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Conservation and Parks

Drinking Water and Environmental  
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Cornwall Area Office

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Ministère de l'Environnement, de la Protection de  
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Mr. Pierre Leroux  
Chief Administrator Officer/Clerk  
The Corporation of the Nation Municipality  
958 Route 500 West  
Casselman, ON K0A 1M0

Dear: Ms. P.Leroux,

Re: **2024-25 Inspection Report for the Limoges Drinking Water System**

Please find enclosed a copy of the final inspection report for the Limoges Drinking Water System.

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 on the Ontario website at <https://www.ontario.ca/page/taking-care-your-drinking-water-guide-members-municipal-councils>

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), 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. IRR ratings are published (for the previous year) in the ministry's Chief Drinking Water Inspector's Annual Report.

If you have any questions or concerns regarding the inspection process, please contact Shannon Hamilton-Browne, Water Compliance Supervisor, at (613) 808-4255.

Thank you for the assistance during the inspection. Please do not hesitate to contact me if you have any questions or concerns about the attached report.

Sincerely,



**Jean-François Durocher**  
Bilingual Water Inspector  
Drinking Water and Environmental Compliance Division  
Ministry of the Environment, Conservation and Parks (MECP)  
Cornwall Area Office  
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cc: Nicholas Pigeon, Nation Municipality – Director of Water and Wastewater, Overall Responsible Operator  
Sébastien Mainville, Nation Municipality – Supervisor of Water and Wastewater, Operator  
Sébastien Cadieux, Nation Municipality – Senior Water and Wastewater Operator, Compliance Officer  
Rami Basha, Eastern Ontario Health Unit (EOHU) – Program Manager (Prescott Russell Cluster)  
Sandra Mancini, South Nation Conservation Authority – Team Lead Engineer  
Shannon Hamilton-Browne, Ministry of Environment, Conservation and Parks (MECP) –Water Inspections  
Programs Supervisor (Acting), Cornwall/Ottawa SDWB

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LIMOGES DRINKING WATER SYSTEM  
Physical Address: 269 LIMOGES RD, , THE  
NATION, ON K0A 2M0

## INSPECTION REPORT

System Number: 260006841  
Entity: CORPORATION DE LA  
MUNICIPALITE DE LA NATION  
Inspection Start Date: December 09, 2024  
Site Inspection Date: December 09, 2024  
Inspection End Date: January 20, 2025  
Inspected By: Jean-Francois Durocher  
Badge #: 1440



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(signature)

## INTRODUCTION

### Purpose

This announced, focused inspection was conducted to confirm compliance with Ministry of the Environment, Conservation and Parks' (MECP) legislation and conformance with ministry drinking water policies and guidelines.

### Scope

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 and the operation of the system.

The inspection of the drinking water system included both the physical inspection of the component parts of the system listed in section 4 "Systems Components" of the report and the review of data and documents associated with the operation of the drinking water system during the review 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 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.

### Facility Contacts and Dates

The drinking water system is owned by The Corporation of The Nation Municipality and operated by The Corporation of The Nation Municipality.

The system serves an estimated population of 5,200 and is categorized as a Large Municipal Residential System.

Information reviewed for this inspection covered the time period between January 1, 2024, to November 30, 2024.

The water inspector met with Nicholas Pigeon, Director of Water and Wastewater, Sébastien Mainville, Water and Wastewater Manager and Sébastien Cadieux, Compliance Coordinator for Water and Wastewater, as part of the inspection process.

## **Systems/Components**

All locations associated with primary disinfection were visited as part of this inspection. Please see the attached Appendix B "Component Report" for additional details about the treatment facility. The following sites were visited as part of the inspection of the drinking water system:

- Limoges Water Treatment Plant (Limoges Rd.)
- Well No.1 (Russland Rd.)
- Well No. 2 (Russland Rd.)

An outstation is a component of a drinking water system that is not located at either a water treatment plant or a well supply and is generally not associated with primary treatment, for example reservoirs, booster stations, and re-chlorination facilities located within the distribution system. Outstations may be visited on a rotational basis as part of a ministry inspection. Outstations were not visited during this physical inspection, but the DWS is composed of the following outstations:

- Forest Park Reservoir (Maple Grove Rd.) and Pumphouse
- Rechlorination facility at Indian Creek and Grant Road.
- Water Storage Reservoirs (on WTP property)

## **Permissions/Approvals**

This drinking water system was subject to specific conditions contained within the following permissions and/or approvals (please note this list is not exhaustive) at the time of the inspection in addition to the requirements of the SDWA and its regulations:

Municipal Drinking Water Licence No. 179-102 Issue No. 5  
Drinking Water Works Permit No. 179-202 Issue No. 3  
Schedule C: Authorization to Alter the Drinking Water System No. 179-202 Issue No. 2  
Permit To Take Water No. 1106-968LAR

## **Background and Compliance**

N/A

## **NON-COMPLIANCE**

This should not be construed as a confirmation of full compliance with all potential applicable legal requirements. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the signed Provincial Officer.

## **RECOMMENDATIONS**

This should not be construed as a confirmation of full conformance with all potential applicable BMPs. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the signed Provincial Officer.



## INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

**Ministry Program:** DRINKING WATER | **Regulated Activity:** DW Municipal Residential

Question ID	DWMR1006001	Question Type	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Is the owner planning to add a new drinking water source or to make changes to their current source(s)?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner is planning to add a new drinking water source or to make changes to their current source(s).  The owners of the Limoges DWS have received a Schedule C: Authorization to Alter the DWS No. 179-202 issued on June 25, 2021, which is for the alternations and construction of a transmission watermain connecting the Rockland DWS in the City of Clarence to the Limoges DWS. The connected watermain conveys treated water from the Rockland WTP which takes water from the Ottawa River.			

Question ID	DWMR1007001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (1)1;			
<b>Question:</b> Was the owner maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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.  Well No.1 is located inside its own well supply building and the well casing extends more than 15 cm above the floor. The No. 2 well is maintained in a manner sufficient to prevent the entry of surface water and other foreign materials (located within a shelter).  <ul style="list-style-type: none"> <li>- The well casing is sealed with a proper vermin-proof cap.</li> <li>- The annular space is sealed to prevent entry of surface water or foreign material.</li> <li>- Surface drainage does not collect or pond in the vicinity of the well.</li> <li>- The well casing is at least 40 cm above surface.</li> <li>- Air vents are screened and extend above the surface at a sufficient distance.</li> <li>- Both wells [No. 1(which is also in a building), and 2] are all located within a fenced</li> </ul>			

compound that is locked.  
- Closed-circuit video surveillance is installed at both well sites.

