

CASE STUDY

PROJECT GROUND WATER TREATMENT PLANT

PRODUCT Brackish Water Reverse Osmosis (BWRO)

INDUSTRY Mining

LOCATION Hunter Valley, New South Wales



BACKGROUND

A common problem for mining companies in the Hunter Valley is water ingress. As the mining process moves through various water tables, ground water can flood the mine, halting operations. The water will often require disposal to local waterways, however for that to be environmentally safe, it first requires treatment via reverse osmosis. The need for these systems can be short or long term, depending on the characteristics of the mine and the local geology.

This project was for the short-term hire of a ground water treatment plant that MAK Water designed, constructed, and commissioned. The hire plant treats 80 m³/hr, reducing the total dissolved solids (TDS), removing suspended solids (TSS), and other contaminants from the ground water, so it can be safely discharged to the local creek.

SOLUTION

Custom design and manufacture of 1.9 ML/day treatment system consisting of Media Filtration (MMF), Cartridge filtration and finally Brackish Water Reverse Osmosis (BWRO)

- Containerised RO plants provided within six weeks
- Monthly service and maintenance, consumable supply
- ClearAccess™ Remote Monitoring
- 2 x 50% trains for operational flexibility

RESULTS AND BENEFITS

- **Environmental compliance & protection.** The treated water discharged is compliant with the EPA guidelines
- **Fast turnaround.** Innovative process design and an extensive hire fleet enabled the plants to be provided within six weeks.
- **Local.** The plant was built in Australia using materials sourced from local suppliers. Providing superior build quality and spare part availability.



MAK Water BWRO hire plant in testing bay at MAK Water factory



Internal view of the BWRO hire plant