



Doc ID: EP-03940

7 May 2026

Ms. Amy Jacka,
Copper Aura Pty Ltd,
31 Flemington Street,
Glenside, SA, 5065

email: amy.jacka@havilah-resources.com.au

Dear Ms. Amy Jacka

Notification of Approved Exploration Program for Environment Protection and Rehabilitation EPEPR

In reference to your final submission dated 13 April 2026, the EPEPR has been approved pursuant to section 70B(5) of the *Mining Act 1971* (the Mining Act).

The approved EPEPR will be made publicly available on the Mining Register and the Department for Energy and Mining (DEM) website. Details of the approved EPEPR are listed below.

Approval Granted to	Copper Aura Pty Ltd
Tenement Type & Number	<i>Exploration Licence (EL) 6592</i>
Program Number	EP-03940
EPEPR Description	12 Month EPEPR - Drilling of 40 RC drill holes approximately 55 km east of Olary in the Mutooroo Project area.

You are reminded that you must always implement and comply with this approved EPEPR.

This approval does not constitute endorsement of the systems that you have in place to manage the mining operations in compliance with the Mining Act. Whilst your capability to undertake this activity has been considered in this approval, the responsibility for compliance with the Mining Act always remains with the tenement holder.

The legislative requirements associated with the EPEPR are outlined below, and certain requirements must be actioned prior to commencement of operations authorised by the EPEPR.

1	Public Liability Insurance Pursuant to Regulation 81 of the <i>Mining Regulations 2020</i> (the Mining Regulations), you are required to provide a copy of a certificate evidencing the insurance coverage over the tenement(s).
2	Compliance Reporting

REGULATION AND COMPLIANCE



	<p>You are required to submit an annual exploration compliance report. The report is required to be submitted within 2 months after the anniversary of the date the licence was granted, or in accordance with joint reporting requirements agreed to with the Minister. Please refer to the DEM website for more information on reporting requirements.</p> <p>You are reminded that a separate compliance report is required 2 months after the expiry or surrender of the EL.</p>
3	Work, Health and Safety Compliance In accordance with Chapter 10 of the <i>Work Health and Safety Regulations 2012 (SA)</i> , you must meet the requirements for mine operators in South Australia, which include a notification for mining operations, the establishment of a Safety Management System, the identification of Principal Mining Hazards and development of a Principal Mining Hazard Management Plan. Further information on your responsibilities, including a guide to Chapter 10, and the Mine Operator Notification Form, is available on the SafeWork SA website .
4	EPEPR Timeframe The EPEPR is approved for a period of twelve months from the date of this letter. A further 3 months after expiry of the 12-month period is provided to complete all rehabilitation.

Please note, proposed changes to exploration operations stated in the approved EPEPR may require a EPEPR review to be submitted for assessment. Where a EPEPR review is required, implementation of the operational changes can only occur after the revised EPEPR is approved. Further information on when an exploration PEPR review is required can be found in Departmental guideline [MG22 Conducting mineral exploration](#).

In addition to the requirements under the Mining Act, you are reminded that your operation will have other legislative requirements that you will need to comply with.

If you have any further queries, please contact DEM staff as below:

General enquiries	Cobus Martins Assessment Officer, Exploration Regulation DEM.exploration@sa.gov.au
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Yours sincerely

Simon Constable
DIRECTOR, MINERALS REGULATION
In accordance with delegated powers and functions

The Department's Regulatory Guidelines, Ministerial Determinations and Information Sheets are available at: http://energymining.sa.gov.au/minerals/knowledge_centre

Exploration PEPR - EPEPR | 12 Month PEPR

Reference Number: EP-03940 • Status: Submitted

Select Applicable PEPR

Previous MERS EPEPR?

No Yes

Previous PEPR ID

—

Search PEPRs

—

Applicant and General Details

Applicant Details

Amy Jacka

Full Name *

Amy Jacka

Business Phone

Mobile Phone

0438 822 771

Email *

amy.jacka@havilah-resources.com.au (mailto:amy.jacka@havilah-resources.com.au)

Project Supervisor

Dr Chris Giles, Havilah Resources Limited, Technical Director
chris.giles@havilah-resources.com.au, 0428 610 557,
BSc (Hons), PhD in Geology. Over 40 years' experience in exploration and mining geology.

General Details

Tenement Details *

Tenement Type	Tenement Name	Tenement Holder
Exploration Licence	EL 6592	Copper Aura Pty Ltd

Operating Company

Copper Aura Pty Ltd

If there is another Operating Company, please provide

Account Name	Entity Type	Registered Address	Registered Email
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There are no records to display.

Project/prospect name

Mutooroo Project Area (MPA)

Mineral Model

The Mutooroo Deposit occurs as massive to semi-massive sulphide (chalcopyrite-pyrite-pyrrhotite). The deposit is comprised of structurally remobilised, en echelon, sulphide rich, breccia zones/lodes developed within a locally altered shear/fracture zone hosted within an actinolite-hornblende-garnet-epidote amphibolite.

The amphibolite body is flanked by a high grade deformed felsic gneiss and schist package and varies from relatively massive to strongly foliated with associated common biotite and lesser magnetite and minor locally intense garnet alteration. The main amphibolite body, which hosts the bulk of the mineralisation, is up to 190 m thick, thins/pinches out to the south, strikes approximately NNE and dips to the northwest at 45-50°. The gneiss/schist package displays local albite/chlorite altered zones. Minor later stage narrow, white quartz veins crosscut the sequence.

Primary Commodities *

Commodity Name ↑	Commodity Group	Grade
Cobalt	Exploration	
Copper	Exploration	
Gold	Exploration	
Lead	Exploration	
Zinc	Exploration	

Secondary Commodities

Commodity Name ↑	Commodity Group	Grade
There are no records to display.		

Project Description

The Mutooroo Project Area (MPA) is in the North East Pastoral Region of South Australia close to the New South Wales border. Geologically the project is in the Curnamona Province. The project is located on the Olary SH54-02 1:250,000 mapsheet and Mingary 7033 1:100,000 mapsheet.

The MPA (EL6592) is situated on Mutooroo and Pine Creek Stations, currently used for sheep grazing (Map 1).

Proposed Project Schedule

Start Date

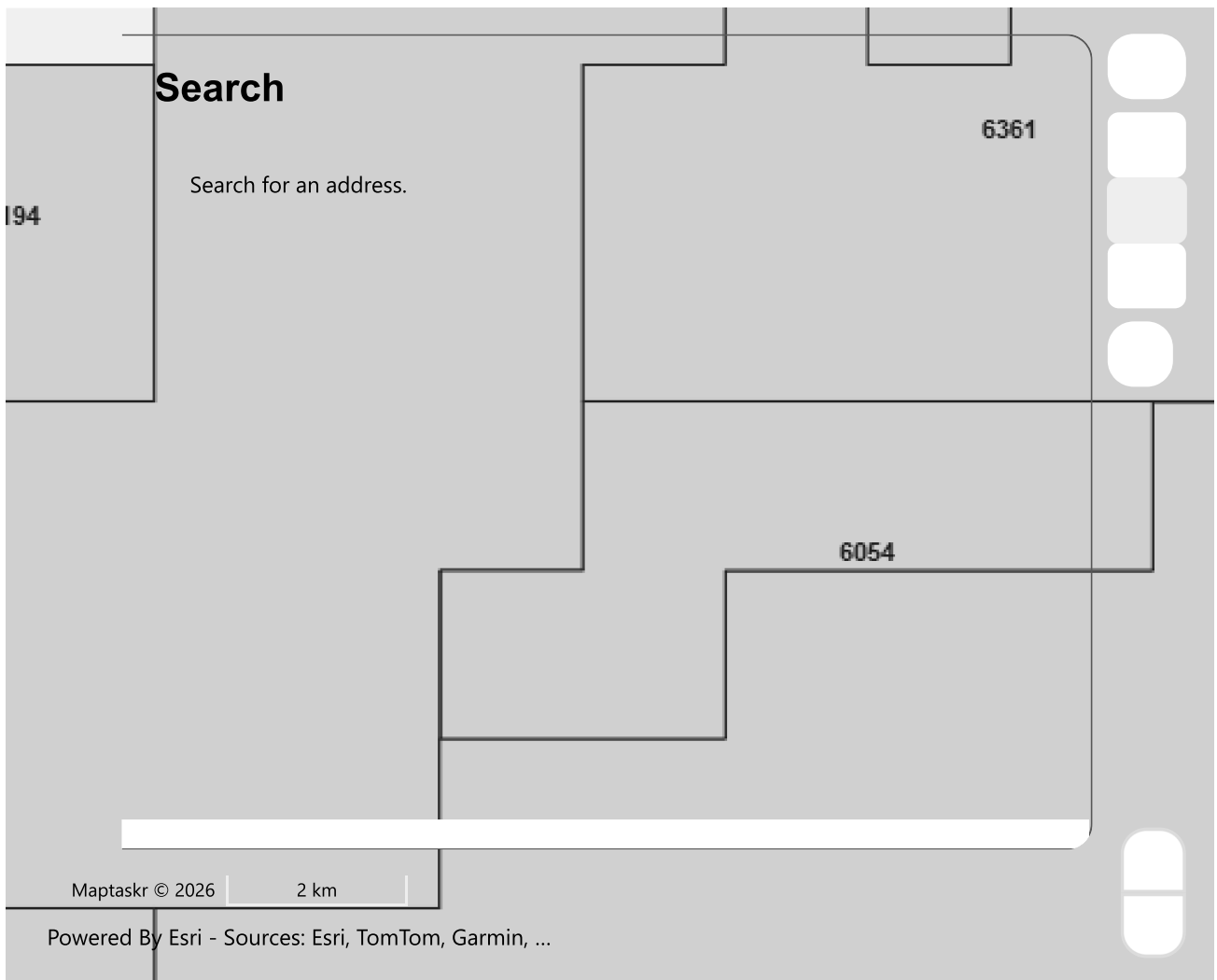
15/04/2026

End date

15/04/2027

Clearly describe why a PEPR review is required, summarise all content changes made to the approved PEPR, and provide appropriate justification where a time extension is required.

Identify Application Area



Map Layer Intersects

Application Area Details

Location Description

Approximately 55 km east of Olary.

Area (Sqkm)

23.22

Spatial Data Intersects - Summary Table

Show entries

Search:

Spatial Layer Name	Category	Referral	Intersect Count
1:250K mapsheets	Other		1
Cadastral Parcels	Other		85
Determinations of Native Title	Other		1
Exploration licences (mineral/opal)	No-Go Area		1
Mineral leases (ML)	No-Go Area		1
Mining lease	No-Go Area		1
Pastoral Lease Boundaries	Other		3
Registered Native Title Determination Applications	Other		1
Schedule of Native Title Claims	Other		1

Showing 1 to 9 of 9 entries

Previous

1

Next

Spatial Data Intersects - Details Table

Show entries

Search:

Spatial Layer Name	Shape	Primary Attribute	All Attributes	Category
1:250K mapsheets	Shape 1	OLARY	View attributes	Other

Spatial Layer Name	Shape	Primary Attribute	All Attributes	Category
Cadastral Parcels	Shape 1	T835405AL59	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL61	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL67	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL9	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL27	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL16	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL19	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL21	View attributes	Other
Cadastral Parcels	Shape 1	T835405AL26	View attributes	Other

Showing 1 to 10 of 95 entries

[Previous](#)

[2](#)
[3](#)
[4](#)
[5](#)
[...](#)
[10](#)
[Next](#)

Program Preparation

Work undertaken in preparing the proposal

Drill hole locations are planned following extensive collation and interpretation of existing data (both historical from previous companies and from Havilah's ongoing regional exploration) in combination with the extensive local geological knowledge of Havilah geologists, who have been working in the area for many years. The drilling targets are near the historical Mutooroo Mine. Dialogue with landowners is ongoing and Notices of Entry (Form 21B) have been issued to both landowners and native title claimants. A cultural heritage survey has been completed at the Mutooroo Mine and additional surveys will be conducted as required for new drillhole sites.

