

Municipality of Mississippi Mills

Sewage Collection System Annual Performance Report

ECA # 178-W601

Roads and Public Works Issued: April 1, 2025 Revision #1

Revision History

| Revision Number | Date Issued | Description |
|-----------------|----------------|--|
| 0 | March 31, 2025 | Issued to MECP |
| 1 | April 1, 2025 | Updated section 2.1 to include additional system alteration. |

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1. Compliance Overview

This annual performance report covers the period of January 1st, 2024 to December 31, 2024.

| Compliance Event | # of Events | Details |
|--|-------------|-------------------------------|
| Ministry of the Environment Inspections | 0 | |
| Ministry of Labour Inspections | 0 | |
| Bypass/Overflows | 0 | |
| Customer Complaints | 17 | Summary provided in Section 0 |
| Spills | 2 | See Section 5.1 |
| Operating Issues | 34 | See Section 3.3 |

Table 1-1: Compliance Summary

2. System Process/Description

The Municipality of Mississippi Mills Sewage Collection System is located in the Ward of Almonte and consists of works for the collection and transmission of sewage; consisting trunk sewers, separate sewers, sewage pumping stations, and forcemains with discharge into the Mississippi Mills Wastewater Treatment Plant (WWTP). The WWTP is operated by Ontario Clean Water Agency (OCWA) under ECA # 1637-AC8NT7. The sewage collection system is operated by the Mississippi Mills Roads and Public Works Department (linear pipe infrastructure), and the sewage pumping stations are operated by Ontario Clean Water Agency (OCWA).

2.1 System Alterations

Table 2-1 below summarizes the system alterations which occurred during 2024. Three alterations were approved during 2024 relating to extension of the collection system and reconstruction of existing infrastructure. One linear alteration which was authorized in 2023 was completed in 2024 and is awaiting finalization of the Part V Construction Verification. Two system alterations occurred in 2024 on sewage pumping stations – one of which required Directors Notification.

In July of 2024 the Mississippi Mills Drinking Water Threats Assessment document was reviewed and updated as required.

Table 2-1: Summary of System Alterations

| Alteration Type | Project | Date Authorized | Project Status | Part V Verification Completed ¹ | Significant Drinking Water Threat ² |
|---|--|----------------------|------------------------------------|--|--|
| SS1 – Alteration for Separate Sewer | Extension of services for Dunn/Colina development (developer initiated) - originally authorized June 20, 2023 design revised and new SS1 authorized on November 11, 2024 | November 11, 2024 | Alteration Completed in 2024 | In progress | No |
| SS1 – Alteration for Separate Sewer | Reconstruction of Mercer Street and Marshall Street infrastructure (Municipally initiated) | May 13, 2024 | Alteration Completed in 2024 | Yes | No |
| SS1 – Alteration for Separate Sewer | Reconstruction of Union Street North infrastructure (Municipally initiated) | March 12, 2024 | Alteration Completed in 2024 | Yes | No |
| SS1 – Alteration for Separate Sewer | Union Street North Forcemain servicing future development (Developer initiated) | March 28, 2024 | Alteration Completed in 2024 | Yes | No |
| SS2 – Record of Future Alteration for Components of the Municipal Sewage Collection System | Low level floats at Gemmill's Bay Sewage Pumping Station were causing operational issues and were removed from service and from SCADA programming | March 24, 2025 | Alteration Completed in 2024 | N/A | No |
| SS2 – Record of Future Alteration for Components of the Municipal Sewage Collection System | Installation of generator hookup at Hope/Glass Sewage Pumping Station for standby power supply. Work completed May 21, 2024. Directors Notification form submitted April 1, 2025 | April 1, 2025 | Alteration Completed in 2024 | N/A | No |

¹ Should Part V verification not be completed in the year in which it was authorized, it will be provided in the annual report in which it is completed.

² All alterations are screened using the *Mississippi Mills Significant Drinking Water Threat Assessment (2024)* document.

3. System Maintenance & QA/QC

3.1 Routine Operations and System Maintenance

3.1.1 Collection System

In 2024 the Roads and Public Works department undertook the following tasks as part of routine operations and system maintenance:

- Sewer inspections (weekly)
- Sewer cleaning and CCTV inspection
- Manhole adjustments
- Sewer CIPP lining (Cured-In-Place-Place) to remediate structural and I&I issues

3.1.2 Sewage Pumping Stations

In 2024 OCWA completed routine maintenance on the sewage pumping stations including:

- Routine inspections of pumping stations for operation, condition and for operational trends
- Routine pumping station pumping/cleaning
- Servicing and testing of backup diesel generators
- Float and sensor inspection/maintenance
- Other preventative maintenance as required by manufacturers
- Flow meter calibration at White Tail Ridge SPS

