

Ministry of the Environment

Ministère de l'Environnement



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File: SI-LA-OS 540A
Oil Springs Distribution System

March 18, 2013

Jennifer Turk, Administrator-Clerk
Village of Oil Springs
P.O. Box 22
4591 Oil Springs Line
Oil Springs, ON
N0N 1P0

Dear Jennifer Turk

Re: February 20, 2013 Inspection – Oil Springs Distribution System

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

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 Rating Record (IRR), included as Appendix C 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 Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Gary Johnson, Drinking Water Program Supervisor, at (519) 383-3794.

Should you note any errors or omissions or have any concerns, please contact me at (519) 383-3778, or Gary Johnson at (519) 383-3794.

A handwritten signature in black ink that reads "Marc Bechard".

Marc Bechard
Provincial Officer
Safe Drinking Water Branch, Sarnia District Office

c: Mike Young, Overall Responsible Operator, Township of Enniskillen (Operating Authority)
Duncan McTavish, Clerk-Treasurer, Township of Enniskillen
Dr. Sudit Ranade, Medical Officer of Health, Lambton Community Health Services Dept.
File: SI-LA-OS 540A Oil Springs Distribution System



Ministry of the Environment

OIL SPRINGS WATER DISTRIBUTION SYSTEM

Drinking Water System Inspection Report

DWS Number:	260046761
Inspection Number:	1-9Y5K1
Date of Inspection:	Feb 20, 2013
Inspected By:	Marc Bechard

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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

Type: Owner **Name:** Jennifer Turk
Phone: (519) 834-2939 **Fax:** (519) 834-2333
Email: oilsprings@ciaccess.com
Title: Clerk-Treasurer

Type: Operating Authority **Name:** Michael Young
Phone: (519) 882-2490 **Fax:**
Email: myoung@enniskillen.ca
Title: Overall Responsible Operator

INSPECTION DETAILS:

DWS Name: OIL SPRINGS WATER DISTRIBUTION SYSTEM
DWS Address: 4591 OIL SPRINGS LINE OIL SPRINGS N0N 1P0
County/District: Oil Springs
MOE District/Area Office: Sarnia District
Health Unit: LAMBTON HEALTH UNIT
Conservation Authority: N/A
MNR Office: N/A
DWS Category: Large Municipal Residential
DWS Number: 260046761
Inspection Type: Unannounced
Inspection Number: 1-9Y5K1
Date of Inspection: Feb 20, 2013
Date of Previous Inspection: Feb 14, 2012

DRINKING WATER SYSTEM 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 250 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. They system directly supplies approximately 736 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.

The Township of Enniskillen is 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 utilized for the routine collection of water distribution samples within the Village of Oil Springs for microbiological and chemical testing.

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

Not Applicable

INSPECTION SUMMARY

INTRODUCTION

- * The primary focus of this inspection is to confirm compliance with Ministry of the Environment legislation and authorizing documents such as Orders and Certificates of Approval, as well as evaluating conformance with Ministry drinking water related policies and guidelines during the inspection period.

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 all of the elements required to assess key compliance and conformance issues associated with a "receiver" system to ensure that the system was not being operated or managed in a "deficient" condition, as defined under O. Reg. 172/03. The report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

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.

Your system was chosen for a focused inspection during this inspection cycle because inspection findings over the past three years were such that the number of violations were minimal or non existent, there were few or no orders issued to you that were of significance in the maintenance of water potability and there were no deficiencies as defined in O. Reg. 172/03. The undertaking of a focused inspection at your drinking water system during this year's inspection cycle does not ensure that a similar type of inspection will be conducted at any point in the future.

Specifically, this review includes an assessment of compliance / conformance in relation to the following:

- Drinking Water Systems Regulation (O. Reg. 170/03);
- Drinking Water Operator and Water Quality Analyst Certification Regulation (O. Reg. 128/04) with respect to facility certification, operator licensing and operating standards;
- Drinking Water System Licence 251-101, issued September 26, 2011, related to selected Performance, Monitoring and Recording, Operations and Maintenance requirements;
- Drinking Water Works Permit 251-201, issued September 23, 2011, and
- Ontario Drinking Water Quality Standards based on water quality data generated since the previous inspection.

The inspection was conducted on an unannounced basis. Inspection components, conducted on February 20, 2013, consisted of:

1. measurement of operational parameters and sampling of distribution system;
2. a brief review of the most current operating logs, and
3. collection of relevant operational documents and sampling results.

The inspection review period covers from January 1, 2012 to February 1, 2013.