Operator Capability

Havilah Resources are an established and competent exploration company with more than 20 years history of exploring in this region. The company employs capable geological and exploration staff with an average of more than 25 years exploration industry experience spread over many varied terrains, environments and jurisdictions. Havilah has maintained an above industry standard of exploration and rehabilitation compliance in South Australia.

Havilah Resources operates its own equipment including backhoes and grader. Experienced and trained operators are employed directly by the company and these operators are engaged to conduct the drilling programs and environmental rehabilitation associated with these activities. The company's exploration staff have a long history of working on pastoral country and are also responsible and involved in the management of Kalkaroo Station which is owned by Havilah Resources.

Havilah Resources have a number of operational and procedural documents in place including but not limited to;

- Employee Induction and HSE Booklet
- Remote Areas Operations – Emergency Response and Hazard Awareness Booklet
- Guidelines for working on Station Properties
- Project Specific Inductions including guidelines regarding Heritage Clearance conditions and governmental drilling approval conditions
- Field Emergency Response Manual
- Incident Investigation Management Procedure
- Communication, Consultation and Involvement
- Pre-Drilling Safety and Equipment Checklist
- Drill Rig Safety Inspection Checklist
- Equipment, Drill Rig and Vehicle Inspection Reports
- Numerous Hazard, Risk Management, Incident Reporting and JSA documents and records
- Toolbox Meetings, Training Registers

In addition to the geological and field exploration staff, Havilah employs a Principal Environmental Advisor, Geoff Borg, MSc (Hydrogeology and Groundwater Management): Geoff is an experienced hydrogeologist with over 25 years of experience directing, managing, and advising environment assessment, compliance, risk management, and approvals for industrial operations and resource projects across Australia. He is experienced in incorporating technical, legal, and business requirements into effective communications and plans for strategic assessment and implementation of approvals and work plans to achieve environmental compliance. Geoff's experience includes oil refineries and storage terminals, planning and environmental approvals for projects including fuel storage facilities, ranging from service stations to underground coal gasification, carbon capture and storage, and mining projects.

An Environmental Management System specific to the project is being developed which details the environmental management approach adopted for the project to achieve the environmental outcomes as defined in this PEPR. The Environmental Management System will include Environmental Management Plans with procedures and processes to ensure continuous improvement and compliance with legal and other requirements.

The Environmental Management System will also incorporate information for the following:

- environmental governance
- environmental training, awareness and competence
- audits and inspections
- emergency preparedness, incidents and response
- monitoring, measurement and evaluation
- management review
- documentation and records.

All staff and contractors at the Mutooroo Project Area will be required to work under the Environmental Management System.

Havilah Resources has developed an Environmental Policy, which will be used for the project as follows: Havilah Resources is committed to conducting all its operations in an environmentally responsible manner. The Company will plan and manage its activities to minimise disturbance to the environments in which it operates.

To fulfil our objectives, the Company will observe all environmental laws and regulations and use all available resources to:

- Review, update and audit this policy and environmental management plans to affect positive environmental outcomes in all the Company's activities.
- Discuss and resolve with stakeholders any possible area of environmental conflict.
- Integrate environmental considerations into our work planning and operations.
- Assess and where possible, reduce the potential impact of our operations on the environment in which we work.
- At all times work towards improving our environmental performance.
- Rehabilitate the environment affected by our operations, where required by legislation.
- Actively promote environmental awareness and provide relevant environmental information, instruction and training for management and personnel.
- Where necessary, engage the services of expert external personnel to advise on environmental matters.
- Co-operate with government authorities, Traditional Owners, environmental groups, landowners and any other stakeholders in the formulation and application of rational and practical environmental guidelines and legislation.

The aim of this Environmental Policy is to provide realistic and achievable guidelines for all personnel involved in the Company's activities.

Lease Conditions

N/A

Land Access

Identify the Owners of Land and authority to access land

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application or
CR 5748/54	T835405A L59						Unchecked
CR 5748/56	T835405A L61						Checked
CR 5748/62	T835405A L67						Checked
CR 5764/641	T835405A L9						Checked
CR 5748/25	T835405A L27						Checked
CR 5748/19	T835405A L16						Checked
CR 5764/643	T835405A L19						Checked
CR 5750/446	T835405A L21						Checked
CR 5748/24	T835405A L26						Checked
CR 5748/26	T835405A L28						Checked
CR 5748/27	T835405A L29						Checked
CR 5748/42	T835405A L46						Checked
CR 5748/43	T835405A L47						Checked
CR 5748/11	T835405A L5						Checked
CR 5748/57	T835405A L62						Checked
CR 5748/59	T835405A L64						Checked
CR 5748/60	T835405A L65						Checked

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application
CR 5748/65	T835405A L70						Checked
CR 5748/70	T835405A L75						Checked
CR 5748/14	T835405A L10						Checked
CR 5748/22	T835405A L23						Checked
CR 5748/10	T835405A L4						Checked
CR 5748/39	T835405A L43						Checked
CR 5748/46	T835405A L50						Checked
CL 6174/63	F36714AL 65						Checked
CR 5748/12	T835405A L6						Checked
CR 5748/61	T835405A L66						Checked
CR 5748/23	T835405A L25						Checked
CR 5748/28	T835405A L32						Checked
CR 5748/30	T835405A L34						Checked
CR 5748/31	T835405A L35						Checked
CR 5748/41	T835405A L45						Checked
CR 5748/53	T835405A L58						Checked
CR 5748/58	T835405A L63						Checked
CR 5748/63	T835405A L68						Checked

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application
CR 5748/71	T835405A L76						Checked
CT 5833/787	T835405A L20						Checked
CT 5467/235	T835405A L31						Checked
CR 5748/34	T835405A L38						Checked
CL 6174/63	H835400S E1141						Checked
CR 5748/13	T835405A L7						Checked
CR 5748/67	T835405A L72						Checked
CR 5764/638	T835405A L1						Checked
CR 5748/15	T835405A L11						Checked
CR 5748/17	T835405A L13						Checked
CT 5833/787	T835405A L15						Checked
CR 5764/639	T835405A L2						Checked
CR 5748/29	T835405A L33						Checked
CR 5748/35	T835405A L39						Checked
CR 5748/48	T835405A L52						Checked
CR 5748/55	T835405A L60						Checked
CR 5748/69	T835405A L74						Checked
CR 5748/16	T835405A L12						Checked

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application
CR 5764/642	T835405A L18						Checked
CR 5748/9	T835405A L3						Checked
CR 5748/36	T835405A L40						Checked
CR 5748/38	T835405A L42						Checked
CR 5748/45	T835405A L49						Checked
CR 5750/447	T835405A L53						Checked
CR 5748/52	T835405A L57						Checked
CR 5748/68	T835405A L73						Checked
CR 5764/640	T835405A L8						Checked
CR 5748/18	T835405A L14						Checked
CT 5467/235	T835405A L30						Checked
CR 5748/33	T835405A L37						Checked
CR 5748/44	T835405A L48						Checked
CR 5748/49	T835405A L54						Checked
CR 5748/51	T835405A L56						Checked
CL 6174/63	F36714AL 113						Checked
CR 5748/64	T835405A L69						Checked
CR 5748/66	T835405A L71						Checked

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application
CR 5748/20	T835405A L17						Checked
CR 5748/21	T835405A L22						Checked
CT 5833/787	T835405A L24						Checked
CR 5748/32	T835405A L36						Checked
CR 5748/37	T835405A L41						Checked
CR 5748/40	T835405A L44						Checked
CR 5748/47	T835405A L51						Checked
CR 5748/50	T835405A L55						Checked
CR 5764/626	H835400S E1490	Crown	Mr James Morgan - Mutooroo Station	Service of Notice of Entry	01/09/2025	21 B	Checked
CR 5748/6	H835400S E1416	Crown	Mr James Morgan - Mutooroo Station	Service of Notice of Entry	01/09/2025	21 B	Checked
CR 5748/5	H835400S E1415	Crown	Mr James Morgan - Mutooroo Station	Service of Notice of Entry	01/09/2025	21 B	Checked
CL 1298/29	H835400B L1153	Crown	Mr James Morgan - Mutooroo Station	Service of Notice of Entry	01/09/2025	21 B	Checked
CL 6174/63	F36714AL 67	Crown	Rohan and Julie Rogers - Pine Creek Station	Service of Notice of Entry	01/09/2025	21 B	Checked

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application
CL 6174/66	H835400B L1149	Crown	Rohan and Julie Rogers - Pine Creek Station	Service of Notice of Entry	01/09/2025	21 B	Checked

Is any of the application area over a road, street or highway

No

Woomera Prohibited Area (WPA)

Will activities be conducted within the WPA

No

In which zone will activities be conducted?

Name	Are you intending to undertake work?	Closure start date	Closure end date
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There are no records to display.

Does the tenement holder hold a valid and current Resource Exploration Permit under the WPA Rule?

—

Permit No.

—

What is the expiry date of the permit?

—

Does the Exploration Permit allow the operator to conduct exploration operations in the WPA?

—

Other Land Owned or Controlled by the Commonwealth Department of Defence

Indicate if you are intending to undertake exploration operations within the identified defence land

No

Other Commonwealth defence land

Defence Land

Applicable

There are no records to display.

Do you have a Deed of Access with Defence?

—

Expiry date of the Deed of Access

—

Date the Range Control Officer granted permission to conduct the proposed exploration operations.

—

Describe the results of consultation and how any concerns raised were addressed

—

Native Title

Does 'Native Title land' exist within the application area?

Yes

Using the table below, describe how you have complied with the requirements of Part 9B of the Mining Act for each tenement.

Name of Determined / Claimant Group	Agreement Type	Instrument Number	Applicable
Wilyakali	Native Title	Instrument Number 329 - Registered 04/08/2014.	Yes

Provide any additional relevant information

Pine Creek Station: Rohan and Julie Rogers (owners) Form 21B served via email. No issues raised. Form 21B has been registered in MERS (11/09/2025)
Mutooroo Station: Mr James Morgan (owner) Form 21B served via email. No issues raised. Form 21B has been registered in MERS (11/09/2025)

Exempt Land

Exempt Land

Has Exempt land been identified?

No

If a "Waiver of Exemption" has been reached to waive the benefit of the exemption, a notice of the agreement must be given to the Mining Registrar, either within 21 days after the agreement was entered into or when an application for the mineral tenement is made under the Mining Act.

