# 2024
# Municipal Sewage Collection System Annual Report

## 4.6 of the Rockwood CLI-ECA 104-W601

Prepared by:

Guelph-Eramosa Township

March 31, 2025

# I. Introduction

**Purpose**

The purpose of this report is to satisfy the requirements of Schedule E, Section 4.6 of the Environmental Compliance Approval for a Municipal Sewage Collection System that has been issued to the Township of Guelph/Eramosa by the Ontario Ministry of Environment, Conservation and Parks (MECP).

**Scope**

This report covers the period from January 1 to December 31, 2024 for the following municipally owned and operated wastewater collection system.

Wastewater Collection System Information

| | |
|---|---|
| ECA Number | **104-W601** |
| Issue Number | **1** |
| System Name | **Rockwood Sewage Collection System** |
| ECA Issue Date | **May 29, 2024** |

## Report Content

Under Schedule E, Section 4.6 CLI-ECA 104-W601, the Owner of the municipal sewage collection system is required to prepare an annual performance report covering the period of January 1 to December 31 by March 31st of the following year. The report is to be submitted to the MECP Director and if a collection system overflow or spill of sewage occurred during the reporting period it will also be submitted to the District Manager. The annual performance report must contain the following information:

- If applicable, includes a summary of all required monitoring data along with an interpretation of the data and any conclusion drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.
- A summary of any operating problems encountered, and corrective actions taken.
- A summary of all calibration, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanism, or thing forming part of the Municipal Sewage Collection System.
- A summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.

- A summary of all Alterations to the Authorized System within the reporting period that are authorized by this approval include a list of Alterations that pose a Significant Drinking Water Threat.
- A summary of all Collection System Overflow(s) and Spill(s) of Sewage including:
    - Dates.
    - Volumes and durations.
    - If applicable, loadings for total suspended solids, BOD, total phosphorus, and total Kjeldahl nitrogen, and sampling results for E.coli;
    - Disinfection, if any; and
    - Any adverse impact(s) and any corrective actions, if applicable.

- A summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:
    - A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.
    - Details of the establishment and maintenance of a **Pollution Prevention and Control Plan or (**PPCP) including a summary of
    - project progresses compared to the PPCP's timelines.
    - An assessment of the effectiveness of each action taken.
    - An assessment of the ability to meet **Procedure F-5-1** (set by the Ministry of Environment, Conservation and Parks) the objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.
    - Public reporting approach, including proactive efforts.

## Report Format

This report provides details on measures taken by staff to ensure compliance with Terms and Conditions of the control documents, Act, Regulations, or any orders the system may have been under during the reporting period.

## Report Availability

A copy of this report is available for viewing at the Township of Guelph/Eramosa, 8348 Wellington Rd. 124, Rockwood and Online at www.get.on.ca

*As per the Accessibility for Ontarians with Disabilities Act (AODA), this document is available in an alternate format by e-mailing the Township stutt@get.on.ca or by calling 519-856-9596*

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List of Tables

## 1.0 System Description

### Rockwood Wastewater Collection System

The Rockwood Sewage Collection System consists of a gravity sanitary collection system, 5 sewage pumping stations and associated forcemains, a pre-treatment plant with 6500 meters of forcemain which conveys the sewage from the Alma Street Pre-treatment Transfer Station to the City of Guelph.

Four of the 5 sewage pumping stations service approximately two-thirds of the Village. Wastewater flows being collected at Lou's Blvd., Mill Run, and Ridge Road Sewage Pumping Stations. The Valley Road Sewage Pumping Station (SPS) collects wastewater from these three (3) SPS and from a gravity portion of the sanitary sewer network. From the north, existing gravity sanitary sewer system is conveyed to Alma pre-treatment transfer station.

There are 0 trunk sewers, 0 partially separate sewers, 0 nominally separate sewers, 0 kilometers of combined sewers, and 0 wet-weather interceptor tanks.

### Alma Street Sewage Pre-Treatment Plant

Hwy 7 [300] mm in diameter and [6500] meters discharging to a City of Guelph manhole near Skyway Drive.

### Valley Road Sewage Pumping Station

355 meters of 300 mm diameter forcemain from the pumping station to Guelph Street. 660 metres of 250 mm diameter forcemain from Guelph Street to a manhole on Alma Street [MH 98] discharging by gravity sewer to the Alma Street Pre-Treatment Facility.

### Lou's Blvd., Sewage Pumping Station

290 metres of 100 mm diameter forcemain entering MH 426 on Lou's Blvd.

