

Espanola Water Pollution Control Plant

Annual Operating Report

ECA 2162-9NYL7Z
Issued September 22, 2014

January 1, 2018 – December 31, 2018

Prepared by the Ontario Clean Water Agency
For The Corporation of the Town of Espanola



SECTION 1: INTRODUCTION

The Ontario Clean Water Agency (OCWA) acts as the operating authority for the Espanola wastewater treatment. This document is prepared by OCWA in accordance with Environmental Compliance Approval (ECA) #2162-9NYL7Z. The report is required to include the following information:

- (i) A summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7, including an overview of the success and adequacy of the works;
- (ii) A description of any operation problems encountered and corrective actions taken;
- (iii) A summary of all maintenance carried out on any major structure, equipment apparatus, mechanism or thing forming part of the works;
- (iv) A summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (v) A summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- (vi) A description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;
- (vii) A tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;
- (viii) A summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (ix) A summary of all bypass, spill or abnormal discharge events; and
- (x) Any other information the Water Supervisor requires from time to time.

SECTION 2: Description of Facility

Capacity of Facility: 4,500 m³ / day (average flow)

Service Area: Town of Espanola

Service Population: 5,364

Effluent Receiver: Spanish River

Major Process: Extended Aeration

Facility Classification: Wastewater Class 2

Collection Classification:

SECTION 3: Executive Summary

Sampling parameters were **not exceeded** during the 2018 reporting period.

The total effluent discharge from the Sewage Treatment Plant for the year was **1,158,800m³**.

The total raw sewage flow into the Sewage Treatment Plant for the year was calculated to be **1,158,800m³**.



SECTION 4: Process Data

The facility operator collects grab samples of raw sewage and sends them to an accredited laboratory for analysis. Raw flows are calculated using flow meter values.

Raw (Influent) Sampling					
Parameter	Frequency	Method	Results		
			Min	Avg	Max
CBOD ₅ (mg/L)	Weekly	24hr Composite – External Analysis (Lab)	37	95.8	173
TSS (mg/L)	Weekly	24hr Composite – External Analysis (Lab)	40	129.8	250
TP (mg/L)	Weekly	24hr Composite – External Analysis (Lab)	0.72	1.96	3.3
TKN (mg/L)	Weekly	24hr Composite – External Analysis (Lab)	12	18.3	102
Alkalinity (mg/L as CaCO ₃)	Weekly	24hr Composite – External Analysis (Lab)	78	99.9	123
Flow (m ³ /d)	Daily	Flow meter	1,413	3,174.8	6,802

The facility operator collects effluent samples and sends them to an accredited laboratory for analysis. All samples are collected on a weekly basis. Depending on the parameter samples are collected by a composite sampler or by taking a grab sample.

Treated (Effluent) Sampling		
Parameter	Frequency	Method
CBOD ₅	Weekly	24hr Composite – External Analysis (Lab)
TSS	Weekly	24hr Composite – External Analysis (Lab)
TP	Weekly	24hr Composite – External Analysis (Lab)
TAN	Weekly	24hr Composite – External Analysis (Lab)
Nitrite	Weekly	24hr Composite – External Analysis (Lab)
Alkalinity	Weekly	24hr Composite – External Analysis (Lab)
E.Coli	Weekly	Grab – External Analysis (Lab)
pH	Weekly	Grab/Probe – External Analysis (Lab)
Temperature	Weekly	Grab/Probe – External Analysis (Lab)
Flow	Daily	Equal to Raw Flow Rate

Compliance limits are based on monthly discharges for effluent concentrations and effluent loadings. In addition, the effluent is essentially free of floating and settleable solids and does not contain oil or other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.



Treated (Effluent Discharge) Sampling										
Month	CBOD ₅		Suspended Solids		Total Phosphorus		TAN		pH	
	Avg. Eff	Avg. Load	Avg. Eff	Avg. Load	Avg. Eff	Avg. Load	Avg. Eff	Avg. Load	Monthly	Monthly
	mg/L	kg/d	mg/L	kg/d	mg/L	kg/d	mg/L	kg/d	Min	Max
January	2.25	7.27	3.25	10.49	0.08	0.258	0.225	0.767	6.87	6.91
February	4.5	14.2	4.5	14.2	0.088	0.277	2.68	8.43	6.87	7.20
March	5	17.4	5.2	18.08	0.086	0.299	3.16	10.99	6.36	7.01
April	3.25	14.7	4.25	19.23	0.07	0.317	4.85	21.94	6.90	7.1
May	2.6	10.05	5.2	21.1	0.082	0.317	5.26	20.34	6.91	7.05
June	5	16.28	8.75	28.49	0.15	0.488	3.25	10.58	6.43	6.94
July	3	9.36	5.25	16.38	0.108	0.337	1.55	4.84	6.49	6.64
August	2.4	6.93	4.4	12.71	0.05	0.144	0.2	0.144	6.53	6.70
September	2.25	5.85	2.25	5.85	0.043	0.112	0.65	1.69	6.51	6.62
October	2.25	6.14	4.25	11.59	0.04	0.109	1.25	3.41	6.48	6.75
November	2.4	6.13	4.6	11.75	0.096	0.245	4.04	10.32	6.42	6.94
December	3	8.14	4.25	11.53	0.103	0.279	1.5	4.07	6.38	6.58
Max	5	17.4	8.75	28.49	0.108	0.488	5.26	21.94		7.20
Average	3.15	10.2	4.69	15.12	0.08	0.265	2.44	8.13		
ECA Limit	25	112.5	25	112.5	1.0	4.5	10.0	45.0	6.0	9.5
ECA Objective	15	67.5	15	67.5	1.0	4.5	10.0	45.0	6.5	8.5

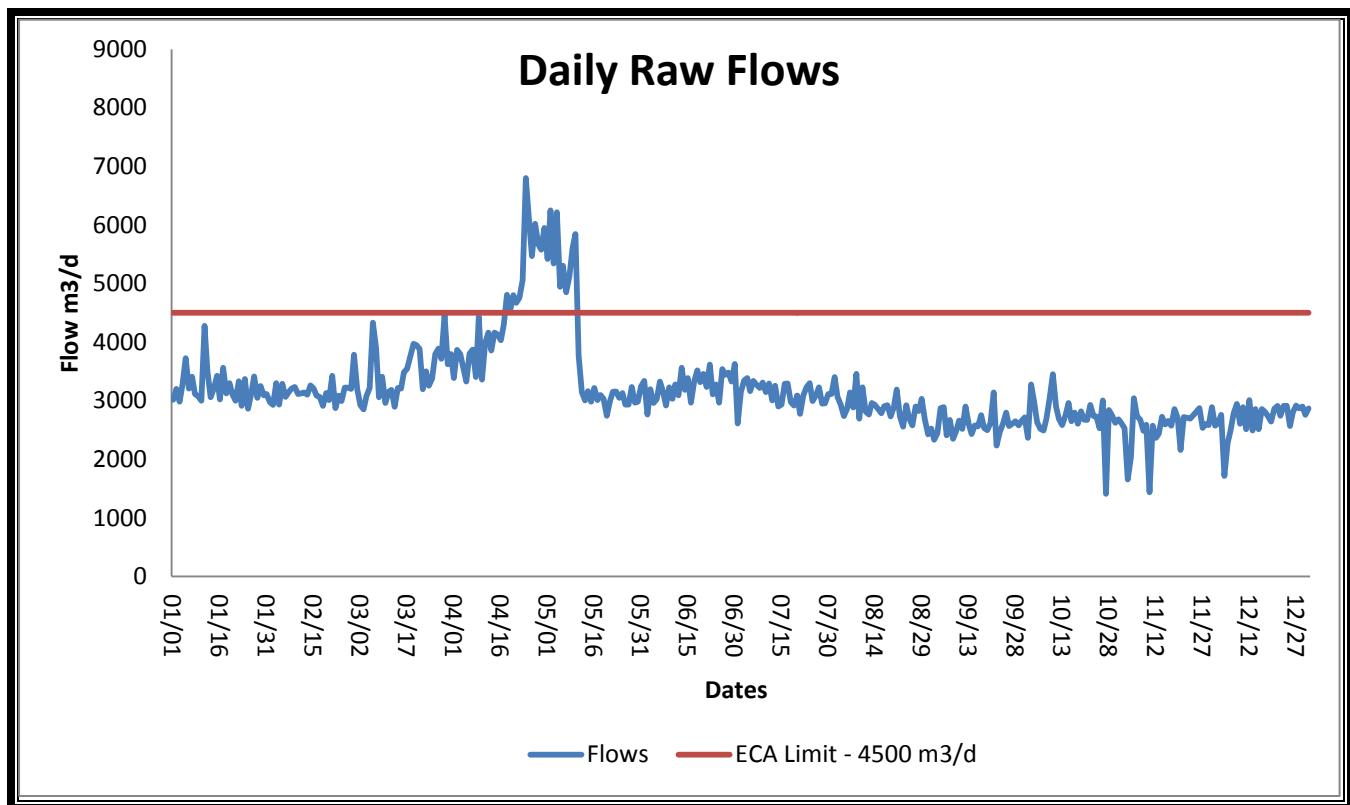
Additional Effluent Monitoring Samples								
Month	Nitrate		Alkalinity		*E.Coli		Temperature	
	Max	Avg	Max	Avg	Max	Avg	Max	Avg
January	9.17	7.84	25	23.25	164	6.02	7	6.75
February	9.07	5.35	66	38.25	16	4.76	6.5	6.5
March	4.41	2.60	64	56.20	90	22.38	7.5	6.83
April	2.77	2.08	62	59.50	34	14.07	9	8
May	6.29	3.75	70	57	14	7.09	9	9
June	6.25	5.28	58	45.25	3800	29.07	14.4	13.65
July	7.72	6.20	44	34.75	2	2	16.1	15.25
August	7.76	6.51	38	35.40	10	3.17	16.9	16.3
September	8.79	8.20	40	36	2	2	17.7	16.8
October	8.84	8.05	48	37.5	10	3.94	15.4	14.38
November	8.97	6.26	78	43.8	76	8.48	13.5	11.14
December	10.8	9.91	34	25.5	6	3.13	9.7	8.83