In the table below enter the relevant instrument numbers for any Form 23C - Notice of wavier of exemption provided to the Mining Registrar.*

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CR 5764/64 3	T8354 05AL1 9				
CR 5764/63 8	T8354 05AL1				
CR 5748/52	T8354 05AL5 7				
CR 5764/64 1	T8354 05AL9				
CR 5748/25	T8354 05AL2 7				
CR 5748/56	T8354 05AL6 1				
CR 5750/44 6	T8354 05AL2 1				
CR 5748/9	T8354 05AL3				
CR 5748/27	T8354 05AL2 9				
CR 5748/65	T8354 05AL7 0				
CR 5748/23	T8354 05AL2 5				

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CR 5748/35	T8354 05AL3 9				
CR 5750/44 7	T8354 05AL5 3				
CR 5748/68	T8354 05AL7 3				
CR 5748/51	T8354 05AL5 6				
CR 5748/32	T8354 05AL3 6				
CR 5748/40	T8354 05AL4 4				
CR 5748/44	T8354 05AL4 8				
CR 5748/26	T8354 05AL2 8				
CR 5748/24	T8354 05AL2 6				
CL 6174/63	F3671 4AL65				
CR 5748/15	T8354 05AL1 1				
CR 5764/63 9	T8354 05AL2				
CR 5748/29	T8354 05AL3 3				
CR 5748/67	T8354 05AL7 2				

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CR 5748/64	T8354 05AL6 9				
CR 5764/64 0	T8354 05AL8 0				
CR 5748/59	T8354 05AL6 4				
CR 5748/70	T8354 05AL7 5				
CR 5748/39	T8354 05AL4 3				
CR 5748/55	T8354 05AL6 0				
CT 5467/23 5	T8354 05AL3 0				
CR 5748/45	T8354 05AL4 9				
CR 5748/66	T8354 05AL7 1				
CR 5748/60	T8354 05AL6 5				
CR 5748/10	T8354 05AL4				
CR 5748/38	T8354 05AL4 2				
CL 6174/63	F3671 4AL11 3				
CR 5748/53	T8354 05AL5 8				

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CL 6174/63	H8354 00SE1 141				
CR 5748/69	T8354 05AL7 4				
CR 5748/36	T8354 05AL4 0				
CT 5833/78 7	T8354 05AL2 4				
CR 5748/37	T8354 05AL4 1				
CR 5748/14	T8354 05AL1 0				
CR 5748/46	T8354 05AL5 0				
CR 5748/34	T8354 05AL3 8				
CT 5833/78 7	T8354 05AL1 5				
CR 5748/48	T8354 05AL5 2				
CR 5748/16	T8354 05AL1 2				
CR 5748/42	T8354 05AL4 6				
CR 5748/43	T8354 05AL4 7				
CR 5748/71	T8354 05AL7 6				

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CT 5467/23 5	T8354 05AL3 1				
CR 5748/57	T8354 05AL6 2				
CR 5748/63	T8354 05AL6 8				
CT 5833/78 7	T8354 05AL2 0				
CR 5748/13	T8354 05AL7				
CR 5748/49	T8354 05AL5 4				
CR 5748/21	T8354 05AL2 2				
CR 5748/19	T8354 05AL1 6				
CR 5748/11	T8354 05AL5				
CR 5748/22	T8354 05AL2 3				
CR 5748/12	T8354 05AL6				
CR 5748/61	T8354 05AL6 6				
CR 5748/31	T8354 05AL3 5				
CR 5748/41	T8354 05AL4 5				
CR 5748/58	T8354 05AL6 3				

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CR 5748/17	T8354 05AL1 3				
CR 5764/64 2	T8354 05AL1 8				
CR 5748/18	T8354 05AL1 4				
CR 5748/33	T8354 05AL3 7				
CR 5748/30	T8354 05AL3 4				
CR 5748/28	T8354 05AL3 2				
CR 5748/20	T8354 05AL1 7				
CR 5748/47	T8354 05AL5 1				
CR 5748/62	T8354 05AL6 7				
CR 5748/50	T8354 05AL5 5				
CR 5764/62 6	H8354 00SE1 490	Mr James Morgan - Mutooroo Station			
CR 5748/5	H8354 00SE1 415	Mr James Morgan - Mutooroo Station			
CL 1298/29	H8354 00BL1 153	Mr James Morgan - Mutooroo Station			
CR 5748/6	H8354 00SE1 416	Mr James Morgan - Mutooroo Station			

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CL 6174/63	F3671 4AL67	Rohan and Julie Rogers - Pine Creek Station			
CL 6174/66	H8354 00BL1 149	Rohan and Julie Rogers - Pine Creek Station			

Consultation

Consultation

Stakeholder ↑	Land Use	Matters raised	Stakeholder concerns raised and how addressed
Mutooroo Pastoral Company Pty Ltd (Owner), Adam and Kirsty Lomman (Managers) Mutooroo Station	Grazing	Vehicle movement around Stock.	Havilah personnel to slow vehicle speed to walking pace when near stock.
Rohan and Julie Rogers - Pine Creek Station			
Rohan and Julie Rogers - Pine Creek Station	Grazing	Vehicle movement around stock.	Havilah personnel to slow vehicle speed to walking pace when near stock.
Rohan and Julie Rogers - Pine Creek Station			
Wilyakali (SC2012/001)		N/A	N/A

If any individual or group of similar affected persons were not able to be consulted, what steps were taken to consult with them?

N/A

Provide any additional relevant information.

Consultation carried out as follows:

- Serving of Form 21B to the owners/managers of both the pastoral blocks and the native titles claimants (Completed).
- Liaise with the manager of Mutooroo Station (Adam and Kirsty Lomman), and owners of Pine Creek Station (Rohan and Julie Rogers) regarding the timing and location of the planned drilling (Completed and ongoing).
- Submit a request for heritage clearance of the drill sites to the Wilyakali Native Title Claimants via representative Lawyer (Completed).
- Liaise with representative Lawyer and Anthropologist to determine a suitable time to conduct Aboriginal Cultural Heritage Survey (Completed).
- Aboriginal Cultural Heritage Survey and clearance with the Wilyakali Native Title Claimants (Partially Completed and Requested. No drilling will occur on non-cleared positions prior to survey).

Describe any council policies (or out of council) or development plans that may impact the program area and a description of any known plans for future land use changes by other parties.

N/A

Description of Environment

Proximity to Infrastructure and Housing

Provide the following information:

The proposed exploration program will be conducted mostly on Mutooroo Station, managed by Adam and Kirsty Lomman with minor planned work on Pine Creek Station owned and managed by Rohan and Julie Rogers. The closest township is Cockburn to the north of the MPA and the closest occupied dwellings are Pine Creek homestead 8 km to the north, and Mutooroo homestead ~20 km to the south of proposed drill targets (Map attached). No infrastructure will be affected by drilling. The project is located on the Olary SH54-02 1:250,000 mapsheet and Mingary 7033 1:100,000 mapsheet.

Attach Files 

File Name	File Size (Mb)	Created On	Download	Expand/Collapse
EL6592 Location and Surrounds.jpg	2.46 Mb	06-09-2025 22:34:19	Download (MERS/EP-03940/Proximity to infrastructure/EL6592 Location and Surrounds_2025-09-06T13-04-21.699Z.jpg)	

Landform, topography, soil and surface cover

Describe the topography and soil and surface cover (e.g. gibber) of the general area affected by the exploration program. Include details on the susceptibility to compaction, erosion, dust, runoff and visual attributes (steep or undulating slopes, plains, rocky outcrops, dunes, salt pans, clay pans etc) any other characteristics (e.g. acid sulphate soils) that may require control strategies to reduce environmental impacts during operations or rehabilitation.

The MPA lies adjacent to the Barrier Ranges, in a broad regional zone categorised by the Natural Resources Management of South Australia as the "SA Arid Lands". The NE-SW trending Barrier Ranges fuse into the Flinders Ranges to the south and together form part of the Adelaide Fold Belt. The Barrier Ranges separate the Lake Eyre Basin to the north from the Murray Basin to the south, with intramontane plains in-between. The project area can be described as an extensive sand plain, with low hills of folded metasediments and granite, with small flood plains. The plains are generally flat and are often featureless. Relief in the area ranges from 200 to 270 m with Pinery Hill being the highest point proximal to the project area at 273 m. The area is devoid of both limestone and caves.

The area consists of mainly sandy-clay plains with low scrubland vegetation. The Mutooroo Project Area is located within the IBRA Barrier Range sub-region of the Broken Hill Complex Bioregion. It has been assigned a climate zone of E6: Semi-arid climate that is too dry to support field crops. Soil moisture tends to be greatest in winter. Three soil types are present within the immediate project area.

Soil type 1: Alluvial sands and silts around watercourses (0.1-1 m)

Occurring on alluvial material near drainages. These soils are overlain in part by aeolian sands. Nutrient levels would be expected to be slightly higher in these soils as more vegetation occurs in and around them),

Soil type 2: Skeletal soils on exposed bedrock areas (1-2 m)

Composed of alluvial sands and silts. Although these 'soils' are host to a relatively denser vegetation, this is most likely due to both their proximity to waterways with their inherent higher moisture levels and the underlying red-brown soils.

Soil type 3: Red-brown soils covered in places by aeolian sands (0.01-0.05 m)

These soils host little or no vegetation as there is no organic content or depth. Establishment of root structure is therefore not possible, nor are nutrients maintained for vegetative use.

Old workings from mining in the late 19th and early 20th century have left a legacy of soil degradation in some areas that can only be restored by an active rehabilitation program. The activities of feral animals (goats and rabbits), native fauna (kangaroos and emus) and grazing by sheep and cattle has led to some soils becoming exposed, resulting in the generation of dust in periods of strong winds especially during drought conditions. Photo 1 shows a general view of the Mutooroo Mine area, with old workings, reasonably flat topography and sparse vegetation.

Attach Files 

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Surface Water

Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)?

No

Describe the potential interference and surface water bodies and natural drainage on maps.

Indicate how you will avoid disturbance

All drainage lines, creeks, floodplains, wetlands are assigned a 50 m avoidance buffer. As part of the heritage clearance process, a 50 m avoidance from the edges of all watercourses, washouts and creek lines throughout all survey areas is normally a condition. The clearances are subject also to creeks and drainage line crossings may be necessary in some areas to gain access to a work site and in such circumstances access tracks be kept to a single defined track.

Is the program area located within water protection areas defined under the River Murray Act 2003?

No

Select the name(s) of protected water areas

Is the program area located within any prescribed watercourses or prescribed surface water areas under the Landscape?

No

Select the name(s) of the prescribed watercourses or prescribed surface water areas under the Landscape South Australia Act 2019.

Attach Files 

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Name

Applicable

There are no records to display.

Groundwater

Is groundwater likely to be intersected when conducting the exploration program?

Yes

Provide evidence or any supporting information demonstrating this.

Description of the localities/areas where different groundwater conditions may be encountered

The region is notable for its lack of groundwater, which is typically saline (TDS ranging from 12,000 to 33,000 mg/ L) and not suitable for stock watering purposes. Over most of the area Willyama Supergroup rocks subcrop with a thin veneer of skeletal soil or transported sands and silts only found in some low-lying areas. A groundwater investigation carried out at Mutooroo mining lease area by Aldam Geoscience (2008 – 10) reported groundwater standing water levels between 23 to 35 m (below surface (217 to 220 m AHD) in the bedrock, with generally low flow rates due to the low transmissivities of the Willyama Supergroup schists, gneisses and amphibolite country rocks. This is supported by Havilah's extensive exploration drilling in the region, where most drillholes are either dry or have insignificant groundwater flows.

