



Doc ID: EP-04044

26 June 2026

Ms. Amy Jacka,
Havilah Resources Limited,
31 Flemington Street,
GLENSIDE SA 5065

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

Mr. Graham Teale,
Teale & Associates Pty. Ltd
21 Daphne Street
PROSPECT SA 5082

Via email: geologists@tealeassociates.com.au

Dear Ms. Jacka & Mr. Teale

Notification of Approved Exploration Program for Environment Protection and Rehabilitation EPEPR

In reference to your final submission dated 2 June 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	Havilah Resources Limited Teale & Associates Pty. Ltd
Tenement Type & Number	Exploration Licences: EL 6271; EL 6933; EL 5891
Program Number	EP-04044
EPEPR Description	12 Month EPEPR- Drilling of 34 RC and 7 DD drill holes to total depth of 10 285 m approximately 150 km east of Marree at the Prospect Hill Tin Project Prospects.

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.

MINERALS REGULATION

11 Waymouth Street, Adelaide SA 5000 | GPO Box 618 Adelaide SA 5001

Tel (+61) 8 463 3000 | ABN 83 768 683 934



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	PEPR Conditions In accordance with section 70B(7a)(b) of the Mining Act, the approved EPEPR is subject to the conditions listed in the Notice of Approval Conditions – EP-04044 (Appendix 1).
2	Public Liability Insurance Pursuant to Regulation 81 of the Mining Regulations 2020 (the Mining Regulations), you are required to provide a copy of a certificate evidencing the insurance coverage over the tenements.
3	Rehabilitation Bond DEM has determined the rehabilitation liability estimate to be \$ 45,905 based on the information you have provided, including outstanding historical rehabilitation. Accordingly, a bond of \$ 10,000 be entered into with the Minister for Energy and Mining (Minister). This bond will be formally requested through separate correspondence. The bond must be entered into before authorised operations can commence.
4	Compliance Reporting 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/ease was granted, or in accordance with joint reporting requirements agreed to with the Minister. Please refer to the DEM website for more information on the reporting requirements. You are reminded that a separate compliance report is required 2 months after the expiry or surrender of the EL.
5	Work, Health and Safety Compliance In accordance with Chapter 10 of the <i>Work Health and Safety Regulations 2012</i> (SA), 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 .
6	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

A handwritten signature in black ink, appearing to be "SC" or similar initials.

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

The Department's Regulatory Guidelines, Ministerial Determinations and Information Sheets are available at:
<https://energymining.sa.gov.au/industry/minerals-and-mining/forms-legislation-and-guidance>



Appendix 1

Notice of Approval Conditions - EP-04044

In accordance with section 70B(7a)(b) of the *Mining Act 1971*, EP-04044 is approved subject to the following condition:

Notice of Approval Conditions – EP-04044	
1	As far as reasonability practicable, all sites, including drill pads, sumps and access tracks, must be rehabilitated to ensure pre-existing contours and stable landforms are established.

Exploration PEPR - EPEPR | 12 Month PEPR

Reference Number: **EP-04044** • 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

Joseph Ogierman
Exploration Manager – Heavy Rare Earths Limited
joseph@hreltd.com.au
0487 487 929

Agency and Operator agreements have been submitted (08/04/2025) for Heavy Rare Earths to operate under the Havilah tenements. These will be followed up on MERS with a Form 16A by 14/04/2026.

General Details

Tenement Details *

Tenement Type	Tenement Name	Tenement Holder
Exploration Licence	EL 6271	Havilah Resources Limited
Exploration Licence	EL 5891	Havilah Resources Limited; TEALE & ASSOCIATES PTY. LTD.
Exploration Licence	EL 6933	Havilah Resources Limited

Operating Company

Heavy Rare Earths Limited

If there is another Operating Company, please provide

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

Project/prospect name

Prospect Hill Tin Project - Prospects: South Ridge, Black Rock, Fly Ridge, Petermorra, Central Ridge

Mineral Model

Target commodity at South Ridge Prospect is tin (Sn) with minor accompany polymetallics (Cu+/-Zn+/-Ag). Mineralisation model is for structurally controlled hydrothermal tin+/-polymetallics hosted by Petermorra Volcanics in Mt Babbage Inlier basement rock. Source rocks for hydrothermal fluids and metals is likely to be Mesoproterozoic-age porphyritic granitic intrusions such as Prospect Hill Porphyry.

Primary Commodities *

Commodity Name ↑	Commodity Group	Grade
Tin	Exploration	
Uranium	Exploration	

Secondary Commodities

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

Project Description

Infill and strike extension drilling to defined South Ridge mineralisation. Reconnaissance / exploratory drilling at other prospects.

Proposed Project Schedule

Start Date

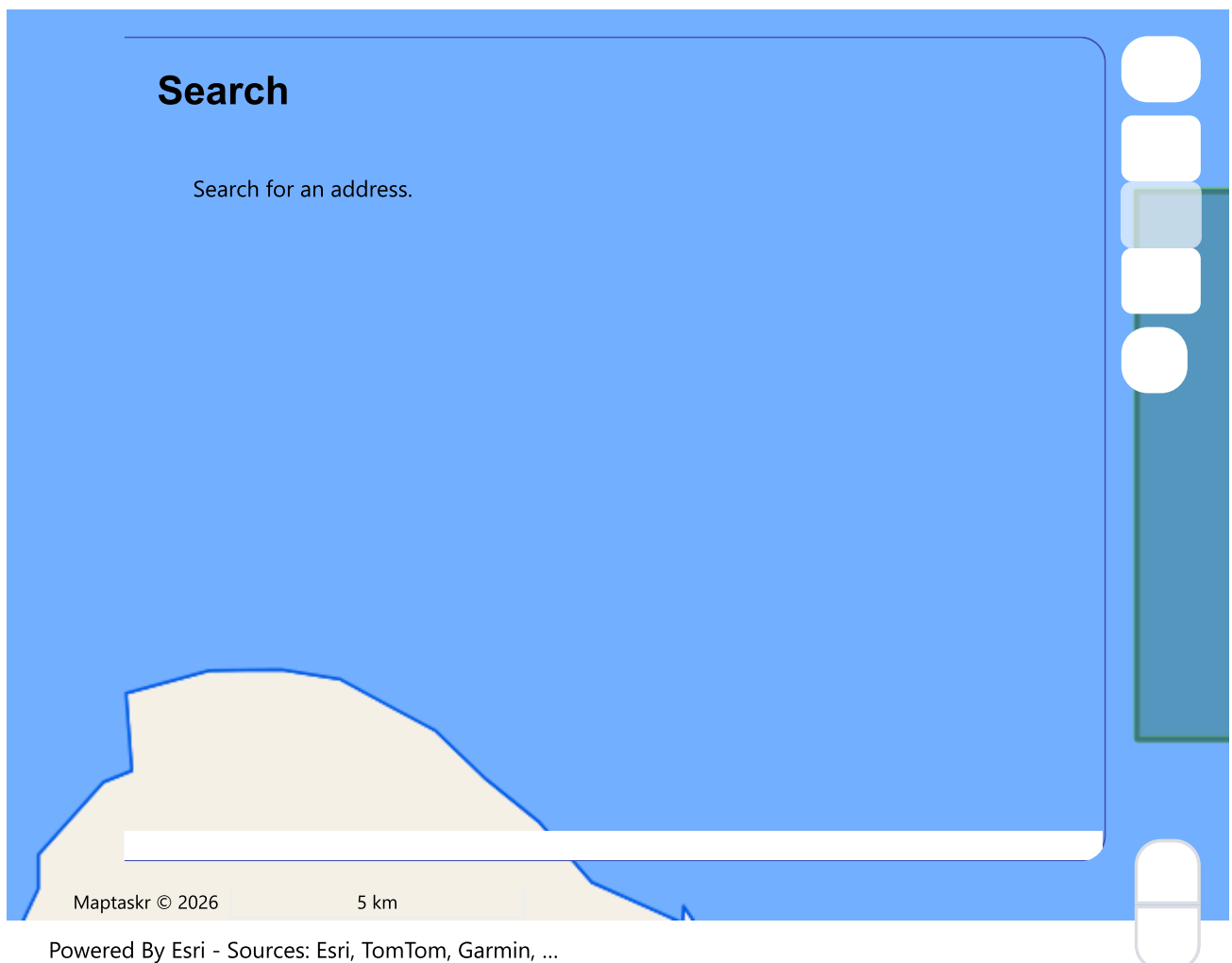
25/06/2026

End date

25/06/2027

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

PROSPECT HILL AREA - Approximately 150 km east of Marree

Area (Sqkm)

74.43

Spatial Data Intersects - Summary Table

Show

10

 entries

Search:

Spatial Layer Name	Category	Referral	Intersect Count
1:250K mapsheets	Other		1
Cadastral Parcels	Other		2
Determinations of Native Title	Other		2
Exploration licences (mineral/opal)	No-Go Area		3
National Wetlands	Other	Yes - Advice	172
Pastoral Lease Boundaries	Other		2
Planning and Design Code Zones - conservation	Other		1
Prescribed Wells Area (Far North GAB)	Other		1
Prescribed Wells Areas	Other	Yes - Advice	1
Registered and Notified ILUAs	Other		3

Showing 1 to 10 of 11 entries

Previous

1

2Next

Spatial Data Intersects - Details Table

Show

10

 entries

Search:

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

Spatial Layer Name	Shape	Primary Attribute	All Attributes	Category
Cadastral Parcels	Shape 1	F251727AL50	View attributes	Other
Cadastral Parcels	Shape 1	D42203AL24	View attributes	Other
Determinations of Native Title	Shape 1	Dieri No.2 Native Title Claim	View attributes	Other
Determinations of Native Title	Shape 1	Adnyamathanha People No. 1 (Stage 1)	View attributes	Other
Exploration licences (mineral/opal)	Shape 1	EL 5891	View attributes	No-Go Area
Exploration licences (mineral/opal)	Shape 1	EL 6271	View attributes	No-Go Area
Exploration licences (mineral/opal)	Shape 1	EL 6933	View attributes	No-Go Area
National Wetlands	Shape 1	Lake Eyre Mound Springs	View attributes	Other
National Wetlands	Shape 1	Lake Eyre Mound Springs	View attributes	Other

Showing 1 to 10 of 196 entries

Previous

1

2
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20
Next

Program Preparation

Work undertaken in preparing the proposal

In December 2024 Havilah Resources Limited and Heavy Rare Earths Limited (HRE) completed a deal where HRE was given access to a tenement package associated with 3 uranium projects in South Australia, including Prospect Hill. In October 2025 HRE expanded its existing uranium-only mineral rights to an all minerals rights agreement on Prospect Hill, giving access to the South Ridge Tin Prospect.

HRE reviewed Havilah's data package, SARIG, and regional geophysical images (magnetics, gravity, etc.). The Wattleowie Creek in the eastern half of the tenement was regarded as a potential Four Mile West-style setting for sed-uranium, hosted by Cretaceous tillites.

A passive seismic + gravity survey was undertaken in 1H 2025 over the Wattleowie Creek drainage to define palaeogeography of the unconformity between Cretaceous sediments and underlying basement. This work highlighted the unconformable relation of the Cretaceous basinal sediments with underlying Mt Babbage Inlier basement. Correlating passive seismic data with regional geophysical datasets showed a complex interaction of palaeodrainage with a series of N-S step faults and NW-SE structures. HRE undertook a field trip from 21st March - 5th April 2025, with Steve Hore from DEM to examine Cretaceous sequences east of the Mt Painter block with particular focus on basal Cretaceous horizons including glacial tillites as this is the host horizon to Heathgate's Four Mile West deposit.

Discussions have been held with Pastoral Lease holders who will be directly involved with work programs (Moolawatana, Murnpeowie). Initial phone conversations have been followed up with face-to-face meetings during field trips. Feedback has been positive and discussions will continue to see how Pastoral Lease holders may be able to assist logistical support to the program, including earthmoving equipment for access, maintenance, drill site preparation and rehabilitation. Accommodation for NT surveys and drilling was also discussed.

Operator Capability

Heavy Rare Earths Ltd (HRE) are an established exploration company with over 3 years' experience on critical mineral projects in Western Australia and South Australia. The company employs and contracts capable geological and exploration staff guided by an Exploration Manager who has nearly 40 years' experience with projects on four continents. HRE, with assistance from tenement holders Havilah Resources, has maintained an above industry standard of exploration and rehabilitation compliance in South Australia.

Heavy Rare Earths Ltd plans to employ drilling contractors but has access, via the Moolawatana Station owners (Sheehan Contracting), to various earthmoving equipment such as backhoe and grader for rehabilitation work. Sheehan Contracting use experience and trained operators for all equipment as they have extensive experience undertaking maintenance on the Moomba pipeline road and on maintenance/construction for Heathgate's nearby Beverly Uranium Project. The company's exploration staff have experience working on pastoral country and are pleased to extend the long relationships established by Havilah resources with various stakeholders associated with their projects.

Heavy Rare Earths Ltd have several 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, Heavy Rare Earths Ltd engage the services of Havilah's 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. 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.

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 ar
CL 6182/599	F2517 27AL50	Crown	Gerrad and Karin Sheeha n - Moolawatana Station	Service of Notice of Entry	14/04/2026	21 B - NT-01203	Checked
CL 6182/599	F2517 27AL50	Crown	Gerrad and Karin Sheeha n - Moolawatana Station	Service of Notice of Entry	14/04/2026	21 B - uploaded to MERS	Checked
CL 6207/326	D4220 3AL24	Crown	Murnpeowie Station	Service of Notice of Entry	14/04/2026	21 B - uploaded to MERS	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
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
Dieri No.2 Native Title Claim			Yes
Adnyamathanha People No. 1 (Stage 1)			No
Dieri Geokinetics ILUA			No
Adnyamathanha Mineral Exploration ILUA			No
Adnyamathanha Settlement ILUA			No

Provide any additional relevant information

There are two different Native Title Heritage Groups registered over the Prospect Hill tenement package operated by HRE. For the current proposed drilling program at South Ridge tin deposit, only one tenement - EL5891 and one Native Title Claim, the Dieri NTC, is affected.

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
CL 6182/59 9	F2517 27AL5 0	Gerrad and Karin Sheehan - Moolawatana Station			
CL 6182/59 9	F2517 27AL5 0	Gerrad and Karin Sheehan - Moolawatana Station			
CL 6207/32 6	D4220 3AL24	Murnpeowie Station			

Consultation

Consultation

Stakeholder ↑	Land Use	Matters raised	Stakeholder concerns raised and how addressed
Dog Fence Board	Conservation	No Concerns.	Ash Rees (Dog Fence Project manager) contacted by phone and informed of planned drilling at South Ridge which would entail use of the Dog Fence access/service road as with previous drilling campaigns. Ash Rees confirmed he understood the need for use of the road and requested maintenance of the road during drilling operations and repairs of the road , if required, upon completion. Phone Contact on 14th October 2025 with Ash Rees – Dog Fence Program Manager Phone: 08 8429 3459 Email: ash.rees@sa.gov.au
Dog Fence Board	Conservation	No Concerns.	Ash Rees (Dog Fence Project manager) contacted by phone and informed of planned drilling at South Ridge which would entail use of the Dog Fence access/ service road as with previous drilling campaigns. Ash Rees confirmed he understood the need for use of the road and requested maintenance of the road during drilling operations and repairs of the road , if required, upon completion. Phone Contact on 14th October 2025 with Ash Rees – Dog Fence Program Manager Phone: 08 8429 3459 Email: ash.rees@sa.gov.au
Gerrad and Karin Sheehan - Moolawatana Station	Grazing	There have been no major concerns raised by the Moolawatana Pastoral Lease holders who have been on site for the previous drilling programs by Havilah.	N/A
Gerrad and Karin Sheehan - Moolawatana Station			
Murnpeowie Station	Grazing	There have been no major concerns raised by the Murnpeowie Pastoral Lease holders	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.

Contact with Ash Rees (Dog Fence Project manager) to inform of planned drilling program and HRE's wish to use a cleared lay-down site on the northern side of the dog fence which has recently been used as a camp/logistics site by contractors rebuilding the fence. Ash Rees gave permission to use the site as a drilling lay-down site. Advised that an inspection/maintenance team semi-regularly passes along the fence line.

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:

Settlements:

The closest townships to EL5891, EL6271 & EL6933 are Lyndhurst, which is approximately 130km south-west, and Nepabunna which is 108km south-south-west of the proposed exploration activities refer Maps 1 & 2 (Section J).

Privately-Owned Residences:

EL 5891 covers one privately-owned rural property (Map 2). No exploration activities have been planned within 10km of station residences.

Roads and tracks:

Wherever possible, access to proposed drill sites will utilise the network of existing roads and tracks. Tracks will be maintained as required (in consultation with the landowners) and exploration work will be conducted in ways to ensure minimal disruption to any station infrastructure. Existing station tracks are poorly maintained and will be upgraded were needed for access of drilling vehicles. A track follows the Dog Fence in EL 5891 and has recently been maintained. HRE will ensure this track continues to be in good order and will undertake any repairs/maintenance upon completion of the drilling program. (See Photo 1 and 2)

Transmission lines, water pipes, gas lines, railways, etc:

There are no known transmission lines, water pipes, gas lines, etc that in close vicinity to planned exploration activities. There are no commercial airports close by but there are two airstrips at Mount Fitton Talc Mine, 1 km to the south-south-west and Moolawatana Station airstrip 20km to the south-east.

Other infrastructure:

The Dog Fence passes through the Prospect Hill Project area in an east-west direction, closely marking the boundary between the Adnyamathanha and Dieri native title claims and also marking the boundary between Moolawatana and Murnpeowie pastoral leases. There is a gate in the fence within the Wattleowie Valley, close to proposed drill holes, which will allow access for vehicles and drilling rigs between drill holes on the two stations and to proposed laydown areas. Repair/maintenance work on this section of the dog fence was recently completed (2024). The fence itself will not be impacted by proposed drilling activity.

Attach Files

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File Name	▲	File Size (Mb)	▲	Created On	▲	Download	▲
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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.

Low extremely rocky hills surrounded by open gibber strewn plains which are cut by several large ephemeral streams originating to the south from more elevated terrain. Small short ephemeral creeks of limited catchment drain the hills and flow towards the larger drainages, with many having poorly defined courses across the plain areas.

Soils on the outcrop area are very thin and comprise mainly loess derived from the surrounding plains during strong wind events and locally derived rock debris. This results in very limited vegetation over the area. Soils are highly gypsiferous away from the bedrock areas. Due to the highly rocky nature of the surface, little in the way of compaction occurs. The more gypsiferous soils are soft and compactable but re-inflate quickly and can be easily rehabilitated manually.

