Government of South Australia
Department for Energy and Mining

18 July 2024

Mr Adam Schutz
Quarry Operations Manager
Adelaide Brighton Cement Ltd
PO Box 77
PORT ADELAIDE SA 5015

Adam.schutz@adbri.com.au

Dear Mr Schutz,

Approval Notification - Exploration Program for Environment Protection and Rehabilitation (EPEPR2024-021) RL 109

The program for RL 109, final version submitted on 25 June 2024 to conduct reverse circulation drilling at Penrice Quarry Deposit, has been approved in accordance with Section 70B(5) of the *Mining Act, 1971 (the Act)*.

You are reminded that:

1. You must at all times implement and comply with the approved EPEPR.
2. The approved EPEPR will be made publicly available on the Mining Register.
3. Exploration operations on "native title land" (as defined in the *Native Title (South Australia) Act, 1994)* must be conducted in accordance with Part 9B of the Act.
4. In accordance with Section 70C of the Act, the lessee must review the EPEPR on request of the Minister's Delegate within a time specified in the request and submit the revised EPEPR for approval.
5. As the operator for the approved EPEPR you must take all reasonable and practical measures to avoid undue damage to the environment and meet all the approved outcomes (when measured against the approved criteria) listed within the EPEPR.
6. In accordance with regulation 78 of the *Mining Regulations 2020* and Terms of Reference 012 (TOR 012), the lessee must submit an Exploration Compliance Report to the Mineral Exploration Branch each year, within 60 days after the anniversary of the date the licence was granted, and 60 days after the expiry or surrender of the EL, or in accordance with joint reporting requirements agreed to with the Minister.
7. In accordance with regulation 16(4) of the *Mining Regulations 2020*, drillhole and geological samples must be kept in accordance with guidelines issued by the Department for the term of the relevant tenement and for 7 years after the expiry, surrender, cancellation or forfeiture of the tenement to which the sample relates. Furthermore, samples must be retained by the tenement holder, or provided to the Director, in accordance with those guidelines (unless the Minister has authorised, on application by the tenement holder in a manner and form set out in the guidelines, the destruction or disposal of the samples).
8. The EPEPR is approved for a period of twelve months from the date of this letter.

This approval does not constitute endorsement of the systems that you have in place to manage your exploration operations in compliance with the Act and lease conditions. In granting the approval, the EPEPR and your capacity to undertake the proposed activities have been considered. However, responsibility for compliance with the Act and the lease conditions, remains at all times with the lessee.

This approval relates only to the requirements of the Act. Other legislation relevant to this application includes the *South Australian Work Health and Safety Act, 2012* and Regulations. For example, Chapter 10 of the *Work Health and Safety Regulations, 2012 (SA)* introduced new requirements for mine operators in South Australia. The new requirements include a notification for mining operations and the establishment of a Safety Management System. For further information on your responsibilities, including a guide to Chapter 10 and the Mine Operator Notification Form, contact SafeWork SA on 08 8303 0255 or via its website at www.safework.sa.gov.au.

The proposed program may be subject to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Mineral exploration industry-specific information is contained in an appendix in the EPBC Matters of National Environmental Significance – Significant impact guidelines 1.1. This document is available on the Australian Government's Department for Agriculture, Water and the Environment website at http://www.environment.gov.au/resource/significant-impact-guidelines-11-matters-national-environmental-significance. For further information, contact the Department for Agriculture, Water and the Environment, or visit its website at www.environment.gov.au/.

Proposed changes to exploration operations stated in the approved EPEPR may require a *PEPR review* to be submitted for assessment. Where a *PEPR 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.*

If you require any further information, please contact Jack White on 8429 2490 or Simon Constable on 8429 2516 or email DEM.exploration@sa.gov.au.

Yours sincerely

Simon Constable
GENERAL MANAGER MINERAL EXPLORATION
REGULATION & COMPLIANCE
In accordance with delegated
Ministerial powers and functions

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

APPLICATION Mining Act 1971 and Mining Regulations 2020

EXPLORATION PROGRAM FOR ENVIRONMENT PROTECTION AND REHABILITATION (PEPR)

Government of South Australia
Department for Energy and Mining

USE THIS TEMPLATE TO: Apply to conduct mineral exploration operations not covered by the Generic PEPR (Adopted Program) for a 12 month period of time on one or more exploration licences (ELs), retention leases (RLs) or mineral claims (MCs) in South Australia.

Refer to the Exploration PEPR Terms of Reference and Minerals Regulatory Guidelines MG22 when completing this application. Further information on exploration requirements in South Australia is available on the Department for Energy and Mining (DEM) Minerals website www.energymining.sa.gov.au .

SECTION A – GENERAL DETAILS

Operational approval period	**12-month approval period, with an additional 3 months to complete all rehabilitation**
Tenement details	Retention Lease (RL) 109 (the Site)
Tenement holder(s) (for each tenement)	Adelaide Brighton Cement Ltd
Operating company	Adelaide Brighton Cement Ltd
Agency agreement (if applicable)	NA
PEPR prepared by	James Rowe – Technical Director and Growth Lead – Groundwork (part of SLR) (on behalf of Adelaide Brighton Cement Ltd)
Project supervisor/contact person(s)	James Rowe – Technical Director and Growth Lead – Groundwork (part of SLR) (on behalf of Adelaide Brighton Cement Ltd)
Project/prospect name	RL 109 Exploratory Drilling Program
Location details	Kalimna Road, Penrice
Project description, commodity type and mineralisation model	The proposed activities will include the drilling of up to five (5) drillholes to a depth of approximately 100 metres (m) each to investigate the potential resource and determination of pursuing a Mining Lease. The investigation aims to determine if the limestone marble vein and geology is consistent with the adjacent Penrice Quarry and Seelander Quarry known deposits is present. **Drawing No. 1767.DRG.160 – RL 109 RC Drillhole Location Plan** provides an overview of the Site and proposed holes to be drilled. A UAV Survey has recently been undertaken (2024-05-12) which identified no changes to topography of the area. A native vegetation assessment was undertaken for a previous EPEPR approval in 2022, the assessment has concluded that there is no native vegetation present on the proposed drill pad locations or via **Drawing No. 1767.DRG.124R1 – RL 109 Drill Hole Site Access Map.** This EPEPR assumes highest risk activities with the use of an RC Drill rig, if an RC rig is not able to be sourced due to unavailability, the resource investigation will be undertaken with a percussion rig that will enable drilling to a maximum of 28 m instead of the 100 m proposed.
Proposed project schedule	Start date: June 2024 — End date: June 2025

DECLARATION

I, the tenement holder, declare under regulation 84 of the Mining Regulations 2020, that I have taken reasonable steps to review the information in this PEPR to ensure its accuracy.

Name	Adam Schutz	Signature (digital allowed)	Adam Schutz
Position	Manager – Quarry Operations	Date	19/06/2024

Copy and paste the above table if there is more than 1 tenement holder.

Note: An authorised representative from each tenement holder must sign the declaration (eg in accordance with the Corporations Act 2001).

SECTION B – PROGRAM PREPARATION AND ACCESS TO LAND

Work undertaken in preparing the proposal

Summarise the research and fieldwork undertaken in preparing the proposal including:

- desktop reviews of existing information
- field visits for reconnaissance
- contractor consultation (i.e. equipment scale, type)
- other information used when planning the proposed program.

Background information on the Site can be found in the following reports, which was supported by fieldwork.

- Use of Orthorectified Survey Imagery
- Giles geology report (2003)
- Aquaterra Penrice Mine Hydrological Investigation (2013)
- Penrice MOP PEPR (2021)
- Onsite visit to look at access areas to the various drillholes
- Review of drilling results from previous drilling campaigns

Consultation (r. 64)

Using the table below, provide a summary of the individual or group of similarly affected persons and summarise the results of consultation that has been undertaken on the proposed operation. Types of interested or affected parties include residents, council, government agencies etc (exclude native title groups and defence owned or controlled lands – refer to relevant sections below).

Exploration PEPR application – 12-month period

Tenement	Stakeholder	Land tenure	Land use	Date and type of NOE served	Type of exempt land	Date waiver obtained	Date consultation/access agreement and/or permits signed/authorised	Stakeholder concerns raised and how addressed
RL 109	**Previous Owner - Scott Tolhurst**	Previous Landowner	Agriculture / Viticulture / Residential	Yes – 16/02/2022 Form 21B, Agreement to waive notice period	Residence x 2	24/02/2022	2022/2023 Ongoing phone and email consultation since 21/12/21 to discuss drilling plans and issue of notices. NoE executed 24/02/22 Waiver executed 24/02/22 All provided to DEM 08/03/2022	No concerns raised **2024 update – the ownership of this land parcel has changed and is now owned by Adelaide Brighton Cement Ltd**
RL 109	**Adelaide Brighton Cement Ltd** **CT 5118/149**	Landowner	Agriculture / Viticulture / Residential	S82 Deemed Consent Agreement	As per above	24/02/2022	S82 Deemed consent executed June 2024.	No concerns raised.
RL 109	**Carol Bray and Tony Craddock** **CT 5704/431**	Adjacent Landowner to Drilling Area	Grazing /Residential	N/A	Residence	01/03/2022	2022/2023 Ongoing phone and email consultation since 21/12/21 to discuss drilling plans and issue waivers. Executed 01/03/2022 Provided to DEM 08/03/2022 **2024** New Waiver of Exemption agreement signed 11/06/2024 Telephone and Email correspondence undertaken.	2022/2023 Request to remain updated on status of RL 109. **2024** **Previous consultation was undertaken in the development and execution of EPEPR 2022-020).** **Additional consultation for the 2024 EPEPR is provided within this table.** **No Conditions to waiver. Need to advise date for drilling to allow for moving stock.**

