Ministry of the Environment, Conservation and Parks

Drinking Water and Environmental Compliance Division

Owen Sound District Office
101 17th St. E., 3rd Floor
Owen Sound ON N4K 0A5

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Division de la conformité en matière d'eau potable et d'environnement

Bureau du district de Owen Sound
101, 17e rue Est, 3e étage
Owen Sound ON N4K 0A5

Ontario

March 10, 2020

Sent by Email: swatson@brockton.ca

Municipality of Brockton
100 Scott Street, Box 68
Walkerton, Ontario
N0G 2V0

Attention: Ms. Watson
CAO/Clerk

Re: 2019/2020 Inspection Report 1-KVN11
Walkerton Drinking Water System
Drinking Water Licence 081-103 Issue 2
Drinking Water Works Permit 081-203, Issue 2

The enclosed report documents findings of the inspection that was performed on February 12, 2020.

Two sections of the report, namely "Actions Required" and "Recommended Actions", specify due dates for the submission of information or plans to my attention. Please note that "Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within an Act, a Regulation, or site-specific approvals, orders or instructions; "Recommended Actions" convey information that the owner or operating authority should consider implementing in order to conform with existing and emerging industry standards.

The report includes an Inspection Summary Rating Record as an appendix. This record forms part of the ministry's comprehensive, risk-based inspection process. The rating provides a quantitative measure of the inspection results for this specific drinking water system for the reporting year. An inspection rating that is less than 100 per cent does not mean that the drinking water from the system is unsafe. The primary goals of this assessment are to encourage ongoing improvement of drinking water systems and to measure this progress from year to year.

I would like to remind you that Section 19 of the Safe Drinking Water Act, 2002 (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems, including members of municipal councils. "Taking Care of Your Drinking Water: A guide for members of municipal council", a publication found on the Drinking Water Ontario website (http://www.ontario.ca/environment-and-energy/municipal-drinking-water-systems-licencing-registration-and-permits), provides further information about these obligations.

Should you have any questions regarding the content of the enclosed report, please do not hesitate to contact me.

Yours truly,

Rhonda Shannon
Water Compliance Inspector
Phone: 226-668-5873
e-mail: Rhonda.shannon@ontario.ca

Enclosure

ec: Dr. Ian Arra, Medical Officer of Health, Grey-Bruce Health Unit
Gregg Furtney, Director of Operations, Municipality of Brockton
Nancy Guest, Administrative Assistant, Source Protection Program Branch
Scott Gowan, Project Manager/ORO, Veolia
Mark Smith, Water Compliance Supervisor, Ministry of Environment, Conservation and Parks

c: File SI-BR-BR-BR-540 (2020)

Ontario

Ministry of the Environment, Conservation and Parks

WALKERTON DRINKING WATER SYSTEM

Inspection Report

Site Number:	220002690
Inspection Number:	1-KVN11
Date of Inspection:	Feb 12, 2020
Inspected By:	Rhonda Shannon

OWNER INFORMATION:

Company Name:	BROCKTON, THE CORPORATION OF THE MUNICIPALITY OF		
Street Number:	100	**Unit Identifier:**	
Street Name:	SCOTT St		
City:	WALKERTON		
Province:	ON	**Postal Code:**	N0G 2V0

CONTACT INFORMATION

Type:	Owner	**Name:**	Gregory Furtney
Phone:	(519) 881-2223	**Fax:**	(519) 881-2991
Email:	gfurtney@brockton.ca		
Title:	Director of Operations		

Type:	Operating Authority	**Name:**	SCOTT GOWAN
Phone:	(519) 881-1474	**Fax:**	(519) 881-3666
Email:	scott.gowan@veolia.com		
Title:	ORO/Project Manager		

Type:	Operator	**Name:**	STEVE ROWE
Phone:	(519) 881-1474	**Fax:**	(519) 881-3666
Email:			
Title:	Operator		

INSPECTION DETAILS:

Site Name:	WALKERTON DRINKING WATER SYSTEM
Site Address:	1244 BRUCE ROAD 3 Road BROCKTON ON N0G 2V0
County/District:	BROCKTON
MECP District/Area Office:	Owen Sound Area Office
Health Unit:	GREY BRUCE HEALTH UNIT
Conservation Authority:	Saugeen Conservation
MNR Office:	Owen Sound Regional Office
Category:	Large Municipal Residential
Site Number:	220002690
Inspection Type:	Unannounced
Inspection Number:	1-KVN11
Date of Inspection:	Feb 12, 2020
Date of Previous Inspection:	Jan 22, 2019

