



JULIA CREEK PROJECT

Opportunity for a World-Class Vanadium & Oil Shale Mine, with associated Hydrogen Production



QEM Limited

QEM Limited is an Australian publicly-listed company (ASX: QEM) focussed on the exploration and development of its flagship Julia Creek Project in North Western Queensland, Australia.

The Julia Creek vanadium / oil shale project is a unique world class resource with the potential to deliver innovative energy solutions, through the production of energy fuels and vanadium pentoxide and hydrogen.

- Globally significant JORC (2012) Indicated + Inferred Resource 2,760 Mt @ 0.30% V2O5
- 783MMBL's of oil in the 3C category



Julia Creek

QEM's tenements (250km²) at Julia Creek form part of the vast Toolebuc Formation, recognised as one of the world's largest deposits of vanadium and oil shale.

In this Tier-1 Mining Location, close to all infrastructure and services, the associated Green Hydrogen strategy is now being accelerated.



Green Hydrogen and QEM

- Green Hydrogen is pure hydrogen produced using renewable energy sources such as wind or solar power
- QEM is well positioned to potentially produce green hydrogen, amid buoyant market conditions, a supportive policy environment and optimal project location
- Hydrogen industry has strong State and Federal Government backing in regards both policy and funding
- QEM seeks to provide a future hydrogen distribution point at Julia Creek to service the North West Minerals Province, as well as provide hydrogen for its own project needs.





This unique world-class deposit will provide QEM with significant penetration of the burgeoning battery market, liquid fuels sector and the Australian steel industry, underpinning the Company's goal to deliver innovative, clean energy solutions.



QEM LIMITED (ASX: QEM)

\$25m Market Cap
Growth from \$5m IPO in Oct 2018



ONE-TIME DRILLING

to reap dual commodities of vanadium pentoxide (V2O5) and transport fuels to support Australian resilience post-COVID



GREEN HYDROGEN

onsite production strategy brought forward to meet Government policy and industry needs



PROJECT IDEALLY LOCATED

North West Minerals Province
Eastern Resource Development Corridor
North Queensland Clean Energy Hub
Direct access to infrastructure and services - road and rail direct from Mt Isa to Port of Townsville



TEAM OF PROFESSIONALS

QEM is led by a team of highly successful and experienced mining professionals with proven track record of mine development; Management alignment with public shareholders; QEM Directors are major shareholders, holding approx. 50% of shares



VANADIUM REDOX FLOW BATTERIES

(VRFB) are the preferred solution for large scale energy storage globally; Infinite number of cycles, low self-discharge, low environmental footprint and can be completely recycled



CRITICAL MINERAL

Vanadium is classed as a Critical Mineral by Australian Government. Vanadium is a widely used alloy to strengthen steel and reduce carbon footprint; creates fuel efficiency with its high strength to weight ratio; naturally durable to extreme temperature and corrosion



PRIORITY

Development of Northern Australia and Resource Corridors Government Priority: Critical Minerals Facilitation Office
Queensland Hydrogen Industry Strategy
Qld Energy, Renewables and Hydrogen Ministry
Queensland Department of State Development
\$1.5B CopperString 2.0 adjacent to QEM Project