RL 109	**Michael and Lynne Seelander** **CT 5276/62** **CT 6178/664**	Adjacent Landowner to Drilling Area	Grazing / Cropping /Mining	N/A	NIL	N/A	2022/2023 Phone consultation 21/12/21 to discuss proposed drilling. M and L Seelander advised no issues or concerns. **2024** Phone call / email corresposndence 05 June 2024	No concerns raised. Previous consultation was undertaken in the development and execution of EPEPR 2022-020). Additional consultation for the 2024 EPEPR is provided within this table. **2024** **No concerns raised. Will advise of drilling date.**
RL 109	**Robert & Ruth Waechter** **CT 5543/12**	Adjacent Landowner to Drilling Area	Grazing / Cropping	N/A	NIL	N/A	2022/2023 Phone consultation 16/2/22 to advise of resource drilling. No concerns raised. **2024** Phone calls and email provided in May / June 2024 advising of additional drilling.	No concerns raised Previous consultation was undertaken in the development and execution of EPEPR 2022-020). Additional consultation for the 2024 EPEPR is provided within this table. **2024** **No comments / feedback received. Will advise of dates planned.**
RL 109	**Previous Owner - Jennifer Rudiger**	Previous Adjacent Landowner to Drilling Area	Grazing	Yes - 04/03/2022 Form 21B, Agreement to wiave notice period.	NIL	N/A	2022/2023 Phone consultation and email from 21/12/21 regarding proposed resource drilling. No concerns raised. Executed 04/03/2021. Provided to DEM 08/03/2022	No concerns raised **2024 update – the ownership of this land parcel has changed and is now owned by Penrice Propoerties Pty Ltd**
RL 109	**Penrice Properties Pty Ltd** **(Premix Concrete SA)** **CT 5902/907** **CT 5902/908** **CT 5902/909**	Adjacent Landowner to Drilling Area	Grazing / Cropping /Mining	N/A	NIL	N/A	**2024** Email sent 27/05/2024 to advise of upcoming drilling program.	2022/2023 No concerns raised. **2024** **No concerns raised.**

Exploration PEPR application – 12-month period

RL 109	**Mario Calabria** **CT 5240/2**	Residence within 400 m proximity	Residence	N/A	Residence	05/06/2024	**2024** WoE agreement executed June 2024. Phone correspondence undertaken. Meeting in person to discuss exempt land waiver agreement.	**2024** No concerns raised. To advise of drilling dates.

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

Not Applicable

Provide any additional relevant information.

The above table includes consultation undertaken in 2022/2023. Additional consultation for the five (5) additional drill holes has been added to the above table.

The following WoE and NoE have been updated:

- Adelaide Brighton Cement Ltd – Section 82 Deemed Consent
- Bray – Waiver of Exmeption updated
- Calabria – new Waiver of Exemption

Refer to **Drawing No. 1767.DRG.122R1 – RL 109 Drill Hole Exempt Land Map**.

SECTION C – DESCRIPTION OF THE ENVIRONMENT

Include a description of the features of the environment that are expected to be affected by the proposed operations. Each of the elements of the existing environment listed below must be described only to the extent that they may need to be considered in assessing the impacts that the proposed exploration operations are reasonably expected to have on the environment. If the element is not likely to be impacted by the operation, a statement to that effect must be included.

Where the terms and conditions of an RL include environmental outcomes, include any new baseline environmental data relevant to the control strategies or measurement criteria, and where changes to the environment are identified, provide an updated description of the environment to describe the changes.

Proximity to infrastructure and housing

Provide the following information:

- Settlements – indicate the name and distance of the nearest town, and residences within, or near the proposed exploration operations.
- Roads and tracks – indicate existing fence lines, roads and tracks, including those which are to be used in the exploration program.
- Other human infrastructure such as schools, hospitals, commercial or industrial sites, roads, sheds, bores, dams, ruins, pumps, scenic lookouts.
- Railway lines, transmission lines, gas and water pipelines, communication lines – e.g. fibre optic cables etc., if these may be impacted by the exploration operations.

Provide this information on a locality plan/map.

The nearest town, Penrice, is located approximately two (2) kilometres South-South West of the proposed drilling location. There are two (2) residences located on the South-Western portion of the land parcel where the proposed exploratory drilling will take place, both owned and occupied by the landowner. These residences are located approximately 150 metres and 110 metres West of the proposed drilling locations 1 & 2 respectively. Refer to **Drawing No. 1767.DRG.123R1 – RL 109 Proximity to Infrastructure and Housing**.

The tenement holders (Adelaide Brighton Cement Ltd.) also operate Penrice Quarry, directly adjacent South-West of RL 109, approximately 55 metres from the proposed drilling location. Seelander Quarry (MG & LF Seelander and Seelander Quarries Pty. Ltd., EML 4695; EML 6504; PM 102) is directly adjacent North-East of RL 109, approximately 250 metres from the drilling location. A historic sand resource exists 200 metres North of the proposed drilling location, owned and operated by MG and LF Seelander (EML 6138), however is inactive and is scheduled for rehabilitation.

Drill holes (1-5) can be accessed through a gate off of Kalimna Rd, then by following the access track through the property to the proposed drilling locations. Refer to **Drawing No. 1767.DRG.124R1 – RL 109 Drill Hole Site Access Map**.

Powerlines run along the Southern portion of the land parcel and into the adjacent land parcel, approximately 40 metres away from the proposed drilling locations 1 and 2. Refer to **Drawing No. 1767.DRG.122R1 – RL 109 Drill Hole Exempt Land Map**.

Land use and tenure

Using the table below, select the land tenure and land use that the proposed exploration activities will occur in. Include additional information where prompted.

Land tenure/type	Applicable
Freehold	☒
Pastoral lease	☐
Perpetual lease	☐
Crown land	☐
Mining reserve	☐
Aboriginal freehold/leasehold land (e.g. Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands)	☐
Forestry reserve	☐
Marine parks	☐
National parks, conservation parks, conservation reserves, regional reserves*	☐
Adelaide Dolphin Sanctuary	☐
Murray Darling Basin	☐
<If park/reserve is selected, please provide the name of the park>	
Other*	☐
<If other is selected, describe the land tenure here.>	

Land use	Applicable
Grazing	☒
Cultivated land	☐
Residential	☒
Township	☐
Industrial	☐
Tourism	☐
Conservation	☐
Defence activity	☐
Road reserve	☐
Sites of scientific significance (geological monuments, fossil reserves etc.)	☐
Orchard/vineyard	☒
*Native vegetation heritage agreements	☐
<Provide the name of the area>	
*European heritage sites	☐
<Provide the name of the site>	
*Other (e.g. historic mining)	

* Indicates more information required in field immediately below.

Describe any council policies (or out of council) or development plans that may impact the program area.

The proposed drilling location exists within the Barossa Regional Development Australia (RDA) region (RDA Code: 38). The RL is listed in a strategic resource zone – Zone 1, Greater Adel. Strategic Quarries.

An easement exists on the land parcel where the proposed drilling operations will take place, however is on the Northern boundary of the land parcel, and is approximately 630 metres north of the proposed drilling location, so will not be impacted by the drilling operations.

Provide a description of any known plans for future land use changes by other parties.

The Northern portion of the land parcel for proposed drilling operations is currently used as a sand resource (EML 6138; MG & LF Seelander). The EML is approximately 200 metres away from the proposed drilling locations, and will not be impacted by the proposed drilling.

Provide any additional relevant information.

Not Applicable

Woomera Prohibited Area (WPA)

Will activities be conducted within the WPA	Yes ☐	No ☒	Do you have a resource exploration permit in place?	Yes ☐	No ☒
In which zone will activities be conducted?			N/A		
Does the Exploration Permit allow the operator to conduct exploration operations in the WPA?				Yes ☐	No ☒
What is the expiry date of the resource exploration permit?				N/A	
Identify closure periods that may impact on the exploration program.					
N/A					

Other land owned or controlled by the Commonwealth Department of Defence

Lands in South Australia that are owned or controlled by the Commonwealth Department of Defence, which they manage either as a training or test area, include the Port Wakefield Proof and Experimental Establishment, Murray Bridge Training Area, and Cultana Training Area.

These lands remain to be mineral land under the Mining Act 1971 (SA) and can be accessed for mineral exploration and mining subject to certain restrictions and conditions under the Defence Act 1903 (Cth) and the Defence Regulation 2016 (Cth).

Will operations be conducted within the Port Wakefield Proof and Experimental Establishment, Murray Bridge Training Area, or Cultana Training Area?	Yes ☐	No ☒
Do you have a Deed of Access with Defence?	Yes ☐	No ☒
What is the expiry date of the Deed of Access?	N/A	
Provide the date the Range Control Officer granted access permission to conduct the proposed exploration operations. Describe the results of consultation and how any concerns raised were addressed.	N/A	
N/A		

Native title

Using the table below, describe how you have complied with the requirements of Part 9B of the Mining Act for each tenement (for further information refer to Minerals Regulatory Guidelines MG22).

Native title			
Is the proposed area of exploration located on native title land?		Yes ☐ No ☒ (If no, no further information in this section required.)	
Are there registered native title party/parties in the area of proposed exploration?	Yes ☐ No ☐		If no, an Environment, Resources and Development (ERD) Court determination is required.
Have you negotiated a native title mining agreement?	Yes ☐ No ☐	Is the agreement registered?* Yes ☐ No ☐	
Have you accepted an Indigenous land use agreement (ILUA)?	Yes ☐ No ☐	Is the ILUA registered?* Yes ☐ No ☐	
Have you obtained ERD Court determination?†	Yes ☐ No ☐	Is the determination registered?* Yes ☐ No ☐	

* The registration date refers to the date the agreement, determination or ILUA was registered with DEM.