*There are no known aquifers in the area, but if present it would be classed as unconfined fractured bedrock as crystalline basement rocks are exposed at the surface.

Add the different groundwater conditions for each localities/areas to the table below.

Name ↑	Formation age and/or stratigraphic unit	Stratigraphic intervals (depth range) (m)	Aquifer formation name	Aquifer thickness (from-to) (m)	Aquifer Type	Aquifer salinity (TDS)	Depth to groundwater (m)	Comments
Mutooroo	Willyama Supergroup - Quaternary	4	No known Aquifer	Unknown	Unconfined	23,000	20	Limited groundwater in basement rocks, salinity is high with a neutral-slightly acidic pH. SWL 20-35 m.

Provide the environmental value of each aquifer present determined according to the current Environment Protection (Water Quality) Policy.

From hydrological investigations undertaken by Havilah it has been determined the groundwater is highly saline and the average TDS from six separate water testing bores drilled by Havilah at Mutooroo is 23,300 mg/l, dominated by Na and Cl, with lesser K, Ca and sulphate. From Havilah's regional exploration drilling experience and the paucity of active stock water bores this appears to be typical of the surrounding area.

There are no obvious environmental values because the salinity generally precludes use of the groundwater for stock or other primary industry pursuits. It could possibly be used for mineral processing, but quantities are too low for commercial use. In severe droughts when dam water supplies are running low it may be possible to shandy the saline groundwater with the fresh water. Possible environmental values may therefore be: Primary industries —livestock drinking water, Primary industries —aquaculture and human consumption of aquatic foods.

Provide a description of the existence, location and value of all Groundwater Dependent Ecosystems (GDE) within and immediately surrounding the project area

The Mutooroo Mine area has no Aquatic, Terrestrial or Subterranean GDE's due to the absence of permanent fresh water. The only Aquatic or Terrestrial GDE that passes through EL6592 is within Pine Creek which runs from Pine Creek Station (located within EL5848) through the top right corner of EL6592 and into EL6657. The Map attached above shows EL6592 area and Mutooroo Mine. All proposed drilling will take place south of the label for the mine and will not be near Pine Creek. Access to all drilling areas will be along already established station tracks thereby minimising potential disturbance should any GDEs exist.

A map of GDE's has not been included in this PEPR as none are associated with proposed drill areas.

Is the proposed program located within a prescribed wells area?

No

Select the prescribed wells

Is the proposed program located within a prescribed water resource area?

No

Select the prescribed water resource areas

Provide any additional information

N/A

Attach Files 

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Native Vegetation

Will you be working within areas of native vegetation?

Yes

Provide the following information:

The Mutooroo Project Area has typical low-lying chenopod shrubland consisting of sparse saltbush or bluebush and lesser tall shrub lands that occur along watercourses. It also includes some low sand dunes with tall shrubland or woodland vegetation. Native Vegetation in the area shows evidence of being disturbed, degraded and severely degraded due to a long history of grazing by native, domestic and introduced herbivores. Regeneration will occur, especially after year of above average rainfall, and further enhancement by stock removal and rabbit control.

Badman Environmental and Kellogg Brown and Root Pty Ltd (KBR) were contracted by Havilah Resources in 2007 and 2011 respectively to assess the Mutooroo Project Area. It was noted that the region experienced above average rainfall over 2010/11 which is the primarily reason for the presence of so many annual species, which during a normal rainfall year may not have been found.

The most recent KBR Survey found that Native Vegetation, based on dominant flora species, habit and topography fall into seven categories:

1. Vegetation Group 1: Black oak low woodland with low Chenopod shrubland understorey, dominated by non-palatable species indicating an impact from grazing pressure. Vegetation was close to a creek line, with minor rocky expressions.

Species include:

- *Austrostipa scabra* (Spear-grasses)
- *Maireana aphylla* (Cotton Bush)
- *Enchylaena tomentose* (Ruby Saltbush)
- *Sclerolaena lanicuspis* (Woolly Copperburr)
- *Sclerolaena obliquicuspis* (Limestone Copperburr)
- *Dissocarpus paradoxus* (Ball Bindyi)
- *Casuarina pauper* (Black Oak)

2. Vegetation Group 2: Mixed low chenopod shrubland dominated by bluebush, with degraded and scattered black oak individuals. Evidence of grazing pasture pressure on palatable species, and the dominance of non-palatable species (e.g. bindyi species) indicate that vegetation was dehydrated.

Species include:

- *Austrostipa scabra* (Spear-grasses)
- *Austrodanthonia* spp (Wallaby-grasses)
- *E. nigricans* (Black Heads)
- *Casuarina pauper* (Black Oak)
- *Maireana astrotricha* (Low Bluebush)
- *Maireana sedifolia* (Pearl Bluebush)
- *Sclerolaena diacantha* (Grey Copperburr)
- *Sclerolaena lanicuspis* (Woolly Copperburr)
- *Sclerolaena obliquicuspis* (Limestone Copperburr)
- *Enneapogon avenaceus* (Common Bottle-washers)

3. Vegetation Group 3: Low chenopod shrubland with bindyi (copperburr) species and spear-grasses. Occasional scattered sugarwood and black oak individuals. Grazing pasture in this locality has stunted growth of bladder saltbush and caused the woolly copperburr to deteriorate.

Species include:

- *Austrostipa scabra* (Spear-grasses)
- *Atriplex vesicaria* (Bladder Saltbush)
- *Sclerolaena lanicuspis* (Woolly Copperburr)
- *Sclerolaena* spp (Bindyi or Copperburr Species)
- *Casuarina pauper* (Black Oak)
- *Myoporum platycarpum* (Sugar Wood)

4. Vegetation Group 4: Black bluebush low chenopod shrubland, on creek line and floodplain area.

Species include:

- *Austrostipa scabra* (Spear-grasses)
- *Maireana aphylla* (Cotton Bush)
- *Sclerolaena lanicuspis* (Woolly Copperburr)
- *Sclerolaena obliquicuspis* (Limestone Copperburr)
- *Asphodelus fistulosus* (Onion Weed)
- *Swainsona Formosa* (Sturt's Desert Pea)
- *Myoporum platycarpum* (Sugar Wood)

5. Vegetation Group 5: Pearl bluebush and low bluebush, low chenopod shrubland with limestone copperburr, occurring with some surface rock expression.

Species include:

- *Austrostipa scabra* (Spear-grasses)
- *Maireana sedifolia* (Pearl Bluebush)
- *Maireana astrotricha* (Low Bluebush)
- *Maireana pyramidata* (Black Bluebush)
- *Eremophila sturtii* (Turpentine Bush)
- *Sclerolaena obliquicuspis* (Limestone Copperburr)
- *Enneapogon avenaceus* (Common Bottle-washers)

6. Vegetation Group 6: Mixed low chenopod shrubland dominated by black bluebush and spiny saltbush, and native grasses occurred on clay and lime soil on a drainage line. Woolly copperburr in the region was either dead or dying.

Species include:

- *Maireana astrotricha* (Low Bluebush)
- *Maireana sedifolia* (Pearl Bluebush)
- *Maireana pyramidata* (Black Bluebush)
- *Rhagodia spinescens* (Spiny Saltbush)
- *Sclerolaena lanicuspis* (Woolly Copperburr)
- *Sclerolaena* spp (Bindyi or Copperburr Species)
- *Sida intricata* (Twiggy Sida)
- *S. fibulifera* (Pin Sida)

7. Vegetation Group 7: Grassland with low chenopod shrubland, dominated by copperburr species on limey soil. Degrading vegetation conditions were apparent because of grazing. Rabbit warrens were frequent in this area.

Species include:

- *Austrostipa scabra* (Spear-grasses)
- *Austrostipa nitida* (Balcarra Grass)
- *Maireana pyramidata* (Black Bluebush)
- *Atriplex vesicaria* (Bladder Saltbush)
- *Sclerolaena lanicuspis* (Woolly Copperburr)
- *Sclerolaena obliquicuspis* (Limestone Copperburr)
- *Vittadinia cuneata* (Fuzzweed)

The purple-wood wattle was recorded at two locations in the survey conducted by Badman Environmental, however, was not recorded in the 2011 survey by KBR. The occurrence of the Purple-wooded wattle at each site is not common, with only a few plants being recorded. These locations, are outside of the proposed target areas and will be avoided.

Indicate why you will not be working within areas of native vegetation?

Attach Files 

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Fauna

Describe the native and feral fauna that may be present in the application area, including feral species.

The diversity of mammal species in the Mutooroo Project Area is moderate with relatively common species. In surveys conducted by KBR (2011) four introduced, two native dunnart and two native rodent species were observed. All mammals in the survey are widespread in the region. Falco Peregrinus (Peregrine Falcon) was the only fauna of conservational significance recorded in the Mutooroo Project Area. All fauna species recorded in the region during surveys are considered common for the region.

Significant Habitats, Flora & Fauna

Are there any significant habitats, flora and fauna within the project area?

Yes

Use the table below to list any significant habitats and any rare or endangered flora and fauna species located or reported to have been in the area that may be impacted by the proposed program. Include known sightings of listed species on a locality plan/map.

Species name/habitat	Common name	NPW Act Rating	EBPC Act Rating
Acacia Carneorum	Purple-wood Wattle	Vulnerable (VU)	Vulnerable
Falco Peregrinus	Peregrine Falcon	Vulnerable (VU)	Vulnerable

Attach Files 

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File Name	File Size (Mb)	Created On	Download
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Weeds and Pathogens

Provide information of the extent the area is affected or potentially affected by weeds and pathogens (e.g. phytophthora; buffel grass *Cenchrus ciliaris*).

No crops or other introduced species have ever been planted in this area. Minimal impact from weed species occurs at the project site.

Prospect locations are within the Buffel Grass Management Zone 2 (Contain Spread) however there are no known occurrences of Buffel Grass within the project area. Should an area of Buffel Grass infestation be encountered during the drilling program, cleaning procedures will be implemented when leaving the area of infestation and the area avoided.

Attach Files

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File Name	File Size (Mb)	Created On	Download
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Aboriginal Heritage

Describe the steps taken to identify Aboriginal heritage sites within the proposed area of exploration. Include a statement advising if an Aboriginal heritage survey has been conducted by the proponent and if so, the results of the survey.

An Aboriginal Heritage Clearance Survey was conducted with representatives of the Wilyakali People and an Anthropologist from the 8th to 9th June 2019. This survey cleared/partially cleared 6 dill traverses at West Mutooroo (formerly Scorpion). Another Aboriginal Heritage Clearance Survey was conducted with representatives of the Wilyakali People and an Anthropologist from the 20th to 23rd April 2021. This survey cleared multiple dill traverses at Mutooroo Mines and Allansons (Viper). Minotaur Exploration had previously undertaken an Aboriginal Heritage Clearance Survey over the Allansons area in 2012.

