### **2024 Annual Report**

### Kenora Wastewater Treatment Plant





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### Introduction

The City of Kenora (City) continually discharges treated wastewater effluent into the Winnipeg river that meets all required Ontario regulations as per the Environmental Protection Act and the Water Resources Act. This annual report will include:

- a description of the wastewater treatment process used;
- any major expenses to install, repair or upgrade equipment in the system;
- the results of our effluent monitoring and how it compares to the provincial regulatory limits of the City's operating license:
- a summary of incidents of regulatory non-compliance and the corrective actions taken; and,
- a summary of the quantities and wastewater discharge rates with a comparison to the rated capacity and approved flow rates of the system

### Kenora Wastewater Treatment Plant

Environmental Compliance Approval Number (ECA): 7682-7RMMVM

Sewage Works Approval Number: 1-570-78-006

Issued: June 19, 2009 (Amended)

The Kenora Wastewater Treatment Plant (WWTP) is located at 18 Sewage Treatment Plant Road and has a rated capacity of 18,180 cubic meters per day (m³/d) of treated wastewater effluent. The receiving body of the effluent is the Winnipeg River.

This facility is a Contact Stabilization plant which includes headworks for garbage and grit removal, aeration, clarification, and Ultra-Violet light disinfection before discharging effluent into the Winnipeg River. The facility also has two aerobic digesters, and two belt filter presses for dewatering of biosolids.

The WWTP is controlled through a Supervisory Control and Data Acquisition (SCADA) system that is monitored twenty-four hours per day, seven days per week.

### Kenora Wastewater Collection System

The City's Wastewater Collection System consists of 130km of gravity and force main piping, and 67 lift stations to collect and convey wastewater to the WWTP.

The wastewater collection system also receives wastewater from Wauzhushk Onigum Nation.

### Capital Improvements Implemented over 2024

In the current reporting year, approximately \$140,000 was spent on upgrades at the Kenora Wastewater Treatment Plant. Projects included:

Project	Expense Type	Value
Emergency Engineering Servies for 400 Building	Design	\$35,000
Pumps and New Screw Pump Controls		
Capital Needs Assessment for Plant Upgrades	Design	\$55,000
New Dewatering Press Mixing Drum	Replacement	\$23,000
New Return Activated Sludge Line Valves	Replacement	\$27,000



### 2024 Wastewater Performance Review

Flows remained relatively stable into the WWTP for the 2024 data period. A summary of the flow data can be found in Table 1.0. The average influent flow for the year was 7,006 m³/day with the maximum average month being June at 10,189m³/d. The highest peak day recorded for 2024 was 18,072 m³/d on June 5<sup>th</sup>.

Table 1.0 - Kenora WWTP Influent Average Daily Flows 2024

	Influent Monthly Average m3/d	Influent Max m3/d	Influent Min m3/d
January	5,743	6,159	5,239
February	6,054	9,390	5,416
March	6,137	8,125	5,530
April	7,044	7,627	6,029
May	9,409	15,076	7,176
June	10,189	18,072	7,509
July	9,165	14,115	7,546
August	6,885	9,478	6,102
September	6,464	9,389	5,625
October	5,519	6,043	5,082
November	5,683	9,039	4,861
December	5,774	6,444	5,156

### Influent and Effluent Monitoring

Under the Environmental Compliance Approval license, certain objectives have to be met for compliant operation. Regulated parameters include pH (maintain between 6.5-8.5), Total Suspended Solids (TSS-25 mg/L), and Total Biological Oxygen Demand (TBOD<sub>5</sub>-25mg/L). The results have been graphed and can be found respectively in Figure 1.0 to 1.2. The Compliance Limit is represented by the red trace and is calculated on an Annual Average of surveillance data.

Figure 1.0 - Effluent pH 2024

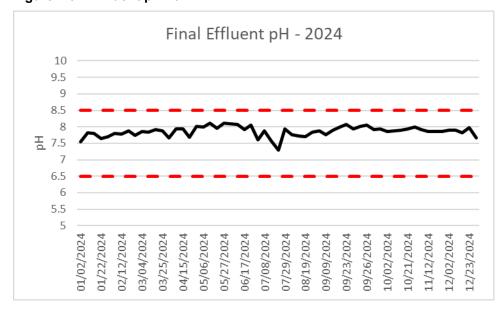




Figure 1.1 - Effluent TSS 2024

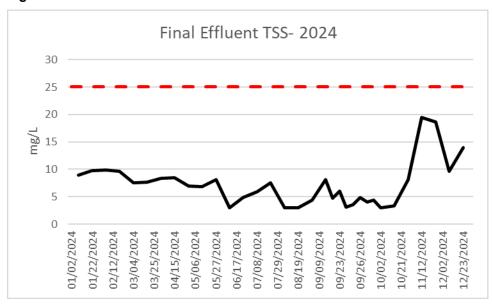
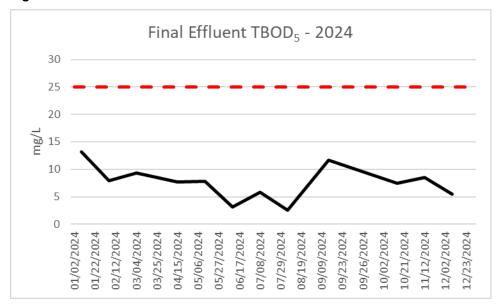


Figure 1.2 - Effluent TBOD₅ 2024



A large number of water quality tests are also performed with respect to assessing the treatment efficiency and effectiveness of disinfection. The following tables provide a summary of the test results for both facility Influent and Effluent.



**Monthly Influent Parameter Summary - 2024** 

	Influent pH	Influent TSS* (mg/L)	Influent TKN <sup>+</sup> (mg/L)	Influent TP` (mg/L)	Influent TBOD~ (mg/L)
January	7.37	288	31.2	3.6	153
February	7.29	211	25.6	2.42	137
March	7.31	196	29.9	2.96	162
April	7.31	189	29	2.53	120
May	7.47	171	24	2.56	122
June	7.48	139	19.3	2.23	72.1
July	7.35	184	20.9	2.74	98.9
August	7.37	173	25.4	3.47	109
September	7.36	264	21.1	3.91	192
October	7.34	166	32.5	3.22	153
November	7.49	361	34.6	3.57	130
December	7.08	205	31.9	3.78	143

<sup>\*</sup>TSS – Total Suspended Solids – Suspended solids within the water column

Monthly Average Effluent Parameter Summary - 2024

	Effluent pH	Effluent TSS (mg/L)	Effluent TKN (mg/L)	Effluent N- NH <sub>4</sub> ` (mg/L)	Effluent Nitrate~ (mg/L)	Effluent Nitrite <sup>+</sup> (mg/)	Effluent OP* (mg/L)	Effluent TP (mg/L)	Effluent TBOD (mg/L)	Effluent CBOD^ (mg/L)
January	7.7	9.4	10.7	8.19	3.24	0.44	0.04	0.33	13.2	10.9
February	7.8	9.8	14.2	11.1	2.35	0.25	0.04	0.31	7.9	9
March	7.9	7.6	16.9	13.5	0.72	0.01	0.05	0.23	9.3	6.9
April	7.9	7.7	17.9	14.5	0.39	0.01	0.08	0.27	7.7	11.5
May	8.0	7.5	14.8	12.5	0.89	0.06	0.09	0.23	7.8	6.3
June	8.0	3.9	7.89	6.79	1.18	0.11	0.01	0.09	3.1	3.2
July	7.7	6.7	3.83	1.5	4.64	0.19	0.04	0.19	5.8	6
August	7.8	3	2.03	0.15	10.4	0.13	0.09	0.13	2.6	2.2
September	7.9	4.8	16.3	13.6	0.44	0.11	0.02	0.24	11.7	5.4
October	7.9	4.7	19.8	16.5	0.13	0.02	0.01	0.13	7.5	5
November	7.9	19	21.5	22	0.06	0.01	0.01	0.38	8.5	8.4
December (N. NIH4 Ammo)	7.8	11.8	17.7	17	0.25	0.05	0.01	0.21	5.5	9.6