Question ID	DWMR1009001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were measures in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Measures were in place to protect the groundwater and/or GUDI source.  Condition 16.2.7, 16.2.8 and 16.2.9 of Schedule B of the Municipal Drinking Water Licence (MDWL) No. 179-102 requires the owner to include procedures for well inspection and maintenance as a component of the facility's operations manual.  The owners have incorporated an extensive and detailed monthly and six-month (bi-annual) maintenance program for both production wells (Well No.1 and No.2). The owner has also updated their Standard Operating Procedure (SOP) for the wells if the water quality were to deteriorate. No concerns identified.			

Question ID	DWMR1014001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Was flow monitoring performed as required by the Municipal Drinking Water Licence or Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Flow monitoring was performed as required.  Condition 2.1 of Schedule C of Municipal Drinking Water Licence (MDWL) No. 179-102 Issue No. 5 issued June 18, 2021, requires that continuous flow measurement and recording shall be undertaken for: 2.1.1 The flow rate and daily volume of treated water that flows from the treatment subsystem to the distribution system. 2.1.2 The flow rate and daily volume of water that flows into the treatment subsystem.  The conditions were met through the use of following flow meters:  - Two raw water flow meters (one flow meter at each well) monitoring the water being taken from the production wells. - A flow meter at the low lift pump for monitoring process water			

- A backwash pump flow meter
- A treated water flow meter monitoring the treated water leaving the WTP (high lift discharge).

The Limoges DWS is taking on average ~ 945 m<sup>3</sup>/day, from Well 1 and Well 2 which is 45.4% of the allowed maximum taking of 2,080 m<sup>3</sup>/day allowed under the Permit To Take Water Number (PTTW) No. P-300-6203976113 issued February 12, 2024 (expires on March 31, 2028). The average taking during the previous inspection was 902 m<sup>3</sup>/day.

The highest taking of water was recorded on June 5, 2024, with raw water taking of 1,556.9 m<sup>3</sup>/day (75% of limit).

Trends in water quantity/taking are monitored through raw water and treated water flows. The demands for water are consistent year-round. If there is a drastic increase in demand in any given time, the municipality is advised and investigates. No concerns identified.

Question ID	DWMR1016001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Was the owner in compliance with the conditions associated with maximum flow rate or the rated/operational capacity in the Municipal Drinking Water Licence?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was in compliance with the conditions associated with maximum flow rate and/or the rated/operational capacity conditions.  Condition 1.1 of Schedule C of MDWL No. 179-102 requires the owner to ensure the system is not operated such that the maximum daily volume of water that flows from the treatment subsystem to the distribution system does not exceed the rated capacity of 2,080 m <sup>3</sup> /day.  The Limoges WTP is averaging 55% of its total maximum production. The maximum treated water flow was recorded on June 3, 2024, with a flow of 1,622 m <sup>3</sup> /day.  NOTE: The average treated water flow into the distribution during the previous inspection period was 1,117 m <sup>3</sup> /day (54% of allowable daily volume), and the maximum treated water flow recorded for last inspection was on May 30, 2023, with a flow of 2,237 m <sup>3</sup> /day.			

Question ID	DWMR1018001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the owner ensure that equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

The owner ensured that equipment was installed as required.

At the time of the inspection, The Corporation of the Nation Municipality was operating the Drinking Water System (DWS) under Drinking Water Works Permit (DWWP) No. 179-202 Issue No. 3 that was issued on June 18, 2021.

The equipment as identified on the above noted certificates was reviewed at the time of the inspection and found to be in order, no concerns identified.

Question ID	DWMR1020001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were Form 1 documents prepared as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Form 1 documents were prepared as required.			
Form 1 were prepared during this inspection period for the purpose of defining new watermain to service parts of the distribution system. All watermain being installed are PVC DR18.			
<p>Les Cités Project</p> <ul style="list-style-type: none"> <li>- extend a new 300 mm diameter watermain along Savage Rd. from Boudreau St. to the new subdivision</li> <li>- extend a new 200 mm diameter watermain along Mayer St. from (near) Océane St. to the new subdivision</li> <li>- extend a new 300 mm diameter watermain along a Future Collector Rd. from Des Bénévoles St. to the new subdivision</li> </ul> <p>Bloc 19 Project</p> <ul style="list-style-type: none"> <li>- the construction of new watermain heading south on Boudreau Blvd. from existing intersection Boudreau Blvd. and Royal Court from existing 200 mm diameter cap to a new 200 mm Tee at new intersection of Boudreau Blvd. and New Private Street (approx. 71 m)</li> </ul> <p>Oasis Phase 3 Project</p> <ul style="list-style-type: none"> <li>- Installation of a 200 mm watermain extending from an existing stubbed main on</li> <li>- the construction of new watermain heading west on New Private Street from new intersection Boudreau Blvd. and New Private Street from new 200 mm off a 200 mm Tee to a new 200 mm off a new 200 mm Tee on an existing watermain at a Second New Intersection of Boudreau Blvd. and New Private Street (approx. 295 m)</li> <li>- On Street 1 from the Cap to Tee on Street 7, 300 mm diameter</li> <li>- On Street 6 from the Cap at Boudreau Blvd. to reducer at Boudreau Blvd., 200 mm diameter</li> </ul>			

Willow Springs Project

- On Street 1 from the Cap on Street 1 to Tee at Street 7, 300 mm
- On Street 6 from the reducer at Boudreau Blvd. to cap on Street 6, 300 mm
- On Street 7 from the cap to the cap of Street 7, 300 mm
- On Street 8 from Tee on Street 7 to tee of Street 7, 200 mm