Exploration works proposed by Havilah as outlined in the Aboriginal Heritage Clearance survey request (April 2024) were cleared by the Wilyakali survey team on 8 and 9 June 2024. There were no Aboriginal Heritage sites of significance identified within the surveyed areas.

Environmentally Sensitive Locations

Indicate if you are intending to undertake exploration operations within the environmentally sensitive locations listed.

No

Name	Applicable
------	------------

There are no records to display.

Are you likely to impact on the environmentally sensitive area?

—

Detail the likely effects the proposed program may have.

—

Attach Files 

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Exploration Operations

Equipment and Personnel requirements

Using the table below, describe the maximum composition of field crews (operator, contractors, and geologists) and proposed working hours/days for each type of activity.

Type of Personnel	Number	Name of contractor company (if applicable)
Geologists	1	Havilah Resources Limited (Havilah) and/or contractor
Field assistants/technicians	1	Havilah, and/or contractor
Land access/environmental	1	Havilah Resources Limited
Site Preparation and rehabilitation	2	Havilah, contractor and/or Landowner
Drilling Crew	3	Drilling Contractor not selected yet

Shifts worked per day	Hours worked per day	Days worked per week
1	12	7

Using the table below, describe the equipment (size, number and contractor details) required to conduct the proposed operations.

Name	Owner/Operator	Description/capacity	Activity/purpose
Drilling Rig	Drilling Contractor - To be determined	RC drill Rig	Reverse Circulation Drilling - capable of drilling up to 350m.
Compressor/rod Truck	Drilling Contractor - To be determined	2 x 8-wheel flatbed with compressor & booster.	Drilling support vehicle
Drill support vehicles	Drilling Contractor - To be determined	Light truck - Mitsubishi Canter or similar	Site travel and equipment transport
Backhoe	Havilah Resources Limited	CAT or JCB Backhoe	Site Preparation (including digging of Sumps) and Rehabilitation
Skid steer	Havilah Resources Limited	Bobcat or similar	Rehabilitation and site preparation
2 - 4 x 4WD Utilities	Havilah and/or contractor	Landcruiser or Hilux dual cab utes or similar	Field crew vehicles for access, sampling & logging. In addition to transportation for drilling crew to and from the site.

Low impact exploration activities

Will low impact exploration operations be conducted that are not covered by the Generic program for environment protection and rehabilitation – low impact mineral exploration in South Australia, (generic PEPR)?

No

Describe each type of low impact operations proposed.

Drilling Operations

Will exploration drilling Operations be conducted?

Yes

Fill out the below table

Tenement	Drilling Types	Maximum number of drillholes	Maximum drillhole depth (m)	Number of drill pads	Maximum number of sumps required at each site	Maximum size of sumps (length x width)	Average size of each drill pad	Number of sites requiring pad excavation	Average volume of material to be excavated
EL 6592	Reverse Circulation	40	400.00	40	6	18.00	900.00	0	0.00

Other Drilling Method(s)

Drillsite preparation

If exploration drilling activities are proposed, describe the methods used to prepare sites, including vegetation clearance requirements, site levelling and digging of sumps.

- Drill sites are located on existing tracks or open areas to minimise ground and vegetation disturbance, wherever possible.
- Vehicles to be restricted to existing/cleared overland access routes and the cleared drill pad, to minimise ground and vegetation disturbance.
- Ground cover clearing or minor levelling is normally done by hand (rakes & shovels)
- Clearing will always be of a minimal nature to reduce environmental impact and lessen the requirement for extensive rehabilitation.
- All sumps are to have a ramp, to enable animals to escape, should they happen to fall in.
- Sumps will be fenced if stock are at risk, and they may be bunted for safety.
- Topsoil and subsoil dug up is stockpiled separately.
- Up to 30 m x 30 m (900 m²) drill pad area required.
- up to 6 sumps for RC Drilling outside return 3m L x 3m W x 2m D.

Drillhole construction and decommissioning

Drillhole construction and decommissioning

Drillhole construction and decommissioning included below.

Have the personnel responsible for implementing the proposed program read and understood the Earth Resources Information Sheet M21, Mineral exploration drillholes – general specifications for construction and backfilling?

Yes

Describe how drillholes will be constructed, including the casing material to be used, depth of casing, if the casing will be cemented, cementing intervals and the class of driller that will install the casing.

Reverse circulation holes will be collared and cased with 6" PVC to varying depths (generally <36m) depending on the depth of poorly consolidated material. The casing is grouted at the base with cement or gypset, then cemented in with polyurethane foam (Sifoam) down the outside of the casing. The hole is then drilled to depth using a ~5 1/2" hammer.

When describing drillhole decommissioning requirements, include the materials to be used, stratigraphic intervals where cement plugs will be placed, if the casing will be removed and when decommissioning will occur after drilling is completed.

Previous exploration drilling experience in the region shows that limited groundwater may occur in the Proterozoic basement rocks, with standing water level between 23 and 35 m below ground surface. The dense and tight nature of the rocks means the formation groundwater transmissivity is typically low and water quality is saline. Proposed drilling is targeting known mineralisation within the Proterozoic basement rocks and based on experience there is negligible possibility of intersecting confined aquifers or multiple water bearing zones. Havilah's geologists are in the habit of logging and recording any abnormal groundwater flows when drilling and will be aware if groundwater conditions differ from the norm for this area as described above.

Drillhole decommissioning according to Havilah's standard procedure in the region will include:

- Cutting and capping any protruding PVC casing roughly 50 cm below the surface and covering with topsoil.
- Depositing of drill cutting spoil and all remaining drilling samples into drillhole (to surface for drillholes which penetrate a single unconfined aquifer - see attachment below) or sump (normally the same sump as for the drilling outside return).
- Light raking or scarifying to level the drill pad and leaving shallow furrows to promote seed and water retention and seed germination after rain.

Attach Files 

Expand/Collapse

File Name	File Size (Mb)	Created On	Download
Backfilling of drillhole penetrating a single unconfined aquifer.jpg	0.02 Mb	26-02-2026 14:10:11	Download (MERS/EP-03940/Drillhole construction and decommissioning/Backfilling of drillhole penetrating a single unconfined aquifer_2026-02-26T03-40-12.405Z.jpg)

Costeans and bulk sample disposal pits

Will costeans/bulk sample disposal pits be required for the proposed program?

No

Tenement	Number of costeans/pits	Size of costean (length x width) (m2)	Average depth (m)	Volume excavated (m3)	Total Volume Excavated (m3)	Total area of disturbance
----------	-------------------------	---------------------------------------	-------------------	-----------------------	-----------------------------	---------------------------

There are no records to display.

Describe site preparation methods, vegetation clearance, and safety and maintenance requirements

N/A

Sample management

Describe the size of samples collected (including drilling samples and bulk sampling), collection methods, materials used when collecting the sample, sample disposal methods (including removal of sample bags), safety management and any other sample management requirements at the exploration site (e.g. tarps or matting used to contain cuttings). Include requirements for on-site geological sample management (splitting of archive samples, bag farms, core processing and storage).

- An area (10 m x 10 m) within each site will be reserved for samples.
- RC Drill samples are collected through a cyclone/dust suppression unit with attached cone or riffle splitter. Bulk sample portion is collected in 20-30L buckets then laid out in rows on the ground adjacent to the drill rig. Assay samples are collected from the splitter in 10"x 14" calico bags which are put in polyweave sacks (gen 5 per sack), for transport to the assay lab.
- Bulk sample portion weights vary between ~15 to 40 kg, and assay samples from ~1 to 3 kg, depending on the nature of the material being drilled and sample quality coming to surface.
- A geologist will sieve and log each sample and collect representative cuttings in 20 compartment plastic chip trays.
- The RC samples will be retained at each site until all assaying, and any resampling has been completed, at which time the material will be disposed of into the drillhole, or sumps. Use of plastic bags for the RC drill samples is avoided due to the difficulty of disposal.
- There will be no need to store bulk sample or samples in a pit or bag farm. No sample material will remain on the surface. All rubbish will be removed and disposed of appropriately.
- All drilling, sampling and rehabilitation activities will be conducted under company safety and environmental protocols, to minimise risks to personnel, wildlife and the environment that might be associated with sumps, pits, sampling, and rehabilitation.

Access routes to work areas

Will existing tracks require upgrading and/or maintenance?

No

Detail the work required to upgrade/maintain existing tracks.

Will access be required across adjoining tenements?

No

Detail the method(s) for gaining access, and if an agreement is in place with all stakeholders. Include the total area of disturbance required (i.e. length (km) and width (m) of tracks) and provide on a locality map.

All tenements in the area off main roads are held by Havilah Resources Limited (or 100% owned subsidiaries of the company).

Will access off existing tracks be required?

Yes

Detail the method(s) for gaining access and if vegetation clearance is required. Details of the total area of disturbance (includes drill traverses and seismic lines) required off existing tracks (i.e. length (km) and width (m) of new tracks) must be provided in the program notification.

Much of the area within the included tenements is flat and sandy or rocky and the vegetation consists of bluebush and saltbush, with very minor patches of acacia shrubs and rare sheoak or black oak, allowing for most track access to drilling sites to be across country with no construction or earthworks required. Several strategies to minimise impacts of creating new overland access routes (vehicle movement or equipment used) include:

- The most direct and clearest route to the site will be taken to minimise impact to the environment.
- All larger vegetation and trees will be avoided.
- Access route will be checked and marked out (LV or on foot, during heritage surveys).
- Backhoe raised bucket (blade ~0.3m above ground) may be used in very rare instances where the terrain is too rough. This method minimises disturbance to rootstock and topsoil.
- Natural drainage lines will not be blocked.
- Creating windrows avoided.
- Use interdune corridors for access as much as possible to avoid traversing over dune crest.
- Dune crossing locations will be selected across low-dunes and at right angles, and to minimise impact on soil and vegetation.

Maximum new access/drill line track required for each tenement is shown below*:

- EL6592: ~5.1 km x 3 m (previously used and new – Map Attached)

*Note that nearly all this access and drill line track is for one-off or single pass access for the drilling rig and LVs and has no prior backhoe or grader clearance. Disturbance is minimal and normally no backhoe rehabilitation is required (and is avoided except in rare circumstances as it would result in more disturbance than the vehicle access).

Attach Files 

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Campsites and equipment laydown areas

Indicate where staff and contractors will be accommodated during the exploration program.

The township facilities at Cockburn will be utilised for all accommodation of staff and contractors and as a site of consumables store and logistical base of operations. Cockburn is situated on the Barrier Highway, 5 hours by road to Adelaide and half an hour to Broken Hill.

What is the maximum number of personnel requiring accommodation?

8

Is a campsite required to be established?

No

Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information.

The township facilities at Cockburn will be utilised for all accommodation of staff and contractors and as a site of consumables store and logistical base of operations.

What will be the total area (ha) of the campsite(s)?

0.00

Will native vegetation clearance be required?

No

What will be the total area (ha) of vegetation clearance for the campsite?

0.00

Describe the methods used to prepare the campsite including vegetation requirements and site levelling.

N/A

Will any excavations be required?

No

Describe the purpose of the excavation

N/A

Describe the maximum volume (m3) of material to be excavated.

0.00

Provide confirmation that the proposed ablution facilities have been endorsed for use by the Department of Health or local council, where applicable.

