

The Role of Impact Assessment in Delivering South Australia's Critical Minerals Projects



Nathan Zeman

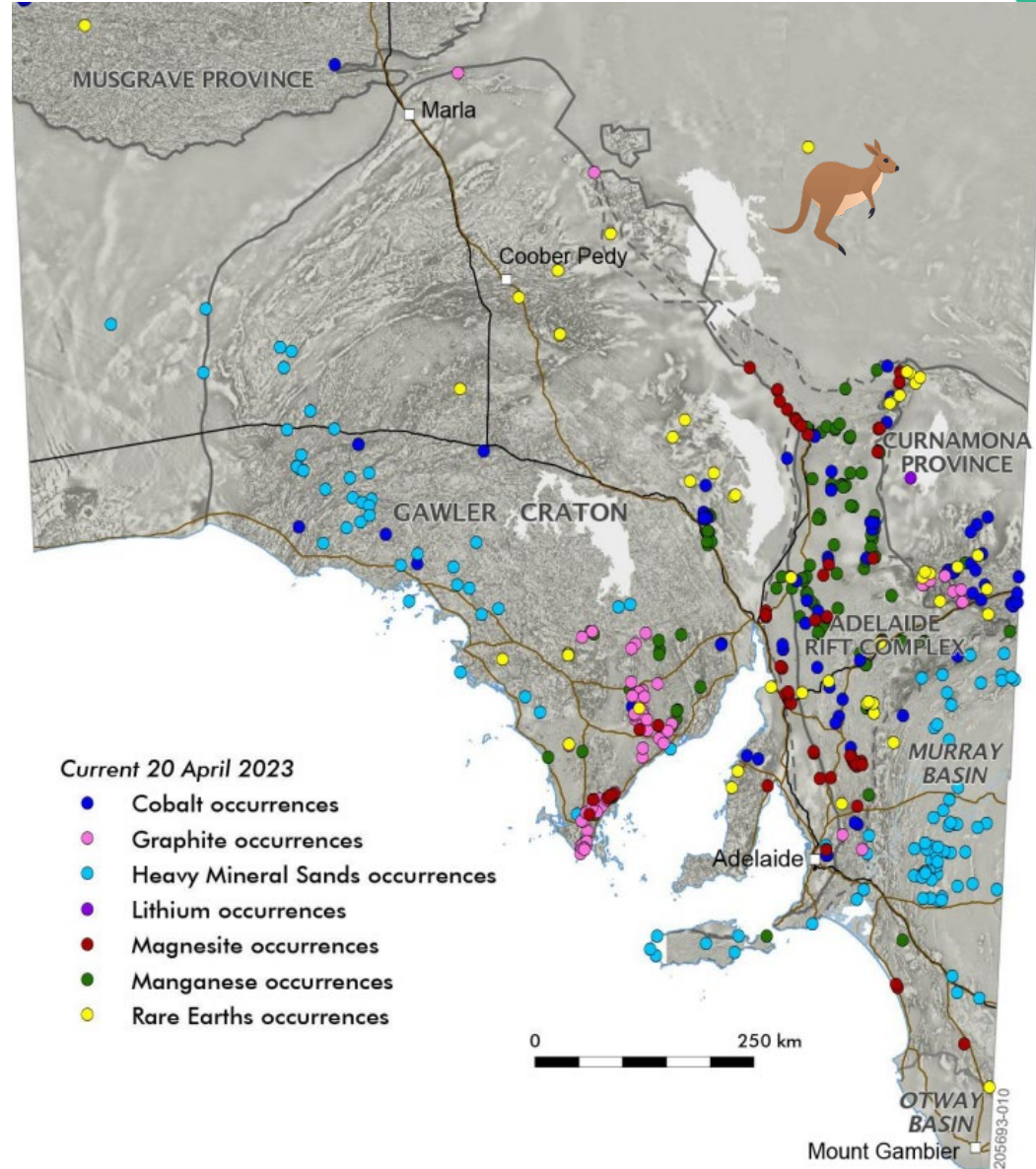
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South Australia context



Current 20 April 2023

- Cobalt occurrences
- Graphite occurrences
- Heavy Mineral Sands occurrences
- Lithium occurrences
- Magnesite occurrences
- Manganese occurrences
- Rare Earths occurrences

0 250 km

South Australian Draft Critical Minerals Strategy



Expected release mid-2024

Objectives:

- Expand SA's critical minerals processing
- Accelerate resource discovery, evaluation & development
- Leverage copper production

- Foster strong corporate environmental, social and governance (ESG) practice through robust regulation and policy.
- Continue to deliver South Australia's regulatory regime and improve assessment efficiency.