Parc Des Dunes Project

- On Street 1 from the cross on at Street 3 to cap on Street 1, 300 mm
- On Street 2 from the Tee on Street 5 to cross on Street 3, 300 mm
- On Street 3 from the Tee on Savage St to the reducer on Street 3, 250 mm
- On Street 3 from the reducer to the cap on Street 3, 300 mm
- On Street 4 from the cross at Street 3 to the Tee at Street 3, 200 mm
- On Street 5 from the Tee to the reducer, 200 mm
- On Street 5 from the reducer to the reducer, 300 mm
- On Street 5 from reducer to cross at Street 3, 200 mm
- Watermain easement off Street 1 from Tee to cap on watermain easement, 200 mm
- Watermain easement off Street 1 from cap on watermain easement to Tee on Street 1, 200 mm

Question ID	DWMR1021001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were Form 2 documents prepared as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Form 2 documents were prepared as required.  A Form 2 form was prepared for the following modifications:  Chlorine Analyzer: A new chlorine analyzer installed to analyse the water entering the booster station before it reaches the clearwell – Evoqua, Wallace and Tiernan (W/T93043), installed by Chloratech Inc. (Director Notification was also submitted for the modification).   NOTE: Repairs and maintenance are exempt from the definition of alterations under the SDWA. If an item like a pump is being replaced 'like for like' due to reliability issues, this is considered repair and maintenance and the Ministry does not require the replacement to be documented in a Form 2. "Like for like" replacement may result in newer, or more modern equipment replacing older units. The new equipment does not need to match the exact specifications of the replaced equipment (e.g., flow rate); as long as the design purpose has not changed, it would still be considered to be captured under the definition of repairs, and not be considered an alteration.			

Question ID	DWMR1025001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were all parts of the drinking water system that came in contact with drinking water disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All parts of the drinking water system were disinfected as required.  Condition 2.3 of Schedule B of DWWP No. 179-202 Issue No. 3 that was issued on June 18, 2021, states that all parts of the drinking water system in contact with drinking water are: 2.3.1 Added, modified, replaced, extended; or 2.3.2 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, effective August 2020. 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.  It was indicated by Limoges WTP staff at the time of the inspection, that a recently updated Standard Operating Procedure (SOP) was created specifically to ensure the Watermain Disinfection Procedure is properly and adequately followed and adhered to by The Nation DWS staff. No concerns identified.			

Question ID	DWMR1023001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Did records indicate that the treatment equipment was operated in a manner that achieved the design capabilities prescribed by O. Reg. 170/03, Drinking Water Works Permit and/or Municipal Drinking Water Licence at all times that water was being supplied to consumers?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities prescribed.  Subsection 1-2(2) of Schedule 1 of Ontario Regulation 170/03 requires that the owner of a drinking water system and the operating authority for the system ensure the following: 1. The water treatment equipment is in operation whenever water is being supplied; 2. The water treatment equipment is operated in accordance with the Ministry's Procedure for			

Disinfection of Drinking Water in Ontario; and that

3. The water treatment equipment required by section 1-3 or 1-4 is operated in a manner that achieves the design capabilities it is required to have under that section.

In accordance with the "Procedure for Disinfection of Drinking Water in Ontario", a drinking water system that obtains water from a Ground water supply must have a treatment system in place that is capable of producing water of equal or better quality than a combination of chemically assisted filtration and disinfection process would provide. The treatment must provide a minimum 2-log (99%) removal/inactivation of viruses.

According to the Procedure for Disinfection of Drinking Water in Ontario, this treatment technology is classified as true ground water treated by chlorination and filtration (confirmed by Engineer). Therefore, the Limoges WTP receives 2.0-log removal credits for Viruses.

The available information indicates that the Limoges WTP is operating in accordance with these requirements.

In order to ensure effective pathogen inactivation to the required level through disinfection, the CT disinfection concept must be applied. The Procedure defines the CT concept as using the combination of disinfectant residual concentration and the effective disinfection contact time to quantify the capability of a chemical disinfection system in providing pathogen removal. Using this concept involves the determination of CT values required at the actual variable operating conditions (flow, temperature, pH), and ensuring that the disinfection process always achieves these values.

To ensure CT is achieved the plant is operated to try to achieve a minimum combined chlorine residual of >1.5 mg/L but < 2.5 mg/L in the water leaving the clearwell at a maximum flow rate of 2,080 m3/day. During the inspection review period the combined chlorine residual of the water heading to the reservoir ranged from 1.87 mg/L (February 26, 2024) to 3.05 mg/L\* (November 11, 2024).

To further confirm that the CT was consistently achieved, a CT calculation was completed based on worst case conditions (i.e. min. chlorine residual, max. flow, low temperature, max. pH) reported since the previous inspection. The calculation confirmed that the plant was capable of achieving the required CT in all operating conditions reported since the last inspection. No issues identified.

\*Although the combined chlorine residual was above 3.0 mg/L for water entering the clearwell, the water which was analyzed in the distribution system on that same day was never above 3.0 mg/L for combined chlorine residual.

<b>Question ID</b>	DWMR1024001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			

**Question:**

Did records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection was operated as required?

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection was operated as required.

Section 1-2(2)4 of Schedule 1 of Ontario Regulation 170/03 states that if the drinking water system's water treatment equipment provides chlorination or chloramination for secondary disinfection, the equipment is operated so that, at all times and at all locations within the distribution system,

- i. The free chlorine residual is never less than 0.05 mg/L, if the drinking water system provides chlorination and does not provide chloramination, or
- ii. The combined chlorine residual is never less than 0.25 mg/L if the drinking water system provides chloramination.

The maintenance of a disinfectant residual in the distribution system (secondary disinfection) is intended to maintain (or introduce and maintain) a persistent disinfectant residual to protect the water from microbiological re-contamination, reduce bacterial re-growth, control biofilm formation, and serve as an indicator of distribution system integrity (loss of disinfectant residual indicating that the system integrity has been compromised). Only chlorine, chlorine dioxide and monochloramine provide a persistent disinfectant residual and can be used for the maintenance of a residual in the distribution system.

The recommended optimum target for combined chlorine residual for systems designed to operate with chloramination is 1.0 mg/L at all locations within the distribution system to suppress bacterial activity that converts ammonia to nitrite and nitrate.

Rapid decay of a disinfectant residual may occur because of several other causes such as heavy encrustation or sediment accumulation and biofilm activity and may require investigation and specific corrective action such as engineered flow velocity increases and swabbing or pigging/lining and/or main replacement.

