

**Environmental Protection Division** 

## Peterborough Wastewater Collections System Annual Report

## FOR THE PERIOD OF

## **JANUARY 1, 2023 TO DECEMBER 31, 2023**

Submitted To:	Jacqueline Fuller, Supervisor Peterborough District Office, Robinson Place Ontario Ministry of the Environment Conservation and Parks 2 <sup>nd</sup> Floor, South Tower 300 Water Street
CC:	Peterborough, ON. K9J 8M5 David Bradley, District Manager Holie Fletcher, Water Inspector
Submitted By:	City of Peterborough Environmental Protection Division Utility Services Department
Date:	April 19th, 2024

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### Introduction

This report is being prepared as a requirement of Schedule E, of Environmental Compliance (ECA) Number 145-W601, Issue 1.

This section requires that a performance report be prepared for each calendar year and submitted to the MECP by March 31 of the calendar year following the reporting period. On March 20, 2024 the City was granted approval via email to extend this date to April 30<sup>th</sup>, 2024 so that it is in line with the due date that is in the City's Stormwater Managements System ECA (145-S701) (Appendix D). This is the first annual report under this ECA as the City of Peterborough received its Consolidated Linear Infrastructure ECA on August 11, 2022.

This ECA governs the infrastructure within the municipal boundaries of the City of Peterborough that conveys sanitary sewage to the Peterborough Wastewater Treatment Plant. The Peterborough Wastewater Collections System consists of 362 kilometers of sewers including trunk sewers, separate sewers, partially separate sewers, and nominally separated sewers. Additionally, this ECA covers nine Pumping Stations and one Emergency Overflow Station. The nine Pumping Stations convey sewage through pressurized force mains that vary in length from 9 to 474 meters, with a total combined length of over 1.8 km.

### Section A – Operating Problems

In 2023 there were four separate power outages that resulted in a loss of power to a pumping station that does not have a dedicated backup generator. This necessitated staff to attend the station with our portable generator to power the pumping stations until power was restored.

On three different occasions staff attended a pumping station to remove a pump and investigate whether or not a pump was plugged. On one of these occasions, they discovered and cleared a plugged pump. The second incident was resolved by removing a portion of the impeller liner. The third incident staff suspected that the bearings may be going on the pump, these pumps were scheduled for replacement later in 2023.

Although it has improved, we still continue to experience long lead times and delays receiving equipment and parts due to the supply chain issues that developed out of the COVID-19 pandemic.

### Section B – Calibration, Maintenance and Repairs

The Sewage Pumping Stations (SPS) identified as Ashburnham Road, Burnham Point, Parkhill East, Parkhill West, Simcoe Street, and the Park Street Emergency Overflow Station all have flow meters installed onsite. Flow meter calibrations were performed by Franklin Empire in November of 2023. A copy of the calibration report can be found in Appendix A, please note that this report covers all flowmeters at the WWTP as well as those at the SPS.

The City of Peterborough Annual Sewer Maintenance program is committed to cleaning and inspecting the entirety of the sanitary sewer infrastructure once every five years. In 2023 city staff cleaned and inspected over 97 kilometers of sanitary and storm sewer infrastructure as a part of this program. In addition to this there are a number of sanitary mains within the collection system that have been flagged as having low flows. These mains are monitored and flushed once per month to mitigate the buildup of solids in the collection system.

In 2023 the city repaired 138 sanitary lateral services on municipal property with repairs varying from full lateral replacement to a point repair. In addition to the lateral repairs, there were six sanitary mains that required repair. In each case the repair was made by replacing the damaged portion of the infrastructure without altering the sewer system. In addition to these sanitary main repairs there were 14 plugged sanitary mains that were relieved in 2023. In each of these plugged main events there was no spillage from the collection system.

There were also two emergency repairs to pumping station force mains due to a failure in the pressurized main. The first of these occurred at the Engleburn Pumping Station on August 9<sup>th</sup>, 2023, and the second occurred at the Simcoe St. Pumping Station on September 25<sup>th</sup>, 2023. These breaks will be discussed further in Section E.

All pumping stations are connected to the WWTP SCADA system and monitored remotely 24 hours a day, seven days a week. As a part of the routine maintenance that is performed on pumping stations the following work is undertaken:

- Weekly inspection of all stations.
- Monthly generator inspection and generator run on load test.
- Monthly emergency light and fire extinguisher checks.
- Annual cleaning of the pump station wet well and exercised all valves.
- Annual back flow preventor testing
- Annual generator load bank testing.

In addition to the routine work conducted at all stations the following work was completed at the pumping stations in 2023.

Monaghan Road Pumping Station

• Replaced pumps.

- Replaced inlet piping and discharge piping.
- Replaced valves.

Parkhill East Pumping Station

- Replaced pumps.
- Replaced discharge piping.
- Replaced valves.
- Replaced flow meters.

Engleburn Pumping Station

- Replaced pumps.
- Replaced discharge piping.
- Replaced valves.
- Replaced pump controls and associated starters.
- Replaced lighting transformer and breaker panel.

The city also purchased a new portable generator to serve as a backup power source for the three pumping stations that do not have their own standalone generators.

### Section C – Complaints

On June 13<sup>th</sup>, 2023, city staff received a complaint from a business on Neal Drive relating to sewer odours in their place of business. This business is located near the odour control facility noted in Section 1.7 of Schedule B of the ECA. This facility was installed to address odours associated with landfill leachate which is pumped from the Peterborough County/City Waste Management Site (1260 Bensfort Road) and discharges to a gravity sewer on Neal Drive (east of Bensfort Road). Staff attended the business and agreed that odours were present and that the odours were consistent with those associated with landfill leachate. The odour control facility was checked and was operating as designed. Staff also noted that there had been heavy rain on June 12<sup>th</sup> that resulted in higher than normal volumes of leachate generated and discharged into the Neal Drive sewer. Since there was no obvious cause for the odours to be present in the business arrangements were made to have the odour control unit serviced and inspected to verify it was functioning properly.

On October 2<sup>nd</sup>, 2023, a complaint was received regarding a chemical odour near the intersection of Clonsilla Avenue and Wentworth Street. Investigation did not find any evidence of the odours coming from the sanitary or storm sewer system. Although it was never verified as the source of the odour, the investigation did note that there was a very strong odour of moth balls on the second floor of a condominium building in the vicinity of the complaint.

On October 4<sup>th</sup>, 2023, a complaint of a sewer gas odour at in an apartment complex near the intersection of Park Street and McKeller Street. No evidence of the odour was found outside of the apartment. The complainant indicated that the odour was strongest

in the evening and seemed to originate underneath their kitchen sink. This information was passed along to the landlord as a potential plumbing issue.

There were two other odour complaints, one on Oxford Drive and another on Rocklands Road. Both of these issues were resolved by flushing the sewer main on these streets.

The city's Public Works Division received 409 complaints related to issues with sanitary sewer lateral services. In each case the initial step is for staff to inspect and rod the lateral service. If the initial inspection determines that the issue with the lateral is not on municipal property it will be turned back to the property owner. Depending on how successful rodding the lateral is, the issue may be considered resolved or escalated to further work. This could be a camera inspection of the lateral or some type of repair of the lateral. In 2023 there were 180 requests for lateral mini camera inspections, 107 requests for lateral digs and 16 requests for lateral relining.

### Section D – Alterations to the Authorized System

- 1. Lansdowne Street West at Clonsilla Avenue: removal and replacement of existing sanitary sewers on Lansdowne Street and Clonsilla Avenue, including the recalculation and resizing of sewers to accommodate the calculated applicable design flows.
- 2. The City assumed the Heritage Park Phase 2 Stage 3 subdivision (Appendix B).

### Section E – Overflows and Spills

In 2023 there were two spills of sewage from the sanitary collections system. The first one occurred on August 9<sup>th</sup>, 2023, at the Engleburn Pumping Station. (SAC Incident #1-3PW5WH) and the other was on September 25<sup>th</sup>, 2023, at the Simcoe Street Pumping Station (SAC Incident #1-3VI9MF). Both were the result of a failure in the force mains associated with these stations. Upon discovery of both of these incidents arrangements were made to have septic haulers haul sewage out of the pumping station wet well until the force main could be repaired and put back into service. Arrangements were made for emergency locates and city staff were deployed to make the necessary repairs to the force mains. In both cases staff were able to respond in time to prevent any of the spilled sewage from getting to the Otonabee River. The reports submitted to the MECP in relation to these events can be found in Appendix C.

### Section F – Efforts to Reduce Overflows and By-passes

The city maintains a Wastewater Collections Crew (WWC) that performs routine maintenance on the collection system. This includes work to identify Inflow and Infiltration (I&I) issues in the sewer system such as flushing, cleaning and Closed-Circuit

TV (CCTV) inspections. This work will aid in identifying and prioritizing areas of concern including sources of I & I.

In addition to this the City of Peterborough spent 2.5 million in capital projects for flood reduction and to help prevent I & I into the municipal sewer system in 2023. This includes additional flushing, cleaning, and CCTV inspections beyond what is performed by the municipal WWC crew. The information gathered during the inspections is then prioritized for structural spot repairs, full length Cured in Place Pipe (CIPP) relining, and manhole rehabilitation, including grouting and cementitious coating. The City of Peterborough has dedicated an additional 2.5 million dollars in capital funds in 2024 to continue this work.

In 2023 GM Blue Plan Engineering was hired to do a Sanitary Services Master Plan. This study will assess all parts of the existing collection, conveyance, and treatment system as it relates to sanitary sewage. This study is expected to be completed in 2024 and will provide both recommendations and an implementation plan to meet the needs of the city based on forecasted development and growth out to 2051.

The City of Peterborough also offers a Flood Reduction Subsidy Program that provides subsidies to private property owners that are disconnecting foundation drains, roof drains and downspouts from the sanitary sewer system.

