



# Resources Technology and Critical Minerals Trailblazer

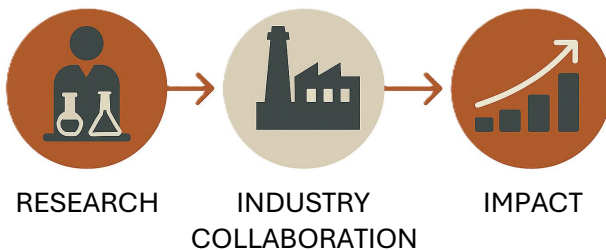
Transforming how industry, universities and research work together

Supporting optimization of resource operations by developing new technologies

Equipping innovators with the skills and knowledge to transform the sector

## Project

### Emerging Technologies for Advanced Geochemical Exploration Undercover



 Curtin University

IN COLLABORATION WITH

# Emerging Technologies for Advanced Geochemical Exploration Undercover

## Project Description

### Problem

Exploration for ore deposits undercover has had limited success.

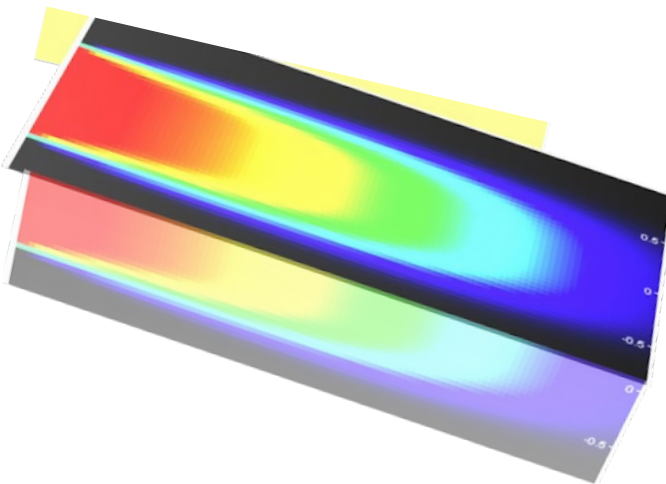
Groundwater chemistry can be a powerful exploration tool but current methods for isotope analysis have precision and accuracy problems due to groundwater salinity.

### Aims

Develop analytical methodology to improve results from saline groundwater.

Test methodology and verify previous isotopic anomalies in Mount Isa and Charters Towers regions.

Integrate results with groundwater modelling to identify isotopic dispersion signatures associated with mineralisation.



## Partnerships

### Collaborators

James Cook University –  
Geoscience, Engineering

Industry – Anglo American, Strategic  
Energy Resources, AIC Mines

### Project Lead

Dr Alex McCoy-West, JCU

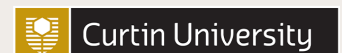
### Contributions

Industry ~ \$2.4m

Trailblazer ~ \$0.7m

Total Project Value ~ \$3.1m

April 2026  
For further information on JCU Trailblazer projects please  
send enquiries to: [EGRU@jcu.edu.au](mailto:EGRU@jcu.edu.au)



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