### Mill Run Sewage Pumping Station

700 metres of 150 mm diameter forcemain entering MH 426 on Lou's Blvd.

### Ridge Road Sewage Pumping Station

157 metres of 138 mm diameter forcemain entering MH # 701 on Main St (Hwy 7).

## 2.0 Gazer Mooney Wastewater Collection System

The Gazer Sewage Pumping Station (SPS) has approximately 72 service connections, 442 meters of 100 mm diameter forcemain entering City Manhole #718 on Speedvale Ave. The approximate population is 216 residents.

The system is operated by the City of Guelph by a legal agreement that was last signed by representatives of the City of Guelph and the Township of Guelph/Eramosa on August 7, 2012.

## 3.0 Monitoring Data

**Rockwood (Jan. 01 to Dec. 31, 2024)**

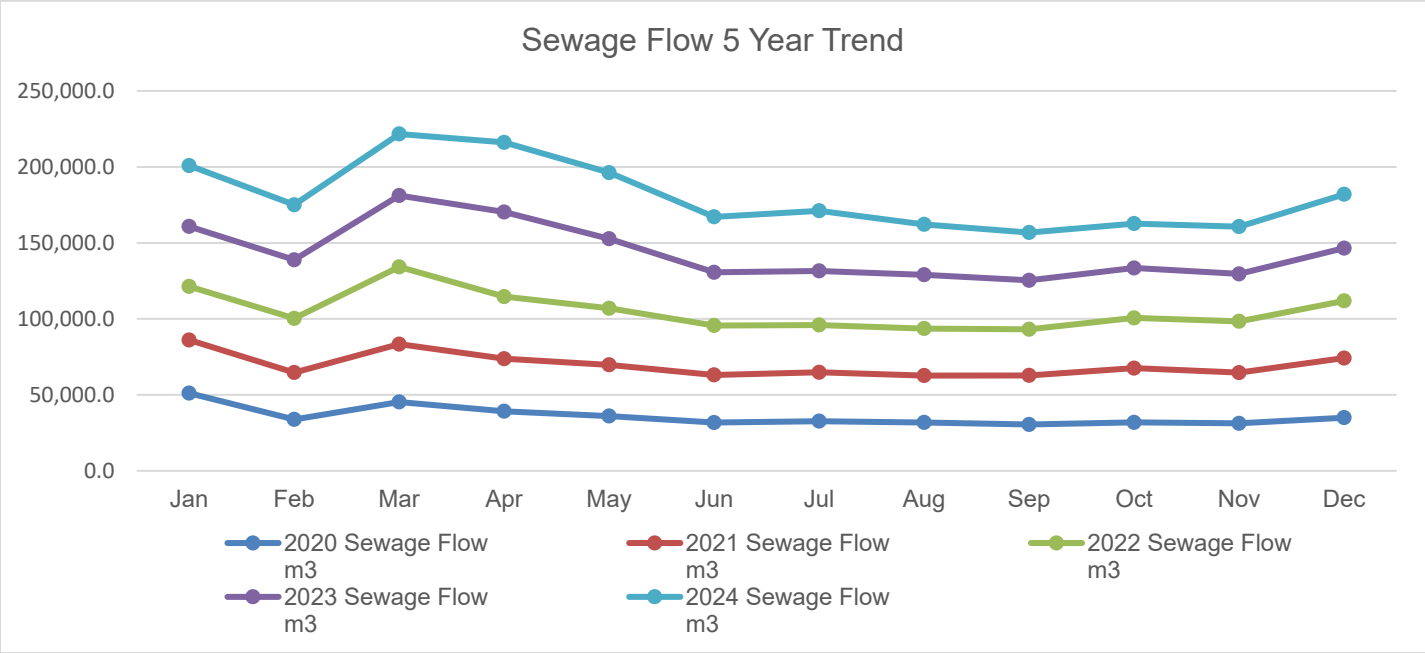
**Table 1: Sewage Flow Monitoring Summary**