† An ERD Court determination cannot be conjunctive (i.e. cannot apply to subsequent licences).

Provide any additional relevant information.

The proposed drilling area is located within an area currently subject to the Ngadjuri Nation #2 Native Title Claim (Tribunal No. SC2011/002, registered 20/01/2012). The status of this claim's registration is active, and the claim has been accepted for registration, however the land parcel for RL 109 is held in fee simple and no Native Title land has been determined within the land parcel that proposd drilling operations will take place.

Landform and topography

Describe the topography of the general area affected by the exploration program. Include the susceptibility to erosion and visual attributes (steep or undulating slopes, plains, rocky outcrops, dunes, saltpans, claypans etc.).

RL 109 is in the Southern portion of the Mount Lofty Ranges, in the Barossa association, however is located on the boundaries of the Para and Mopami regions also. The region consists of hilly dissected tableland, with low ranges and hills, with extensive rocky outcrop and shallow soil profiles.

The area proposed for drilling is situated on the foothills above the Barossa Valley, with the valley floor located to the West, exhibiting flat topography. To the North and East, undulating hills exist ranging from 310 mAHD to 390 mAHD, and the drilling area itself is located through a valley, and on hills on either side of the valley.

A site inspection in February 2022 found that the majority of the area for drilling had been cleared for grazing, vineyards or for residential use, and the Site and surrounds are well disturbed.

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Soil and surface cover

Describe soil types and soil surface cover - e.g. gibber, rocky - in the general area affected by the exploration program. Include details on the susceptibility to compaction, erosion, dust, runoff and any other soil characteristics – e.g. acid sulphate – that may require control strategies to reduce environmental impacts during operations or rehabilitation.

The soil types in the area consist of shallow soils on calcrete or limestone. A search of South Australian Government application '*NatureMaps'* (2022) indicated that the surface soil at the Site consists of a shallow red loam on limestone, with a small proportion of soil on the Site being a slightly acidic sandy loam over brown or red clay. The dominant surface texture for the Site is loam, with the Northern portion of the Site tending towards loamy sand. The surface at the Site is considered rocky, with stone picking or rolling required for cultivation. The depth to hard rock is estimated at 100 – 150 centimetres.

The soil physical condition is considered hard setting, with a sealing surface (>60% chance of hard sealing), with minimal limitations on subsoil structure over the Site. The Site is not susceptible to gully erosion or mass movement, but is non-arable, so has a high water erosion potential. However the proposed drilling program includes 4 drillhoes, with minimal displacement of surface material (nominal 100mm per hole), so the potential for enhancing erosion due to water erosion is negligible. No hardstands or drill pads will be required for construction during the drilling program. The landscape implies that the potential for wind erosion is low. The high fertility of the surface soil, and its high water holding capacity (80 – 100 mm) will ensure that rehalitation of any disturbace due to operations is achieved in a timely manner.

An inspection of the Site found that the surface on the hill crests and upper faces was rocky, with a hard surface soil. Gullys in the base of the hills showed a high volume of topsoil present, and less rocky surfaces were found in the valleys.

Surface water

Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)? If yes, describe the potential interference and surface water bodies and natural drainage on maps. If no, indicate why.	Yes ☐	No ☒
A seasonal drainage line runs North-South through the land parcel where the proposed drilling operations will occur. The proposed RC exploratory drilling will involve minimal displacement of soil/sediment and holes will be backfilled with aggregate within one (1) week of drilling, so operations will have minimal impacts on the surface drainage. Refer to **Drawing No. 1767.DRG.125R1 – RL109 Drill Hole Proximity to Surface Water and Vegetation**.		
Is the program area located within water protection areas defined under the *River Murray Act 2003*? If yes, provide the name(s).	Yes ☐	No ☒
Is the program area located within any prescribed watercourses or prescribed surface water areas under the *Landscape South Australia Act 2019*? If yes, provide the name(s).	Yes ☒	No ☐
The Site is located within the Barossa Prescribed Water Resource Area. The works will not require the diversion, collection and use of any surface waters.		

Groundwater

Is groundwater likely to be intersected when conducting the exploration program? If yes, use the table below to describe the expected groundwater (hydrogeological) conditions, and identify groundwater aquifers in the exploration area(s) that may be affected. Indicate the approximate depth of drillholes in each area. Copy and paste a new table for each area where different groundwater conditions are expected. If no, provide evidence or any supporting information demonstrating this.	Yes ☒	No ☐

Description of the locality/area where different groundwater conditions may be encountered					
Formation age and/or stratigraphic unit	**Stratigraphic intervals (depth range) (m)**	**Aquifer formation name**	**Aquifer interval/thickness (from–to) (m)**	**Type of aquifer(s) intersected (e.g. unconfined, confined, artesian)**	**Provide aquifer salinity, depth to water level and any other relevant comments**
Cambrian - Normanville Group inc Angastan Marble	Surface to > 150 m	Angaston Marble	Surface to > 150 m	Unconfined, fractured rock	No water wells are present at exact drilling location, however, nearby wells^ report groundwater as follows: Salinity: fresh to brackish (824 to 2618 mg/L TDS) however nearest wells report salinity from 1160 to 1390 mg/L. Depth to groundwater: 13 to 35 m below ground. Reduced Standing water levels – 330 to 291 mAHD falling the west in the direction of the Barossa Basin and to the north in the direction of the North Para River. Ground elevation of drilling locations at approx 330 to 340 mAHD. Groundwater levels expected to reside 15 to 35 m below ground. ^6729-1434, 6729-1552, 6729-885, 6729-1390, 6729-985

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

The fractured rock aquifer near the Site of drilling contains groundwater between 1100 and 2618 mg/L.

This is at the very upper limit for irrigation per EPA water quality policy. However, the water is suitable for stock, domestic and industrial purposes. The water quality is also suitable for aquatic / groundwater dependent ecosystems.

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

Terrestial vegetation comprised of *Eucalyptus camadulensis* exists through the middle of the parcel of land where proposed drilling will take place. The proposed drilling will occur approximately 140 metres south of the vegetated area. Refer to **Drawing No. 1767.DRG.125R1 – RL 109 Drill Hole Proximity to Surface Water and Vegetation**. The vegetation is listed as eucalyptus camaldulensis var. camaldulensis woodland and is referred as having 'high *potential*' as a GDE.

The following is noted with respect to this classification:

- The vegetation is open woodland rather than aquatic vegetation associated with groundwater discharging to water courses.
- Nearby groundwater levels are reported at more than 10 m below ground, hence reliance on groundwater as a primary water source appears unlikely.

Based on landforms (rolling hills, small valleys) it is more likely that the vegetation is reliant on terrestrial water sources including incident rainfall and stream run-off rather than groundwater. Irrespective, drilling activities will have minimal disturbance on the groundwater systems and hence, impacts on the quantity and quality of groundwater are highly unlikely.

Is the proposed program located within a prescribed wells area or prescribed water resource area? If yes, provide the name of the area.	Yes ☒	No ☐
Barossa Prescribed Water Resources Area		

Provide any additional information, if required.

The adjacent quarry, Penrice quarry (also operated by Adelaide Brighton Cement Ltd.) undergoes quarterly groundwater monitoring of monitoring wells surrounding the quarry, one (1) of which is located on the land parcel where the proposed drilling will take place, approximately 300 metres South of the drilling area.

Seelander Quarry to the north of the Site have conducted recent groundwater monitoring of their Site production well (6729-1434). The well reports groundwater elevations in the order of 291 mAHD or 14 m below ground.

In the (very unlikely) circumstance that the drillholes encounter flowing artesian conditions, the drillholes will be backfilled with grout per information sheet 21, or a permit will be sought from DEW to convert the drillhole to a water well if the proponent wishes to retain a groundwater monitoring well.

Native vegetation

Will you be working within areas of native vegetation? If yes, provide the following information: • description of the formation and structure of vegetation in the area (e.g. woodland, shrubland, grassland) • list of the dominant species. If no, indicate why you will not be working within areas of native vegetation?	Yes ☒	No ☐

An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) Protected Matters Search (2024) (refer **Appendix 1 – EPBC Act Protected Matters Search**) found that two (2) critically endangered ecological communities, four (4) endangered and eight (8) vulnerable native species may exist within two (2) kilometre (km) of the Site area. A seasonal drainage system, incorporating woodland vegetation runs through the land parcel north of the proposed drill holes. A search of the South Australian Government application '*NatureMaps*' (2024) found no National or State rated Flora sites within two (2) km of the Site. A site visit undertaken by Groundwork Plus in February 2022, confirmed that the vegetation within the Site has been historically cleared and the remaining native vegetation onsite is comprised of scattered patches of eucalyptus camaldulensis along the creekline and patches of banksia marginata within the sandier ridges of the Site. No rare or endangered species or plant communities were observed on or around the Site.

The sites of drilling are proposed to occur:

1) In an open area in paddock used for vineyards and
2) In open field paddocks used for grazing

All drilling locations are highly disturbed. The locations of drilling are flexible enough such that they can be moved to avoid any native vegetation, should there be any at the proposed sites. A Site inspecton in February 2022 found that the drillhole locations are all in open, disturbed fields, and will not impact any native vegetation in the area. The vegetation on the Site is mostly limited to mature woodlands in the area mapped as having a high potential as a GDE along the drainage system, with some established trees located in the fields.