<sup>&#</sup>x27;N-NH4 – Ammonium – Inorganic Nitorgen



<sup>+</sup>TKN – Total Kjeldahl Nitrogen – Total measurement of biological nitrogen

<sup>&#</sup>x27;TP – Total Phosphorous – Total measurement of phosphorous

<sup>`</sup>TBOD – Total Biological Oxygen Demand -The amount of oxygen required to completely oxidize organic compounds

<sup>~</sup>Nitrate - Nitrogen Based Compounds

<sup>+</sup>Nitrite - Intermediate product of oxidation of ammonia to nitrate

<sup>\*</sup>OP - Orthophosphate - Soluble Phosphate

<sup>^</sup>CBOD - Carbonaceous Oxygen Demand - The amount of oxygen required to completely oxidize carbonaceous and nitrogenous componentS

### **Microbiological Testing 2024**

	Number of Samples	E. Coli* Results  MPN/100ml  (min - max)	Maximum Monthly Geomean Limit MPN*/100ml	Exceedances of Limit
WWTP Effluent	59	0 – 185	200	None

<sup>\*</sup>E. Coli - Escherichia coli is a bacteria associated with human waste

**Toxicity Testing 2024** 

	Number of Samples	Pass/Fail	Exceedances of Limit
WWTP Effluent Trout Bioassay	1	Pass	None

### **Biosolids Disposal**

A total of 2968 tonnes of biosolids were disposed of at the Kenora Area landfill for the operating year of 2024. Biosolids are analyzed once per year for a wide range of parameters and the results can be found in Appendix A. Biosolids will continue to be hauled to the landfill for 2025.

### **Operational Compliance**

No inspection occurred in 2024 with the Ministry of Environment Conservation and Parks. Collected monitoring results for routine surveillance submitted to the Ministry did not exceed our operational ECA.

3 bypasses were recorded at the wastewater treatment facility with one related to a significant mechanical failure and subsequent flooding at the wastewater treatment plant which impacted operations and the process. The bypasses occurred on September 16<sup>th</sup>, October 28<sup>th</sup>, and November 14<sup>th</sup> with subsequent reported volumes of 4055m³, 555m³, 295m³ respectively. The by-pass reports and lab results for the three bypass events can be found in Appendix B.

No by-passes were recorded for collection system stations in 2024.

No complaints were received over the 2024 operational year.

### Maintenance Activities for 2024

Preventative maintenance activities were conducted which included service of the plant's two standby power generators, flow meter calibrations, and backflow preventor testing. Any deficiencies found through this process are addressed. A copy of those reports can be found in Appendix C.

Key maintenance activities included:

- Replacement of sludge dewatering belt and repair of mixing drum on the North Belt Filter Press
- Replacement of conveyor belts in the dewatering building
- UV Maintenance Bulb replacements and cleaning
- Preventative Maintenance and load testing of the standby generators
- Rebuild of Organic Return Pump
- Dewatering and Clean out of South Aeration Train
- Stand-by Generator Maintenance



<sup>\*</sup>MPN/100 mL - Most Probable Number of bacteria per 100 milliliters of water, Geomean - Geometric Mean of a dataset

### More Information or Questions

This report is available free of charge to anyone who requests a copy. An electronic copy is available on the City of Kenora website, and anyone wanting to be provided a paper copy can make arrangements to pick one up from the Wastewater Treatment Plant. Any inquiries or concerns or request for copies of this report can be directed to:

Bill Mundy C.E.T. General Manager of Utilities 807-467-2004 bmundy@kenora.ca www.kenora.ca



### Appendix A



# ALS Canada Ltd.



# CERTIFICATE OF ANALYSIS

Corporation of the City of Kenora Kenora Ontario Canada P9N 3X2 807 467 2099 Annual Sludge Cake Darryl Wilson 1 Main St. South TY2411864 Work Order Telephone Project Address Contact Client

Cassidy Young 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8 +1 519 886 6910 17-Oct-2024 08:37 19-Oct-2024 24-Oct-2024 16:17 Date Samples Received Date Analysis Commenced Laboratory Account Manager Telephone Issue Date Address

ALS Environmental - Waterloo

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

Kenora Spill 2024

No. of samples received No. of samples analysed

Quote number

C-O-C number

Sampler

 General Comments Analytical Results Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

aboratory Department	Metals, Saskatoon, Saskatchewan	Centralized Prep, Waterloo, Ontario	detals, Waterloo, Ontario
Laborator		0	
Position	Laboratory Supervisor	Supervisor - Inorganic	Supervisor - Inorganic
atories	Solby Bingham	t Kippenhuck	t Kippenhuck



: Corporation of the City of Kenora : Annual Sludge Cake : TY2411864 Work Order Project Client

# General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference. Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances. LOR: Limit of Reporting (detection limit).

Key:

Description	milligrams per kilogram	percent
Unit	mg/kg	%

<; less than.

>: greater than. Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Work Order : TY2411864
Client : Corporation of the City of Kenora
Project : Annual Sludge Cake

# Analytical Results

Sub-Matrix: Soil

Sub-Matrix: Soil			L					
(Matrix: Soil/Solid)		Client sample ID		Annual Sludge Cake Grab	I	ı	I	I
	Ch	Client sampling date / time		16-Oct-2024 11:00	1	1		1
Analyte CAS No	CAS Number Method/Lab/Accreditation	LOR	Unit	TY2411864-001		ı	1	-
				Result	1	ı	1	1
Physical Tests								
Solids, total [TS]	E157/WT	0.10	%	12.4			ı	Î
Metals								
Aluminum 7429	7429-90-5 E440/SK	50 m	mg/kg	46000	-		1	1
Antimony 7440	7440-36-0 E440/SK	0.10 m	mg/kg	1.62	I	ı	Ī	1
Arsenic 7440	7440-38-2 E440/SK	0.10 m	mg/kg	5.33	I	I	1	1
Barium 7440	7440-39-3 E440/SK	0.50 m	mg/kg	182	I	ı	1	1
Beryllium 7440	7440-41-7 E440/SK	0.10	mg/kg	0.10	I	I	ı	1
Bismuth 7440	7440-69-9 E440/SK	0.20 m	mg/kg	31.6	ı	I	ı	1
Boron 7440	7440-42-8 E440/SK	5.0	mg/kg	18.6	ı	I	-	1
Cadmium 7440	7440-43-9 E440/SK	0.020 mg	mg/kg	0.773	ı	I	I	1
Calcium 7440	7440-70-2 E440/SK		mg/kg	12400	I	ı	i	1
Chromium 7440	7440-47-3 E440/SK	0.50 mg	mg/kg	13.8	ı	I	l	I
Cobalt 7440	7440-48-4 E440/SK	0.10 mg	mg/kg	2.24	ı	ı	I	
Copper 7440	7440-50-8 E440/SK	0.50 mg	mg/kg	351	1	į	l	1
Iron 7439-	7439-89-6 E440/SK	20 mg	mg/kg	12000	1	ı	I	
Lead 7439-	7439-92-1 E440/SK	0.50 mg	mg/kg	16.3	ı	ı	ı	I
Lithium 7439-	7439-93-2 E440/SK	2.0 mg	mg/kg	2.6	I	1.	1	I
Magnesium 7439-	7439-95-4 E440/SK	20 mg	mg/kg	3420	ı	I	I	I
Manganese 7439-	7439-96-5 E440/SK	1.0 mg	mg/kg	393	1	I	ı	I
Mercury 7439-	7439-97-6 E510/WT	0.0050 mg	mg/kg	0.322		I	I	Ĭ
Molybdenum 7439-	7439-98-7 E440/SK	0.10 mg	mg/kg	6.32		I		1
		-	-	-		_	_	



