

**Ministry of the Environment,  
Conservation and Parks**

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



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July 31, 2018

Village of Oil Springs  
4591 Oil Springs Line, P.O. Box 22  
Oil Springs, ON N0N 1P0

**Attention: Erkki Pohjolainen, Clerk-Treasurer**  
**Re: Oil Springs Water Distribution System (DWS#260046761) Inspection Report**

Enclosed is a copy of the inspection report prepared for the Oil Springs Water Distribution System under the Ministry's adhoc inspection protocol. The report is based on conditions encountered at the time of the inspection and subsequent follow-up.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in "Taking Care of Your Drinking Water: A guide for members of municipal council" found under "Resources" on the Drinking Water Ontario website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater).

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating Record (IRR), included as an appendix of the inspection report, provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

Please note the attached IRR methodology memo describing how the risk rating model has improved to better reflect the health related and administrative non-compliance found in an inspection report. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspector's Annual Report. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at (519) 383-3778.

Yours truly,

**Peder Garberg**

Provincial Officer - Water Inspector  
Ministry of the Environment, Conservation and Parks  
Drinking Water and Environmental Compliance Division

*cc: Cathy Culnan, Water Operator, ORO, Jacobs;  
Duncan McTavish, Administrator Clerk/Treasurer, Township of Enniskillen;*

**County of Lambton Community Health Services:**

*Dr. Sudit Ranade, Medical Officer of Health,  
Chad Ikert, Manager, Health Protection;  
Lori Lucas, Supervisor, Health Protection;  
TheresaWarren, Public Health Inspector*



**Ministry of the Environment, Conservation and Parks**

**OIL SPRINGS WATER DISTRIBUTION SYSTEM**

**Inspection Report**

<b>Site Number:</b>	260046761
<b>Inspection Number:</b>	1-ICRZZ
<b>Date of Inspection:</b>	Jun 28, 2018
<b>Inspected By:</b>	Peder Garberg

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**OWNER INFORMATION:**

**Company Name:** OIL SPRINGS, THE CORPORATION OF THE VILLAGE OF  
**Street Number:** 4591 **Unit Identifier:**  
**Street Name:** OIL SPRINGS LINE  
**City:** OIL SPRINGS  
**Province:** ON **Postal Code:** N0N 1P0

**CONTACT INFORMATION****INSPECTION DETAILS:**

**Site Name:** OIL SPRINGS WATER DISTRIBUTION SYSTEM  
**Site Address:** 4591 OIL SPRINGS Line OIL SPRINGS ON N0N 1P0  
**County/District:** OIL SPRINGS  
**MECP District/Area Office:** Sarnia District  
**Health Unit:** LAMBTON HEALTH UNIT  
**Conservation Authority:**  
**MNR Office:**  
**Category:** Large Municipal Residential  
**Site Number:** 260046761  
**Inspection Type:** Unannounced  
**Inspection Number:** 1-ICRZZ  
**Date of Inspection:** Jun 28, 2018  
**Date of Previous Inspection:**

**COMPONENTS DESCRIPTION**

**Site (Name):** Oil Springs Water Distribution System  
**Type:** **Sub Type:**  
**Comments:**

The Village of Oil Springs Water Distribution System consists of 50 to 300 mm diameter mains that receive water from the Township of Enniskillen Water Distribution System through two metered connections at the northwest and eastern extremities of the community. The system directly supplies approximately 704 Oil Springs residents.

The Oil Springs Water Distribution System does not include any treatment, storage or pumping components, and the Enniskillen reservoir and pumping station at 2868 Oil Heritage Road in Enniskillen maintains secondary chlorination and pressure.

The Township of Enniskillen Water Distribution System receives treated surface water from the Town of Petrolia Water Treatment Plant at 2701 Old Lakeshore Road in Sarnia. Besides the water treatment plant, the Town of Petrolia water system includes a reservoir and booster station at 3517 Confederation Line in Plympton-Wyoming, and an elevated water tank at 345 Centre Street in Petrolia.

As of October 2016, CH2M OMI has taken over as the Operating Authority for the Village of Oil Springs. Oil Springs personnel do not operate their water distribution system; however, they monitor water consumption and system pressure and assist the Operating Authority with maintenance and/or repairs when required. A private contractor is

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utilized for the routine collection of water distribution samples within the Village of Oil Springs for microbiological and chemical testing. In January 2017, CH2M OMI will be conducting all of the distribution sampling for the Village of Oil Springs.

