Government of South Australia
Department for Energy and Mining

5 February 2025

Mr David Clarke
Chairman
Hamelin Gully Pty Ltd
9 Curly Hollow Road
WHITE HUT SA 5575

dclarke@curlybush.com

Dear Mr Clarke,

**Approval Notification - Exploration Program for Environment Protection and Rehabilitation (EPEPR2024-031) EL6009, EL6646**

The program for EL6009 and EL6646, final version submitted on 22 January 2025 to conduct an 18 diamond drill hole program at Manna Hill Project (Dodd Hill, Golden Sophia, and Blue Rose Prospects), 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 licensee 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 licensee 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 licence 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 licence conditions, remains at all times with the licensee.

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 Daniel Podger on 8429 2618 / Jason Perry on 8177 3413 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 | EL 6009, EL 6646 | | | |
| Tenement holder(s) (for each tenement) | Hamelin Gully Pty Ltd | | | |
| Operating company | Hamelin Gully Pty Ltd | | | |
| Agency agreement (if applicable) | EPEPR Submitted by Sarah Blieschke from Teneman Consulting – Agent Agreement in place and registered with the DEM on 06/12/2021 50761 Registerable Dealing | | | |
| PEPR prepared by | Sarah Blieschke, Teneman Consulting, 0405362457<br>Robert Blythman, Exploration Manager Wombat Geoscience, 0451087351 | | | |
| Project supervisor/contact person(s) | Robert Blythman, Exploration Manager, LAM Mob: 0451 087 351<br>A geology professional with 15 years experience gained across exploration, resource definition and mining operations. Experienced in exploration regulatory approvals, exploration and project management in Uranium, gold and base metal projects. | | | |
| Project/prospect name | Manna Hill Project, Dodd Hill Golden Sophia, and Blue Rose Prospects. | | | |
| Location details | Yunta area approximately 20km south east of Manna Hill. | | | |
| Project description, commodity type and mineralisation model | This program is focused on the progression of a Carlin style gold mineralisation model at Golden Sophia, stratabound gold mineralisation model at Dodd Hill and oxide porphyry copper gold style mineralisation at Blue Rose. A drill program comprising 6 holes at Dodd Hill, with a maximum depth of 200m, 6 holes at Luron, Golden Sophia and Esmonde with a maximum depth of 300m and 6 holes at Blue Rose with a maximum depth of 500m for a total of 6000m. The drilling is based on the follow up of historic drill results and surface sampling and has been designed to verify the historic results and increase confidence in the orientation of mineralisation. | | | |
| Proposed project schedule | Start date | 01/02/2025 | End date | 31/01/2026 |

## 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/revised PEPR to ensure its accuracy.

| | | | |
|---|---|---|---|
| Name | David Clarke | Signature (digital allowed) | DBClarke |
| Position | Director/Secretary | Date | 22/01/2025 |

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.

Dodd Hill:

Transect surface sampling of Dodd Hill has increased the confidence in the geometry of gold mineralisation to the point where drilling is the next logical step to progress the prospect. Previous drilling has been only partially successful in intersecting the mineralised gold horizons.

Luron, Golden Sophia and Esmonde: A review of historic drilling and geophysics has determined that both the Carlin style and gold porphyry styles of mineralisation have potential at Luron and Golden Sophia Esmonde sampling has indicated potential for structural continuity of gold mineralisation from Luron through this prospect.

Blue Rose: recent XRF scanning and spectral interpretation of Blue Rose samples has highlighted the quality of this skarn and porphyry copper-gold target.

A desktop review of historic data was conducted through data available via the SARIG portal for geology and historic exploration undertaken. Additional data was collected in the field over the last 12 months via field surface sampling at Golden Sophia to verify the prospectivity of the areas.

Drilling contractors have been consulted in the preparation of the EPEPR proposal. The drill contractor, GMP Drilling of Koorlong, Victoria, is an experienced and well-regarded drill company with experience in diamond drilling methods and conducting drill programs on pastoral leases within South Australia.

Landholders have been contacted prior to the preparation of this EPEPR for previous low impact exploration programs, in addition, notices of entry have been served regarding the exploration not covered by the generic, low impact EPEPR. More recently, contact has been made to discuss the proposed diamond drilling in addition to other ongoing low impact exploration and Native Title Clearance programs.

The Outback Communities Authority was contacted regarding general details of the drill program, (services access, waste disposal etc.)

The use of the Naturemaps information portal, Water Connect and the BOM GDE atlas were used in the collation and interpretation of environmental data.

Native Title cadastral information was obtained from the National Native Titel Tribunal ARCGIS feature server.