In addition to routine maintenance, OCWA completed the following alterations on the sewage pumping stations:

| Date | Location | Maintenance | Comment |
|--------|-------------------|--|---|
| Jan 30 | Gemmill's Bay SPS | Low Level floats removed from wet well and programming SS2 Alteration Form completed | Low level floats were ragging, getting caught in grease, and getting sucked into pump causing false low level alarms and turning pumps off. Removed Low floats from programming and wet well. |
| Jan 31 | Gemmill's Bay SPS | Programming for pumps to provide constant flow to plant, for better plant operation and to maintain wet well level during high flow events. | VFD target speed reduced to 85%. Pumps to rotate after pump down cycle is complete |

| Table 3-1: 3 | Sewage | Pumping | Station | Alterations |
|--------------|--------|---------|---------|-------------|

| May 21 | Hope & Glass | Portable Generator hookup power transfer installed and tested | Backup power now available for station |
|--------|--------------|--|--|
| | | SS2 Alteration Form completed Directors Notification Form completed and submitted | |

3.2 **Reconstruction Projects**

In 2024, the Municipality initiated a capital project to replace the water distribution and sanitary sewer infrastructure on Union Street North (entire length) and Mercer Street and Marshall Street (entire length)– the projects also included road reconstruction.

3.3 Operating Issues

A summary of operating issues is included as Table 3-2.

Table 3-2: Summary of Operating Issues

| Date | Operating Authority | Location | Issue | Corrective Action |
|---|------------------------|------------------------|---|--|
| Jan 2-4 | OCWA | Island SPS | Comm Loss Bell Line | Outpost (secondary system) functioning, no communication with Alarm Systems. Bell Tech repaired phone line. |
| Jan 18 | OCWA | Gemmill's Bay SPS | Pump 231 VFD Fail | Electrician Inspected, VFD replaced. |
| Jan 25 | OCWA | Gemmill's Bay SPS | Outpost Communication Loss | Ice on antenna, restored by end of day |
| Feb 1 | OCWA | WhiteTail Ridge SPS | Faulty Flow Meter | Flow meter not communicating, ordered part and replaced faulty connector April 10 th |
| Feb 27 | OCWA | All SPS's | Power Outage | Power restored immediately |
| June 6, 13, 14 Aug 12, 16, 19, Sept 17, 18 | OCWA | Hope and Glass SPS | Pump 1 Faulting | Shaft bushing worn, causing shaft to bind. Inspected pump, removed old float that had fallen and was interfering with pumps, repaired pump, replaced motor. Removed grit from wet well. |
| June 19 | OCWA | Island SPS | Communication Loss – Phone Line | Bell on site to restore phone line for alarms |
| July 7 th | OCWA | Christian St SPS | Communication Loss | Primary line down, Outpost functional |
| July 10- 12,14, 16, 17 | OCWA | Christian St SPS | Communication Loss/Fail to Test | Alarm Systems has no communication with station. Outpost functional. Trees around station were interfering with communication, Town cut trees back. |
| Jul 28 | OCWA | Gemmill's Bay SPS | Communication Loss on Phone Line | Restored on its own |
| Aug 9 | OCWA | Gemmill's Bay SPS | Spill – Rain Event. Pumps dropped to 85% speed during high wet well level, surcharging the manhole | Pump programming investigated, programmers added High Level Float Bypass switch on HMI to keep pumps at 100% during high flows (in case high level float is sucked out the Overflow pipe and gives false disengagement signal) |

| Aug 9 | Mississippi Mills | Manhole surcharging | Manhole MH3-117 surcharged and spilled as a result of Gemmill's Bay SPS spill (see above) | OCWA completed upgrades to Gemmill's Bay SPS as above to reduce likelihood of reoccurrence due to programming/float issue. Mississippi Mills staff increased height of manhole to raise height to above Gemmill's Bay SPS wet well hatch height. |
|----------------|----------------------|------------------------|--|--|
| Aug 16 | OCWA | Robert St SPS | Pump 1 Motor Shorting | Sent motor out for repair. Pump 2 Duty |
| Sept 12 | OCWA | Island SPS | Old float stuck in pump 1 | Removed float and rags, confirmed operation of pump |
| Dec 23 | OCWA | Island SPS | Pump 1 ragged | De-ragged |
| Sept 10 | OCWA | Whitetail Ridge SPS | Block heater failed | Replaced block heater |
| Sept 16 | OCWA | Robert St SPS | VFD Fault Pump 1 | New VFD installed |
| Sept 25 | OCWA | Riverfront SPS | Faulty Injector Pump on Generator | Portable generator installed until pump could be replaced Injector Pump installed Oct 18 |
| Oct 8 | OCWA | Robert St SPS | Pump Guide rails Broken at grease ring, pump will not seat properly | Replaced guard rails |
| Oct 18 | OCWA | Riverfront SPS | Generator Block Heater not working | Installed new block heater |
| November 14 | OCWA | Island SPS | Pump 1 has no power | Replaced fuse |
| Dec 12 | OCWA | Gemmill's Bay SPS | Generator low fuel pressure. Fuel shut off solenoid was stuck closed | Inspected by Generator Tech, Wires in control panel found to be rubbing on circuit board, fixed wire harnessing |

4. Complaint Management

The Roads and Public Works department has a Standard Operating Procedure for managing customer complaints and calls. Each inquiry is tracked using a Service Request Form. The Service Request Forms completed in 2024 are summarized in Table 4-1. Each service request form is reviewed to ensure a corrective action and/or follow-up has been completed to complete the form. All service requests were managed by the Roads and Public Works department unless otherwise noted for OCWA-managed complaints.