SA regulatory framework

Version: 1.1.2024

South Australia

Mining Act 1971

An Act to regulate and control mining operations; and for other purposes.

Contents

Part 1—Preliminary

- 1 Short title
- 6 Interpretation
- 7 Application of Act
- 8 Declaration of minerals
- 8A Opal development areas
- 9 Exempt land
- 9AA Waiver of exemption
- 9A Special declared areas
- 10 Mining in respect of minerals
- 10B Interaction with other laws

Department for Energy and Mining

TERMS OF REFERENCE

006

Mineral mine lease/licence applications

Notice under section 36 of the Mining Act 1971

Government of South Australia
Department for Energy and Mining

Mineral Regulatory Guidelines

MG25

Aboriginal engagement, good faith negotiation and agreement making

Government of South Australia
Department for Energy and Mining

Mineral Regulatory Guidelines

MG40

Aboriginal culture learning framework

Government of South Australia
Department for Energy and Mining

Mineral Regulatory Guidelines

MG41

Leading practice engagement

Government of South Australia
Department for Energy and Mining

Mineral Regulatory Guidelines

MG44

Leading practice for undergoing scoping

Government of South Australia
Department for Energy and Mining

Mineral Regulatory Guidelines

MG45

An introduction to social impact assessment

November 2021

Mineral Policy

004

Mining Act regulation, compliance and enforcement

May 2023

Mineral Policy

006

Transparency

INTRODUCTION

In South Australia, the *Mining Act 1971* and Mining Regulations 2020 are administered by the mineral resources division (MRD) of the Department for Energy and Mining, guided by principles of certainty, openness, transparency, flexibility, practicality and efficiency.

In keeping with these principles, MRD publishes information on its regulatory activities and those of tenement holders on authorised operations. This policy outlines the information and technical data that is publicly accessible.

The department's website offers **guidelines and policy documents** that can help you understand Mining Act requirements and the department's expectations.

MRD is committed to good practice. We recognise that this policy's ongoing implementation and continuous improvement will build greater accountability and trust through greater transparency, particularly for current and future community members and the general public who may be impacted by, or are interested in, Mining Act authorised operations.

TRANSPARENCY COMMITMENTS

- Information on authorised operations and MRD assessment and compliance activities will be publicly available in accordance with the Mining Act and related guidelines and policies, to allow visibility into whether tenement holders and the department are fulfilling their obligations.
- Documents will be public unless the Mining Act stipulates otherwise, to allow the public to participate more effectively in processes that matter to them.
- We will ensure public documents can be found and are accessible online.
- We will be transparent about our decision-making processes.

TRANSPARENCY REPORTING

The Department for Energy and Mining is committed to being open and accountable. We aim to proactively make information available online or by written request. In line with our commitment to transparency we publish:

- an annual regulatory report outlining our regulatory activity for the year
- geoscientific, geospatial and licence data on the South Australian Resources Information Gateway (SARIG)
- other relevant supporting information on our website energymining.sa.gov.au