Yes

Indicate why endorsement approval is not required by the Department of Health or local council.

N/A

Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)

Proposed infrastructure	Quantity	Description / capacity
N/A	0	The township facilities at Cockburn will be utilised for all accommodation of staff and contractors and as a site of consumables store and logistical base of operations.

Will laydown areas be required?

Yes

Will the laydown area(s) be located at the same location as the campsite?

Yes

Provide a description and justification of the location (e.g. previously cleared areas), and any other relevant information if required.

The township facilities at Cockburn will be utilised for all accommodation of staff and contractors and as a site of consumables store and logistical base of operations.

What will be the maximum area (ha) required for the laydown area(s)?

0.00

Will native vegetation clearance be required?

No

What will be the total area (ha) of vegetation clearance for the site?

0.00

Describe the methods used to prepare the laydown area including vegetation requirements and site levelling.

N/A

Will any excavations be required?

No

Describe the purpose of the excavation.

N/A

What will be the volume (m3) of material to be excavated.

0.00

Proposed infrastructure (includes hydrocarbon and water storage requirements)

Proposed infrastructure	Quantity	Description / capacity
No Infrastructure required	0	The township facilities at Cockburn will be utilised for all accommodation of staff and contractors and as a site of consumables store and logistical base of operations.

Attach Files 

Expand/Collapse

File Name



File Size (Mb)



Created On



Download



No Files Uploaded

Other exploration methods and/or ancillary operations

Are any other proposed exploration methods (e.g. seismic) and/or ancillary exploration operations required?

No

Describe the activity(s), site preparation, vegetation clearance, and safety and maintenance requirements.

Water supply and management

Will camp and/or drilling water be required?

Yes

Describe how and where water will be sourced for drilling, track maintenance and camping purposes (e.g. groundwater, surface water, mains). Indicate how wastewater and/or runoff water will be managed.

Minor water for dust suppression (<500L / day). Mains water available from SA Water at Cockburn.

Will surface water and/or mineral drillholes be used as a water source/supply?

No

Indicate if a licence for water extraction/usage is required (refer to relevant Natural Resources Management water allocation plan available on the Department for Environment and Water (DEW) website).

No

Attach a copy of the licence or include a statement confirming that a licence will be obtained before the extraction and/or usage of water.

N/A

Groundwater investigation and water affecting activities

Will any water investigation (e.g. pump testing, water monitoring sites, water storage, turkey nests/dams) and/or water affecting activities, be undertaken (refer to s. 127 of the Landscape South Australia Act 2019)?

No

Describe the water investigation and/or water affecting activities, including site preparation, vegetation clearance, and safety and maintenance requirements.

N/A

Indicate if water affecting activities permits (eg well and water extraction/discharge permits) have been obtained and in accordance with the Landscape South Australia Act 2019.

No

Attached Files

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Management of hazardous materials

Will activities be conducted in areas of known uranium and thorium mineralisation?

No

Attach Files

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File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Will any other hazardous material be encountered when exploring in the area?

No

List the types of hazardous materials and provide a management plan on how these materials will be managed.

N/A

Rehabilitation

Detail all the activities and strategies relating to the remediation of all impacts associated with the proposed exploration operations (includes exploration camps and laydown areas, tracks). Completion of rehabilitation must be achieved within 3 months after the expiry of each program notification.

Staged Rehabilitation will be undertaken:

- Stage 1 to be completed shortly after drilling is completed:
 - o Drill hole decommissioning (as described above)
 - o Remove all external waste material to an appropriate waste facility

- Stage 2 (final) rehabilitation will occur once assays are available and remaining samples can be disposed of into the sump (usually within 3 months after drilling is completed):
 - o Sumps will be allowed to dry out before backfilling
 - o Sump rehabilitation – deposit remaining samples, backfill, cover with stockpiled topsoil, and rake or lightly scarify (to promote vegetation regeneration) with a backhoe
 - o Cross country access routes will be raked or lightly scarified to promote regrowth of vegetation

- Rehabilitation will always aim to return areas disturbed by drilling activities to its original land surface profile and in a condition that will promote regrowth of native vegetation.
- No fires are lit during the summer months, and only at other times if there is a clear area surrounding and fire danger is minimal (e.g., lack of burnable material and no fire ban period).
- Fire management procedures in places, including policy for “extreme fire danger rating” and firefighting equipment/extinguisher are always available.

Photo 2 shows the stages of rehabilitation.

*Progressive Rehabilitation is Proposed - Havilah will not leave more than 20 drill holes unrehabilitated at any point during the drilling program.

State the estimated budget required to rehabilitate all impacted sites. State the estimated budget required to rehabilitate all impacted sites. Include a breakdown of the cost associated with each rehabilitation component

\$30,000

Vegetation Clearance

Will any area of cleared native vegetation be unrehabilitated after the authorised period?

No

Provide a map and description of the vegetation present in the application area, the extent of any proposed vegetation clearance and the likelihood of the presence of threatened flora.

N/A

State the estimated quantum of significant environmental benefit (SEB) to be gained in exchange for the proposed native vegetation clearance and describe how the SEB will be provided.

N/A

System

Tenement Name ↑	Tenement Holder	Tenement Operator	Grant Date	Expiry Date	Tenement Type	Location	Tenement Area	Tenement Status	Shape Identifier
EL 6592	Copper Aura Pty Ltd		02/11/20 20	01/11/2 025	Explorati on Licence	Mutooro o Mine area approx imately 55km east of Olary	23.00	Active	100126 51- 0000

Management of Environmental Impacts

Applicable environmental aspects and potential impacts

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Fauna	All fauna	Entrapment of fauna through open drillholes and excavations.	<ul style="list-style-type: none"> All holes are capped following completion. Excavations are constructed with a shallow angle ramp to allow small animals to escape. Excavations are appropriately barricaded/bunded to prevent access. 	Low	<p>font-family: Arial, sans-serif; font-size: 10px;">No fauna traps created as a result of exploration activities.</p>	<p>font-family: Arial, sans-serif; font-size: 10px;">Maintain before, during and after photographic evidence of all drillholes and/or excavations demonstrating that:</p> <ul style="list-style-type: none"> All drillholes were permanently or temporarily capped/plugged immediately upon completion. No fauna and livestock became trapped in drillholes and/or excavations throughout the duration of the program. All rehabilitation was completed within 3 months of expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
							Representative photos are to be included within the annual exploration compliance report. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
Minor	Rare	Soil	Soil	Disturbance to the soil profile and topography, and accelerated soil erosion caused by exploration activities (e.g. construction of sumps, new tracks and drill pads; ground compaction at laydown areas and camps)	<ul style="list-style-type: none"> No grading of tracks or clearing of drill pads that will cause permanent disturbance to top soil profile or topography. Any track or drill pads (e.g. clearing is conducted using the 'blade up' method. Final rehabilitation of each site will be completed by raking or lightly scarifying to promote seed germination and new vegetation growth. Any stockpiled vegetation will be spread over the site. Heavy vehicle tracks will 	<p>Where soil disturbance occurs as a result of exploration activities, ensure that:</p> <ul style="list-style-type: none"> topsoil quality and quantity is maintained the soil profile and topography is reinstated to original conditions there is no accelerated soil erosion. 	<p>Maintain before, during and after photographic evidence of all excavations, drillsites, camps, laydown areas and new tracks demonstrating that:</p> <ul style="list-style-type: none"> The soil profile and topography is reinstated to original conditions and is consistent with natural surroundings within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Where required, sufficient topsoil is removed (depending on soil profile), stored separately from subsoil and

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				<ul style="list-style-type: none"> be scarified and filled in if there is judged to be any danger of gullyng and erosion. The land surface will be returned to its original profile. All sample material and spoil from the sumps will be backfilled into the sumps. Topsoil from sumps will be stockpiled separately, spread back over the filled in sumps and lightly scarified to minimise wind and water erosion and promote seed germination 		<p>reinstated (in the correct order) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised.</p> <ul style="list-style-type: none"> There are no signs of accelerated soil erosion during and post rehabilitation of disturbed sites. <p>Representative photos to be included within the annual exploration compliance report. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				n and plant regrowth.		

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Contamination	Soil/vegetation/fauna	Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, other sources)	<ul style="list-style-type: none"> • All external waste material is removed from site to an approved waste facility. • Unwanted drill samples are emptied into sumps/pits, which are backfilled, covered with top soil and lightly scarified to promote seed germination. The empty plastic bags are removed from site. • Drilling rig and ancillary equipment is properly maintained and regularly inspected to ensure there are no diesel 	Low	<p style="font-family: Arial, sans-serif; font-size: 10px;">No contamination of soil and vegetation as a result of exploration activities.</p>	<p style="font-family: Arial, sans-serif; font-size: 10px;">Demonstrate that all domestic or industrial waste (includes general rubbish and hydrocarbons) is disposed of in accordance with the Environment Protection Act 1993 within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), and that all fuel and chemicals are stored in accordance with EPA requirements, by providing:</p> <ul style="list-style-type: none"> • The name, location and contact details of the authorised waste disposal facility. • A statement within the 'Compliance with approved programs'

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				<ul style="list-style-type: none"> or oil leaks. • Stored fuel correctly banded, spill kits used, contaminated soil immediately removed off site to an approved waste management facility. 		<ul style="list-style-type: none"> section of the annual exploration compliance report confirming domestic and industrial waste was removed from all exploration sites and disposed of at an authorised waste disposal facility. • Photographic evidence within the annual exploration compliance report demonstrating that all fuel and chemical storage facilities were managed in accordance with EPA requirements. Maintain photographs of all exploration sites and provide representative photos within the annual exploration compliance report demonstrating that drill cuttings are: • removed from site and disposed of at a licensed facility • buried under a

