

February 2020 MONTHLY REPORT
City of Thompson
Wastewater Treatment Plant Upgrades & Associated Works
MWSB 1265
Startup & Commissioning Phase
Licence No. 3118R

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1 Milestones Achieved this Month

The following presents a summary of the milestones achieved for this reporting period:

- The Contractor achieved Interim Substantial Completion as of February 10, 2020. The City is now responsible for operating the facility with input from the Contractor until completion of Acceptance Testing and award of Substantial Completion.

2 Status of Facility

The City of Thompson's WWTP Operators have taken over operation of the facility with input from the Contractor and will continue to do so until completion of Acceptance Testing and award of Substantial Completion. The Operators are conducting daily testing of effluent to monitor process development. Composite samples of the treated effluent are gathered each day for testing.

As of the end of February the process is showing signs of stabilizing:

- Effluent TSS have remained below 25 mg/L during February.
- Phosphate has generally been maintained below 1 mg/L with the exception of a couple of spikes. The 30-day rolling average remains above 1.0 mg/L.
- UVT has been above 55 for the month of February.
- Effluent pH has tested between 6.9 to 7.3 throughout February. Sampling throughout each SBR Basin has shown variations in pH levels and zones where pH is between 6.7-6.8. The City is adjusting sodium hydroxide dosing throughout each basin to bring the pH up to a target of 7.0.
- Effluent temperatures have varied slightly through February but were generally in the range of 8.5-10°C. SBR Basin temperatures have remained steady around 9.5°C.
- Ammonia has varied from 4.3 mg/L up to 18.3 mg/L and have generally been above 15 mg/L. The nitrification process was beginning to show signs of reestablishment but started to climb at the beginning of February and have held steady around 15 mg/L. The pH levels in the SBR basins are suspected to have contributed to the decline in nitrification.

The WWTP facility was broken into and vandalized in February. Several items in the Office and Meeting Room were damaged including the SCADA computers. The damage incurred did not have an effect on the treatment process as the Operators were able to maintain operation of the facility through the main plant PLC and treatment system PLC. The damaged equipment will be replaced, and the City is investigating measures to make the facility more secure.

3 Anticipated Milestones to be Achieved Next Month

The biological process has generally stabilized with the exception of Ammonia removal through nitrification. The addition of nitrifying bacteria appeared to have restarted the nitrification process however, the improvement was short lived, and ammonia has returned to the levels before the addition of bacteria cultures occurred. Acceptance testing of the SBR process and Aerobic Digesters are contingent on the process demonstrating that all effluent quality parameters of the licence are being met. At this time this is not expected to occur until spring of 2020.

The Contractor is working towards completion of deficiencies to close out of the Building Permit and obtain the Building Occupancy Permit.

4 Operator Training

Operator training for the new WWTP facility has been ongoing since fall of 2019 and the Operators have received the required training through the project to take on operation of the facility. To date, the Operators have received training on the SBR Process Operation and equipment, grit system, multirake bar screen, UV disinfection equipment, sludge dewatering equipment, lab testing, WWTP SCADA system, building HVAC and building ancillary systems. Follow up/refresher training on the SBR Process and WWTP SCADA system will be provided in an ongoing fashion throughout 2020. Training sessions have been video recorded for Operator reference, along with printed training manuals for key equipment.