MINING REGISTER AND INFORMATION

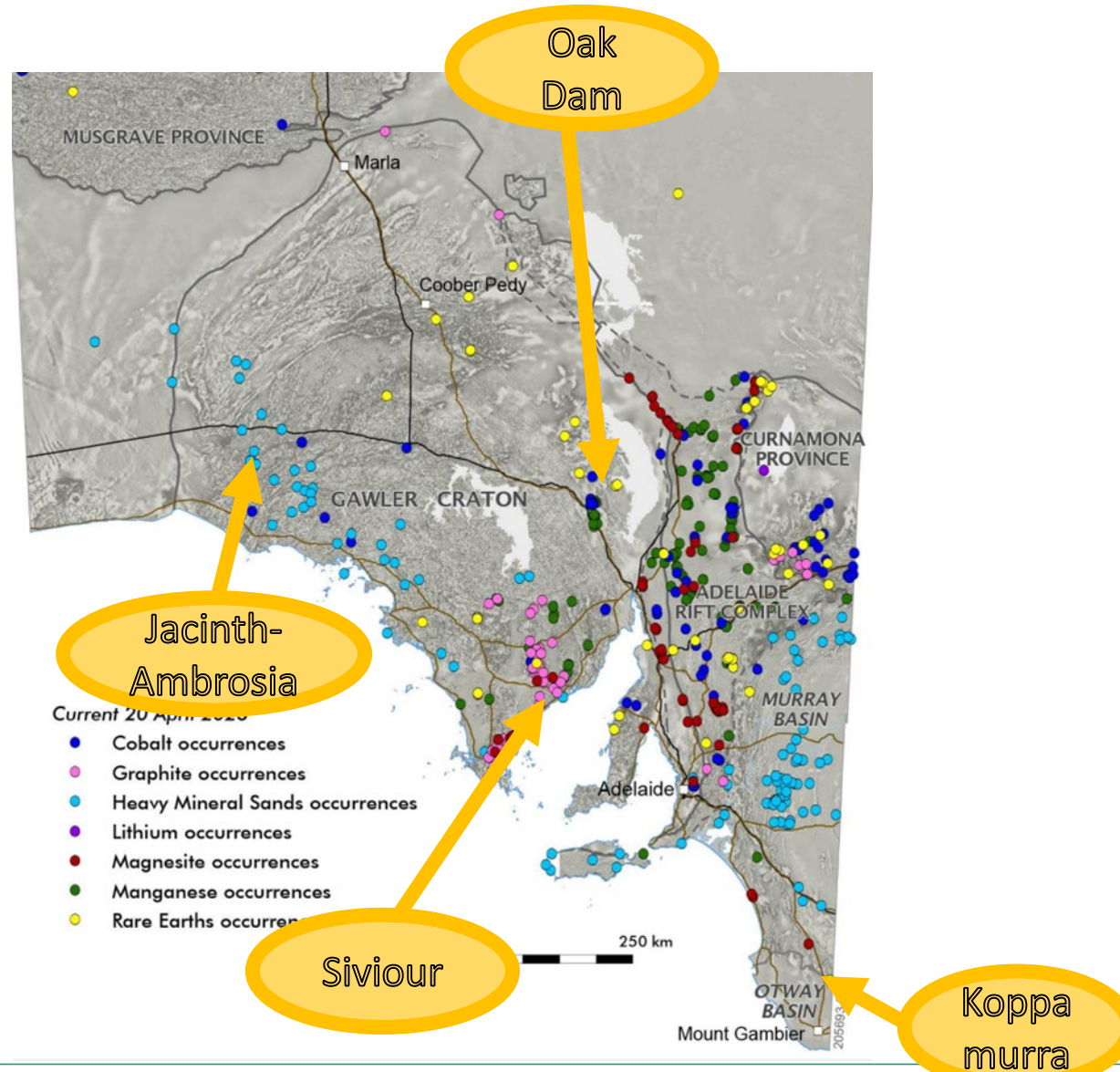
Mining Register

As established in the Mining Act Part 2A - Mining Register and Information, the Mining Registrar must keep a register (the Mining Register - tenementregister.sarig.sa.gov.au) of particular materials. The Mining Registrar is empowered with the discretion to contain other information on the Mining Register as the Registrar thinks fit, and in such forms including in electronic form, as the Registrar thinks fit.