: Corporation of the City of Kenora : Annual Sludge Cake : TY2411864 Work Order Project Client

### Analytical Results

I 1 1 1 1 1 1 1 1 1 1 I 16-Oct-2024 11:00 Annual Sludge Cake Grab TY2411864-001 1.30 2.06 26.3 0.065 8.66 99.6 512 6700 15.9 3780 55.2 23500 3.56 1.27 646 Result 13.6 mg/kg Unit Client sample ID Client sampling date 0.050 0.050 1.0 1000 0.20 2.0 0.10 0.50 0.50 2.0 1.0 0.50 100 0.20 20 20 LOR CAS Number Method/Lab/Accreditation 7440-31-5 E440/SK 7440-67-7 E440/SK 7440-28-0 E440/SK 7440-32-6 E440/SK 7440-33-7 E440/SK 7440-61-1 E440/SK 7440-62-2 E440/SK 7440-66-6 E440/SK 7704-34-9 E440/SK 7440-02-0 E440/SK 7723-14-0 E440/SK 7440-09-7 E440/SK 7782-49-2 E440/SK 7440-22-4 E440/SK 7440-23-5 E440/SK 7440-24-6 E440/SK Sub-Matrix: Soil (Matrix: Soil/Solid) Phosphorus Zirconium Vanadium Potassium Tungsten Strontium Titanium Uranium Selenium Thallium Sodium Sulfur Nickel Silver Metals Analyte Zinc ᆵ

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

### **Appendix B**





### WASTEWATER BYPASS EVENT REPORT

The purpose of this form is to report to the MECP and other stakeholders:

1) By-pass events that could potentially escalate and pose a risk to the environment

City of Kenora (COK) Wastewater Treat	ment Plant: ECA# 7682-7RMMVM			
Date of Event: 9/16/2024	Personnel Notified:			
Time of Event: 5:00 PM				
Bypass Duration (min): Unknown	<ul> <li>✓ MECP District Office: (807-468-2718)</li> <li>✓ Northwestern Health Unit (807-468-3147)</li> <li>□ Other: (specify)</li> </ul>			
Estimated Bypass Volume (m³): 4055	Stakeholders Notified:			
SAC Report #: 1-AWK3M3				
Level of Disinfection:				
<ul> <li>☐ Full Disinfection</li> <li>☐ Partial Disinfection</li> <li>☑ No Disinfection</li> <li>Samples Taken:</li> <li>☐ Composite</li> <li>☑ Grab</li> <li>☑ Lab Results Attached</li> </ul>	<ul> <li>☑ General Manager of Utilities</li> <li>☑ Director of Engineering and Infrastructure</li> <li>☐ Other (specify)</li> </ul>			
Description of Event				
Mechanical failure of screw pump system didn't notify operations that pumps had stopped, and redundant screw pump did not start as anticipated. No alarms generated from control system. 4055m³ of partially treated wastewater spilled overland into the Winnipeg River.				
Actions Taken				
	10a.m on September 17 <sup>th</sup> and restored the process. Full onsite clean-up in the Underground Services Department. SAC and Public Health were rest Nation.			
Observed Potential Adverse Effects On	The Environment			
Overland spillage into the River was clearly the raw sewage.	y noted by sludge buildup and garbage from what is typically found in			

Prepared by Chief Operator: Darry Wilson	Date: December 3, 2024
General Manger/Director Review By: Bill Mundy	
Submitted By: Bill Mundy	Time: 12:00

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Work Order TY2410463

Client Corporation of the City of Kenora

Project Spill



# Analytical Results

Sub-Matrix: Water			C	Client sample ID	Call Cample		CANAL C		
(Matrix: Water)			ç		Sewage	ı	ı	ļ	1
			Client samp	Client sampling date / time	17-Sep-2024		Ŀ	1	1
Analyte	CAS Number	Method/Lab	LOR	Unit	TY2410463-001	-	-	· ·	-
					Result	ı	1	1	1
Physical Tests									
Solids, total suspended [TSS]	— E160/TY	30/TY	3.0	mg/L	67.2	ĵ	1	1	1
Anions and Nutrients									
Phosphorus, total	7723-14-0 E372-U/TY	72-U/TY	0.0020	mg/L	1.16	l	1	I	1
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	E010/TY	IO/TY	د.	MPN/100mL	2190000	1	ı	Î	1
Aggregate Organics									
Biochemical oxygen demand [BOD]	E550/TY	50/TY	2.0	mg/L	49.9	I	I	1	1

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



### WASTEWATER BYPASS EVENT REPORT

The purpose of this form is to report to the MECP and other stakeholders:

1) By-pass events that could potentially escalate and pose a risk to the environment

City of Kenora (COK) Wastewater Treat	ment Plant: ECA# 7682-7RMMVM			
Date of Event: 10/28/2024	Personnel Notified:			
Time of Event: 12:20 PM	☑ Spills Action Center: (1-800-268-6060)			
Bypass Duration (min): 60 (12:20-13:20)	<ul><li>✓ MECP District Office: (807-468-2718)</li><li>✓ Northwestern Health Unit (807-468-3147)</li><li>☐ Other: (specify)</li></ul>			
Estimated Bypass Volume (m³): 555	Stakeholders Notified:			
SAC Report #: 1-CLQSTK				
Level of Disinfection:				
<ul> <li>☐ Full Disinfection</li> <li>☑ Partial Disinfection</li> <li>☐ No Disinfection</li> </ul>	<ul> <li>☑ General Manager of Utilities</li> <li>☑ Director of Engineering and Infrastructure</li> <li>☐ Other (specify)</li> </ul>			
Samples Taken:				
□ Composite □ Grab □ Lab Results Attached				
Description of Event				
	e and inspection, and during the drain down time, East clarifier in udge settleability. The clarifier started to discharge higher TSS then ng a check on draining status.			
Actions Taken				
West clarifier was immediately put back in discharge. Once the east clarifier had time notified, Northen Health Unit and local MEC	nto service, and East clarifier was isolated to prevent further solids to recover it was put back into service. Grab sample was taken, SAC CP office was notified.			