| 2024 | Alma Transfer Station Total Flow to Guelph (m3) | Valley SPS Total Flow (m3) | Percent Volume from Valley to Alma (%) | Average Daily Flow ($m^3$) | Maximum Daily Flow ($m^3$) | Max Allowable Daily Flow to Guelph (m3/day) |
|---|---|---|---|---|---|---|
| January | 40,062.0 | 27,234.4 | 14% | 1292.3 | 2049.6 | 2360.0 |
| February | 36,239.6 | 23,825.0 | 14% | 1249.6 | 1521.0 | 2506.7 |
| March | 40,493.2 | 27,026.3 | 13% | 1306.2 | 1603.5 | 2915.0 |
| April | 45,774.9 | 28,964.0 | 12% | 1525.8 | 1945.2 | 2949.6 |
| May | 43,527.7 | 26,156.0 | 13% | 1404.1 | 1623.9 | 2508.5 |
| June | 36,499.3 | 23,672.3 | 14% | 1216.6 | 1440.0 | 2197.0 |
| July | 39,560.5 | 24,829.6 | 14% | 1276.1 | 1782.2 | 2126.0 |
| August | 33,161.3 | 21,264.9 | 15% | 1069.7 | 1196.6 | 2090.2 |
| September | 31,426.7 | 20,498.4 | 17% | 1047.6 | 1183.5 | 2108.1 |
| October | 29,234.6 | 19,195.2 | 22% | 943.1 | 2049.6 | 2184.8 |
| November | 31,120.8 | 20,892.2 | 17% | 1037.4 | 1227.8 | 2185.7 |
| December | 35,440.3 | 24,051.1 | 15% | 1143.2 | 1374.3 | 2398.3 |

**SPS – Sewage Pumping Station**

**Table 2: Sewage Flow – 5 Year Trend**

| Month | 2020 Sewage Flow m3 | 2021 Sewage Flow m3 | 2022 Sewage Flow m3 | 2023 Sewage Flow m3 | 2024 Sewage Flow m3 |
|---|---|---|---|---|---|
| January | 51,122.6 | 34,994.3 | 35,213.8 | 39,476.9 | 40,062.0 |
| February | 33,858.3 | 30,847.1 | 35,601.6 | 38,534.9 | 36,239.6 |
| March | 45,297.0 | 38,071.9 | 50,875.5 | 46,920.5 | 40,493.2 |
| April | 39,223.3 | 34,589.7 | 40,846.3 | 55,698.2 | 45,774.9 |
| May | 36,053.2 | 33,681.9 | 37,224.7 | 45,737.2 | 43,527.7 |
| June | 31,770.1 | 31,364.9 | 32,522.0 | 34,976.2 | 36,499.3 |
| July | 32,704.9 | 32,156.1 | 31,080.5 | 35,622.3 | 39,560.5 |
| August | 31,832.1 | 30,859.6 | 30,951.2 | 35,381.3 | 33,161.3 |
| September | 30,529.8 | 32,254.7 | 30,353.9 | 32,255.9 | 31,426.7 |
| October | 31,881.3 | 35,688.2 | 33,100.5 | 32,802.6 | 29,234.6 |
| November | 31,242.9 | 33,419.3 | 33,737.3 | 31,201.8 | 31,120.8 |
| December | 35,023.4 | 39,182.4 | 37,670.7 | 34,669.9 | 35,440.3 |




## 4.0 Operating Problems Encountered and Corrective Actions

- To reduce clogging and build up within the wet well, flush valves were installed on each wet well.
- Deficiencies and problem areas found during CCTV camera of the north end of Rockwood are considered in the planning and design process for the area and Water/Wastewater Rate Study and Financial Plan for the system.

## 5.0 Calibration, Maintenance and Repairs

**Table 3: Sewage Pumping Station Maintenance and Repairs**

| Rockwood Sewage Pumping Stations (SPS) | |
|---|---|
| Maintenance Activity / Expenditure | Location |
| 123 manholes were inspected and flushed/cleaned | Central and north end of Rockwood |
| 3522.1 m of sewer main was flushed | North end of Rockwood |
| 3522.1 m of sewer main was inspected with CCTV | North end of Rockwood |
| Weekday checks at facility SPS (sewage pumping stations) and daily checks at Alma Transfer Station. | All locations |
| SCADA upgrades | All locations |
| Disconnected Monitoring from SCADA and began to manually track data | Skyway |
| Sewage pump replacement | Lou's SPS |
| Repair /troubleshoot issues with pump #2 | Mill Run SPS |
| Water service line repair | Ridge SPS |
| calibrations of CO detector | Rockmosa SPS |
| O2 sensor replacement | Alma TS |
| Calibrations of gas monitoring devices | Alma TS |
| Grit removal | Alma TS |
| *Calibrations of flow meters – attached end of report | all locations |
| Replacement of pressure transducer | Valley SPS |
| Generator inspections semi and annual | all locations |
| Generator repairs | Valley SPS |
| | Lou's SPS |
| Davit lift repairs | Valley SPS |
| Cleaning of wet wells | Rockmosa SPS |
| | Mill Run SPS |
| | Lou's SPS |
| | Ridge SPS |
| | Valley SPS |
| Backflow Inspections | Alma TS |
| | Ridge SPS |
| | Rockmosa SPS |

SPS = Sewage Pumping Station TS=Transfer Station * Attached report

## 6.0 Complaints

No public complaints during this reporting period.

