

January 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:

- Completed a 10-day long program of bioaugmentation addition. Nitrifying bacterial culture was added to each SBR Basin to restart the nitrification process.
- The Contractor and City's Operators are operating the plant. The Contractor is leading operations with assistance from the City based on a 10 day on, 4 day off rotation of the Contractors personnel onsite. During the 4-day off period the City operates the facility on behalf of the Contractor.

2 Status of Facility

The City of Thompson's WWTP Operators continue to assist with operation of the facility on behalf of the Contractor and will continue to do so until award of Interim 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 January the process is showing signs of stabilizing:

- Effluent TSS have remained below 25 mg/L during January.
- 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.
- Testing for TKN has been below 15 mg/L for the month of January.
- UVT has been above 55 for the month of January with the exception of one day at 48.7.
- Effluent pH has tested between 7.0 to 7.3 throughout January.
- Effluent temperatures have varied slightly through January but were generally in the range of 8-10°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 has not reestablished itself fully since the upset that occurred in November. nitrifying bacterial cultures have been added to each SBR basin and the Operators are testing daily to track the progress.

3 Anticipated Milestones to be Achieved Next Month

The biological process is showing signs of stabilization with the exception of Ammonia removal through nitrification. With the addition of nitrifying bacteria, it is anticipated that nitrification will show signs of reestablishing however there does not appear to be noticeable improvement as of the end of January. As a result, the Contractor is considering sending samples from each SBR Basin to a lab to analyze the microbiology. 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 and may not occur until spring of 2020.

If the process stabilizes and ammonia nitrification begins to reestablish itself before the end of February, Interim Substantial Completion may be awarded to the Contractor at which point operation of the facility will become the City of Thompsons responsibility. The Contractor is working towards completion of deficiencies to closeout 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 2020. Training sessions have been video recorded for Operator reference, along with printed training manuals for key equipment.