COMPONENTS DESCRIPTION

Site (Name):	MOE DWS Mapping		
Type:	DWS Mapping Point	**Sub Type:**	

Site (Name):	Monitoring Well 1-86

Type: Other **Sub Type:** Other
Comments:
Monitoring Well # 1-86 is located just outside of the Walkerton DWS pumphouse. Under the Walkerton PTTW (1128-9U4JGC) this well and Well #6 are required to have the static water levels measured and recorded each week.

Also, in close proximity to this monitoring well is the Walkerton "swamp monitor", that records water levels in the wetland area near the pumphouse. While data continues to be collected it is not required. It is believed this information was relevant prior to the Walkerton production wells being deemed as "groundwater".

Site (Name): WELL 7 RAW
Type: Source **Sub Type:** Ground Water
Comments:
Well No.7 was assumed to be GUDI until upgrades to the well were performed. These upgrades to Well No. 7 were completed by the end of 2001. Well No.7 is referred to as a flowing artesian well; drilled to a depth of 76.2 meters. The well is located within the pumphouse and is equipped with a line-shaft type vertical turbine pump and a raw water flow meter. Two additional diffuser bowl assemblies were added to the well pump in the summer of 2005 to increase the total dynamic head to 66 meters from 38.8 meters.

The flow of raw water from Well 7 is fairly constant at 500 or 550 impGal/min due to the use of a butterfly valve to throttle.

Site (Name): WELL 9 RAW
Type: Source **Sub Type:** Ground Water
Comments:
Well No. 9 was built to replace Well No. 6, and commissioned in October 2001 to serve as the backup well for Well No. 7. Well No. 9 is drilled to a depth of 79.3 meters and is constructed in the same well field as Well No. 7. Presently, Well No. 9 serves as an active production well. The operating authority has indicated that Well No. 7 and No. 9 can not be operated simultaneously. The operating authority cycles the duty and standby wells weekly between production wells, No. 7 and No. 9. Well No. 9 is surrounded by a locked chain link fence that is topped with barbed-wire. Well No. 9 is equipped with a submersible pump, a raw water flow meter with electronic read-out, an electrical shut-off switch, and a below ground discharge line to transmit water from the well to the pumphouse. In the fall of 2005 the submersible pump was replaced with a larger submersible pump able to deliver an increased head of 66 m at 56.8 L/s.

Site (Name): PUMPHOUSE TREATED WATER
Type: Treated Water POE **Sub Type:** Pumphouse
Comments:
The pumphouse is equipped with two UV reactors in parallel (one duty, one standby) to perform primary disinfection. The 300 mm diameter Trojan UVSwift Model 4L12 UV reactors are each rated to provide a minimum dose of 40 mJ/cm2, complete with one UV intensity sensors (per two bulbs), automatic cleaning system, water level sensor and a control power panel to provide operational control, monitoring, alarms and automatic switchover. The reactors are designed to handle a maximum flow of 82.6 L/s. Chlorine gas is added downstream of the UV disinfection system to create a 'chlorine residual' which remains throughout the distribution system. The chlorine gas disinfection system consists of two (2) 9.0 kg/day gas chlorinators (one duty, one standby) c/w scales, duplex automatic change-over and regulator, chlorine analyzer and chlorine leak detector and two (one duty, one standby) chlorine booster pumps, electrical and control system all contained in a separate room.

Walkerton DWS is classified as: Water Distribution and Supply Subsystem CLASS II (certification issued: March 11, 2007).
A 6,000 L surge suppression tank, equipped with a bladder was installed at the pumphouse to protect the pump station from water surges which may develop in the pipeline and to supply water to the UV reactors when the well

pump is off. When a surge is encountered, the tank will act as a cushion for water reversing in the pipeline.
Recent upgrades allow the well pumps to pump treated water from the pumphouse to the Town's distribution system and standpipes without the need of the highlift pumping station.
A 100 mm surge anticipator valve and a flow control valve are installed on the plant discharge pipe to provide control over the flow and pressure into the water transmission main. The operating authority has set the control valve to limit the rate of flow from the pumphouse to 52.0 L/s.
A diesel generator is maintained to provide a continuous supply of water during power failures.

