



TRUE DEPTH

DIVING AND MARINE SERVICES

June 24, 2022

Rycroft, Town of / GWST Water & Environmental Inc.

Inspection Report

The following is a written inspection of the Rycroft town reservoir. Please read in conjunction with the inspection video.

Sediment

Sediment in the reservoir was consistent throughout. On average it was 3mm in thickness. The sediment had a light iron colored top layer with a black sticky layer underneath. This layer left staining as seen on the video.

Pillars

The center pillar closest to the north wall has a strange shape to it where the pillar meets the reservoir bottom. It appears to be a defect during the original pour as it bulges out on the one side. (Reference video 10:17). All other pillars appear to be free of defect.

Walls

There appears to be under pour where the west wall meets the floor on the cold joint. (Reference video 09:58). The four corners of the reservoir appear to be free of abnormalities. Apart from the west wall there appears to be no defects. The walls have an iron-colored layer on them part stain part film.

Ceiling

Ceiling appears to be in relatively good conditions. Some exposed aggregate, no more than a few millimetres in depth. One hairline crack coming out from west wall extending roughly 6'. Another hairline crack near the northwest corner roughly 6' long as well.

Reservoir Bottom

The reservoir bottom appears to be free of defect and is smooth. The sediment left a slight stain on the reservoir bottom.

Suction Lines

Fire Pump – The 16” suction inlet closest to the fire pump is covered in roughly 2” of rust bubbling. It does appear to be fully intact and there is no separation where it enters the east wall.

Suction Inlet – This suction inlet is closest to the backwash pump section of the header. It is covered in 2” of rust bubbling. Appears to fully intact and there is no separation where it enters the east wall.

(Reference video between 10:09 and 10:12 for visual on suction lines).

Sump

The sump located just to the west of the ladder has a hardened sealant or concrete inside. Surrounding the sump, we have some exposed aggregate. (Reference video 10:19)

Fill line

Fill line has a layer of surface corrosion however does not appear to have spalled the concrete where it enters the ceiling. The sediment below the fill line appeared to be of a more granular like consistency containing more rust flakes than other spots in the reservoir.

Sensors

The low-level sensor protective casing appears to be intact. Where it enters the ceiling, the concrete appears to be spalled. (Reference video 10:19 – 10:20). The high level and other low-level sensor appear to be fully intact.

Hatch

The hatch appears to be free of any spalling, cracking, or defects.

Ladder

The hardware holding the ladder to the wall and reservoir bottom appear to be corroded. The bottom rung of the ladder was broken off, sitting on the reservoir bottom. The rungs are corroded, at points missing 1/3 of their diameter. (Reference video 10:19)

Raw Water Pond Intake

The raw water pond intake appeared to be fully operational. It maintains 24 – 28” of clearance to the bottom of the pond. It clears the bank 3’ and has 12’ of water above it. The Intake is an open-ended poly pipe. There is 4 – 6” of sediment on the pond bottom.