* E.coli average is calculated as a geometric mean



The raw and effluent parameters specified in the above tables are analyzed by SGS Lakefield Research, an accredited laboratory located in Lakefield, Ontario.

Flow Volumes				
Month	Total Volume (m ³)	Avg Daily Flow (m ³ /d)	Peak Daily Flow (m ³ /d)	Discharge Volumes (m ³)
January	100,131	3,230.03	4,279	100,131
February	88,064	3,145.14	3,789	88,064
March	107,828	3,478.32	4,467	107,828
April	135,726	4,524.2	6,802	135,726
May	119,848	3,866.06	6,251	119,848
June	97,667	3,255.57	3,630	97,667
July	96,744	3,120.77	3,388	96,744
August	89,520	2,887.74	3,457	89,520
September	77,952	2,598.4	3,141	77,952
October	84,547	2,727.32	3,453	84,547
November	76,654	2,555.13	3,046	76,654
December	84,119	2,713.52	3,010	84,119
Total	1,158,800			1,158,800
Average		3,174.79		
Maximum			6,802	





Year	Total Raw Sewage Flow m ³ /d	Avg Day Sewage Flow m ³ /d	Max Day Sewage Flow m ³ /d	Avg Day % of Rated Capacity 4,500 m ³ /d
2018	1,158,800	3,174.79	6,802	70.5%
2017	1,081,008	2,969.8	5,346	65.9%
2016	1,171,385	3,200.51	8,572	71%
2015	1,135,005	3,158	4,734	70%

The average flows measured into the sewage treatment plant did not exceed the specified average daily flow of 4500 m³/day in 2018.

The average daily flow for 2018 is 3,174.79/d which is approximately 70.5% of the rated capacity. The highest recorded peak flow occurred in April (6,802m³/d) and was approximately 151% of the average rated capacity, however the peak flow rate specified in the ECA is 12,300 m³/d. The highest recorded flow was 55.3% of the peak flow rating.

The total raw sewage flow into the Sewage Treatment Plant for the year was calculated to be 1,158,800m³.

The total effluent discharge from the Sewage Treatment Plant for the year was 1,158,800m³.

The average concentrations and loadings for the above parameters were well within the compliance and objective limits specified in the facility ECA. The operator did not observe a visible film, sheen, foam or discolouration on the receiving waters nor did he notice floating or settleable solids.

To ensure objective limits are met, in-house tests are conducted by licensed Operators using Standard Methods. The data generated from these tests are used to determine the treatment efficiency while maintaining process control. All in-house monitoring equipment is calibrated based on the manufacturers recommendations. In 2016, an online pH analyzer was also installed to better monitor the effluent pH.

SECTION 5: Facility Upsets & Non Compliances

During the 2018 year there were no spills, overflows or non compliances.

Minor callouts were mostly due to power failures. There were no process related callouts for the reporting period.



SECTION 6: Maintenance

Plant maintenance is monitored using a Work Management System (WMS). Effluent monitoring equipment was calibrated as required in 2018. Verification records are maintained on site and electronically on the OCWA Hub server. Maintenance and verification reports are attached as **Appendix A**. Major maintenance is listed in the table below.

Work Order	Completion Date	Comment
625723	17-Jan-18	Digester Supernatant Valve Replaced telescopic valve extension bearing assembly on North Digester supernatant valve.
663668	03-Apr-18	<i>Clarifier Repair</i> Replaced worn shaft and gear set on the upper drive of each clarifier
664788	29-May-18	<i>Clarifier Repair</i> Replaced a broken disconnect switch
701806	28-Aug-18	Clarifier #1 Main clarifier gearbox was damaged, gearbox was removed in order to rebuild
783294	13-Jun-18	<i>Digester Repair</i> Repaired a leaking backflow preventer by installed a new parts rebuild kit
821758		Bar Screen repair Green Frog called to repair the bar screen as it was out of alignment and could not be adjusted
863608	18-Dec-18	<i>Winkles Lift Station</i> Removed pump one and sent for repair. Reinstalled pump after it was repaired
899822	27-Sep-18	<i>Merrit St Lift Station</i> Removed pump #2 and sent to Xylem for repair

SECTION 7: Sludge

Volume of Sludge Hauled

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Volume (m ³)	0	41	611	155	299	280	490	331	280	680	280	480	3,927



Lab Results for Sludge Hauled

Parameter	2018 Average Concentration	2017 Average Concentration	2016 Concentration	2015 Concentration	2014 Concentration
BOD ₅	1,307.5	2,155.5			
Total Solids	16,675	14,858.1	15,862.5	22800	25400
Total Phosphorus	435	475.7	525	590	170
Total Ammonia			5.8	86.1	33
TKN	1,031.5	2,007.6			
Nitrite			<0.2	1.9	0.5
Nitrate			3.4	4.1	0.6
Arsenic	0.1	0.085	0.1	<0.1	<0.1
Cadmium	0.011	0.052	0.008	0.20	<0.005
Cobalt	0.073	1.56	0.071	0.07	0.01
Chromium	0.333	0.255	0.27	0.32	0.07
Copper	9.8	16.2	9	11	2.6
Mercury	0.01	5.42	0.009	0.038	0.004
Potassium	94	74.7	106	110	88
Molybdenum	0.128	40.96	0.12	0.07	<0.05
Nickel	0.628	0.629	0.64	0.72	0.18
Lead	0.325	0.32	0.31	0.5	<0.1
Selenium	0.1	0.1	<0.11	<0.1	<0.1
Zinc	7	6.03	5.7	6.8	1.4
Silver	0.3	0.04	0.095		
Aluminum	822.5	803.7	830		
Antimony	0.1	0.11	<0.11		
Bismuth	0.5	0.284	0.275		
Boron	0.3	0.239	0.27		
Manganese	60	50	58		
Tin	0.9	0.32	0.39		
Titanium	2.68	4.02	3.9		
Vanadium	0.218	0.22	0.19		

A total volume of 3,927m³ was removed from the Espanola WPCP in 2018 and was disposed of at the Kelly Lake Biosolids Facility. It is expected that the volume of sludge generated over the next reporting period will be equivalent to the volume generated in 2019.