Significant habitats and flora

If you are working within areas of native vegetation, use the table below to list any significant habitats and any rare or endangered flora 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/habitat	Common name	NPW Act rating*	EPBC Act rating†
Caladenia tensa	Greencomb Spider-orchid, Rigid Spider-orchid	Endangered	Endangered
Caladenia argocalla	White-beauty Spider-orchid	Endangered	Endangered
Caladenia concolor	Crimson Spider-orchid, Maroon Spider-orchid	Vulnerable	Vulnerable
Dodonaea subglandulifera	Peep Hill Hop-bush	Endangered	Endangered
Euphrasia collina subsp. osbornii	Osborn's Eyebright	Endangered	Endangered
Acacia menzelii	Menzel's Wattle	Vulnerable	Vulnerable
Dodonaea procumbens	Trailing Hop-bush	Vulnerable	Vulnerable
Olearia pannosa subsp. pannosa	Silver Daisy-bush, Silver-leaved Daisy, Velvet Daisy-bush	Vulnerable	Vulnerable
Prasophyllum pallidum	Pale Leek-orchid	Rare	Vulnerable
Senecio macrocarpus	Large-fruit Fireweed, Large-fruit Groundsel	Vulnerable	Vulnerable
Swainsona pyrophila	Yellow Swainson-pea	Rare	Vulnerable
Glycine latrobeana	Clover Glycone, Purple Clover	Vulnerable	Vulnerable

* *National Parks and Wildlife Act 1972* (NPW Act) conservation status includes extinct, endangered, vulnerable, threatened and rare.

† *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) listings include extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent.

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*).

A search of the South Australian Government application '*NatureMaps*' (2024) found no records of WoNS or buffel grass recorded within one (1) kilometre of the Site area.

The area has been used for grazing and cropping, hence has been highly disturbed, so minimal weeds exist at the Site area. A Site inspection in February 2022 indicated no buffel grass or significant weeds onsite.

Fauna

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

An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) Protected Matters Search (2020) (refer **Appendix 1 – EPBC Act Protected Matters Search**) found that 15 listed threatened species of birds, one (1) listed threatened species of mammals, two (2) listed threatened specifies of reptiles and one (1) listed threatened species of frog may occur within two (2) kilometre of the Site area. In addition, ten (1) migratory species were also listed as likely to occur within the Site area. A search of the South Australian Government application '*NatureMaps*' *(*2022) found no National or State rated Fauna sites within two (2) kilometres of the Site area.

All drilling locations are highly disturbed. The locations of drilling are flexible enough such that they can be moved to avoid any native vegetation, should there be any at the proposed sites. A Site inspecton in February 2022 found that the drillhole locations are all in open, disturbed fields, and will not impact any native vegetation in the area. Therefore it is highly unlikely that any native fauna will be impacted through the proposed drilling program.

An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) Protected Matters Search (2020) (refer **Appendix 1 – EPBC Act Protected Matters Search**) fount that the feral or invasive species listed as likely to occur within the Site area included eight (8) birds, and nine (9) mammals, listed below:

Skylark (*Alauda arvensis*), Mallard (*Anas platyrhynchos*), European Goldfinch (*Carduelis carduelis*), Rock Pigeon, Rock Dove, Domestic Pigeon (*Columba livia*), House Sparrow (*Passer domesticus*), Spotted Turtle-Dove (*Streptopelia chinensis*), Common Starling (*Sturnus vulgaris*), Common Blackbird, Eurasian Blackbird (*Turdus merula*), Domestic Cattle (*Bos taurus*), Domestic Dog (*Canis lupus familiaris*), Goat (*Capra hircus*), Cat, House Cat, Domestic Cat (*Felis catus*), Brown Hare (*Lepus capensis*), House Mouse (*Mus musculus*), Rabbit, European Rabbit (*Oryctolagus cuniculus*), Black Rat, Ship Rat (*Rattus rattus*), Red Fox, Fox (*Vulpes vulpes*).

Species	Common name	NPW Act rating	EPBC Act rating
Botaurus poiciloptilus	Australasian Bittern	Endangered	Endangered
Aphelocephala leucopsis	Southern Whiteface	Vulnerable	Vulnerable
Calidris ferruginea	Curlew Sandpiper	Endangered	Critically Endangered
Calidris acuminata	Sharp-tailed Sandpiper	Vulnerable	Vulnerable
Falco hypoleucos	Grey Falcon	Rare	Vulnerable
Gallinago hardwickii	Latham's Snipe, Japanese Snipe	Vulnerable	Vulnerable
Grantiella picta	Painted Honeyeater	Rare	Vulnerable
Leipoa ocellata	Malleefowl	Vulnerable	Vulnerable
Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded In feature area Robin (south-eastern)	Endangered	Endangered
Neophema chrysostoma	Blue winged Parrot	Vulnerable	Vulnerable
Polytelis anthopeplus monarchoides	Regent Parrot (eastern)	Vulnerable	Vulnerable
Rostratula australis	Australian Painted Snipe	Endangered	Endangered
Stagonopleura guttata	Diamond Firetail	Vulnerable	Vulnerable
Tringa nebularia	Common Greenshank, Greenshank	Endangered	Endangered
Zoothera lunulata halmaturina	South Australian Bassian Thrush, Western Bassian Thrush	Endangered	Endangered

Litoria raniformis	Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog	Vulnerable	Vulnerable
Pteropus poliocephalus	Grey-headed Flying-fox	Rare	Vulnerable
Aprasia pseudopulchella	Flinders Ranges Worm-lizard	Not Applicable	Vulnerable
Tiliqua adelaidensis	Pygmy Blue-tongue Lizard, Adelaide Blue-tongue Lizard	Endangered	Endangered

Note: NPW Act conservation status includes extinct, endangered, vulnerable, threatened and rare.
EPBC Act listings include extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent.

Significant fauna

Where possible, using the table below, list any rare or endangered 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.

A search of the South Australian Government application '*NatureMaps*' *(*2024) found no rare or endangered fauna species located or reported to have been within two (2) kilometres of the Site area.

All drilling locations are highly disturbed. The locations of drilling are flexible enough such that they can be moved to avoid any native vegetation, should there be any at the proposed sites. A Site inspecton in February 2022 found that the drillhole locations are all in open, disturbed fields, and will not impact any native vegetation in the area. Therefore it is highly unlikely that any native fauna will be impacted through the proposed drilling program.

Environmentally sensitive locations

Are there any environmentally sensitive locations within or close to the proposed exploration area (e.g. areas having particular ecological, cultural, scientific, aesthetic or conservation value)? If yes, provide a description of identified environmentally sensitive location(s). Mark these areas on a locality plan to identify any areas of conflict so that access roads or other activities can be planned and located effectively.	Yes ☒	No ☐
Terrestial vegetation exists on the land parcel/s. These will be actively managed during drilling operations to avoid possible impacts from vehicle movements and discharge of fluids (groundwater, sample cuttings) generated by drilling. Refer to **Drawing No. 1767.DRG.125R1 – RL 109 Drill Hole Proximity to Surface Water and Vegetation**.		
Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have.	Yes ☐	No ☒
Drill points will be accessed from the south side of the patch of terrestrial vegetation marked as potentially a GDE, so no vehicles will drive through the GDE area. Refer to **Drawing No. 1767.DRG.124R1 – RL109 Drill Hole Site Access Map**.		
Include a statement concerning whether or not an Aboriginal heritage survey has been conducted by the proponent and if so, the results of the survey.		
Under the Aboriginal Heritage Act 1988, the South Australian Government is responsible for the protection and preservation of sites, objects and remains of significance to Aboriginal people. A search undertaken by the Department of State Development Aboriginal Affairs and Reconciliation (DSD AAR) of the Central Archive including the Register of Aboriginal Heritage Sites and Objects has no entries for Aboriginal sites in relation to the Site search area (within one (1) km of the Site).		

SECTION D – DESCRIPTION OF PROPOSED EXPLORATION OPERATIONS

Each of the elements listed below must be described only to the extent that they apply to the proposed exploration program.

Equipment and personnel requirements

Using the table below, describe the equipment, size and composition of field crews, and proposed working hours/days required to conduct the proposed program.

Type of personnel	Number	Name of contractor company (if applicable)
Geologists (Hydrogeologist)		
Land access/environmental	1	Groundwork Plus
Field assistants/technicians	1	To be confirmed
Drilling crew	5	To be confirmed
Site preparation and rehabilitation		

Other (provide details)		

Shifts worked per day	Hours worked per day	Days worked per week
1	8	4 (estimate)

Equipment type	Owner/operator	Description/capacity	Activity/purpose
Comacchio 450 multi-purpose drill rig	Statewide Drilling Pty Ltd	Reverse circulation RC. Capable of drilling to >120 m	Drilling of 5 x exploratory holes to a depth of 120 m
Prime mover and trailer	Statewide Drilling Pty Ltd	Supporting Truck	Transport of equipment to, from and around Site. (or)
Scania 6x4 / Canter 4x4	Statewide Drilling Pty Ltd	Supporting Truck	Transport of equipment to, from and around Site.
Compressor – Elgi 900/300 (Track mounted)	Statewide Drilling Pty Ltd		
Light Vehicles x 2	Statewide Drilling Pty Ltd	4WD Land Cruisers	Personel transport to and from Site. First aid kits and recovery equipment.
Light vehicle	Groundwork Plus	Toyota Hilux	Personnel transport to and from Site.

Provide any additional information, if required.