| Туре | Quantity | Resolution |
|---|----------|--|
| Noise from Island Sewage Pumping Station (OCWA) | 1 | Pump 1 was vibrating and pumping slow, inspected pump and found old float stuck in impellor. Removed float Sept 16th and noise resolved. |
| Sewer gas odor | 5 | Determined to be an internal plumbing issue Sewer flushing nearby – refilled traps Sewer lining nearby – refilled traps |
| Sewer backup into private property | 9 | Internal plumbing issue - blockage or roots Municipal lateral blocked – replaced Water/air splashing from basement toilet due to sewer main jetting/cleaning |
| General concerns | 2 | Frozen lateral – thawed with hot water Issue with lateral lining – contractor corrected issue |

Table 4-1: Summary of Service Requests

5. Compliance Events

5.1 Collection System Spills

During the 2024 reporting period there were two reported spills from the collection system, as summarized below in Table 5-1. Incident reports for the two spills are included as Appendix A – Incident Reports.

5.2 Collection System Overflows and Bypasses

During 2024 there were no incidents which were classified as an overflow as per the ECA.

5.3 Efforts to Reduce Collection System Spills

A requirement for the annual report for this CLI-ECA is to include a summary of efforts made to reduce collection system spills. The efforts taken include the following:

• In early 2024 an operating control system review was completed at the Gemmill's Bay Sewage Pumping Station (SPS). Based on the review, the programming of the pump control system was changed in an effort to better accommodate the incoming flow.

- Environmental Assessment for upgrades to the Gemmill's Bay SPS (beginning 2025). The goals of the process are to address the operational issues with the pumping station that result in CSO events and to provide capacity for future growth.
- Continued transitioning of the methodology of reviewing sanitary sewer inspection ratings (from CCTV inspections) from solely manual review to a hybrid of manual review and assessment of the data using the Municipality's GIS system to aid in maintenance planning with considerations for reducing I&I.
- Infiltration management through implementing a sewer flow monitoring program to identify areas of increased Wet-weather inflow and understand the dry-weather inflow/infiltration.

Table 5-1: Summary of Sewage Pumping Station Spills

| Start of Incident | End of Incident | SAC Reference Number | Incident Description | Estimated Volume (m ³) |
|--|-----------------------------|----------------------------|---|--|
| August 9, 2024 13:37 | August 10, 2024 08:50 | 1-9RBPIN ^{Note 1} | An extreme rain event caused a significant increase in the flow entering the pumping station. This caused a spill of Raw Sewage through the overflow pipe, into the Mississippi River. Disinfection provided via chlorine pucks in bypass channel. | 7,275 |
| August 9, 2024 14:57 | August 9, 2024 19:30 | 1-9RBPIN ^{Note 1} | A secondary spill out of the wet well hatch occurred, spilling onto the pavement surrounding the hatch. This flow was immediately diverted, with sandbags, to the manhole connecting to the overflow pipe. (The pump speed dropped to 85% as a result of the high level float being pulled into the overflow pipe and causing it to signal the PLC the high level was no active. PLC programming was updated with a High Level Float Bypass switch to remove the float from the feedback loop to prevent this issue.) | 25 |
| August 9, 2024 15:50 | August 9, 2024 19:30 | 1-9RHL8 | An extreme rain even caused a significant increase in the flow entering Gemmill's Bay SPS. Due to the high inflow and the hydraulic head, manhole MH3-117 located across the street surcharged and spilled raw sewage. Staff contained some of the spill and closed off the area where the spill occurred as a health and safety precaution. Staff extended the height of the manhole structure to provide additional surcharge capacity. OCWA Staff completed corrective actions to prevent a reoccurrence at the SPS. | 25 |
| Note 1: Both spills reported under same SAC incident report. | | | | |

Appendix A – Incident Reports

CORPORATION OF THE MUNICIPALITY OF MISSISSIPPI MILLS 3131 OLD PERTH ROAD · PO BOX 400 · RR 2 · ALMONTE ON · K0A 1A0



PHONE: 613-256-2064 FAX:613-256-4887 WEBSITE: www.mississippimills.ca

August 16, 2024

Tracy Hart Ottawa District Office Manager Ministry of the Environment, Conservation and Parks tracy.hart@ontario.ca

RE: Notification of Collection System Overflow (Separate Sewer) from Mississippi Mills Sewage Collection System – August 9, 2024

This letter and attached incident report serves as written notification of the collection system overflow (SAC Incident # 1-9RH8L8) in accordance with the terms and conditions of the CLI-ECA Number 178-W601.

An extreme rain event on August 9, 2024 caused an increase of flow in the Mississippi Mills sewage collection system, and subsequently the Gemmill's Bay SPS which experienced a spill of raw sewage. The Gemmill's Bay SPS spill was reported by Ontario Clean Water Agency per SAC Reference number 1-9RBPIN. As a result of the extreme rain event, Manhole ID# MH3-177 (located near 244 Almonte Street) surcharged and spilled raw sewage overland.

The attached incident report outlines incident details, corrective actions, and preventative actions.

Should you have any questions please contact me.