Mining Register items:

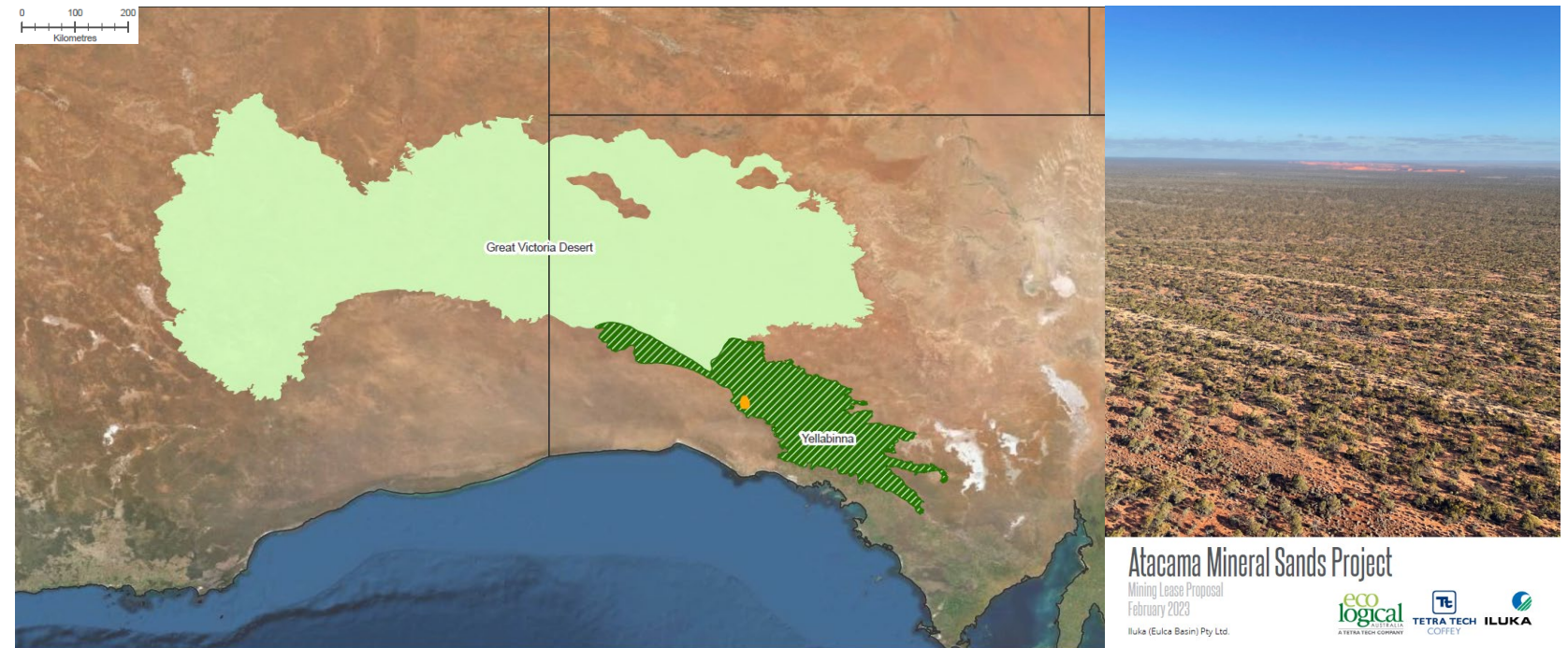
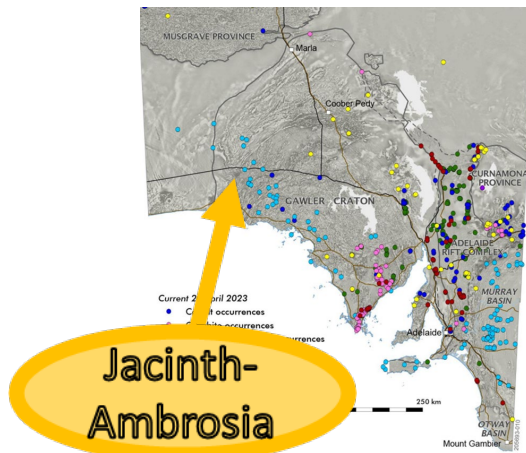
- are free to access where publicly available
- create a picture of the entire life of a tenement
- can provide communities, native title holders and landowners with a real-time indication of what exploration and mining activities have been approved over South Australian land
- assist in industry due diligence and claims for forfeiture