# Appendix A

**Calibration Report** 



(705) 745-1626 (705) 745-3493

# **City of Peterborough WWTP**

## **2023 Flow Calibrations**

Leaders in Instrumentation and Control



 
 Report No.:
 PTBO WW 2023
 FIT-1

Date: 11/20/23

SITE:	Peterborough WWTP	SERVICE DATE:	11/20/23
PROCESS AREA:	Raw Sewage		
INSTR. TAG:	FIT-1	TECHNICIAN:	M Manley
MANUFACTURER:	Krohne		
MODEL:	IFC 100	JOB REFERENCE:	PTBO WW 2023
SERIAL No.:	10399831		
INSTR. RANGE:			

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	1/s	ML/day
Min:	0.00		Min:	4.00	0.00	0.00
Max:	8.09		Max:	20.00	2893.52	250.00
DN (mm):	600					
GK=1 GKL=2	2					
GK:	8.300					
Constant:	4177.44		Before C	alibration	After C	alibration
Input (Y pos)	Knob Setting	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	4.00	0.00%	4.00	0.00%
0.50	А	4.99	4.99	0.00%	4.99	0.00%
1.00	В	5.98	5.98	0.00%	5.98	0.00%
2.00	С	7.96	7.96	0.00%	7.96	0.00%
5.00	D	13.89	13.90	0.07%	13.90	0.07%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

Comments:

Coil 107.4 ohms Coil open to ground 103832646 m3 S78 123 SBW SRW



 
 Report No.:
 PTBO WW 2023
 FIT-2

Date: 11/20/2023

SITE:	Peterborough WWTP	SERVICE DATE:	11/20/2023
PROCESS AREA:	Raw		
INSTR. TAG:	FIT-2	TECHNICIAN:	M Manley
MANUFACTURER:	Krohne		
MODEL:	IFC 010	JOB REFERENCE:	PTBO WW 2023
SERIAL No.:	C07 2255		
INSTR. RANGE:			

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	1/s	ML/day
Min:	0.00		Min:	4.00	0.00	0.00
Max:	9.02		Max:	20.00	2893.52	250.00
DN (mm):	600					-
GK=1 GKL=2	2					
GK:	7.447					
Constant:	4177.44		Before C	alibration	After C	alibration
Input (Y pos)	Knob Setting	mA	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	3.99	-0.25%	3.99	-0.25%
0.50	А	4.89	4.87	-0.41%	4.87	-0.41%
1.00	В	5.77	5.76	-0.17%	5.76	-0.17%
2.00	С	7.55	7.54	-0.13%	7.54	-0.13%
5.00	D	12.87	12.86	-0.08%	12.86	-0.08%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

Comments: Coil 120.2 ohms Open to ground (better than last year)



 
 Report No.:
 PTBO WW 2023
 FIT-501

Date: 11/20/2023

SITE:	Peterborough WWTP
PROCESS AREA:	Sludge From Tanks
INSTR. TAG:	FIT-501
MANUFACTURER:	Krohne
MODEL:	IFC 010
SERIAL No.:	C07 2042
INSTR. RANGE:	

**SERVICE DATE:** 11/20/2023

TECHNICIAN: M Manley

JOB REFERENCE: PTBO WW 2023

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	m3/hr	
Min:	0.00		Min:	4.00	0.00	
Max:	4.10		Max:	20.00	100.00	
DN (mm):	100					
GK=1 GKL=2	2		Coil Ohms	124.1	Open	Coil to ground
GK:	5.664					
Constant:	1160.4		Before C	alibration	After Ca	alibration
Input (Y pos)	Knob Setting	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	3.98	-0.50%	3.98	-0.50%
0.50	А	5.95	5.94	-0.17%	5.94	-0.17%
1.00	В	7.90	7.92	0.25%	7.92	0.25%
2.00	С	11.81	11.81	0.00%	11.81	0.00%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

Comments: Total 50598 m3



 
 Report No.:
 PTBO WW 2023
 FIT-502

Date: 11/20/2023

SITE:	Peterborough WWTP
PROCESS AREA:	Sludge From Primary Tanks
INSTR. TAG:	FIT-502
MANUFACTURER:	Krohne
MODEL:	IFC 010
SERIAL No.:	C07 2074
INSTR. RANGE:	

**SERVICE DATE:** 11/20/2023

TECHNICIAN: M Manley

JOB REFERENCE: PTBO WW 2023

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	m3/hr	
Min:	0.00		Min:	4.00	0.00	
Max:	4.14		Max:	20.00	100.00	
DN (mm):	100					
GK=1 GKL=2	2		Coil Ohms	125	Open	Coil to ground
GK:	5.606					
Constant:	1160.4		Before C	alibration	After Ca	alibration
Input (Y pos)	Knob Setting	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	4.00	0.00%	4.00	0.00%
0.50	А	5.93	5.93	0.00%	5.93	0.00%
1.00	В	7.87	7.87	0.00%	7.87	0.00%
2.00	С	11.73	11.74	0.09%	11.74	0.09%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

Comments: Total 110736 m3



 
 Report No.:
 PTBO WW 2023
 FIT-503

Date: 11/20/2023

SITE:	Peterborough WWTP
PROCESS AREA:	Sludge From Primary Tanks
INSTR. TAG:	FIT-503
MANUFACTURER:	Krohne
MODEL:	IFC 010
SERIAL No.:	C07 2055
INSTR. RANGE:	

**SERVICE DATE:** 11/20/2023

TECHNICIAN: M Manley

JOB REFERENCE: PTBO WW 2023

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	m3/hr	
Min:	0.00		Min:	4.00	0.00	
Max:	4.18		Max:	20.00	100.00	
DN (mm):	100					
GK=1 GKL=2	2		Coil Ohms	127.1	Open	Coil to ground
GK:	5.558					
Constant:	1160.4		Before C	alibration	After Ca	alibration
Input (Y pos)	Knob Setting	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	4.00	0.00%	4.00	0.00%
0.50	А	5.92	5.91	-0.17%	5.91	-0.17%
1.00	В	7.83	7.84	0.13%	7.84	0.13%
2.00	С	11.66	11.68	0.17%	11.68	0.17%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

Comments: Total 90727 m3



 
 Report No.:
 PTBO WW 2023
 FIT-504

Date: 11/20/2023

SITE:	Peterborough WWTP
PROCESS AREA:	Sludge From Tanks
INSTR. TAG:	FIT-504
MANUFACTURER:	Krohne
MODEL:	IFC 010
SERIAL No.:	C07 2046
INSTR. RANGE:	

**SERVICE DATE:** 11/20/2023

TECHNICIAN: M Manley

JOB REFERENCE: PTBO WW 2023

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	m3/hr	
Min:	0.00		Min:	4.00	0.00	
Max:	4.27		Max:	20.00	100.00	
DN (mm):	100					
GK=1 GKL=2	2		Coil Ohms	126.2	Open	Coil to ground
GK:	5.440					
Constant:	1160.4		Before C	alibration	After Ca	alibration
Input (Y pos)	Knob Setting	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	4.00	0.00%	4.00	0.00%
0.50	А	5.88	5.88	0.00%	5.88	0.00%
1.00	В	7.75	7.76	0.13%	7.76	0.13%
2.00	С	11.50	11.51	0.09%	11.51	0.09%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

**Comments:** 57355 m3



**Report No.:** PTBO WW 2023 FIT-602

Date:

SITE:Peterborough WWTPPROCESS AREA:Flow to centruifugeINSTR. TAG:FIT-602MANUFACTUREN:KrohneMODEL:IFC 010SERIAL No.:C07 2057INSTR. RANGE:

**SERVICE DATE:** 11/20/2023

TECHNICIAN: M Manley

JOB REFERENCE: PTBO WW 2023

Input	(Test)		Output	(Signal)	(Process)	
Туре:	GS 8 (X val)		Type or EGU:	mA	m3/hr	
Min:	0.00		Min:	4.00	0.00	
Max:	4.19		Max:	20.00	100.00	
DN (mm):	100					
GK=1 GKL=2	2		Coil Ohms	130	Open	Coil to ground
GK:	5.544					
Constant:	1160.4		Before C	alibration	After Ca	alibration
Input (Y pos)	Knob Setting	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0	4.00	4.00	0.00%	4.00	0.00%
0.50	А	5.91	5.89	-0.34%	5.89	-0.34%
1.00	В	7.82	7.83	0.13%	7.83	0.13%
2.00	С	11.64	11.66	0.17%	11.66	0.17%

Calibration Equipment				
Туре:	DMM	Simulator		
Manufacturer:	Fluke	Krohne		
Model:	Model 87	GS 8B		
Serial No.:	13440128	U1127700020705		
Last Cal. Date:	Feb. 17, 2023	March 27, 2023		

**Comments:** 

Meter total 370100 m<sup>3</sup>

FRANKLIN		CALIB	RATION RE	PORT	Report No.: PTBO WW LIT 2023 3	
					Date:	11/22/2023
SITE:	Peterborough WW	ГР 			SERVICE DATE:	11/22/2023
PROCESS AREA:	Flow To I & I Hold	ing Tanks			TECHNICIAN	M Monlov
INSIK. IAG: MANUFACTUDED.	LII (FII-511) Milltropies				TECHNICIAN:	Wi Manley
MANUFACIURER:	MILITORICS				IOB DEFEDENCE.	PTBO WW 2023
SERIAL No ·	WIK 200				JOB REFERENCE.	1100 0 0 2025
INSTR. RANGE:						
Input	(Test)		Output	(Signal)	(Process)	
Туре:	Head meters		Type or EGU:	mA	m³/hr	
Min:	0.00		Min:	4.00	0.00	
Max:	0.50		Max:	20.00	7022	
Weir Width (m)	3					-
	1	1	Before Calibration		After Calibration	
Input	Calc flow	Calc. O/P	Output	%Error	Output	%Error
0.0000	0.00	4.00	4.00	0.00%	4.00	0.00%
0.1000	027.84	5.45 8.05	5.43 8.08	-0.04%	5.45 8.08	-0.04%
0.2000	3262.35	11 43	11 41	-0.32%	11 41	-0.32%
0.4000	5022.71	15.44	15.35	-0.83%	15.35	-0.83%
0.5000	7019.45	19.99	19.82	-1.09%	19.82	-1.09%

Calibration Equipment			
Туре:	Spare transducer	DMM	tape measure
Manufacturer:		Fluke	
Model:		Model 87	
Serial No.:		13440128	
Last Cal. Date:		Feb. 17, 2023	

Comments: Used Point

Used Point #2 for test trasducer simulation.