Regards,

achan

Zack Moshohas Environmental Compliance Coordinator Roads and Public Works (613)-256-2064 x405

Encl. Environmental Incident Report # 24-1 for SAC Incident # 1-9RH8L8

Incident Report Number: 24-1

ENVIRONMENTAL INCIDENT REPORT



| Date of Report: | August 9, 2024 | | |
|-------------------------------|---|--|--|
| Date and Time of Incident: | 15:50 - 19:30 August 9, 2024 | | |
| Incident Type: | Collection system overflow (separate sewer) | | |
| MECP or SAC Notified? | SAC Notified at: Aug 9, 3:50pm Reference #: 1-9RH8L8 | | |
| Incident Caused By: | wet weather | | |
| Contact Information: | 613-880-7316 - zmoshonas@mississippimills.ca | | |
| Person Reporting Incident: | Zack Moshonas | | |
| Location of Incident: | Near 244 Almonte Street - Municipal parking lot MH3-117 | | |
| Corrective Actions | | | |

Corrective Actions Taken:

Initially OCWA set the SPS pumps to manual at 100%. The wet well took time to catch up to flows and pump down the sewage. Wet well would become overrun with incoming sewage and the SPS could not pump down fast enough to avoid bypass/surcharge.

Mississippi Mills staff built a berm around the structure to attempt to contain and direct the spill. Impacted gravel will be removed and taken to landfill. Park area where spilled material drained into was closed the following morning (August 10, 2024) as a public safety precaution.

Staff inspected the area and any debris was cleaned up. As of August 16, 2024, staff inspected the area and observed no further impacts to the area.

ENVIRONMENTAL INCIDENT REPORT

Incident Details

A major rain event resulting in extreme flows to the Gemmill's bay SPS that the pumps could not manage and a spill resulted. Due to the structure elevation being similar to the wet well elevation, the structure MH3-117 surcharged and a spill resulted. The initial spill began at 15:50 and ended at 16:10.

Another rain event occured following the spill concluding and the manhole (MH3-117) surcharged again beginning at 16:30 and ending at 19:30. This was reported to the SAC using the same incident number.

Staff estimate 25m3 was spilled during the duration of this incident. It was not practicable to obtain a grab sample of the spilled effluent. It is assumed the effluent is of the same quality as reported through OCWA's SAC incident # 1-RRBPIN for the SPS bypass spill.

Preventative Actions

The preventative actions that Mississippi Mills is taking as a result of this spill include repairs to MH3-177. It was assessed that the manhole structure will overflow when the Gemmill's Bay SPS wet well is surcharged due to the elevations of the structure and Gemmill's Bay wet well. The repairs include sealing of manhole structure and extending the structure at least 18" to provide additional freeboard in the structure.



122 Patterson Cres, Carleton Place, Ontario K7C 4P3 Tel: 613-257-4990 www.ocwa.com

Tracy Hart Ottawa District Office Manager Ministry of the Environment, Conservation and Parks tracy.hart@ontario.ca Wastewater Program Environment Canada Ec.FA-LP-On.ec@canada.ca

August 16th, 2024

Re: Notification of Raw Sewage Spill – Mississippi Mills WWTF – Gemmill's Bay SPS

This is a written notification of overflow submitted in accordance with terms and conditions the Ontario Water Resources Act, Environmental Protection Act, Fisheries Act and the current CLI-ECA Number 178-W601. This written notice confirms the verbal notifications provided to Spills Action Center– Reference # **1-9RBPIN**.

Details:

An extreme rain event caused an increase in the flow entering the pumping station. This resulted in a spill of raw sewage from Gemmill's Bay Pumping Station into the Mississippi River.

| Location | Volume (m³) | Start Date and Time | End Date and Time | Total Duration (h) | Discharge Receiver | Disinfection Provided |
|----------------------|----------------|------------------------|-----------------------|--------------------------|-----------------------|---------------------------------|
| Gemmill's Bay SPS | 7275 | 2024-08-09 @ 13:37 | 2024-08-10 @ 08:50 | 13 hrs 53 min | Mississippi River | Chlorine pucks in channel |

A secondary spill occurred from the wet well hatch, as the high level float was pulled into the overflow pipe and signalled the PLC to turn the pumps off. This initially spilled onto the grass and parking lot surrounding the hatch. The spill was immediately diverted to the manhole leading to the overflow pipe with sand bags. The parking lot and grass were hosed with chlorinated water.

| Location | Volume (m³) | Start Date and Time | End Date and Time | Total Duration (h) | Discharge Receiver | Disinfection Provided |
|---|----------------|------------------------|-----------------------|--------------------------|-----------------------|---------------------------------|
| Gemmill's Bay SPS Wet Well Hatch | 25 | 2023-08-09 @ 14:57 | 2024-08-09 @ 19:30 | 1 hr 56 min | Mississippi River | Chlorine pucks in channel |

Samples of both spill locations were collected each day the spill occurred. A switch for bypassing Float Mode was implemented by Capital Controls to address the high level float being pulled into the overflow pipe. This switch will allow operators to bypass the Float Mode that overrides the pressure transducers as the pump control. The Float Mode is left enabled as a backup for high flows, however there is now more operational control available at the station. It is noted that each time the pumps ramped up from the float control, a surge of influent occurred at the Mississippi Mills Wastewater Treatment plant.

