

CASE STUDY

PROJECT BUILD-OWN-MAINTAIN FOR PROCESS & POTABLE WATER

PRODUCT Sea Water Reverse Osmosis (SWRO) and Multimedia Filtration (MMF)

INDUSTRY Mining

LOCATION Murray Darling Basin, New South Wales



BACKGROUND

A large mineral sands mining company was developing a new mine in the Murray Darling Basin and due to its remote location, access to infrastructure support was a major issue. The only water source that was available for use was hypersaline bore water that required substantial treatment prior to use as process water and potable water. MAK Water rose to the challenge of treating this water to provide up to 3,312m³/day for mining, processing and potable use.

MAK Water offered a five-year Build-Own-Maintain (BOM) model with the option for a five year extension that aligned with the customers' requirements in terms of operational support and expected duration that the asset was required on site. MAK Water was selected to design and manufacture a reliable solution to treat the bore water to suit the project requirements.

SOLUTION

Containerised Sea Water Reverse Osmosis (SWRO) delivering 3.3ML/day with 2x 50% trains for operational flexibility.

MAK WATER KEY SOLUTIONS

- Custom designed pre-treatment to suit poor quality bore water with high TDS
- Containerised (4 x 40') solution for easy installation
- Efficiency boosting Energy Recovery Devices
- ClearAccess™ Remote Access
- Flexible commercial model
- Onsite plant commissioning
- Ongoing operational support
- Separate process and potable water streams delivered from the same plants



MAK Water containerised SWRO plant installed onsite

RESULTS AND BENEFITS

- **Compliance** Achieves required process & potable water compliance with ADWG
- **Technical Support.** Expert advice and consultation with all parties throughout the process and ongoing plant service and maintenance by MAK Water
- **Fast Delivery.** Plant delivered ahead of schedule to meet client requirements
- **Flexible commercial model.** Build-Own-Maintain (BOM) model accommodates client CAPEX & OPEX budgets
- **Convenience.** MAK Water continues to operate and maintain the 4x container plant, which was straightforward to install on site, and multiple water streams for the large operation are delivered from the one treatment plant site.



Internal view of the containerised SWRO and pre-filtration & control containers in the MAK Water factory