Sludge is hauled by William Day Construction under ECA #A8911 and is disposed of at the Kelly Lake Biosolids Facility.



SECTION 8: Complaints

There were no community complaints in the [2018](#) reporting year

SECTION 9: Additional Information

A biosolids feasibility study was conducted in 2018 for the Town of Espanola. The Town would like to move towards becoming self-sufficient in processing their biosolids. The installation of Geotubes was a recommended solution at this phase as they can be expanded upon to meet future treatment options.

Additionally, OCWA identified the following future collection system upgrades. The Town should consider increasing the size of the force main at Wood St where the Espanola WTP discharges into, when wastewater flows are discharged from the WTP it could overwhelm the system. John St and Avery should also be considered for force main size upgrades. Higher flows are expected from the Merrit Lift Station with the new housing subdivision and the possible development of A&W.



Appendix A

Plant Maintenance

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
900702			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	APPR	9/1/18 12:00 AM			
788370			5740, Espanola WWTP	PM	Health and Safety	1	YEARS	Fire Protection System Inspection (1y) 5740	APPR	6/1/18 12:00 AM			
783733			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	APPR	6/1/18 12:00 AM			
1019037			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	APPR	12/1/18 12:00 AM			
702555			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	4/1/18 12:00 AM	4/18/18 08:50 AM	4/18/18 08:50 AM	-Health and safety inspection complete .
824686			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	APPR	7/1/18 12:00 AM			
744068			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	5/1/18 12:00 AM	5/7/18 01:02 PM	5/7/18 01:02 PM	-health and safety complete .
864131			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	8/1/18 12:00 AM	11/2/18 02:20 PM	11/2/18 02:20 PM	Merrit eye wash station -Cleaned and refilled Merrit street lift station eye wash unit.
581470			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:35 AM	1/17/18 10:35 AM	-health and safety inspection complete
584569			5740, Espanola WWTP	OPER	Health and Safety	1	YEARS	WHMIS/MSDS/NSF Review And Update (1y) 5740	APPR	1/1/18 12:00 AM			
665427			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	3/1/18 12:00 AM	3/26/18 09:42 AM	3/26/18 09:42 AM	-health and safety inspection complete
984071			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	APPR	11/1/18 12:00 AM			
629872			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	2/1/18 12:00 AM	2/13/18 11:15 AM	2/13/18 11:15 AM	-health and safety inspection complete .
942131			5740, Espanola WWTP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 5740	CLOSE	10/1/18 12:00 AM	10/29/18 02:07 PM	10/29/18 02:07 PM	-Purchased salt and sand and place it around the STP for winter. -Performed annual JHSC inspection this month, see report for details.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
956618			5740, Espanola WWTP	OPER	Health and Safety	1	YEARS	JHSC Inspection (1y) 5740	CLOSE	10/1/18 12:00 AM	10/26/18 02:49 PM	10/26/18 02:49 PM	-Annual JHSC inspection was performed on 10/26/2018, see report for details.
967205			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	10/1/18 12:00 AM			
652283			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	CLOSE	2/1/18 12:00 AM	4/4/18 10:24 AM	4/4/18 10:24 AM	-wiski completed
689478			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	CLOSE	3/1/18 12:00 AM	4/4/18 10:31 AM	4/4/18 10:31 AM	-wiski completed
612138			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	CLOSE	1/1/18 12:00 AM	2/5/18 11:11 AM	2/5/18 11:11 AM	-wiski complete
886158			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	8/1/18 12:00 AM			
848426			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	7/1/18 12:00 AM			
728711			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	CLOSE	4/1/18 12:00 AM	5/7/18 12:53 PM	5/7/18 12:53 PM	-wiski complete
1041490			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	12/1/18 12:00 AM			
808368			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	6/1/18 12:00 AM			
768671			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	5/1/18 12:00 AM			
1005016			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	COMP	11/1/18 12:00 AM	12/18/18 01:20 PM	12/18/18 01:20 PM	
924683			5740, Espanola WWTP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 5740	APPR	9/1/18 12:00 AM			
583828			5740, Espanola WWTP	OPER	Compliance	1	YEARS	Non-Routine Sampling (1y) 5740	APPR	1/1/18 12:00 AM			December monthly digester sampling -Monthly digester sample was taken on 12/20/2018 for metals analysis out of South digester.
666375	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	3/1/18 12:00 AM	3/19/18 09:29 AM	3/19/18 09:29 AM	-Cleaned uv lights and ordered new sensor .
784905	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	APPR	6/1/18 12:00 AM			

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
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Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
901606	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	APPR	9/1/18 12:00 AM			
582958	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	1/1/18 12:00 AM	1/8/18 12:42 PM	1/8/18 12:42 PM	-UV check and cleaning complete . UVI at 80% will look into it further .
865107	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	APPR	8/1/18 12:00 AM			
825972	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	APPR	7/1/18 12:00 AM			
703645	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	4/1/18 12:00 AM	4/18/18 08:54 AM	4/18/18 08:54 AM	-Uv check and cleaning complete .
745074	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	5/1/18 12:00 AM	5/7/18 01:04 PM	5/7/18 01:04 PM	-UV check complete and cleaned .
1020004	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	COMP	12/1/18 12:00 AM	1/9/19 05:00 PM	1/9/19 05:00 PM	-Cleaned all sleeves, changed one UV bulb, cleaned UV channel and weirs. checked wipers,
783684		5740, Espanola WWTP		PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	APPR	6/1/18 12:00 AM			
783729		5740, Espanola WWTP		PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	6/1/18 12:00 AM			
1018996		5740, Espanola WWTP		PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	COMP	12/1/18 12:00 AM	12/11/18 12:58 PM	12/11/18 12:58 PM	-Checked for noises or more than usual odors during plant check. Blower #1 will need a belt replacement or adjustment. Noise coming from within blower. Both blowers are due for an oil change soon. No other noises detected in plant. Oil levels in both clarifiers are good. All valves are greased where applicable. Ventilation and shrouds all work and are clear of obstructions.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
1019033			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	12/1/18 12:00 AM			
700989			Espanola Wastewater Treatment Plant	CAP	Inspection	0		#1 Clarifier - Espanola Sewage Treatment Plant	CLOSE		3/7/18 04:00 PM	3/7/18 06:00 PM	#1 Clarifier - Espanola Sewage Treatment Plant -Pumping out clarifier to expose scraper arms.
811123			5740, Espanola WWTP	PM	Inspection	1	YEARS	Lifting Equipment Inspection (1y) 5740	COMP	6/1/18 12:00 AM	1/11/19 10:36 AM	1/11/19 10:36 AM	-Inspections for the year 2018 were completed in January or 2019.
900661			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	APPR	9/1/18 12:00 AM			
900698			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	9/1/18 12:00 AM			
785193			5740, Espanola WWTP	PM	Inspection	1	YEARS	Lifting Equipment Inspection (1y) 5740	COMP	6/1/18 12:00 AM	1/11/19 10:37 AM	1/11/19 10:37 AM	-Inspections for the year 2018 were completed in January or 2019.
730426	0000294009	5740 Espanola Confined Space Trailer	5740, Espanola WWTP	OPER	Inspection	3	MONTHS	5740 Espanola Confined Space Trailer Inspection	APPR	4/1/18 12:00 AM			
744027			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	CLOSE	5/1/18 12:00 AM	5/7/18 01:01 PM	5/7/18 01:01 PM	-inspection complete .
744064			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	5/1/18 12:00 AM			
850286	0000294009	5740 Espanola Confined Space Trailer	5740, Espanola WWTP	OPER	Inspection	3	MONTHS	5740 Espanola Confined Space Trailer Inspection	APPR	7/1/18 12:00 AM			
702511			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	CLOSE	4/1/18 12:00 AM	5/1/18 08:42 AM	5/1/18 08:42 AM	-Cleaned diffusers in north digester . All diffusers working very good . Inspection complete .
702551			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	CLOSE	4/1/18 12:00 AM	5/1/18 08:44 AM	5/1/18 08:44 AM	-Alarm testing complete and working well .
824682			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	7/1/18 12:00 AM			
864090			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	APPR	8/1/18 12:00 AM			