Site (Name): DISTRIBUTION SYSTEM
Type: Other **Sub Type:** Other
Comments:
The Walkerton water supply currently serves a population of approximately 4,900 through approximately 1,820 service connections.
In the distribution system, there are two (2) standpipes to provide treated water storage and system pressure for the community of Walkerton.
At the high point in the water transmission line which supplies treated water from the pumphouse to the town exists a combination air relief and vacuum breaker valve. The valve's purpose is to remove air which accumulates in the main and to protect the main against vacuum conditions.
In 2000 approximately five kilometres of 100 mm cast iron water mains were replaced with 150 mm diameter polyvinyl chloride (PVC) pipe.

Site (Name): MULTI MONITORING WELL 6
Type: Other **Sub Type:** Other
Comments:
Former production Well No.6 was converted to an observation well when it was found to be GUDI. Four piezometers in the casing are completed to four different water producing fracture zones found at various depths in the well. The original purpose of the monitoring well was to to see which fracture is most impacted by the production wells 7 and 9. Additionally the well is used to assess if production well water taking is sustainable and that a steady decline of the water levels would not result.

Site (Name): South Tower
Type: Other **Sub Type:** Reservoir
Comments:
Standpipe No. 1, known as the Walkerton Tower is located in the southwest corner of Walkerton on Wallace Street. The 8.5 metre diameter by 26.2 metre high steel structure holds a volume of 1,486 cubic meters. The storage facility provides the town with water during peak demand and also equalizes system pressures and provides fire protection. The standpipe is hydraulically connected to the distribution system through a single connection point. The standpipe is equipped with on-line free chlorine residual analyzers capable of trending through the SCADA system.

A mixer was installed in the south tower to prevent thermocline formation and improve water quality.

Site (Name): North Tower
Type: Other **Sub Type:** Reservoir
Comments:
North Standpipe, known as the Brockton Tower is located on Cunningham Road in the Northeast corner of Walkerton. The 14.6 meter diameter by 20.2 meter high steel structure holds a volume of 3,380 cubic meters. The cumulative water storage for the community of Walkerton is 4,866 cubic meters. The storage facility provides the town with water during peak demand and also equalizes system pressures and provide fire protection. The standpipe is hydraulically connected to the distribution system through a single connection point. The standpipe is equipped with on-line free chlorine residual analyzers capable of being trended through the SCADA system.

In 2011 the North Standpipe had a mixer installed to prevent thermocline formation and improve water quality. The Mixer sits on a tripod base with a DC motor and stainless impeller. The unit height is 3'0" with a power chord going through a grommet in the access hatch to the controller in the shed beside the Standpipe. The impeller rotates at 2200 rpm.

Site (Name): EASTRIDGE WATER PRESSURE BOOSTER STATION
Type: Other **Sub Type:** Other
Comments:
The Eastridge Booster Station is supplied with water from the Brockton Tower. Four electric pumps (one 7.5 hp, one 40 hp and two 100hp) are available to pump water from the station to the East Ridge Business Park. The booster pumping station consists of a pumping room and a diesel generator room. A 300 kW diesel generator set provides emergency power for the booster pumps, heaters and lighting in the event of a power outage.

Site (Name): Wallace Street Booster Station
Type: Other **Sub Type:** Booster Station
Comments:
Due to the low pressure problems in the southwest area of Walkerton, the Municipality of Brockton constructed a water booster pumping facility in the affected area. The Wallace Street booster station is equipped with two (2) duty/standby pumps each capable of rated flow of 6.5 L/s at 17.0 m of TDH, and one (1) pump of rated flow of 78 L/s at 27 m TDH. Pumps of 6.5 L/s are designed for domestic flow with a design pressure of 50 psi and the pump of 78 L/s is designed for fire flow condition with a design pressure of 20 psi. The pumping station also houses associated piping, valving, pressure tank, controls and check valve chamber. A connection for a portable standby generator is provided.

Installation of an emergency (standby) diesel generator at the Wallace Street Booster Station was completed January 19, 2015. The generator is rated 120 kW and is an exterior unit installed adjacent to the building for the booster pumping station. The unit is radiator cooled and equipped with an acoustic weather proof enclosure and exhaust silencer.