As Found: Point 1 -0.63m, Point 2 0.32m, Point 3 0.00(4mA) Local flow readings at 0.1m - 631, 0.2m - 1779, 0.3m - 3261, 0.4m - 4982, 0.5m - 6939(m3/hr)

		CALIB	RATION RE	EPORT	<b>Report No.: PTBO WW</b> 2023 FIT-	
					Date:	11/20/2023
SITE:	Peterborough WWT	ſP			SERVICE DATE:	11/20/2023
PROCESS AREA:	Plant #1 effluent					
INSTR. TAG:	FIT-100				TECHNICIAN:	M Manley
MANUFACTURER:	Siemens					
MODEL:	Multiranger 200				JOB REFERENCE:	PTBO WW 2023
SERIAL No.:						
INSTR. RANGE:						
Innut	(Tost)		Output	(Signal)	( <b>Process</b> )	
Input Type:	(I CSL) Head meters		Type or FCU:	(Signal)	(Frocess) ML /day	
Type. Min			Type of EGU: Min.	4.00	0.00	
Max.	0.0000		Max.	20.00	70.00	
Wax.	24	Parshall Fluma	wiax.	20.00	70.00	
evnonent	1 55	i ai shan i'iume				
constant	123,4656					
	120.1000		Before C	alibration	After C	alibration
Input (m)	Calc flow (ML/day)	Calc. O/P (mA)	Output	%Error	Output	%Error
0.000	0.000	0.00	-			
0.200	10.189	6.33	6.25	-1.26%	6.25	-1.26%
0.400	29.836	10.82	10.69	-1.20%	10.69	-1.20%
0.600	55.935	16.79	16.66	-0.77%	16.66	-0.77%

Calibration Equipment					
Туре:	OCM Test Stand DMM Tape Measure				
Manufacturer:	anufacturer: Fluke				
Model:	1	Model 87			
Serial No.:		13440128			
Last Cal. Date:		Feb. 17, 2023			

Comments:

Unable to stop flow, tested at 2 point only (higher head then actual flow)

FR	ANKLIN	CAI IBRATION REPORT			Report No.:	PTBO WW 2023 FIT-8
	MPIRE	0/(218				11/20/2023
SITE:	Peterborough WWT	ΓP			SERVICE DATE:	11/20/2023
PROCESS AREA:	Plant #2 effluent					
INSTR. TAG:	FIT-8				TECHNICIAN:	M Manley
MANUFACTURER:	Siemens					
MODEL:	MR200 HMI				JOB REFERENCE:	PTBO WW 2023
SERIAL No.:	PBD-8060134					
INSTR. RANGE:						
Input	(Test)		Output	(Signal)	(Process)	
Туре:	Head meters		Type or EGU:	MLD	ML/day	m3/d
Min:	0.0000		Min:	0.00	0.00	0.00
Max:	0.6934		Max:	70.00	70.00	70000.00
Weir Width (in.)	24	Parshall Flume				
exponent	1.55					
constant	123.4656					
			Before C	alibration	bration After Calibration	
Input (m)	Calc flow (ML/day)	Calc. O/P (mA)	m3/day	%Error	m3/day	%Error
0.000	0.000	4.00	169		169	
0.200	10.189	6.33	10368	1.75%	10368	1.75%
0.400	29.836	10.82	30133	1.00%	30133	1.00%
0.600	55.935	16.79	56500	1.01%	56500	1.01%
actual levels Below						
0.305						
0.305						
0.703						
						l

Calibration Equipment				
Туре:	OCM Test Stand	Tape Measure		
Manufacturer:	anufacturer: Fluke			
Model:	del: 1 Model 87			
Serial No.:		13440128		
Last Cal. Date:		Feb. 17, 2023		

#### **Comments:**

Ultrasonic level sensor and transmitter are functioning correctly, but due to the flow charachteristics through this meter the flow accuracy is questionable.

Unit is set up with an offset so that 10.5cm of water in flume is no flow. Parameters uploaded and Saved to PC.

#### Park St



## **CALIBRATION REPORT**

 
 Report No.:
 PTBO WW 2023
 PIT-481

Date: 11/21/2023

SITE:	Peterborough WWTP
PROCESS AREA:	Park St
INSTR. TAG:	PIT-481
MANUFACTURER:	Siemens
MODEL:	Sitrans P DSIII /P410
SERIAL No.:	N1E8209224705
INSTR. RANGE:	

**SERVICE DATE:** 11/21/2023

TECHNICIAN: M Manley

JOB REFERENCE: PTBO WW 2023

Input	(Test)		Output	(Signal)	(Process)	
Туре:	Pressure		Type or EGU:	mA	PSI	
Min:	0.00		Min:	4.00	0.00	
Max:	20.00	PSI	Max:	20.00	20.00	
			Before C	alibration	After Ca	libration
Pressure	%	Calc. O/P (mA)	Output (mA)	%Error	Output (mA)	%Error
0.00	0.00%	4.00	4.02	0.50%	4.02	0.50%
5.00	25.00%	8.00	8.00	0.00%	8.00	0.00%
10.00	50.00%	12.00	11.99	-0.08%	11.99	-0.08%
15.00	75.00%	16.00	15.98	-0.12%	15.98	-0.12%
20.00	100.00%	20.00	19.99	-0.05%	19.99	-0.05%

Calibration Equipment				
Туре:	DMM	Pressure		
Manufacturer:	Fluke	Crystal		
Model:	Model 87	300		
Serial No.:	13440128	574851		
Last Cal. Date:	Feb. 17, 2023	Nov. 8 2023		

**Comments:** 



Report No.: PTBO WW Dual 2023 Flowmeters

**Date:** 11/21/2023

SITE:	Peterborough WWTP	SERVICE DATE:	11/21/2023
PROCESS AREA:	Burnham St SPS		
INSTR. TAG:	Dual Flowmeters	TECHNICIAN:	M Manley
MANUFACTURER:	Siemens		
MODEL:	FUS1010	JOB REFERENCE:	PTBO WW 2023
SERIAL No.:			

**INSTR. RANGE:** 2 Channel Transit Time / Transit Time

Input	(Test)	_	Output	(Signal)	(Process)	
Туре:	Actual Flow		Type or EGU:	1/s	1/s	
Min:	0.00		Min:	0.00	0.00	
Max:			Max:			
CH1	CH2					
1481	1497	Vs				
24	32	ALC				
12	14	AER	Before C	alibration	After Calibration	
<b>Meas Flow Test</b>	Unit	Meas Flow	UUT	%Error	UUT	%Error
Channel	1 Pump 1 South Dire	et Mount				
0.00	l/s	0.00	0.00	0.00%	0.00	0.00%
26.70	l/s	26.70	27.00	1.12%	27.00	1.12%
Channel	2 Pump 2 North Refl	ect Mount				
0.00	l/s	0.00	0.00	0.00%	0.00	0.00%
26.00	l/s	26.00	28.00	7.69%	28.00	7.69%

Calibration Equipment				
Туре:	DMM Clamp on Transit Time			
Manufacturer: Fluke		Siemens		
Model:	Model 87	FUP1010		
Serial No.:	13440128	Service		
Last Cal. Date:	Feb. 17, 2023			

**Comments:** Pump #1 This unit was compared to our clamp on test unit in Transit time, OK.

Pump #2 This unit was compared to our clamp on test unit in Transit time, OK.

Customer:			MAGFLO® Identification:		
Name	City of Peterborough		TAG No./Name	0	
Address	WPCP		Sensor Code No.	7ME652	
			Sensor Serial No.	390002N519	
			Transmitter Code No.	7ME691	
Phone			Transmitter Serial No.	482721N359	
Email			Location	FIT-610	

Kesults:       Verification file name or No.         Transmitter       Sensor         Magnetic Circuit		FI Pa Pa Pa	Г-610 ssed ssed ssed				
Velocity		Current Output				Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.802mA	0.26%		0.500kHz	0.500kHz	-0.02%
1.0m/s	5.600mA	5.603mA	0.20%		1.000kHz	1.000kHz	0.03%
3.0m/s	8.800mA	8.800mA 8.799mA -0.03%		3.000kHz 2.998kHz -0.08%		-0.08%	
Current Output 4-20mA					Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	tter Settings:		Sensor Details:	
Basic	Qmax. Flow Direction	250.000 m³ /h Positive	Size	DN 100 4 IN
	Low flow Cut-off Empty Pipe	1.50% OFF	Cal. Factor	6.05569458
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	OFF		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Volume/pulse	N/A 0.0 US G/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	1312826.625 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	1312826.625 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	1761.47729492 m <sup>3</sup> 1761.47888184 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	4449	ReCal. date	2023.12.29

### <u>Comments</u>

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Customer:			MAGFLO® Identification:				
Name	City of Peterborough		TAG No./Name	0			
Address	WPCP		Sensor Code No.	7ME658			
			Sensor Serial No.	PBD-K0024822			
			Transmitter Code No.	7ME691			
Phone			Transmitter Serial No.	343017N376			
Email			Location	FIT-2			

<u>Results:</u>	Verif Tran	Verification file name or No. Transmitter			FIT-2 Passed			
	Sens	Sensor Insulation		Passed				
		Magnet	ic Circuit	Pa	ssed			
Velocity		Current Output			Frequency Output			
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation	
0.5m/s	4.800mA	4.800mA	0.05%		0.500kHz	0.498kHz	-0.32%	
1.0m/s	5.600mA	5.600mA	-0.03%		1.000kHz	0.998kHz	-0.20%	
3.0m/s	8.800mA	8.803mA	0.06%		3.000kHz	3.000kHz	0.01%	
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz		

<u>Transmit</u>	<u>tter Settings:</u>		Sensor Details:	
Basic	Qmax. Flow Direction	200.000 m³ /h Positive	Size	DN 150 6 IN
	Low flow Cut-off Empty Pipe	1.50% ON	Cal. Factor	17.47212219
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	OFF		
	Frequency Range	N/A	Verificator Deta	ils (083F5061)
	Time Constant Volume/pulse	N/A 0.0 US G/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	9133308.0 m³	Software Version	1.40
Totalizer	1 value after test	9133308.0 m <sup>3</sup>	PC-Software Versi	ion 5.01
Totalizer Totalizer	2 value before test 2 value after test	982.4675293 m <sup>3</sup> 982.46862793 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	5952	ReCal. date	2023.12.29

### <u>Comments</u>

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Custome	<u>r:</u>	MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name	0			
Address	WPCP	Sensor Code No.	7ME652			
		Sensor Serial No.	009202N449			
		Transmitter Code No.	7ME691			
Phone		Transmitter Serial No.	891521N419			
Email		Location	FIT-3			

<u>Results:</u>	Verif Tran	Verification file name or No. Transmitter Sensor Insulation			FIT-3 Passed			
	Sens				Passed			
		Magnet	ic Circuit	Pa	ssed			
Velocity		Current Outp	irrent Output			Frequency Output		
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation	
0.5m/s	4.800mA	4.803mA	0.39%		0.500kHz	0.500kHz	0.03%	
1.0m/s	5.600mA	5.603mA	0.19%		1.000kHz	1.000kHz	0.03%	
3.0m/s	8.800mA	8.803mA	0.05%		3.000kHz	3.001kHz	0.05%	
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz		

<u>Transmit</u>	<u>tter Settings:</u>		Sensor Details:	
Basic	Qmax. Flow Direction	100.000 m³ /h Positive	Size	DN 100 4 IN
	Low flow Cut-off Empty Pipe	1.50% OFF	Cal. Factor	5.7210536
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	OFF		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Time Constant Volume/pulse	N/A 0.0 US G/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	5275322.0 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	5275322.0 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	4631.30078125 m <sup>3</sup> 4631.30273438 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	4346	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Customer:		MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name 0				
Address	WPCP	Sensor Code No. 7ME652				
		Sensor Serial No. 063502H201				
		Transmitter Code No. 7ME691				
Phone		Transmitter Serial No. 409630N201				
Email		Location Plant 1 RAS				