Observed Potential Adverse Effects On The Environment	
None, other than higher coloured discharge than normal. No sh	ore accumulation of materials.
Prepared by Chief Operator: Darryl Wilson	Date: December 3, 2024
General Manger/Director Review By: Bill Mundy	
Submitted By: Bill Mundy	Time: 12:00

Work Order : TY2412359
Client : Corporation of the City of Kenora
Project : Spill

# **Analytical Results**

Sub-Matrix: Water (Matrix: Water)			Client sample ID	mple ID	Spill Kit	ľ	ı	J	1
		(2)	Client sampling date /time	time	28-Oct-2024 13:45	1	1	ı	1
Analyte	CAS Number	CAS Number Method/Lab/Accreditation	LOR	Unit	TY2412359-001	1	1	I	I
					Result	1	1	I	1
Physical Tests								T-I SCHOOL	
Solids, total suspended [TSS]	1	— E160/TY	3.0	mg/L	2650	1	Ī	ı	1
Anions and Nutrients				Manie Marie					
Phosphorus, total	7723-14-0 E372-U/TY	E372-U/TY	0.0020	mg/L	44.5	1	1	1	Í
Microbiological Tests									
Coliforms, Escherichia coli [E. coli]	-	E010/TY	æ.	MPN/100 mL	2910000	1	1	1	1
Aggregate Organics								85	
Biochemical oxygen demand [BOD]	_1	E550/TY	2.0	mg/L	411	1	1	1	1

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.



### WASTEWATER BYPASS EVENT REPORT

The purpose of this form is to report to the MECP and other stakeholders:

1) By-pass events that could potentially escalate and pose a risk to the environment

City of Kenora (COK) Wastewater Treats	ment Plant: ECA# 7682-7RMMVM
Date of Event: 11/14/2024	Personnel Notified:
Time of Event: 12:00 PM	
Bypass Duration (min): 90 (12:00-13:30)	<ul><li></li></ul>
Estimated Bypass Volume (m³): 295	Stakeholders Notified:
SAC Report #: 1-E2R4H2	
Level of Disinfection:	
<ul> <li>☐ Full Disinfection</li> <li>☑ Partial Disinfection</li> <li>☐ No Disinfection</li> <li>Samples Taken:</li> <li>☐ Composite</li> <li>☑ Grab</li> <li>☒ Lab Results Attached</li> </ul>	<ul> <li>☑ General Manager of Utilities</li> <li>☑ Director of Engineering and Infrastructure</li> <li>☐ Other (specify)</li> </ul>
Description of Event	
distribution between the clarifiers and aera	ds during normal operation. Poor settleability of sludge and sludge tion tanks became unbalanced. This contributed to higher solids levels aused high TSS effluent discharge to occur.
Actions Taken	
Normal effluent conditions were restored by *Note – In the process of confirming the SA	AC# there was no record of it on file. It is unclear if it was added to the vas made. Bill Mundy got SAC to enter a new record for this specific

Observed Potential Adverse Effects On The Environment	
None, other than higher coloured discharge than normal. No shore accumula	tion of materials.
Prepared by Chief Operator: Darry Wilson	Date: December 3, 2024
General Manger/Director Review By: Bill Mundy	
Submitted By: Bill Mundy	Time: 12:00

### Analytical Results

Sub-Matrix: Water

Cub-Walter Avaler									
(Matrix: Water)			Client sample ID	imple ID	Final Effluent	1	1	-	I
			Client campling date	14:	201				
Analyte	CAS Number		Client sampling date / time	/ time	14-Nov-2024 13:00	1	1	1	
		Wed Od Lab	107	Unit	TY2413191-001	1	1		1
					Result	1			
Physical Tests									
Solids, total suspended ITSS1									
			3.0	mg/L	102	I	-	ı	-
Anions and Nutrients									
Phosphorus, total	7723-14-0 E372-U/TY	72-U/TY	0,0000	80/					
Microbiological Tests				, G	1.49	I	I	1	ı
Coliforms Escherichia coli IE coli									
	E010/11		د	MPN/100	1190	I	Ī	1	ſ
Aggregate Organics									
Biochemical oxygen demand [BOD]	E55	E550/TY	2.0	mg/L	23.0	-		-	
Please refer to the General Comments section for an audio-	for on overland:								

Please refer to the General Comments section for an explanation of any result qualifiers detected.

### **Appendix C**









### WO 20842

### **City of Kenora**

### **Wastewater Treatment Plant**

**Instruments Calibrations** 

Completed: August 30, 2024

By: Chris Foulds, Igor Riaboshapkin

Telephone: Fax:

1 (807) 623-7907







### Recommendations (including outstanding items):

N/A

Lakeside Process Controls 1165 Russell Street

Thunder Bay, Ontario Canada P7B 5M6 1 (807) 624-2791 1 (807) 623-7907

Telephone: Fax:







### Appendix 1





		Instruments	List	
#	Device Type	Tag Name	Cal. Status	Notes
		Kenora WW	TP	
1	Flowmeter	Kenora Bypass Effluent	Passed	
2	Flowmeter	Kenora Final Effluent	Passed	
3	Flowmeter	Kenora RWAS	Passed	
4	Flowmeter	Kenora Sewage Influent	Passed	
5	Flowmeter	Kenora Sultana Lift Flow	Passed	
6	Flowmeter	Kenora Crawford Lift Flow	Passed	
7	Flowmeter	Kenora 909 Flow	Passed	

Passed Instruments: 7

Failed Instruments: 0

**Total Verify Instruments: 7** 



### ANNUAL BACKFLOW DEVICE TEST REPORT FORM Date: Detail/24

Acct/Business Name:	(ity	of Kenor	a WWT	P		
Account Address:						
Account Number:			Meter Number:			
Device Name:	Watts RF	)	Model Number:		b	Well-and the second
Serial Number:				4 17	The same of the sa	
Device Location:	300	building	WWTP			
Tested by:	Ted	Building Rattai				
				Air-Inlet Valve	#1 Gate or Ball	#2 Gate or Ball
		Check No. 1	Check No. 2	or Relief Valve	(Circle One)	(Circle One)
	Test Before Repairs	(Mark One)  Leaked  Closed Tight  Diff Press _ 9 . 4	(Mark One)  Leaked  Closed Tight   Diff Press 5, 2	Opened at  2 · S lbs.  Differential  Pressure	(Mark One)  Leaked  Closed Tight	(Mark One)  Leaked  Closed Tight
	Repairs and New Materials					,
***	Test After Repairs	(Mark One)  Leaked  Closed Tight  Diff Press	(Mark One)  Leaked  Closed Tight  Diff Press	Opened atlbs. Differential Pressure	(Mark One)  Leaked  Closed Tight	(Mark One)  Leaked  Closed Tight
Above date certified to  Tester Signature:	4	n W		C	Certification Number:	23364
Company Name:	0	. & Company (Ke	nora) Ltd.			807-543-2493
Catergory:	*	General	LimitedX	Inspector Tester		
Method of Testing:		valve guar	ye	Test Kit Used:	TKAA	
Comments:	Military	, ,				
	n 16 -			- 14 -		
**Backflow Devices		Test PASSED: sted ANNUALLY.		Backflow Test	FAILED:	and the second s



