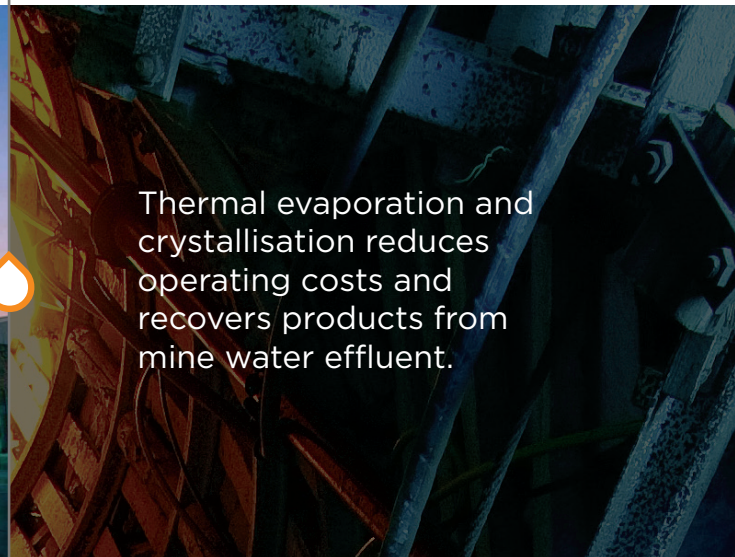


SASOL MINES, SOUTH AFRICA

ZERO LIQUID DISCHARGE OF MINE WATER EFFLUENT



Thermal evaporation and crystallisation reduces operating costs and recovers products from mine water effluent.

THE CHALLENGE

Sasol Mines needed to treat excess mine water in order to access their reserves. However, the high costs typically associated with the disposal of mixed salts, meant that this process would be an expensive one.

OUR SOLUTION

PROXA developed a thermal Zero Liquid Discharge (ZLD) plant that incorporated a staged thermal evaporation and crystallisation approach. This enabled us to produce by-products from the effluent mine water feed, eliminate the need for disposal of mixed salts at a landfill site and make water available for reuse.

HOW PROXA ADDED VALUE

By recovering by-products, we were able to reduce operating costs associated with mixed salt disposal.

FEED WATER

Mine water

BY-PRODUCTS

- Calcium sulphate
- Sodium sulphate
- Sodium chloride

PRODUCT WATER

- Water for reuse

ENVIRONMENTAL PROTECTION

PROXA's innovative solution to the disposal of the mine's mixed salts supported the client's drive to minimise its impact on the environment.

Client: Sasol Mines