<u>Results:</u>	Verification file name or No. Transmitter Sensor Insulation Magnetic Circuit			Plant 1 TK 1 RAS Passed Passed Passed			
Velocity		Current Output			Frequency Output		
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.801mA	0.09%		0.500kHz	0.500kHz	0.02%
1.0m/s	5.600mA	5.597mA	-0.16%		1.000kHz	0.998kHz	-0.15%
3.0m/s	8.800mA	8.801mA	0.03%		3.000kHz	3.003kHz	0.11%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	<u>tter Settings:</u>		Sensor Details	<u>.</u>
Basic	Qmax. Flow Direction	749.99: m³ /h Positive	Size	DN 250 10 IN
	Low flow Cut-off Empty Pipe	1.50% OFF	Cal. Factor	47.15306091
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	3.75Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Deta	ails (083F5061)
	Time Constant Volume/pulse	N/A 1.0 m³/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	49726712.0 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	49726712.0 m <sup>3</sup>	PC-Software Vers	sion <u>5.01</u>
Totalizer Totalizer	2 value before test 2 value after test	7553.76123047 m <sup>3</sup> 7553.76757813 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	4446	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

<u>Customer</u>	<u>.</u>	MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name <u>0</u>				
Address	WPCP	Sensor Code No. 7ME652				
		Sensor Serial No. 063602H201				
		Transmitter Code No. 7ME691				
Phone		Transmitter Serial No. <u>302930N191</u>				
Email		Location Plant 1 WAS				

<u>Results:</u>	Verif Tran Sens	Verification file name or No. Transmitter Sensor Insulation Magnetic Circuit			Plant 1 WAS Passed Passed Passed			
Velocity		Current Output			Frequency Output			
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation	
0.5m/s	4.800mA	4.802mA	0.30%		0.500kHz	0.500kHz	0.04%	
1.0m/s	5.600mA	5.605mA	0.30%		1.000kHz	1.002kHz	0.20%	
3.0m/s	8.800mA	8.807mA	0.15%		3.000kHz	3.004kHz	0.13%	
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz		

<u>Transmit</u>	<u>tter Settings:</u>		<u>Sensor Details:</u>	
Basic	Qmax. Flow Direction	128.020 m³ /h Positive	Size	DN 150 6 IN
	Low flow Cut-off Empty Pipe	1.50% OFF	Cal. Factor	15.20090675
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Time Constant	N/A		0000111010
	Volume/pulse	100.0 l/p	Serial No.	00081111218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	1011625.5 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	1011625.5 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	7398.28564453 m <sup>3</sup> 7398.28808594 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	2600	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

<u>Custome</u>	<u>r:</u>	MAGFLO® Identification:					
Name	City of Peterborough	TAG No./Name	0				
Address	WPCP	Sensor Code No.	7ME652				
		Sensor Serial No.	417302H191				
		Transmitter Code No.	7ME691				
Phone		Transmitter Serial No.	408430N201				
Email		Location	Plant 2 RAS 3				

<u>Results:</u>	Verif Tran	/erification file name or No.			P2 TK 3 RAS Passed					
	Sensor Insulation			Pa	ssed					
		Magnet	ic Circuit	Passed						
Velocity		Current Output			Frequency Output					
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation			
0.5m/s	4.800mA	4.803mA	0.33%		0.500kHz	0.500kHz	0.03%			
1.0m/s	5.600mA	5.604mA	0.22%		1.000kHz	1.001kHz	0.12%			
3.0m/s	8.800mA	8.795mA	-0.10%		3.000kHz	2.998kHz	-0.08%			
Current Output 4-20mA					Frequency Ou	tput 0-10kHz				

<u>Transmit</u>	<u>tter Settings:</u>			<u>Sensor Details:</u>	
Basic	Qmax. Flow Direction	789.000 m³ /h Positive		Size	DN 250 10 IN
	Low flow Cut-off Empty Pipe	1.50% ON		Cal. Factor	45.11209488
Output	Current Output Time Constant	ON (4-20mA)		Correction Factor	1.0
	Relay Output	Error Level		Excitation Freq.	3.75Hz
	Digital Output	Pulse			
	Frequency Range	N/A		Verificator Details	(083F5061)
	Time Constant Volume/pulse	N/A 1.0 m³/p		Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv		Device No.	91739
Totalizer	1 value before test	18837.298 MI		Software Version	1.40
Totalizer 1 value after test Totalizer 2 value before test Totalizer 2 value after test		18837.298 MI		PC-Software Version	5.01
		0.80398547 MI		Cal. date	2022.12.29
Operating	g time in days	2561		ReCal. date	2023.12.29

### **Comments**

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These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Customer:			MAGFLO® Identification:				
Name	City of Peterborough		TAG No./Name	0			
Address	WPCP		Sensor Code No.	7ME652			
			Sensor Serial No.	063402H201			
			Transmitter Code No.	7ME691			
Phone			Transmitter Serial No.	410330N201			
Email			Location	Plant 2 RAS 4			

<u>Results:</u>	Verification file name or No. Transmitter Sensor Insulation Magnetic Circuit				Plant 2 TK 4 RAS Passed Failed Not Tested					
Velocity		Current Output			Frequency Output					
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation			
0.5m/s	4.800mA	4.800mA	-0.04%		0.500kHz	0.499kHz	-0.14%			
1.0m/s	5.600mA	5.601mA	0.04%		1.000kHz	1.000kHz	0.02%			
3.0m/s	8.800mA	8.807mA	0.15%		3.000kHz	3.006kHz	0.21%			
	Current Outpu	t 4-20mA	·		Frequency Ou	tput 0-10kHz	·			

<u>Transmit</u>	<u>tter Settings:</u>		<u>Sensor Details:</u>				
Basic	Qmax. Flow Direction	789.000 m³ /h Positive	Size	DN 250 10 IN			
	Low flow Cut-off Empty Pipe	1.50% ON	Cal. Factor	46.95221329			
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0			
	Relay Output	Error Level	Excitation Freq.	3.75Hz			
	Digital Output	Pulse					
	Frequency Range	N/A	Verificator Details	(083F5061)			
	Time Constant	N/A	Tormoutor Dotano				
	Volume/pulse	1.0 m³/p	Serial No.	000811N218			
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739			
Totalizer	1 value before test	15492 299 MI	Software Version	1.40			
Totalizer 1 value before test Totalizer 2 value before test Totalizer 2 value after test		15492.299 MI	PC-Software Version	5.01			
		1.41704431 MI 1.41704456 MI	Cal. date	2022.12.29			
Operating	g time in days	2561	ReCal. date	2023.12.29			

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

### DTM Version: 3.17.00 Flowmeter Verification Certificate Transmitter

City of Peterborough 11/21/23	WWTP
Customer	Plant
FIT-640	FIT-640
Order code	Tag Name
PROMAG 50 W DN100	1.2675 - 1.2675
Device type	K-Factor
4C00BC16000	0
Serial number	Zero point
V1.04.00	V1.02.01
Software Version Transmitter	Software Version I/O-Module
11/13/2023	11:33
Verification date	Verification time

### Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Test Sensor	Passed	

FieldCheck Details	Simubox Details
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
04/2023	04/2023
Last Calibration Date	Last Calibration Date

Date					-								
<b>Overall</b>	r	e	1	3	ι	I	ľ	t	S	;			

Operator's Sign

Inspector's Sign

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. <sup>1)</sup>

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.



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## FieldCheck - Result Tab Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-640	Tag Name	FIT-640
Device type	PROMAG 50 W DN100	K-Factor	1.2675 - 1.2675
Serial number	4C00BC16000	Zero point	0
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	11:33

Verification Flow end value (  $100\ \%$  ): 113.097 m3/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	5.655 m3/h (5%)	1.50 %	0.95 %
		11.310 m3/h (10.0%)	1.00 %	0.87 %
		56.549 m3/h (50.0%)	0.60 %	0.21 %
✓		113.098 m3/h (100%)	0.55 %	0.17 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.005 mA
		4.800 mA (5%)	0.05 mA	0.004 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.008 mA
✓		12.000 mA (50.0%)	0.05 mA	0.010 mA
✓		20.000 mA (100%)	0.05 mA	0.018 mA
		Start value	Limits range	Measured value
	Test Sensor			
	Coil Curr. Rise	5.000 ms	0.00014.250 ms	6.322 ms
	Coil Curr. Stability			
	Electrode Integrity	mV	0.0300.001 mV	19.655 mV

#### Legend of symbols

	×	—	?	I
Passed	Failed	not tested	not testable	Attention

### Page 3/3

## FieldCheck: Parameters Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-640	Tag Name	FIT-640
Device type	PROMAG 50 W DN100	K-Factor	1.2675 - 1.2675
Serial number	4C00BC16000	Zero point	0
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	11:33

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 m3/h	250.01 m3/h	

Actual System Ident.

119.0

### DTM Version: 3.17.00 Flowmeter Verification Certificate Transmitter

City of Peterborough 11/21/23	WWTP
Customer	Plant
FIT-620	FIT-620
Order code	Tag Name
PROMAG 50 W DN100	1.2485 - 1.2485
Device type	K-Factor
4C00BE16000	1
Serial number	Zero point
V1.04.00	V1.02.01
Software Version Transmitter	Software Version I/O-Module
11/13/2023	11:43
Verification date	Verification time

### Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Test Sensor	Passed	

FieldCheck Details	Simubox Details
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
04/2023	04/2023
Last Calibration Date	Last Calibration Date

Date			-				•						
<b>Overall</b>	r	e	Ş	5	ι	I	ľ	t	S	;			

Operator's Sign

Inspector's Sign

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. <sup>1)</sup>

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.