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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

There are a few creeks within the general proposed exploration area. All drillholes are planned within 30-40m of an E-W trending a ridge line Most of the creeks in the region drain north-north-east into saline Lake Blanche, approximately 50km away. There are no proposed drillholes within these drainages and drill pads/access roads I will be sighted by senior field personnel to ensure drainage and surface water sites are not disturbed.

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	
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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.

There have been 5 previous drilling programs along the South Ridge Prospect from the late 1980s up to 2017. As the host rocks consist of metamorphosed Mesoproterozoic basement volcanics there are no true aquifers. Historical reports from these programs indicate groundwater levels vary throughout the prospect and are likely influenced by fracture zones corresponding with the main zone of mineralisation. For instance, in hole PHP016 groundwater is recorded at 66m true vertical depth (TVD), in PHP017 groundwater is recorded at 101m TVD and PHP018, groundwater is at 131m TVD. This is not unexpected as the only record of groundwater in the SARIG database, in drillholes within 2km of the South Ridge Prospect, are from water bores drilled in alluvial river sequences overlying Cretaceous aquifers in the plains adjacent to the Mesoproterozoic basement inliers upon which South Ridge Prospect is located. There are no known aquifers within the Mt Babbage Inlier.

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

There have been 5 previous drilling programs along the South Ridge Prospect from the late 1980s up to 2017. As the host rocks consist of metamorphosed Mesoproterozoic basement volcanics there are no true sedimentary aquifers. Historical reports from these programs indicate groundwater levels vary throughout the prospect and are likely influenced by fracture zones corresponding with the main zone of mineralisation. For instance, in hole PHP016 groundwater is recorded at 66m true vertical depth (TVD), in PHP017 groundwater is recorded at 101m TVD and PHP018, groundwater is at 131m TVD. This is not unexpected as the only record of groundwater in the SARIG database, in drillholes within 2km of the South Ridge Prospect, are from water bores drilled in alluvial river sequences overlying Cretaceous aquifers in the plains adjacent to the Mesoproterozoic basement inliers upon which South Ridge Prospect is located. There are no known aquifers within the Mt Babbage Inlier.

The groundwater data for the area is limited and sparse. There is only one drilled water well within a 5km radius of the proposed drilling site at South Ridge. This water well, White Well, located in the Wattleowie Valley at the base of the Mt Babbage Inlier, is 34m in depth and is no longer used by the pastoralists. It is collared in Cretaceous Trinity Well Sandstone but Water Connect website contains no information as to whether the bore stays in sandstone or at some depth, crosses the underlying unconformity into basement.

Groundwater analyses are also available for several GAB springs approximately 3 to 3.5km, north to north-northeast of South Ridge. These springs are hosted by Trinity Well Sandstone adjacent to Petermorra Creek at the base of the Mt Babbage Inlier.

There are three other water bores between 5-10km radius from South Ridge (Wattleowie, New Wattleowie and Gunpowder Bores) but these are also collared in Cretaceous rocks (Bulldog Shale) and there are no lithological logs to indicate if they encounter underlying basement.

There is no data to indicate if fracture-controlled basement groundwater interacts with the surrounding Frome /Eromanga Basins as a form of Mountain System Recharge (MSR) which can occur via connectivity with fractured rock aquifers associated with mountain blocks and fronts on the margins of the basin. Minor MSR has been identified near the Peake and Denison Inliers and potentially other elevated areas near the margins of the GAB, but the "total volumes are likely small". (The Far North Prescribed Wells Area Groundwater Model Volume 1 – Summary. Mar 2025. DEW Technical report 2025-11).

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 formati on name	Aquifer Interval/thin kness (from- to) (m)	Aqui fer Type	Aquifer salinity (TDS)	Depth to ground water (m)	Co mm ents
South Ridge, Prosp ect Hill	Meso- Paleoproteroz oic Granites/Volc aniclastics	250	N/A	185	Unco nfine d	Saline groundwater (TDS ~7,000- 14,000 mg/L)	65	Gro und wate r is withi n fract ured bedr ock. Kno wn inter secti on dept h arou nd 66- 103 m. Uns ure of maxi mu m dept h of grou ndw ater, poss ibly beyo nd limit of drilli ng.

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

N/A

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

There is low potential Aquatic GDE on the northern and western bounds of the tenement with Petermorra Creek (north), ad Spring Creek and Catt Springs (west). There are various known Aquatic GDEs (waterholes) in the north of the project area, well away from any proposed drilling. There is a known Terrestrial GDE in the area, although is outside of the tenement bounds and well away from the proposed drilling. There are low to high potential Terrestrial GDE throughout the project area. No ecosystems analysed for subterranean GDE
See document attached below for further information.

Is the proposed program located within a prescribed wells area?

Yes

Select the prescribed wells

Far North Prescribed Wells Area

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

No

Select the prescribed water resource areas

Provide any additional information

There are no geological sequences younger than Mesoproterozoic-age that will be encountered in drilling i.e. no Phanerozoic basinal sediments. Previous drilling in this area of Proterozoic crystalline basements rocks has not encountered any water of significance, and the only water expected to be encountered will be fracture controlled unconfined and fault related. No water of GAB type is expected to be encountered in this drilling.

Attach Files 

Expand/Collapse

File Name	File Size (Mb)	Created On	Download
Prospect Hill Area_GDE.pdf	0.7 Mb	14-04-2026 11:40:34	Download (MERS/EP-04044/Ground water/Prospect Hill Area_GDE_2026-04-14T02-10-34.763Z.pdf)

Native Vegetation

Will you be working within areas of native vegetation?

Yes

Provide the following information:

The Prospect Hill Project lies within South Australia's Rangelands geographical setting is intersected by the boundary between two bioregions as defined by Neagle (2003), the southern half of the Project area consists of Proterozoic basement rocks of the Mt Babbage Inlier which corresponds to the Flinders and Olary Subregions (FLO) whereas the north half consists of stony, gibber planes and alluvial plains corresponding to the Stony Plains (STP) Subregion.

As far as is known there have been no systematic studies of flora and fauna within South Ridge Prospect area but it is considered appropriate to use vegetation classifications as defined by Neagle (2003). the Flinders and Olary Subregions (FLO). The area may be broadly described as Acacia Shrubland.

Native vegetation in the area is sparse with vegetation generally restricted to narrow water courses and as individual stands. Larger species include Acacia aneura, Acacia tetragonophylla ("Dead Finnish"), Melaleuca glomerata, Eucalyptus camaldulensis (River Red Gum), Pittosporum phylliraeoides and Acacia continua, with smaller shrubs and grasses including Solanum quadriloculatum, Crinum flaccidum, Astrebla elymoides, Atriplex vesicaria, Cymbopogon ambiguus and rare isotoma petraea. (see figures in Section I)

Many species are only present after extended periods of significant rainfall, with the area often devoid of any small grass species.

The only recorded sightings for Salt Piperwort are along the northern base of the Mt Babbage Inlier, approximately 3.2 km from South Ridge (Figure 9), there is no expected interaction from drilling or logistical access with this area.

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

Attach Files 

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Fauna

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

Rare kangaroo (red, grey) and Wallaroo. Several snake and lizard varieties. Rare dingo and feral cat. Numerous but low populations of several bird species due to general poor habitat conditions. Bird species observed include Pied Honeyeater (figure in Section I) , Wedge Tailed eagles. The area is contained within FLB5 Northern Flinders and contains a list of approximately 900 individual fauna. Some of these will likely be present in the proposed work area but no formal study has been undertaken to identify all present in this particular location.

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
Eriocaulon carsonii ssp carsonii	Salt Pipewort	Endangered (EN)	Endangered

Attach Files 

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File Name	File Size (Mb)	Created On	Download
Prospect Hill PEPR_Siginificant Flora Locations.jpg	9.86 Mb	22-05-2026 10:15:55	Download (MERS/EP-04044/Fauna/Prospect Hill PEPR_Siginificant Flora Locations_2026-05-22T00-45-56.384Z.jpg)

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*).

Pest plants or weeds occur throughout the rangelands of South Australia but are of greatest threat in areas of higher rainfall towards the southern margins of the region. Such plants include Salvation Jane (*Echium plantagineum*), Pimpernel (*Anagallis arvensis*) and Soursobs (*Oxalis pescapre*) amongst others. Prospect Hill is at the extreme northern end of the Flinders Ranges and does not experience the same amount of rainfall as the southern margins. While here has not been a systematic studies of flora and fauna within South Ridge Prospect area of the Mt Babbage Inlier. Field excursions to the South Ridge area by HRE and HAV has not observed significant presence of invasive weeds. The proposed drill areas are in 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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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.

A Site Clearance request was submitted to the Dieri Aboriginal Corporation (DAC), as a result of which a clearance survey will be undertaken by the DAC, Tim Cuthbertson (Anthropologist) and HRE personnel between Monday 4th May and Wed 6th May 2026.

The heritage clearance survey was successfully undertaken with members of the Dieri Aboriginal Corporation (“Dieri”) and their anthropologist on Tues May 5th, 2026. The original timing for the clearance survey was impacted by weather delays and access to roads, after unusually high rainfall experienced in Q1 2026 across South Australia that saw more than double the average annual rain fall within 2 months. Due to the unsafe conditions as a result of the once in a generation rainfall in the region, a helicopter was therefore used to gain access for the clearance. During the clearance, all drill sites were cleared except for three due to concerns of proximity to steep gullies. These 3 sites will be re-positioned within the area cleared by the Dieri with adjusted azimuths and dips to intersect the target zones.

Environmentally Sensitive Locations

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

Yes

Name	Applicable
	Yes
Lake Eyre Mound Springs	No

Are you likely to impact on the environmentally sensitive area?

No

Detail the likely effects the proposed program may have.

Attach Files 

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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	2	HRE + contractor
Field assistants/technicians	1	HRE
Drilling Crew	3	Unknown at this stage
Site Preparation and rehabilitation	1	Moolawatana Station personnel

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
RC/Diamond Drill rig	Unknown	Truck	Drilling
Rod/Fuel Truck	Unknown	Truck	Drill support
4X4 Support Vehicles	HRE + Drilling contractors	Standard 4x4 Ute	Personnel Movement
Loader/Dozer/Grader	Pastoral Leaseholders	Site Prep	Site and access preparation

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 depth x width)	Average size of each drill pad	Number of sites requiring pad excavation	Average volume of material to be excavated
EL 5891	Reverse Circulation	34	250.00	34	2	6.00	150.00	14	10.00
EL 5891	Diamond Drilling	7	255.00	7	2	12.00	150.00	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.

Vegetation clearance requirements and site levelling:

– It is anticipated that drill sites will require minimal preparation for this programme.

Several drill sites will be able to utilise drill pads from previous programs, Even though rehabilitation has been undertaken the sites can be re-visited with minimal earth disturbance.

- It is possible that after initial drilling results, some drill pad preparation may be required for subsequent drilling and pads will be constructed sufficient in size to provide a safe working environment for all associated personnel but will not be excessive in area. It should be noted that on steeper ground due to the lack of easily accessible pad construction material on occasions a larger area than usual may be required in order to ensure personnel safety.

In areas of existing drill pads and access, these may require a small amount of refurbishment to allow safe use by drilling equipment.

for the construction and closure of sumps:

– The topsoil, if any, to a depth of 30cm is then removed from the working area and stockpiled in a location where it will not be contaminated by other materials or damaged by vehicle movements.

– Each sump for RC drillholes will be approximately 2m x 1.5m x 2m and will be designed with a ramp at one end for fauna egress.

– Each sump for Diamond drillholes will be approximately 4m x 1.5 m x 2m and will be designed with a ramp at one end for fauna egress.

– In the unlikely situation where there is livestock in close proximity to drilling activities, safety fencing will be put around the sump to prevent animals from falling into the sumps. HRE will speak to landowners about possibly moving livestock to other paddocks if there are concerns about animal safety.

– Each sump will be large enough to contain the drill cutting anticipated from the hole and have sufficient depth that material returned from the drill hole will be buried at least 1 m below the surface.

– On completion of drilling, sumps are left to dry until the material in the bottom is both thick and viscous or dried/cracked and not in a condition where it will splash or move significantly during backfill.

– A photographic record of representative sumps will be taken before backfill commences and a subsequent rehabilitation photo taken afterwards.

– The material excavated from the sumps and drill pad excavations is returned as far as is practicable in the reverse sequence to its excavation leaving a sufficient slight rise over the top to allow fill to naturally settle and compacts over time and prevent localised ponding.

– The stockpiled topsoil is then spread out across the site by machine, and lightly scarified to encourage vegetation regrowth and existing contours.

Drillhole construction and decommissioning

Drillhole construction and decommissioning

Drillhole construction and decommissioning is explained 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.

Drill holes will be standard 150mm RC holes with a short length of PVC casing placed in the top of the hole. This is likely to be held in place by Si-foam. On completion of the drill hole a cap will be placed on the hole until such time as the hole has been surveyed and all additional geological data obtained from the samples.

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.

If the hole is no longer required for deepening etc. it will then have that casing cut off below ground level, a suitable plug inserted and then backfilled according to M21. Some drill cuttings may be returned to the hole if practicable. Form M21, shows confined and unconfined aquifers as sedimentary layers within a depositional basin, unconformably overlying basement, as shown in Figure attached. None of the drillholes in the proposed HRE drill program at South Ridge will intersect sedimentary aquifers, and significantly will not penetrate artesian aquifers, of the type shown in the Figure. According to M21, “Drillholes that do not penetrate aquifers” should be backfilled with “drill cuttings or clean fill”. This has been the procedure used in previous drill programs at South Ridge and will be employed during the proposed program.

If casing cannot be removed, the drillhole will be securely capped at or below ground level as agreed with the landowner.

The drillholes will be drilled in Mt Babbage basement granites and volcanoclastics from collar to end of hole. None of the planned drillholes will penetrate GAB horizons.

Attach Files

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File Name	 File Size (Mb) 	Created On	 Download 	
Drillhole Decommissioning_Figure.pdf	0.14 Mb	22-05-2026 10:37:52	Download (MERS/EP-04044/Drillhole construction and decommissioning/Drillhole Decommissioning_Figure_2026-05-22T01-07-53.000Z.pdf)	

Costeans and bulk sample disposal pits

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

Yes

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
EL 5891	6	7.5	0.3	2.30	13.8	45.0

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

Disturbance from costean construction will be minimal; it will involve re-opening several historic costeans and also extending several historic costeans. As with drill site preparation, topsoil will be removed and stored for later return to site when information from the costean is no longer necessary (after mapping and sampling). Bedrock is close to surface and outcrops in many places do costean depth will rarely exceed 30 cm or so.

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).

Samples:

- The sample laydown area is located outside the driller/rod handler working zone at the rear of the rig.
- For RC drilling, 15-20 kg sample piles for each metre will be lined up along the surface in 20m rows and in addition 1 kg representative samples will be taken from each interval that will be either sent off site to the lab or storage. Piles are later rehabilitated within 6 months of drilling and once assays are received. Diamond core will be stored in core trays and taken off site for logging and sampling.
- A representative subset of each 1m sample is placed in a chip tray for geological logging and a geological record.
- Downhole geophysical logging is completed for each drillhole and will identify any mineralised zones.

The logging

confirms which samples, if any, have any significant uranium mineralisation.

- On completion of drilling and after logging, the remaining material is returned to the drillhole where possible and the remainder of the samples are put in the sump to be buried under adequate cover over at least 1m and the topsoil placed on top of the sump.

- Sample chiptrays will be stored in a temporary shed at the HRE Resources Exploration Camp which will be set up on site at Moolawatana.

- There will not be the requirement to dispose of samples. All samples will be kept and sent to the core library for storage at the end of the program if the company no longer wants to pursue working on this project.

Access routes to work areas

Will existing tracks require upgrading and/or maintenance?

Yes

Detail the work required to upgrade/maintain existing tracks.

Some existing station tracks will require upgrading and minor modification as discussed with the Moolawatana and Murnpeowie landowners in order to maintain safe road conditions for all geological and drilling personnel.

The Dog Fence service track, which provides access to the South Ridge Prospect from the proposed laydown area and for a portion of the travel from accommodation at Moolawatana Homestead, is in suitable condition and will be monitored during the drilling program should any repairs /maintenance be required.

Existing access tracks at South Ridge from previous drilling programs have been rehabilitated but are still able to be used to gain access to some new proposed drill site.

Will access be required across adjoining tenements?

Yes

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.

Access across adjoining tenements is along existing station tracks from Moolawatana Homestead (figure below) to South Ridge, no new access roads will be made across tenement boundaries. Station owners at Moolawatana Station have confirmed permission to HRE, via email, on 24/03/2026, for use of station tracks for the duration of the drilling program.

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.

Access from the existing Dog Fence service track is minimal, in the order from 10 – 50m and primarily across rock outcrops with minimal overgrown vegetation in previously disturbed areas and across existing unformed tracks.

Existing tracks will be used to as close as practicable to the drill areas. Where possible access will continue over the native surface to the drill sites with no preparation required. Access to some sites will require a small amount of bulldozer work to enable safe access for the drill equipment. A small number of small shrubs are likely to be impacted by this bulldozing which at this stage has an approximate maximum total length of 200 metre in 2 separate access points. A currently deeply gullied creek may require removal of a few slightly larger Acacia (branches only) lining the bank, but the track has been positioned to cause minimal disturbance to both the creek and vegetation.

New access tracks (~12) are shown in the figure below and total around 860m. Most new access will mostly likely be cross-country driving with no need for machinery to clear a path. Widest access with be 4m.

Attach Files ⓘ

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File Name	File Size (Mb)	Created On	Download	
SOUTH RIDGE - PLAN - Proposed DHs-Jun 2.jpg	6.24 Mb	02-06-2026 11:52:10	Download (MERS/EP-04044/Access routes to work areas/SOUTH RIDGE - PLAN - Proposed DHs-Jun 2_2026-06-02T02-22-11.035Z.jpg)	

Campsites and equipment laydown areas

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

Planned accommodation will be in a house adjacent to Moolawatana Homestead depending on availability.

What is the maximum number of personnel requiring accommodation?

7

Is a campsite required to be established?

Yes

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

Although planned accommodation is adjacent to Moolawatana Homestead is this becomes unavailable due to scheduling overlap an alternative site is located along the Dog Fence approx. 2-3 km from South Ridge Prospect. This site was recently cleared by contractors maintaining the Dig Fence. No additional clearing will be required. The Dog Fence Board has been contacted regarding use of this site and they have granted permission for HRE and drilling contractors to utilise the site if necessary.

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

1.00

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.

No

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
Caravan	3	Dependent on drilling contractors engaged the infrastructure may involve caravans or transportable accommodation unite ("dongas")

Will laydown areas be required?