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

**Sub Type:**

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## INSPECTION SUMMARY:

### Introduction

- The primary focus of this inspection is to confirm compliance with Ministry of the Environment and Climate Change (MOECC) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period.

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 an inspection of a "stand alone connected distribution system". This type of system receives treated water from a separately owned "donor" system. This report contains the elements required to assess key compliance and conformance issues associated with a "receiver" system. This report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

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.

This inspection covers the period of time between July 1, 2017 and June 30, 2018. On June 28, 2018, an unannounced inspection of the Oil Springs Water Distribution System was conducted. Documentation was collected for later assessment, or was reviewed with staff at the Village of Oil Springs municipal office located at 4591 Oil Springs Line.

Documents and records reviewed in preparation of this report included, but were not limited to:

- Oil Springs Water Distribution System Drinking Water Information System (DWIS) profile.
- Drinking Water Works Permit No. 251-201(Issue 2) dated August 11, 2016.
- Municipal Drinking Water Licence No. 251-101 (Issue 2) dated August 11, 2016.
- Village of Oil Springs Operations and Maintenance Manual for the Oil Springs Water Distribution System.
- Drinking water system operational and maintenance documents and records maintained by the owner/operating authority from the time period of July 1, 2017 to June 30, 2018.

### Treatment Process Monitoring

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

Schedule 7, subsections 7-2 (3) & (4) of O.Reg.170/03, requires the owners and operating authorities of a large municipal residential system that provides chlorination for secondary disinfection to ensure that at least seven distribution samples are taken each week and are tested immediately for free chlorine residual using grab samples.

As per, Schedule 6 subsection 6-4 (2) of O. Reg. 170/03 the owner and operating authority may instead install and utilize continuous monitoring devices within the distribution system to measure secondary disinfection residuals

### Treatment Process Monitoring

instead of taking grab samples.

At the time of inspection the secondary disinfection chlorine residual was being continuously monitored in the distribution system at the Village of Oil Springs municipal office using a Hach Cl17 continuous chlorine analyzer, sampling at intervals of less than one hour, as required.

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

Review of continuous monitoring test results is indicated within the operator logbook/monitoring record printouts located at the municipal office. To ensure that data is reviewed within the 72-hour window, the operating authority has created a schedule which requires data to be reviewed every Monday, Wednesday and Friday (as indicated in the "2018 Oil Springs Sampling Schedule" provided by the operating authority).

- **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.**

As per Schedule 6, Subsection 6-5 (1)5, the continuous monitoring equipment must be designed and operated in accordance with the standards described in subsection (1.1), or, i. the continuous monitoring equipment must have a feature that ensures that no water is directed to users of water sampled by the equipment in the event that the equipment malfunctions or loses power or a test result for a parameter is above the maximum alarm standard or below the minimum alarm standard specified in this section for the parameter. The continuous monitoring equipment must cause an alarm to signal immediately at the following locations if the equipment malfunctions or loses power or a test result for a parameter is above the maximum alarm standard or below the minimum alarm standard specified in this section for the parameter:

- i. The location where the equipment conducts tests.
- ii. A location where a person is present, if a person is not always present at the location where the equipment conducts tests.
- iii. Every designated facility served by the drinking water system, unless the system is a large municipal residential system or a small municipal residential system.

The continuous chlorine analyzer located at the Village of Oil Springs municipal office, has both high and low chlorine residual alarms associated with it. The alarm set points, provided by the operating authority at the time of the inspection were as follows:

Free Chlorine Low: 0.40 mg/L  
Free Chlorine High: 2.50 mg/L

- **Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was not performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and/or was not recording data with the prescribed format.**

Schedule 6-5 of O. Reg. 170/03 requires a drinking water system that uses continuous monitoring equipment for sampling and testing to ensure that the following standards are met. The continuous monitoring equipment must, except when no water is being directed to users of water sampled by the equipment:

- test for the parameter with at least the minimum frequency specified by the regulation
- record the date, time, sampling location and result of every test for the parameter being tested

The minimum testing and recording frequency for free chlorine residual in a distribution system is 1 hour. In the Oil Springs Water Distribution System samples are analyzed for free chlorine residual by the continuous analyzer every 46 minutes, and operators verify these results every 72 hours. During the inspection review period there were four noted exceptions to the required 1 hour frequency of measurements:

### Treatment Process Monitoring

- August 14 - August 16, 2017: 49.5 hours between readings
- November 6 - November 8, 2017: 58 hours between readings
- January 25 - January 26, 2018: 19 hours between readings
- May 4 - May 7, 2018: 65 hours between readings

Discussions with the operating authority indicate that they were having issues with the data logging system and were working with a third party (Juce Computers) to remedy the matter. The chlorine analyzer would lose the ability to communicate with the data logger when the system lost power, and would require a reset before it was functional again. Attempted fixes which included installing a battery backup for the computer system had proven unsuccessful. The most recent fix, which included a new computer and plant viewer software, appears to have solved the issue. Since the installation of the new computer and software on May 7, 2018 there have been no gaps in the data log.

It should be noted that although the data logger was not logging chlorine residuals following these power outages, the chlorine analyzer for the system was still functioning properly, and would still dial out alarms if the chlorine residual was to drop below the alarm set point. The analyzer itself has a battery backup, and is also tied into the buildings backup generator should the power outage last for a significant amount of time.

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

It was indicated at the time of the inspection that all continuous analyzers are calibrated, maintained, and operated in accordance with the manufacturer's instructions or the Regulation during this inspection review period. This was confirmed by reviewing calibration and maintenance documentation provided by the operating authority in the form of logbooks and calibration sheets. The documentation review indicated that the operating authority is verifying the continuous chlorine analyzer by comparing it to a portable handheld device (Calibration by Comparison, as per Hach CI17 Chlorine Analyzer User Manual). The HACH Pocket Colorimeter used for calibration by comparison is verified/calibrated monthly by the operating authority, as documented in the "HACH Pocket Colorimeter Record of Performance Verification" records provided by the operating authority.

### Distribution System

- **Existing parts of the distribution system that are taken out of service for inspection, repair or other activities that may lead to contamination, and all new parts of the distribution system that come in contact with drinking water, were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit, or an equivalent procedure (i.e. the Watermain Disinfection Procedure).**

Condition 2.3 of Schedule B, of DWWP No. 251-201, requires that all parts of the drinking water system in contact with drinking water which are added, modified, replaced, extended or taken out of service for inspection, repair or other activities that may lead to contamination, shall be disinfected before being put into service in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:

- a) The ministry's Watermain Disinfection Procedure;
- b) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;
- c) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and
- d) AWWA C654 – Standard for Disinfection of Wells.

A review of the Village of Oil Springs SOPs provided by the operating authority, which included the "New Watermain Installation" and "Watermain Break/Repair" procedures, indicated that procedures for the system have been updated in accordance with the ministry's Watermain Disinfection Procedure. References to AWWA standards have been updated to include the newest standard (C651-14). As well, a copy of AWWA standard C651-14 has been included for reference within the Village of Oil Springs O&M Manual.

## Distribution System

### 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.**

Section 16.2 of Schedule B of Municipal Drinking Water Licence 251-201 Issue No. 2 requires that the operations and maintenance manual or manuals, shall include at a minimum:

16.2.1 The requirements of this licence and associated procedures;

16.2.2 The requirements of the drinking water works permit for the drinking water system;

16.2.3 A description of the processes used to maintain secondary disinfection within the drinking water system.

16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

16.2.5 Procedures for the operation and maintenance of monitoring equipment;

16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;

16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint

A review of the O&M manual during the inspection indicated that it contained the above noted information, as required by the MDWL.

### Logbooks

- **Logbooks were properly maintained and contained the required information.**

Ontario Regulation 128/04, Section 27 (5) states that an operator-in-charge, or a person authorized by an operator-in-charge, shall record the following information in the logbooks or other record-keeping mechanisms in respect of each operating shift:

1. The date, the time of day the shift began and ended and the number or designation of the shift.

2. The names of all operators on duty during the shift.

3. Any departures from normal operating procedures that occurred during the shift and the time they occurred.

4. Any special instructions that were given during the shift to depart from normal operating procedures and the person who gave the instructions.

5. Any unusual or abnormal conditions that were observed in the subsystem during the shift, any action that was taken and any conclusions drawn from the observations.

6. Any equipment that was taken out of service or ceased to operate during the shift and any action taken to maintain or repair equipment during the shift.