Records provided by Nation Municipality were reviewed for the inspection period and found to be in order. The lowest combined chlorine residual was measured on October 20, 2024, with a result of 0.86 mg/L.

Question ID	DWMR1033001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (3); SDWA   O. Reg. 170/03   7-2   (4);			
<b>Question:</b> Was secondary disinfectant residual tested as required for the large municipal residential distribution system?			



**Compliance Response(s)/Corrective Action(s)/Observation(s):**

Secondary disinfectant residual was tested as required.

Subsection 7-2 (3) of Schedule 7 of Ontario Regulation 170/03 requires that the owner of a large municipal residential system that provides secondary disinfection and the operating authority for the system shall ensure that at least seven distribution samples are taken each week and are tested immediately for, free chlorine residual, or combined chlorine residual, if the system provides chloramination.

The required sampling had been conducted in accordance with the rules prescribed by Subsection 7-2(4) of Schedule 7 of Ontario Regulation 170/03. The rules stipulate the following:

- At least four of the samples must be taken on one day of the week, at least 48 hours after the last sample was taken in the previous week.
- At least three of the samples must be taken on a second day of the week, at least 48 hours after the last sample was taken on the day noted above.
- When more than one sample is taken on the same day of the week under paragraph noted above, each sample must be taken from a different location.

The secondary disinfectant residual in the distribution system is measured as per Subsection 7-2(4) of Schedule 7 of Ontario Regulation 170/03 by means of collecting residuals during distribution sampling (typically 24 to 30 samples per month). The owners also continuously monitor distribution system disinfectant residual via online chlorine analyzers located throughout the distribution system. No concerns were identified.

Question ID	DWMR1030001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (1); SDWA   O. Reg. 170/03   7-2   (2);			
<b>Question:</b> Was primary disinfection chlorine monitoring being conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit or at/near a location where the intended CT had just been achieved?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Primary disinfection chlorine monitoring was conducted as required.  Ontario Regulation 170/03 Schedule 7-2(1) requires the owner to sample and test for free chlorine residual using continuous monitoring equipment in treated water at or near the location where the intended contact time has just been completed in order to achieve primary disinfection.  The location of the primary disinfection sampling point is in the clearwell. This point			

represents the location where water is taken from the clearwell (where primary disinfection is achieved) and directed to the high lift pumps. Before the disinfected water reaches the high lift pumps it is injected with ammonium sulphate where the free chlorine is converted to chloramination.

The continuous monitoring system ensures the maintenance of an adequate disinfectant residual in the treated water supply. A second chlorine analyzer is also installed at the booster building which monitors Free and Total Chlorine for combine chlorine residuals determinations. No concerns identified.

Question ID	DWMR1035001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> Were operators examining continuous monitoring test results and did they examine the results within 72 hours of the test?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators were examining continuous monitoring test results as required.  Facility Logbooks are maintained by Limoges WTP staff for the Limoges WTP and the Limoges Distribution System. These logbooks were reviewed, and it was noted that operators were reviewing the continuous monitoring data, typically within 24-48 hours of the test.  The Limoges WTP is staffed Monday to Friday and a designated on-call person is available after hours and weekends.			

Question ID	DWMR1038001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> Was continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency and recording data with the prescribed format?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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 and recording data with the prescribed format.  The continuous monitoring equipment required by Ontario Regulation 170/03 was equipped with the following alarm set points:  -the combined chlorine residual analyzer monitoring water leaving the WTP has a low-level			

alarm of 1.5 mg/L, and a high-level alarm of 3.2 mg/L.

-the filter effluent turbidimeters have high level alarms set at 0.15 Nephelometric Turbidity Units (NTU) and high-high level alarms set at 0.3 NTU. An audible alarm is triggered when filter effluent turbidity reaches high alarm.

A low alarm was also installed to help with any loss of power or connectivity with SCADA. The turbidimeters will not be able to read zero without an alarm being triggered; the low alarms will act as a fault alarm.

- The SCADA system records total and free chlorine residual continuously in the distribution with a low alarm set point of 1.55 mg/L at the Forest Park Booster Station and a high alarm set point of 2.90 mg/L.

Question ID	DWMR1037001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> Were 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, equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All required continuous monitoring equipment utilized for sampling and testing were equipped with alarms or shut-off mechanisms that satisfied the standards  The Table in Schedule 6 of Ontario Regulation 170/03 states that free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual required to achieve primary disinfection be recorded at a minimum every five minutes and that a minimum alarm set point be 0.1 milligrams per litre less than the concentration of free chlorine residual that is required to achieve primary disinfection.  - The Table in Schedule 6 does not state a maximum alarm standard for chlorine residual to achieve primary disinfection. - The SCADA system records total and free chlorine residual continuously and the alarm for low combined chlorine residual is set at 1.5 mg/L.  The Table in Schedule 6 of Ontario Regulation 170/03 states that free chlorine residual and total chlorine residual measured for the purpose of determining combined chlorine residual in a distribution sample can be recorded at a minimum every one (1) hour and that a minimum alarm set point be 0.25 milligrams per litre.  - The Table in Schedule 6 does not state a maximum alarm standard for chlorine residual in the distribution - The SCADA system records total and free chlorine residual continuously and the alarm for			

low combined chlorine residual is set at 1.55 mg/L.

Question ID	DWMR1040001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10;			
<b>Question:</b> Were all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous analysers were calibrated, maintained, and operated as required.  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 and according to Schedule 6-5 of Ontario Regulation 170/03. Calibration records and work order summaries were provided.  Limoges DWS staff utilize a management/maintenance schedule (Preventive Maintenance 2022) to assist and track maintenance/calibration activities. Calibration records and work order summaries were provided by Limoges staff and summarized below:  All flow meters were last calibrated October 25, 2024.  Handheld chlorine and turbidity analyzers were calibrated on February 6, 2023, and most recently calibrated on February 8, 2024.  The continuous monitoring equipment that monitors chlorine and turbidity is calibrated/verified using the factory calibrated handheld analyzers on a weekly basis throughout the inspection review period. No concerns were identified.			