Yes

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

No

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

There is a 1 hectare site cleared by contractors working on the Dog Fence on the past 1-2 years. The site is immediately adjacent to the fence, on the northern side (Murnpeowie Station) on the fence, approximately 3km east of South Ridge.

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

1.00

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
Water tank	1	Water tank will likely be utilised by the DD rig only and will have an expected capacity of 20,000 L maximum
Tool trailer	1	Trailer for tools and other equipment required on site. 6 m x 2.2 m (approximate size)
Fuel Tank	1	Fuel tank with an expected capacity of 1,000 L
storage trailer	1	6 m x 2.2 m (approximate size). For any equipment required on site.
Rod trailer	1	2.5 m x 3.6 m (approximate size), to store drill rods not in use.

Attach Files 

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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.

N/A

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.

Drilling water will be sourced from existing water bores on Moolawatana Station and tanks close to the drilling areas with station owner approval. It is likely that a 10,000L to 20,000L water tank will be placed on water bores used for faster filling of the water truck. Wattleowie Bore is the likely water bore to be used for drilling at South Ridge

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

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Management of hazardous materials

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

No

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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.

All drillholes will be cut and capped beneath the surface by HRE upon completion of drilling, all sumps filled in, drill spoil placed down the wells or in the sumps, rubbish removed and any topsoil present spread over the disturbed areas to promote vegetation growth from the existing seed bank. In the unlikely event a pressured aquifer is encountered, the hole will be abandoned, a van rath plug inserted and the hole cemented.

Access tracks are currently in good condition. However, they may need widening in some places for the safe transport of larger vehicles where overgrown with vegetation. In areas of soft material like calcrete bulldust, a gravel fill may be required for rehabilitation. (Photo 1 and 2 show existing tracks in the Prospect Hill/South Ridge Project area).

Overland/cross country driving:

- Overland or cross country driving will be kept to a minimum.
- Access will be sited to minimise vegetation impacts, and disturbance by machinery to both vegetation and soils will be only sufficient to obtain access/egress. Cross country driving is over established grasses and small shrubs to retain the topsoil and vegetation.
- Minimal earth works may be required to obtain access to proposed drill sites.
- Approximately 3-6 months after completion of drilling and initial rehabilitation the site is re-visited, re-photographed and further remediation scheduled as required.

Drill sites – General Information:

- To facilitate minimum disturbance and best rehabilitation, drill collars will be moved to accommodate site conditions (e.g. trees, drainage lines etc.)
- Drill sumps will have all drilled material returned to the sump below 1m in depth. All rubbish and waste will be removed from the sumps. The sump will be filled in using a backhoe or excavator. Once the sump has been filled in the topsoil will be placed on top of the sump and lightly scarified to assist in the germination of vegetation.
- Prior to the commencement of work a photo point is established ~20m away and a series of photographs taken to record surface and vegetation conditions. This will be done for around 20-30 holes as representative examples.
- On completion of drilling and initial rehabilitation a wooden peg marked with the drill hole number is placed at the drill collar and a second series of photos taken as a record.
- Subsequent rehabilitation auditing will use the photo marker as a reference point.
- Approximately 3 months after completion of drilling and initial rehabilitation the site is re-visited, re-photographed and further remediation scheduled as required.
- On completion of drilling and subsequent downhole logging all machinery and equipment will be removed and excess samples disposed of.
- Post-drilling site clearance is undertaken with a focus on reducing all visible aspect of ground disturbing activities.

Laydown areas:

- No clearance for a laydown area is needed so rehabilitation should be minimal.
- Any hydrocarbon contaminated material will be removed from site and disposed of at appropriately licensed facilities.

Damaged Tracks:

– After drilling has been completed a scarifier towed behind a light vehicle or the teeth on the backhoe may be used to lightly scarify any damaged tracks as required to encourage regrowth of vegetation.

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**

HRE plans to have a backhoe onsite and rehabilitation of drill sites will be completed on an ongoing basis to avoid a back log of rehabilitation requirements on completion of the program. It is anticipated that rehabilitation costs will be approximately \$30-40,000 in total including cost of cementing drillholes, backhoe hire and operator.

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 Description	Tenement Area	Tenement Status	Shape Identifier
EL 5891	Havilah Resources Limited; TEALE & ASSOCIATES PTY. LTD.	Heavy Rare Earths Limited; TEALE & ASSOCIATES PTY. LTD.	25/07/2016	24/07/2027	Exploration Licence	Prospect Hill area approximately 150km east of Marree	45.00	Active	10008053-0000
EL 6271	Havilah Resources Limited	Heavy Rare Earths Limited	19/10/2018	18/10/2029	Exploration Licence	Prospect Hill area approximately 140km east-southeast of Marree	15.00	Active	10010702-0000
EL 6933	Havilah Resources Limited	Heavy Rare Earths Limited	22/09/2023	21/09/2029	Exploration Licence	Moolawatana area approximately 140km northeast of Leigh Creek	15.00	Active	10013577-0000

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
Major	Rare	General Public	General Public	Injury or death to members of the public as a result of exploration activities.	All drill rig safety guidelines will be followed • All personnel without a hard hat must stay at least 30m away from the rig. • All operating personnel will be inducted by HRE • In discussion with landowners we have stated that they are welcome to come and see the drilling. They will be required to get the attention of the		<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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					senior site person from HRE who will explain the safety rules as well as exclusion zones and distances.			accident through the implementation of precautionary measures.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Insignificant	Unlikely	Hazardous materials - Uranium	General public, employees, contractors and the environment	Contamination of the environment when exploring for known uranium and thorium deposits. Public and employee/contractor exposure to low level radiation.	N/A -The primary mineral target at South Ridge is tin and minor polymetallic base metal mineralisation. There is no recorded anomalous uranium or thorium at the South Ridge Prospect.	Low	<p style="font-family: Arial, sans-serif; font-size: 10px"> No increase in background radiation levels, and employee/contractor exposure levels during the exploration program are within safe limits.</p>	<p style="font-family: Arial, sans-serif; font-size: 10px"> Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Radiation levels post exploration and rehabilitation are consistent with pre-existing background levels. • Employee and contractors exposure levels were within safe limits during the exploration program.</p>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Possible	Third party access	Soil/vegetation/fauna	Degradation of rehabilitated access tracks caused by third party access (includes previously closed and rehabilitated access tracks)	- Use of existing station and Dog Fence tracks will be done where possible (includes previously closed and the open plains where drilling tracks) has been planned. Vegetation patches will be avoided. - Single tracks will be driven to and from drill sites from the Dog Fence Track when required. These tracks will be rehabilitated	Moderate	<p style="font-family: Arial, sans-serif; font-size: 10px">Rehabilitated access tracks remain permanently closed, unless prior approval under the relevant legislation is obtained. </p>	<p style="font-family: Arial, sans-serif; font-size: 10px">Maintain before and after photographic evidence demonstrating that all tracks are closed and rehabilitated 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. Representative photos are to be included within the annual exploration compliance report. Provide the

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					ted upon completion of the drilling program			information requested within the 'Rehabilitation' section of the annual exploration compliance report.</p>
					• Condition of existing tracks will be monitored during drilling programs and all station tracks and Dog Fence access tracks will be returned to pre-drilling condition upon agreement with stakeholders.			

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.	• Drilling activities proposed in areas without substantial native vegetation in which is expected to minimize impacts on fauna • Sumps will be constructed with a ramp on one side to allow any animals that may fall into the sump can walk out of the sump. It has been agreed with the pastoral owners that where possible livestock will be	Low	<p style="font-family: Arial, sans-serif; font-size: 10px"> No fauna traps created as a result of exploration activities. </p>	<p style="font-family: Arial, sans-serif; font-size: 10px"> Maintain before, during and after photographic evidence of all drillholes and/or excavations demonstrating that: • 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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					removed from the area being drilled to another location to remove all risk of livestock injury or death. When needed will erect temporary fencing around the sump in fauna rich areas like dam regions.			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. 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	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.	- Drilling activities will be in open plain areas away from native vegetation - regions - No rare or endangered flora or fauna is known to exist in the area of proposed drilling according to the flora and fauna surveys completed - When all vehicles arrive to site it will be a company expectation that vehicles are clean of mud to avoid possible weed		No introduction of new species of weeds and plant pathogens, nor increase in abundance of existing weeds species.	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report, confirming that: - 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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					contamination. • Photos of drill sites will be taken before drilling and after rehab to ensure that no weeds have been introduced to drill sites as well as ensuring that rehab of vegetation has been successful • No fires will be permitted on drill sites to prevent the possible loss of vegetation due to fires spreading out of control. • Monitoring of CFS warnings			operations and after rehabilitation of disturbed sites was captured, demonstrating that no new weeds and plant pathogens were introduced, nor an increase in abundance of existing weeds recorded.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					will be complete d on a daily basis. In extreme fire condition s we will make a decision as to whether to stop drilling during extreme fire condition s.			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Fire	Community/landowners	Damage to infrastructure and loss of income through fire.	• Drilling will be completed in open plains at least 1km away from station buildings • The primary infrastructure near drilling areas are the Dog Fence, station fences and wells used to extract water • Care will be taken to maintain a considerable distance from fences and wells where possible. • Previous		<p style="font-family: Arial, sans-serif; font-size: 10px"> No loss of infrastructure or income through fire as a result of exploration activities.	<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 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.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					drilling program s have not had any impact on the Dog Fence • The primary threat is grass fires. HRE will abide by all standards regarding fire safety and prevention. The locals understand the climate conditions and areas of risk on the properties best. The staff/contractors of HRE will be inducted on fire prevention and safety. •			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					All fire bans will be adhered to. Vehicles will be fitted with fire extinguishers and the support truck will have a fire suppression unit. • Fires will not be permitted on drill sites but an approved fire pit for warmth and cooking will be allowed at the camp site on non-fire ban days only. • Fire is virtually unknown in this region due to the			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					sparsity of flammable vegetation. Water is carried at all times and would be used to extinguish any fires if caused by the drilling operations.			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Groundwater users	Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	• Permission has been given from landowners to use a water bore on their stations and to put a tank on for drilling water. • Station managers have asked us not to extract water from their dams • Drilling will be along a ridge line and no drillholes will be permitted within 100m of dams and watercourses.	Low	<p style="font-family: Arial, sans-serif; font-size: 10px"> No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained. </p>	<p style="font-family: Arial, sans-serif; font-size: 10px"> 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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
								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	Native Vegetation	Flora and fauna and their habitats; includes Commonwealth and state scheduled species.	Loss/modification of native vegetation and associated habitats through the clearance of vegetation.	Cross country access will be driven with no physical clearance needed • Drilling activities will be in open ridge-top areas away from denser zones of native vegetation • Drill sites and access tracks will be rehabilitated to promote growth of native vegetation • Vehicles will be restricted to a single access track to minimize disturbance of native	Low	<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	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					vegetation. • As stated, clearance of native vegetation will be avoided and no endangered species will be affected.			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	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).	• Any topsoil will be stockpiled separately when sumps are dug and drill pad excavations required. The material excavated from the sumps and drill pad excavations is returned as far as is practicable in the reverse sequence to its excavation leaving a sufficient slight rise over the top to allow fill to settle naturally and compact		Where soil disturbance occurs as a result of exploration activities, ensure that: • topsoil quality and quantity is maintained • the soil profile and topography is reinstated to original conditions • there is no accelerated soil erosion.	Maintain before, during and after photographic evidence of all excavations, drillsites, camps, laydown areas and new tracks demonstrating that: • 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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					- s over time and prevent localised ponding. • The stockpiled topsoil is then spread out across the site by machine, and lightly scarified to encourage vegetation regrowth and existing contours. • Minimal track or drill pad clearance will be required due to the open nature of the ridge-top setting. • The camp location and laydown area			- an ongoing period), unless otherwise authorised. • Where required, sufficient topsoil is removed (depending on soil profile), stored separately from subsoil and 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. • There are no signs of accelerated soil erosion during and post rehabilitation

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					have been chosen in areas where previous drilling and/or dog fence contractors have been based, in order to minimize soil erosion and vegetation clearance. • When needed, HRE have pre-arranged the use of a grader and water truck from Moolawatana Station to repair tracks when needed. This will also ensure			of disturbed sites. 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.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					that station tracks are in a suitable condition to be used by the local landowners at all times.			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Aboriginal heritage	Aboriginal heritage sites	Disturbance to Aboriginal heritage	- HAV has previously completed two heritage survey at Prospect Hill with the Dieri Aboriginal Corporation and has applied to undertake a third survey, prior to the proposed drilling program. - Any artefacts identified in the survey will be recorded and an avoidance zone around these locations will be established by HAV. The Dieri Aboriginal	Low	<p style="font-family: Arial, sans-serif; font-size: 10px"> No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained. </p>	<p style="font-family: Arial, sans-serif; font-size: 10px"> Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • 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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					al Corporat ion have previousl y asked that we don't fence off artifacts but simply avoid them and this is expected to be the vase for the propose d survey. This will include the covering over of any tracks in the vicinity of artefacts identified and moving planned drillholes away from any sites.		during the exploration program were appropriately recorded and reported to authorities, if not previously known.</p>	

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Ground water	Soil/vegetation/fauna	Discharge of ground water into the surrounding environment.	- Sumps will be dug on all drill sites prior to drilling. All drilling returns will go directly into the sump. - The excavator or backhoe used to dig sumps will be left on site to address any unwanted additional water flow should the water levels exceed the sumps by digging additional sump capacity if needed.	Low	<p style="font-family: Arial, sans-serif; font-size: 10px"> 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 style="font-family: Arial, sans-serif; font-size: 10px"> 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	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Groundwater	Groundwater/aquifer	Groundwater contamination: • contamination of aquifers through entry of pollutants from the surface • interconnection between aquifers • degradation of natural hydrostatic conditions (maintain pre-drilling pressures).	• Planned drilling is within Mt Babbage Inlier basement rocks, well away from and above the depth of known artesian aquifers (e.g., Cadna-Owie Formation). • Rehabilitation will be completed according to the M21 guideline s. • If the hole is no longer required for deepening etc. it will then have that casing cut off below		<p style="font-family: Arial, sans-serif; font-size: 10px">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>	<p style="font-family: Arial, sans-serif; font-size: 10px">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

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					ground level, a suitable plug inserted and then backfilled according to M21. • According to M21, “Drillholes that do not penetrate aquifers” should be backfilled with “drill cuttings or clean fill”. This has been the procedure used in previous drill programs at South Ridge and will be employed during the proposed program.			(for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the ‘Groundwater’ section of 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
					• Only approved biodegradable drilling products will be permitted to be used when drilling. • No hydrocarbons or chemical products will be permitted to be disposed of in drillholes.			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Minor	Unlikely	Stakeholders	Stakeholders	Interference to: • existing or permissible land use (includes loss of income, noise, dust, light and other emissions). • buildings, structures, existing tracks or other infrastructure. • aesthetic values of an area. Noncompliance with legislative requirements.	• Provide land access agreements with all landholders • Obtain waivers if and when required • Communicate to all landholders when drilling and other activities will be undertaken with adequate notice given. Provide notice of entry. • Conduct site reconnaissance to locate planned drill holes with each respective landowner		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.	Provide the information requested within the 'Complaints' section of the annual exploration 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 exploration

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					er to confirm access and logistics • Drilling will not be complete d within a 1km radius of infrastructure such as homesteads, sheds and farm infrastructure. • Approval will be sought as to where drilling water can be obtained from the relevant station owners. • Communicate with Dog Fence Board to inform of planned commencement of program			compliance report demonstrating that prescribed forms were served and agreements obtained in accordance with the Mining Act prior to the commencement of exploration activities.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					and use of camp site at area previously cleared by DFB. • Inform DFB of use of access/service track along the Dog Fence for the duration of the drilling program • There is not requirement to interact with the Dog Fence during the program apart for use of an official gate at the base of the Mt Babbage hills to gain access from Moolawa tana			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					Station to Murnpeo wie Station • The access/s ervice track with be monitored during the program for wear and tear. Earthwor ks to repair any damage will be undertak en by upon completi on of the drilling program			

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, abrasives, other sources)	All rubbish will be removed from drill sites and the exploration camp and disposed at a suitable landfill site including at Moolawa tana Station or Leigh Creek township at either the Leigh Creek Resource Recovery Centre (RRC) or the Leigh Creek Waste Depot (Landfill), depending on the type of waste.	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,

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					bon spills will be cleaned according to legislation. Oil spill kits will be on site to be used if required			by providing:
					• Photographic evidence of representative sites before and after drilling will be provided to show that all contamination has been removed			• The name, location and contact details of the authorised waste disposal facility. • A statement within the 'Compliance with approved programs' 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
					. No rubbish will be permitted in drill sumps. • Builders plastic will be laid down at each drill site to			

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					put drill cuttings on to avoid contamination with topsoil and vegetation. When the samples are dried out, they will be tipped into the drill sump and the plastic will be reused on another drillhole.			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 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 • backfilled down the drillhole, within 3 months of the expiry of the

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
								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
Minor	Unlikely	Other	Groundwater/aquifer	Groundwater contamination: • contamination of aquifers through entry of pollutants from the surface • interconnection between aquifers • degradation of natural hydrostatic conditions (maintain pre-drilling pressures).	• South Ridge Prospect lies along the top of as ridge composed of Mesoproterozoic Petermouerra Volcanic s. • Planned drilling is within Mt Babbage Inlier basement rocks, well away from and above the depth of known artesian aquifers (e.g., Cadna-Owie Formation). • Recorded GAB springs along Petermouerra Creek are		<div data-wrapper="true" style='font-family: "Segoe UI", "Helvetica Neue", sans-serif; font-size: 9pt;'> <div> Drillholes restored to controlling 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 </div> </div>	<div data-wrapper="true" style='font-family: "Segoe UI", "Helvetica Neue", sans-serif; font-size: 9pt;'> <div> Drillholes restored to controlling 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 </div> </div>

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					approximately 4kms north of South Ridge, along the southern margin of the Great Artesian Basin . Petermorrara Springs are active due to Artesian Basin groundwater flow from the northern basin to the south. There is no evidence at this stage of groundwater flow from south to north within the Mt Babbage Inlier. • Only approved		cemented so that all aquifers are isolated to prevent the movement of any fluids behind the casing	M21.pdf" style="color: rgba(0, 0, 255, 1)">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.

Severity of consequence (CQ)	Likelihood of consequence (LH)	Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
					biodegradable drilling products will be permitted to be used when drilling. • No hydrocarbons or chemical products will be permitted to be disposed of in drillholes			Provide the information requested within the 'Groundwater' section of the annual exploration compliance report.