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
						<p>minimum of 30 cm of soil, or in accordance with EPA guideline, Radiation protection guidelines on mining in South Australia: mineral exploration, available on the EPA website, or</p> <ul style="list-style-type: none"> • backfilled down the drillhole, within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Insignificant	Rare	Groundwater users	Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	• There are no other existing water users in the vicinity. The groundwater being used is very saline and unsuitable for use by stock.	Low	<p>• No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained.</p>	<p>Provide the information requested within the 'Complaints' section of the annual exploration compliance report demonstrating that all reasonable complaints from stakeholders were resolved to the satisfaction of both parties, prior to and ongoing during the course of the exploration program without the involvement of DEM. Where permits are required for the extraction and/or usage of groundwater, provide copies of the licence or permit within the annual exploration compliance report.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria	
Minor	Unlikely	Stakeholders	Stakeholders	Stakeholders: - freehold land owners - perpetual lease holders - pastoral lease holders - Aboriginal land (Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands) - Department of Defence - state government departments. - local government (councils) - federal government -	Stakeholders: - Notice of Entry on Land to: o Native Title Claimants (Wilyakali SC2012/01) o Rohan and Julie Rogers (Pine Creek Station) o Adam and Kirsty Lomman (Mutooroo Station) • Contact and liaison with Owners of Pine Creek and Mutooroo Stations. • Avoiding use of station tracks after heavy rains so they are not damaged • Stick to sign posted speed limits on	• Service Form 21B - Notice of Entry on Land to: o Native Title Claimants (Wilyakali SC2012/01) o Rohan and Julie Rogers (Pine Creek Station) o Adam and Kirsty Lomman (Mutooroo Station) • Contact and liaison with Owners of Pine Creek and Mutooroo Stations. • Avoiding use of station tracks after heavy rains so they are not damaged • Stick to sign posted speed limits on	<p style="font-family: Arial, sans-serif; font-size: 10px;">Stakeholders are fully informed and satisfied with the proposed methods used to conduct exploration activities on their land, and all prescribed forms are served and agreements obtained in accordance with the Mining Act.</p>	<p style="font-family: Arial, sans-serif; font-size: 10px;">Provide the information requested within the 'Complaints' section of the annual compliance report demonstrating that all reasonable complaints from stakeholders are resolved to the satisfaction of both parties prior to and ongoing during the course of exploration program, without the involvement of DEM. Provide the information requested within the 'Landowner details and liaison' section of the annual compliance report demonstrating that prescribed forms were served and agreements obtained in accordance with the Mining Act prior to the commencement</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				native title parties.	station tracks. • An exploration Native Title Agreement pursuant to Part 9B in place and registered with DEM.		of exploration activities.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Weeds and Pathogens	All flora and fauna, especially listed species.	Loss/modification of the environment (biological, social and economic) through the introduction of weeds and pathogens.	• Vehicles are kept clean and free of mud if coming from an area of known introduced weed species. • Inspection of former drill sites to check for any introduced species and removal if found.	Low	<p style="font-family: Arial, sans-serif; font-size: 10px;">No introduction of new species of weeds and plant pathogens, nor increase in abundance of existing weeds species.</p>	<p style="font-family: Arial, sans-serif; font-size: 10px;">Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report, confirming that:</p> <ul style="list-style-type: none"> • Vehicle logs were kept during the exploration program, demonstrating that all vehicles are clean and free of plant and mud material prior to entering properties† within the tenement areas, unless otherwise agreed to with the relevant landowners. • Photographic evidence before and during exploration operations and after rehabilitation of disturbed sites was captured, demonstrating that no new weeds and plant pathogens were introduced, nor an increase in

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
							abundance of existing weeds recorded.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria	
Major	Unlikely	Fire	Community/landscapers	<p>Damage to infrastructure and loss of income through fire.</p> <ul style="list-style-type: none"> No fires are lit during the summer months and only at other times if there is a clear area surrounding and fire danger is minimal (e.g. lack of burnable material and no fire ban period). Fire management procedure in place, including policy for 'extreme fire danger rating'. Firefighting equipment/ extinguishers are always available. <p>Risk High, as if something was to happen the severity of consequence</p>	High	<p>Loss of infrastructure or income through fire as a result of exploration activities.</p>	<p>Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming that no uncontrolled fires* occurred. Alternatively, provide a report on the independent investigation of all uncontrolled fires* demonstrating that the licensee could not have reasonably prevented the fire through the implementation of precautionary measures.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
						nce would be major to catastrophic.	

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Groundwater	Groundwater/aquifer	<p>Groundwater contamination:</p> <ul style="list-style-type: none"> contamination of aquifers through entry of pollutants from the surface interconnection between aquifers degradation of natural hydrostatic conditions (maintained in pre-drilling pressures). 	<p>Understanding of the hydrogeology of the prospect areas indicates multiple aquifers and confined aquifers are unknown in these areas.</p> <ul style="list-style-type: none"> Monitoring of water outflow (if any) conductivity during drilling and the level to which the water rises in the hole relative to the water table will be used to assess if unconfined aquifer is intersected. If indicated the hole will be abandoned in accordance 	<ul style="list-style-type: none"> Drillholes restored to geological conditions that existed before the hole was drilled or, where it is intended to re-enter the hole, the hole must be completed with casing of adequate strength and the casing cemented so that all aquifers are isolated to prevent the movement of any fluids behind the casing. 	<p>Maintain evidence demonstrating that drillholes are decommissioned in accordance with Earth Resources Information Sheet M21, Mineral exploration drillholes – general specifications for construction and backfilling, and/or specific conditions from DEW (Groundwater) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
					e with M21 Guidelines, by backfilling with drill cuttings to just below surface.		'Groundwater' section of the annual exploration compliance report.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria	
Minor	Unlikely	Aboriginal heritage	Aboriginal heritage sites	Disturbance to Aboriginal heritage sites	<ul style="list-style-type: none"> An Aboriginal Heritage Clearance Survey is conducted with the traditional owners to clear the drill sites and access prior to commencement of drilling. Site inductions to be completed and avoidance of any known sites – these will be marked on GPS and on-ground (star-pickets, flagging). If an Aboriginal site (previously unknown) is accidentally disturbed, all work must cease 	<p>Low</p> <p>No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained.</p>	<p>Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that:</p> <ul style="list-style-type: none"> Heritage sites were not impacted during the conduct of the exploration program, unless prior approval was obtained under the appropriate legislation Work ceased on discovery of a significant site and recommenced only after authorisation Aboriginal heritage sites identified during the exploration program were appropriately recorded and reported to authorities, if not previously known.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				immediately and not recommended. • Report any sites as soon as practicable		

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria	
Catastrophic	Rare	General Public	General Public	Injury or death to members of the public as a result of exploration activities.	<ul style="list-style-type: none"> Restricting access to only Company personnel as far as possible, and only to others (e.g. contractors) who have had an induction. Enforcing best practice OHS measures. Appropriate danger signs erected. Enforcing speed limits. The risk is High as if something was to happen it would be Major to Catastrophic - very rare to unlikely though. 	High	<p style="font-family: Arial, sans-serif; font-size: 10px;">No accidents involving the public that could have been reasonably prevented by the licensee.</p>	<p style="font-family: Arial, sans-serif; font-size: 10px;">Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming no accidents occurred involving the public during and after the exploration program. If an accident involving the public did occur, provide a copy of the independent investigation report within the annual exploration compliance report demonstrating that the licensee could not have reasonably prevented the accident through the implementation of precautionary measures.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Groundwater	Soil/vegetation/fauna	Discharge of groundwater into the surrounding environment.	<ul style="list-style-type: none"> Groundwater will be contained within the sumps and circulation system. Any inadvertent spillages will be immediately cleaned up and returned to the sumps. 	Low	<p>No discharge of groundwater outside of the exploration site (e.g. drillsite) into the surrounding environment and no discharge of water into a watercourse, unless prior approval under the relevant legislation is obtained.</p>	<p>Maintain photographic evidence of all drillsites demonstrating that groundwater was not discharged into the surrounding environment, unless water affecting activity permits were obtained allowing the discharge of groundwater into watercourses and/or lakes. Representative photos and water affecting activity permits (where applicable) to be included within the annual exploration compliance report.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Native Vegetation	Flora and fauna and their habitats; includes Commonwealth and state scheduled species.	Loss/modification of native vegetation (e.g. through the clearance of vegetation). Any track or drill pad clearing is conducted using the 'blade up' method. • Drill sites and access tracks are rehabilitated in such a way as to promote regrowth of native vegetation. • Vehicles are restricted to a single access track to minimise disturbance of native	• Drill sites and access tracks avoid areas of substantial native vegetation (e.g. tree groves) • There is generally only minor disturbance of native vegetation. • Any track or drill pad clearing is conducted using the 'blade up' method. • Drill sites and access tracks are rehabilitated in such a way as to promote regrowth of native vegetation. • Vehicles are restricted to a single access track to minimise disturbance of native	<p style="font-family: Arial, sans-serif; font-size: 10px;">No permanent loss/modification of native flora and fauna populations and their habitats through: • clearance • fire • other unless prior approval under the relevant legislation is obtained.</p> <p style="font-family: Arial, sans-serif; font-size: 10px;">Maintain before, during and after photographic evidence of all exploration sites (e.g. drillsites, new track exit/entry points off existing tracks, costeans, campsites) demonstrating that: • The area and method of disturbance is consistent with that described in the PEPR. • No uncontrolled fires* occurred as a result of exploration activities. Representative photos to be included within the annual exploration compliance report.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				vegetation . • No fires are lit during the summer months, and only at other times if there is a clear area surrounding and fire danger is minimal (e.g. lack of burnable material and no fire ban period). • Fire management procedures in places, including policy for "extreme fire danger rating". • Firefighting equipment /extinguishers are available at all times. • Compliance with Fire Ban ratings, which is		

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
				checked daily (CFS website), and a risk assessment of the prevailing conditions is completed and communicated each morning. When CFS Fire rating is Low-Very High – work will continue, and conditions /risks will be monitored. If Fire rating is Severe – work will continue based on risk assessment if winds are low and the prevailing conditions are assessed as acceptable to continue work. Where		

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Potential Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
					Fire rating is Extreme-Catastrophic – work will continue based on risk assessment if winds are low and the prevailing conditions are assessed as acceptable to continue work. Although fire rating maybe severe or catastrophic due to the weather conditions, the risk of bushfire is minimal due to lack of fuel to maintain a fire.		

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk Outcomes	Outcome Measurement Criteria
Insignificant	Rare	Other	N/A	N/A	N/A	Low	<div data-wrapper="true" style="font-family:'Segoe UI','Helvetica Neue',sans-serif; font-size:9pt"> <p style="font-family:Arial,sans-serif; font-size:10px">N/A</p> </div>

Supporting Information

Photos

Upload Photos 

[Expand/Collapse](#)

File Name	File Size (Mb)	Created On	Download
EL6592_Mutooroo Mine_General Landform.jpg	0.06 Mb	05-09-2025 12:14:13	Download (MERS/EP-03940/Supporting information/Photos/EL6592_Mutooroo Mine_General Landform_2025-09-05T02-44-13.432Z.jpg)
Example of Rehabilitation Stages.png	1.09 Mb	05-09-2025 12:15:17	Download (MERS/EP-03940/Supporting information/Photos/Example of Rehabilitation Stages_2025-09-05T02-45-17.334Z.png)

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (DGA94)	Zone	Details and comments	Document ID
EL6592_Mutooroo Mine_General Landform	19/02/2021	Photo 1, Description of Environment	493700	64380800	54	General View	
Example of Rehabilitation Stages	16/11/2023	Photo 2, Exploration Operations	493579	6425667	54	Prior to drilling (top), immediately after drilling (middle), after rehabilitation (bottom), looking south to southeast.	