Question ID	DWMR1108001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, Municipal Drinking Water Licence, Drinking Water Works Permit, or order triggered an alarm or an automatic shut-off, did a qualified person respond as required and take appropriate actions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> A qualified person responded as required and took appropriate actions.  When there is an alarm an operator is paged. The operator will verify what type of alarm as			

been triggered by logging in the after-hours laptop which can access the WTP's SCADA system.

If the alarm cannot be resolved remotely, the logbooks (after-hours and daily operations) indicated that an operator is usually at the plant within 15 minutes (approximately) to resolve the alarm.

Question ID	DWMR1099001	Question Type	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Do records show that water provided by the drinking water system met the Ontario Drinking Water Quality Standards?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records showed that all water sample results met the Ontario Drinking Water Quality Standards.  Sample records provided for the Limoges DWS for the period between January 1, 2024, to November 30, 2024, and found to be in order. All the parameters sampled were in order with the limits set in Ontario Regulation 169/03.			

Question ID	DWMR1083001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10-3;			
<b>Question:</b> Were treated microbiological sampling requirements prescribed by Schedule 10-3 of O. Reg. 170/03 for large municipal residential systems met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Treated microbiological sampling requirements were met.  Section 10-3 of Schedule 10, Ontario Regulation 170/03, requires that a treated water sample be taken at least once a week and tested for the required microbiological parameters.  A review of the water quality monitoring data for the period in question, confirmed that all microbiological monitoring requirement for treated water were consistently being met.			

Question ID	DWMR1081001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10-2   (1); SDWA   O. Reg. 170/03   10-2   (2); SDWA   O. Reg. 170/03   10-2   (3);			
<b>Question:</b> Were distribution microbiological sampling requirements prescribed by Schedule 10-2 of O.			

Reg. 170/03 for large municipal residential systems met?

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

Distribution microbiological sampling requirements were met.

Section 10-2(1)(a) of Schedule 10 of Ontario Regulation 170/03 requires that the owners of a drinking water system and the operating authority for the system shall ensure that, if the system serves 100,000 people or less, at least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples being taken in each week.

According to information provided at the time of the inspection, the total permanent residential population served by the Limoges DWS is approximately 5,200. Based on the population of 5,200, the total number of distribution samples required per month is at least thirteen (13).

A review of the water quality data for the period in question, confirmed that the microbiological monitoring requirements for the distribution system were consistently being met. The distribution samples ranged from 24 to 30 samples per month with at least 25% of the sample being tested for Heterotrophic Plate Count (HPC).

Question ID	DWMR1096001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-3   (1);			
<b>Question:</b> Did records confirm that chlorine residual tests were conducted at the same time and location as microbiological samples?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that chlorine residual tests were conducted as required.  A review of the microbiological water quality monitoring data for the period in question, confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained. No concerns were identified.			

Question ID	DWMR1084001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-2;			
<b>Question:</b> Were inorganic parameter sampling requirements prescribed by Schedule 13-2 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Inorganic parameter sampling requirements were met.			

Section 13-2 of Schedule 13, Ontario Regulation 170/03 requires that at least one sample be taken every 36 months and tested for the required inorganic parameters identified under Schedule 23.

A review of the inorganic water quality monitoring data for the period in question, confirmed that the required samples were collected on April 1, 2024, and that the monitoring requirements prescribed by the legislation were met. The last set of inorganic parameter samples was collected on April 4, 2023.

The next sample to be tested for the required inorganic parameters identified under Schedule 23 of Ontario Regulation 170/03 shall be collected no later than April 1, 2027 (+/- 60 days).

Question ID	DWMR1085001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-4   (1); SDWA   O. Reg. 170/03   13-4   (2); SDWA   O. Reg. 170/03   13-4   (3);			
<b>Question:</b> Were organic parameter sampling requirements prescribed by Schedule 13-4 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Organic parameter sampling requirements were met.  Section 13-4 of Schedule 13, Ontario Regulation 170/03 requires that at least one sample be taken every 36 months and tested for the required organic parameters identified under Schedule 24.  A review of the organic water quality monitoring data for the period in question, confirmed that the required samples were collected on April 1, 2024, and that the monitoring requirements prescribed by the legislation were met. The last set of organic parameter samples was collected on April 4, 2023.  The next sample to be tested for the required organic parameters identified under Schedule 24 of Ontario Regulation 170/03 shall be collected no later than April 1, 2027, (+/- 60 days).			

Question ID	DWMR1093001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-5   (1); SDWA   O. Reg. 170/03   13-5   (2);			
<b>Question:</b> If any Schedule 13-2 or 13-4 parameter(s) exceeded half the Ontario Drinking Water Quality Standard, did the owner increase the frequency of monitoring as required by Schedule 13-5 of O. Reg. 170/03?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

A Schedule 13-2 or 13-4 parameter(s) exceeded half the ODWQS value, and the owner increased the frequency of monitoring as required.

In treated water the owner is required to perform additional sampling for Barium (Ba) because that parameter exceeded half its standard of 1 mg/L (1,000 µg/L) which is prescribed by the Ontario Drinking Water Quality Standards (ODWQS). Additional sampling must be performed in accordance with Schedule 13-5 of Ontario Regulation 170/03.

A review of the water quality monitoring data for the period in question confirmed that the Ba samples were collected in accordance with monitoring requirements prescribed by the legislation (Schedule 13-5 of Ontario Regulation 170/03).

Since the previous inspection Ba samples were collected on January 17 (463 µg/L), April 11 (508 µg/L), July 3 (495 µg/L), and October 2 (516 µg/L), all in 2024.

The additional sampling ceases to apply in the case of a drinking water system that obtains water from a raw water supply that is ground water, for two consecutive three-month periods in which the system is in operation, none of the test results obtained under section 13-2 or 13-4 for the parameter exceed half of the standard prescribed for the parameter in Schedule 2 to the Ontario Drinking Water Quality Standards.