If you have any questions or concerns, do not hesitate to contact me.

Sincerely,



Lauren Lacombe

Lauren Lacombe Process & Compliance Technician Ontario Clean Water Agency - Mississippi Cluster

cc: Brenda Beaudoin, Provincial Officer, MECP Austin Mitchell, Senior Operations Manager, OCWA Vanessa Greatrix, SPC Manager, OCWA Andrew Trader, Regional Manager, OCWA Cory Smith, Director of Roads and Public Works, Municipality of Mississippi Mills Zachary Moshonas, Environmental Compliance Coordinator, Municipality of Mississippi Mills

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| Rep Address: 212 | Wolf Grove F | Road | Carleton Place, ON | Lacomp | 613-257-4990 | | | | | | |
| Mis | sissippi Mills 0 | s, Ontano | 613-257-4990 | | 613-257-5727 | com | | | | | |
| Te' unone 61 | 3-257-4990 | | 613-257-5727 ao'connor@ocwa.com | | ucaniere | Parameters | T | | | CWA | |
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CERTIFICATE OF ANALYSIS

C A D U C E ENVIRONMENTAL LABORATORIES Client committed. Quality assured. Canadian owned.

C.O.C.: -

Report To: Ontario Clean Water Agency - Mississippi Mills 122 Patterson Cr Carleton Place, ON K7C 4P3

Attention: Lauren Lacombe

CADUCEON Environmental Laboratories 2378 Holly Lane

Ottawa, ON K1V 7P1

| DATE RECEIVED: DATE REPORTED: | 2024-Aug-10 2024-Aug-19 | | | CU P.C | STOMER PROJECT). NUMBER: | Mississippi l 5678 | Mills WWTF |
|----------------------------------|----------------------------|-----|---------------|------------|------------------------------|-----------------------|------------------|
| SAMPLE MATRIX: | Waste Water | | | | | | |
| Analyses | | Qty | Site Analyzed | Authorized | Date Analyzed | Lab Method | Reference Method |
| BOD5 (Liquid) | | 1 | KINGSTON | DCASSIDY | 2024-Aug-14 | BOD-001 | SM 5210B |
| E.Coli m-TECH Media (Li | quid) | 1 | OTTAWA | SLOZO | 2024-Aug-10 | EC-001 | MECP E3371 |
| TP & TKN (Liquid) | | 1 | KINGSTON | KDIBBITS | 2024-Aug-14 | TPTKN-001 | MECP E3516.2 |
| TSS (Liquid) | | 1 | KINGSTON | MCLOSS | 2024-Aug-13 | TSS-001 | SM 2540D |

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an $\ ^{\star}$

| | Clie | ent I.D. | Gemmill's Bay | Gemmill's Bay |
|-------------------------|-----------|----------|---------------|---------------|
| | Sam | ple I.D. | 24-024419-1 | 24-024419-2 |
| | Date Co | llected | 2024-08-09 | 2024-08-09 |
| Parameter | Units | R.L. | - | - |
| E coli | CFU/100mL | 1 | | 530000 |
| BOD5 | mg/L | 3 | 29 | |
| Total Suspended Solids | mg/L | 3 | 140 | |
| Phosphorus (Total) | mg/L | 0.01 | 1.45 | |
| Total Kjeldahl Nitrogen | mg/L | 0.1 | 7.7 | |

Michelle Dubien Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Final Report

REPORT No: 24-024419 - Rev. 0

M. Duli

24/08/10 24-02/14/20

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| ned Para | meter List | | | | | | | | | Other | Specity. | = | | Laboratory. | lion | |
| | | Yes | | | | 7-10 Da | ys T | Invoice To | OCWA- | Mississippi | Mills WWW | | | Ottawa Loca | ation . | |
| | in make water | 21108 12 1-Lab App. Reg | d •• 5-7 Days | Contact: A | ison O'C | Connor | | 102 Patte | rson Cres | | | | | Kingston Lo | cation | |
| ested Tu | urnaround Time: | CALLO WWTF | Data Transfer | Cros 1 | au | ren | 1 | Cadatan | Place, Onta | ario | | | | Peterborou | Jh Location | |
| Re | port To: Miss | issippi mins www. | 122 Patterson | ON | 0.0 | mpe | | Caneton | 1 10001 | | | | | Windsor Lo | cation | |
| 255: 21 | Wolf Grove | Road | Carleton Place | a, UN | Lui | | | K/C 4P3 | 4000 | | | | | - | | |
| Ali | ssissippi Mill | is, Ontario | K7C 3P2 | | | | | 613-257- | 4990 | | | | | - | | |
| lian | 0 | | 613-257-4990 |) | | | | 613-257 | -5121 | m | | | | | | [|
| - 64 | 2.257-4990 | | 613-257-572 | 7 | | | | dcamero | on@ocwa.u | UNI | | | | | | |
| phone o | 2 257-5727 | | ao'connor@c | ocwa.com | | | | | | Parameter | s | T | T | | | 1 3 |
| 6 | i-sissippiMil | IsWWTF@ocwa.com | | | | | | | | | | | | | 1 | 1 8 |
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| Samp | ler/Submitter Na | X Tely | | | David | Paw Sewage, F | RBC - Rota | ating Biologica | Contractor, O | | | | | | | |
| Long | ler/Submitter Sig | gnature //// | Final Effuent, PrBy | Primary Bypa | ss, Raw - t | | | | | | | | | | | |
| Samp | i D int Call - Call Co | ontents, Dis - Disinfection, Down - Down | Suyuli, Ci | | | | | | | | | | | | | |
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(partial)

CERTIFICATE OF ANALYSIS

C A D U C E ENVIRONMENTAL LABORATORIES Client committed. Quality assured. Canadian owned.