Current critical minerals projects



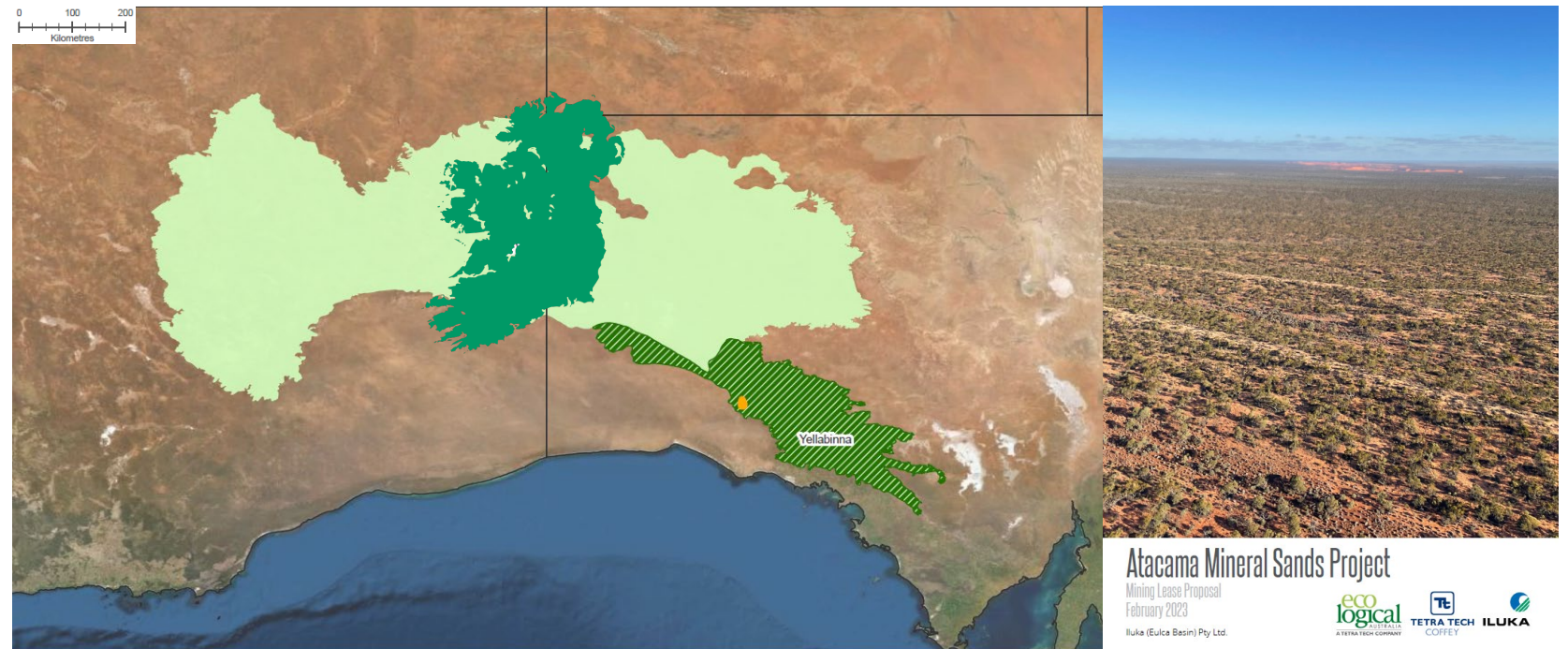
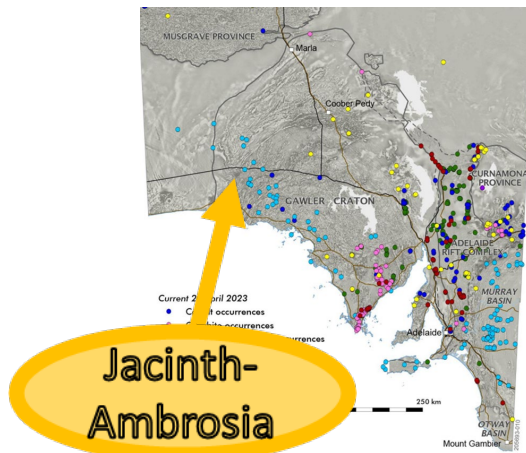
Jacinth-Ambrosia Mineral Sands Mine