TREATMENT PROCESS MONITORING

TREATMENT PROCESS MONITORING

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

The free chlorine residual in the distribution system is continuously monitored by an analyzer located at the municipal office. A review of the specifications confirmed that the continuous monitoring equipment adheres to the operational requirements set out in O. Reg. 170/03 Schedule 6-5 for a distribution sample. The chlorine residual continuous analyzer is utilized for compliance with the required operational checks as outlined in Schedule 7-2 of the regulation.

- * Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.
- * All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or approval or order, were equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6.
- * 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.
- * All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.

DISTRIBUTION SYSTEM

- * Based on the records available the owner was able to maintain proper pressures in the 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 did meet the requirements of the Permit and Licence or Approval 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.

CERTIFICATION AND TRAINING

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

CERTIFICATION AND TRAINING

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

WATER QUALITY MONITORING

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

O. Regulation 170/03 requires the owner and operating authority to take a minimum of one sample per week and at least 8 samples per month (as per population served), from the distribution system. All samples must be analysed for E. coli and total coliforms. In addition, at least 25% of the distribution microbiological samples must be analysed for heterotrophic plate count (HPC).

During the inspection review period, samples were taken as required, and within the prescribed time frame.
- * All trihalomethanes water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

O. Regulation 170/03 Schedule 13-6 requires that a sample must be taken and analysed for trihalomethane at least every three months 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 trihalomethanes.

During the inspection review period, samples were taken as required, and within the prescribed time frame.
- * All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.

The owner is currently eligible for the plumbing exemption sampling provisions under Schedule 15.1-5(10). Total alkalinity and pH sampling is required during each of the periods in every 12 month period and testing for lead during each of the periods in every third 12 month period. Distribution system samples must be collected from at least the number of points set out in column 5 of the Table in Schedule 15.1-5 opposite the population served by the drinking water system.

During the inspection review period, samples were taken as required, and within the prescribed time frame.
- * 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

- * The audit samples collected by the inspector met the applicable Ontario Drinking Water Quality Standards and/or the aesthetic objectives or operation guidelines. The results of the audit sampling are summarized as follows:
- * Records show that all water sample results taken during the review period met 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.

REPORTING & CORRECTIVE ACTIONS

- * All changes to the system registration information were not provided within ten (10) days of the change.

Section 10.1 of O. Reg. 170/03 requires that if the profile information changes, notification must be provided within 10 days of the change. A review of the profile information highlighted that the Owner contact information required updating. The profile was updated as part of this inspection.

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. **All changes to the system registration information were not provided within ten (10) days of the change.**

Section 10.1 of O. Reg. 170/03 requires that if the profile information changes, notification must be provided within 10 days of the change. A review of the profile information highlighted that the Owner contact information required updating. The profile was updated as part of this inspection

Action(s) Required:

The owner must ensure that the drinking water system profile information is kept up-to-date in accordance with the regulation.

No further action required at this time as necessary changes have been made.

SUMMARY OF BEST PRACTICE ISSUES AND RECOMMENDATIONS

This section provides a summary of all best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. Best Management Practices are recommendations and not mandatory requirements, but may lead to safe drinking water for the consumer.

In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following practices and consider measures to implement them so that all drinking water systems continuously improve their processes.

Not Applicable

SIGNATURES

Inspected By:

Marc Bechard

Signature: (Provincial Officer):



Reviewed & Approved By:

Gary Johnson

Signature: (Supervisor):



2013.03.18

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Review & 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.



**Ministry of the Environment
Drinking Water System Inspection Report**

Appendix A

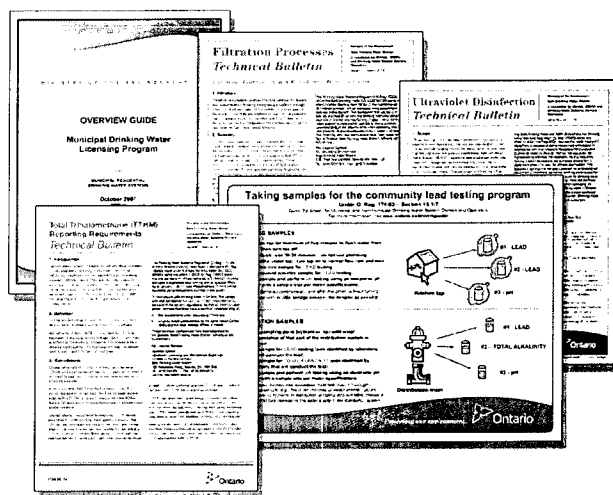
Stakeholder Appendix

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 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.



