

APRIL 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 April the process is showing signs of readiness for acceptance testing:

- Effluent TSS have remained below 25 mg/L during April.
- Phosphorus has generally tested between 1-2 mg/L with the exception of a couple of spikes. The 30-day rolling average remains above 1.0 mg/L. The City and Contractor are investigating the cause of the phosphorus spikes and have isolated an aeration line failure in Aerobic Digester 1. It is suspected that the aeration line failure is causing anaerobic conditions in a portion of the digester, thus when the digester goes through a decant cycle elevated levels of phosphorus are circulated back into the process.
- UVT has been above 55 for the month of April.
- Effluent pH has tested between 7.0 to 7.5 throughout April.
- Effluent temperatures have varied slightly through April but were generally in the range of 6.5-8°C. Over the last week of April, the influent temperatures have dropped due to increased inflow from spring melt. Raw wastewater influent temperatures have ranged from 3-9°C over this reporting period. SBR Basin temperatures were steady around 9.2°C for the first 3 weeks but dropped below 8°C in the last week of April in the range of 6.7-8°C.
- Ammonia has varied from 3.4 mg/L up to 12.8 mg/L. The licence discharge limits for ammonia is 60 kg/24 hr period in April. During April the ammonia discharge levels have been below 60 kg/24 hr period with only 3 days exceeding the limit in the licence. The average ammonia discharge has been 41.5 kg/day during April.
- Total Nitrogen testing has shown TN to be above 15 mg/L during most of April. During the last week of April TN has been below 15 mg/L.
- No effluent cBOD₅ testing was conducted during April.

3 Anticipated Milestones to be Achieved Next Month

The biological process has shown improvements and onsite testing indicates the process may be ready for acceptance testing in the near future. The Contractor indicates they are anticipating that SBR Acceptance Testing will commence in May. If Acceptance Testing proceeds in May, the Project may achieve Substantial Completion before the end of May.

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.

No Operator training occurred in April 2020.