Supporting Information

Photos

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File Name	File Size (Mb)	Created On	Download
HAVILAH PEPR-PROSPECT HILL TIN - 12 MONTHS - V3-SECTION I -PHOTOS.pdf	3.15 Mb	10-04-2026 10:43:16	Download (MERS/EP-04044/Supporting information/Photos/HAVILAH PEPR-PROSPECT HILL TIN - 12 MONTHS - V3-SECTION I - PHOTOS 2026-04-10T01-13-16.742Z.pdf)
Photo 1_Looking East from South Ridge Prospect.jpg	0.15 Mb	27-01-2026 14:14:47	Download (MERS/EP-04044/Supporting information/Photos/Photo 1_Looking East from South Ridge Prospect 2026-01-27T03-44-47.534Z.jpg)

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Photo 2_Looking East from South Ridge Prospect.jpg	0.15 Mb	27-01-2026 14:14:47	Download (MERS/EP-04044/Supporting information/Photos/Photo to 2_Looking East from South Ridge Prospect_2026-01-27T03-44-47.589Z.jpg)
Photo 3_Looking East from South Ridge Prospect.jpg	0.03 Mb	27-01-2026 14:14:47	Download (MERS/EP-04044/Supporting information/Photos/Photo to 3_Looking East from South Ridge Prospect_2026-01-27T03-44-47.590Z.jpg)

File Name	File Size (Mb)	Created On	Download
Photo 4_Looking south towards Dog Fence from trench SR17.jpg	0.03 Mb	27-01-2026 14:14:47	Download (MERS/EP-04044/Supporting information/Photos/Photo 4_Looking south towards Dog Fence from trench SR17_2026-01-27T03-44-47.658Z.jpg)

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (DGA94)	Zone	Details and comments	Document ID
South Ridge Prospect	27/11/2024	Photo 4, Description of Environment	358140	6703317	54	Looking south towards Dog Fence from trench SR17.	

Supporting Maps

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File Name	File Size (Mb)	Created On	Download
HAVILAH PEPR-PROSPECT HILL TIN - 12 MONTHS - V3-SECTION J - MAPS.pdf	3.28 Mb	10-04-2026 10:43:04	Download (MERS/EP-04044/Supporting information/Maps/HAVILAH PEPR-PROSPECT HILL TIN - 12 MONTHS - V3-SECTION J - MAPS_2026-04-10T01-13-04.627Z.pdf)
Map 1_Location of Prospect Hill Area.jpg	0.28 Mb	27-01-2026 14:15:13	Download (MERS/EP-04044/Supporting information/Maps/Map 1_Location of Prospect Hill Area_2026-01-27T03-45-13.506Z.jpg)

File Name	File Size (Mb)	Created On	Download
Map 2_Location of Prospect Hill Area.jpg	0.33 Mb	27-01-2026 14:15:13	Download (MERS/EP-04044/Supporting information/ Maps/Map 2_Location of Prospect Hill Area_2026- 01-27T03- 45- 13.477Z.jpg)
Map 3_South Ridge Prospect_Location of Historic DH.jpg	0.36 Mb	27-01-2026 14:15:13	Download (MERS/EP-04044/Supporting information/ Maps/Map 3_South Ridge Prospect_Location of Historic DH_2026- 01-27T03- 45- 13.491Z.jpg)

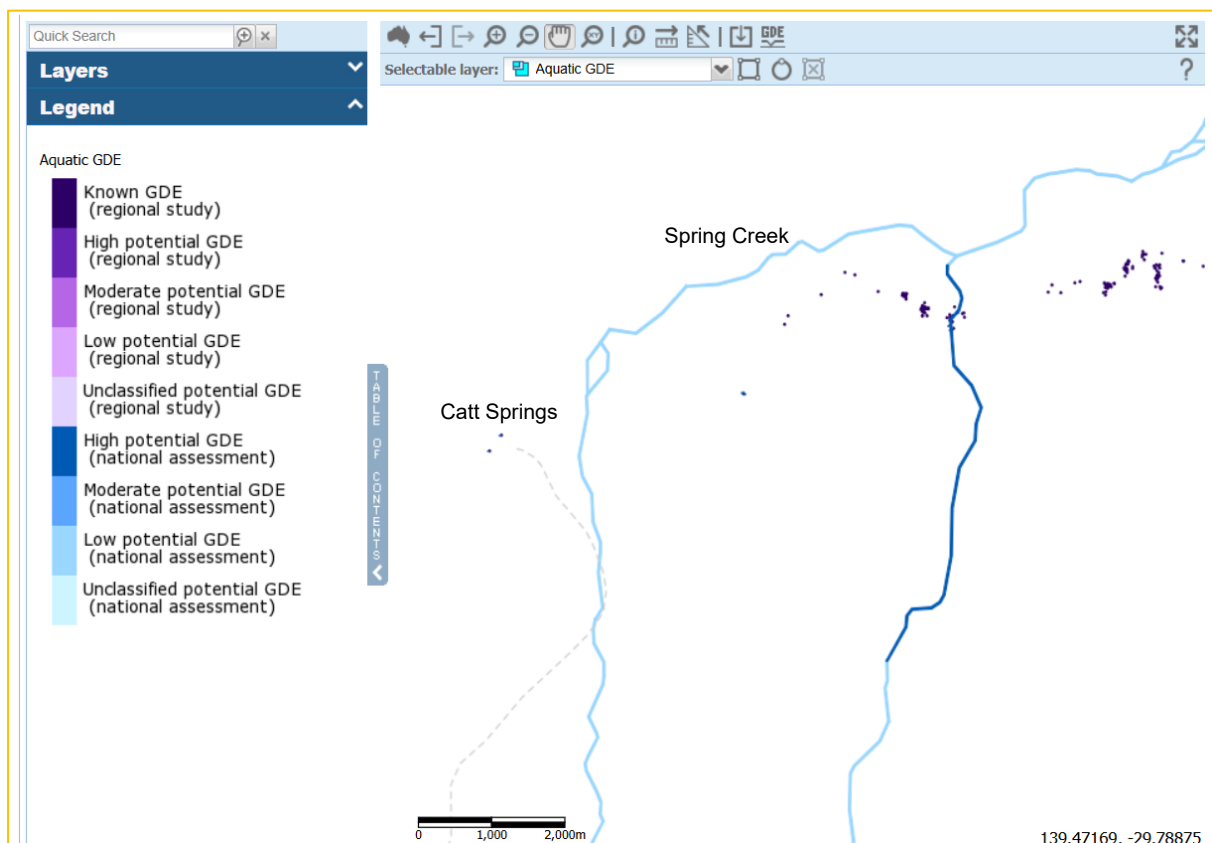
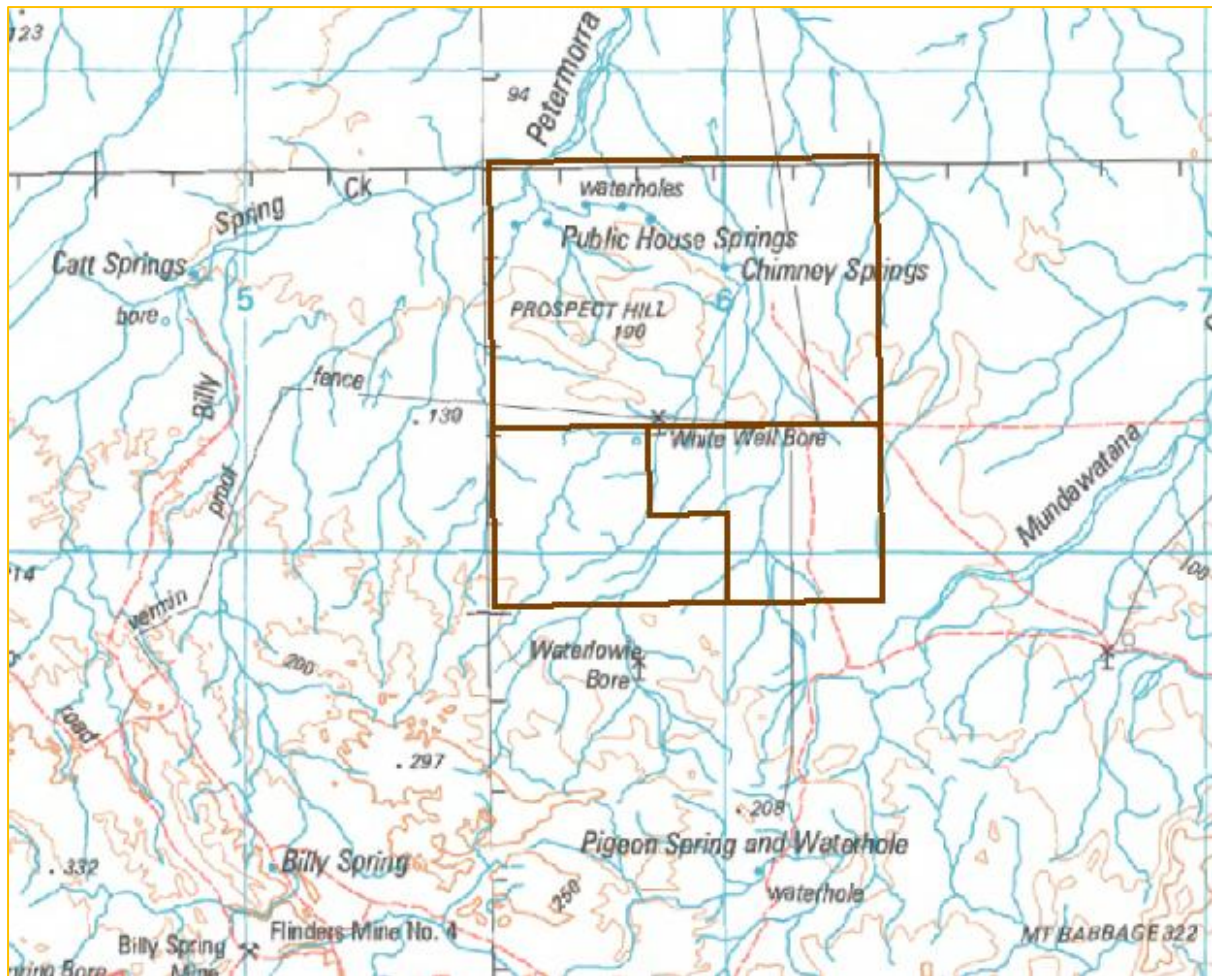
File Name	File Size (Mb)	Created On	Download
Map 4_South Ridge Prospect_Location of Historic DH and Proposed DH.jpg	0.38 Mb	27-01-2026 14:15:13	Download (MERS/EP-04044/Supporting information/Maps/Map 4_South Ridge Prospect_Location of Historic DH and Proposed DH_2026-01-27T03-45-13.541Z.jpg)
SOUTH RIDGE - PLAN - Proposed DHs-Jun 2.jpg	6.24 Mb	02-06-2026 11:53:21	Download (MERS/EP-04044/Supporting information/Maps/SOUTH RIDGE - PLAN - Proposed DHs-Jun 2_2026-06-02T02-23-22.102Z.jpg)

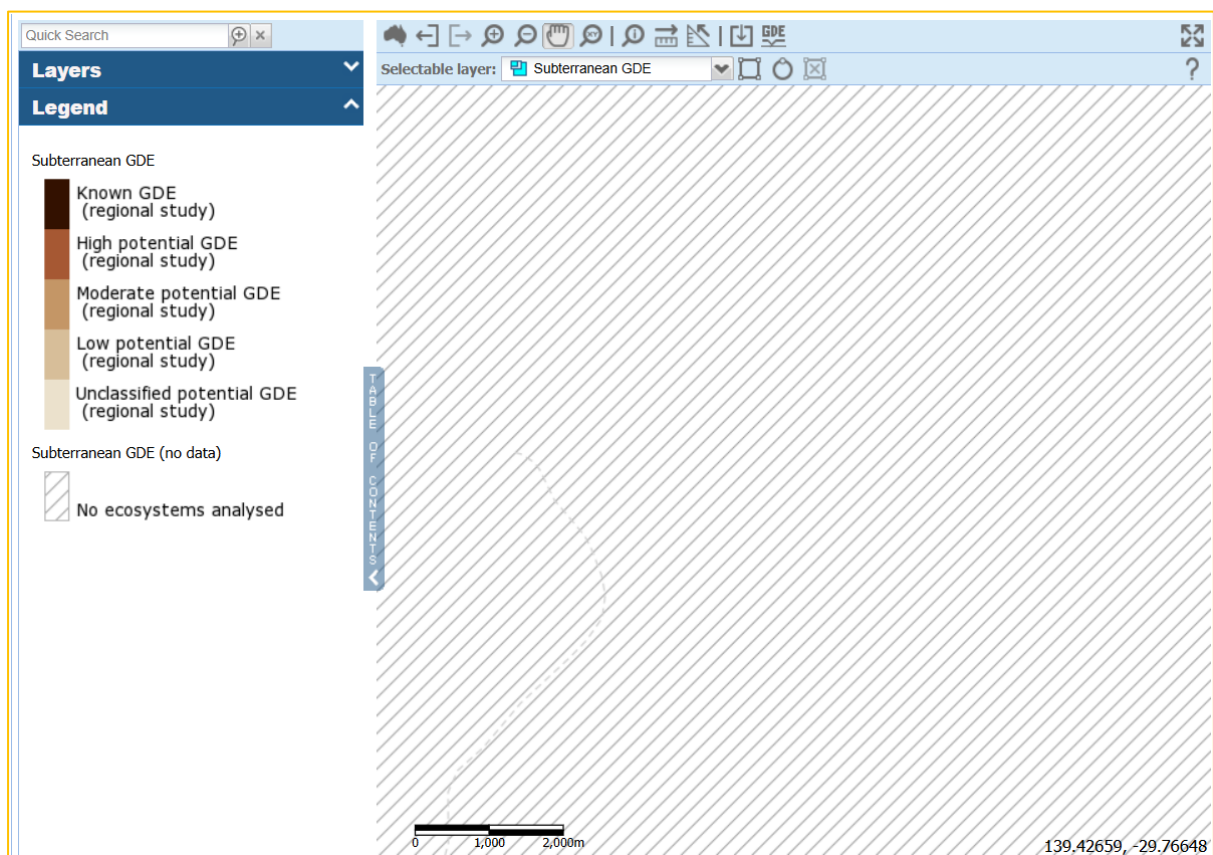
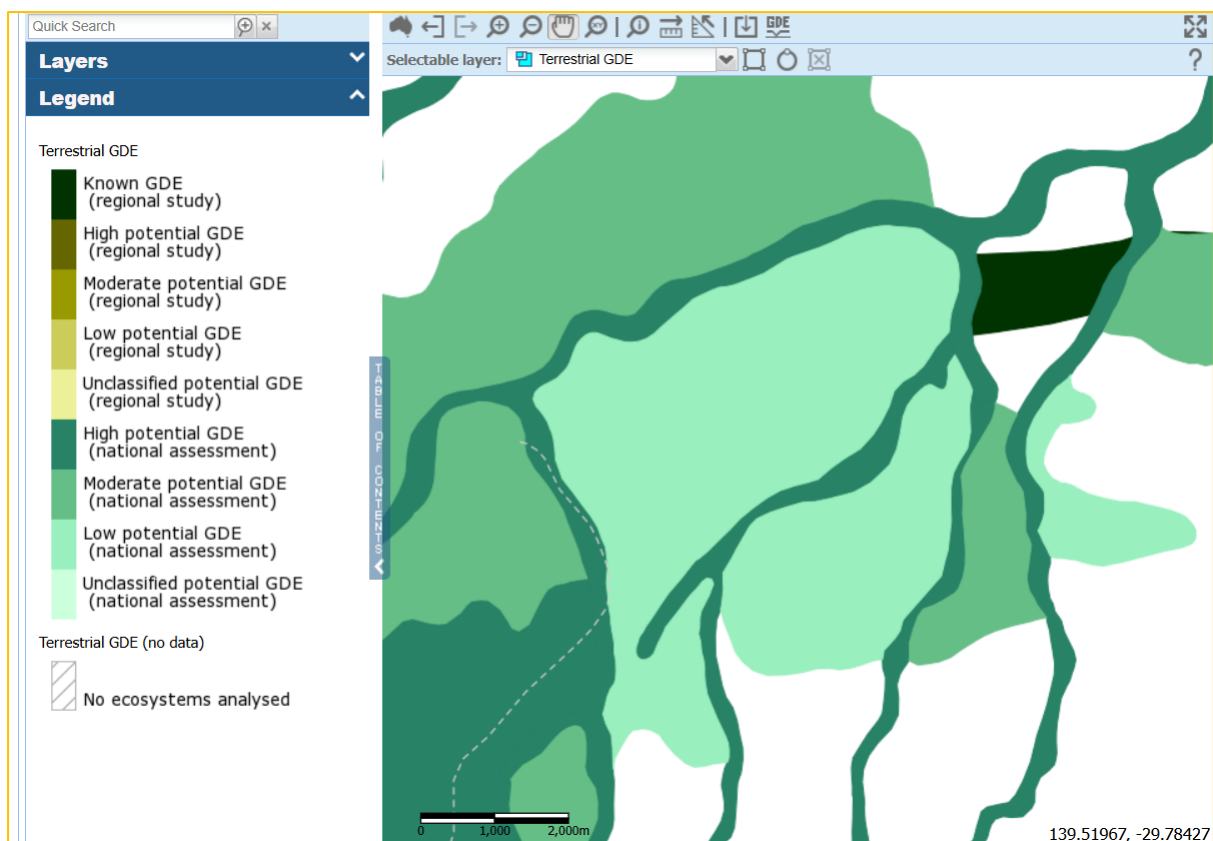
Figure Description	Document ID
Location of Prospect Hill Area	Map 1
Location of Prospect Hill Area	Map 2
South Ridge Prospect_Location of Historic DH	Map 3
South Ridge Prospect_Location of Historic DH and Proposed DH	Map 4