- Complex regulatory IA framework
- Cultural heritage
- Biodiversity loss



Jacinth-Ambrosia Mineral Sands Mine

- Complex regulatory IA framework
- Cultural heritage
- Biodiversity loss



Siviour Graphite Project



SIVOIR GRAPHITE PROJECT

Mining Lease Proposal



ASSESSMENT REPORT

for the application for a mineral lease from Ausmin Development for the Siviour Project



Prepared by
Mining Regulation Branch
Department for Energy and Mining
SOUTH AUSTRALIA

19 March
2019

Application and approval process

On 28 August 2018 Ausmin submitted a [mining proposal](#) (PDF) to support a mining lease application to the Department for Energy and Mining for the Siviour Graphite Project.

On 19 September 2018, the Minister for Energy and Mining published the mining proposal and sought written submissions from members of the public relation to the application. The period for public comment closed on the 18 October 2018.

One public submission was received from Tumby Bay Residents and Ratepayers Association Inc:

- [TBRARA Inc submission](#) (PDF 869 KB)

The Department for Energy and Mining requested Ausmin provide a response to the public submission and other technical matters raised by government agencies. A copy of the letter can be found here:

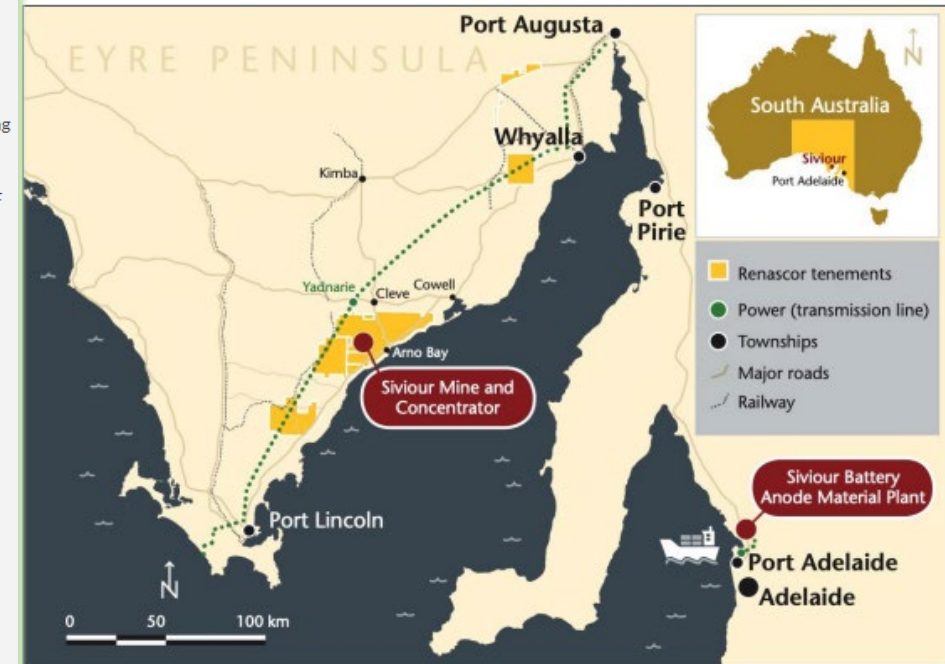
- [Department for Energy and Mining request letter](#) (PDF 3 MB)

Ausmin Development Pty Ltd response document and response supporting documents:

- [Response document for Siviour Graphite Project MC 4462](#) (PDF 7 MB)
- [Response supporting document for Siviour Graphite Project MC 4462 - Asbestos Materials Management Plan](#) (PDF 9 MB)
- [Response supporting document for Siviour Graphite Project MC 4462 - Appendix B Borelogs](#) (PDF 226 KB)
- [Response supporting document for Siviour Graphite Project MC 4462 - Soil Sampling Test Results](#) (PDF 103 KB)
- [Response Supporting Document for Siviour Graphite Project MC 4462 - Impact and Risk Register](#) (PDF 289 KB)

