

CASE STUDY

PROJECT	PROCESS WATER FOR LITHIUM MINE
PRODUCT	Dissolved Air Flotation (DAF)
INDUSTRY	Mining
LOCATION	Goldfields-Esperance Region, Western Australia



BACKGROUND

The owner of a lithium mine undergoing expansion near Kalgoorlie in Western Australia required assistance with upgrade of the existing water infrastructure to provide a reliable supply of water for the new processing plant. With limited water supply the focus was on a design that was capable of treating process wastewater for reuse.

MAK Water worked closely with the owner to design the best possible solution, which included multiple new water treatment plants and upgrade of an existing plant to achieve the required outcome. The DAF plant was designed to remove high levels of oleic acid from process wastewater and forms part of an innovative water recycling system.

MAK Water was also awarded a long term contract to provide plant operators to maintain and operate all of the water treatment plants onsite.

SOLUTION

Dissolved Air Flotation (DAF) plant to treat 200 m³/hr of process wastewater, for reuse onsite.

MAK WATER KEY SOLUTIONS

- In-house bench testing of water sample to confirm oleic acid removal
- 304 stainless steel DAF tank
- Flocculent, polymer and pH adjustment dosing
- Containerised MCC, compressor, pumps and dosing equipment for easy installation
- Fast 12 week delivery time
- Premium instrumentation package with ClearAccess™ Remote Monitoring
- Onsite installation assistance and commissioning
- Long term Operations Agreement for all plants onsite

RESULTS AND BENEFITS

- **Oleic Acid Removal.** Required level of oleic acid removal prior to additional treatment and reuse
- **Technical Support.** Expert advice and consultation throughout the design and delivery phases. Operations Agreement to provide ongoing technical support, maintenance and operation of plant
- **Plant Reliability.** Custom design and quality equipment will provide reliable operation with minimal maintenance
- **Delivery.** New turn-key plant supplied and installed to schedule



4,800 m³/day Dissolved Air Flotation (DAF) plant



Containerised MCC and Dosing