

Kathleen Valley
Liontown Resources Ltd
Pre-Feasibility Study





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Partners in Mine Planning

orelogy is a specialist mine planning consultancy with extensive experience in the planning and management of a resource. orelogy personnel have operational and consulting experience throughout the world, in a range of different commodities.

Established in 2005, orelogy is an agile and innovative consultancy that adopts a partnership approach with clients to develop practical solutions within a strategic framework. This approach ensures the delivery of key client outcomes.

In February 2022 orelogy was acquired by idoba.

idoba is an innovation ecosystem that identifies and solves problems by connecting technology offerings, expertise, and (mostly but not exclusively) energy and resources sector technical capability, to co-create a better future.

We now provide idoba with crucial mining domain knowledge as part of their vision to co-create a better and more sustainable future, in mining and beyond.

Our number
one goal is to
unlock the
true value of
your mining
project



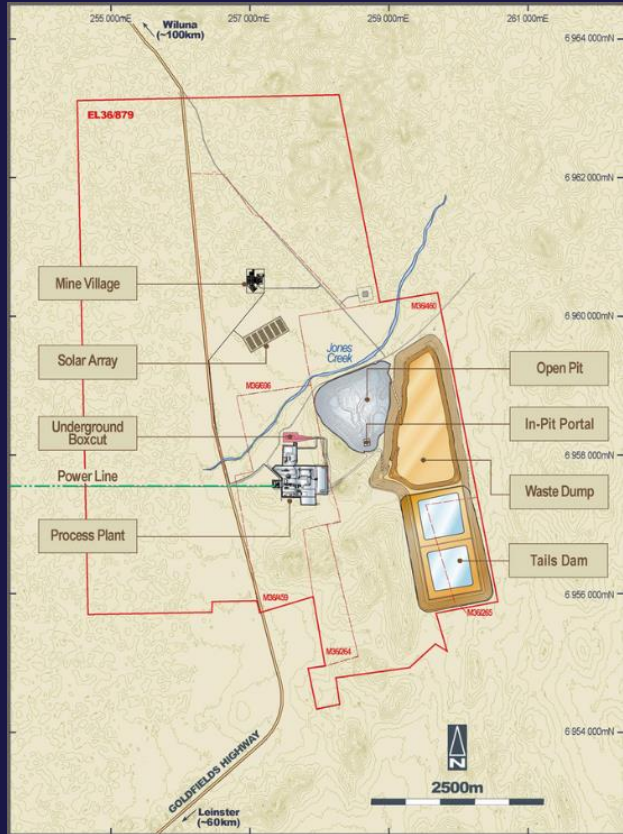
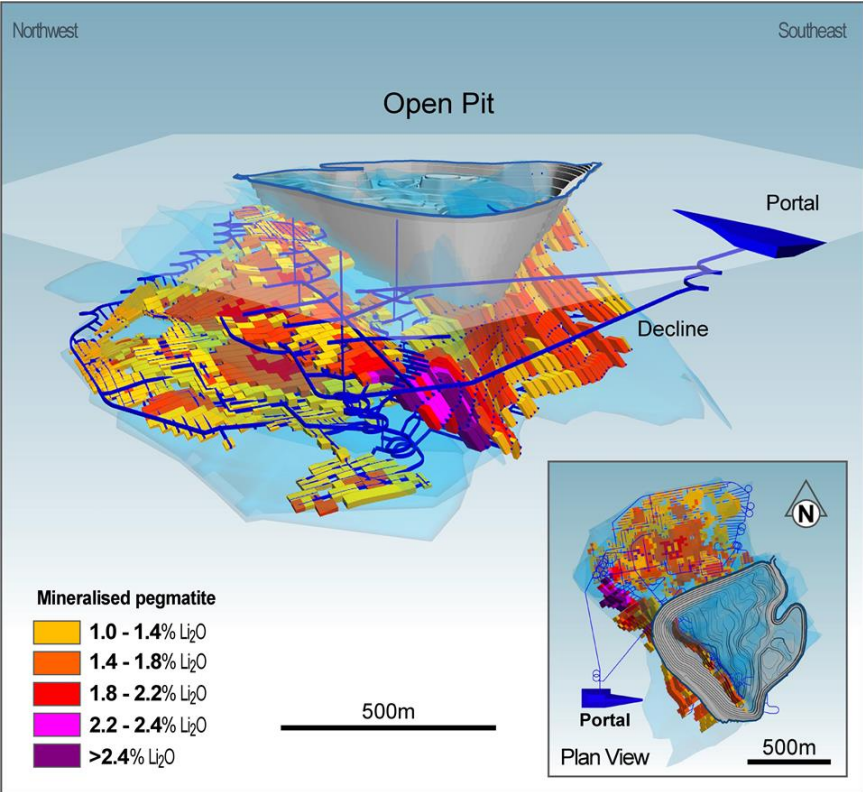
Project Summary

The Kathleen Valley Lithium project is located ~ 680 km to the NE of Perth in Western Australia and directly north of Leinster.

orelogy were involved with the project from its inception and completed the initial scoping study, an open pit PFS, an optioneering study identifying various open pit and underground combinations and a final PFS for a combined open pit and underground project to deliver 2.0 Mt of ore over a 35 year mine life.

This work provided the foundation for moving into the recently completed DFS for the project.

Project Kathleen Valley
Location Western Australia
Client Lontown Resources
Web www.ltresources.com.au





The Challenge

- Developing Australia's first underground lithium ore reserve and mine.
- Managing a very challenging mining schedule based on 4 different underground mining methods.
- Determining the most appropriate mining sequence and development plan.
- Managing multiple elements of the study.

The Scope

- Pre-Feasibility study development and completion.
- Project management of multi-disciplinary team including:
 - Geotech
 - Open pit and underground mining teams
- Development of a detailed open pit and underground Mining Study including:
 - Pit and underground stope optimisation
 - Open pit and underground mine design
 - Combined open pit and underground schedule development (including backfill)
 - Underground services including ventilation, communications, power etc.
 - Open pit and multiple underground mining method costings

orelogy quote

"The KV project is a very challenging project and orelogy have been successful in leveraging their expertise across a number of disciplines to deliver Australia's first underground lithium ore reserve." orelogy delivered the project on time and on budget for the client.

Jake Fitzsimons
Principal Mining
Consultant



Business Benefits

Owner/shareholder: maximise project value and provide the foundation for the DFS and subsequent decision to develop the project.

Mining Engineer: Provide practical mine plans that can be further developed during the implementation program.

Process engineers/metallurgists: Develop a consistent material feed over the life of the project whilst transitioning between open pit and underground develop schedules.

Contact orelogy,
an idoba company
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