Not Applicable

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)? If yes, describe each type of low impact operations proposed.	Yes ☐	No ☒
Not Applicable		

Drilling activities

Will exploration drilling activities be conducted? If yes, fill out the below table	Yes ☒	No ☐

Tenement	Drilling type	Maximum number of drillholes	Drillhole spacing range (m)	Maximum drillhole depth (m)	Maximum number of sumps required at each site	Maximum size of sumps (length x depth x width) (m^3)	Average size of each drill pad* (m^2) (no excavation required)	Number of sites requiring pad excavation	Average volume (m^3) of material to be excavated (excluding sumps)
RL 109	RC	5	75 (approx.)	120	0	-	20		
TOTAL		**5**		**600**	**0**	**NA**	**120**	**0**	**0**
		Total number of drillholes (add each row to calculate the total).		Total metres proposed (maximum number of holes x average depth for each row, then add each row to calculate the total).	Total number of sumps (maximum number of sumps x drillsites for each row, then add each row to calculate the total).	Total volume of sumps (maximum size of sumps x number of sumps for each row, then add each row to calculate the total).	Total area of disturbance (number of holes x average size for each row, then add each row to calculate the total).	Total number of pads requiring excavation (add each row to calculate the total).	Total volume of material to be excavated (number of sites requiring excavation x average volume for each row, then add each row to calculate the total).

* The footprint includes all areas of disturbance associated with the drillsite.

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.

No vegetation clearance or site levelling is proposed for the drilling nor will sumps be required - the proposed drilling method utilisises the RAB method (rapid air blast) and hence air is the medium used to remove cuttins from the drillhole and bring to the surface.

Some water may be produced during drilling if groundwater is struck. It is expected that the drill rig can be positioned in areas that will avoid runoff to native vegetation which will prevent silt laden water from impacting sites. Any large volumes of water struck will be recorded and where required, hay bales can be used to slow and contain flows.

Drillhole construction and decommissioning

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 ☒	No ☐

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.

Drillholes will utilise the RAB method which utilises air as the drilling fluid. Drillholes will be drilled to total depth, cuttings retrieved with samples taken for lithological / petrological analysis. No drillholes will be constructed with casing however some groundwater monitoring may be conducted of the open drillholes (depth to water, salininty) prior to backfilling.

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.

The area is in a fractured rock aquifer with unconfined conditions. This is consistent with 'Class 1' well construction conditions under the Landscapes Act. For this reason drillholes will be backfilled with cuttings from the base of the drillhole to surface. If insufficient cuttings are available drillholes will be backfilled with aggregate from the adjacent penrice quarry.

Where confined or artesian conditions are expected, include a schematic diagram demonstrating how drillholes will be constructed and decommissioned

Costeans and bulk sample disposal pits

Will costeans/bulk sample disposal pits be required for the proposed program? If yes, fill out the table below.	Yes ☐	No ☒

Tenement	Number of costeans/pits	Size of costean (length x width) (m^2)	Average depth (m)	Volume excavated (m^3)	Total volume excavated (m^3) (number of costeans/pits x volume)	Total area of disturbance* (length x width) (m^2)
						<Tab to add rows.>
TOTAL						
	Total number of costeans/pits (add each row to calculate the total).				Total volume of material to be excavated (add each row to calculate the total)	Total area of disturbance (number of costeans/pits x area of disturbance for each row, then add each row to calculate the total).

*Includes storage of excavated material at the site (e.g. topsoil and subsoil segregation).

Costeans and bulk sample disposal pit preparation

If costeans/bulk sample disposal pits are required, describe site preparation methods, vegetation clearance, and safety and maintenance requirements.

Not Applicable

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 will be collected as disturbed core with sub-samples collected in chip trays. Un-required samples will be used to backfill the drillholes.Any remaining sample will be bagged and removed from Site. Additional aggregate will be gained from Penrice Quarry and Mineral (adjacent quarry) to backfill the holes to the collar.

Note: The sample material is not associated with metallic mineraliation (sulfides, radioactivity etc) and will only be logged for lithology and strength properties.

Access routes to work areas

Will existing tracks require upgrading and/or maintenance? If yes, detail the work required to upgrade/maintain existing tracks.	Yes ☐	No ☒
Will access be required across adjoining tenements? If 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.	Yes ☐	No ☒
Access to proposed drill hole locations will be through an access gate directly to the property, off of Kalimna road utilising internal access tracks. Refer to **Drawing No. 1767.DRG.124R1 – RL 109 Drill Hole Site Access Map**.		
Will access off existing tracks be required? If yes, detail the method(s) for gaining access and if vegetation clearance is required. Include 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).	Yes ☒	No ☐
The drillholes are all located within an area used for agricultural purposes. The ground surface is hard and rocky with minimal surface vegetation, limited to grasses. The area is also frequently trafficked by machinery for agricultural purposes, and these routes will be utilised where available. Therefore, it is not necessary to develop additional specific tracks to access the proposed drillhole locations, as transit over the ground will have minimal impact on the surface.		

Indicate planned access routes on a locality plan and distinguish between existing and proposed new access tracks and drill lines (including fence lines).

Campsites, storage and equipment laydown areas

Using the tables below, provide a description of campsites and/or laydown areas required. Indicate the campsite and laydown area on a locality plan.

Campsite details		
Indicate where staff and contractors will be accommodated during the exploration program.		
What is the maximum number of personnel requiring accommodation?		
Is a campsite required to be established? If no, no further information is required.	Yes ☐	No ☒
Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information.		
What will be the total area (ha) of the campsite(s)?		
What will be the total area (ha) of vegetation clearance for the campsite?		
If vegetation clearance is required, describe the methods used to prepare the site.		
Not Applicable		
Will any excavations be required? If yes, describe the purpose of the excavation and the maximum volume (m^3) of material to be excavated.	Yes ☐	No ☒
Not Applicable		
Are the proposed ablution facilities endorsed/approved for use by the Department of Health or local council, where applicable? If no, indicate why.	Yes ☐	No ☐
Not Applicable		

Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)	**Quantity**	**Description/capacity**

Laydown area details		
Will laydown areas be required? If no, no further information is required.	Yes ☐	No ☒
Will the laydown area(s) be located at the same location as the campsite? If no, has the location(s) been discussed with the landowner?	Yes ☐	No ☒

What will be the maximum area (ha) required for the laydown area(s)?	Not Applicable	
What will be the total area (ha) of vegetation clearance for the site?	Not Applicable	
If vegetation clearance is required, describe the methods used to prepare the site.		
Will any excavations be required? If yes, describe the purpose of the excavation and volume (m^3) of material to be excavated.	Yes ☐	No ☒

Proposed infrastructure (includes hydrocarbon and water storage requirements)	**Quantity**	**Description/capacity**

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

Other exploration methods and/or ancillary operations

Are any other proposed exploration methods (e.g. seismic) and/or ancillary exploration operations required? If yes, describe the activity(s), site preparation, vegetation clearance, and safety and maintenance requirements.	Yes ☐	No ☒

Water supply and management

Will camp and/or drilling water be required? If yes, describe how and where water will be sourced for drilling, track maintenance and camping purposes (e.g. groundwater, surface water, mains). Provide details on the volume of water required and how wastewater or runoff water will be managed.	Yes ☐	No ☒
Will surface water and/or mineral drillholes be used as a water source/supply? If yes, 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. If a licence is required and has been obtained please attach a copy. Where a licence has not been obtained, include a statement confirming that a licence will be obtained before the extraction and/or usage of water.	Yes ☐	No ☒

Groundwater and drilling investigation activities

Will any water bores be required and/or water investigation activities (e.g. pump testing, water monitoring sites, water storage, turkey nests/dams) be conducted? If yes, describe the water drilling and investigation activities, including site preparation, vegetation clearance, and safety and maintenance requirements.	Yes ☐	No ☒
No, however open drilholes that are drilled vertical may be used to monitor the depth to water and where suitable obtain a salinity sample. This will occur after the wells have been drilled to enable water levels to stablise. The drillholes will be kept open for a short period prior to being backfilled.		
Indicate if well permits have been obtained and whether or not a water extraction licence is required in accordance with the Landscape South Australia Act 2019. If yes, attach a copy of the permit(s)/licences. If no, provide a statement confirming that permits/licences will be obtained prior to commencement of water investigation activities.	Yes ☐	No ☒
Not required as no monitoring wells proposed.		

Water affecting activities

Will any water affecting activities, other than drilling a water well, be undertaken (refer to s. 127 of the Landscape South Australia Act 2019)? If yes, attach a copy of the permit. If a permit has not been obtained, provide a statement confirming that a water affecting activity permit(s) will be obtained and provide a description of the site preparation, vegetation clearance, and safety and maintenance requirements.	Yes ☐	No ☒

Management of hazardous materials

Will activities be conducted in areas of known uranium and thorium mineralisation? If yes, attach a Radiation Management Plan and confirmation of endorsement of the plan by the Environment Protection Authority South Australia (EPA).	Yes ☐	No ☒
Will any other hazardous material be encountered when exploring in the area? If yes, list the types of hazardous materials and provide a management plan on how these materials will be managed.	Yes ☐	No ☒
Not Applicable – rock material is benign and does not contain metallic mineralisation.		