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
864127			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	8/1/18 12:00 AM			
1016180		Espanola Wastewater Treatment Plant		CORR	Inspection	0		5740 Espanola WWTP Power logger on BLowers	CLOSE	11/30/18 02:02 PM	11/30/18 02:02 PM		power logger install - Oct 31 2018 installed power logger to measure efficiency of 3 blowers. power logger removal - Nov 22 2018 removed power monitors. no cables supplied for data transfer downloaded data from 1 logger because I had the same required usb cable, the other had a connector that I did not have... attempted to modify a cable I have but was starting to damage the connector so I packaged up the loggers and brought them to the office so they could be shipped back.
860967			5740, Bois St. Sewage Pumping Station	CALL	Inspection	0		5740, Bois St. Sewage Pumping Station	CLOSE	7/11/18 05:12 AM	7/11/18 09:12 AM		-Received a high level alarm call from True Steel at 5:12pm. Went to pumping station and levels had returned to normal and things were ok.
824642			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	APPR	7/1/18 12:00 AM			

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
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				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
582405			5740, Espanola WWTP	OPER	Inspection	1	YEARS	Daily O&M Activities (1y) 5740	APPR	1/1/18 12:00 AM			bar screen troubleshooting - May 3 2018 asked to inspect the bar screen controls. SCADA auto/hand selector not working. tested bar screen auto control and system works ok. overflow was caused by too much incoming flow and plant could not keep up. question was asked why the bar screen did not turn on with high water: the level on the incoming and outgoing side were the same so the bar screen controls are set to not operate unless there is more than 6" of difference... system ok. May 14 2018 - Shop clean-up labeled Clarifier disconnect looked at replacing Dissolved oxygen system may 16 2018 - purchased cleaning products from home hardware. cleaned washing machine, repaired lighting over work bench. cleaned shop. friday may 25 -purchased fuses at Nedco in order to troubleshooting sump pump starter panelin RAS pump room. may 28 2018 -tested for electrical shorts, installed fuse and powered up panel, balsted drains near ras pumps and filled sump with water to test float functions... panel working ok.. informed operator.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
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Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													may 24 2018 - shop clean-up troubleshoot basement/Ras pump room sump pump. July 6 2018 -sludge building sump pump controls troubleshooting/repair. Sept 12 2018 - asked by operator to inspect high level alarm at Bois st. met operator at the site and observed him operate the high level float and generate an alarm on the panel and a call shortly after from the call center. watched operator do the test twice more and get the alarm from True Steel. alarm system ok. CL2 analyzer - Dec 10 2018 asked by manager to fix CL2 analyzer trending issue. worked on analyzer for about 2 hours going through programming/wiring when operator stopped in that reported the issue. he told me the issue had been repaired... cleaned up area.. system ok.
612996	0000294009	5740 Espanola Confined Space Trailer	5740, Espanola WWTP	OPER	Inspection	3	MONTHS	5740 Espanola Confined Space Trailer Inspection	APPR	1/1/18 12:00 AM			
665423			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	CLOSE	3/1/18 12:00 AM	4/4/18 10:26 AM	4/4/18 10:26 AM	-all alarms tested and working well .
581426			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:32 AM	1/17/18 10:32 AM	-Inspection and maintenance complete . Grit vortex needs a new mechanical seal . Will get quote for a new one .

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
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 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
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				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
581466			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:34 AM	1/17/18 10:34 AM	-Alarm testing complete and working well .
670025			5740, Espanola WWTP	PM	Inspection	1	YEARS	Electrical Equipment Inspection/Service (1y) 5740 Espanola WWTP	APPR	3/1/18 12:00 AM			
665386			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	CLOSE	3/1/18 12:00 AM	3/19/18 09:32 AM	3/19/18 09:32 AM	-Maintenance inspection complete . Clarifier 1 still out of service . South digester drained and began cleaning diffusers .
629831			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	CLOSE	2/1/18 12:00 AM	2/20/18 11:41 AM	2/20/18 11:41 AM	-gear in clarifier #1 is broken . Part has bin ordered .
629868			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	CLOSE	2/1/18 12:00 AM	2/20/18 11:43 AM	2/20/18 11:43 AM	-alarm testing complete and working well .
970821	0000294009	5740 Espanola Confined Space Trailer	5740, Espanola WWTP	OPER	Inspection	3	MONTHS	5740 Espanola Confined Space Trailer Inspection	APPR	10/1/18 12:00 AM			
984030			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	APPR	11/1/18 12:00 AM			
984067			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	11/1/18 12:00 AM			
942087			5740, Espanola WWTP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 5740	CLOSE	10/1/18 12:00 AM	10/25/18 02:00 PM	10/25/18 02:00 PM	-Sump pumps in RAS pump room and digester room were run in manual and auto . Both pump good with floats working.
942127			5740, Espanola WWTP	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 5740	APPR	10/1/18 12:00 AM			
943228	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	10/1/18 12:00 AM	10/25/18 01:48 PM	10/25/18 01:48 PM	-UV lights and tubes all checked and cleaned. lubed wipers, channel and weirs cleaned. Fully operational with no issues
985028	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	11/1/18 12:00 AM	12/4/18 03:50 PM	12/4/18 03:50 PM	-Inspected and cleaned UV system. Flushed and filled lubricators for wipers.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
630823	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Inspection	1	MONTHS	UV Light Reactor Check (1m) 5740	CLOSE	2/1/18 12:00 AM	2/13/18 11:18 AM	2/13/18 11:18 AM	-Uv check complete . uvi still at 80% . New sensor will be ordered .
971033	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	APPR	10/1/18 12:00 AM			
653167	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	CLOSE	2/1/18 12:00 AM	2/13/18 11:19 AM	2/13/18 11:19 AM	-vehicle inspection complete .
690373	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	CLOSE	3/1/18 12:00 AM	3/26/18 09:44 AM	3/26/18 09:44 AM	-vehicle inspection complete
613286	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	CLOSE	1/1/18 12:00 AM	1/8/18 12:44 PM	1/8/18 12:44 PM	-inspection complete
888728	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	APPR	8/1/18 12:00 AM			
850502	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	APPR	7/1/18 12:00 AM			
730640	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	CLOSE	4/1/18 12:00 AM	4/24/18 08:18 AM	4/24/18 08:18 AM	-Vehicle inspection complete .

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
770404	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	CLOSE	5/1/18 12:00 AM	5/7/18 01:05 PM	5/7/18 01:05 PM	-vehicle inspection complete
1007929	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	COMP	11/1/18 12:00 AM	1/9/19 05:14 PM	1/9/19 05:14 PM	-Completed all weekly checklists and submitted
1044248	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	COMP	12/1/18 12:00 AM	1/9/19 05:16 PM	1/9/19 05:16 PM	Truck check -all weekly checklists completed and submitted.
811923	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	APPR	6/1/18 12:00 AM			
928287	0000259049	VEHICLE CHEV SILVER AJ81033 #215022 CHRIS MASSICOTTE	5740, Espanola WWTP, Facilities, Vehicles, Cranes, Hoists, Elevators, Fork Lifts, Tow Motors	PM	Inspection	1	MONTHS	Vehicle Chev Silver AJ81033 Inspect (1m)	CLOSE	9/1/18 12:00 AM	10/17/18 08:20 PM	10/17/18 08:20 PM	-All weekly inspections done and handed in at office. Truck has no issue
701963		Espanola Wastewater Treatment Plant		PM	Predictive Maintenance	0		5740 sensor for uv lights	COMP		1/23/19 01:53 PM	1/23/19 01:53 PM	-Completed by Jon McDonald. perhaps a duplicate work order?