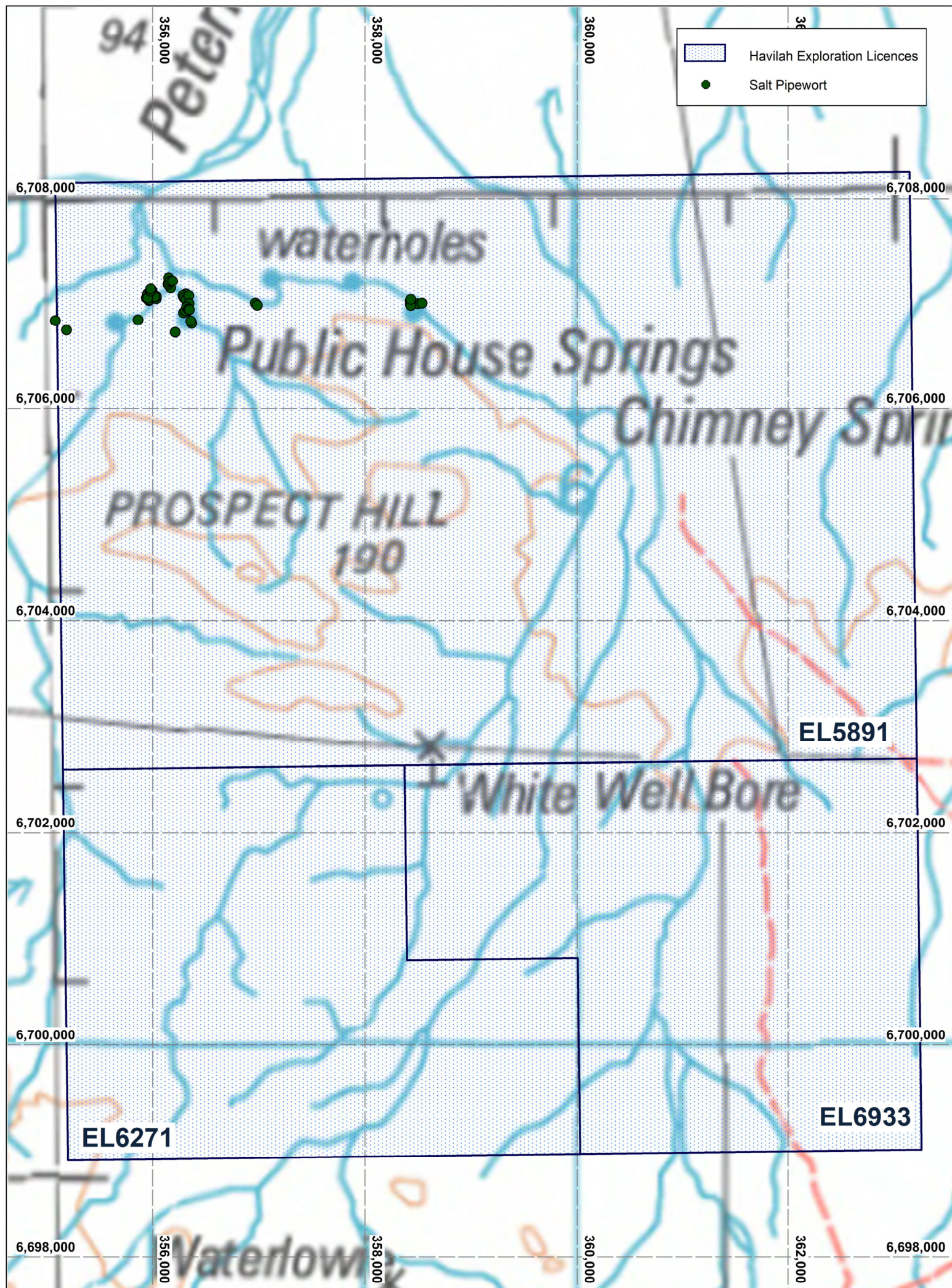
Additional Information

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

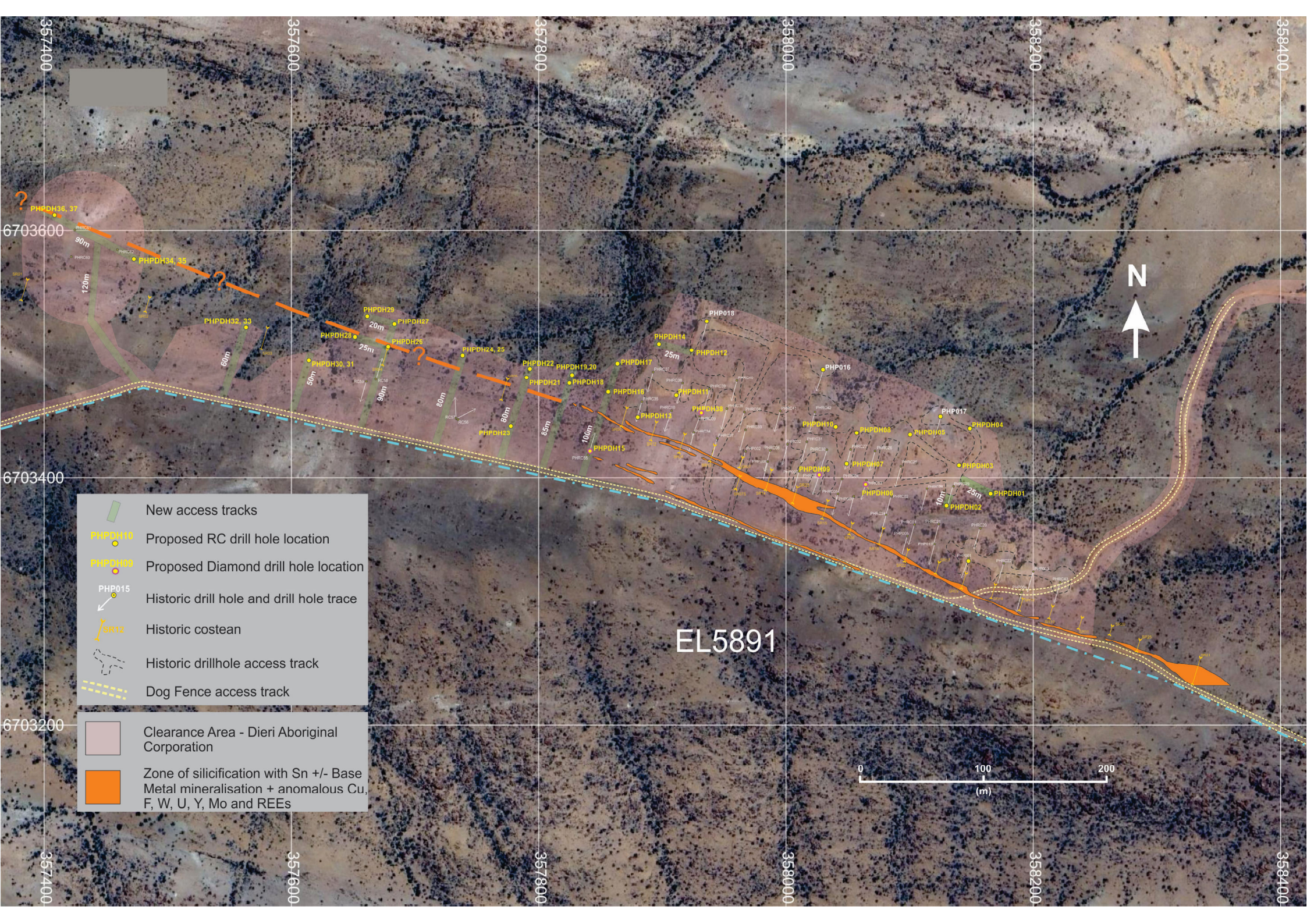
N/A







PROSPECT HILL - SIGNIFICANT FLORA LOCATIONS



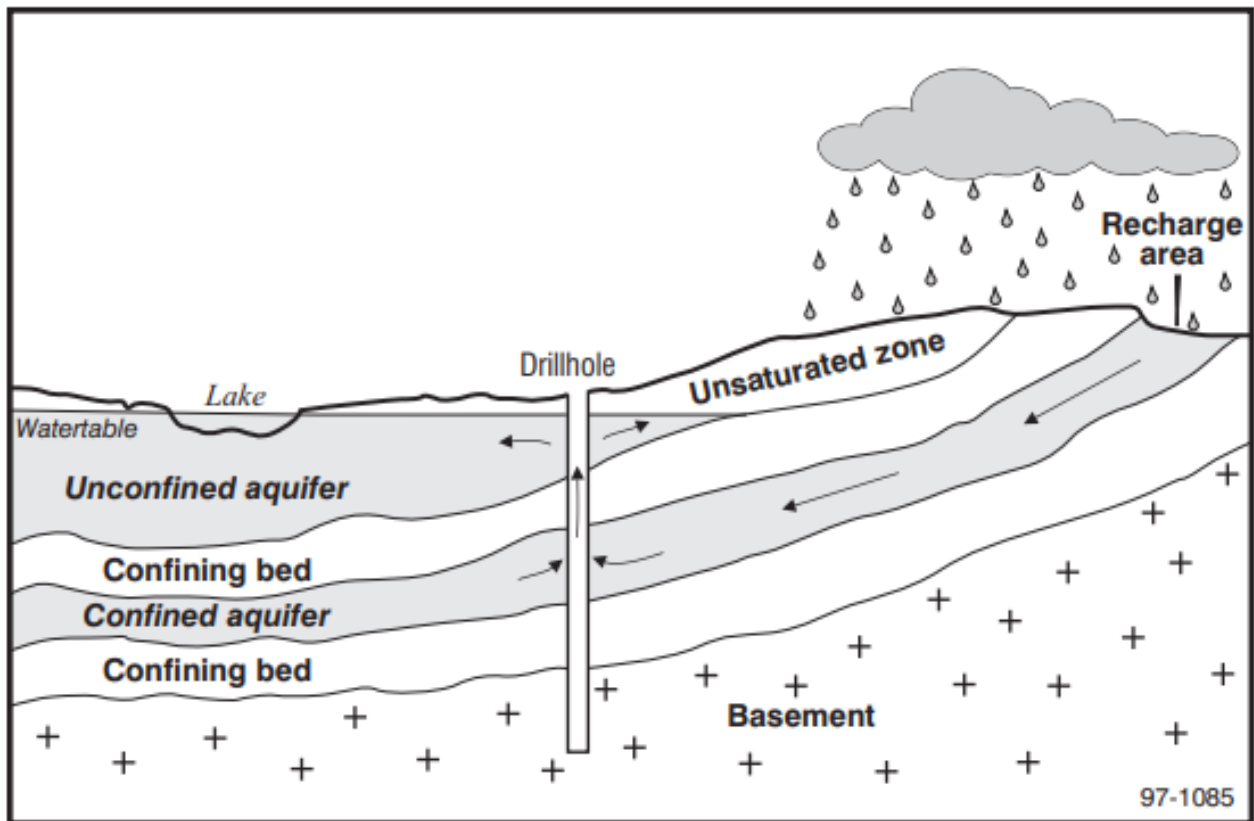


Figure 1 Groundwater environments (arrows indicate flow direction).

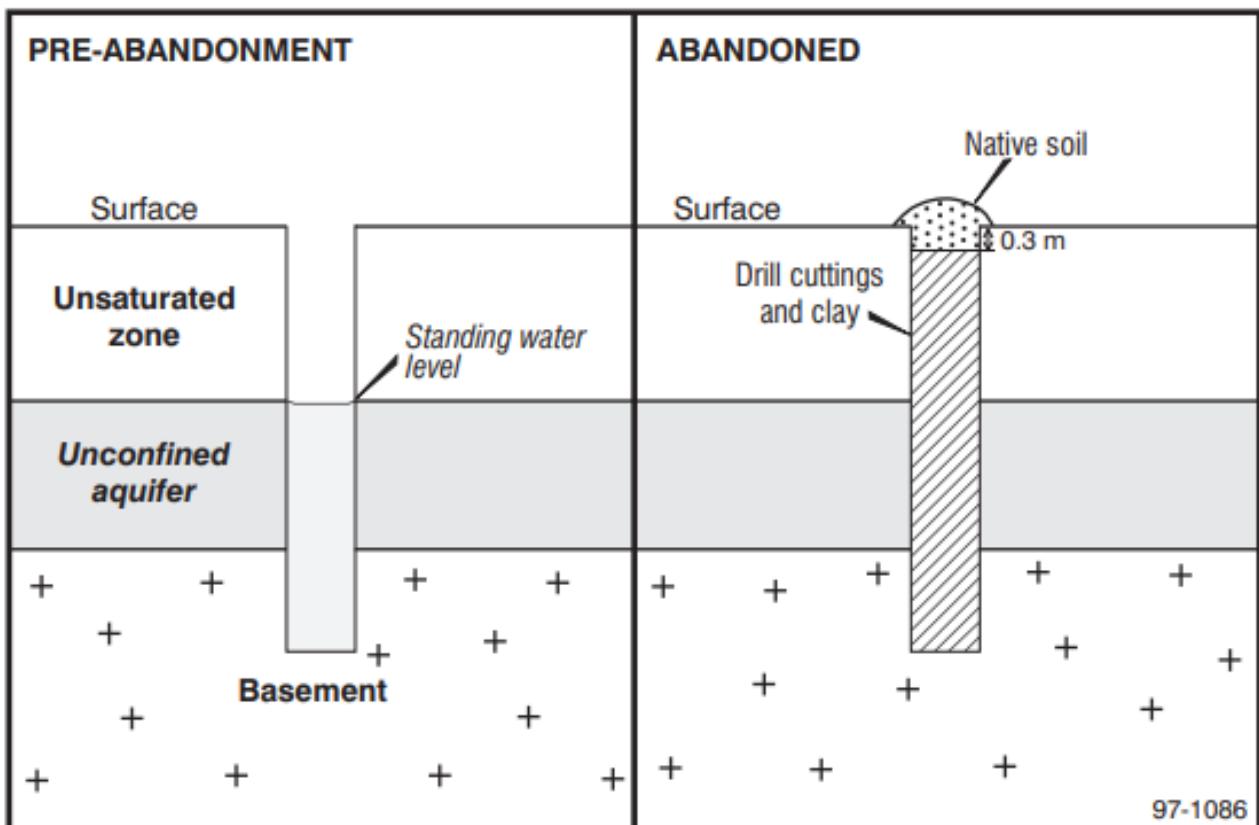


Figure 2 Drillholes which penetrate a single unconfined aquifer — backfill with drill cuttings, clean fill containing clay, or cement.

SECTION J – MAPS

Provide a map(s) showing the following information that is located adjacent to or within the proposed area of operations, where applicable:

- tenement boundaries,
- cadastral information,
- existing surface contours,
- existing vegetation,
- location of the proposed exploration operations (includes drillholes, existing and new access tracks, drill traverses, campsites, laydown areas and other applicable information) and/or the target exploration area(s),
- location of existing ephemeral and permanent rivers, creeks, swamps, streams or watercourses and water management structures,
- location of towns, houses and homesteads, existing roads, rails, fences, transmission lines, buildings, dams and pipelines
- known sightings of listed species,
- location and extent of all environmentally sensitive areas,
- any relevant land use types (e.g. parks and reserves, Aboriginal freehold land, Woomera Prohibited Area).

All maps and sections must conform to the standards outlined in the Exploration PEPR Terms of Reference.