## 7.0 Alterations to the Authorized System within the reporting period that are authorized by this approval including a list of Alterations that pose a Significant Drinking Water Threat.

No alterations to the authorized system during this reporting period.

## 8.0 Collection System Overflow(s) and Spill(s) of Sewage

No sewage collection system overflows or spills during this reporting period.

## 9.0 Efforts to Reduce Collection System Overflows, Spills, STP Overflows and STP Bypasses.

There are no issues with the collection system.

## Appendix A – Calibration Reports

# Certificate of Calibration

# Flow Meter

JBF CONTROLS LTD.

595758 Hwy 59 North RR6
Woodstock, ON. N4S 7W1
Ph#: 519-535-9835
Email: Jfranssen@jbfcontrols.com

☑ Verification
☐ Calibration
Calibration Date: October 22, 2024
Due Date: October 22, 2025

**Client Information**

**Guelph/Eramosa Township**
**8348 Wellington Rd 124**
**Rockwood, Ontario, N0B 2K0**

| SCADA Reading Confirmation | | |
|---|---|---|
| **Instrument** | **SCADA** | **% Deviation** |
| 0.000 | 0.000 | 0.000% |

| | | | | | |
|---|---|---|---|---|---|
| Project: | GET202001 | Description: | SPS Flow | Pipe Size: | 10" |
| Client: | Guelph/Eramosa TWP | Make: | ABB | Pipe Material: | Stainless Steel |
| Client Contact: | Jason Jones | Model: | Magmaster | K-Factor: | 242280341X002_290114 |
| Facility: | Valley Road SPS | Controller S/N: | 242280341/Y001 | Range: | 0 to 100 |
| Technician: | Jeremy Franssen | Sensor S/N: | 08546196 | Units: | L/S |
| Application: | Water | Tag Number: | **FIT 101** | Accuracy: | 0.50% Reading |

**mA Output**

| Reference: mA | As Found: mA | % Deviation | As Left: mA | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 4.000 | 4.000 | 0.000% | 4.000 | 0.000% | PASS |
| 8.000 | 7.999 | 0.006% | 7.999 | 0.006% | PASS |
| 12.000 | 11.999 | 0.006% | 11.999 | 0.006% | PASS |
| 16.000 | 16.000 | 0.000% | 16.000 | 0.000% | PASS |
| 20.000 | 20.001 | 0.006% | 20.001 | 0.006% | PASS |

**Flow Rate Output**

| Reference: L/S | As Found: L/S | % Deviation | As Left: L/S | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 0.000 | 0.000 | 0.000% | 0.000 | 0.000% | PASS |
| 25.000 | 24.994 | 0.006% | 24.994 | 0.006% | PASS |
| 50.000 | 49.994 | 0.006% | 49.994 | 0.006% | PASS |
| 75.000 | 75.000 | 0.000% | 75.000 | 0.000% | PASS |
| 100.000 | 100.006 | 0.006% | 100.006 | 0.006% | PASS |

Remarks:
Verification of Flow Meter Parameters. Confirm, OK.
Verification of 4-20 mA Output, Confirm, OK.
Verification of Instrument to SCADA Readings, Confirm, OK.
Cleaned and Certified
Totalizer Reading: 3055958.18m3

**Calibration Standards Used**

| Description | Serial n° | Certificate n° | Calibration Date | Due Date |
|---|---|---|---|---|
| **Fluke 705 Loop Calibrator** | **4624185** | **57113-B** | **March 2024** | **March 2025** |

*Calibration standards used in the certificate are traceable to the National Institute of Standards and Technology (NIST).*

Service Technician: Jeremy Franssen
Signature

# Certificate of Calibration

# Flow Meter

JBF CONTROLS LTD.
595758 Hwy 59 North RR6
Woodstock, ON. N4S 7W1
Ph#: 519-535-9835
Email: Jfranssen@jbfcontrols.com

☑ Verification
☐ Calibration
Calibration Date: October 22, 2024
Due Date: October 22, 2025