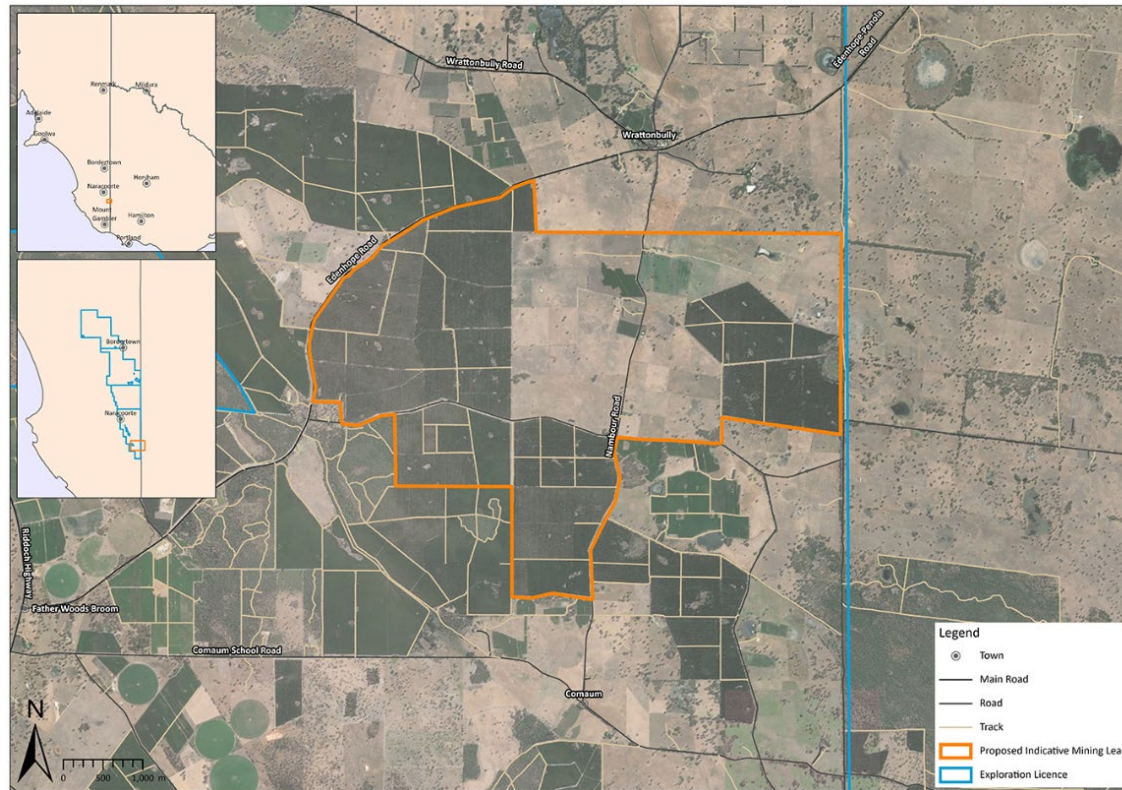
On 5 April 2019, ML 6495 was granted.

- [Assessment report for the application of ML for the Siviour Graphite Project](#) (PDF 3 MB)



Koppumurra Rare Earth Elements Project

- Social impacts - Key impact assessment consideration



Source : www.ar3.com.au

Upper Spencer Gulf

- SA Prosperity Plan
- Northern Water Project
- Oak Dam



energymining.sa.gov.au

BHP

**Oak Dam
Underground Access Project**

Retention Lease Proposal and
Miscellaneous Purposes Licence
Management Plans

Volume 1 of 4
Main document

November 2023



COPPER IS A CRITICAL MINERAL UNDERPINNING THE EXPANSION OF AUSTRALIA'S RENEWABLE ENERGY INFRASTRUCTURE AND THE DECARBONISATION OF OUR ECONOMY

Source : www.bhp.com

Conclusion

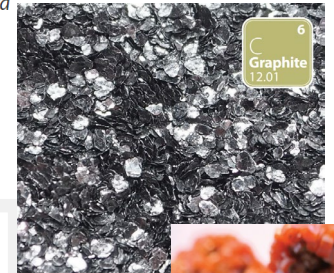
South Australia's Critical Minerals dashboards



Welcome to the critical minerals and mine waste dashboards. These interactive dashboards bring together information on South Australia's critical mineral potential both in the ground and now on the surface as mine waste, delivered as real-time data from the South Australian Resource Information Gateway's web services.