### ANNUAL BACKFLOW DEVICE TEST REPORT FORM

Date: Del-18/24

Acct/Business Name:	Gity	of Ken	ora Wh	/TP		
Account Address:						
Account Number:			Meter Number:			
Device Name:	Watts 9	RP	Model Number:	MI QT	90%	
Serial Number:	427031		Size:	۵"		
Device Location:			nain offi	ie 500	Building	
Tested by:	Ted 1	Cattai				
		Check No. 1	Check No. 2	Air-Inlet Valve	#1 Gate or Ball (Circle One)	#2 Gate or Ball
		(Mark One)		or Kener valve		(Circle One)
	Test	(Iviai k Oile)	(Mark One)	Opened at	(Mark One)	(Mark One)
	Before	Leaked	Leaked	2 16 lbs.	Leaked	Leaked
	Repairs	Closed Tight J	Closed Tight	Differential	Closed Tight	Closed Tight
		Diff Press 6,8	Diff Press	Pressure		
	Repairs		1			
	and New		5.4			*
	Materials		J. 1			
		(Mark One)	(Mark One)		(Mark One)	(Mark One)
	Test			Opened at		
	After		Leaked	lbs.	Leaked	Leaked
	Repairs			Differential	Closed Tight	Closed Tight
		Diff Press	Diff Press	Pressure		
Above date certified to		2				
Tester Signature:	for y	X/		. с	ertification Number:	23064
Company Name:	A.K.	. & Company (Ke	nora) Ltd.	. Comp	pany Phone Number:	807-543-2493
		General		A PART OF A PART		
Method of Testing:	3	value que	ye.	Test Kit Used:	TKAA	
Comments:						
			4			
	Backflow 1	Test PASSED:		Backflow Test F	AILED:	
**Backflow Devices					-	



Phone: 1-877-854-0079 Fax: 905-712-7886

CSS.ContactUs@electricalsafety.on.ca

155 Matheson Blvd. West Mississauga, Ontario, L5R 3L5

### **Continuous Safety Services Report**

The following CSS report was created on 2024/01/24. The findings in this report were as a result of an audit of the electrical work done at your facility or a review of the outstanding electrical defects. The first section of the report outlines our current findings while the second section identifies all outstanding electrical defects. \*\* WITHIN 30 DAYS OF RECEIVING THIS REPORT, please notify your inspector of the correction status or the correction plan for all the electrical defects identified.

Customer Information	Site Information
CITY OF KENORA	SEWAGE TREATMENT PLANT
1 MAIN ST S KENORA, ON Attn: SHAUN CLIFFORD	18 SEWAGE PLANT RD KENORA, ON Attn:

Issue Date: 2024/01/24 Visit Contact: Cameron

Inspector Name: Brian Williams Inspector Cell #: 807-275-7658

Inspector Email: BRIAN.WILLIAMS@ELECTRICALSAFETY.ON.CA

### **Defects**

3

2024-01-24 Issue Date:

Rule Reference: 02-300 Maintain electrical equipment

Code Rule: OESC 2021 Rule 02-300 - Repair damaged wiring.

Defect Location: 700 Building (Press Room)

Defect #: 0003

Initial if corrected

**Defect Status:** Outstanding

Inspector Comments: THE CONDUIT SUPPLYING THE BELT CONVEYOR AT THE END OF THE PRESSES IS RUSTED OFF RIGHT AT THE CONCRETE. PLEASE REPAIR/ REPLACE AS NECESSARY.

Thank you for giving us the opportunity to help you improve the safety of your facility. Your attention to the defects identified in this report will ensure continued safety on your premises. Should you have any questions regarding the items listed in this report, please do not hesitate to contact us.

> Can your employees identify electrical hazards in the workplace? Do your electrical workers and maintenance staff understand the requirements of the OESC? ESA encourages supervisors and workers to continually improve their knowledge and follow safe work practices. Visit www.esasafe.com and choose "Safety and Technical Training" for dates and locations of workshops in your area or contact us at 1-877-854-0079.



Phone: 1-877-854-0079 Fax: 905-712-7886

CSS

CSS.ContactUs@electricalsafety.on.ca

155 Matheson Blvd, West Mississauga, Ontario, L5R 3L5

### **Outstanding Defect Summary Report**

The following list of defects are still outstanding from previous inspection visit(s). These items not only represent contraventions to the Ontario Electrical Safety Code but they also expose workers and employees to an electrical safety risk. As per Rule 2-018 of the Electrical Safety Code, all defects regardless of the risk factor assigned must be corrected as soon as possible. \*\* PLEASE NOTIFY YOUR INSPECTOR BY EMAIL WITHIN 30 DAYS OF RECEIVING THIS REPORT the correction status or the correction plan for the electrical defects listed below.

Customer Information	Site Information
CITY OF KENORA	SEWAGE TREATMENT PLANT
1 MAIN ST S KENORA, ON Attn: SHAUN CLIFFORD	18 SEWAGE PLANT RD KENORA, ON Attn:

**Outstanding Defects** 

There are currently no outstanding defects from previous visits. Please refer to the previous pages of this report to review any electrical deficiencies that were found on the most recent inspection visit.

### ANN UAL P M INSPECTION - LOAD TEST - ENGINE SERVICE INSPECTION ANNUEL - ESSAIS EN CHARGE - ENTRETIEN MOTEUR C282 SERIAL / Série: J090038659 CUSTOMER / Client: CITY OF KENORA + - 30954 SITE: SEWAGE PLANT RD 18 SEWAGE PLANT RD KENORA ON P9N 0C1 HRS START / Début: 185.5Hrs HRS FINISH / Fin: 188.2Hrs TECH. Name / Nom: Phil Aitken

	"S" Satisfactory / Satisfaisant "U" Unsatisfactory-see comments / Insatisfaisant-voir com	nmentaires "N" Not Applicable / Non Applicable
	ENGINE - LUBRICATING SYSTEM / Moteur - Système lubrification	COMMENTS / Commentaires
S	CHECK FOR LEAKS / Vérifier pour fuites	
S	CHECK LUBE OIL LEVEL AND PRESSURE / Vérifier Niveau et pression d'huile	
Ν	CHECK HYD./MEC GOVERNOR OIL LEVEL / Vér. Niveau d'huile du Gouverneur	
S	CHANGE FULL FLOW FILTER / Remplacer Filtre	
N	CHANGE BYPASS FILTER / Remplacer Filtre	
S	CHANGE LUBE OIL / Remplacer l'huile	
N	CHANGE HYD./MEC. GOVERNOR OIL / Remplacer l'huile du Gouverneur	
	ENGINE - FUEL SYSTEM / Moteur - Système carburation	COMMENTS / Commentaires
S	CHECK FOR LEAKS / Vérifier pour fuites	
S	CHECK GOVERNOR CONTROL LINKAGE / Vérifier les articulations de contrôle	
S	CHECK FUEL LINES AND CONNECTIONS / Vér. raccords et boyaux de carburant	
S	DRAIN WATER SEPARATORS / Vidanger les séparateurs	
N	DRAIN LPG OIL TRAPS / Vidanger l'huile des pièges "LPG"	
Ν	CHECK FUEL TRANSFER PUMP / Vérifier pompe de transfer de carburant	
S	CHECK DIESEL ENGINE PRIMER PUMP / Vér. pompe d'amorce	
S	CHANGE FUEL FILTERS / Remplacer filtres carburant	
N	CHECK DAY TANK SUPPLY FILTER (CLEAN) / Vér. Filtre res. journalier (Nett)	
S	CHANGE WATER SEPARATOR FILTER/ Remplacer Filtre séparateur d'eau	
N	VERIFY FUEL SUPPLY VALVE IS OPEN / Valve d'app. carburant ouverte	
N	DAY TANK LEVEL - write in comments / Niveau carburant réservoir journalier - inscrire	
S	MAIN TANK LEVEL - write in comments / Niveau carburant réservoir principale - inscrire	95% @ Beginning of test
S	PERFORM CLEAR & BRIGHT TEST / Test clarté PASS FAIL	
	ENGINE - AIR INTAKE SYSTEM / Moteur - Admission d'air	COMMENTS / Commentaires
S	CHECK FOR LEAKS / Vérifier pour fuite	
U	CHECK AIR CLEANER ELEMENT RESTRICTION / Vérifier restriction du filtre à air	Air Filter needs to be replaced
U	CHECK AIR CLEANER ELEMENT AND HOUSING / Vérifier. filtre à air et boitier	
S	CHECK ALL PIPING CONNECTIONS / Vérifier tuyautries et raccords	
S	CLEAN CRANKCASE BREATHER ELEMENT / Nettoyer filtre de reniflard	
	ENGINE - EXHAUST SYSTEM / Moteur - Système échappement	COMMENTS / Commentaires
S	CHECK FOR LEAKS / Vérifier pour fuites	
S	CHECK FOR DEBRIS AT EXHAUST OUTLET / Vérifier si débris à la sortie echap.	