Supporting Maps

Upload Maps 

Expand/Collapse

File Name	File Size (Mb)	Created On	Download
5. Mutooroo Maps.pdf	1.46 Mb	29-08-2025 13:45:58	Download (MERS/EP-03940/Supporting information/Maps/5 . Mutooroo Maps_2025-08-29T04-15-59.298Z.pdf)

Figure Description

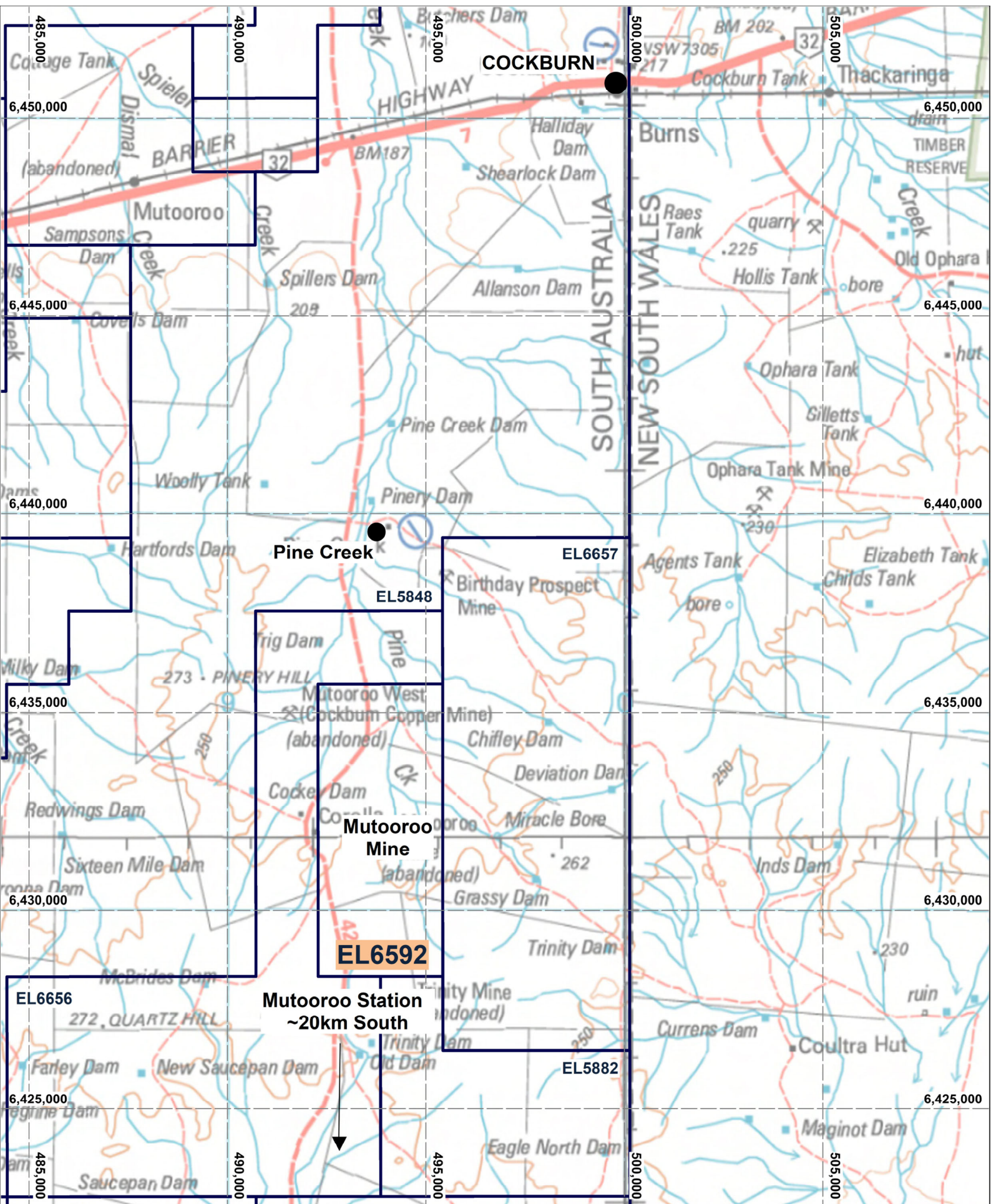
Document ID

Mutooroo Mine location and proposed drilling

Additional Information

List any other supporting information and/or documents submitted with the application, including land access approvals/permits required to conduct the proposed exploration program.

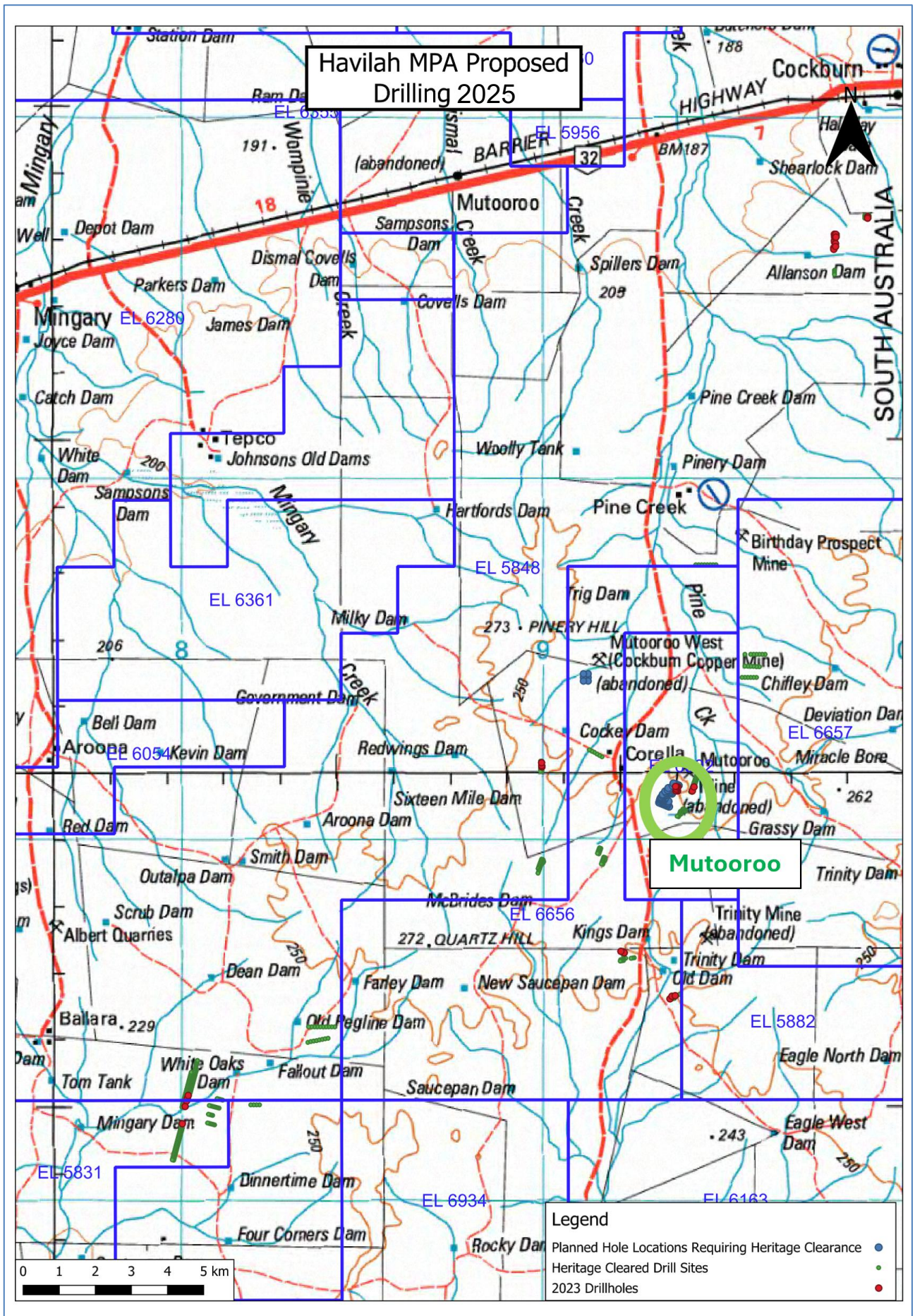
N/A



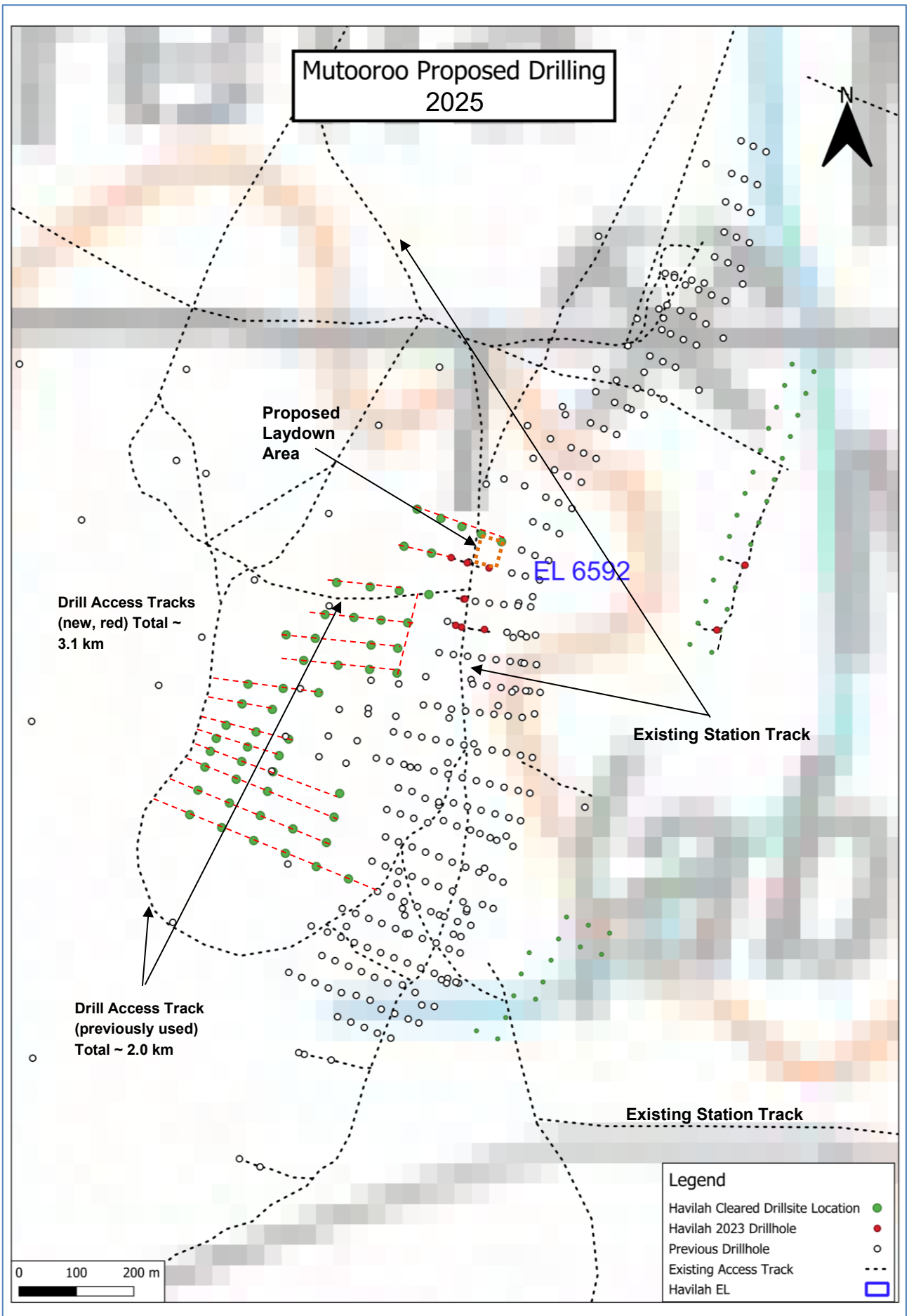
EL6592 LOCATION AND SURROUNDS







Map 1: PEPR Location and Access – Regional.



Map 2: PEPR Location and Access – Mutooroo Mines.