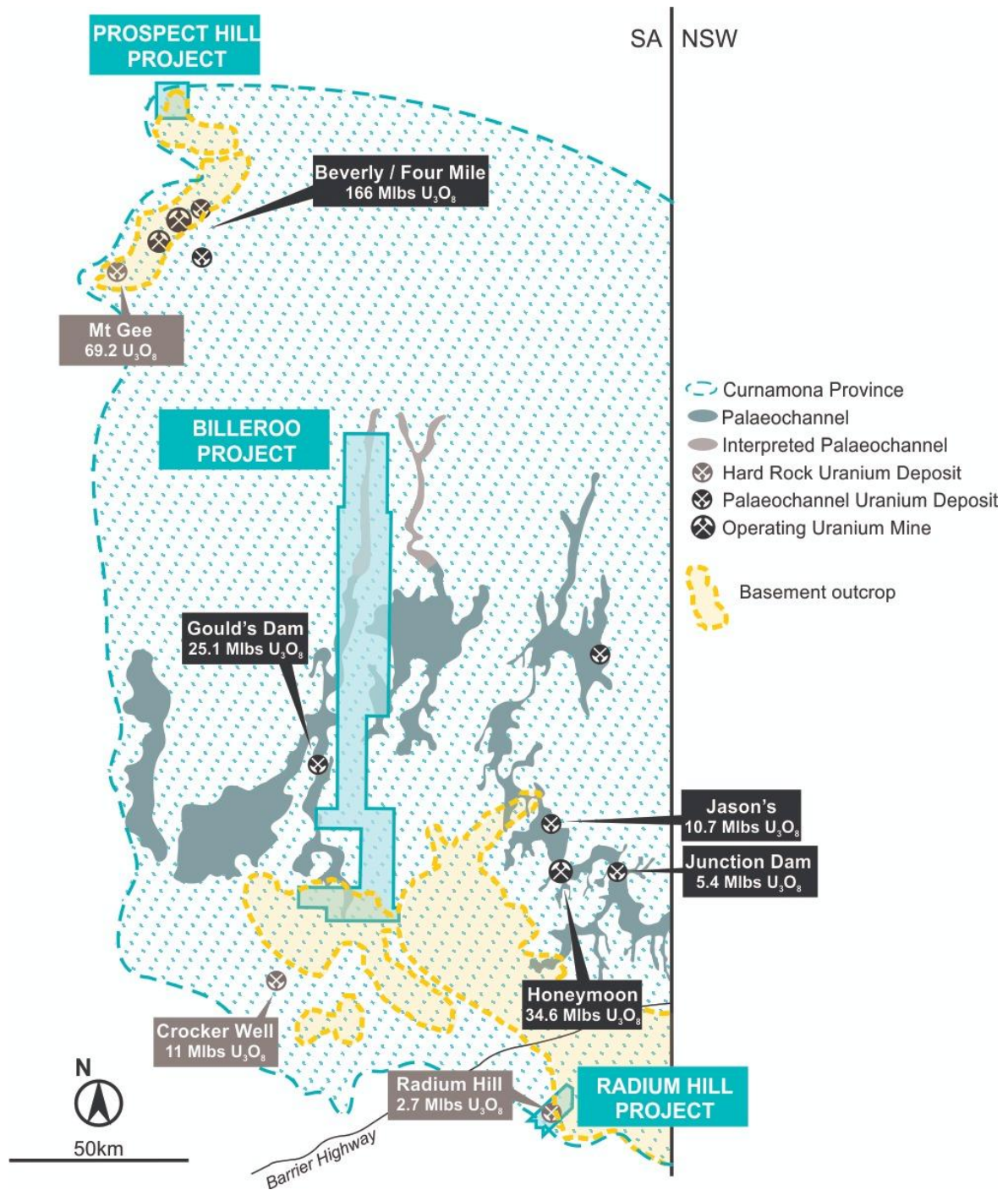


Figure 1. Location of HRE Projects in South Australia

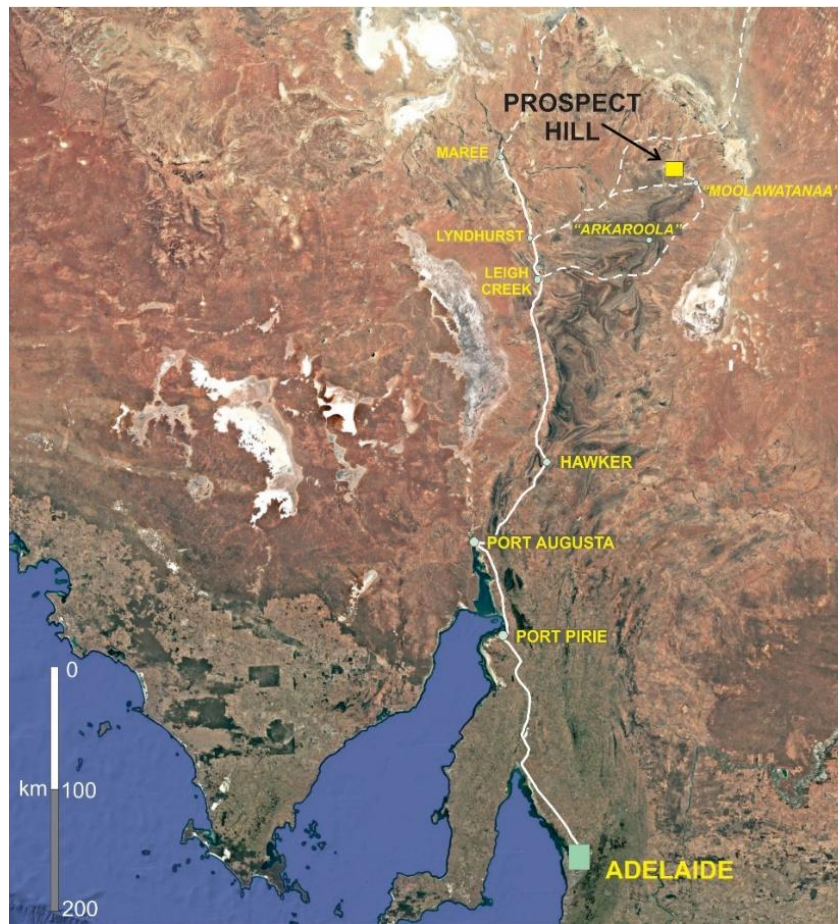


Figure 2. Location of Prospect Hill Project area with main road access shown

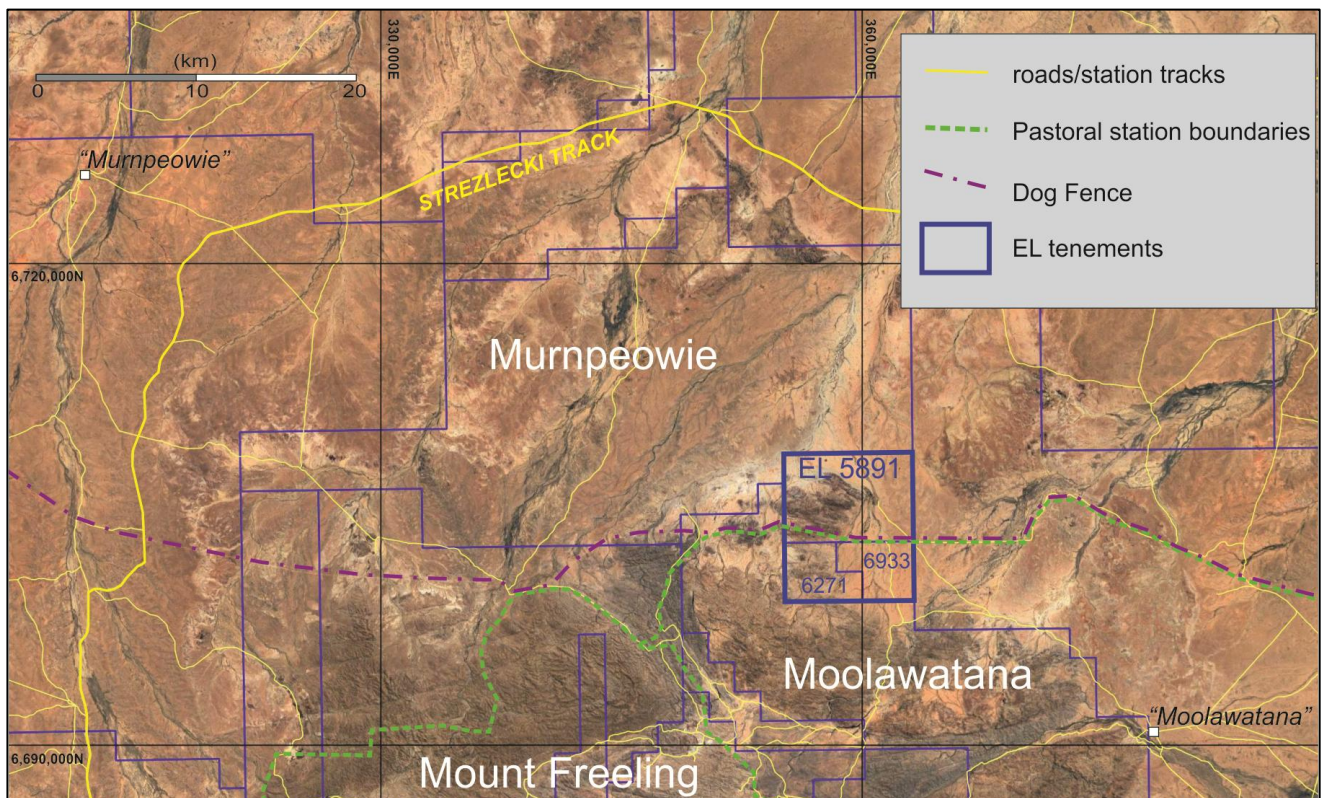


Figure 3. Location of tenements comprising Prospect Hill Project

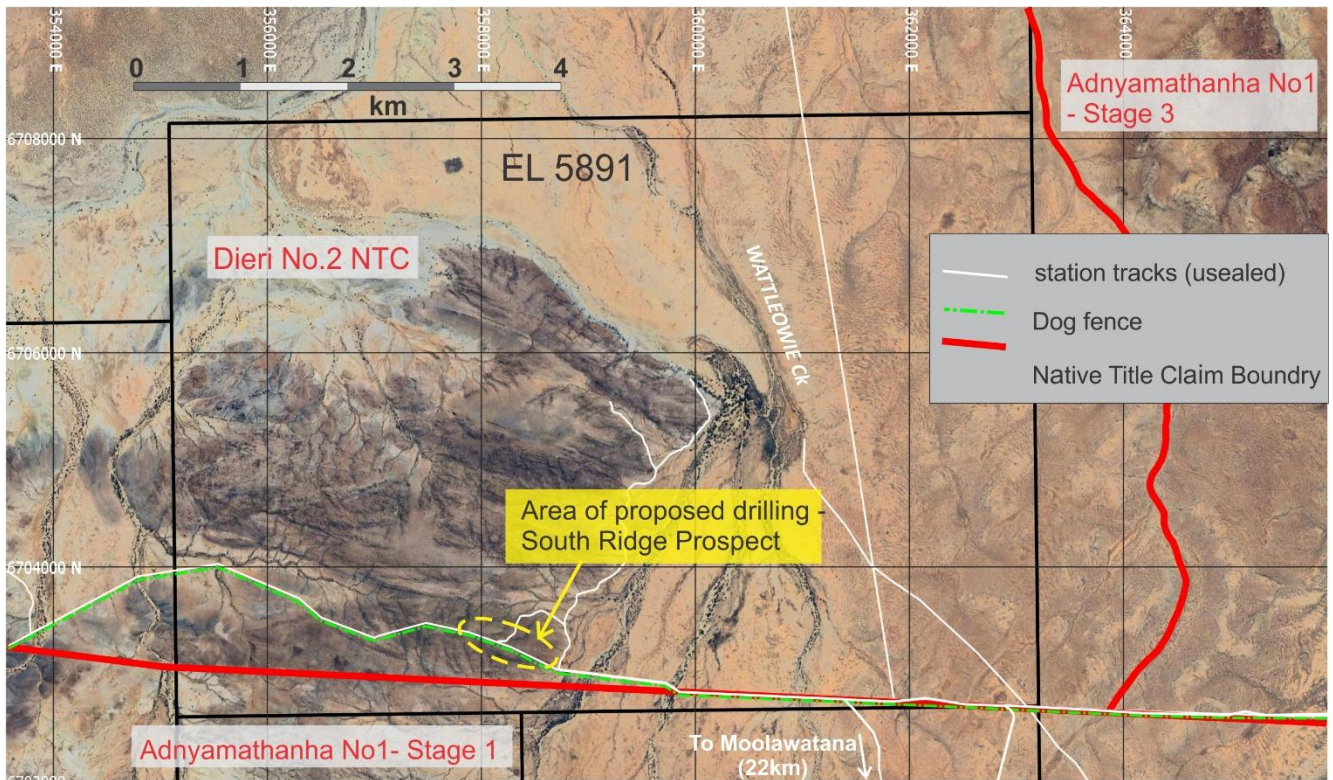


Figure 3. Boundary of Dieri No.2 Native Title Claim in relation to EL 5891.

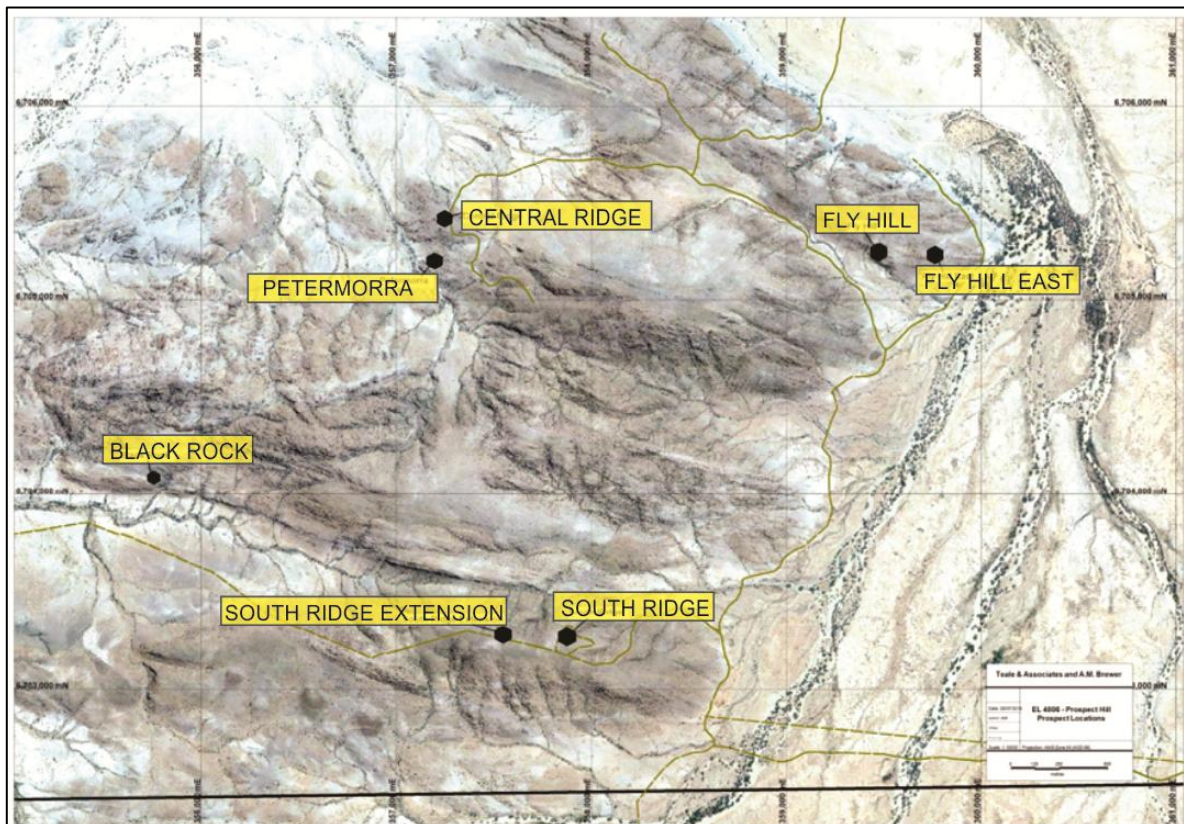


Figure 4. Location of main tin projects within EL 5891 including South Ridge Prospect

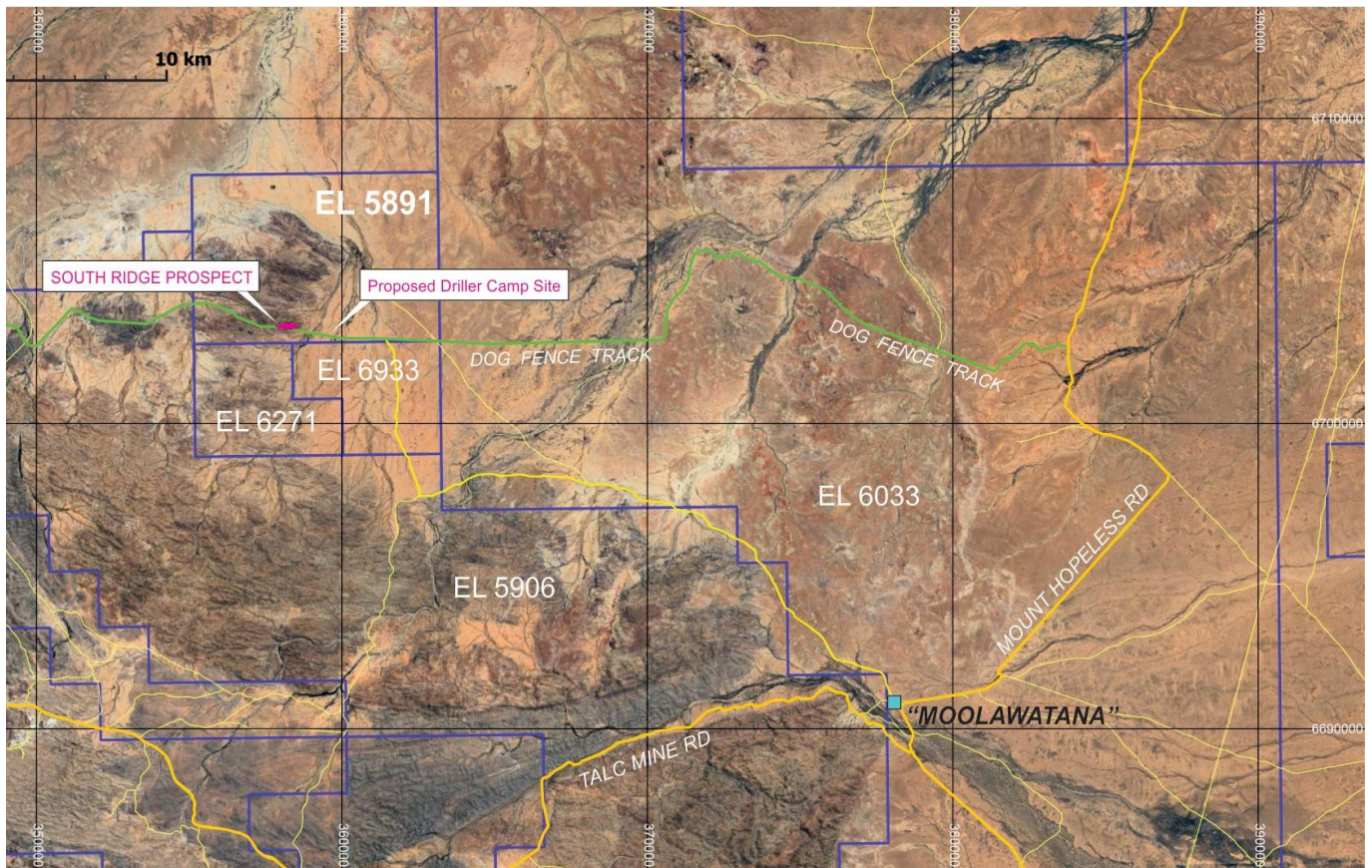


Figure 5. South Ridge Prospect – Access tracks from Moolawatana Station – unnamed tracks (yellow) are established station tracks (overlain on Google Earth image)

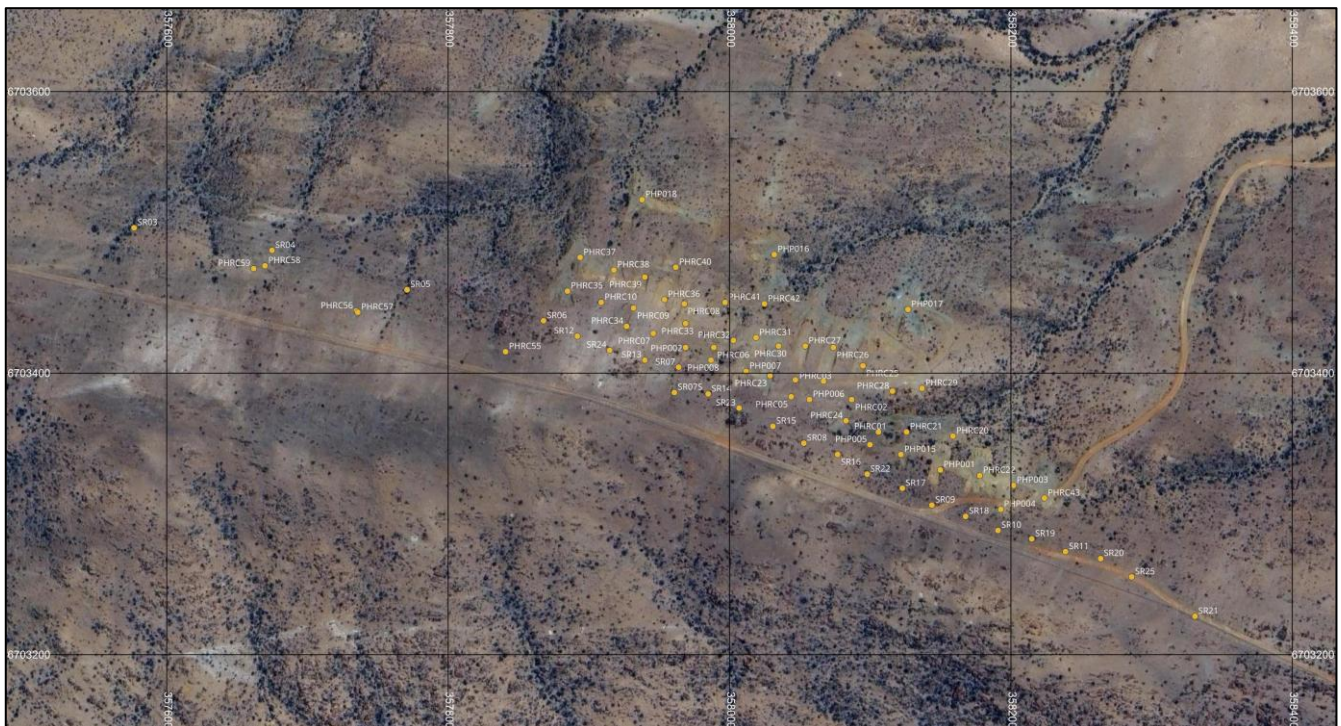


Figure 6. South Ridge Prospect – location of historic DHs (overlain on Google Earth image)