INSPECTION SUMMARY:

Introduction

- **The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water related policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment and distribution components as well as management practices.**

  This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O.Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

  This report is based on a "focused" inspection of the system. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O.Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

  This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

  A drinking water inspection was conducted on February 12, 2020 at the Walkerton drinking water facility to assess compliance with the systems Licence, Permit, Permit to Take Water as well as Ministry legislation and guidelines. The Municipality of Brockton owns the drinking water system and Veolia Water Canada currently operates the facility, located at 1244 Bruce Road #3, Walkerton Ontario. This inspection covers the time period of January 2019 to February 11, 2020 and includes a review of Ministry files, plant operating data and a detailed assessment of compliance with the terms and conditions of all MECP authorizing documents.

  The physical inspection included a tour of the facility and was conducted with Steve Rowe, OIC for the system.

Source

- **The owner was maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials.**

  Production wells continue to be sufficiently maintained.

  Trending since 2010 has shown a periodic total coliform presence, typically of 1 cfu/100mL, in the raw water supply. For the time period reviewed there were six (6) instances of total coliform detection from Well #9, with results between 1 cfu/100 mL and 75 cfu/100mL. There were no events of total coliforms measured from Well #7 and no presence of E. coli was detected in any samples taken from either well. This is a slight increase in coliform presence in the source water over the previous inspection period however the timing of all six (6) events corresponds to Well #9 pump maintenance.

  It is still recommended however that the Municipality monitor this trending ensure that treatment remains adequate for the quality of the source water.

- **Measures were in place to protect the groundwater and/or GUDI source in accordance with any the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.**

Source

Process map diagrams from April 2016 remain current for both the North and South Booster Stations and are available on-site in the Operations Manual. The water treatment process flow diagram is dated 2006 but was reviewed as the Process Control Plan in May 2016 and found to be still current. As well, the Operations Manual/Contingency Plan still includes the following procedures:

- Well Inspection and Maintenance [J-08]
- Daily System Checks [J-01]
- Well Casing Failure/Well Head Damage/Well Pump Failure [K-12]
- Agricultural Run-off [K-14]
- Chemical or Fuel Spill [K-07]
- Vandalism [K-08]

It remains recommended that these procedures continue to be reviewed by both administration and staff on a regular basis to ensure relevancy.

Capacity Assessment

- **There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.**

- **The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.**

  The rated capacity for this system is 7139 m3/day, as authorized under the DWS Licence No. 081-103, Issue 2 and PTTW #1128-9U4JGC.

  There were no flow exceedences nor flow monitoring anomalies found in the data reviewed. The maximum flow rate occurred in September of 2019 with 3,004 cubic metres of water used, which represents approximately 42% of the rated capacity allowed in the Licence. This is consistent with the flows found during the previous inspection review.

Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**

- **Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.**

  Primary disinfection remains to be achieved through UV disinfection to meet a 2-log inactivation of viruses for this facility, as required in Schedule E of Licence #081-101, Issue No. 2. Chlorine gas is added downstream of the UV units to provide for secondary disinfection throughout the distribution system.

  UV equipment must provide a minimum dosage of 40 mJ/cm2 at 244 L/min to meet primary disinfection requirements. Based on the records reviewed, this facility met current primary treatment requirements at all times during this inspection period.

- **Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.**

Treatment Processes

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

- **The primary disinfection equipment was equipped with alarms or shut-off mechanisms that satisfied the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03.**

  Primary disinfection continues to be accomplished through UV treatment. The Trojan UVSwift UV reactors run in parallel with a duty and stand-by reactor. Each reactor remains equipped with a solenoid shut-off so that no water is directed to users upon alarm conditions.

Treatment Process Monitoring

- **The secondary disinfectant residual was measured as required for the distribution system.**

  Free chlorine residuals remain to be measured daily from a number of different locations within the distribution system.

- **Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.**

  Continuous monitoring result trends for both flows and UV intensities continue to be reviewed on-site daily by the operator and recorded in a dedicated logbook at the Veolia office in Walkerton. SCADA trending is reviewed and anomalies identified and noted in the logbook.

  It is strongly recommended that the Operating Authority review the record keeping requirements outlined in O.Reg. 128/04 Section 27 and the associated review requirements in O.Reg. 170/03 Schedule 6-5 (3). All instances of abnormal operating conditions are required to be identified, noted and an explanation documented.

