

Nov. 6

4

4

4

4

4

4

4

4

4

4

4

4

(maximum

0.014

0.2

0.005

0.005

0.1

0.005

0.1

0.9

0.1

0.005

0.005

0.09

0.002

0.01

0.06

0.002

0.19

0.003

0.001

0.01

0.001

0.01

0.100

(running

annual

0.23

0.005

0.045

0.001

average)

mg/L

Aug. 8

Nov. 6

News and Notices

No

mg/L

dealkylated metobolites Azinphos-methyl 0.02 No 4 Nov. 6 ND mg/L Benzene Nov. 6 ND 0.001 No 4 mg/L Benzo(a)pyrene ND 0.00001 4 Nov. 6 mg/L No Bromoxynil Nov. 6 ND 0.005 mg/L No 4 Carbaryl Nov. 6 ND 0.09 No 4 mg/L

ND

ND

Nov. 6

Nov. 6

Chlorpyrifos	4	Nov. 6	ND	0.09	mg/L	No
Diazinon	4	Nov. 6	ND	0.02	mg/L	No
Dicamba	4	Nov. 6	ND	0.12	mg/L	No
Dichloromethane	4	Nov. 6	ND	0.05	mg/L	No
Diclofop-methyl	4	Nov. 6	ND	0.009	mg/L	No
Dimethoate	4	Nov. 6	ND	0.02	mg/L	No
Diquat	4	Nov. 6	ND	0.07	mg/L	No
Diuron	4	Nov. 6	ND	0.15	mg/L	No
Glyphosate	4	Nov. 6	ND	0.28	mg/L	No
HAA - Distribution (latest running annual average)	4	Nov. 6	0.014	0.080 (running annual average)	mg/L	No
Malathion	4	Nov. 6	ND	0.19	mg/L	No
Metolachlor	4	Nov. 6	ND	0.05	mg/L	No
Metribuzin	4	Nov. 6	ND	0.08	mg/L	No
Monochlorobenzene	4	Nov. 6	ND	0.08	mg/L	No

Parameters exceeding prescribed half-standard Any inorganic or organic parameter(s) that exceeded half the standard prescribed in

Schedule 2 of prescribed standards documented in Ontario Regulation 169/03 - Ontario

Drinking Water Quality Standards or prescribed standards documented within Ontario

Where there have been no instances of a half-standard exceedance for the reporting

Regulation 170/03 - Drinking Water Systems for large municipal residential drinking water

*Prescribed standards are copied from Ontario Regulation 169/03 - Ontario Drinking Water

Quality Standards. The prescribed standard for sodium is copied from Ontario Regulation

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period, the table will show "NIL". Sodium - Prescribed standard is 20 Result value or range (minimum number)-(maximum number) Date of sample 10. 2 - 11.9 mg/L Feb. 6 May 3

Did you find what you were looking for today? OYes ONo

Job Opportunities

170/03 - Drinking Water Systems.

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