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## FieldCheck - Result Tab Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-620	Tag Name	FIT-620
Device type	PROMAG 50 W DN100	K-Factor	1.2485 - 1.2485
Serial number	4C00BE16000	Zero point	1
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	11:43

Verification Flow end value (  $100\ \%$  ): 113.097 m3/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	5.655 m3/h (5%)	1.50 %	0.84 %
		11.310 m3/h (10.0%)	1.00 %	0.84 %
		56.549 m3/h (50.0%)	0.60 %	0.17 %
<b>~</b>		113.098 m3/h (100%)	0.55 %	0.12 %
<b>~</b>	Current Output 1	4.000 mA (0%)	0.05 mA	0.002 mA
×		4.800 mA (5%)	0.05 mA	0.002 mA
		5.600 mA (10.0%)	0.05 mA	-0.012 mA
		12.000 mA (50.0%)	0.05 mA	0.004 mA
<b>~</b>		20.000 mA (100%)	0.05 mA	0.004 mA
		Start value	Limits range	Measured value
	Test Sensor			
	Coil Curr. Rise	5.000 ms	0.00014.250 ms	6.319 ms
	Coil Curr. Stability			
	Electrode Integrity	mV	0.0300.001 mV	3.256 mV

#### Legend of symbols

✓	×	—	?	l
Passed	Failed	not tested	not testable	Attention

### Page 3/3

## FieldCheck: Parameters Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-620	Tag Name	FIT-620
Device type	PROMAG 50 W DN100	K-Factor	1.2485 - 1.2485
Serial number	4C00BE16000	Zero point	1
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	11:43

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 m3/h	250.01 m3/h	

Actual System Ident.

121.0

### DTM Version: 3.17.00 Flowmeter Verification Certificate Transmitter

City of Peterborough 11/21/23	WWTP
Customer	Plant
FIT-601	
Order code	Tag Name
PROMAG 50 W DN100	1.2667 - 1.2667
Device type	K-Factor
4C00BB16000	0
Serial number	Zero point
V1.04.00	V1.02.01
Software Version Transmitter	Software Version I/O-Module
11/13/2023	11:53
Verification date	Verification time

### Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Test Sensor	Passed	

FieldCheck Details	Simubox Details
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
04/2023	04/2023
Last Calibration Date	Last Calibration Date

Date	
Overall	results.

Operator's Sign

Inspector's Sign

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/-1% of the original calibration. <sup>1)</sup>

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.



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## FieldCheck - Result Tab Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-601	Tag Name	
Device type	PROMAG 50 W DN100	K-Factor	1.2667 - 1.2667
Serial number	4C00BB16000	Zero point	0
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	11:53

Verification Flow end value ( 100 % ): 113.097 m3/h Flow speed 4.00 m/s

Passed / Failed	led Test item Simul. Signal Limit Value			
	Test Transmitter			
	Amplifier	5.655 m3/h (5%)	1.50 %	0.94 %
		11.310 m3/h (10.0%)	1.00 %	0.91 %
		56.549 m3/h (50.0%)	0.60 %	0.26 %
		113.098 m3/h (100%)	0.55 %	0.16 %
	Current Output 1	4.000 mA (0%)	0.05 mA	0.002 mA
		4.800 mA (5%)	0.05 mA	0.002 mA
		5.600 mA (10.0%)	0.05 mA	-0.009 mA
✓		12.000 mA (50.0%)	0.05 mA	0.005 mA
		20.000 mA (100%)	0.05 mA	0.003 mA
		Start value	Limits range	Measured value
	Test Sensor			
	Coil Curr. Rise	5.000 ms	0.00014.250 ms	6.191 ms
✓	Coil Curr. Stability			
	Electrode Integrity	mV	0.0300.001 mV	3.261 mV

#### Legend of symbols

	×	—	?	l
Passed	Failed	not tested	not testable	Attention
### Page 3/3

### FieldCheck: Parameters Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-601	Tag Name	
Device type	PROMAG 50 W DN100	K-Factor	1.2667 - 1.2667
Serial number	4C00BB16000	Zero point	0
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	11:53

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 m3/h	250.01 m3/h	

Actual System Ident.

125.0

### DTM Version: 3.17.00 Flowmeter Verification Certificate Transmitter

City of Peterborough 11/21/23	WWTP
Customer	Plant
FIT-630	FE630
Order code	Tag Name
PROMAG 50 W DN100	1.2611 - 1.2611
Device type	K-Factor
4C00BD16000	1
Serial number	Zero point
V1.04.00	V1.02.01
Software Version Transmitter	Software Version I/O-Module
11/13/2023	12:10
Verification date	Verification time

### Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Test Sensor	Passed	

FieldCheck Details	Simubox Details
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
04/2023	04/2023
Last Calibration Date	Last Calibration Date

Date			-	-			-					
<b>Overall</b>	r	e	S	51	u	ŀ	t	S	;			

Operator's Sign

Inspector's Sign

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. <sup>1)</sup>

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.



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### FieldCheck - Result Tab Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-630	Tag Name	FE630
Device type	PROMAG 50 W DN100	K-Factor	1.2611 - 1.2611
Serial number	4C00BD16000	Zero point	1
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	12:10

Verification Flow end value ( 100 % ): 113.097 m3/h Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
	Amplifier	5.655 m3/h (5%)	1.50 %	0.77 %
✓		11.310 m3/h (10.0%)	1.00 %	0.73 %
		56.549 m3/h (50.0%)	0.60 %	0.11 %
✓		113.098 m3/h (100%)	0.55 %	0.09 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.002 mA
✓		4.800 mA (5%)	0.05 mA	0.001 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.013 mA
✓		12.000 mA (50.0%)	0.05 mA	0.002 mA
✓		20.000 mA (100%)	0.05 mA	-0.001 mA
		Start value	Limits range	Measured value
	Test Sensor			
✓	Coil Curr. Rise	5.000 ms	0.00014.250 ms	6.303 ms
<u> </u>	Coil Curr. Stability			
	Electrode Integrity	mV	0.0300.001 mV	23.039 mV

#### Legend of symbols

	×	—	?	I
Passed	Failed	not tested	not testable	Attention

### Page 3/3

### FieldCheck: Parameters Transmitter

Customer	City of Peterborough 11/21/23	Plant	WWTP
Order code	FIT-630	Tag Name	FE630
Device type	PROMAG 50 W DN100	K-Factor	1.2611 - 1.2611
Serial number	4C00BD16000	Zero point	1
Software Version Transmitter	V1.04.00	Software Version I/O-Module	V1.02.01
Verification date	11/13/2023	Verification time	12:10

Curent Output	Assign	Current Range	Value 0_4mA	Value 20 mA	
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 m3/h	250.01 m3/h	

Actual System Ident.

127.0

Customer:		MAGFLO® Identifi	cation:
Name	City of Peterborough	TAG No./Name	0
Address	WPCP	Sensor Code No.	7ME652
		Sensor Serial No.	468102H422
		Transmitter Code No.	7ME692
Phone		Transmitter Serial No.	N1C9219845
Email		Location	Ashburnham SPS

<u>Results:</u>	Verif Tran Sens	ication file na smitter sor Insulatio Magnet	<b>me or No.</b> on ic Circuit	<u>AS</u> Pa Pa Pa	SH SPS ssed ssed ssed		
Velocity		Current Outp	out			Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.802mA	0.30%		0.500kHz	0.500kHz	0.04%
1.0m/s	5.600mA	5.605mA	0.29%		1.000kHz	1.002kHz	0.20%
3.0m/s	8.800mA	8.803mA	0.06%		3.000kHz	3.002kHz	0.07%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	tter Settings:		5	<u>Sensor Details:</u>	
Basic	Qmax. Flow Direction	800.000 l/s Positive		Size	DN 400 16 IN
	Low flow Cut-off Empty Pipe	1.50% OFF		Cal. Factor	128.40750122
Output	Current Output Time Constant	ON (4-20mA)		Correction Factor	1.0
	Relay Output	Error Level		Excitation Freq.	1.875Hz
	Digital Output	OFF			
	Frequency Range	N/A	١	Verificator Details (	(083F5061)
	Time Constant Volume/pulse	N/A 0.0 US G/p		Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv		Device No.	91739
Totalizer	1 value before test	27383124.0 m <sup>3</sup>		Software Version	1.40
Totalizer	1 value after test	27383124.0 m <sup>3</sup>		PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	2466.05029297 m <sup>3</sup> 2466.05029297 m <sup>3</sup>		Cal. date	2022.12.29
Operating	g time in days	3999		ReCal. date	2023.12.29

### <u>Comments</u>

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

### **Verification report**



### Verification report flowmeter

Plant operator	City of Peterborough		
Device information			
Location	<b>Device tag</b>		
Burnham Meadows	FIT-1		
<b>Module name</b>	Nominal diameter		
Promag L	DN100 / 4"		
<b>Device name</b>	Order code		
Promag 400	5L4C1H-2WL3/101		
Serial number	<b>Firmware version</b>		
K7146919000	01.05.05		
Calibration			
Calibration factor	<b>Zero point</b>		
1.2747	1		

Verification information	
<b>Operating time</b> 2744d07h15m56s	Date/time 21.11.23 10:00
Verification ID 6	
Verification results	
Overall result	Passed
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:

For devices with the Heartbeat Verification enabled software option

For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

### **Verification report**



### Verification report flowmeter

### Serial number: K7146919000

### Verification detailed results Verification ID 6

Sensor	$\checkmark$	Passed
Coil current shot time	$\checkmark$	Passed
Coil hold voltage	$\checkmark$	Passed
Coil current	$\checkmark$	Passed
Sensor electronic module	$\checkmark$	Passed
Reference voltage	$\checkmark$	Passed
Linearity of electrode measuring circuit	$\checkmark$	Passed
Offset of electrode measuring circuit	$\checkmark$	Passed
I/O module	$\checkmark$	Passed

<u>Customer</u>	<u>.</u>	MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name	0			
Address	WPCP	Sensor Code No.	7ME652			
		Sensor Serial No.	PBD-R6274509			
		Transmitter Code No.	7ME691			
Phone		Transmitter Serial No.	N1R5160044			
Email		Location	Parkhill East Flow #1			

<u>Results:</u>	Verif Tran Sens	ication file na smitter sor Insulatio Magnet	<b>me or No.</b> on ic Circuit	<u>Pa</u> <u>Pa</u> <u>Pa</u>	rkH E1 ssed ssed ssed		
Velocity		Current Outp	out			Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.800mA	0.01%		0.500kHz	0.500kHz	0.01%
1.0m/s	5.600mA	5.601mA	0.06%		1.000kHz	1.001kHz	0.08%
3.0m/s	8.800mA	8.804mA	0.09%		3.000kHz	3.004kHz	0.12%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	<u>tter Settings:</u>		Sensor Details:	
Basic	Qmax. Flow Direction	2000.00 I /min Positive	Size	DN 100 4 IN
	Low flow Cut-off Empty Pipe	0FF	Cal. Factor	5.96543884
Output	Current Output Time Constant	ON (4-20mA) 5.0 Sec.	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Time Constant	N/A		
	Volume/pulse	0.99999953 US G/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	526.51611328 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	526.53588867 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	0.92270595 m <sup>3</sup> 0.92270929 m <sup>3</sup>	Cal. date	2022.12.29
Operatinę	g time in days	103	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