A review of the logbooks during the inspection indicated that the logbooks included relevant shift details, as required by the above mentioned regulation.

- **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

### Security

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

### Certification and Training

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

Subsection 23(1) of Ontario Regulation 128/04 states that the owner or operating authority of a municipal residential subsystem shall designate an overall responsible operator (ORO). The ORO shall be an operator who holds a certificate for that type of subsystem and that is of the same class as or higher than the class of that subsystem.

The Overall Responsible Operator (ORO) for the Oil Springs Water Distribution System is Cathy Culnan who has a Class 2 Water Distribution and Supply Subsystem Certificate. The ORO contact information provided by the operating authority indicated that Doug Marsh is the backup ORO, for times when Cathy Culnan is unavailable. Doug currently possesses a Class 1 Water Distribution Certificate. Both parties are eligible to act as ORO for the Oil Springs Water Distribution System, which is licensed as a Class 1 Water Distribution System.

- **Operators in charge had been designated for all subsystems which comprised the drinking-water system.**
- **Only certified operators made adjustments to the treatment equipment.**

### Water Quality Monitoring

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

The owner of a large municipal residential drinking water system shall ensure that if the system serves a population of 100,000 or less, at least 8 distribution samples plus one for every thousand people served by the system are taken every month. At least one of the samples must be taken each week. These samples are required to be tested for E.Coli. and total coliform; and at least 25 percent of the samples are required to be tested for general bacteria populations expressed as colony counts on a heterotrophic plate count (HPC).

During the inspection review period (July 1, 2017 to June 30, 2018) all microbiological water monitoring requirements for distribution water samples were met.

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

As of January 1, 2017, Drinking water system owners/operating authorities are required to take samples each calendar quarter and have them tested for Haloacetic acid (HAAs) as outlined in O. Reg. 170/03 (subsection 13-6.1 of Schedule 13). The operating authority shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of HAAs. For standalone distribution systems which do not rechlorinate, these HAA sampling requirements did not go into effect until July 1, 2017.

HAAs will generally form at the beginning of the distribution system. However, if there is rechlorination, high HAAs may be found just past the rechlorination point if the right conditions are present. Drinking Water Systems are not required to report HAA exceedances until January 1, 2020. Prior to this date, systems should use the time to determine the location with the highest potential for elevated HAAs by sampling various locations within their distribution system. During the inspection period HAAs were sampled and tested on:

April 9, 2018 (21.9 ug/L)  
January 22, 2018 (26.9 ug/L)

### Water Quality Monitoring

October 10, 2017 (26.1 ug/L)  
July 11, 2017 (24.2 ug/L)

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

Section 13-6 of Schedule 13, O.Reg.170/03 requires the owner/operating authority to ensure that at least one distribution sample is taken each calendar quarter from a point in the drinking water system's distribution system, or in plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of Trihalomethanes (THMs), and tested for THMs. Section 6-1.1 of Schedule 6, O.Reg.170/03 requires that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous calendar quarter. Within the last year, THMs were sampled and tested on:

April 9, 2018 (29.0 ug/L)  
January 22, 2018 (34.0 ug/L)  
October 10, 2017 (66.0 ug/L)  
July 11, 2017 (51.0 ug/L)

The standard for THM's in O. Reg. 169/03 is expressed as a running annual average (RAA). The RAA for the Oil Springs Water Distribution System during the inspection period was 45.0 ug/L which is well below the standard of 100 ug/L. All THM sampling requirements were met during the inspection period.

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

Certificates of analysis for microbiological samples collected from Oil Springs Water Distribution System during the inspection period were reviewed and showed that the operating authority was consistently measuring the samples for free and total chlorine residuals and recording the results at the time each sample was taken, as required.

### Water Quality Assessment

- **Records did not show 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).**

O. Reg. 169/03 - Ontario Drinking Water Quality Standards, prescribes the standard (expressed as a maximum) for total coliforms as 0, or not detectable. On September 5, 2017, the operating authority for the Oil Springs Water Distribution System collected a sample from the Oil Springs Community Hall and had it sent for analysis. Results indicated a free chlorine residual of 1.13 mg/L and the presence of total coliforms (2 cfu/100mL).

As part of the corrective actions, the operating authority resampled the distribution system at the location the original adverse sample was collected. The resample came back free of total coliforms and E. coli. All other samples collected within the inspection period have not exceeded any maximum acceptable limits defined in O. Reg. 169/03.