Question ID	DWMR1086001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-6.1   (1); SDWA   O. Reg. 170/03   13-6.1   (2); SDWA   O. Reg. 170/03   13-6.1   (3); SDWA   O. Reg. 170/03   13-6.1   (4); SDWA   O. Reg. 170/03   13-6.1   (5); SDWA   O. Reg. 170/03   13-6.1   (6);			
<b>Question:</b> Were haloacetic acid sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Haloacetic acid sampling requirements were met.  Section 13-6.1 (1) of Schedule 13 of Ontario Regulation 170/03 requires that at least one sample be taken every three months and tested for haloacetic acids (HAA).  A review of the water quality monitoring data for the period in question, confirmed that haloacetic acids samples were collected in accordance with the monitoring requirements prescribed by the legislation.  Since the previous inspection HAA samples were collected on January 17 (15.4 µg/L), April 11 (26.3 µg/L), July 3 (27.0 µg/L), and October 2 (21.7 µg/L), all in 2024.  The running annual average based on the results of the four most recent quarterly sample results is 22.6 µg/L which is below the Ontario Drinking Water Quality Standard (ODWQS)			



limit of 80 µg/L (running annual average).

Question ID	DWMR1087001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-6   (1); SDWA   O. Reg. 170/03   13-6   (2); SDWA   O. Reg. 170/03   13-6   (3); SDWA   O. Reg. 170/03   13-6   (4); SDWA   O. Reg. 170/03   13-6   (5); SDWA   O. Reg. 170/03   13-6   (6);			
<b>Question:</b> Were trihalomethane sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Trihalomethane sampling requirements were met.  Section 13-6 of Schedule 13 of Ontario Regulation 170/03 requires that at least one sample be taken every three months and tested for trihalomethanes (THM).  A review of the water quality monitoring data for the period in question, confirmed that THM samples were collected in accordance with the monitoring requirements prescribed by the legislation.  Since the previous inspection THM samples were collected on January 17 (42 µg/L), April 11 (40 µg/L), July 3 (38 µg/L), and October 2 (31 µg/L), all in 2024.  The running annual average based on the results of the four most recent quarterly sample results is 37.75 µg/L which is below the Ontario Drinking Water Quality Standard (ODWQS) limit of 100 µg/L (running annual average).			

Question ID	DWMR1088001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-7;			
<b>Question:</b> Were nitrate/nitrite sampling requirements prescribed by Schedule 13-7 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Nitrate/nitrite sampling requirements were met.  Section 13-7 of Schedule 13 of Ontario Regulation 170/03 requires that at least one sample be taken every three months and tested for nitrates/nitrites.  A review of the water quality monitoring data for the period in question confirmed that the nitrate/nitrite samples were collected in accordance with monitoring requirements prescribed by the legislation.			

Since the previous inspection nitrate/nitrite samples were collected on January 17, April 4, July 4, and October 3, all in 2024.

During the inspection review period the nitrate concentration ranged from 0.29 mg/L to 0.31 mg/L which is below the maximum acceptable concentration of 10 mg/L. The nitrite concentration ranged from 0.05 mg/L to 0.07 mg/L which is below the maximum acceptable concentration of 1 mg/L. No concerns identified.

Question ID	DWMR1089001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-8;			
<b>Question:</b> Were sodium sampling requirements prescribed by Schedule 13-8 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Sodium sampling requirements were met.  Section 13-8 of Schedule 13 of Ontario Regulation 170/03 requires that at least one sample be taken every 60 months and tested for sodium (Na).  A review of the water quality monitoring data for the period in question, confirmed that the sodium samples were collected in accordance with monitoring requirements prescribed by the legislation.  Sodium was last sampled on April 11, 2024 (two samples), with results of 32.9 mg/L in one sample and 33.5 mg/L in the other, which is above the Schedule 16, section 16-3 (1) paragraph (8) of Ontario Regulation 170/03 guideline of 20 mg/L. Proper notification and corrective actions completed by owners; no concerns identified.  Limoges DWS will not be required to collect samples for sodium before April 11, 2029 (+/- 90 days).			

Question ID	DWMR1090001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-9;			
<b>Question:</b> Where fluoridation is not practiced, were fluoride sampling requirements prescribed by Schedule 13-9 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Fluoride sampling requirements were met.  Section 13-9 of Schedule 13 of Ontario Regulation 170/03 requires that at least one sample be taken every 60 months and tested for fluoride.			

A review of the water quality monitoring data for the period in question, confirmed that the fluoride samples were collected in accordance with monitoring requirements prescribed by the legislation.

The last set of fluoride samples were collected on April 11, 2024, with a result of 0.1 mg/L, which is below the ODWQS limit of 1.5 mg/L.

Limoges DWS will not be required to collect samples for fluoride before April 11, 2029 (+/- 90 days).

Question ID	DWMR1104001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   16-6   (1); SDWA   O. Reg. 170/03   16-6   (2); SDWA   O. Reg. 170/03   16-6   (3); SDWA   O. Reg. 170/03   16-6   (3.1); SDWA   O. Reg. 170/03   16-6   (3.2); SDWA   O. Reg. 170/03   16-6   (4); SDWA   O. Reg. 170/03   16-6   (5); SDWA   O. Reg. 170/03   16-6   (6);			
<b>Question:</b> Were immediate verbal notification requirements for adverse water quality incidents met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Immediate verbal notification requirements for adverse water quality incidents were met.			

Question ID	DWMR1101001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   17-1; SDWA   O. Reg. 170/03   17-10   (1); SDWA   O. Reg. 170/03   17-11; SDWA   O. Reg. 170/03   17-12; SDWA   O. Reg. 170/03   17-13; SDWA   O. Reg. 170/03   17-14; SDWA   O. Reg. 170/03   17-2; SDWA   O. Reg. 170/03   17-3; SDWA   O. Reg. 170/03   17-4; SDWA   O. Reg. 170/03   17-5; SDWA   O. Reg. 170/03   17-6; SDWA   O. Reg. 170/03   17-9;			
<b>Question:</b> For large municipal residential systems, were corrective actions, including any steps directed by the Medical Officer of Health, taken to address adverse conditions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Corrective actions were taken to address adverse conditions.  AWQI # 164810, dated April 15, 2024. This AWQI was regarding a sample result of 32.9 mg/L of sodium found in a treated-water sample on April 11, 2024. A re-sample was collected on April 17, 2024, with a result of 36.2 mg/L. The owner contacted the Eastern Ontario Health Unit and followed the prescribed instructions from the Medical Officer of Health. All required corrective actions were completed, no concerns identified.			