<u>Customer</u>	<u></u>	MAGFLO® Identification:					
Name	City of Peterborough	TAG No./Name	0				
Address	WPCP	Sensor Code No.	7ME652				
		Sensor Serial No.	PBD-R6274506				
		Transmitter Code No.	7ME691				
Phone		Transmitter Serial No.	N1R5160029				
Email		Location	Parkhill E SPS Flow 2				

<u>Results:</u>	Verif Tran Sens	ication file na smitter or Insulatio Magnet	<b>me or No.</b> on ic Circuit	<u>Pa</u> <u>Pa</u> <u>Pa</u>	rkH E 2 ssed ssed ssed		
Velocity		Current Outp	out			Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.801mA	0.17%		0.500kHz	0.499kHz	-0.15%
1.0m/s	5.600mA	5.601mA	0.09%		1.000kHz	0.999kHz	-0.05%
3.0m/s	8.800mA	8.803mA	0.06%		3.000kHz	3.002kHz	0.06%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

ר

<u>Transmi</u>	<u>tter Settings:</u>		<u>Sensor Details:</u>	
Basic	Qmax. Flow Direction	2000.00 I /min Positive	Size	DN 100 4 IN
	Low flow Cut-off Empty Pipe	1.50% OFF	Cal. Factor	5.93802786
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Time Constant Volume/pulse	N/A 0.99999953 US G/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	834.8258667 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	834.84558105 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	0.13701564 m <sup>3</sup> 0.13701886 m <sup>3</sup>	Cal. date	2022.12.29
Operatinę	g time in days	103	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

<u>Customer</u>	<u>:</u>	MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name	0			
Address	WPCP	Sensor Code No.	7ME652			
		Sensor Serial No.	063102H312			
		Transmitter Code No.	7ME69201AA101AB0			
Phone		Transmitter Serial No.	N1E6250009			
Email		Location	Parkhill W SPS			

<u>Results:</u>	Verif Tran Sens	ication file nai smitter sor Insulatio Magneti	<b>me or No.</b> on c Circuit	<u>Pa</u> <u>Pa</u> <u>Pa</u>	rkhill W ssed ssed ssed		
Velocity		Current Output				Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.800mA	0.04%		0.500kHz	0.499kHz	-0.15%
1.0m/s	5.600mA	5.601mA	0.06%		1.000kHz	1.000kHz	0.01%
3.0m/s	8.800mA	8.798mA	-0.04%		3.000kHz	3.001kHz	0.02%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	tter Settings:			<u>Sensor Details:</u>	
Basic	Qmax. Flow Direction	445.000 l/s Positive		Size	DN 250 10 IN
	Low flow Cut-off Empty Pipe	1.50% OFF		Cal. Factor	43.37620163
Output	Current Output Time Constant	ON (4-20mA)		Correction Factor	1.0
	Relay Output	Error Level		Excitation Freq.	3.75Hz
	Digital Output	OFF			
	Frequency Range	N/A		Verificator Details (	(083F5061)
	Volume/pulse	N/A 0.0 US G/p		Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv		Device No.	91739
Totalizer	1 value before test	2702889.0 m <sup>3</sup>		Software Version	1.40
Totalizer	1 value after test	2702889.0 m <sup>3</sup>		PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	1899.24719238 m <sup>3</sup> 1899.24719238 m <sup>3</sup>		Cal. date	2022.12.29
Operating	g time in days	3322		ReCal. date	2023.12.29

### <u>Comments</u>

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Customer:		MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name	0			
Address	WPCP	Sensor Code No.	7ME658			
		Sensor Serial No.	614503U086			
		Transmitter Code No.	7ME69101AA101BA0			
Phone		Transmitter Serial No.	IXH11120573			
Email		Location	Septage			

<u>Results:</u>	Verif Tran Sens	Verification file name or No. Transmitter Sensor Insulation Magnetic Circuit			Septage Passed Passed Passed		
Velocity		Current Output				Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.802mA	0.25%		0.500kHz	0.500kHz	-0.07%
1.0m/s	5.600mA	5.602mA	0.13%		1.000kHz	1.000kHz	0.01%
3.0m/s	8.800mA	8.800mA	0.01%		3.000kHz	3.000kHz	0.00%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	<u>tter Settings:</u>		Sensor Details:	
Basic	Qmax. Flow Direction	70.0000 l/s Positive	Size	DN 100 4 IN
	Low flow Cut-off Empty Pipe	2.50% ON	Cal. Factor	8.87677097
Output	Current Output Time Constant	OFF	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Details	<u>(083F5061)</u>
	Volume/pulse	0.01 m <sup>3</sup> /p	Serial No.	000811N218
	Pulse width Pulse polarity	0.033 sec. Positiv	Device No.	91739
Totalizer	1 value before test	20519330.07813	Software Version	1.40
Totalizer	1 value after test	20519353.51563 I	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	206153640.625 I 206153640.625 I	Cal. date	2022.12.29
Operating	g time in days	2668	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

<u>Customer</u>	<u></u>	MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name	0			
Address	WPCP	Sensor Code No.	7ME65804PJ142			
		Sensor Serial No.	PBD-K7104810			
		Transmitter Code No.	7ME691			
Phone		Transmitter Serial No.	N1K3090085			
Email		Location	Simcoe SPS East Pump			

<u>Results:</u>	Verif Tran Sens	ication file nai smitter or Insulatio Magneti	<b>me or No.</b> on c Circuit	<u>Sir</u> Pa Pa Pa	ncoe E ssed ssed ssed		
Velocity		Current Output				Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.806mA	0.81%		0.500kHz	0.500kHz	0.04%
1.0m/s	5.600mA	5.608mA	0.47%		1.000kHz	1.001kHz	0.11%
3.0m/s	8.800mA	8.805mA	0.10%		3.000kHz	3.000kHz	0.00%
Current Output 4-20mA					Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	<u>tter Settings:</u>		<u>Sensor Details:</u>	
Basic	Qmax. Flow Direction	100.000 l/s	Size	DN 200 8 IN
	Low flow Cut-off Empty Pipe	1.50% ON	Cal. Factor	31.98593521
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	3.75Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Volume/pulse	N/A 1.0 m³/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	352403.15625 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	352403.21875 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	440.40264893 m <sup>3</sup> 440.40264893 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	1805	ReCal. date	2023.12.29

### <u>Comments</u>

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Customer:		MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name	0			
Address	WPCP	Sensor Code No.	7ME65804PJ142			
		Sensor Serial No.	PBD-K7104809			
		Transmitter Code No.	7ME691			
Phone		Transmitter Serial No.	N1K3090102			
Email		Location	Simcoe SPS West Pump			

<u>Results:</u>	Verif Tran Sens	Verification file name or No. Transmitter Sensor Insulation Magnetic Circuit			Simcoe W Passed Passed Failed		
Velocity		Current Output				Frequency	Output
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.804mA	0.52%		0.500kHz	0.500kHz	-0.01%
1.0m/s	5.600mA	5.605mA	0.30%		1.000kHz	1.001kHz	0.05%
3.0m/s	8.800mA	8.804mA	0.09%		3.000kHz	3.001kHz	0.04%
	Current Outpu	t 4-20mA			Frequency Ou	tput 0-10kHz	

<u>Transmit</u>	<u>tter Settings:</u>		Sensor Details:	
Basic	Qmax. Flow Direction	100.000 l/s Positive	Size	DN 200 8 IN
	Low flow Cut-off Empty Pipe	1.50% ON	Cal. Factor	32.09616852
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	3.75Hz
	Digital Output	Pulse		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Volume/pulse	N/A 1.0 m³/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	354522.375 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	354522.4375 m <sup>3</sup>	PC-Software Version	5.01
Totalizer Totalizer	2 value before test 2 value after test	100308.9140625 m <sup>3</sup> 100308.9140625 m <sup>3</sup>	Cal. date	2022.12.29
Operating	g time in days	1805	ReCal. date	2023.12.29

### **Comments**

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Customer:		MAGFLO® Identification:				
Name	City of Peterborough	TAG No./Name <u>0</u>				
Address	WPCP	Sensor Code No. 7ME658				
		Sensor Serial No. PBD-N6224507				
		Transmitter Code No. 7ME69102CA101A	A0			
Phone		Transmitter Serial No. <u>N1N5310016</u>				
Email		Location Townsend SPS				

<u>Results:</u>	Verif Tran Sens	ication file na smitter sor Insulatio Magnet	<b>me or No.</b> on ic Circuit	<u>To</u> Pa Pa Pa	Townsend SPS Passed Passed Passed			
Velocity		Current Output				Frequency	Output	
Theoretical	Theoretical	Actual	Deviation		Theoretical	Actual	Deviation	
0.5m/s	4.800mA	4.801mA	0.12%		0.500kHz	0.500kHz	-0.04%	
1.0m/s	5.600mA	5.600mA	0.01%		1.000kHz	0.999kHz	-0.06%	
3.0m/s	8.800mA	8.799mA	-0.02%		3.000kHz	2.999kHz	-0.04%	
Current Output 4-20mA					Frequency Ou	tput 0-10kHz		

<u>Transmit</u>	ter Settings:		Sensor Details:	
Basic	Qmax. Flow Direction	50.0000 l/s Positive	Size	DN 100 4 IN
	Low flow Cut-off Empty Pipe	1.50% ON	Cal. Factor	7.45990801
Output	Current Output Time Constant	ON (4-20mA)	Correction Factor	1.0
	Relay Output	Error Level	Excitation Freq.	7.5Hz
	Digital Output	OFF		
	Frequency Range	N/A	Verificator Details	(083F5061)
	Time Constant Volume/pulse	N/A 0.0 US G/p	Serial No.	000811N218
	Pulse width Pulse polarity	0.066 sec. Positiv	Device No.	91739
Totalizer	1 value before test	11774.03320313 m <sup>3</sup>	Software Version	1.40
Totalizer	1 value after test	11774.05761719 m <sup>3</sup>	PC-Software Version	5.01
Totalizer 2 value before test Totalizer 2 value after test Operating time in days		52.74279785 m <sup>3</sup> 52.74691391 m <sup>3</sup>	Cal. date	2022.12.29
		704	ReCal. date	2023.12.29

### <u>Comments</u>

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

# **Appendix B**

Supporting Documents for Alterations to the Authorized System?





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# Subdivision Assumption Asset Map - 45M237



DISCLAIMER OF ALL LIABILITIES - The Corporation of the City of Peterborough, its employees, consultants and agents, make no representation or warranty concerning the accuracy, validity or fitness for use of the contents of this digital or hard copy mapfile, and disclaims all liability for any claims for damages or loss arising from their use or interpretation by any party. A mapfile does not replace a survey nor is it to be used to provide a legal description.