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

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664788		Espanola Wastewater Treatment Plant		CORR	Refurbish/Replace/Repair	0		5740 Espanola WWTP repair/replace clarifier disconnect switch.	CLOSE	5/29/18 11:14 AM	5/29/18 11:14 AM		<p>disconnect switch assesment</p> <ul style="list-style-type: none"> - switch on the disconnect is broken. switch is obsolete and will have to be replaced... no parts available. switch replacement - Feb 28 2018 • purchased and replaced broken disconnect switch • plugged open holes and removed old wiring from junction box. • installed JB on conduit feeding disconnect so feed would be legally/properly wired. • used the following and will have to order to replace: hole fillers x3, strut, 1/4 and 3/8' bolts and washers/spring nuts, teck connectors, 14/3 teck. • re- used most of the materials but some had to be replaced, some damaged and some worn or damaged. <p>assisted</p> <ul style="list-style-type: none"> - Feb 28,2018 assisted Kevin with getting the clarifier back online. materials ordered - ordered materials for this job on wo#701806 by accident. this WO 664788 and 701806 are for the same job anyway.

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Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
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Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
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626490		Espanola Wastewater Treatment Plant		CORR	Refurbish/Replace/Repair	0		5740 Espanola WWTP ESADeficiencies 2017	COMP	2/26/19 01:13 PM	2/26/19 01:13 PM		work order created - Jan 8 2017 created work order and attached ESA report work complete - GFI's repaired/installed on separate work order. wire near flygt panel is an old disconnected UPS, ESA has agreed it is no longer a harm so I will remove and dispose of it.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
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741167		Espanola Wastewater Treatment Plant		CORR	Refurbish/Replace/Repair	0		5740 Espanola WWTP Effluent PH probe repair	CLOSE	5/29/18 11:45 AM	5/29/18 11:45 AM		<p>inspection</p> <ul style="list-style-type: none"> - April 6 2018 asked to inspect probe because readings would randomly jump to 14ph on SCADA. • after extensive cleaning and inspection Endress Hauser was contacted for assistance, turns out Ph probe is damaged and needs replaced. received a quote for a new unit from NorTech and placed order. will schedule to replace the probe when new one arrives. • cleaning the probe is very difficult, since the probe has to be cleaned weekly or more I suggested making up a bracket on a swivel so cleaning would be much easier and hopefully prevent future damage to the new probe. I will follow up with manager on this subject. <p>May 14 2018</p> <p>-worked on fabricating Effluent Ph Probe bracket.</p> <p>May 15 2018</p> <p>-worked on fabricating/installing Effluent Ph Probe bracket.</p> <p>May 16 2018</p> <ul style="list-style-type: none"> - worked on fabricating/replacing/installing/calibrating Effluent Ph Probe bracket.... used calibrating solution taken from Water treatment plant.. informed operator. PH probe working ok.. bracket ok.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
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													materials - purchased aluminum from Nickel City Steel Limited. purchased new Ph Probe from NorTech used hardware from stock i.e. fastners/tools.
783294	0000258522	VALVE BACKFLOW DIGESTER ROOM ESPANOLA WWTP	Espanola Wastewater Treatment Plant	CORR	Refurbish/Replace/Repair	0		5740 Espanola STP Digester Backflow Repair	CLOSE	6/13/18 06:36 PM	6/13/18 06:36 PM		5740 Espanola STP Digester Backflow Repair -Inspected Backflow for leakage at Relief valve. Disassembled valve and cleaned. Reassembled and tested but still dripping. Ordered a new rebuild kit 5740 Espanola STP Digester Backflow Repair -Disassembled Valve and installed new parts rebuild kit. tested OK
821392	0000143081	CONVEYOR SCREW GRIT	Espanola Wastewater Treatment Plant	CORR	Refurbish/Replace/Repair	0		5740 Espanola STP Grit Auger Gland Seal	APPR				5740 Espanola STP Grit Auger Gland Seal -Quote and order new gland Packing for shaft seal on grit auger
859801		5740, Industrial Park Sewage Pumping Station		CALL	Refurbish/Replace/Repair	0		5740, Industrial Park Sewage Pumping Station, AC POWER LOSS ALARM	CLOSE	7/1/18 07:20 AM	7/1/18 11:20 AM		-Called in at 07:20 for AC POWER LOSS by True Steel. Arrived at 07:50. There was no issues. Checked Wet Well all good. Checked all UPS systems....all good.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
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WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
821105		5740, Industrial Park Sewage Pumping Station		CORR	Refurbish/Replace/Repair	0		5740 Espanola WWTP Penache lake rd pump station troubleshooting/Repair.	CLOSE	11/16/18 02:14 PM	11/16/18 02:14 PM		troubleshooting/Repair. - Lift station is not working properly. arrived on site and found the level senor circuit to be not wired properly.. fixed that issue so the station could run automatically. found the high level float in a bad location directly underneath the grating so it was not able to activate when the water got high... lowered float so it could function properly. found many relays pulled/ disabled so will have to schedule time to go back and repair the issues in the panel. will look at adding tank level, pump run, high level etc. to Outpost for trending and remote monitoring. date for above log -date for work done on log "6/5/18 10:56:20" was Monday May 28 2018. troubleshooting/repair. - June 7 2018 asked to inspect why the station is not communicating. power supply failed.. replaced with one from stock. worked with RICK on getting Data back on wonderware... require addition materials to get level indication on SCADA.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
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				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
													level indication - July 6 2018 after talking with the manufacturer and Rick Hebert we decided to install a loop splitter to solve the issue. Rick mailed a loop splitter and installed but readings were not matching from local display to wonderware. scheduled a time to go back with help from tech support to solve the problem. troubleshooting - July 9 2018 arrived onsite and cleaned up wiring. talked with several people on finding a solution. Dale Barker tried offsetting the span to get the numbers to match up but had no success. Dale mentioned he would have to come back to it with some math and get this set up properly. I grabbed the program from the SCADApack and sent to him for inspection. loop splitter wiring cleaned up and station cleaned up. - system repaired...ok. completed work order.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
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WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
860053		5740, Merrit Sewage Pumping Station		CORR	Refurbish/Replace/Repair	0		Espanola WWTP Merrit SLS level control repair	CLOSE	9/18/18 08:13 PM	9/18/18 08:13 PM		inspection/repair - July 5 2018 stopped in first thing in the morning to follow up on work done to the drives and level control. noticed pump#2 was set to off and pump#1 cycling about every 30 seconds. immediately organized a crew and confined space entry to inspect what was going on. had to find items loaned to the town from the confined space trailer in order to do the work.. after locating materials and setting up operator went in and cleaned up the floats that were tangled and covered in fat/grease. level control worked ok after cleaning. informed manager that well requires cleaning ASAP.

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
823395			5740, Merrit Sewage Pumping Station	CALL	Refurbish/Replace/Repair	0		5740, Merrit Sewage Pumping Station	CLOSE	6/20/18 12:15 PM	6/21/18 07:15 PM		<p>-Called at 11:12 June 20 for High level alarm at Merrit pumping station. Problems with both pumps and level in wetwell.</p> <p>-OT hours after call back period.</p> <p>5740, Merrit Sewage Pumping Station</p> <p>-Called onsite June 21. Pump trucks on site. pulled Pump #1 checked for obstruction, none found. reinstalled pump tested ok, Pump was airlocked. Pulled pump #2 up off of base and retested, this pump is pumping but not to its potential. Pump will need to be lifted out and inspected, lifting chain is broken and will need repair,</p> <p>- Assisted On Call operator Bill Hansson as High Level alarm and actual high level issues forced him to call me for help @ 02:20 am.</p> <p>I then assisted onsite from 08:00 till 19:30. Pump # 1 was pulled and checked. Pump operated fine. No obstructions. Pump # 1 was evaluated to be air locked. Once reseated it pumped without issue.</p>
943201	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	CLOSE	10/1/18 12:00 AM	10/25/18 01:54 PM	10/25/18 01:54 PM	<p>-Ran generator for an hour, all fluids at good levels and running temperatures proper. Battery good. Air filter good. Fuel level at 23cms.</p>

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
985007	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	CLOSE	11/1/18 12:00 AM	11/8/18 12:53 PM	11/8/18 12:53 PM	-All fluids good. Ran for approximately an hour. No noises and operating temperatures were god. Fuel tank at 22cms. Coolant heater working good. Air flow system good.
630802	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	CLOSE	2/1/18 12:00 AM	2/20/18 11:51 AM	2/20/18 11:51 AM	-Generator test complete and working well .
666348	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	CLOSE	3/1/18 12:00 AM	3/19/18 09:28 AM	3/19/18 09:28 AM	-Generator test complete and working well .
582925	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:41 AM	1/17/18 10:41 AM	-Generator test complete and working well .
865086	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	APPR	8/1/18 12:00 AM			
901585	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	APPR	9/1/18 12:00 AM			
825949	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	APPR	7/1/18 12:00 AM			
703620	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	CLOSE	4/1/18 12:00 AM	5/1/18 08:52 AM	5/1/18 08:52 AM	-inspection complete . generator running well .
745050	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	APPR	5/1/18 12:00 AM			
1019983	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	COMP	12/1/18 12:00 AM	12/11/18 12:48 PM	12/11/18 12:48 PM	-Ran generator for almost an hour. No leaks detected. Coolant heater all good. Fluid levels good. Pressures and temperatures during runtime all good. Fuel tank at 22.5 cms.