**Client Information**
**Guelph/Eramosa Township**
**8348 Wellington Rd 124**
**Rockwood, Ontario, N0B 2K0**

| SCADA Reading Confirmation | | |
|---|---|---|
| **Instrument** | **SCADA** | **% Deviation** |
| 0.000 | 0.000 | 0.000% |

| | | | | | |
|---|---|---|---|---|---|
| Project: | GET202001 | Description: | To Guelph | Pipe Size: | 12" |
| Client: | Guelph/Eramosa TWP | Make: | Endress & Hauser | Pipe Material: | Stainless Steel |
| Client Contact: | Jason Jones | Model: | Promag 400 | K-Factor: | 1.3681 |
| Facility: | Alma Street WWTP | Controller S/N: | L80ACE19000 | Range: | 0 to 80 |
| Technician: | Jeremy Franssen | Sensor S/N: | L80ACE19000 | Units: | L/S |
| Application: | Water | Tag Number: | **FIT 401** | Accuracy: | 0.50% Reading |

**mA Output**

| Reference: mA | As Found: mA | % Deviation | As Left: mA | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 4.000 | 4.004 | 0.025% | 4.004 | 0.025% | PASS |
| 8.000 | 8.005 | 0.031% | 8.005 | 0.031% | PASS |
| 12.000 | 12.005 | 0.031% | 12.005 | 0.031% | PASS |
| 16.000 | 16.006 | 0.038% | 16.006 | 0.038% | PASS |
| 20.000 | 20.006 | 0.038% | 20.006 | 0.038% | PASS |

**Flow Rate Output**

| Reference: L/S | As Found: L/S | % Deviation | As Left: L/S | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 0.000 | 0.020 | 0.025% | 0.020 | 0.025% | PASS |
| 20.000 | 20.025 | 0.031% | 20.025 | 0.031% | PASS |
| 40.000 | 40.025 | 0.031% | 40.025 | 0.031% | PASS |
| 60.000 | 60.030 | 0.038% | 60.030 | 0.038% | PASS |
| 80.000 | 80.030 | 0.038% | 80.030 | 0.038% | PASS |

Remarks:
Verification of Flow Meter Parameters. Confirm, OK.
Verification of 4-20 mA Output, Confirm, OK.
Verification of Instrument to SCADA Readings, Confirm, OK.
Cleaned and Certified
Totalizer Reading: 3076790.25m3

**Calibration Standards Used**

| Description | Serial n° | Certificate n° | Calibration Date | Due Date |
|---|---|---|---|---|
| **Fluke 705 Loop Calibrator** | **4624185** | **57113-B** | **March 2024** | **March 2025** |

*Calibration standards used in the certificate are traceable to the National Institute of Standards and Technology (NIST).*

Service Technician: Jeremy Franssen
Signature

# Certificate of Calibration

# Flow Meter

JBF CONTROLS LTD.

595758 Hwy 59 North RR6
Woodstock, ON. N4S 7W1
Ph#: 519-535-9835
Email: Jfranssen@jbfcontrols.com

☑ Verification
☐ Calibration
Calibration Date: October 22, 2024
Due Date: October 22, 2025

**Client Information**

**Guelph/Eramosa Township**
**8348 Wellington Rd 124**
**Rockwood, Ontario, N0B 2K0**

| SCADA Reading Confirmation | | |
|---|---|---|
| **Instrument** | **SCADA** | **% Deviation** |
| 0.000 | 0.000 | 0.000% |

| | | | | | |
|---|---|---|---|---|---|
| Project: | GET202001 | Description: | To/From EQ Tank | Pipe Size: | 12" |
| Client: | Guelph/Eramosa TWP | Make: | Endress & Hauser | Pipe Material: | Stainless Steel |
| Client Contact: | Jason Jones | Model: | Promag 400 | K-Factor: | 1.3300 |
| Facility: | Alma Street WWTP | Controller S/N: | L80ACD19000 | Range: | 0 to 200 |
| Technician: | Jeremy Franssen | Sensor S/N: | L80ACD19000 | Units: | L/S |
| Application: | Water | Tag Number: | **FIT 402** | Accuracy: | 0.50% Reading |

**mA Output**

| Reference: mA | As Found: mA | % Deviation | As Left: mA | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 4.000 | 4.004 | 0.025% | 4.004 | 0.025% | PASS |
| 8.000 | 8.005 | 0.031% | 8.005 | 0.031% | PASS |
| 12.000 | 12.005 | 0.031% | 12.005 | 0.031% | PASS |
| 16.000 | 16.006 | 0.038% | 16.006 | 0.038% | PASS |
| 20.000 | 20.007 | 0.044% | 20.007 | 0.044% | PASS |