- **All continuous monitoring equipment utilized for sampling and testing required by O. Reg.170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.**

  The alarm for low level chlorine on the continuous chlorine monitors at the pump house is reported to be 0.5 mg/L. Low level alarms at both towers are set at 0.6 mg/L. The UV major alarm set point is 40 mJ/cm2; below 40 mJ/cm2 there is an automatic shut-off of water being directed to the distribution system.

- **Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.**

- **The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.**

  Bulb intensity, UV transmittance and UV dosage were found to be recorded on log sheets daily.

- **All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.**

  Both Well #7 and #9 flow meters were calibrated and passed calibration standards on June 24, 2019 by ICS Instrumentation and Control Solutions. Verification of the online chlorine analyzer continues to be completed on week days with a hand held Hach colorimeter and at least monthly for the online turbidimeter.

- **All UV sensors were checked and calibrated as required.**

  UV duty sensors are checked in-house monthly and the reference sensors calibrated by an outside source every

Treatment Process Monitoring

three (3) years. The last reference sensor check was completed by Trojan Technologies on August 21, 2019 with both sensors in tolerance.

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

- **The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

Logbooks

- **Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.**

Security

- **The owner had provided security measures to protect components of the drinking water system.**

  Well #7 and the drinking water treatment equipment remain located within a signed brick pump house complete with an intruder alarm and keyed lock entry. Chlorine gas is housed in a separate room with locked entry within the pump house. Well #9 is located in a locked and fenced compound approximately 100 meters from the pump house. The well casing has a secure and locked cap.

  Monitoring well #1-86 is located immediately adjacent to the pump house and is checked daily by an Operator. The Multi-monitoring wells at Well #6 are housed in a brick pump house with keyed locked entry as well. This site is also checked daily.

  The North and South Towers were found to be still signed, well-lit and locked with security key access. The North Tower is also fenced. Outbuildings at these locations were locked as well.

Certification and Training

- **The overall responsible operator had been designated for each subsystem.**

- **Operators-in-charge had been designated for all subsystems which comprised the drinking water system.**

  The OIC is designated and recorded daily in the logbook.

- **All operators possessed the required certification.**

  The Operating Authority is reminded that there are a number of Licences that expire in 2020.

- **Only certified operators made adjustments to the treatment equipment.**

Water Quality Monitoring

- **All microbiological water quality monitoring requirements for distribution samples were being met.**

- **All microbiological water quality monitoring requirements for treated samples were being met.**

Water Quality Monitoring

From the data reviewed it was found that treated samples were taken weekly and analyzed for total coliforms, E. coli and heterotrophic plate count.

- **All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  Inorganic sampling for parameters of Schedule 23, O.Reg. 170 is required every thirty-six (36) months. The most current sample event occurred on December 11, 2018. All sample results were within the prescribed limits. The next sample event required will be December 2021.
  Selenium is also sampled quarterly, as per Schedule C, Condition 4.1 of Licence 081-103.

- **All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  Organic sampling for parameters of Schedule 23, O.Reg. 170 is required every thirty-six (36) months. The most current sample event occurred on December 11, 2018. All sample results were within the prescribed limits. The next sample event required will be December 2021.

- **All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.**

  Haloacetic acid (HAA) monitoring is being conducted in conjunction with THM sampling; the following were the sample dates within this time period reviewed.
  • January 15, 2019 (2.2 ug/L)
  • April 16, 2019 (2.2 ug/L)
  • July 16, 2019 (2.2 ug/L)
  • October 15, 2019 (2.2 ug/L), and
  • January 14, 2020 (2.2 ug/L).

  The Ontario Drinking Water Quality Standard (ODWQS) for haloacetic acids came into force on January 1, 2020 and is expressed as a running annual average of quarterly results. The current rolling average is 2.2 ug/L, which is below the ODWQS of 80 ug/L.

- **All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.**

  Trihalomethanes were sampled on the following dates within the time period reviewed:
  • January 15, 2019 (4.0 ug/L)
  • April 16, 2019 (4.1 ug/L)
  • July 16, 2019 (4.0 ug/L)
  • October 15, 2019 (5.1 ug/L), and
  • January 14, 2020 (4.0 ug/L).

  The current rolling average is 4.3 ug/L, which is well below the ODWQS of 100 ug/L. All samples continue to be collected from a number of different locations in the distribution system which are likely to have an elevated potential for THM formation.