Workorder Summary Report

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Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
784884	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Merrit PS Inspection/Functional Test (1m) 5740	APPR	6/1/18 12:00 AM			
811619	0000227597	GENERATOR MERRIT SLS	5740, Merrit Sewage Pumping Station, Facility	PM	Refurbish/Replace/Repair	1	YEARS	Diesel Generator Merrit PS Inspection/Functional Test (1y) 5740	APPR	6/1/18 12:00 AM			
899822	0000227596	PUMP SUBMERSIBLE 02 MERRIT SLS	5740, Merrit Sewage Pumping Station, Process	CORR	Refurbish/Replace/Repair	0		5740 Merrit St SPS Pump #2 Not pumping	CLOSE		9/27/18 02:27 PM	9/27/18 02:27 PM	5740 Merrit St SPS Pump #2 Not pumping -Onsite to repair chain on pump #2. Found that the pump was tagged out for a bearing noise and not pumping. Removed pump and disconnected electrical, delivered to Xylem for inspection electrical - Aug 23 2018 attempted to pull wire through conduit so cable would not have to be cut/spliced. could not pull through because of filler in conduit. attempted to remove filler but could not get cap to loosen. had to cut the cable and will splice back in once pump has returned from repair shop. will order materials from Dixon to splice in cable. (shrink tube, crimps, tape, ty-raps). installed pump - Sep 26 2018 installed pump, spliced cable, installed new hanging bracket for cable/chain. ordered replacement materials from Acklands (Drill bits), Dixon (Shrink tube). no charge for crimps, tape, bracket.

Workorder Summary Report

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Report End Date: Dec 31, 2018 11:59 PM
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Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
863608		5740, Winkel Sewage Pumping Station		CORR	Refurbish/Replace/Repair	0		5740 Winkels Lift station pump troubleshooting	COMP	12/18/18 10:28 AM	12/18/18 10:28 AM	winkels lift station pump troubleshooting - July 12 2018 Winkels lift station asked to inspect pump #1 because of tripping overload. current/voltage and insulations checks performed. insulation test passed. current draw was almost double of what it should be, reversed rotation quickly then put back to proper rotation and current draw is near where it should be. operator to follow up on pump removal and remove suspected blockage. I will follow up and take more electrical readings when pump is cleaned out. pump removal attempt. - Aug 21 2018 prepared pump for removal.. (locked out and cut wires) pump chain snapped when removal was attempted. spliced wires back together and tested pump to make sure it would work incase of emergency. cleaned tools at WWTP. pump install/ cable repair - Sep 20 2018 helped with install of pump. spliced cable... will order materials to replace. shrink tube Dixon. materials ordered -ordered materials from Dixon... work complete	

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
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Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
701806			5740, Espanola WWTP	CORR	Refurbish/Replace/Repair	0		5740 Espanola stp Clarifier #1 main Gear failure	CLOSE		8/28/18 03:00 AM	8/28/18 03:00 AM	<p>5740 Espanola stp Clarifier #1 main Gear failure</p> <p>-After Rebuild of top tower gearbox. It was reinstalled and clarifier moved 1/4 turn. it was then discovered that the initial damage was in the main spur gear. in this case the gear jammed up and stripped the heavily worn worm gear, clarifier was then drained down and cleaned. The bridge and main gear needs to be removed for rebuild</p> <p>-Drain clarifier, block up arms and center so gearbox can be unbolted. Set up scaffolding etc.</p> <p>removal</p> <p>-</p> <p>April 4 2018</p> <p>locked and tagged sources of electrical power.</p> <p>pulled back and capped off wires.</p> <p>cut electrical conduit so bridge could be removed.</p> <p>assisted</p> <p>-</p> <p>April 6 2018</p> <p>assisted with dismantling drive gear.</p> <p>motor wiring</p> <p>-</p> <p>May 9 2018</p> <p>installed junction box under bridge entrance and wired motor disconnect with 12/3 teck.</p>

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Location: 5740*
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				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													bridge receptacle wiring - May 10 2018 removed old damaged/worn receptacle and box/wiring. installed new box, wiring, connectors, GFI, and installed while in use cover. electrical parts - May 16 2018 will order product to replace stock used. i.e. junction boxes, wire/teck, connectors, labels, GFI, ty-raps, straps.
625723		5740, Espanola WWTP		CORR	Refurbish/ Replace/Repair	0		5740 Espanola STP Digester Supernate Valve Repair	CLOSE	1/17/18 03:18 PM	1/17/18 03:18 PM		5740 Espanola STP Digester Supernate Valve Repair - Replace telescopic valve extension bearing/nut assembly on north Digester for Supernate Valve. Brass Nut stripped threads. Part in stock at STP. Will quote to have a new spare onsite 5740 Espanola STP Digester Supernate Valve Repair -Thawed supernate valve with steamer, tested valve operation
1054023		Espanola Wastewater Treatment Plant		CORR	Refurbish/ Replace/Repair	0		5740 Espanola WWTP ESA 2018	COMP	1/22/19 07:22 PM	1/22/19 07:22 PM		ESA tour - Dec 10 2018 while onsite ESA showed up for the annual inspection. went around with him to save time trying to figure out what/where his deficiencies are (hard to figure out on the reports they send).

Workorder Summary Report

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				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
938591	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	CORR	Refurbish/Replace/Repair	0		5740 Portable generator trailer repair	CLOSE		9/4/18 12:24 PM	9/4/18 12:24 PM	fixed trailer wiring - Aug 31 2018 it was reported that trailer brakes were not working. found faulty wiring, repaired and tested ok. parked generator near gate and plugged in battery charger.
943127	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	APPR	10/1/18 12:00 AM			
943149	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	10/1/18 12:00 AM			
984937	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	CLOSE	11/1/18 12:00 AM	12/1/18 12:59 PM	12/1/18 12:59 PM	-Ran for an hour. Fluid levels all good. Running temps and pressures all good. Coolant heater working well. Fuel level in tank 1 at half and tank 2 at 2/3. no issues.
984959	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	11/1/18 12:00 AM			
630731	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	CLOSE	2/1/18 12:00 AM	2/20/18 11:45 AM	2/20/18 11:45 AM	-Portable generator not running . Issue with the battery . Management has bin notified .
811643	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	YEARS	Diesel Generator OERT Inspection/Functional Test (1y) 5740	APPR	6/1/18 12:00 AM			
901517	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	APPR	9/1/18 12:00 AM			
901539	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	9/1/18 12:00 AM			
745004	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	5/1/18 12:00 AM			