Heritage Park Phase 2 Stage 3 Date: 6/15/2023 10:28 AM

# Appendix C

**Spill Reports** 



City of Peterborough 500 George Street North Peterborough, ON K9H 3R9 peterborough.ca | 1-855-738-3755

Kent Keeling Manager, Environmental Protection Services Environmental Services Phone: 705-742-7777, ext. 2629 Email: kkeeling@peterborough.ca

August 10th, 2023

Ministry of the Environment – Peterborough District Office Robinson Place 300 Water Street, 2<sup>nd</sup> Floor, South Tower Peterborough, ON K9J 8M5

Re: Engleburn Puming Station Incident # 1-3PW5WH Forcemain Break/Pumping Station Overflow

This report is being submitted as required in the following Environmental Compliance Approvals:

- 1. Sections 5.a. of ECA No.: 0001107542 Ver. 1.2
- 2. Schedule E, Section 4.3.1. (c) of ECA No.: 145-W601.

At 11:53 am on August 9th, 2023 staff of the City of Peterborough Environmental Services Division received a call regarding a concern near the Engleburn Pumping Station at 279 Engleburn Avenue. Staff were dispatched and at 12:40 pm confirmed that the forcemain from the pumping station had failed.

By 13:15 it was determined that the sewage from the broken forcemain was flowing curbside to the WSW and into a storm catch basin. From the catch basin it was discharging into small swale or depression at the storm outlet. The volume was such that it was contained in the depression and did not make it to the Otonabee River. Samples from both the CB and discharge were collected, sample locations can be found in Figure 1.

By 13:45 a City vacuum truck was onsite and preventing any further discharge of sewage to the environment.

By 15:00 Locates were complete, a septic hauler was on site to haul sewage out of the PS wet well and bring it to the WWTP and the City vacuum truck began cleaning and flushing the roadway and impacted storm sewers. It was estimated that less than 100 litres of

sewage was discharged from the break and no sewage made it beyond the depression at the storm sewer outlet.

By 22:05 repairs to the forcemain were complete and the PS was put back into normal service.

Once the laboratory reports for the samples have been received, they will be forwarded to your attention.

Yours sincerely,

Kent Keeling Manager, Environmental Protection Services



Figure 1



**Report To:** 

K9J 1B6

Peterborough WWTP

Attention: James Istchenko

425 Kennedy Road Peterborough Page 1 of 3

# **CERTIFICATE OF ANALYSIS**

# Lab Report #: 2231597 Report Date: 2023-08-21 Submission #: ENGPS20230809 Sampling Date: 2023-08-09 Date Received: 2023-08-09

Please find attached the analytical results relating specifically to the samples submitted to this laboratory as received from the customer.

The following terms may be used in your report: MDL = Method Detection Limit . "<" = Less Than

Solid sample results are based on a dry weight basis, unless otherwise indicated. All supporting analytical information, including measurement uncertainty is available upon request.

Report Authorization:

Krista Thomas Chief Chemist/Laboratory Manager (Ext. 2632)

Environmental Protection Labs, 425 Kennedy Road Tel.: 705-742-7777 Fax.: 705-743-0991



### **Environmental Protection Laboratories**

Lab Report #:	2231597
Report Date:	2023-08-21

# **ANALYTICAL REPORT**

Client:	Peterborough WWTP
Sampling Location:	Storm Catch basin 130735
Sample Type:	Grab
Sampling Date:	2023-08-09
Substance Sampled:	Sewage impac
Samples Received:	2023-08-09
Sampled By:	ADS
Submission No.:	ENGPS20230809
Work Order No.:	2231597
Lab Sample #:	173027
Sample ID:	Storm Catch basin 130735

#### **Guideline Limits**

Analyte	<u>Result</u>		MDL	Date Analyzed	Lower	Upper	Analytical Method
TSS	64.0	mg/L	2.0	2023-08-10		15	APHA 2540D (GRAV)
Phosphorus	1.97	mg/L	0.02	2023-08-16		0.4	SM 3120B
BOD-5	54.9	mg/L	2.0	2023-08-16		15	APHA 5210B
Escherichia coli	2160000 CI	FU/100mL	0	2023-08-10			MFMICRO3371A
TKN	15.2	mg/L	2.0	2023-08-17			SM 4500-Norg D

The Guideline Limits are for the PeterboroughSewerUseByLaw, Storm

#### **Quality Control Information**

<u>Analyte</u>	<u>Bla</u>	<u>nk</u>	<b>QC Recovery %</b>	<b>Duplicate %RPD</b>	<u>Uncertainty</u>
TSS	<2.0	mg/L		7	4.3
Phosphorus	< 0.02	mg/L	94	0	0.34
BOD-5	<2.0	mg/L	96	2	6.7
Escherichia coli	0	CFU/100mL		43	497000
TKN	<2.0	mg/L	97	0	2.4



### **Environmental Protection Laboratories**

Lab Report #:	2231597
Report Date:	2023-08-21

# **ANALYTICAL REPORT**

Client:	Peterborough WWTP
Sampling Location:	Storm Discharge Point 177778
Sample Type:	Grab
Sampling Date:	2023-08-09
Substance Sampled:	Sewage impac
Samples Received:	2023-08-09
Sampled By:	ADS/CB
Submission No.:	ENGPS20230809
Work Order No.:	2231597
Lab Sample #:	173028
Sample ID:	Storm Discharge Point 177778

#### **Guideline Limits**

Analyte	<u>Result</u>		<u>MDL</u>	Date Analyzed	Lower	Upper	Analytical Method
TSS	51.0	mg/L	2.0	2023-08-10		15	APHA 2540D (GRAV)
Phosphorus	1.57	mg/L	0.02	2023-08-16		0.4	SM 3120B
BOD-5	43.3	mg/L	2.0	2023-08-16		15	APHA 5210B
Escherichia coli	1760000 Cl	FU/100mL	0	2023-08-10			MFMICRO3371A
TKN	15.3	mg/L	2.0	2023-08-17			SM 4500-Norg D

The Guideline Limits are for the PeterboroughSewerUseByLaw, Storm

#### **Quality Control Information**

Analyte	Blai	<u>nk</u>	<b>QC Recovery %</b>	<b>Duplicate %RPD</b>	<u>Uncertainty</u>
TSS	<2.0	mg/L		7	3.5
Phosphorus	< 0.02	mg/L	94	0	0.27
BOD-5	<2.0	mg/L	96	2	5.3
Escherichia coli	0	CFU/100mL		43	405000
TKN	<2.0	mg/L	97	0	2.4



City of Peterborough 500 George Street North Peterborough, ON K9H 3R9 peterborough.ca | 1-855-738-3755

Kent Keeling Manager, Environmental Protection Services Environmental Services Phone: 705-742-7777, ext. 2629 Email: kkeeling@peterborough.ca

August 28th, 2023

Ministry of the Environment – Peterborough District Office Robinson Place 300 Water Street, 2<sup>nd</sup> Floor, South Tower Peterborough, ON K9J 8M5

Re: Simcoe Puming Station Incident # 1-3VI9MF Forcemain Break/Pumping Station Overflow

This report is being submitted as required in the following Environmental Compliance Approvals:

- 1. Sections 5.a. of ECA No.: 0001107542 Ver. 1.2
- 2. Schedule E, Section 4.3.1. (c) of ECA No.: 145-W601.

At 15:30 on September 25th, 2023 staff of the City of Peterborough Environmental Services Division were alerted to a probable forcemain break at the Simcoe Pumping Station at 73 Simcoe Street. Staff were dispatched and on site by 16:15.

Sewage was observed coming to the surface and draining into a near by storm sewer catch basin. Visual inspection of this catch basin revealed that the water level in the catch basin was still approximately 15 cm below the discharge pipe in the catch basin. Although there was no evidence of sewage moving beyond the impacted catch basin samples of the water in the catch basin and from the storm sewer outfall were collected. Sample locations are indicated in Image - 1.

------

### Image - 1



By 16:30 a septic truck was onsite to haul sewage out of the pumping station wet well allowing the pumping station to be taken out of operation until repairs to the forcemain were completed. The septic truck also cleaned out the impacted catch basin and any standing water that had collected along the curbside.

By 18:15 personnel were on site to complete emergency locates and by 19:00 locates were completed and excavation of the break had begun. By 11:15 the repair was complete and tested prior to putting the pumping station was put back in service.

Once the analytical results from the collected samples are received a copy of these will be forwarded to your office.

This is the sixth forcemain break at this station since 2018 and as was mentioned in previous report that was submitted to your office, the City is proceeding with a capital project to replace the forcemain but with the procurement process and the proximity of the station to the historic coal tar contamination construction is not likely to begin any earlier than 2024.

This is the Yours sincerely,

Kent Keeling Manager, Environmental Protection Services



**Report To:** 

Peterborough WWTP 425 Kennedy Road Peterborough K9J 1B6

Attention: James Istchenko

Page 1 of 3

# **CERTIFICATE OF ANALYSIS**

Lab Report #:	2232028
Report Date:	2023-10-12
Submission #:	SFMB20230926
Sampling Date:	2023-09-25
Date Received:	2023-09-25

Please find attached the analytical results relating specifically to the samples submitted to this laboratory as received from the customer.

The following terms may be used in your report: MDL = Method Detection Limit . "<" = Less Than

Solid sample results are based on a dry weight basis, unless otherwise indicated. All supporting analytical information, including measurement uncertainty is available upon request.