### ANN UAL PM INSPECTION - LOAD TEST - ENGINE SERVICE INSPECTION ANNUEL - ESSAIS EN CHARGE C 282 CUST. / Client: CITY OF KENORA + - 30954 W-O / B-T # 207684 SITE: SEWAGE PLANT RD 18 SEWAGE PLANT RD KENORA ON P9N 0C1 DATE: 12JULY2024 HRS START / Début: 185.5Hrs HRS FINISH / Fin: 188.2Hrs TECH, Name / Nom: Phil Aitken "S" Satisfactory / Satisfaisant "U" Unsatisfactory-see comments / Insatisfaisant-voir commentaires "N" Not Applicable / Non Applicable ENGINE - COOLING SYSTEM / Moteur - Système refroidissement **COMMENTS / Commentaires** CHECK FOR COOLANT LEAKS / Vérifier pour fuite CHECK COOLANT LEVEL AND TEMPERATURE / Vér. niveau et Température CHECK COOLANT & ADDITIVE CONCENTRATION / Vér. densité - concentration DCA is below spec CHANGE COOLANT FILTER / Remplacer filtre antigel CHECK FAN HUB, DRIVE PULLEY AND WATER PUMP / Vér, poullie et pompe PERFORM VISUAL CHECK ON RADIATOR CAP / Insp. visual bouchon radiateur CHECK OPERATION OF COOLANT HEATER / Vér. chauffe antigel Coolant Heater needs to be replaced CHECK CONDITION OF HOSES AND CONNECTIONS / Vér. boyaux et raccords CHECK BELT CONDITION AND TENSION / Vér. condition et tension de la courroie CHECK HEAT EXC. CORROSIVE W. TREAT PLUGS / Vér. ZINC "plug" CHECK RADIATOR AIR RESTRICTION / Vérifier radiateur pour restriction d'air Radiator is plugged CHECK RADIATOR DUCT WORK AND FAN SHROUD / Vérifier Conduit & garde CHECK MOTOR OPERATED DAMPERS / Vérifier amortisseur de vibration ENGINE - ELECTRICAL SYSTEM / Moteur Systéme électrique COMMENTS / Commentaires INSP. BATT.ELECTROLYTE LEVEL & ADJUST / Vér. niveau électrolyte et ajuster Sealed. Cannot check PERFORM BATTERIY CRANK TEST / Effectuer test des batt, au démarrage 10.VDC DOCUMENT INSTALL DATE ON BATTERY / Documenter date installation des batt. No Date code visible.? INSPECT CHARGER ELECTRICAL CONNECTIONS FOR TIGHTNESS / CORROSION TEST CHARGER FOR PROPER OPERATION OF FLOAT AND EQUALIZE MODES 13.9VDC / 0.8A GENERATOR / Génératrice **COMMENTS / Commentaires** CHECK AIR INLET & OUTLET RESTRICTIONS / Vér. restric d'air entrée et sortie N GREASE BEARINGS PER OEM SPEC / Graisser roulement selon spec. fabriquant INSP. SURGE SURPRESSOR ROTATING RECTIFIER / Inspecter parasurtenseur CLEAN COMMUTATOR & SLIP RINGS / Nettoyer bague collectrice N INSPECT ROTOR & STATOR WINDINGS CONDITION / Inspecter l'enroulement INSPECT COUPLING BOLTS AND ALIGNMENT / Inspecter l'alignement INSPECT CONDUITS FOR TIGHTNESS / Inspecter les conduits INSPECT ALL ELECTRICAL CONNECTIONS / Inspecter toutes les conn. élec. UNDER FULL LOAD PERFORM INFRARED SURVEY /Pleine charge test infrarouge INSPECT BREAKERS FOR PROPER OPERATION / Disjoncteur conforme TEST VOLT. REGULATOR PROPER OPERATION / Reg. voltage conforme **ALARM TEST COMMENTS / Commentaires** LOW OIL PRES / Basse Press WARNING: SHUTDOWN: S

SHUTDOWN: S

SHUTDOWN: S

SHUTDOWN: S

SHUTDOWN:

HIGH ENG. TEMP / Haut temp

OVERCRANK / Surdémarrage

OVERSPEED / Survitesse

LOW ENG. TEMP / Basse temp

LOW COOL. LEVEL / Bas niveau WARNING:

WARNING:

WARNING:

WARNING:

WARNING:

### ANNUAL PM INSPECTION - LOAD TEST - ENGINE SERVICE C282



to the Law Court Court in Bulletin Court I	SECTION ASSESSMENT OF THE PARTY				
CUST./ Client:	ITY OF KENORA	+ - 30954		W-O / B-T #	207684
SITE:	SEWAGE PLANT	RD 18 SEWAGE PLANT	RD KENORA ON P9N 0C1	DATE:	12JULY2024
HRS START / Déb	ut: 185.5Hrs	HRS FINISH / Fin:	188.2Hrs	TECH. NAME / Nom:	Phil Aitken

PERFORMANCE														
VOLTS			AMPS							TE	TURE °C OR °F			
INTERVALS MINUTES	L1-2	L2-3	L3-1	L1	L2	L3	kW	Hz	Batt Volt	OIL PSI	OIL	COOLANT	ROOM	AMBIENT
No Load/	602V	602V	602V	0A	0A	0A	0Kw	60Hz	14.3VDC	80psi	114F	104F	N/A	25C
0	601V	601V	602V	48A	48A	48A	50Kw	60Hz	14.4VDC	72psi	145F	127F	ay a being	
5	600V	600V	600V	96A	96A	96A	100Kw	59.5Hz	14.2VDC	62psi	178F	175F	2,4,7	
10	600V	600V	600V	96A	96A	96A	100Kw	59.5Hz	14.2VDC	60psi	185F	184F	45	
15	600V	600V	600V	96A	96A	96A	100Kw	59.5Hz	14.2VDC	58psi	197F	192F		
30	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	51psi	225F	217F		Strategic program
45	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	54psi	212F	200F	E THE	
60	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	54psi	208F	199F	4.47	
75	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	54psi	208F	200F	Total I	
90	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	54psi	208F	201F	100	
105	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	54psi	208F	202F	at the state of	
120	600V	600V	600V	82A	82A	82A	85Kw	59.5Hz	14.2VDC	54psi	208F	202F		Professional State of the Profession of the Prof
ATS	602V	602V	602V	22A	23A	22A	24kw	60Hz	14.4VDC	62psi	185F	180F		