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

WO #	Asset ID	Asset Description	Location Description	WorkOrder		PM Schedule		Workorder Details					WorkLog Detail
				Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	
1019915	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	COMP	12/1/18 12:00 AM	1/9/19 05:06 PM	1/9/19 05:06 PM	-No leaks anywhere, coolant heater all good, fluid levels topped, fuel tanks at 1/2 and 3/8 full. Ran for almost an hour. Pressures and temperatures during runtime good.
1019937	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	12/1/18 12:00 AM			
784809	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	APPR	6/1/18 12:00 AM			
784831	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	6/1/18 12:00 AM			
811151	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	YEARS	Diesel Generator 2006 Portable Inspection/Functional Test (1y) 5740	APPR	6/1/18 12:00 AM			
865040	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	8/1/18 12:00 AM			
825879	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	APPR	7/1/18 12:00 AM			
825901	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	APPR	7/1/18 12:00 AM			
703545	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	CLOSE	4/1/18 12:00 AM	5/1/18 08:46 AM	5/1/18 08:46 AM	-testing complete
703569	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	CLOSE	4/1/18 12:00 AM	5/1/18 08:48 AM	5/1/18 08:48 AM	-Put fuel in generator . Generator running well .
744976	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	APPR	5/1/18 12:00 AM			

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 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
630753	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	CLOSE	2/1/18 12:00 AM	2/20/18 11:47 AM	2/20/18 11:47 AM	-Portable generator not running . Issue with the battery . Management has bin notified .
666266	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	CLOSE	3/1/18 12:00 AM	3/19/18 09:22 AM	3/19/18 09:22 AM	-generator test complete .
666288	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	CLOSE	3/1/18 12:00 AM	3/19/18 09:24 AM	3/19/18 09:24 AM	-Generator test complete . Generator needs fuel .
582837	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:37 AM	1/17/18 10:37 AM	-generator test complete
582866	0000126061	GENERATOR OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator 2006 Portable Inspection/Functional Test (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:39 AM	1/17/18 10:39 AM	-Generator test complete . Generator working well .
865018	0000126060	ENGINE DIESEL OERT#2006 PORTABLE	5740, OERT Genset	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator OERT Inspection/Functional Test (1m) 5740	APPR	8/1/18 12:00 AM			
939939		5740, Bois St. Sewage Pumping Station		CAP	Refurbish/Replace/Repair	0		5740 Espanola STP Bois Street Control-Alarm Upgrades	APPR				5740 Espanola STP Bois Street Control-Alarm Upgrades - Improvements to Bois Street SPS including the following: <ul style="list-style-type: none">• Use ultrasonic level measurement device to also provide a high level alarm• Provide additional alarming for when both pumps are in the off position
944013	0000143057	AHU BLOWER ROOM	5740, Espanola WWTP, Facilities, HVAC, Air Handling Units and Dehumidifiers	PM	Refurbish/Replace/Repair	6	MONTHS	Air Handling Inspection (6m) 5740	APPR	10/1/18 12:00 AM			
704342	0000143057	AHU BLOWER ROOM	5740, Espanola WWTP, Facilities, HVAC, Air Handling Units and Dehumidifiers	PM	Refurbish/Replace/Repair	6	MONTHS	Air Handling Inspection (6m) 5740	APPR	4/1/18 12:00 AM			

Workorder Summary Report

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 Report End Date: Dec 31, 2018 11:59 PM
 Location: 5740*
 Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
704372	0000143071	AHU FERRIC PUMPS	5740, Espanola WWTP, Facilities, HVAC, Air Handling Units and Dehumidifiers	PM	Refurbish/Replace/Repair	1	YEARS	Air Handling Inspection (1y) 5740	APPR	4/1/18 12:00 AM			
704410	0000227607	DEHUMIDIFIER TUNNEL	5740, Espanola WWTP, Facilities, HVAC, Air Handling Units and Dehumidifiers	PM	Refurbish/Replace/Repair	1	YEARS	Dehumidifier Inspection (1y) 5740	COMP	4/1/18 12:00 AM	1/17/19 12:23 PM	1/17/19 12:23 PM	-Dehumidifier is operational.
704426	0000227608	DEHUMIDIFIER RAS PUMP ROOM	5740, Espanola WWTP, Facilities, HVAC, Air Handling Units and Dehumidifiers	PM	Refurbish/Replace/Repair	1	YEARS	Dehumidifier Inspection (1y) 5740	COMP	4/1/18 12:00 AM	1/17/19 12:23 PM	1/17/19 12:23 PM	-Dehumidifier is operational.
664630	0000143778	PANEL CONTROL FIRE HEADWORKS ESP WWTP	5740, Espanola WWTP, Facilities, Power Distribution, Plant Systems	CORR	Refurbish/Replace/Repair	0		5740 Espanola STP Fire Alarm Panel Replacement	CLIENT				5740 Espanola STP Fire Alarm Panel Replacement -Quote to replace three fire alarm panels. Includes the installation of three warning bells that are required as per fire code.
1053467	0000143778	PANEL CONTROL FIRE HEADWORKS ESP WWTP	5740, Espanola WWTP, Facilities, Power Distribution, Plant Systems	CAP	Refurbish/Replace/Repair	0		5740, Espanola WWTP Fire Alarm Panel Repair	COMP	2/1/19 11:38 AM	2/1/19 11:38 AM		-SPI called in to trouble shoot fire alarm panel malfunction. Will be back to install new panel at a later.
943171	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	CLOSE	10/1/18 12:00 AM	10/17/18 08:14 PM	10/17/18 08:14 PM	-Ran for an hour. All temperatures good. All fluid levels good, Fuel tanks at half.
984981	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	CLOSE	11/1/18 12:00 AM	12/4/18 03:44 PM	12/4/18 03:44 PM	-Ran for an hour. fluids at good levels. Coolant heater operating well. Pressures and temperatures all good during runtime. No leaks. Fuel tanks at 1/2 and 2/3.
630775	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	CLOSE	2/1/18 12:00 AM	2/20/18 11:49 AM	2/20/18 11:49 AM	-Ran generator to plant . Generator running well .
666318	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	CLOSE	3/1/18 12:00 AM	3/19/18 09:26 AM	3/19/18 09:26 AM	-generator test complete and working well .

Workorder Summary Report

Report Start Date: Jan 1, 2018 12:00 AM
Report End Date: Dec 31, 2018 11:59 PM
Location: 5740*
Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
582891	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	CLOSE	1/1/18 12:00 AM	1/17/18 10:40 AM	1/17/18 10:40 AM	-Generator test complete and working well .
865062	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	APPR	8/1/18 12:00 AM			
901561	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	APPR	9/1/18 12:00 AM			
825923	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	APPR	7/1/18 12:00 AM			
703591	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	CLOSE	4/1/18 12:00 AM	5/1/18 08:50 AM	5/1/18 08:50 AM	-Testing complete .
745026	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	APPR	5/1/18 12:00 AM			
1019959	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	COMP	12/1/18 12:00 AM	12/11/18 12:44 PM	12/11/18 12:44 PM	-Ran generator for an hour. No leaks detected anywhere. Air supply system good. Coolant heater working well. All fluid levels at appropriate levels. During runtime pressures and temperatures within operating parameters. Fuel tank 1 at 2/3. Fuel tank 2 at 1/2.
784860	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Generator Inspection/Functional Test (1m) 5740	APPR	6/1/18 12:00 AM			
811343	0000143107	GENERATOR ESPANOLA WWTP	5740, Espanola WWTP,Facilities, Power Generation	PM	Refurbish/Replace/Repair	1	YEARS	Diesel Generator Inspection/Functional Test (1y) 5740	APPR	6/1/18 12:00 AM			
821758	0000143084	SCREEN BAR	5740, Espanola WWTP, Process, Headworks	CAP	Refurbish/Replace/Repair	0		5740, Espanola STP Bar Screen Repair	APPR				5740, Espanola STP Bar Screen Repair -Green Frog was called in to repair the bar screen as it was out of alignment and could not be adjusted.