Report Authorization:

Anna Zalewski Laboratory Quality Supervisor (Ext. 2627)

Environmental Protection Labs, 425 Kennedy Road Tel.: 705-742-7777 Fax.: 705-743-0991



### **Environmental Protection Laboratories**

Lab Report #: 2232028

**Report Date:** 2023-10-12

# **ANALYTICAL REPORT**

Client:	Peterborough WWTP
Sampling Location:	Storm Sewer-Raw Sewage impacte
Sample Type:	Grab
Sampling Date:	2023-09-25
Substance Sampled:	Sewage
Samples Received:	2023-09-25
Sampled By:	Barry Campbell
Submission No.:	SFMB20230926
Work Order No.:	2232028
Lab Sample #:	174541
Sample ID:	FID 131995-impacted CB

#### **Guideline Limits**

Analyte	<u>Result</u>		<u>MDL</u>	Date Analyzed	Lower	Upper_	Analytical Method
TSS	52.0	mg/L	2.0	2023-09-29			APHA 2540D (GRAV)
Phosphorus	1.31	mg/L	0.02	2023-09-27			SM 3120B
BOD-5	150	mg/L	2.0	2023-10-11			APHA 5210B
Escherichia coli	2800000 CH	U/100mL	0	2023-09-27			MFMICRO3371A
TKN	12.0	mg/L	2.0	2023-10-10			SM 4500-Norg D

#### **Quality Control Information**

<u>Analyte</u>	Bla	<u>nk</u>	<b>QC Recovery %</b>	<b>Duplicate %RPD</b>	<u>Uncertainty</u>
TSS	<2.0	mg/L		8	3.6
Phosphorus	< 0.02	mg/L	97	2	0.22
BOD-5	<2.0	mg/L	101	1	18
Escherichia coli	0	CFU/100mL		0	645000
TKN	<2.0	mg/L	99	7	2.0



### **Environmental Protection Laboratories**

Lab Report #: 2232028

**Report Date:** 2023-10-12

# **ANALYTICAL REPORT**

Client:	Peterborough WWTP
Sampling Location:	Storm Sewer-
Sample Type:	Grab
Sampling Date:	2023-09-25
Substance Sampled:	StormWater
Samples Received:	2023-09-25
Sampled By:	Barry Campbell
Submission No.:	SFMB20230926
Work Order No.:	2232028
Lab Sample #:	174542
Sample ID:	FID 139958 Storm Discharge

#### **Guideline Limits**

Analyte	<u>Result</u>		<u>MDL</u>	Date Analyzed	Lower	<u>Upper</u>	Analytical Method
TSS	3.3	mg/L	2.0	2023-09-29			APHA 2540D (GRAV)
TKN	< 0.3	mg/L	0.3	2023-09-28			APHA 4500 NORGC
Phosphorus	< 0.02	mg/L	0.02	2023-09-27			SM 3120B
BOD-5	<2.0	mg/L	2.0	2023-10-04			APHA 5210B
Escherichia coli	200	CFU/100mL	0	2023-09-27			MFMICRO3371A

### **Quality Control Information**

<u>Analyte</u>	Bla	<u>nk</u>	<b>QC Recovery %</b>	Duplicat	e %RPD <u>Uncertainty</u>
TSS	<2.0	mg/L		8	1.3
TKN	< 0.3	mg/L	95	0	0.1
Phosphorus	< 0.02	mg/L	97	2	0.01
BOD-5	<2.0	mg/L	99	6	0.2
Escherichia coli	0	CFU/100mL		0	46

# **Appendix D**

**Email Correspondence** 

From:	Manning, Christopher (MECP)
То:	Curtis Mei
Subject:	RE: 145-S701 Third CLI ECA (Peterborough)
Date:	March-20-24 3:21:41 PM
Attachments:	image001.jpg
	image002.png
	image003.png
	image004.png
	image005.png

### [EXTERNAL EMAIL - use caution when clicking links and opening attachments]

Hi Curtis,

Sorry for the delay, I've been out of the office.

Infiltration Chambers:

Can you provide a few high level examples are projects where these would be used (where you are looking to have them pre-authorized). This will help me to direct you to the correct process.

Wastewater Annual Report:

Please accept this email as approval to extend the annual report due date for CLI-ECA#145-W601 from March 31 to April 30<sup>th</sup>, 2024. I'll initiate an update of your ECA to adjust the going-forward date to April 30<sup>th</sup> of each year.

Thank you, Chris

Christopher Manning, PMP | Licensing Program Coordinator

Permission Program Services Section | Client Services & Permissions Branch | Environmental Assessment and Permissions Division

Ministry of the Environment, Conservation and Parks | 40 St. Clair Ave. West, 2<sup>nd</sup> Floor, Toronto, ON M4V 1M2

Phone: 647-982-8740 | Toll Free: 1-888-999-1305 | Email: christopher.manning@ontario.ca

If you have any accommodation needs or require communication supports or alternate formats, please let me know.

Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substituts, veuillez me le faire savoir.

From: Curtis Mei <CMei@peterborough.ca>
Sent: March 20, 2024 3:00 PM
To: Manning, Christopher (MECP) <Christopher.Manning@ontario.ca>
Subject: RE: 145-S701 Third CLI ECA (Peterborough)

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Christopher,

Just wanted to follow up on the requests below.

Thank You,

Curtis Mei C.E.T. ENV SP Stormwater Systems Specialist   Asset Management and Capital Planning Division City of Peterborough cmei@peterborough.ca   705-742-7777 ext. 1507 peterborough.ca
The City of Peterborough respectfully acknowledges that it is on the treaty and traditional territory of the Mississauga Anishinaabeg and offers its gratitude to the First Peoples for their care for, and teachings about, our earth and our relations. May those teachings be honoured.

From: Curtis Mei
Sent: Thursday, March 14, 2024 2:24 PM
To: Aladallal, Dana (MECP) <<u>Dana.Aladallal@ontario.ca</u>>; Manning, Christopher (MECP)
<<u>Christopher.Manning@ontario.ca</u>>
Cc: Fletcher, Holie (MECP) <<u>holie.fletcher@ontario.ca</u>>; Wielgos, Brittney (MECP)
<<u>Brittney.Wielgos@ontario.ca</u>>
Subject: RE: 145-S701 Third CLI ECA (Peterborough)

Thanks Dana,

Additionally, I was wondering if we could request an extension on our Waste Water annual reporting requirement for CLI-ECA#145-W601 from March 31 to April 30<sup>th</sup>.

We are currently completing both Storm and Sanitary annual reports however our Storm report 145-S701 isn't due until April 30<sup>th</sup> so it would just be more convenient for our annual operations and submission if both were due on the same day.

Thanks,

### Curtis Mei C.E.T. ENV SP

Stormwater Systems Specialist | Asset Management and Capital Planning Division City of Peterborough <u>cmei@peterborough.ca</u> | 705-742-7777 ext. 1507 <u>peterborough.ca</u>



The City of Peterborough respectfully acknowledges that it is on the treaty and traditional territory of the Mississauga Anishinaabeg and offers its gratitude to the First Peoples for their care for, and teachings about, our earth and our relations. May those teachings be honoured.

From: Aladallal, Dana (MECP) <<u>Dana.Aladallal@ontario.ca</u>>
Sent: Wednesday, March 13, 2024 11:00 AM
To: Curtis Mei <<u>CMei@peterborough.ca</u>>; Manning, Christopher (MECP)
<<u>Christopher.Manning@ontario.ca</u>>
Cc: Fletcher, Holie (MECP) <<u>holie.fletcher@ontario.ca</u>>; Wielgos, Brittney (MECP)
<<u>Brittney.Wielgos@ontario.ca</u>>
Subject: Re: 145-S701 Third CLI ECA (Peterborough)

### [EXTERNAL EMAIL - use caution when clicking links and opening attachments]

Hi Curtis,

I am referring this request to <u>@Manning</u>, <u>Christopher (MECP)</u> who, I believe, would be able to help you out with this!

Best,

Dana Aladallal

**Review Engineering Assistant** 

Municipal Water and Wastewater Permissions | Environmental Permissions Branch

M: (416) 219-2902

135 St. Clair Ave. W., 2nd Floor, Toronto, ON M4V 1P5



Ministry of the Environment, Conservation and Parks

From: Curtis Mei <<u>CMei@peterborough.ca</u>>
Sent: Wednesday, March 13, 2024 10:32 AM
To: Aladallal, Dana (MECP) <<u>Dana.Aladallal@ontario.ca</u>>
Cc: Fletcher, Holie (MECP) <<u>holie.fletcher@ontario.ca</u>>; Wielgos, Brittney (MECP)
<<u>Brittney.Wielgos@ontario.ca</u>>
Subject: RE: 145-S701 Third CLI ECA (Peterborough)

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Morning,

I am just following up on this email from last Thursday concerning preauthorization for underground infiltration chambers.

Thank You,

	?	?

### Curtis Mei C.E.T. ENV SP

Stormwater Systems Specialist | Asset Management and Capital Planning Division City of Peterborough <u>cmei@peterborough.ca</u> | 705-742-7777 ext. 1507 <u>peterborough.ca</u>



The City of Peterborough respectfully acknowledges that it is on the treaty and traditional territory of the Mississauga Anishinaabeg and offers its gratitude to the First Peoples for their care for, and teachings about, our earth and our relations. May those teachings be honoured. To: Aladallal, Dana (MECP) <<u>Dana.Aladallal@ontario.ca</u>>
 Cc: Fletcher, Holie (MECP) <<u>holie.fletcher@ontario.ca</u>>; Wielgos, Brittney (MECP)
 <<u>Brittney.Wielgos@ontario.ca</u>>; Ian Boland <<u>IBoland@peterborough.ca</u>>
 Subject: RE: 145-S701 Third CLI ECA (Peterborough)

Thanks Dana,

The City of Peterborough would like to apply for an amendment to our CLI-ECA to preauthorize underground infiltration chambers, I learned in a meeting yesterday that underground storage LID is not pre-authorized and that is a LID type that we will be implementing on many projects going forward to meet Appendix A requirements.

Can you please provide me with the details on how to go about getting that approved?

Thank You,

?	Curtis Mei C.E.T. ENV SP
	Stormwater Systems Specialist   Asset Management and
	Capital Planning Division
	City of Peterborough
	<u>cmei@peterborough.ca</u>   705-742-7777 ext. 1507
	<u>peterborough.ca</u>
	The City of Peterborough respectfully acknowledges that it is on the treaty and traditional territory of the Mississauga
	Anishinaabeg and offers its gratitude to the First Peoples for
	their care for, and teachings about, our earth and our
	relations. May those teachings be honoured.

From: Aladallal, Dana (MECP) <<u>Dana.Aladallal@ontario.ca</u>>
Sent: Friday, March 1, 2024 1:50 PM
To: Curtis Mei <<u>CMei@peterborough.ca</u>>
Cc: Fletcher, Holie (MECP) <<u>holie.fletcher@ontario.ca</u>>; Wielgos, Brittney (MECP)
<<u>Brittney.Wielgos@ontario.ca</u>>
Subject: 145-S701 Third CLI ECA (Peterborough)

[EXTERNAL EMAIL - use caution when clicking links and opening attachments]

Good Morning,

The Ministry has issued the third Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA) for the City of Peterborough Stormwater Management System.

Please find attached to this email the following documents:

- Municipal Stormwater Management System CLI ECA Number 145-S701 issued on the 1st day of March, 2024 to the City of Peterborough.
- Design Criteria for Sanitary Sewers, Storm Sewers and Forcemains for Alterations Authorized under Environmental Compliance Approval v.1.1 July 28, 2022
- Municipal Stormwater Management System Future Authorization Forms
- Appeal Notice

Please note, this is your official copy of the ECA and appeal provisions begin upon the receipt of this email.

If you experience any issues with retrieving the attached ECA, please contact me at the email or phone number noted in my signature below.

Please reply to this email within 5 business days confirming you have received this ECA.

Thank you,

Dana Aladallal

**Review Engineering Assistant** 

Municipal Water and Wastewater Permissions | Environmental Permissions Branch

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Ministry of the Environment, Conservation and Parks

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