AUTO	D. TRANSFER SWITCH - under building load / Interrupteur transfert auto	COMMENTS / Commentaires
S	OPEN INSPECTION COVER - INSPECT ALL ELECTRICAL CONNECTIONS	
S	OPERATE ALL MOVING PARTS TO ENSURE THEY MOVE FREELY	
S	PERFORM INFRARED SURVEY	
S	TIME DELAY ON START (IN SECONDS)	3secs
S	TIME DELAY TRANSFER (15 secs MAX;10 secs MAX for Hospitals)	6secs
S	TIME DELAY RE-TRANSFER (IN SECONDS)	300secs
S	TIME DELAY STOP	600secs

	WRAP UP / Conclure	UNIT (Pass/Fail)	UNIT (Pass/Fail) / Unité (Réussi/Échoué)		
N	VERIFY DAY TANK PUMP IS ON / Pompe réservoir journalier on	PASSES C282	DESTRUCTION OF THE PROPERTY OF		
S	VERIFY CIRCUIT BREAKER IS CLOSED / Disjoncteur fermé	Réussis C282			
S	VERIFY BATTERY CHARGER IS ON / Chargeur batterie on				
S	VERIFY UNIT IS BACK IN AUTO / Unité placé en mode AUTO	FAILS C282	Water transferred		
S	PLACE TAG/STICKER ON UNIT / Installer étiquette sur l'unité	Échoué C282	2000年日,由1900年16日,1940年		

### **OTHER COMMENTS / Autre Commentaires**

Genset set marginally passed CSA282 testing requirements. The following deficiencies were found:

- Quin-Quennial Service is Due/Needed. Radiator core is plugged. During the Loadtest, the Load had to scaled back to 85% because the engine was going to overheat and shut down.
- -Coolant Heater has Failed. Element is "Open"
- -Space heater Trips breaker. Thermostat doesn't work

I state that the information on this form is correct at the time and place of my inspection, and that all equipment was tested in conformance with applicable codes and at this time was left in operational condition upon completion of this inspection, except as noted / Je déclare l'information sur ce formulaire sont exacts au moment et le lieu de mon inspection, et que tout le matériel a été testé en conformité avec les codes applicables et à ce moment a été laissé dans un état opérationnel à la fin de cette inspection, sauf indication contraire

PAtter			07/12/2024	12:00	
TECH. Signature	CERTIFICATION #	Permit / Permis #	DATE (MM/DD/YYyy)	TIME / Heure	OWNER-AUTHORIZED AGENT / Propriétaire - Agent auth.

### 

	"S" Satisfactory / Satisfaisant "U" Unsatisfactory-see comments / Insatisfaisant-voir comm	entaires "N" Not Applicable / Non Applicable
	ENGINE - LUBRICATING SYSTEM / Moteur - Système lubrification	COMMENTS / Commentaires
U	CHECK FOR LEAKS / Vérifier pour fuites	Several
S	CHECK LUBE OIL LEVEL AND PRESSURE / Vérifier Niveau et pression d'huile	
S	CHECK HYD./MEC GOVERNOR OIL LEVEL / Vér. Niveau d'huile du Gouverneur	
S	CHANGE FULL FLOW FILTER / Remplacer Filtre	
N	CHANGE BYPASS FILTER / Remplacer Filtre	
S	CHANGE LUBE OIL / Remplacer l'huile	
S	CHANGE HYD./MEC. GOVERNOR OIL / Remplacer l'huile du Gouverneur	
	ENGINE - FUEL SYSTEM / Moteur - Système carburation	COMMENTS / Commentaires
S	CHECK FOR LEAKS / Vérifier pour fuites	
S	CHECK GOVERNOR CONTROL LINKAGE / Vérifier les articulations de contrôle	
S	CHECK FUEL LINES AND CONNECTIONS / Vér. raccords et boyaux de carburant	
S	DRAIN WATER SEPARATORS / Vidanger les séparateurs	
N	DRAIN LPG OIL TRAPS / Vidanger l'huile des pièges "LPG"	
N	CHECK FUEL TRANSFER PUMP / Vérifier pompe de transfer de carburant	
S	CHECK DIESEL ENGINE PRIMER PUMP / Vér. pompe d'amorce	
S	CHANGE FUEL FILTERS / Remplacer filtres carburant	
N	CHECK DAY TANK SUPPLY FILTER (CLEAN) / Vér. Filtre res. journalier (Nett)	
S	CHANGE WATER SEPARATOR FILTER/ Remplacer Filtre séparateur d'eau	
S	VERIFY FUEL SUPPLY VALVE IS OPEN / Valve d'app. carburant ouverte	
N	DAY TANK LEVEL - write in comments / Niveau carburant réservoir journalier - inscrire	
S	MAIN TANK LEVEL - write in comments / Niveau carburant réservoir principale - inscrire	95% @Beginning of test
S	PERFORM CLEAR & BRIGHT TEST / Test clarté PASS FAIL	g.v.g
	ENGINE - AIR INTAKE SYSTEM / Moteur - Admission d'air	COMMENTS / Commentaires
S	CHECK FOR LEAKS / Vérifier pour fuite	The state of the s
S	CHECK AIR CLEANER ELEMENT RESTRICTION / Vérifier restriction du filtre à air	
S	CHECK AIR CLEANER ELEMENT AND HOUSING / Vérifier. filtre à air et boitier	
S	CHECK ALL PIPING CONNECTIONS / Vérifier tuyautries et raccords	
S	CLEAN CRANKCASE BREATHER ELEMENT / Nettoyer filtre de reniflard	
	ENGINE - EXHAUST SYSTEM / Moteur - Système échappement	COMMENTS / Commentaires
3	CHECK FOR LEAKS / Vérifier pour fuites	
S	CHECK FOR DEBRIS AT EXHAUST OUTLET / Vérifier si débris à la sortie echap.	

