

Town of Watson Lake

Yukon, March, 2016

BI Pure Water was contracted by Wildstone Construction & Engineering and the Yukon government to build the treatment system for the Town of Watson Lake's new water treatment plant. Wildstone provided the construction services for the new 4500 sq ft plant and First Nations workers helped to build it.

The iron and manganese media filtration system treats well water up to 2,050 m³/day with a maximum day demand of 23.7 L/s for potable water supply.



The three steel Greensand media vessels are piped in parallel at the Watson Lake treatment plant, right



Iron and manganese removal is accomplished by oxidation followed by physical removal of the resulting precipitates by filtering through the GreensandPlus and anthracite bed. GreensandPlus media is used by BI Pure Water in many of its systems for its high performance and fewer backwashes required. The automatic backwash system designed for the filters cleans the media according to either a total flow processed, a time period, or increasing pressure differential, either of which can be set by the operator on the PLC.

The treated water is then disinfected by chlorine.

The GreensandPlus process can remove iron from water in concentrations up to 15 mg/L or more.

The water treatment system was assembled on skids and tested at the BI Pure Water facility in Surrey, BC before being shipped to the remote Watson Lake location where it was quickly commissioned and put into service.