### 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).

| 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 |
|---|---|---|---|---|---|---|---|---|
| EL 6009 | Jim and Jenny Treloar - Wadnaminga | Pastoral Lease | Grazing | 14/09/2023 | NA | NA | *NA* | *New notice of entry documents issued to Jim and Jenny – no issues have been raised. Jim is always interested in the process and will be updated as progress is made towards the start of the program David Clarke has been in regular contact with the Treloars on previous low impact exploration programs and they maintain an excellent relationship.*<br>*August 2024 – contact was made to discuss proposed diamond drilling program and availability of water. The preference is to obtain water from Yunta and not the station. No other concerns raised*<br><br>*September 2024 Feedback from Jason Perry at DEM to discuss the program with Jim and Jenny in more detail based on their concerns not communicated to us initially. We provided a summary of communications during 2024 to highlight our attempts at communicating our exploration program plans with them which they were satisfied with.* |
| EL 6009 | Jimmy Smith - Devonborough Downs | Pastoral Lease | Grazing | 05/10/2023 | NA | NA | *NA* | *New notice of entry documents issued to Jimmy – no issues have been raised. David Clarke has been in contact with the Jimmy on previous low impact exploration programs and they maintain an excellent relationship.* |
| EL 6009 | Maurice and Janet France - Oulnina and Benda Station | Pastoral Lease | Grazing | 14/09/2023 | NA | NA | *NA* | *New notice of entry documents issued to Maurice and Janet – no issues have been raised. David Clarke has been in regular contact with the Francis's on previous low impact exploration programs and they maintain an excellent relationship.*<br>*Grant and Georgie Francis are now managing the station - August 2024 – contact was made to discuss proposed diamond drilling program and availability of water. The preference is to obtain water from Yunta and not the station. No other concerns raised.* |
| EL 6646 | Maurice and Janet Francis - Oulnina and Benda Station | Pastoral Lease | Grazing | 14/09/2023 | NA | NA | *NA* | *As above* |

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

<Include text here.>

Provide any additional relevant information.

| |
|---|
| <Include text here.> |

## 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.

See Figures 1 and 3-6.

The closest locality to proposed activities at Dodd Hill is Manna Hill, approximately 16km S of Manna Hill on the Barrier Highway

The closest locality to proposed activities at Luron - Golden Sophia - Esmonde is Manna Hill, approximately 35km SE of Manna Hill on the Barrier Highway and 30km south of Olary on the Barrier Highway.

The closest locality to activities at Blue Rose is Manna Hill, approximately 35km SE from Manna Hill on the Barrier Highway

### 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 | ☐ |
| N/A | |
| Other* | ☐ |
| N/A | |

| 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 | ☐ |
| N/A | |
| *European heritage sites | ☐ |
| N/A | |
| *Other (e.g. historic mining) | |
| N/A | |

* 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.

| |
|---|
| nil |

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

| |
|---|
| nil |

Provide any additional relevant information.

| |
|---|
| nil |

### 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? | | | | | |
| 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? | | | | | |
| 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 ☒ |
| N/A | | |
| Do you have a Deed of Access with Defence? | Yes ☐ | No ☒ |
| What is the expiry date of the Deed of Access? | | |
| Provide the date the Range Control Officer granted access permission to conduct the proposed exploration operations.<br><br>Describe the results of consultation and how any concerns raised were addressed. | | |
| 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 ☐ | Wilyakali | 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?*<br>Yes ☒ No ☐ | EL's 6009, 6046 and 6646<br>52056 Agreement – Endorsed 12/12/2022 |
| Have you accepted an Indigenous land use agreement (ILUA)? | Yes ☐ No ☒ | Is the ILUA registered?*<br>Yes ☐ No ☐ | <List the tenements covered by the ILUA> |
| Have you obtained ERD Court determination?† | Yes ☐ No ☒ | Is the determination registered?*<br>Yes ☐ No ☐ | <List the tenements covered by the determination> |

* 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.

All areas of work within the scope of this EPER are within the scope of the 2024 clearance (2) outcomes.

## 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.).

The area is within the Olary Ranges region, characterised by north easterly trending low hogback ridges with intermediate, gentle sloping valleys. Annual rainfall is low and unreliable (~200mm annually). Erosion risk is limited due to the skeletal soils on steeper ridges and finer soils on the plains.