The Department for Energy and Mining is committed to expanding our understanding of South Australia's critical mineral potential. These dashboards provide new insights into occurrences and known resources, as well as the potential of tailings, stockpiles and waste dumps to assist exploration, promote innovation and support informed decision-making.

Click to filter commodities and projects or hover to receive extra tool tips. Further information and data downloads are available via [SARIG](#).



GRAPHITE
Critical mineral potential of South Australia
Alicia Caruso, Carmen Krapf and Adrian Fabris

VANADIUM
Critical mineral potential of South Australia
Alicia Caruso, Carmen Krapf and Adrian Fabris

South Australia's strategic critical minerals

Total projects: 29, Total major mines: 13, Total developing projects: 14

Project name	Project	Commodity	Company	Company link	Status	Mineral deposit link
Alford East	Mining Projects	Copper (Cu), Gold (Au)	Thor Energy Pt		JORC Resource	
Angas	Major Mines	Zinc (Zn), Lead (Pb), Silver (Ag), Gold (Au), Copper (Cu)	Terramin Australia Limited		Care and Maintenance	
Atacama	Mining Projects	Heavy minerals (HM)	Iuka (Gachs Basin) Pty Ltd		Assessment	
Cairn Hill	Major Mines	Magnetite (Fe3O4), Copper (Cu), Gold (Au)	Cu River Mining Australia Pty Limited		Care and Maintenance	
Compoona	Major Mines	Graphite	Archer Materials Limited		Mt. granted (PEPR pending)	
Compoona	Major Mines	Copper (Cu), Gold (Au), Silver (Ag)	BHP Group Pty Ltd		Operating	
Elizabeth Creek	Mining Projects	Copper (Cu), Cobalt (Co), Silver (Ag), Zinc (Zn)	Costa Minerals Ltd		Feasibility Studies	
Hemantle Dexter	Mining Projects	Copper (Cu), Gold (Au), Silver (Ag)	BHP Group Pty Ltd		JORC Resource	
Hammerhead	Mining Projects	Kaolin halloysite	Anstrometa Metals Limited		JORC Resource	
Jacynth Antbroia	Major Mines	Heavy minerals (HM)	Iuka Resources Limited		Operating	
Karrametta	Major Mines	Copper (Cu), Gold (Au)	Hillgrove Resources Limited		Operating	
Kapunda	Mining Projects	Copper (Cu)	EnminCopper/Terramin Australia Ltd		JORC Resource	

Status: JORC Resource 31.03%, Care and Maintenance 13.34%, Operating 27.5%, Advanced Exploration 3.45%, Feasibility Studies 17.24%

South Australia's mine waste ranking

Name	Mineral deposit link	Mine waste ranking	Commodities	Major commodity	Geochemical associations	Discovery year	Classification code
West Lagoon		47	Copper, Silver, Cobalt	Cu	Cu-Co-Ag-Bi-Au	1895	Deposit U
Iron Magnet		43	Iron	Fe	N/A	1930	Deposit U
Burna		42	Copper, Dolomite	Cu	Cu-Co-Ni-Zn-Au-Mn-Fe-U	1842	Deposit U
Iron Duchess South		42	Iron	Fe	REE	1930	Deposit U
Iron Pine Bee		42	Rare Earths, Rutile	REE	N/A	1953	Treatment site U
Iron Chaffard		41	Iron, Manganese	Fe	N/A	1933	Deposit U
Iron Knight		41	Iron	Fe	N/A	1930	Deposit U
Kapunda		41	Copper, Rami	Cu	Co-REE-Sr-Au	1842	Deposit U

Ranking contributions: West Lagoon - 3117, Iron Magnet - 8279, Burna - 3807, Iron Duchess South - 71, Iron Pine Bee - 3008, Iron Chaffard - 7187, Iron Knight - 7201

More information:

<https://www.energymining.sa.gov.au/industry/geological-survey/gssa-projects/critical-minerals-south-australia>

Let's continue the conversation!

Post questions and comments in the IAIA24 app.



#iaia24

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