### ANNUAL PM INSPECTION - LOAD TEST - ENGINE SERVICE INSPECTION ANNUEL - ESSAIS EN CHARGE C 282 CUST. / Client: CITY OF KENORA + - 30954 W-O / B-T # 207694 SITE: SEWAGE PLANT RD 18 SEWAGE PLANT RD KENORA ON P9N 0C1 DATE: 11JULY2024 HRS START / Début: 810.4Hrs HRS FINISH / Fin: 812.7Hrs TECH. Name / Nom: Phil Aitken "S" Satisfactory / Satisfaisant "U" Unsatisfactory-see comments / Insatisfaisant-voir commentaires "N" Not Applicable / Non Applicable ENGINE - COOLING SYSTEM / Moteur - Système refroidissement **COMMENTS / Commentaires** CHECK FOR COOLANT LEAKS / Vérifier pour fuite 2 Leaks noticed, only while Genset is off. CHECK COOLANT LEVEL AND TEMPERATURE / Vér. niveau et Température CHECK COOLANT & ADDITIVE CONCENTRATION / Vér. densité - concentration CHANGE COOLANT FILTER / Remplacer filtre antigel CHECK FAN HUB, DRIVE PULLEY AND WATER PUMP / Vér. poullie et pompe PERFORM VISUAL CHECK ON RADIATOR CAP / Insp. visual bouchon radiateur CHECK OPERATION OF COOLANT HEATER / Vér. chauffe antigel 100F @ rest CHECK CONDITION OF HOSES AND CONNECTIONS / Vér. boyaux et raccords CHECK BELT CONDITION AND TENSION / Vér. condition et tension de la courroie CHECK HEAT EXC. CORROSIVE W. TREAT PLUGS / Vér. ZINC "plug" CHECK RADIATOR AIR RESTRICTION / Vérifier radiateur pour restriction d'air CHECK RADIATOR DUCT WORK AND FAN SHROUD / Vérifier Conduit & garde CHECK MOTOR OPERATED DAMPERS / Vérifier amortisseur de vibration Louver system isn't functional ENGINE - ELECTRICAL SYSTEM / Moteur Système électrique **COMMENTS / Commentaires** INSP. BATT.ELECTROLYTE LEVEL & ADJUST / Vér. niveau électrolyte et ajuster PERFORM BATTERIY CRANK TEST / Effectuer test des batt, au démarrage 8VDC DOCUMENT INSTALL DATE ON BATTERY / Documenter date installation des batt. 2022 INSPECT CHARGER ELECTRICAL CONNECTIONS FOR TIGHTNESS / CORROSION TEST CHARGER FOR PROPER OPERATION OF FLOAT AND EQUALIZE MODES S 13.3VDC/0.2A GENERATOR / Génératrice **COMMENTS / Commentaires** CHECK AIR INLET & OUTLET RESTRICTIONS / Vér. restric d'air entrée et sortie GREASE BEARINGS PER OEM SPEC / Graisser roulement selon spec. fabriquant INSP, SURGE SURPRESSOR ROTATING RECTIFIER / Inspecter parasurtenseur CLEAN COMMUTATOR & SLIP RINGS / Nettoyer bague collectrice INSPECT ROTOR & STATOR WINDINGS CONDITION / Inspecter l'enroulement INSPECT COUPLING BOLTS AND ALIGNMENT / Inspecter l'alignement INSPECT CONDUITS FOR TIGHTNESS / Inspecter les conduits INSPECT ALL ELECTRICAL CONNECTIONS / Inspecter toutes les conn. élec. UNDER FULL LOAD PERFORM INFRARED SURVEY /Pleine charge test infrarouge INSPECT BREAKERS FOR PROPER OPERATION / Disjoncteur conforme TEST VOLT, REGULATOR PROPER OPERATION / Reg. voltage conforme **ALARM TEST COMMENTS / Commentaires** LOW OIL PRES / Basse Press WARNING: SHUTDOWN: S HIGH ENG. TEMP / Haut temp WARNING: SHUTDOWN: S LOW ENG. TEMP / Basse temp WARNING: SHUTDOWN: OVERSPEED / Survitesse WARNING: SHUTDOWN: LOW COOL. LEVEL / Bas niveau WARNING: SHUTDOWN:

SHUTDOWN: S

OVERCRANK / Surdémarrage

WARNING:

### **ANNUAL PM INSPECTION - LOAD TEST - ENGINE SERVICE** C282 CUST./ Client: CITY OF KENORA W-O / B-T # + - 30954 207694 SITE SEWAGE PLANT RD 18 SEWAGE PLANT RD KENORA ON P9N 0C1 DATE 11JULY2024 HRS START / Début: 810.4Hrs HRS FINISH / Fin: 812.7Hrs TECH. NAME / Nom: Phil Aitken PERFORMANCE **VOLTS** AMPS TEMPERATURE °C OR °F **INTERVALS** L1-2 L2-3 L3-1 11 12 13 kW Hz Batt Volt OIL PSI OIL COOLANT ROOM **AMBIENT MINUTES** No Load/ 585V 585V 585V 0A 0A 0A 0Kw 60.2Hz 12.8VDC 55psi 120F 140F 78F 30C 0 585V 585V 585V 48A 48A 48A 50Kw 60Hz 12.9VDC 50psi 150F 165F 79F 5 577V 577V 577V 95A 95A 95A 100Kw 58.7Hz 13VDC 47psi 190F 170F 80F 10 577V 577V 577V 95A 95A 95A 100Kw 58.7Hz 13VDC 45psi 195F 170F 80F 15 577V 577V 577V 95A 95A 95A 13VDC 100Kw 58.7Hz 45psi 200F 175F 81F 30 579V 579V 579V 95A 95A 95A 100Kw 58.7Hz 13VDC 45psi 205F 175F 79F 45 579V 579V 579V 95A 95A 95A 100Kw 58.7Hz 13VDC 45psi 205F 175F 79F 60 579V 579V 579V 95A 95A 95A 100Kw 58.7Hz 13VDC 45psi 205F 175F 79F 75 95A 580V 580V 580V 95A 95A 100Kw 58.7Hz 13VDC 45psi 205F 175F 79F 90 580V 580V 95A 580V 95A 95A 100Kw 58.7Hz 13VDC 45psi 205F 175F 79F 105 580V 580V 580V 95A 95A 95A 100Kw 58.7Hz 13VDC 205F 45psi 175F 79F 120 580V 580V 580V 95A 95A 95A 100Kw 58.7Hz 13VDC 45psi 205F 175F 79F ATS 580V 580V 580V 50A 45A 50A 50Kw 59Hz 13.1VDC 48psi 180F 79F 170F AUTO. TRANSFER SWITCH - under building load / Interrupteur transfert auto **COMMENTS / Commentaires** OPEN INSPECTION COVER - INSPECT ALL ELECTRICAL CONNECTIONS OPERATE ALL MOVING PARTS TO ENSURE THEY MOVE FREELY PERFORM INFRARED SURVEY TIME DELAY ON START (IN SECONDS) TIME DELAY TRANSFER (15 secs MAX;10 secs MAX for Hospitals) TIME DELAY RE-TRANSFER (IN SECONDS) TIME DELAY STOP WRAP UP / Conclure UNIT (Pass/Fail) / Unité (Réussi/Échoué) VERIFY DAY TANK PUMP IS ON / Pompe réservoir journalier on N PASSES C282 VERIFY CIRCUIT BREAKER IS CLOSED / Disjoncteur fermé Réussis C282 S VERIFY BATTERY CHARGER IS ON / Chargeur batterie on S VERIFY UNIT IS BACK IN AUTO / Unité placé en mode AUTO **FAILS C282** S PLACE TAG/STICKER ON UNIT / Installer étiquette sur l'unité Échoué C282 **OTHER COMMENTS / Autre Commentaires** Genset DID NOT pass CSA282 testing requirements. \*\*Building LouverSystem is NOT functional. Genset could overheat if unmonitored in this condition\*\* The following deficiencies were found: Coolant Block Heater leaks while Genset is off. Coolant connector Boot to the Oil Cooler leaks while Genset is off. I state that the information on this form is correct at the time and place of my inspection, and that all equipment was tested in conformance with applicable codes and at this time was left in operational condition upon completion of this inspection, except as noted / Je déclare l'information sur ce formulaire sont exacts au moment et le lieu de mon inspection, et que tout le matériel a été testé en conformité avec les codes applicables et à ce moment a été laissé dans un état opérationnel à la fin de cette inspection, sauf indication contraire 07/11/2024 2:00pm

DATE

Permit / Permis #

**CERTIFICATION #** 

TECH, Signature

TIME / Heure OWNER-AUTHORIZED AGENT / Propriétaire - Agent auth.