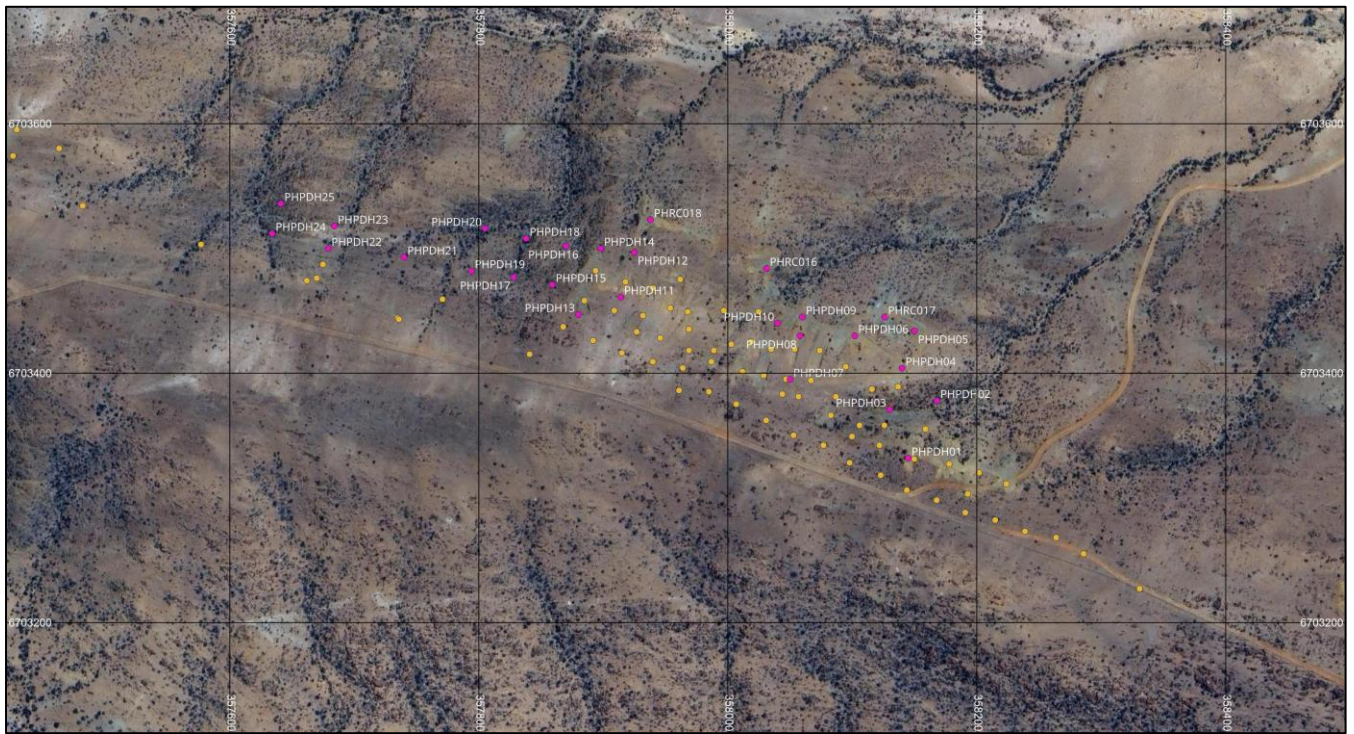


Figure 7. South Ridge Prospect – location of proposed DHs (pink circles) in relation to historic DHs (yellow circles) -overlay on Google Earth image

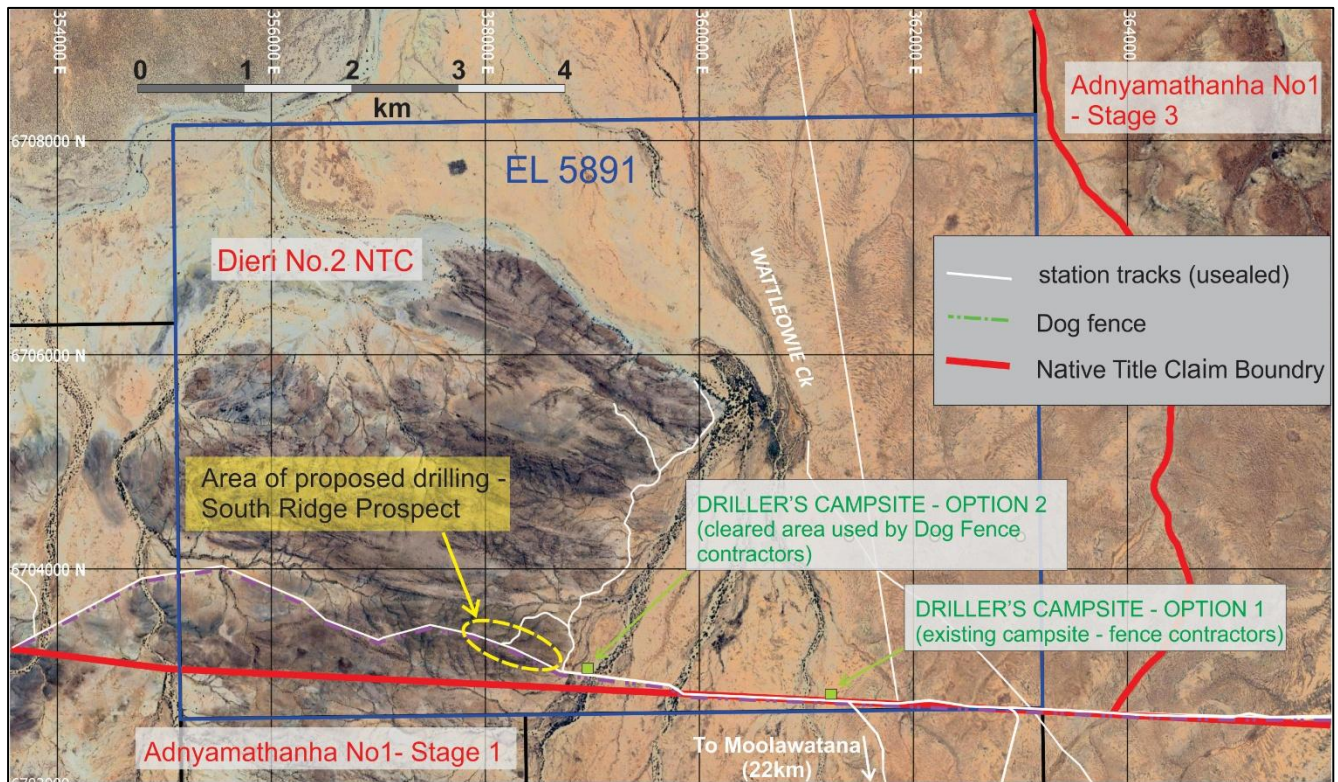


Figure 8. Proposed drill camp sites and Moolawatana/Murnpeowie station tracks +Dog Fence access/service road (shown as white lines). These tracks will be used for access to the South Ridge Prospect.

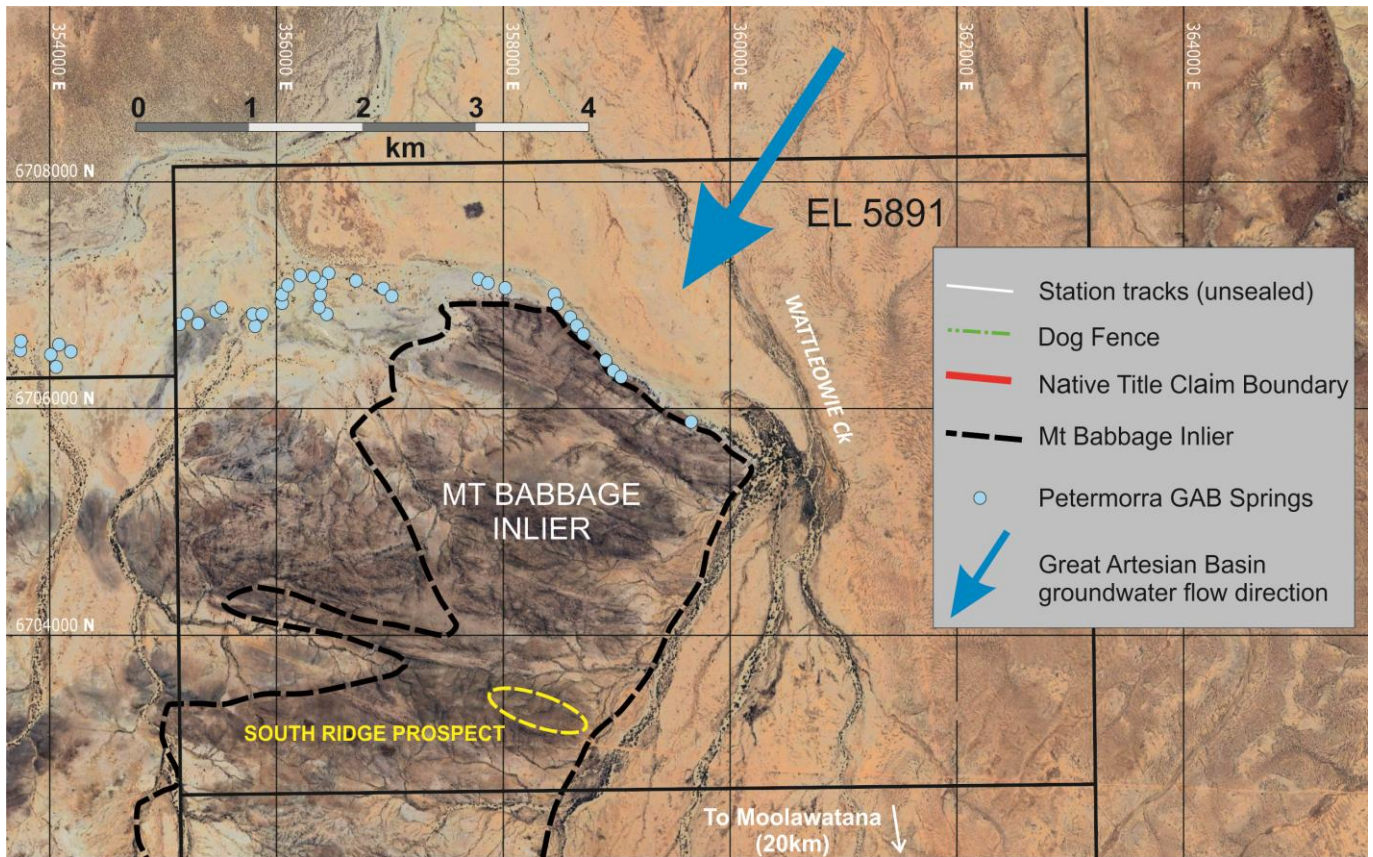


Figure 9. Petermorra GAB Spring Complex along northern margin of Mt Babbage Inlier showing groundwater flow direction within Great Artesian Basin



Figure 10 Location of proposed Driller's Camp/ laydown area adjacent to DOG Fence, looking east– Option 1 (shipping container used by Dog Fence contractors)



Figure 11. South Ridge Prospect – proposed driller's camp sites along Dog Fence - Option 2

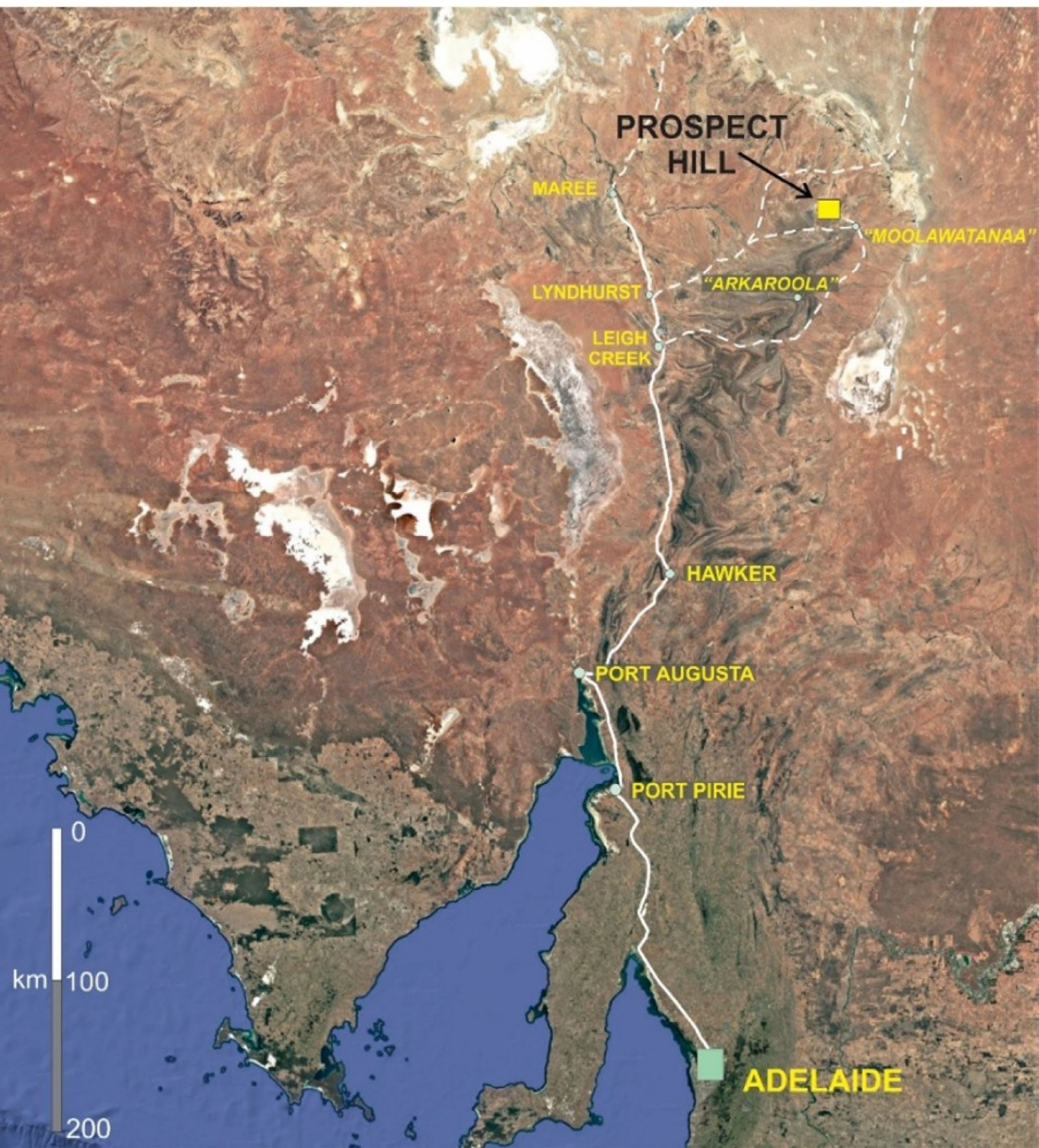
SECTION K – PUBLIC RELEASE

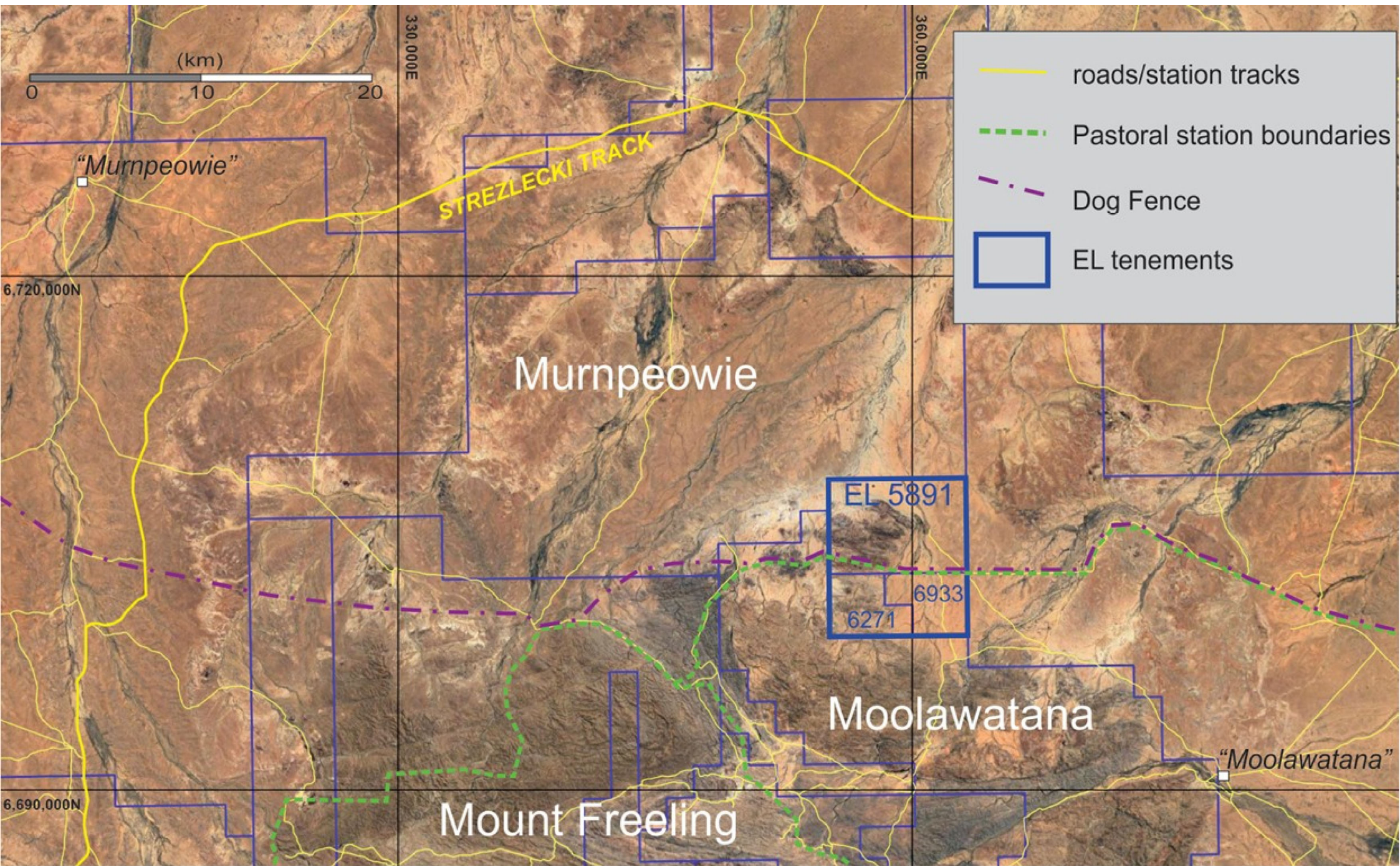
PEPR documents will be registered on the mining register and publicly released in full without the need to request consent from the tenement holder(s). Ultimately, it is the applicant's responsibility to ensure that confidential, or commercially sensitive, information is not included within the PEPR application.