### Reporting & Corrective Actions

- **All specified corrective actions (as per Schedule 17) were not taken to address adverse conditions.**

In accordance with Schedule 17-6., if a report is required to be made under Section 18 of the Act in respect to total coliforms, the Owner of the drinking water system and the Operating Authority for the system shall ensure that corrective action is taken to resample and test as soon as reasonably possible. Resample and test, as specified in Section 1 of O.Reg 170/03, means to take a set of water samples, at approximately the same time with, at least one sample from the same location that gave rise to the corrective action, at least one sample from a location that is a significant distance upstream from the location and at least one sample from a location that is a significant distance

### Reporting & Corrective Actions

downstream from the location.

Corrective actions taken in response to the adverse test result obtained on September 8, 2017 did not satisfy the requirements of the regulation as only one sample was collected from the location that gave rise to the corrective action. The operating authority indicated that this was due to a misunderstanding with the corrective actions that had been prescribed by the Health Unit regarding a resample, and the resample requirements prescribed by O.Reg 170/03.

It is recommended that the owner/operating authority review their standard operating procedures and/or communication protocols, currently in place to deal with adverse conditions, to ensure that all required notifications and corrective actions are undertaken in accordance with O.Reg. 170/03. A review of documentation provided during the inspection, which included an SOP titled "Adverse Water Quality Incident" dated March 2018, indicates that the operating authority has already taken the initiative to update their procedures to ensure this does not reoccur.

- **All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.**
- **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.**
- **All changes to the system registration information were provided within ten (10) days of the change.**

During the inspection review period, the Village of Oil Springs appointed a new Clerk-Treasurer. A review of the Oil Springs Drinking Water System Profile Information, indicates that the information is up to date and contains all the correct contact information, and was further confirmed by the operating authority.

## 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.

1. **Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was not performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and/or was not recording data with the prescribed format.**

Samples are analyzed for free chlorine residual by the continuous analyzer every 46 minutes and operators verify results every 72 hours. There were 4 exceptions to the required 1 hour frequency of measurements:

- August 14 - August 16, 2017: 49.5 hours between readings
- November 6 - November 8, 2017: 58 hours between readings
- January 25 - January 26, 2018: 19 hours between readings
- May 4 - May 7, 2018: 65 hours between readings

### Action(s) Required:

As per section 6-5(1) of O. Reg. 170/03, if a drinking-water system uses continuous monitoring equipment for sampling and testing that is required under this Regulation, or under an approval or order, for a parameter set out in the Table to this section, the owner of the system and the operating authority for the system shall ensure that the continuous monitoring equipment, except when no water is being directed to users of water sampled by the equipment, tests for the parameter with at least the minimum frequency specified in the Table for the parameter.

The operating authority has taken steps to upgrade the data recording equipment to ensure, going forward, that there are no data gaps in the continuous chlorine monitoring records. Following the most recent upgrades to the system, which occurred on May 4, 2018, there have been no gaps in the data recording. However, if the issue continues to occur, it is recommended that the owner consider switching to daily/weekly sampling for free chlorine residual rather than utilizing the continuous analyzer.

2. **All specified corrective actions (as per Schedule 17) were not taken to address adverse conditions.**

Corrective actions taken in response to the adverse test result obtained on September 8, 2017 did not satisfy the requirements of the regulation as only one sample was collected from the location that gave rise to the corrective action. The operating authority indicated that this was due to a misunderstanding with the corrective actions that had been prescribed by the Health Unit regarding a resample, and the resample requirements prescribed by O.Reg 170/03.

### Action(s) Required:

It is recommended that the owner/operating authority review their standard operating procedures and/or communication protocols, currently in place to deal with adverse conditions, to ensure that all required notifications and corrective actions are undertaken in accordance with O.Reg. 170/03. A review of documentation provided during the inspection, which included an SOP titled "Adverse Water Quality Incident" dated March 2018, indicates that the operating authority has already taken the initiative to update their procedures to ensure this does not reoccur.

## **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**

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**SIGNATURES**

Inspected By:

Peder Garberg

Signature: (Provincial Officer)



Reviewed &amp; Approved By:

Marc Bechard

Signature: (Supervisor)

Review &amp; Approval Date:

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.