C.O.C.: -

Report To:

Ontario Clean Water Agency - Mississippi Mills 122 Patterson Cr Carleton Place, ON K7C 4P3

Attention: Lauren Lacombe

CADUCEON Environmental Laboratories 2378 Holly Lane

Ottawa, ON K1V 7P1

| 2024-Aug-10 2024-Aug-19 Waste Water | | | CU ^s P.C | STOMER PROJECT:). NUMBER: | Mississippi 5678 | Mills WWTF |
|---|---|--|--|--|---|--|
| | Qty | Site Analyzed | Authorized | Date Analyzed | Lab Method | Reference Method |
| | 1 | KINGSTON | DCASSIDY | 2024-Aug-14 | BOD-001 | SM 5210B |
| quid) | 1 | OTTAWA | SLOZO | 2024-Aug-10 | EC-001 | MECP E3371 |
| | 1 | KINGSTON | KDIBBITS | 2024-Aug-14 | TPTKN-001 | MECP E3516.2 |
| | 1 | KINGSTON | MCLOSS | 2024-Aug-13 | TSS-001 | SM 2540D |
| | 2024-Aug-10 2024-Aug-19 Waste Water | 2024-Aug-10 2024-Aug-19 Waste Water Qty 1 quid) 1 1 1 | 2024-Aug-10 2024-Aug-19 Waste Water quid) 1 KINGSTON 1 KINGSTON 1 KINGSTON | 2024-Aug-10CU2024-Aug-19P.CWaste WaterP.CQtySite Analyzed1KINGSTONQuid)11OTTAWA1KINGSTON1KINGSTON1KINGSTON1KINGSTON1KINGSTON1KINGSTON1KINGSTON | 2024-Aug-10CUSTOMER PROJECT: P.O. NUMBER:2024-Aug-19 Waste WaterP.O. NUMBER:QtySite AnalyzedAuthorizedDate Analyzed1KINGSTONDCASSIDY2024-Aug-14quid)1OTTAWASLOZO2024-Aug-101KINGSTONKDIBBITS2024-Aug-141KINGSTONMCLOSS2024-Aug-13 | 2024-Aug-10 2024-Aug-19 Waste WaterCUSTOMER PROJECT:Mississippi 5678QtySite AnalyzedAuthorizedDate AnalyzedLab Method1KINGSTONDCASSIDY2024-Aug-14BOD-0011OTTAWASLOZO2024-Aug-10EC-0011KINGSTONKDIBBITS2024-Aug-14TPTKN-0011KINGSTONMCLOSS2024-Aug-13TSS-001 |

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an $\ ^{\star}$

| | Clie | ent I.D. | Gemmill's Bay | Gemmill's Bay |
|-------------------------|-----------|----------|---------------|---------------|
| | Sam | ple I.D. | 24-024420-1 | 24-024420-2 |
| | Date Co | llected | 2024-08-09 | 2024-08-09 |
| Parameter | Units | R.L. | - | - |
| E coli | CFU/100mL | 1 | | 700000 |
| BOD5 | mg/L | 3 | 87 | |
| Total Suspended Solids | mg/L | 3 | 185 | |
| Phosphorus (Total) | mg/L | 0.01 | 1.74 | |
| Total Kjeldahl Nitrogen | mg/L | 0.1 | 10.6 | |

