MINETEK

Mount Morgan Mine.

Water evaporation solution for a Queensland legacy pit.



Water evaporation case study.

Water

Brief.

The Queensland Government Department of Natural Resources and Mines is responsible for the rehabilitation, care and maintenance of the world-renowned and historic Mount Morgan mine near Rockhampton, Queensland.

Business challenge.

Following the catastrophic 2011 Queensland floods, the Mount Morgan Mine, as one of the world's largest mines, required a cost-effective and effective water evaporation system to manage their large legacy pit of acid water.

Minetek were engaged to design, manufacture and install a large-scale three-unit water evaporation system at the abandoned pit. The system needed to manage water levels and reduce the risk of discharges into the Dee River and subsequent negative environmental impacts.

Minetek 400/200 Water Evaporator.

	Imperial	Metric
Water flow rate	400 GPM 576,000 gallons per day	25 litres per second 1,818 litres per minute 2.16 megalitres per day
Power	75kW (100HP)	
Pressure	145 PSI (10 bar)	
Features	• Stainless steel Welded Parts • Globally patented technology • Mobile skid mounted unit • Heavy-duty construction options (hot dipped galvanised steel, epoxy coated steel, 316 stainless steel)	



Results

Minetek was able to successfully work with the Department of Natural Resources and Mines to scope, design, manufacture and install a 3 x 400/200 evaporation solution with a total system capacity to process 1200 GPM (270m3/hr) of wastewater at 145 PSI. This system was designed in alignment with the Department's goal to evaporate a specific volume from the pit per day, successfully evaporating 600 GPM (135m3/hr) and 864,000 GPD (3,240m3/day) when operated 24 hours per day.

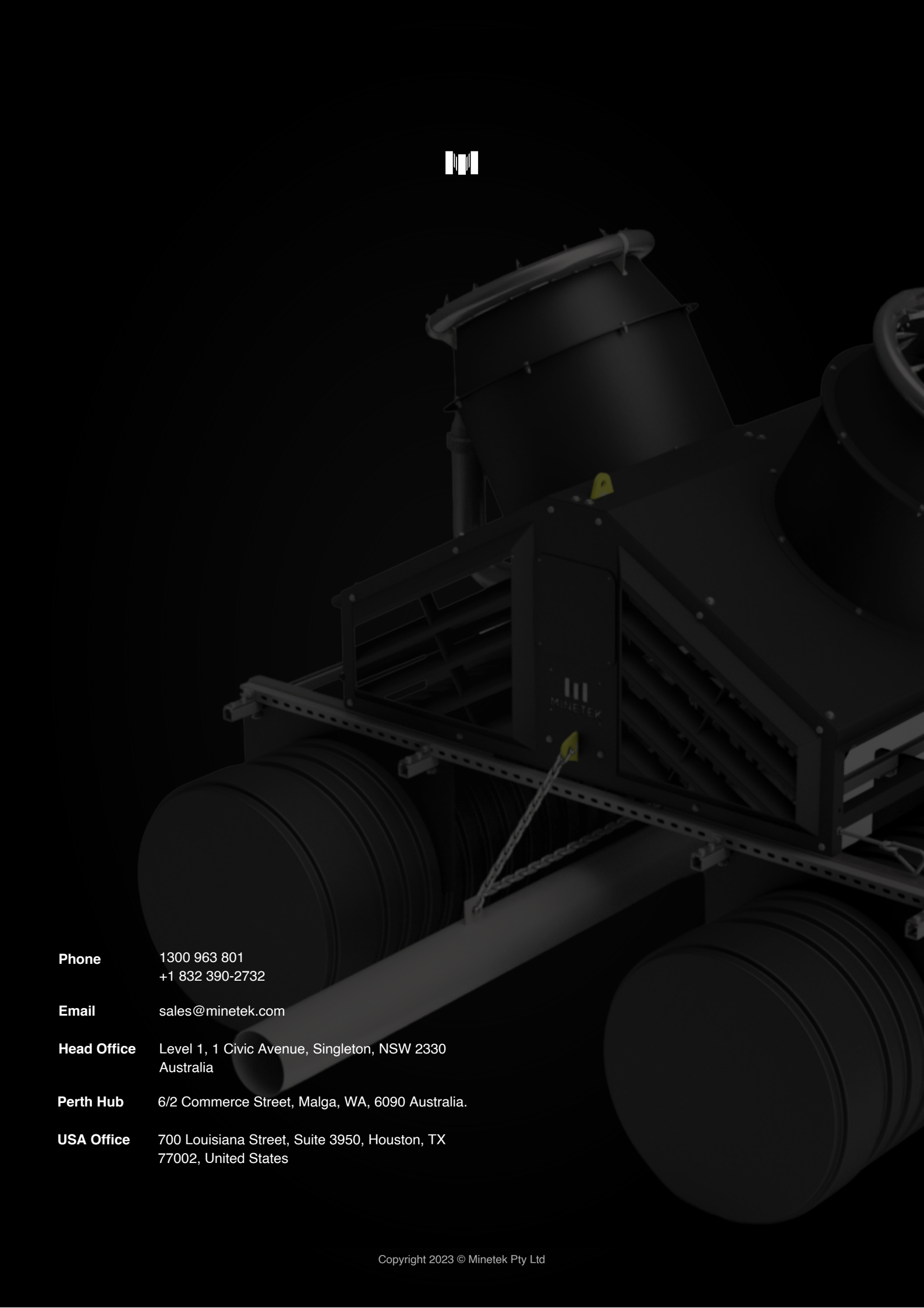
Client	QLD Government
Mine site	Mount Morgan Mine
Location	QLD, Australia
Product	3 x 400/200 Water Evaporators
Application	Legacy pit
Scope	System Package
Climate	Tropical



“

Minetek's 400/200 Water Evaporator's allowed the QLD Government to quickly address the pit's water levels and reduce the risk associated with this legacy asset.

Duane Thompson - Water Manager
Minetek



Phone 1300 963 801
+1 832 390-2732

Email sales@minetek.com

Head Office Level 1, 1 Civic Avenue, Singleton, NSW 2330
Australia

Perth Hub 6/2 Commerce Street, Malga, WA, 6090 Australia.

USA Office 700 Louisiana Street, Suite 3950, Houston, TX
77002, United States

Copyright 2023 © Minetek Pty Ltd