Rehabilitation

Detail all the activities and strategies relating to the remediation of impacts associated with the proposed exploration operations. Completion of rehabilitation must be achieved within 3 months after the expiry of this PEPR.
Upon leaving of the site drillholes will be inspected. Any ground disturbance will be scarified with an excavator and divots filled to ensure a stable land surface consistent with natural topography. Photographs will be taken before leaving the Site at each drillhole location.
State the estimated budget required to rehabilitate impacted sites.
$2,500 for all 5 sites

Vegetation Clearance

Will any area of cleared native vegetation be unrehabilitated after the authorised period?	Yes ☐	No ☒
If yes, provide a description of the vegetation present in the application area, the extent of the proposed vegetation clearance and the likelihood of the presence of threatened flora. Provide this information on a map.		
Not Applicable		
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.		
Not Applicable		

SECTION E – LEASE CONDITIONS

Retention leases

Where the retention lease includes specific conditions that are not environmental outcomes, demonstrate where these have been addressed in the PEPR (if relevant) or demonstrate how otherwise they have or will be complied with.

Not Applicable

SECTION F – MANAGEMENT OF ENVIRONMENTAL IMPACTS

Use the table below (instructions provided) to identify all of the potential environmental, social and economic impact events that are likely to occur as a result of the proposed exploration operations, how each of the identified impacts will be managed, and the residual risk, i.e. the level of risk remaining after implementing control and management strategies. Identified potential impact events should be developed based on the aspects of the environment that may be impacted on and the proposed operational details. Potnetial impact events must have corresponding outcomes and measurement criteria.

Where the terms and conditions of an RL include environmental outcomes, list them (where different) in the table below and complete all sections (ie receptor, potential impacts, control strategies, risk assessment and measurement criteria).

Environmental management – potential impacts/events, outcomes, measurable criteria and monitoring plan

			Likelihood of consequence (LH)				
			1	2	3	4	5
			Rare	Unlikely	Possible	Likely	Almost certain
Severity of consequence (CQ)	A	Insignificant	Low	Low	Low	Low	Low
	B	Minor	Low	Low	Moderate	Moderate	Moderate
	C	Moderate	Moderate	Moderate	High	High	High
	D	Major	High	High	Extreme	Extreme	Extreme
	E	Catastrophic	High	Extreme	Extreme	Extreme	Extreme

How to fill out the table

1. Based on the description of the environment and exploration operations, indicate which potential impacts are applicable to the proposed program. Note that some potential impacts are applicable to all programs.
2. For each applicable potential impact (and corresponding receptor), describe control strategies that will reduce the risk of the potential impact to an acceptable level, and achieve the corresponding environmental outcomes.
3. Conduct an impact assessment to determine if the control strategies address the potential impact (i.e. reduce the risk to an acceptable level). Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level.
4. For each applicable potential impact, the corresponding outcome and outcome measurement criteria are required.
5 Based on the description of the environment and proposed exploration activities, determine if any other potential impacts are applicable. For each new potential impact, describe proposed control and rehabilitation strategies, conduct an impact assessment, and develop corresponding outcomes and outcome measurement criteria.

Use the above matrix to conduct an impact assessment for each potential impact.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
Stakeholders: • freehold land owners • perpetual lease holders • pastoral lease holders • Aboriginal land (Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands) • Department of Defence • state government departments. • local government (councils) • federal government • native title parties.	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.	Yes	- Landowners, DEM and Penrice are aware and informed on the proposed program. - The landowner is the Tenement Holder and will also be present at the 'tool box meeting' at the start of the program. This will provide opportunity to outline expectations and ensure all staff have awareness of landowner expectations.	1	B	Low	**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 compliance report demonstrating that prescribed forms were served and agreements obtained in accordance with the Mining Act prior to the commencement of exploration activities.
Stakeholder: DEW	Interference to: • existing or permissible land use. • buildings, structures, existing tracks or other infrastructure. • aesthetic values of an area. Noncompliance with legislative requirements.	No (Applicable to programs located adjacent to or within parks and reserves.)					**For activities located within or adjacent to regional reserves, national, conservation and marine parks only:** • **no unauthorised interference with park management activities.**	Provide confirmation that: • Park access notification forms were submitted to DEW and DEM at least 10 days prior to entry into regional reserves, national, conservation and marine parks, or • Program notifications for PEPRs approved for an ongoing period of time, were submitted to DEW and the DEM at least 21 days prior to entry into regional reserves, national, conservation and marine parks.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
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.	*Yes*	Drilling will occur on highly modified grazing land and old vineyard area generally bare of native vegetation. Extensive sheep crop the paddocks which keeps vegetation to a minimum. Access to drillholes will be by formed roads or where required, traverse through grazed fields / old vineyard areas. Should any localised native vegetation be present at sites of drilling, the drill sites will be moved to a more suitable location outside of the rig working area. This will avoid potential impacts from drilling and field vehicles.	*1*	*B*	*Low*	**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.**	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.
All flora and fauna, especially listed species.	Loss/modification of the environment (biological, social and economic) through the introduction of weeds and pathogens.	Yes (Applicable to all programs.)	The drilling rig will be cleaned prior to arrival onsite. The rig will be inspected between drillholes to remove residual soil or seeds. All vehicles will be inspected prior to entering site to ensure that they are clean and suitable for site. The exploratory works will occur over a short period (very likely <1 week)	*1*	*B*	*Low*	**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 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.
All fauna	Entrapment of fauna through open drillholes and excavations.	Yes (Applicable to exploration programs that involve drilling and/or require excavations.)	The likelihood of entrapment is very low. Drillholes will be narrow in diameter (<140 mm), and will be backfilled a short time after drilling. Where drillholes are to be left open for a short period, caps or plugs will be placed at the surface.	*1*	*B*	*Low*	**No fauna traps created as a result of exploration activities.**	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 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.
Aboriginal heritage sites	Disturbance to Aboriginal heritage.	Yes, but very unlikely (Applicable to all programs.)	The exact location of drillholes allows some flexibility, and thus, if any artefacts are found, the site will be moved to an alternative location (for example, 10 m from the preferred location). Hence no credible impacts are possible. As stated above, a search undertaken by the Department of State Development Aboriginal Affairs and Reconciliation (DSD AAR) of the Central Archive including the Register of Aboriginal Heritage Sites and Objects has no entries for Aboriginal sites in relation to the Site search area (within one (1) km of the Site).				**No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained.**	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 during the exploration program were appropriately recorded and reported to authorities, if not previously known.
European heritage sites and sites of scientific and environmental significance	Disturbance to European heritage sites and sites of scientific and environmental significance (e.g. geological monuments, fossil reserves).	No (Applicable to exploration programs located close to or within European heritage sites and sites of scientific and environmental significance.)					**No disturbance to European heritage sites and to sites of scientific and environmental significance unless prior approval under the relevant legislation is obtained.**	Demonstrate no impact to heritage sites and sites of scientific and environmental significance by: • Maintaining evidence, including detailed maps showing sites compared to the location of exploration activities, and photographic evidence of sites before and after the conduct of the exploration program. • Providing a statement within the annual exploration compliance report confirming sites were not impacted during the conduct of the exploration program.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
Soil/vegetation/fauna	Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, ablutions, other sources).	Yes (Applicable to all programs.)	Rubbish generated from site is expected to be minimal, as no drilling additivies are required to support drilling. Any general waste (food scraps, drink containers etc) will be placed in temporary bins and removed from Site, consistent with the practise at the adjacent quarry. The project manager will inspect the site before leaving and ensure any residual waste (rubbish) is removed. Drillhole cuttings will be used to backfill drillholes to ground level (collar). Any remaining soil will be removed by the driller and disposed of at an accredited facility, noting the materials are benign and do not contain contamination from previous ground disturbance or metallic mineralisation. That noted, the operator will have a dedicated spill kit on hand and able to be utilised in the event of a spill and therefore minimise the risk of any contamination to soil. The photos provided highlight that there is minimal soil profile and the area is largely rock outcrop where drilling will be taking place. The rig will be regularly inspected during drilling for hydrocarbon leaks. If any are identified affected soils will be scraped and disposed to an accredited facility. No chemicals will be stored at site throughout the duration of the program.	*2*	*B*	*Low*	**No contamination of soil and vegetation as a result of exploration activities.**	Demonstrate that all domestic or industrial waste (includes general rubbish and hydrocarbons) is disposed of in accordance with the *Environment Protection Act 1993* within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), and that all fuel and chemicals are stored in accordance with EPA requirements, by providing: • 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 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 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.
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).	Yes (Applicable to all programs.)	The drilling will involve minimal disturbance to the soil profile and topography, due to the nature of the existing surface (hard, rocky, grass cover), the programs' small footprint and short program duration. Drillhole cuttings will be used to backfill drillholes to ground level, or to slightly raised above the land surface. Any remaining soil will be removed by the driller and disposed of at an accredited facility, noting the materials are benign and do not contain contamination from previous ground disturbance or metallic mineralisation. Drillholes will be abandoned post drilling to ensure a stable land surface and so as not to encourage any surface erosion from surface water runoff.	*2*	*B*	*Low*	**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 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 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.
Surface water	Alteration to surface water – interference to surface drainage.	No (Applicable to exploration programs that are likely to impact on surface drainage channels.)					**No permanent modification to hydrological features caused by exploration activities without obtaining a water affecting permit from the relevant Landscape Board (under Landscapes Act SA 2019).**	Provide before, during and after photographic evidence within the annual exploration compliance report demonstrating that original drainage contours (watercourses and lakes) are consistent with the natural relief post rehabilitation 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). Alternatively, provide copies of water affecting permits within the annual exploration compliance report.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
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).	*Yes* (Applicable to all exploration programs that may intersect groundwater.)	Drillholes will be abandoned post drilling to ensure a stable land surface and avoid preferential flow into the drillhole from overland flow. This will occur by ensuring the drillhole is level with or slightly raised above the land surface. Any leaks or spills from the drilling rig will be rectified immediately to avoid any inadvertence leak of hydrocarbons directly down drillholes. Spill kits will be available via the driller to contain any leaks. Drillholes and their footprint will be photographed prior to leaving site to demonstrate compliance with adjacent outcomes. Other impacts to groundwater are highly unlikely as: - water levels are anticipated at 10 to 30 m below ground surface. Very low potential for artesian conditions. - Aquifers are consistent with a single unconfined aquifer (fractured rock), and hence, interaquifer connection not likely. The drillholes will be open for a very short period prior to backfilling. In the (very unlikely) circumstance that the drillholes encounter flowing artesian conditions, the drillholes will be backfilled with grout per information sheet 21, or a permit will be sought from DEW to convert the drillhole to a water well if the proponent wishes to retain a groundwater monitoring well.	*2*	*B*	*Low*	**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.**	Maintain evidence demonstrating that drillholes are decommissioned in accordance with Earth Resources Information Sheet M21, *Mineral exploration drillholes – general specifications for construction and backfilling*, and/or specific conditions from DEW (Groundwater) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the 'Groundwater' section of the annual exploration compliance report.
Soil/vegetation/fauna	Discharge of groundwater into the surrounding environment.	*Yes* (Applicable to all exploration programs that may intersect groundwater or where activities require the discharge of groundwater into the surrounding environment.)	RAB drilling may intersect groundwater at water cuts within the fractured bedrock. This could result in water being produced at the surface as the air will lift cuttings and water out of the drillhole. Should this occur the following will be conducted: - Water will be directed to a suitable area away from native vegetation. The best method for containment will be evaluated prior to drilling commencing. Any large flows will be slowed using hay bails to encounrage infiltration into the ground surface. The quality of the groundwater in the fractured rock aquifer based on chemistry make up on the adjacent sites, in unlikely create any risk of environmental harm or contamination, should it be released. Hence no sumps are proposed to be used for water management during the drilling program.	*3*	B	*Low*	**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.**	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.
Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	(Applicable to all exploration programs that may require the use of water from existing dams, water bores or mineral drillholes.)	Not applicable. Where water is required for drilling this will be trucked in to site.	*1*	*A*	*Low*	**No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained.**	Provide the information requested within the 'Complaints' section of the annual exploration compliance report demonstrating that all reasonable complaints from stakeholders were resolved to the satisfaction of both parties, prior to and ongoing during the course of the exploration program without the involvement of DEM. Where permits are required for the extraction and/or usage of groundwater, provide copies of the licence or permit within the annual exploration compliance report.
Soil/vegetation/fauna	Degradation of rehabilitated access tracks caused by third party access (includes previously closed and rehabilitated access tracks).	*Yes* (Applicable to exploration programs that create new access tracks.)	No new or defined access tracks are required. Drillholes 1, 2, 3, 4 and 5 are located less than 50 metres away from the existing track. These tracks are well formed and stable and are not expected to erode or be damaged by traverse of the drill rig. Routes from the track to the drill hole location are stable wih low lying rocks, and are also expected not to be impacted by traverse of the drill rig. No dedicated track formation or grading is needed at any of the drill sites. Photographs will be obtained of the drilling sites prior to leaving site.	*2*	*B*	*Low*	**Rehabilitated access tracks remain permanently closed, unless prior approval under the relevant legislation is obtained.**	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.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
								Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.
Community/landowners	Damage to infrastructure and loss of income through fire.	Yes (Applicable to all programs.)	This outcome is unlikely. • Drilling occurring throughout cooler conditions • Water on hand if required to control any ignitions, plus driller has automatic shut down on rig and fire extinguishers at points around the rig. Support vehicles also have fire extinguishers. • The drilling will occur with a number of drilling staff (driller, off-sider, supervisor) A number of hands will be available should an ignition source be identified. • No drilling will occur on total fire ban days, should this occur. No ignition source that cannot be remedied in the event of ignition.	*2*	*B*	*Low*	**No loss of infrastructure or income through fire as a result of exploration activities.**	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.
General public	Injury or death to members of the public as a result of exploration activities.	Yes (Applicable to all programs.)	Whlist the outcome would be catastrophic (in the case of death), this is very unlikely to occur. Drilling is a well established process and the drillers operate under a environmental, health and safety plan. The risk can be justified in that: • Any non-inducted 3rd parties will not be allowed to entry to the designated drilling area, as marked by cones around the drilling rig. Any access to the Site will occur by inducted parties only. • Access gates will be locked throughout and at completion of daily drilling activities • Excavations at the drillholes are not large enough to allow entry of animals or humans, and will be backfilled a short period after drilling. • No other support activities (excavations, heavy machinery) will be present during drilling. • The Site is private property, with an inactive sand quarry approximately 200 metres North of the drilling location. • Drilling operators are trained and have adequate emergency procedures in place, should a member of the public approach the rig in an unexpected manner. The Drilling Supervisor will manage the drill site and alert members of the public to avoid the work area.	*1*	*E*	*High*	**No accidents involving the public that could have been reasonably prevented by the licensee.**	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming no accidents occurred involving the public during and after the exploration program. If an accident involving the public did occur, provide a copy of the independent investigation report within the annual exploration compliance report demonstrating that the licensee could not have reasonably prevented the accident through the implementation of precautionary measures.
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.	*No* (Applicable to exploration programs located within known uranium or thorium deposits.)					**No increase in background radiation levels, and employee/contractor exposure levels during the exploration program are within safe limits.**	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.

