

CASE STUDY



project: BOD plant - Nutrient supplement
product: WTS 13-BNR+
industry: Mining
location: North Queensland

Background

WTS has supported a mineral processing site for over 10 years with quarterly site visits where we undertake various water and process assessments. The client has a Sequencing Batch Reactor (SBR) that uses microorganisms to remove organic and other soluble contaminants from the process water, reducing the Biological Oxygen Demand (BOD) of that wastewater so it can be discharged safely to the environment.

The remote tropical location and process made for challenging water chemistry, and the client was having difficulty maintaining healthy biology in the SBR. WTS was engaged to find a solution to properly control the growth and health of the bacteria in the activated sludge process.

Approach

All microorganisms require certain nutrients for growth.

Samples were taken from the SBR and laboratory assessments conducted using various nutrient mixes until the optimum point between biology health and cost was found.

Solution

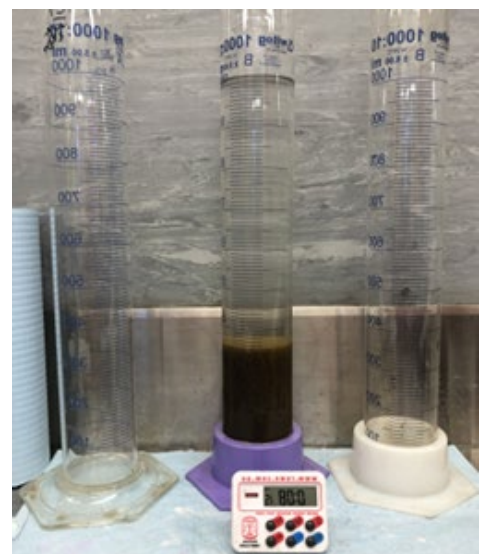
- WTS 13-BNR+ was found to be the best solution.
- We tested at the site to ensure the efficacy of the product and to validate the lab results in real life.
- WTS developed the correct dosing regimen and ratios of the nutrients required.



The SBR

Results and benefits

- **Compliance** Achieves required discharge compliance reducing penalties/fines.
- **Technical Support.** Expert advice and consultation with all parties throughout the process and ongoing plant service and support by WTS.
- **Productivity.** Increased productivity associated with reduced downtime due to unhealthy Activated Sludge
- **Bespoke.** Situation-specific chemistry and dosing program for optimal efficacy-cost balance.



Lab testing with various samples and solution mixes