- **All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.**

  Nitrate and nitrite samples were found to be taken every three (3) months from each well. The sample dates were as follows:
  • January 15, 2019

Water Quality Monitoring

- April 16, 2019
- July 16, 2019
- October 15, 2019, and
- January 14, 2020.

- **All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  Sodium sampling is required every sixty (60) months. The most current sodium sample date was on October 16, 2018 with results of 6.75 mg/L and 11.4 mg/L, well within the O.Reg. 170/03 reporting limit of 20.0 mg/L. The next sample event required will be October 2023.

- **All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  Fluoride sampling is required every sixty (60) months. The most current fluoride sample date was on October 16, 2018 with results within the ODWQS of 1.5 mg/L at 0.65 mg/L and 0.53 mg/L. The next sample event required will be October 2023.

- **The owner was required to increase frequency of monitoring as a result of having exceeded half the value of an applicable ODWQS of a Schedule 13-2 or 13-4 parameter(s) and that increased monitoring was conducted.**

  Both selenium and uranium continue to be tested quarterly in this drinking water system. Selenium is required to be sampled quarterly, as per Schedule C, Condition 4.1 of Licence 081-103. All results were below the ODWQS half-MAC for selenium of 0.025 mg/L. Uranium results continued to be slightly greater than the half-MAC, ranging from 0.0123 to 0.0178 mg/L, but are still less than the ODWQS limit of 0.02 mg/L.

  During this inspection period both selenium and uranium samples were taken on January 15, April 16, July 16 and October 15, 2019 and January 14, 2020.

- **All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.**

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**

Water Quality Assessment

- **Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O.Reg. 169/03).**

Reporting & Corrective Actions

- **Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.**

  A review of logbook entries for this inspection period indicates that appropriate actions and timelines were followed.

- **When the primary disinfection equipment, other than that used for chlorination or chloramination, has failed causing an alarm to sound or an automatic shut-off to occur, a certified operator responded in a timely manner and took appropriate actions.**

Reporting & Corrective Actions

A review of logbook entries for this inspection period indicates that appropriate actions and timelines were followed.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

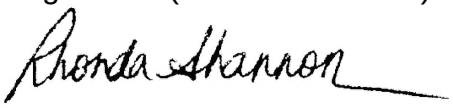
Not Applicable

SIGNATURES

Inspected By:

Rhonda Shannon

Signature: (Provincial Officer)



Reviewed & Approved By:

Mark Smith

Signature: (Supervisor)

Mark Smith

Digitally signed by Mark Smith
DN: cn=Mark Smith, o=MECP, ou=Water Compliance Unit, email=mark.smith@ontario.ca, c=CA
Date: 2020.03.10 16:09:17 -04'00'

Review & Approval Date:

March 10, 2020

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

Ontario

Ministry of the Environment, Conservation and Parks
Drinking Water Inspection Report

APPENDIX A

INSPECTION SUMMARY RATING RECORD

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2019-2020)

DWS Name:	WALKERTON DRINKING WATER SYSTEM
DWS Number:	220002690
DWS Owner:	Brockton, The Corporation Of The Municipality Of
Municipal Location:	Brockton
Regulation:	O.REG 170/03
Category:	Large Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	February 12, 2020
Ministry Office:	Owen Sound District Office

Maximum Question Rating: 497

Inspection Module	Non-Compliance Rating
Source	0 / 14
Capacity Assessment	0 / 30
Treatment Processes	0 / 98
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 42
Water Quality Monitoring	0 / 120
Reporting & Corrective Actions	0 / 42
Treatment Process Monitoring	0 / 109
TOTAL	**0 / 497**

Inspection Risk Rating	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 10-MAR-20 (Inspection ID: 1-KVN11).

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2019-2020)

DWS Name:	WALKERTON DRINKING WATER SYSTEM
DWS Number:	220002690
DWS Owner:	Brockton, The Corporation Of The Municipality Of
Municipal Location:	Brockton
Regulation:	O.REG 170/03
Category:	Large Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	February 12, 2020
Ministry Office:	Owen Sound District Office

Maximum Question Rating: 497

Inspection Risk Rating	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 10-MAR-20 (Inspection ID: 1-KVN11).

Ontario

Ministry of the Environment, Conservation and Parks
Drinking Water Inspection Report

APPENDIX B

STAKEHOLDERS

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater

PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	 012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Ontario

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.

Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable Avis de demande de services de laboratoire Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-2149F 012-2148F 012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau portable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web

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