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**Stakeholder Appendix**

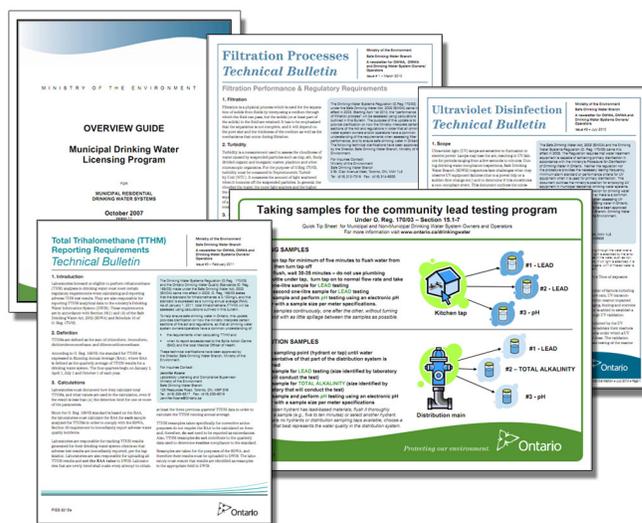
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# Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are posted on the Ministry of the Environment's **Drinking Water Ontario** website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) to help in the operation of your drinking water system.

Below is a list of key materials frequently used by owners and operators of municipal drinking water systems. To read or download these materials, go to **Drinking Water Ontario** and search in the **Resources** section by **Publication Number**.

Visit **Drinking Water Ontario** for more useful materials. Contact the Public Information Centre if you need assistance or have questions at 1-800-565-4923/416-325-4000 or [picemail.moe@ontario.ca](mailto:picemail.moe@ontario.ca).



PUBLICATION NUMBER	PUBLICATION TITLE
4448e01	Procedure for Disinfection of Drinking Water in Ontario
7152e	Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids
7467	Filtration Processes Technical Bulletin
7685	Ultraviolet Disinfection Technical Bulletin
8215	Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011)
2601e	Overview Guide: Municipal Drinking Water Licensing Program
0000	Municipal Drinking Water Licensing Program Bulletin, Issue 1, January 2011
0000	Certification Guide for Operators and Water Quality Analysts
6560e	Taking Samples for the Community Lead Testing Program
7423e	Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption
7128e	Drinking Water System Contact List
4449e01	Technical Support Document for Ontario Drinking Water Quality Standards



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**Inspection Rating Record**

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**Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2018-2019)**

<b>DWS Name:</b>	OIL SPRINGS WATER DISTRIBUTION SYSTEM
<b>DWS Number:</b>	260046761
<b>DWS Owner:</b>	Oil Springs, The Corporation Of The Village Of
<b>Municipal Location:</b>	Oil Springs

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Adhoc  
**Inspection Date:** June 28, 2018  
**Ministry Office:** Sarnia District

**Maximum Question Rating:** 307

Inspection Module	Non-Compliance Rating
Distribution System	0 / 21
Operations Manuals	0 / 28
Logbooks	0 / 18
Certification and Training	0 / 28
Water Quality Monitoring	0 / 51
Reporting & Corrective Actions	24 / 70
Treatment Process Monitoring	21 / 91
<b>TOTAL</b>	<b>45 / 307</b>

<b>Inspection Risk Rating</b>	<b>14.66%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>85.34%</b>
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**Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2018-2019)**

<b>DWS Name:</b>	OIL SPRINGS WATER DISTRIBUTION SYSTEM
<b>DWS Number:</b>	260046761
<b>DWS Owner:</b>	Oil Springs, The Corporation Of The Village Of
<b>Municipal Location:</b>	Oil Springs
<b>Regulation:</b>	O.REG 170/03
<b>Category:</b>	Large Municipal Residential System
<b>Type Of Inspection:</b>	Adhoc
<b>Inspection Date:</b>	June 28, 2018
<b>Ministry Office:</b>	Sarnia District

Non-compliant Question(s)	Question Rating
<b>Reporting &amp; Corrective Actions</b>	
Have corrective actions (as per Schedule 17) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?	24
<b>Treatment Process Monitoring</b>	
Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements 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?	21
<b>TOTAL QUESTION RATING</b>	<b>45</b>

**Maximum Question Rating: 307**

<b>Inspection Risk Rating</b>	<b>14.66%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>85.34%</b>
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