Michelle Dubien Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Final Report

REPORT No: 24-024420 - Rev. 0

| diffy Name Mississippi Mills WWTF Applicable Regulation CofA Aug D 2 U Aug Control 100 te # 100 te # 100 te # 100 te # 100 te # 100 te # 100 te # 100 te # | Wame Mississippi Mills WWTF Applicable Regulation CorA bit # 5678 Image: Control of the con | erworks/ | Project # | 110000873 | Request | t for Lab | oratory Se | IVICES al | | | of C LIM | S No: | | | | _ | | 21 | - | 02 | 1 |
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| Yes Due Open Specify: Laboratory: Caduceon Environment Report To: Mississippi Mills WWTF Data Transfer Contact: Lauren Lacombe Involce To: OCWA - Mississippi Mills WWTF Ottawa Location Report To: Mississippi Mills, Ontario 122 Patterson Cres Carteton Place, ON kr/C 3P3 Carteton Place, ON kr/C 4P3 Ottawa Location wississippi Mills, Ontario Kr/C 4P3 Kr/C 4P3 Kr/C 4P3 Kr/C 4P3 Kr/C 4P3 wississippi Mills WWTF@cocwa.com 613-257-4990 613-257-5727 613-257-4990 Generon@cocwa.com Windsor Location wississippi Mills WWTF@cocwa.com Ilacombe@cocwa.com Generon@cocwa.com Farameters Comments Sample Sample Location Name Aug 910 Str 570 Str 570 Str 570 Generon@cocwa.com Comments Sso Sso Genmill's Bay I/O'. 44e 2 X X X Image: Str 570 < | Uested Turnaround Time: Tex. App. Reg1 C: D:20m Dita Transfer Contact: Lauren Lacombe Invoice Tro: OCWA - Mississippi Mills WWTF Laboratory: Caduceon Environmenti Report To: Mississippi Mills WWTF Data Transfer Contact: Lauren Lacombe 122 Patterson Cres 122 Patterson Cres 122 Patterson Cres Nississippi Mills WWTF Ottawa Location 0 KrC 3P2 Carleton Place, ON KrC 4P3 Peterborugh Location Nindsor Location 0 613-257-5727 613-257-5727 613-257-5727 Carleton Place, Ontario Vindsor Location 1 Mississippi Mills WWTF@ocwa.com Bacombe@ocwa.com dcarneton@ocwa.com Vindsor Location 1 Tag Group Sample Location Name Arg1 10 Sample Sample for Arg2 X X X X Vindsor Location Yes | ached Pa | rameter List: | 140 | | | | | | | 1 | nitials | numon up | Johneoor | | | | 1 | | | |
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| Regulated Unification Unifie Data Transfer Contact: Lauren Lacombe Involuent Outer Transfer Contact: Lauren Lacombe Office Participation Office Pariter< | Report For Mississippi Mills WWTF Data Transfer Contact Lauren Lacombe Interview Other Transfer Contact Lauren Lacombe Other Transfer Contact Lauren Lacombe Other Transfer Contact Lauren Lacombe Other Cres Carleton Place, Ontario Other Carleton Place, Ontario </td <td></td> <td>T</td> <td>Tt*Lab App. Re</td> <td>gʻd 🗋*</td> <td>3-7 Da</td> <td>iys</td> <td></td> <td>1-1</td> <td>Days</td> <td>Invoice</td> <td>To: OCW</td> <td>A - Missis</td> <td>sippi Mill</td> <td>s WWTF</td> <td></td> <td></td> <td>Laborator</td> <td>y: Cadu</td> <td>uceon Enviror</td> <td>nmenta</td> | | T | Tt*Lab App. Re | gʻd 🗋* | 3-7 Da | iys | | 1-1 | Days | Invoice | To: OCW | A - Missis | sippi Mill | s WWTF | | | Laborator | y: Cadu | uceon Enviror | nmenta |
| dress. 212 Wolf Grove Road Mississippi Mills, Ontario 0 122 Patterson Cress Carleton Place, ON K7C 3P2 Carleton Place, Ontario K7C 4P3 Preterson Cress Carleton Place, Ontario K7C 4P3 Preterson Cress K7C 4P3 Preterson Cress K7C 4P3 tephone 613-257-4990 613-257-4990 613-257-5727 613-257-5727 Carleton Place, Ontario K7C 4P3 Preterson Cress K7C 4P3 Preterson Cress K7C 4P3 Control Control mai: MississispiMillsWWTF@ocwa.com Iacombe@ocwa.com Iacombe@ocwa.com Patterson Cress Carleton Place, Ontario K7C 4P3 Preterson Cress Carleton | ess: 212 Wolf Grove Road Mississippi Mills, Ontario 0 122 Paterson Place, ON K7C 3P2 Carleton Place, Ontario K7C 4P3 Carleton Place, Ontario K7C 4P3 Paterson Place, Ontario K7C 4P3 Paterson Place, Ontario K7C 4P3 Paterson Place, Ontario K7C 3P2 Paterson Place, Ontario K7C 3P2 Paterson Place, Ontario K7C 4P3 Pater | quested | eport To: Mi | ssissippi Mills WWTF | Data | a Transfe | er Contact | : Lauren | Lacombe | | 122 Pa | tterson Ci | es | | | | | Ottawa Lo | ocation | | |
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| axx E13-257-5727 Itacombe@ocwa.com Itacombe@ocwa.com deameron@ocwa.com mail MississippiMillsWWTF@occwa.com Itacombe@ocwa.com Parameters Sample Sample Location Name Aug 10 Date and Time Single 20224 Single Single Single Single Single Single Single Single Single | Isolarize | lephone 6' | 13-257-4990 | | 613 | -257-57 | 27 | | | | 613-25 | 7-5727 | a | | | | | | | | |
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| Sampler/Submitter Name Jodi McManus | Sampler/Submitter Name Jodi MCManus | Sampler | /Submitter Sign | ants Dis - Disinfection Down - Downstr | eam, Eff - Final Efflue | ent, PrBy - F | rimary Bypas | s, Raw - Ra | w Sewage, F | BC - Rotatir | ng Biological (| contractor, S | By - Second | ary oyposer | | | | | | | 31-Mai- |
| Sampler/Submitter Name John MMAANS Sampler/Submitter Signature John Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bin - 31-N | Sampler/Submitter Name Jodi MCManus Joseph Sampler/Submitter Signature Sampler/Submitter Signature Signatu | Control P | oint: Ceil - Ceil Colli | | | | | | | | | | | | | | 1 Pat | _ | | | |
| Sampler/Submitter Name Jodi MCManus Sampler/Submitter Signature Jodu USAnus * Control Point: Cell - Cell Contents, Dis - Disinfection Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth 31-N | Sampler/Submitter Name Jodi MMANUS Sampler/Submitter Signature Opodu UUU000000 Control Point: Cell - Cell Contents, Dis - Disinfection/Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Bio 31-Mar- | | | | | | | | | | | | | | | | 10 CA | | | | |
| Sampler/Submitter Name Jodi MCManus Sampler/Submitter Signature Jodu USAr Aeration, Brs - Biosolids-raw sludge, Bth - * Control Point: Cell - Cell Contents, Dis - Disinfection Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - 31-N | Sampler/Submitter Name Jodi Me Manus Jobi Sampler/Submitter Name Jodi Me Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth - Bio Sampler/Submitter Signature Jood Tuber Signature Signature Of Control Point: Cell - Cell Contents, Dis - Disinfected Jown - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth - Bio 31-Mar- | | | | | | | | | | | | | | | | 112 | | | | |
| Sampler/Submitter Name Jodi McManus Sampler/Submitter Signature Jodu Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bh * Control Point: Cell - Cell Contents, Dis - Disinfection/Down - Downstream, Elf - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bh 31-N 1Pet | Sampler/Submitter Name Jodi MMANUS Sampler/Submitter Signature Jood Tullun VIA Control Point: Cell - Cell Contents, Dis - Disinfection Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth - Bio 31-Mar- Control Point: Cell - Cell Contents, Dis - Disinfection Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth - Bio 31-Mar- I PCL | | | | | | | | | | | | | | | | 1 | 0 | | | |
| Sampler/Submitter Name Jodi McManus Sampler/Submitter Signature Jodi McManus * Control Point: Cell - Cell Contents, Dis - Disinfection Down - Downstream, Elf - Final Elfluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bh 31-N 1 Pet | Sampler/Submitter Name Job MMANUS Sampler/Submitter Signature Control Point: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - B 31-M | | | | | | | | | | | | | | | | IN | r | | | |
| Sampler/Submitter Name Jodi McManus Sampler/Submitter Signature Jodu UUUUUUUU * Control Point: Cell - Cell Contents, Dis - Disinfection Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth 31-N 1 Pet 1 Pet 1 NP | Sampler/Submitter Name Jod MMANUS Sampler/Submitter Signature Joan University Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth - Bi 31-Ma Control Point: Ceil - Cell Contents, Dis - Disinfection Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, RBC - Rotating Biological Contractor, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw studge, Bth - Bi 31-Ma I Pet I NP | | | | | | | | | | | | | | | | | ^ | | | |