Workorder Summary Report

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 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
704400	0000143081	CONVEYOR SCREW GRIT	5740, Espanola WWTP, Process, Headworks	PM	Refurbish/Replace/Repair	1	YEARS	Conveyor Inspection (1y) 5740	APPR	4/1/18 12:00 AM			
785563	0000143110	TANK PROCESS DIGESTER AEROBIC NORTH	5740, Espanola WWTP, Process, Solids Handling	PM	Refurbish/Replace/Repair	3	YEARS	Digester Inspection (3y) 5740	APPR	6/1/18 12:00 AM			
785613	0000143111	TANK PROCESS DIGESTER AEROBIC SOUTH	5740, Espanola WWTP, Process, Solids Handling	PM	Refurbish/Replace/Repair	3	YEARS	Digester Inspection (3y) 5740	APPR	6/1/18 12:00 AM			
1007686	0000294007	BLOWER POSITIVE DISPLACEMENT 03 AERATION DIGESTER	5740, Espanola WWTP, Process, Secondary Treatment, Blower 3	PM	Refurbish/Replace/Repair	1	YEARS	BLOWER POSTIVE DISPLACEMENT 03 OIL CHANGE (1Y) 5740	COMP	11/1/18 12:00 AM	1/17/19 02:45 PM	1/17/19 02:45 PM	-Oil changed on Blower 3. No vibrations were apparent during runtime. All fittings were greased. -Oil was changed on blower #3 on 01/17/2019. Oil looked very dark. -
663668	0000143095	GEARDRV CLARIFIER 01	5740, Espanola WWTP, Process, Secondary Treatment, Clarifier 1	CAP	Refurbish/Replace/Repair	0		5740 Espanola STP Clarifier Upper Drive Gear Replacement	CLOSE		4/3/18 12:28 PM	4/3/18 12:28 PM	5740 Espanola STP Clarifier Upper Drive Gear Replacement -Material and labour to replace the worm shaft and gear set on the upper drive of each clarifier. 5740 Espanola STP Clarifier Upper Drive Gear Replacement -Reassemble gear drive tower and install it back into place. fill with oil 5740 Espanola STP Clarifier Upper Drive Gear Replacement -This WO is completed, additional work on the clarifier will be on WO 701806
785481	0000143094	TANK PROCESS 01 CLARIFIER	5740, Espanola WWTP, Process, Secondary Treatment, Clarifier 1	PM	Refurbish/Replace/Repair	1	YEARS	Clarifier Inspection (1y) 5740	APPR	6/1/18 12:00 AM			
785467	0000143091	TANK PROCESS 02 CLARIFIER	5740, Espanola WWTP, Process, Secondary Treatment, Clarifier 2	PM	Refurbish/Replace/Repair	1	YEARS	Clarifier Inspection (1y) 5740	APPR	6/1/18 12:00 AM			

Workorder Summary Report

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				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
628042	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	CORR	Refurbish/Replace/Repair	0		5740 Espanola STP, UV Sensor Assembly	CLOSE	8/22/18 01:33 PM	8/22/18 01:33 PM		<p>5740 Espanola STP, UV Sensor Assembly</p> <p>-The UV sensor assembly has failed and needs to be replaced. Without this the UV system does not run properly. Uses more hydro then required.</p> <p>troubleshooting</p> <p>-</p> <p>I was asked to inspect what was required to repair the UV system. after inspection and talking with the operator, a new sensor and cable will have to be ordered.</p> <p>troubleshooting</p> <p>-</p> <p>July 6 2018 date for log "7/9/18 16:21:00" is July 6 2018.</p> <p>repair</p> <p>-</p> <p>July 9 2018 sensor and cable were removed to see if cable could be repaired and new sensor installed.</p> <p>cable had many nicks and cuts so water had entered and corroded the inside of the cable so it is no good.</p> <p>new cable ordered and will schedule the install once parts arrives.</p> <p>re-assembly attempt</p> <p>-</p> <p>July 27 2018 received new cable and began to install sensor and cable.</p> <p>found a crack in the sleeve (glass tube) that the sensor sits in so I ordered a new sleeve and 1 for a spare.</p> <p>will install upon arrival.</p>

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Work Order Type: CALL,CAP,CORR,EMER,OPER,PM
Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													repair complete - Aug 13 2018 replaced sensor sleeve, sensor, and cable. tyrapped new cable in a different area to prevent future damage... bad design for cable, possible pinch point where the assembly sits on the bracket. (looks like the sensor is an add on so no room was left for it in the cut outs for the other cables). sensor tubes are a different length than the light tubes which is why we couldn't use the light tubes. turned system back on and let run for a break in/calibration period of approx. 10 mins. unit working ok, now running at 64% power rather than %100.
630933	0000142682	UV REACTOR	5740, Espanola WWTP, Process, Tertiary Treatment	PM	Refurbish/Replace/Repair	1	YEARS	UV Reactor Inspection (1y) 5740	APPR	2/18 12:00 AM			
897734			5740, Espanola WWTP	CALL	Refurbish/Replace/Repair	0		5740, Espanola WWTP	CLOSE		8/7/18 04:04 PM	8/7/18 04:04 PM	- Responded to power outage alarm call. Reset/restarted clarifiers, RAS pumps, blowers, grit cyclone, bar screen. Inlet room overflowed stayed to clean some up.
897814			5740, Espanola WWTP, Facilities	CORR	Refurbish/Replace/Repair	0		5740 Espanola STP Repairs to Doors	APPR				5740 Espanola STP Repairs to Doors -Repairs to doors and one door replacement. Includes closure replacements and adjustments.

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Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
1054375	0000143793	DOOR OPERATOR GARAGE ESP WWTP	5740, Espanola WWTP, Facilities, Building and Grounds	CORR	Refurbish/Replace/Repair	0		5740 Espanola STP sanitary drain blockage, garage building	APPR				-Operators found that the garage was flooded and it was due to a blockage in the sanitary drain. An operator spent all day Wednesday attempting to remove blockage with no effect so Nauss Plumbing and Heating was called in to resolve issue.
938848			5740, Espanola WWTP, Facilities, Building and Grounds	CAP	Refurbish/Replace/Repair	0		5740, Espanola WWTP, Facilities, Building and Grounds	CLOSE	9/6/18 10:31 AM	9/6/18 10:31 AM		Lock and all plant door repair by Northern Security -Northern Security onsite to repair all doors and change locks.
1053262	0000258520	VALVE BACKFLOW TOP OF RAS PUMP ESPANOLA WWTP	5740, Espanola WWTP	PM	Refurbish/Replace/Repair	1	YEARS	Backflow Preventer Ras Inspection (1y) 5740	COMP	1/10/19 12:00 AM	2/4/19 10:37 AM	2/4/19 10:37 AM	Backflow Preventer Ras Inspection (1y) 5740 -Completed Annual testing. Filed report
1053267	0000258522	VALVE BACKFLOW DIGESTER ROOM ESPANOLA WWTP	5740, Espanola WWTP	PM	Refurbish/Replace/Repair	1	YEARS	Backflow Preventer Digester Inspection (1y) 5740	COMP	1/10/19 12:00 AM	2/4/19 10:39 AM	2/4/19 10:39 AM	Backflow Preventer Digester Inspection (1y) 5740 -Completed annual testing. Filed report
1053277	0000258519	VALVE BACKFLOW TUNNEL UNDER AERATION TANKS NON POTABLE ESP WWTP	5740, Espanola WWTP	PM	Refurbish/Replace/Repair	1	YEARS	Backflow Preventer Tunnel Inspection (1y) 5740	COMP	1/10/19 12:00 AM	2/4/19 10:44 AM	2/4/19 10:44 AM	Backflow Preventer Tunnel Inspection (1y) 5740 -Completed annual testing. Filed report
1053282	0000258521	VALVE BACKFLOW FERRIC ROOM ESPANOLA WWTP	5740, Espanola WWTP	PM	Refurbish/Replace/Repair	1	YEARS	Backflow Preventer Ferric Inspection (1y) 5740	COMP	1/10/19 12:00 AM	1/9/19 05:07 PM	1/9/19 05:07 PM	-System not used
742603			5740, Espanola WWTP	PM	Calibration	1	YEARS	Flow Meter Calibration (1y) 5740 Espanola	CLOSE	6/1/18 12:00 AM	7/18/18 04:25 PM	7/18/18 04:25 PM	flow verifications - July 16 2018 flow meters verified.. all ok unable to verify Sludge load out with PT878 401 or 402 Shear. compared readings to meter at unloading station.