

CASE STUDY



PROJECT POTABLE WATER FOR KAOLIN MINE
PRODUCT Sea Water Reverse Osmosis (SWRO) and Multimedia Filtration (MMF)
INDUSTRY Mining
LOCATION Goldfields-Esperance Region, Western Australia

BACKGROUND

The EPC contractor for Australia's first dual open-cut kaolin mine and geological waste repository required a potable water treatment plant to treat saline bore water for use at the accommodation camp and admin office.

MAK Water was selected to design and manufacture a reliable solution to treat the source bore water, which was of poor quality.

MAK Water worked closely with the client to design a fit for purpose, long term solution that complies with the Australian Drinking Water Guidelines (ADWG).

SOLUTION

Containerised Sea Water Reverse Osmosis (SWRO) with pre-filtration for iron and manganese to produce 30 m³/day of potable water.

MAK WATER KEY SOLUTIONS

- Custom designed pre-treatment to suit poor quality bore water with high TDS, suspended solids, iron and manganese
- Duty/standby multimedia and cartridge filtration
- DMI-65 media filtration for iron & manganese removal
- Chemical dosing: pH adjustment, and chlorine sterilisation of potable water
- Potable tank recirculation and monitoring of free chlorine
- Containerised (1 x 40') solution for easy installation
- Supply of feed water tank
- Onsite plant commissioning and operator training
- Ongoing service and maintenance contract

RESULTS AND BENEFITS

- **Compliance** Achieves required 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.** The manufacturing process was fast tracked to achieve the required project timeline



MAK Water containerised SWRO plant installed onsite



Internal view of the containerised SWRO plant