**Flow Rate Output**

| Reference: L/S | As Found: L/S | % Deviation | As Left: L/S | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 0.000 | 0.050 | 0.025% | 0.050 | 0.025% | PASS |
| 50.000 | 50.063 | 0.031% | 50.063 | 0.031% | PASS |
| 100.000 | 100.063 | 0.031% | 100.063 | 0.031% | PASS |
| 150.000 | 150.075 | 0.037% | 150.075 | 0.037% | PASS |
| 200.000 | 200.088 | 0.044% | 200.088 | 0.044% | PASS |

Remarks:
Verification of Flow Meter Parameters. Confirm, OK.
Verification of 4-20 mA Output, Confirm, OK.
Verification of Instrument to SCADA Readings, Confirm, OK.
Cleaned and Certified
Totalizer Reading: 1845.70m3

**Calibration Standards Used**

| Description | Serial n° | Certificate n° | Calibration Date | Due Date |
|---|---|---|---|---|
| **Fluke 705 Loop Calibrator** | **4624185** | **57113-B** | **March 2024** | **March 2025** |

*Calibration standards used in the certificate are traceable to the National Institute of Standards and Technology (NIST).*

Service Technician: Jeremy Franssen
Signature

# Certificate of Calibration

# Flow Meter

JBF CONTROLS LTD.

595758 Hwy 59 North RR6
Woodstock, ON. N4S 7W1
Ph#: 519-535-9835
Email: Jfranssen@jbfcontrols.com

☑ Verification
☐ Calibration

Calibration Date: October 23, 2024
Due Date: October 23, 2025

**Client Information**

**Guelph/Eramosa Township**
**8348 Wellington Rd 124**
**Rockwood, Ontario, N0B 2K0**

| SCADA Reading Confirmation | | |
|---|---|---|
| **Instrument** | **SCADA** | **% Deviation** |
| 16.500 | 16.500 | 0.000% |

| | | | | | |
|---|---|---|---|---|---|
| Project: | GET202001 | Description: | Station Flow | Pipe Size: | 12" |
| Client: | Guelph/Eramosa TWP | Make: | Endress & Hauser | Pipe Material: | Stainless Steel |
| Client Contact: | Jason Jones | Model: | Promag 10 | K-Factor: | 1.2796 |
| Facility: | Skyway Meter Station | Controller S/N: | J6082A16000 | Range: | 0 to 150 |
| Technician: | Jeremy Franssen | Sensor S/N: | J6082A16000 | Units: | L/S |
| Application: | Water | Tag Number: | **FIT 101** | Accuracy: | 0.50% Reading |

**mA Output**

| Reference: mA | As Found: mA | % Deviation | As Left: mA | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 4.000 | 4.003 | 0.075% | 4.003 | 0.075% | PASS |
| 8.000 | 8.009 | 0.113% | 8.009 | 0.113% | PASS |
| 12.000 | 12.015 | 0.125% | 12.015 | 0.125% | PASS |
| 16.000 | 16.021 | 0.131% | 16.021 | 0.131% | PASS |
| 20.000 | 20.029 | 0.145% | 20.029 | 0.145% | PASS |

**Flow Rate Output**

| Reference: L/S | As Found: L/S | % Deviation | As Left: L/S | % Deviation | PASS/FAIL |
|---|---|---|---|---|---|
| 0.000 | 0.028 | 0.019% | 0.028 | 0.019% | PASS |
| 37.500 | 37.584 | 0.225% | 37.584 | 0.225% | PASS |
| 75.000 | 75.141 | 0.188% | 75.141 | 0.188% | PASS |
| 112.500 | 112.697 | 0.175% | 112.697 | 0.175% | PASS |
| 150.000 | 150.272 | 0.181% | 150.272 | 0.181% | PASS |

Remarks:
Verification of Flow Meter Parameters. Confirm, OK.
Verification of 4-20 mA Output, Confirm, OK.
Verification of Instrument to SCADA Readings, Confirm, OK.
Cleaned and Certified
Totalizer Reading: 4437062m3

**Calibration Standards Used**

| Description | Serial n° | Certificate n° | Calibration Date | Due Date |
|---|---|---|---|---|
| **Fluke 705 Loop Calibrator** | **4624185** | **57113-B** | **March 2024** | **March 2025** |

*Calibration standards used in the certificate are traceable to the National Institute of Standards and Technology (NIST).*

Service Technician: Jeremy Franssen
Signature