* Uncontrolled fires = fires that escape outside of the work area (e.g. drillsite).

† Properties = freehold (cropping and grazing land); perpetual/pastoral lease land; council land; regional reserves; national, conservation and marine parks; Aboriginal land; Commonwealth land etc.

SECTION G - OPERATOR CAPABILITY

Provide information demonstrating that the tenement holder and operator (where applicable) has the capability to conduct the program in a manner that consistently ensures ongoing achievement of the environmental outcomes. This may be demonstrated within the PEPR by providing an overview of the following:

- Manuals or standard operating procedures that outline the safe and environmentally sound operation of all critical operations associated with the exploration program that ensure compliance with the PEPR.
- Systems in place to monitor, audit and assess compliance against the criteria approved in the PEPR.
- Systems in place to identify and report any noncompliance with regulatory requirements or relevant environmental outcomes (e.g. measures in place to report incidents in accordance with regulation 79(3)).
- Practices and procedures in place to provide appropriate communication of regulatory requirements to employees and contractors (e.g. induction programs).
- Practices and procedures in place to respond to, and communicate with landowners and external parties on the proposed program and compliance matters (e.g. complaints)

PQM is the operator of the Site and forms part of the ASX 100 listed Adbri Company. Adbri hold the number four (4) position in the concrete and aggregates market in Australia with operations extending across South Australia, Victoria, Northern Territory, New South Wales and Queensland.

The Site is subject to the requirements of the Adbri Concrete and Aggregates Safety Management System (SMS). The SMS provides Health, Safety and Environment policies and procedures outlining standards relating to Work, Health and Safety and Environmental matters. The SMS outlines responsibilities, procedures and actions required of employees and contractors and is certified to *AS/NZS ISO 9001:2008 Quality management systems* and *AS/NZS 4801:2001 Occupational health and safety management systems*.

Site personnel are required to report any incident, accident, injury / near miss and/or third-party complaints to their Manager / Supervisor as soon as possible after the occurrence. Incidents and complaints are submitted to management using the Adbri Incident Report form to the Quarry Manager within 24 hours of the event. The incident is then entered in to Cintellate (Online reporting system). Incidents are investigated and where necessary reported to the relevant regulating authority.

Complaints are acknowledged within 48 hours and closed out within seven (7) days or as soon as reasonably practicable. Outcomes of investigations are typically provided to the complainant as soon as reasonably practicable.

The Quarry Manager is responsible for operations onsite with the support of the Quarry Operations Manager, Health and Safety staff, engineers and advisors. Regular review and auditing of the SMS by the Health, Safety and Environment (HSE) Manager and Quarry Manager ensures the Site complies with relevant legislative requirements and the objectives and criteria commitments made in this document.

SECTION H –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.

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

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments

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.

<Attach maps here.>

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.

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 20-May-2024

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	31
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	16
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	3
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Iron-grass Natural Temperate Grassland of South Australia	Critically Endangered	Community may occur within area	In feature area
Peppermint Box (Eucalyptus odorata) Grassy Woodland of South Australia	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat may occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Polytelis anthopeplus monarchoides Regent Parrot (eastern) [59612]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
Zoothera lunulata halmaturina South Australian Bassian Thrush, Western Bassian Thrush [67121]	Endangered	Species or species habitat may occur within area	In feature area
FROG			
Litoria raniformis Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
[Acacia menzelii](#) Menzel's Wattle [9218]	Vulnerable	Species or species habitat may occur within area	In feature area
[Caladenia argocalla](#) White-beauty Spider-orchid [54991]	Endangered	Species or species habitat may occur within area	In buffer area only
[Caladenia concolor](#) Crimson Spider-orchid, Maroon Spider-orchid [5505]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Caladenia tensa](#) Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat likely to occur within area	In feature area
[Dodonaea procumbens](#) Trailing Hop-bush [12149]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Dodonaea subglandulifera](#) Peep Hill Hop-bush [11956]	Endangered	Species or species habitat may occur within area	In buffer area only
[Euphrasia collina subsp. osbornii](#) Osborn's Eyebright [3684]	Endangered	Species or species habitat may occur within area	In feature area
[Glycine latrobeana](#) Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Olearia pannosa subsp. pannosa](#) Silver Daisy-bush, Silver-leaved Daisy, Velvet Daisy-bush [12348]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Prasophyllum pallidum](#) Pale Leek-orchid [20351]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat may occur within area	In feature area
Swainsona pyrophila Yellow Swainson-pea [56344]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			
Aprasia pseudopulchella Flinders Ranges Worm-lizard [1666]	Vulnerable	Species or species habitat may occur within area	In feature area
Tiliqua adelaidensis Pygmy Blue-tongue Lizard, Adelaide Blue-tongue Lizard [1270]	Endangered	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat may occur within area overfly marine area	In feature area
[Neophema chrysostoma](#) Blue-winged Parrot [726]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Drillhole Locations
GDA94 / MGA54