CERTIFICATE OF ANALYSIS

C A D U C E ENVIRONMENTAL LABORATORIES Client committed. Quality assured. Canadian owned.

C.O.C.: -

Report To:

Ontario Clean Water Agency - Mississippi Mills 122 Patterson Cr Carleton Place, ON K7C 4P3

Attention: Lauren Lacombe

CADUCEON Environmental Laboratories 2378 Holly Lane

Ottawa, ON K1V 7P1

| DATE RECEIVED: DATE REPORTED: SAMPLE MATRIX: | 2024-Aug-12 2024-Aug-19 Waste Water | | | CU P.C | STOMER PROJECT D. NUMBER: | : Mississippi 5678 | Mills WWTF |
|--|---|-----|---------------|------------|------------------------------|-----------------------|------------------|
| Analyses | | Qty | Site Analyzed | Authorized | Date Analyzed | Lab Method | Reference Method |
| BOD5 (Liquid) | | 1 | KINGSTON | DCASSIDY | 2024-Aug-14 | BOD-001 | SM 5210B |
| E.Coli m-TECH Media (L | .iquid) | 1 | OTTAWA | HALIPDA | 2024-Aug-12 | EC-001 | MECP E3371 |
| TP & TKN (Liquid) | | 1 | KINGSTON | YLIEN | 2024-Aug-15 | TPTKN-001 | MECP E3516.2 |
| TSS (Liquid) | | 1 | KINGSTON | DCASSIDY | 2024-Aug-13 | TSS-001 | SM 2540D |

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an $\ ^{\star}$

| | Clie | ent I.D. | Gemmill's Bay | Gemmill's Bay |
|-------------------------|-----------|----------|---------------|---------------|
| | Sam | ple I.D. | 24-024437-1 | 24-024437-2 |
| | Date Co | llected | 2024-08-10 | 2024-08-10 |
| Parameter | Units | R.L. | - | - |
| E coli | CFU/100mL | 1 | | 530000 |
| BOD5 | mg/L | 3 | 41 | |
| Total Suspended Solids | mg/L | 3 | 136 | |
| Phosphorus (Total) | mg/L | 0.01 | 1.47 | |
| Total Kjeldahl Nitrogen | mg/L | 0.1 | 21.8 | |

Michelle Dubien Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Final Report

REPORT No: 24-024437 - Rev. 0