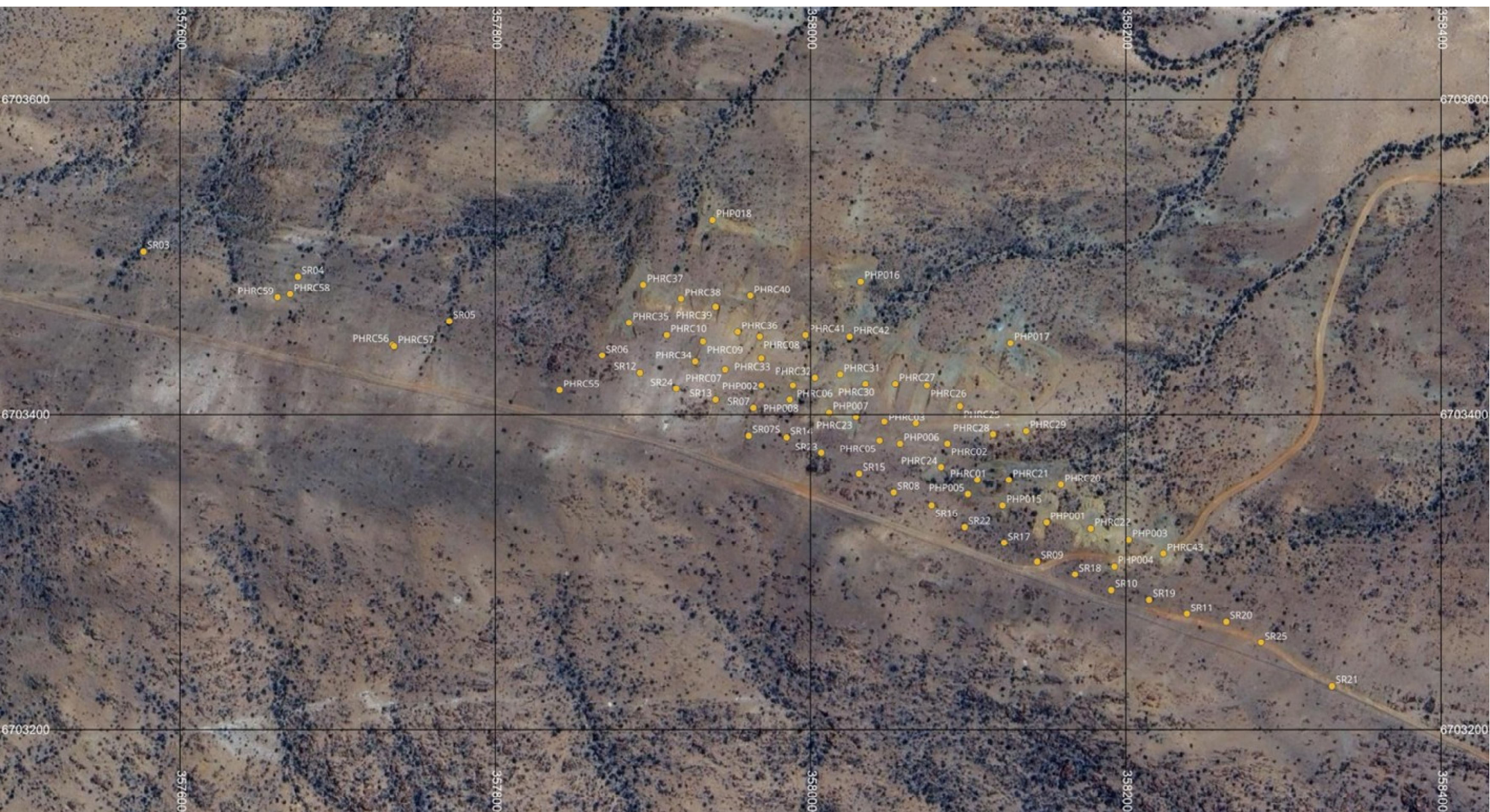
SECTION L – SUBMISSION OF THE APPLICATION

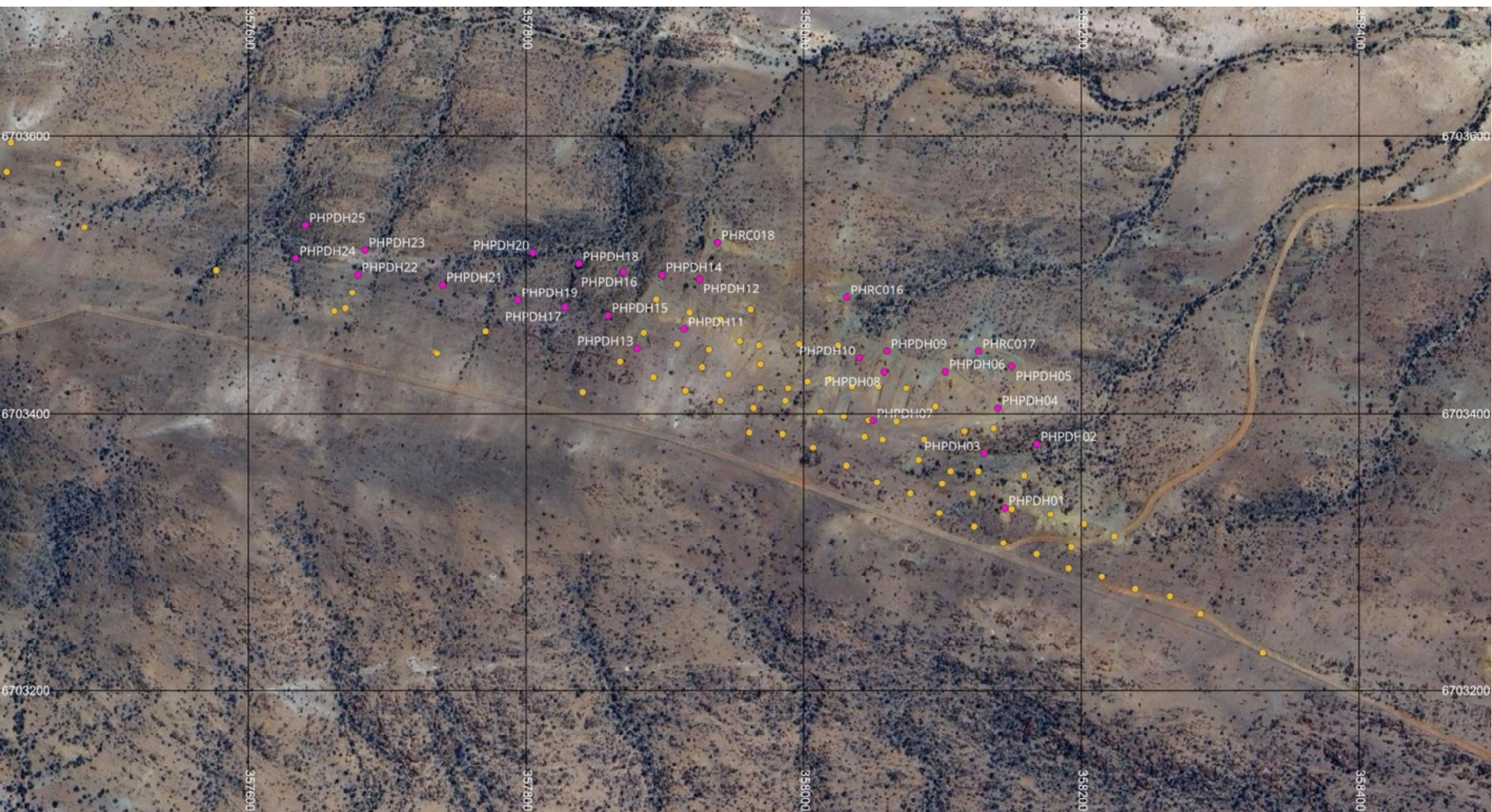
An application for an Exploration PEPR or PEPR review, must be submitted in the following form, unless otherwise specified by the Director of Mines or an authorised officer:

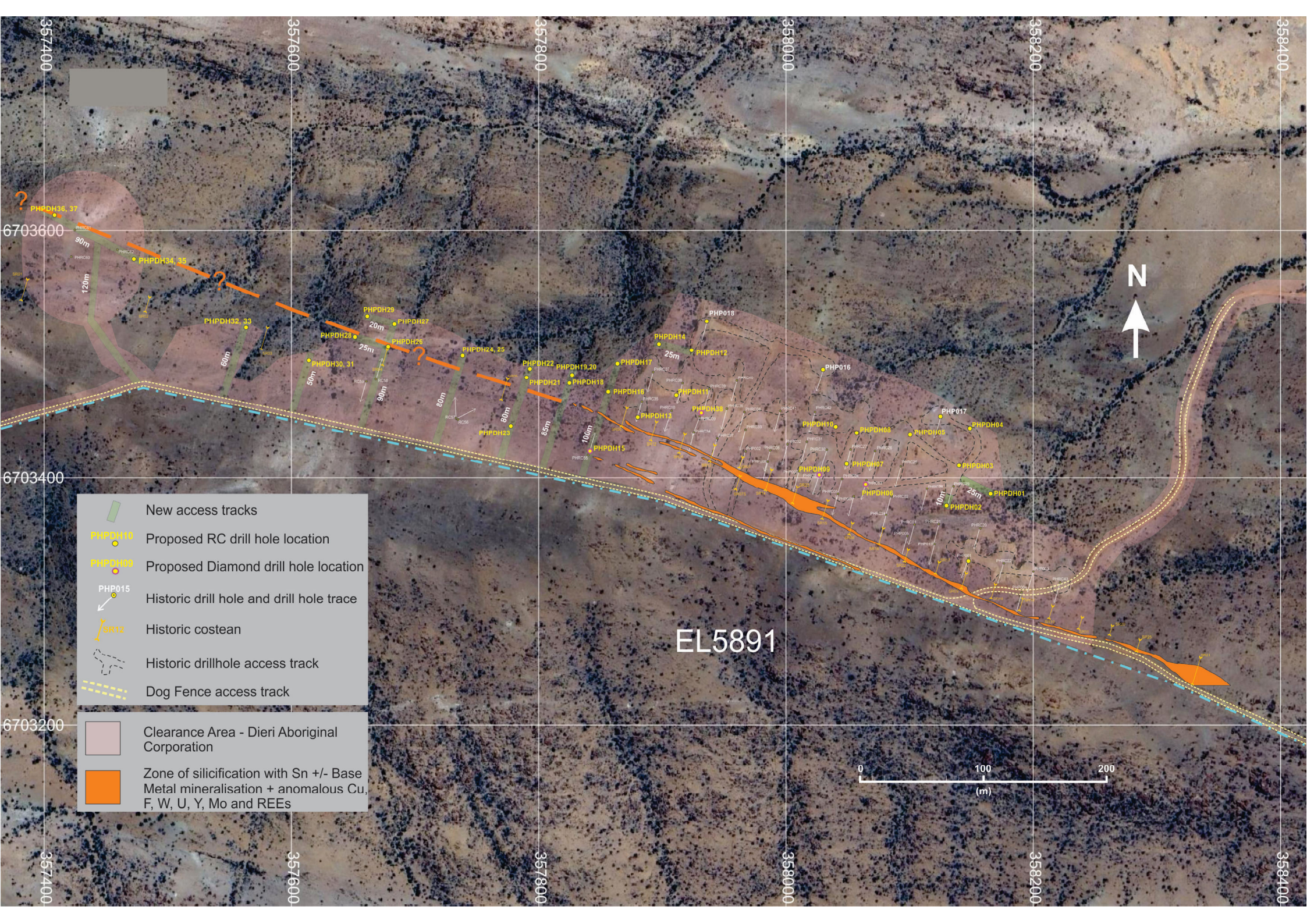
- an electronic version of the PEPR must be submitted using the exploration PEPR template(s) provided on the DEM Minerals website,
- the electronic version must be submitted online through the DEM Minerals website using the exploration PEPR submission form,
- the electronic version must be submitted in one single Acrobat PDF file, and
- Microsoft Word-compatible files must be submitted if requested by the Director of Mines (or delegate), or other authorised officers.



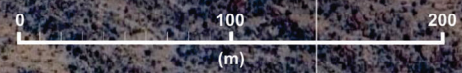








EL5891



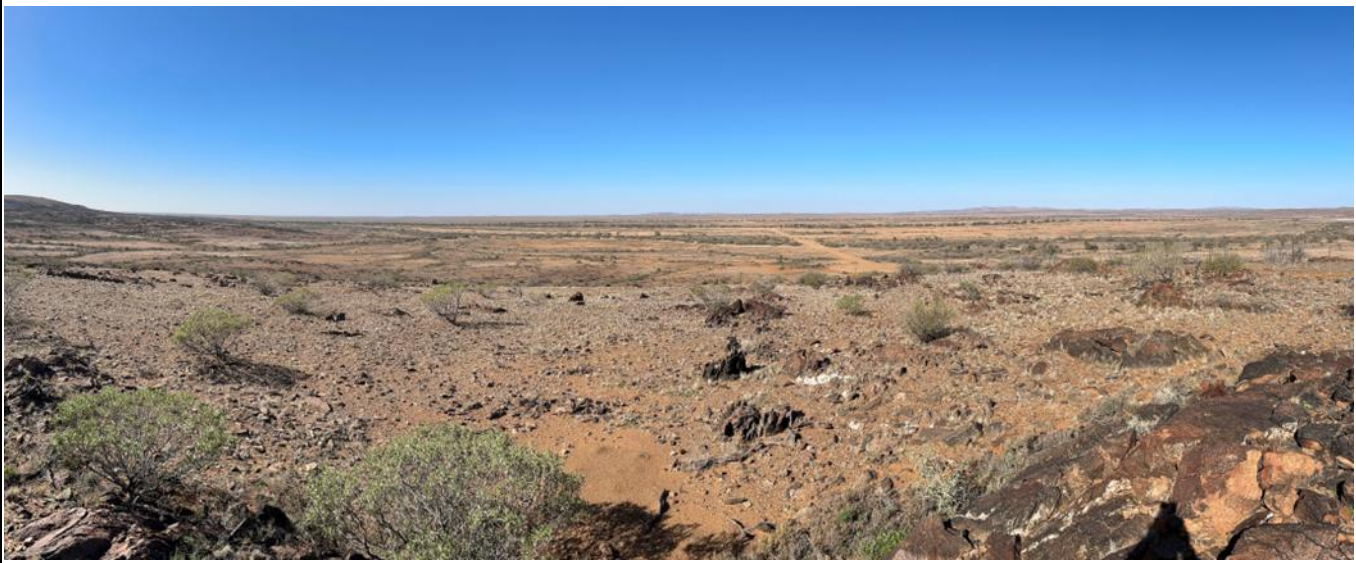
-  New access tracks
-  Proposed RC drill hole location
-  Proposed Diamond drill hole location
-  Historic drill hole and drill hole trace
-  Historic costean
-  Historic drillhole access track
-  Dog Fence access track
-  Clearance Area - Dieri Aboriginal Corporation
-  Zone of silicification with Sn +/- Base Metal mineralisation + anomalous Cu, F, W, U, Y, Mo and REEs

SECTION I – PHOTOS

Include photographs in this section:

- that have been obtained during site visits
- that help describe relevant environmental and operational aspects in the PEPR.

To insert photos, copy and paste the photo into the template below. Resize photos to fit page width. Ensure that all information about each photo is completed and refer to the photo number in the relevant section of the PEPR.

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
South Ridge 1	20/07/2024	Photo-1	538280	6303287	54	Looking east from South Ridge Prospect. Dog Fence in middle-distance
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
South Ridge 2	26/07/2024	Photo-1	357479	6703608	54	Looking east towards South Ridge Prospect from South Ridge West
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Dog Fence -1	2/02/2026	Photo-3	358720	6703042	54	Looking west along Dog Fence from gate between Moolawatana and Murnpeowie Stations, towards South Ridge Prospect. Dog Fence access/service road on north side of fence.
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
South Ridge 3	27/11/2024	Photo-4	358140	6703317	54	Looking south towards Dog Fence from trench SR17
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Dog Fence -2		Photo-5	358390	670398	54	Looking east from South Ridge Prospect. Dog Fence adjacent to service road
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Dog Fence Road - 1	2/02/2026	Photo-6	358231	6703295	54	Looking north towards Prospect Hill from Dog Fence showing access road from Wattleowie Creek
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Wattleowie Creek	27/11/2024	Photo-7	358140	6703317	54	Sturt Desert Pea - <i>Swainsona formosa</i>



Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
North Ridge Prospect	15/09/2016	Photo-8	358366	6706211	54	"Dead Finnish" - <i>Acacia tetragonophylla</i>



Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Wattleowie Ck		Photo-9	360251	6703022	54	Ruby Saltbush - <i>Enchylaena tomentosa</i>
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
North Ridge Flora -1	25/07/2023	Photo-10	358443	6706301	54	"Darling Lilly" - <i>Crinum flaccidum</i>
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Petermorra Ck		Photo-11	360223	6706055		Wild Hops - <i>Acetosa vesicaria</i>
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
	Fly Hill Ridge	Photo-12	359833	6705283	54	<i>Cassia Sp.</i>
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Wattleowie Ck	Photo-13		360251	6703022	54	Ruby Saltbush - <i>Enchylaena tomentosa</i>
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
North Ridge Flora-2	Photo-14		360223	6706055		Bush Banana - <i>Leichhardtia australis</i>
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Petermorra Prospect	16/5/2016	Photo-15	355800	6704335		Red Kangaroo, <i>Osphranter Rufus</i>
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Black Rock Prospect	16/5/2016	Photo-16	355800	6704335		Central Bearded Dragon, <i>Pogona vitticeps</i>
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Black Rock Prospect	16/5/2016	Photo-17	355800	6704335		Skink - <i>Liopholis</i> spp.
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
South Ridge Bird-1	15/09/2016	Photo-18	357291	6705324	54	Pied Honeyeater - <i>Certhionyx variegatus</i>
						

Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Petermorra Ck Bird -1	20/11/2023	Photo-19	360294	6705490	54	Willie Wagtail - <i>Rhipidura leucophrys</i>
						

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Petermorra Springs-1	2020	Photo-20				Cattle-damaged spring at Petermorra Springs
						







