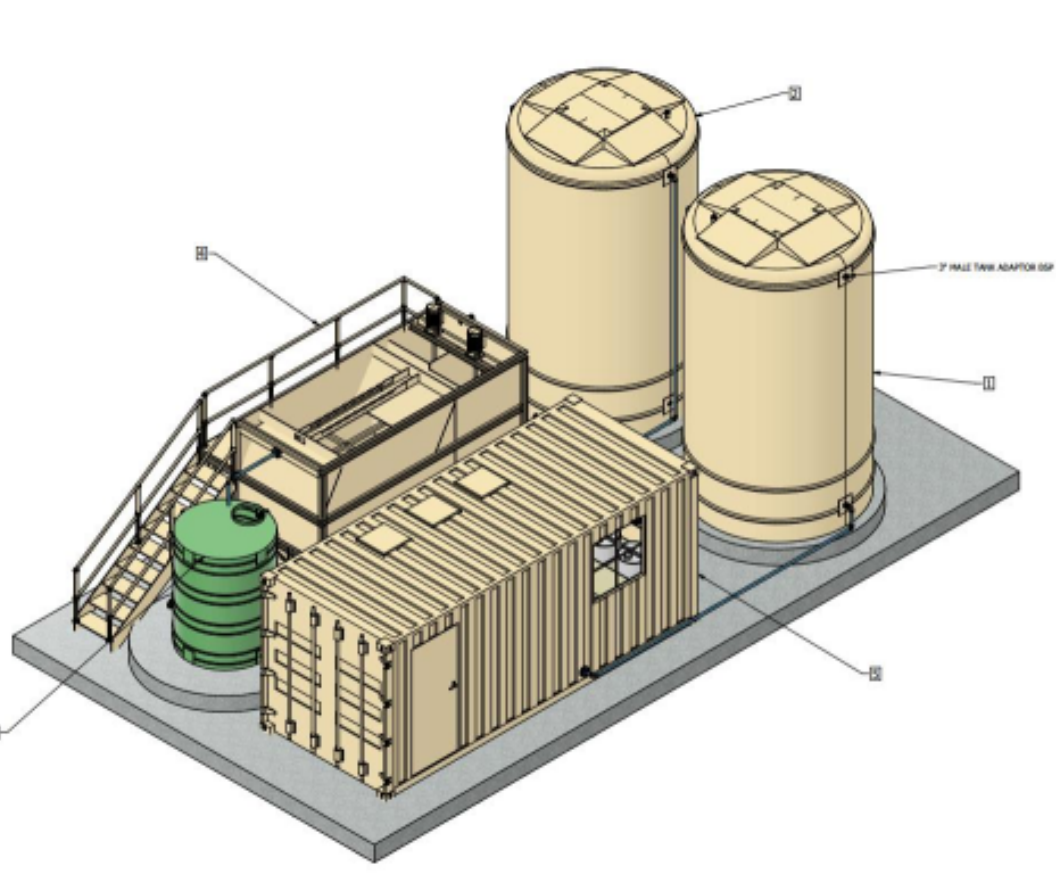




Camp drinking water plant



Problem Statement

A tin and lithium mine in the DRC required a 75m³/d containerised drinking water plant solution. Borehole and surface water was required to be treated to drinking water standards (SANS 214:2015). The feed water is high in TSS, TDS and iron. A containerised solution was needed.

Solution

The treatment plant incorporates clarification and polishing filtration to effectively remove a wide range of turbidity, suspended solids, and dissolved metals. It also oxidises low to moderate concentrations of naturally occurring chemical oxygen demand (COD). Following filtration, the treated water is disinfected to ensure it meets the required water quality standards.



Typical Plant Feed

- pH – 7-8
- TDS – 43 mg/L
- TSS – 35 mg/L
- Conductivity – 72 µS/m
- Iron – 1030 µg/L



Performance Target

- pH – 6.5-8.5
 - TDS < 1200 mg/L
 - Turbidity < 1NTU
 - Conductivity < 170 mS/m
 - Iron < 0.3 mg/L
- To comply with SANS 241-2015 Drinking Water Limits



Process

- Lamella Clarifier
- AFM Media
- Maddox Media
- Carbon Media
- Disinfection



Innovation

- Since implementing the new treatment system our client has the benefit of:
- Safe drinking water for the site camp while the mine is under construction.
 - Clean water to shower in.