Question ID	DWMR1114001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the owner have evidence that, when required, all legal owners associated with the drinking water system were notified of the requirements of the Municipal Drinking Water Licence and Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had evidence that the required notifications were made.			

Question ID	DWMR1060001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the operations and maintenance manual(s) meet the requirements of the Municipal Drinking Water Licence?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manual(s) met the requirements of the Municipal Drinking Water Licence.  Schedule B of the MDWL requires that any alteration to any treatment subsystem be incorporated into process flow diagrams, process and instrumentation diagrams, record drawings and any other relevant diagrams within one year of the substantial completion of the alteration being completed or placed into service. In other words, modifications covered under Schedule C approvals or as pre-authorized alterations (documented on a Form 2 or 3) which were substantially completed more than (1) one year prior to the inspection date are required to be incorporated into: - process flow diagrams, - process and instrumentation diagrams - record drawings and diagrams.  Operations and maintenance manual(s) for the WTP were reviewed at the time of the inspection and found to be in order, containing plans, drawings, and very detailed process descriptions. The manuals are kept at the WTP; and are readily available to all WTP staff.  At the WTP there is also a binder which contains abbreviated (condensed) operations and maintenance manuals. The binder was recently (2021) re-organized with new headings and dividers, very organized and neat. There is also the full technical series of operations and maintenance manuals and binders on site.  The operations and maintenance manuals are in order and consistent with conditions 16.0 of			

Schedule B of MDWL No. 179-102 Issue No. 5. No concerns identified.

Question ID	DWMR1062001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-5;			
<b>Question:</b> Did records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment was done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03.  Facility Logbooks are maintained by Nation Municipality staff for the Limoges WTP. These logbooks were reviewed, and it was noted that operators were reviewing the continuous monitoring data, typically within 24 hours of the test.  The Limoges WTP has an operator on site five-days a week (Mon-Fri). Nation Municipality also reports that only certified operators perform operational testing that is not performed by continuous monitoring equipment.  The logs containing information generated by operational checks and tests did contain the names, dates, locations of the persons performing the work. No issues identified.			

Question ID	DWMR1071001	Question Type	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Did the owner provide security measures to protect components of the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner provided security measures to protect components of the drinking water system.  All components of the WTP were found to be completely fenced, covered, secure, and under lock and key at all times.  Intrusion alarms are installed at the following locations: - WTP - Well building - Forest Park Boost Station  All booster/pump stations have security lighting, signs and locked door/gates. The owners			

have also installed a closed-circuit video surveillance system as an additional security measure (not at Forest Park). No vandalism was observed no issues identified.

Question ID	DWMR1073001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   23   (1);			
<b>Question:</b> Was an overall responsible operator designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> An overall responsible operator was designated for all subsystem.  Mr. Nicholas Pigeon – Water Treatment Class III Certificate #99565 which expires June 30, 2027, is the ORO for the Limoges WTP and possesses the required qualifications.  Mr. Sebastien Mainville – Water Treatment Class III Certificate #100042 which expires November 30, 2027, is the back-up ORO for the Limoges WTP and possesses the required qualifications. No issues identified.			

Question ID	DWMR1074001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   25   (1);			
<b>Question:</b> Were operators-in-charge designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators-in-charge were designated for all subsystems.  The operator designated as the Operator-In-Charge (OIC) for any given week is different from the OIC at night or on-call for that week. All the information was recorded and maintained in WTP and in the logbook. The duty operators and the on-call operators for each subsystem are designated to be the OIC.			

Question ID	DWMR1075001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   22;			
<b>Question:</b> Were all operators certified as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All operators were certified as required.			

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Question ID	DWMR1076001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Were adjustments to the treatment equipment only made by certified operators?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Adjustments to the treatment equipment were only made by certified operators.			

**APPENDIX A**

**REFERENCE MATERIAL**



# 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 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](mailto:waterforms@ontario.ca).

For more information on Ontario's drinking water visit

[www.ontario.ca/page/drinking-water](http://www.ontario.ca/page/drinking-water)



## Click on the publication below to access it

- [Drinking Water System Profile Information Form - 012-2149E](#)
- [Laboratory Services Notification Form – 012-2148E](#)
- [Adverse Test Result Notification Form – 012-4444E](#)
- [Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils](#)
- [Procedure for Disinfection of Drinking Water in Ontario](#)
- [Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids](#)
- [Filtration Processes Technical Bulletin](#)
- [Ultraviolet Disinfection Technical Bulletin](#)
- [Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments](#)
- [Certification Guide for Operators and Water Quality Analysts](#)
- [Training Requirements for Drinking Water Operator](#)
- [Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption](#)
- [Drinking Water System Contact List – 7128E01](#)
- [Ontario's Drinking Water Quality Management Standard - Pocket Guide](#)
- [2020 Watermain Disinfection Procedure](#)
- [List of Licensed Laboratories](#)

**APPENDIX B**

**COMPONENT INFORMATION REPORT**

# DWS Component Information Report for 260006841

as of 30-JAN-2025

## Drinking Water System Profile Information

**DWS #** 260006841  
**MOE Assigned Name** Limoges Drinking Water System  
**Category** LMRS  
**Regulation** O.REG 170/03  
**DWS Type** Well Supply  
**Source Type** Ground Water  
**Address** 269 Limoges Road, Limoges, Ontario, K0A 2M0, Canada  
**Region** Eastern Region  
**District** Cornwall Area Office  
**Municipality** The Nation  
**Public Health Unit** Eastern Ontario Health Unit