Hole	Easting	Northing	Elevation (m)	Azimuth (TN °)	Dip (°)	Depth (m)
1	321076.94	6183936.10	342.8	113	60	120
2	321149.21	6183974.59	348.5	113	60	120
3	321224.11	6184011.28	350.5	113	60	120
4	321228.25	6184081.39	340.2	113	60	120
5	321282.80	6184141.00	334.1	113	60	120

Legend:
- Cadastral boundary
- Private mine
- Retention lease
- 2003 observed limestone outcrop
- Interpreted limestone body
- Proposed 2024 RC drillhole (high priority)
- Proposed 2024 RC drillhole (low priority)
- 2023 RC drillhole
- 2003 PC drillhole

E 321300m E 321450m E 321600m
N 6184500 m N 6184350 m N 6184200 m N 6184050 m N 6183900 m
CT 5546 /12 F173362 A271
CT 5270 /255 F6921 A3
CT 5118 /149 F102165 A8
CT 5902 /907 F173367 A276
CT 5902 /908 F173368 A277
CT 6178 /664 F174519 A91
CT 5704 /431 F174927 A93
RL 109
Kalimna Rd
PM 120
PRC23-04
PRC23-03
PRC23-02
PRC23-01
RC169
RC168
RC171
RC177
RC170
1
2
3
4
5
E 321000m E 321150m E 321300m E 321450m E 321600m

FILE NAME: Z:\Shared\Data\Jobs\1700\1767 Penrice Quarry Mineral Pennice\Drawings\Drawing\1767.DRG.160 2024 RL 109 RC Drillhole Location Plan.dwg
JOB SUB #:
CREATED: 29 May 2024

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: Groundwork Plus Pty Ltd RPA Survey, 2022-05-12. © 2022 Nearmap, 2022-03-09
Topography: © The Government of South Australia, 2021, LiDAR 50cm
Cadastre: © The Government of South Australia (SARIG), 2020
Ecosystem:
Other:

PROJECT: Penrice
CLIENT: Penrice Quarry & Mineral
TITLE: 2024 RL 109 RC Drillhole Location Plan

GROUNDWORK plus
PH: +61 7 3871 0411
WWW.GROUNDWORK.COM.AU

SCALE: 1:2,500 When Printed On A3 (0 – 50m)
DRAWING NUMBER: 1767.DRG.160
REVISION:
DATE: 29 May 2024 DRAWN: JHV
PRINTED: 29 May 2024 CHECKED: TL
DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54

321200E

321600E

6184000N

6184000N

CT5270/265
F6921 A3

CT5240/2
F6921 A4

WAECHTERSROAD

EML 6138

EML 6504

CT5902/907
F173367 A276

CT5902/908
F173368 A277

CT5118/149
F102165 A8

RL 109

CT6178/664
F174519 A91

KALIMNAROAD

CT5829/256
F172773 A512

CT6067/137
D84691 A50

PM 120

CT5704/431
F174521 A93

CT5320/771
F170490 A91

321200E

321600E

REV	DESCRIPTION	DATE	BY
1	Amended for 2024 additional drill holes	22/05/2024	EM

Data Sources:
Photography: Google Satilite Imagery - accessed 24 November 2021
Topography:
Cadastre: Data.sa.gov.au:Boundaries are Indicative only, not all boundaries shown
Ecosystem:
Other: SARIG, 2021

Legend:
- Retention Leases
- Site Access Route
- Gate
- 2023 Drill Holes
- 2024 Additional drill points

N

PROJECT: Penrice RL109

CLIENT: Penrice Quarry & Mineral

TITLE: RL 109 Drill Hole Site Access Map

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WWW.GROUNDWORKPLUS.COM.AU

SCALE: 1:2,000 When Printed On A3 (0 10 20 30 40 m)

DRAWING NUMBER: 1767.DRG.124

REVISION: 1

DATE: 22-May-2024 DRAWN: EM

PRINTED: 22-May-2024 CHECKED: JR

DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54

EPSG:7854

320000E 321000E 322000E

6185000N 6184000N

CT5337/87 F171538 Q102
CT5337/87 F171538 Q103
CT5845/439 R194 AB
CT5347/338 F171536 A100
CT5578/167 F173361 A270
CT5546/12 F173362 A271
CT5270/265 F6921 A3
CT5240/2 F6921 A4
CT5829/256 F172773 A512
CT5320/771 F170490 A91
CT5276/62 F32532 A10
CT5810/359 F173369 A278
CT5902/907 F173367 A276
CT5902/909 F173370 A279
CT5902/908 F173368 A277
CT5118/149 F102165 A8
CT6178/664 F174519 A91
CT5704/431 F174521 A93
CT6067/137 D84691 A50
CT5788/456 F174520 A92
CT5189/572 F107916 A4
CT5948/407 F108215 A18

672901434 WW
672901649 WW
672900884 WW
6729008 WW

Adbri Cement Ltd
Mario Calabria
Carol Bray

PRC23-01
PRC23-02
PRC23-03
PRC23-04

RL 109

1 2 3 4 5

Legend:
- 2024 Additional drill points
- Retention Leases
- Cadastral
- Powerlines
- 150m powerlines buffer
- Waterbody
- Drill hole residences
- 2023 Drill Hole locations

REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: Google Satillite Imagery - accessed 24 November 2021
Topography:
Cadastre: Data.sa.gov.au;Boundaries are Indicative only, not all boundaries shown
Ecosystem:
Other: SARIG, 2021

N

PROJECT: Penrice RL109

CLIENT: Penrice Quarry & Mineral

TITLE: RL 109 Drill Hole Exempt Land Map

GROUNDWORK PART OF SLR
PH +61 3871 0411
WWW.GROUNDWORKPLUS.COM.AU

SCALE: 1:7,000 When Printed On A3 (0 30 60 90 120 m)
DRAWING NUMBER: 1767.DRG.122
REVISION: 1
DATE: 29-May-2024 DRAWN: EP
PRINTED: 29-May-2024 CHECKED: JR
DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54
EPSG:7854

321000E 321500E 322000E

6184500N

672901434 WW

PM 102

EML 4695

EML 6136

EML 6504

WAECHTERSROAD

SEELANDERSROAD

RL 109

5 4 3 2 1

672900984 WW

672901649 WW

672900884 WW

672900885 WW

KALIMNAROAD

KALIMNAROAD

PM 120

MOCULTAROAD

6184000N

321000E 321500E 322000E

REV	DESCRIPTION	DATE	BY
1	Added new drillholes and updated actual drillhole locations.	22/05/2024	EM

Data Sources:
Photography: Google Satilite Imagery - Accessed 20 May 2024
Topography:
Cadastre: Data.sa.gov.au,Boundaries are Indicative only, not all boundaries shown
Ecosystem:
Other: SARIG, 2024

Legend:
- Retention Leases
- Powerlines
- Structure over $2,500
- Residences
- 2023 Drill Hole actual locations
- 2024 Additional drill points
- Water Wells
- Waterbody

N

PROJECT: Penrice RL 109

CLIENT: Adbri Quarries

TITLE: RL 109 Proximity to Infrastructure and Housing

GROUNDWORK PART OF SLR
PH +61 3871 0411
WWW.GROUNDWORKPLUS.COM.AU

SCALE: 1:5,000 When Printed On A3 (0 20 40 60 80 m)

DRAWING NUMBER: 1767.DRG.123

REVISION: 1

DATE: 22-May-2024 DRAWN: EM

PRINTED: 22-May-2024 CHECKED: JR

DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54 EPSG:7854

321000E
321500E
322000E
6184500N
6184000N
EML 6136
EML 4695
EML 6504
PM 102
RL 109
PM 120
WAECHTERSROAD
KALIMNAROAD
KALIMNAROAD
SEELANDERSROAD
MOCULTAROAD

REV	DESCRIPTION	DATE	BY
1	2024 Additional drillhole locations added	22/05/2024	EM

Data Sources:
Photography: Google Satilite Imagery - accessed 24 November 2021
Topography:
Cadastre: Data.sa.gov.au,Boundaries are Indicative only, not all boundaries shown
Ecosystem:
Other: SARIG, 2021

Legend:
- Retention Leases
- Watercourses
- Terrestrial vegetation (high potential as a GDE)
- Cadastral Boundaries
- 2023 Drill Hole Locations
- 2024 Additional Drill Hole Locations

N

PROJECT: Penrice RL 109

CLIENT: Penrice Quarry & Mineral

TITLE: RL 109 Drill Hole Proximity to Surface Water and Vegetation

GROUNDWORK plus
PH +61 3871 0411
WWW.GROUNDWORKPLUS.COM.AU

SCALE: 1:5,000 When Printed On A3 (0 20 40 60 80 m)
DRAWING NUMBER: 1767.DRG.125
REVISION: 1
DATE: 22-May-2024 DRAWN: EP
PRINTED: 22-May-2024 CHECKED: JR
DATUM: HORIZONTAL / VERTICAL / ZONE: MGA / AHD / 54
EPSG:7854