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

ontario.ca/drinkingwater



**Ministry of the Environment
Drinking Water System Inspection Report**

Appendix B

Ministry Audit Sample Results – February 20, 2013

APPENDIX B
TABLE 3
OIL SPRINGS WATER DISTRIBUTION SYSTEM
AUDIT SAMPLE RESULTS - 20-FEB-2013
SUMMARY OF MICROBIOLOGICAL PARAMETERS - HEALTH RELATED

Sample Legend:

Sample # 1 - MUNICIPAL OFFICE, 4591 OIL SPRINGS LINE, DISTRIBUTION

Parameter	Units	MC ¹	SAMPLE
			# 1
NT: ESCHERICHIA COLI	C/100ML	0	ABSENT
NT: TOTAL COLIFORMS	C/100ML	0	ABSENT

Notes:

- Escherichia coli is a more definitive indicator of fecal contamination than fecal coliforms or total coliforms.
- At elevated levels, the general bacterial population may interfere with the detection of coliforms. This general population can be estimated from either background colony counts on the total coliform membrane filters or heterotrophic plate counts (HPC).

Shortforms:

C/100mL - Count per 100 millilitre

C/mL - Count per millilitre

Footnotes:

- 1 Maximum Concentration as per O.Reg 169/03.
- 2 Aesthetic Objective.

APPENDIX B
TABLE 5
OIL SPRINGS WATER DISTRIBUTION SYSTEM
AUDIT SAMPLE RESULTS - 20-FEB-2013
SUMMARY OF MICRO, CHEMICAL / PHYSICAL PARAMETERS - NOT HEALTH RELATED

Sample Legend:

Sample # 1 - MUNICIPAL OFFICE, 4591 OIL SPRINGS LINE, DISTRIBUTION

Parameter	Units	OBJECTIVE	TYPE OF OBJECTIVE	SAMPLE # 1
NT: DETERIORATION INDICATORS	C/100ML	0	AO	NOT DETECTED

Shortforms:

<T	- A measurable trace amount; interpret with caution	AO	- Aesthetic Objective
<W	- No measurable response (zero). <Reported value	OG	- Operational Guideline
<=W	- No measurable response (zero). <Reported value	FTU = NTU	- Nephelometric Turbidity Unit
<	- Actual result is less than reported value	TCU	- True Colour Units
ND	- Not detected	NG/L	- Nanograms per litre
NA	- Result not available	UG/L	- Micrograms per litre
NS	- Not sampled	MG/L	- Milligrams per litre
DEG	- Degree celsius		

Footnotes:

- a Organic Nitrogen = (Total Kjeldahl Nitrogen - (Ammonia + Ammonium))
- b The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.
- c When sulphate levels exceed 500 mg/L, water may have a laxative effect on some people.
- d Applicable for all water at the point of consumption.

NO DATUM FOUND FOR THE FOLLOWING TABLE(S):

-TABLE 1 - SUMMARY OF PARAMETERS EXCEEDING ODWQS

-TABLE 2 - SUMMARY OF PARAMETERS EXCEEDING HALF OF THEIR HEALTH-RELATED ODWQS

-TABLE 4 - SUMMARY OF CHEMICAL/PHYSICAL PARAMETERS - HEALTH RELATED

TABLE 6 - SUMMARY OF PARAMETERS WITH NO ODWQS



**Ministry of the Environment
Drinking Water System Inspection Report**

Appendix C

Inspection Summary Rating Record (IRR)

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2012-2013)

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

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Adhoc
Inspection Date: February 20, 2013
Ministry Office: Sarnia District

Maximum Question Rating: 223

Inspection Module	Non-Compliance Rating
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 14
Water Quality Monitoring	0 / 51
Reporting & Corrective Actions	4 / 25
Other Inspection Findings	0 / 0
Treatment Process Monitoring	0 / 91
TOTAL	4 / 223

Inspection Risk Rating 1.79%

FINAL INSPECTION RATING: 98.21%

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2012-2013)

DWS Name: OIL SPRINGS WATER DISTRIBUTION SYSTEM
DWS Number: 260046761
DWS Owner: Oil Springs, The Corporation Of The Village Of
Municipal Location: Oil Springs
Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Adhoc
Inspection Date: February 20, 2013
Ministry Office: Sarnia District

Non-compliant Question(s)	Question Rating
Reporting & Corrective Actions	
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?	4
TOTAL QUESTION RATING	4

Maximum Question Rating: 223

Inspection Risk Rating	1.79%
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FINAL INSPECTION RATING:	98.21%
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