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
Well 1 Pumphouse Raw	Source		2460 Russland Road, Lot: 21, Conc.: 7,	<p>Located at 2460 Russland Road, production Well #1 is a 250 millimetre (mm) diameter, 24.5 metre (m) deep drilled well. 500 mm steel casing extends 6.0 metres below the ground surface. The annular space between the inner well casing and outer protective casing is filled with cement grout. The well was completed by Envirotecheau Limited of Montreal, Quebec. The well is enclosed inside a pump house with a concrete floor located approximately 250 mm above the surrounding ground level at the site. The well casing is raised above the floor by 200 mm. The pump unit sits securely on the casing and concrete pedestal. The well is located on a parcel of land, 45 m wide by 112 m deep, owned by The Nation Municipality.</p> <p>Well #1 is equipped with a vertical turbine pump with a rated capacity of 24.1 litres per second (L/sec) at a TDH of 19.6 m. It is also equipped with a flow control valve, a flow meter, a sodium hypochlorite metering pump, and a 750 L storage tank (not in use). All of the above equipment including a standby generator for the well supply is housed in a concrete block, aluminum clad service building. Well #1 is the main supply well for the drinking water system.</p>
Distribution - Forest Park Reservoir	Other		214 Maple Groves,	<p>The Forest Park Reservoir and Pumphouse is located at 214 Maple Groves Street in the community of Forest Park. It consists of two on-line continuous chlorine analyzers (free and total chorine), a water storage reservoir with approximate volume of 700 m3, and a fill valve with PLC and telemetry system connected to the Limoges water treatment plant. There are also three electric driven turbine pumps (high lift) rated at 8 L/s at 42 m TDH and one diesel engine driven vertical turbine pump rated at 47.3 L/s at 70 m TDH to supply emergency water.</p> <p>The Forest Park reservoir high lift pumps provide water from Limoges to the Forest Park community from 06:00 to 23:00, and from 23:00 to 06:00 the high lift pumps are shut off and water comes directly from the Limoges water treatment plant to replenish the Forest Park reservoir and provide for consumers' night time water demand.</p>

# DWS Component Information Report for 260006841

**as of 30-JAN-2025**

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
Distribution - Tardif Mhp Pump House	Other		Road 600 West,	Before being served by the Limoges Well Supply, the Ben Tardif Trailer Park was on its own well system. The pump house for the former well system is now used by the Nation Municipality to house a conduit equipped with pressure manometers and a sampling station connecting to the mobile home park distribution pipes. The Ben Tardif pump house is located on Route 600 ouest.
Plant Treated	Treated Water Poe			<p>The water treatment plant consists of one tray aerator rated at 63 L/s, one aeration basin approximately 7 m diameter by 2.4 m high, and two air blowers rated at 75 SCFM at 6 psi to control the levels of methane and hydrogen sulphide. The aeration system is followed by a low lift pumping basin with two centrifugal pumps rated at 24.1 L/s at 13.7 m TDH.</p> <p>Two anthracite and greensand filters and a clarification tank with potassium permanganate and coagulant injection are used for the control of organic carbon, organic nitrogen, hydrogen sulphide, colour, trihalomethane (THM) precursors, iron and manganese.</p> <p>The plant is also equipped with backwash facilities, treated water storage, chlorination equipment, high lift pumping, and standby power generation. The water treatment plant uses polyaluminium silicate sulphate (PASS) as its coagulant. Continuous turbidity and chlorine analyzers are positioned on the treated water main exiting the clear well en route to the reservoir, as well as on the treated water effluent line to the distribution system.</p>
Distribution - General	Other			<p>The distribution system consists of PVC and polyethylene pipes ranging in size from 25 mm service connections to a 300 mm diameter main. Piping in the local distribution network in the Village of Limoges, the community of Forest Park, and the Ben Tardif Mobile Home Park (MHP) consist largely of 150 mm and 200 mm PVC pipes. In addition, the municipal distribution system also contains fire hydrants, standard service connections, gate valves, valve chambers, isolation and interconnection valves, blow-off points, drain valve chambers and air and release chambers. A meter chamber is also located at the Forest Park Reservoir and Pumphouse for purposes of flow monitoring.</p> <p>There are approximately 1538 service connections in the distribution system, serving a self-reported population of about 2,000 persons.</p>
Well 2 Pumphouse Raw	Source		2476 Russland Road, Lot: 21, Conc.: 7,	Located at 2476 Russland Road, production Well #2 is a 250 mm diameter, 21.5 m deep drilled well. The 500 mm steel casing extends 9.1 m below the ground surface. The annular space between the inner well casing and outer protective casing is filled with cement grout. The well was completed by Forage Metropolitain of St-Timothy, Quebec. The well is enclosed in a precast concrete

## DWS Component Information Report for 260006841

as of 30-JAN-2025

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
				<p>chamber complete with a steel cover and locked access hatch. A sump pump is located inside the manhole chamber in order to remove water accumulation resulting from any snow melt or surface and ground infiltration. Electrical and telemetry controls are housed in an exterior weather proof locked control panel. The well is located on a parcel of land of 12 m wide by 18 m deep, owned by The Nation Municipality.</p> <p>Well #2 is equipped with a submersible pump with a rated capacity of 24.1 L/sec at a TDH of 19.6 m. It is also equipped with a flow control valve and a flow meter. Well #2 is used principally as the standby well.</p> <p>There is standby power available for both wells.</p>

**APPENDIX C**

**INSPECTION RISK RATING (IRR)**

## Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2024-25)

**DWS Name:** LIMOGES DRINKING WATER SYSTEM

**DWS Number:** 260006841

**DWS Owner:** CORPORATION DE LA MUNICIPALITE DE LA NATION

**Municipal Location:** THE NATION

Regulation: O.REG.170/03

**DWS Category:** DW Municipal Residential

**Type of Inspection:** Focused

**Compliance Assessment Start Date:** Dec-9-2024

**Ministry Office:** Cornwall Area Office

**Maximum Risk Rating: 501**

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/30
Certification and Training	0/42
Logbooks	0/14
Operations Manuals	0/14
Reporting & Corrective Actions	0/70
Source	0/14
Treatment Processes	0/197
Water Quality Monitoring	0/120
Overall - Calculated	0/501

<b>Inspection Risk Rating:</b>	<b>0.00%</b>
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<b>Final Inspection Rating:</b>	<b>100.00%</b>
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Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2024-25)

**DWS Name:** LIMOGES DRINKING WATER SYSTEM  
**DWS Number:** 260006841  
**DWS Owner Name:** CORPORATION DE LA MUNICIPALITE DE LA NATION  
**Municipal Location:** THE NATION

**Regulation:** O.REG. 170/03  
**DWS Category:** DW Municipal Residential  
**Type of Inspection:** Focused  
**Compliance Assessment Start Date:** Dec-9-2024  
**Ministry Office:** Cornwall Area Office

*All legislative requirements were met. No detailed rating scores.*

Maximum Question Rating: 501

Inspection Risk Rating: 0.00%

FINAL INSPECTION RATING: 100.00%