## 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.

Soils include shallow loam, red duplex and shallow calcareous earth and vary from skeletal around ridges to more developed within plains. Vegetation includes low woodlands of black oak ( Casuarina cristata), false sandalwood (Myoporum platycarpum), mallee eucalyptus and other trees, with bluebush (Maireana spp) and saltbush (Atriplex spp), with mulga (Acacia aneura), other acacia species, turpentine bush and broom (Eremophila spp), hopbush (Dodonaea s pp ) and Cassia species. The larger channels are bordered by red gums (Eucalyptus camaldulensis). Major ephemeral streams draining to the south are Manunda Creek and Olary Creek; to the north are Whey Whey and Mingary Creeks.

## Surface water

| | | |
|---|---|---|
| Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)?<br>If yes, describe the potential interference and surface water bodies and natural drainage on maps. If no, indicate why. | Yes ☒ | No ☐ |
| Exploration program will be conducted outside of surface water features. Access to drill sites will cross over ephemeral creeks and drainage lines. No constructed or civil modifications of these access ways will be required. Diamond drilling sumps will be prepared at each of the drill locations These sumps will be prepared and closed off as outlined in the Drillhole Construction and Decomissioning section of this application.<br><br>Traversing of creeks is undertaken on existing station tracks and will be kept to a minimum. Where drainage lines are encountered, crossings have been located on flatter, rocky areas to minimise erosion risk where avoiding the drainage lines is not possible. | | |
| Is the program area located within water protection areas defined under the *River Murray Act 2003*?<br>If yes, provide the name(s). | Yes ☐ | No ☒ |
| N/A | | |
| 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 ☒ |
| N/A | | |

## Groundwater

| | | |
|---|---|---|
| Is groundwater likely to be intersected when conducting the exploration program?<br>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.<br>If no, provide evidence or any supporting information demonstrating this. | Yes ☒ | No ☐ |
| The water aquifer over which the target areas lie is described as weathered and fractured rock – Proterozoic sediments – siltstone, limestone, sandstone, dolomite, schist and chert. There are no Prescribed Water Resources Areas, Prescribed Wells Areas or Groundwater Networks within the boundary of the proposed exploration sites subject to this application.<br><br>Groundwater is sourced from the Neoproterozoic (Adelaidean) sediments of the Proterozoic formations associated with the Olary Ranges. Fractured rock, mostly siltstone is the likely source of the aquifers whether overlain by thin Quaternary sediments or not. The aquifer is unconfined and brackish, mostly utilised for stock water. | | |

| **Description of the locality/area where different groundwater conditions may be encountered** |
|---|
| The project work areas are within the non-prescribed groundwater area within the Olary geological area. These areas have not been drilled by the holder with limited publicly available information regarding recent groundwater conditions. Information available is from a few water wells drilled in the area during 1977.<br><br>**Dodd Hill Area**<br>It is expected that groundwater conditions will be greater than 20m with the minimum depth to Standing Water Level (SWL) recorded as 42m from a nearby well at Benda Homestead (Drillhole No. 103944). Generalised stratigraphy is Tarcowie siltstone from surface - possibly drilling into Tapley Hill formation - noting it is not a flat lying formation<br><br>**Golden Sophia, Luron and Esmonde Area**<br>It is expected that groundwater conditions will be deeper with recent drilling intersecting water at approximately 30 vertical m over a number of holes . Two nearby wells, West Knob Well (Drillhole No. 103926) and Wilks Well (Drillhole No. 103927) have a recorded SWL of 6m and 17m respectively. General stratigraphy includes 0-4m cover, Belair subgroup of the Burra group - testing for presence of Anabama Granite at vertical depths of ~200m<br><br>**Blue Rose Area**<br>It is expected that groundwater conditions will be greater than 20m with the minimum SWL in nearby Scotts Bore 09 recorded at 27.2m. Drillhole 104011 in the northern part of the prospect area was drilled to 85m and abandoned and dry in unconsolidated sediments. Turkey Nest Bore (Drillhole 104012), to the West of Drillhole 1014011 had an SWL of 23.1m and made 10.25 litres per hour. General stratigraphy includes cover from 0-58m, Saddleworth formationtesting for Anabama Granite at depths of 250m.<br><br>From recorded wells in the general Olary geological area, the average depth of groundwater was found to be 13m with the majority having poor yields, averaging 0.5 L/s as reported in DEW Report, 2012/01 – *"Technical Report, Non-prescribed groundwater resources assessment – South Australian arid lands natural resources management region, phase 1 – literature and data review"*.<br><br>A discussion of management strategies for encountering groundwater during drilling operations is provided further below. |

**Dodd Hill Area**

| 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 |
|---|---|---|---|---|---|
| Tarcowie Siltstone (siltstone, sandy limestone). | 0 – 300m | Umberatana Group | 30 – 56m | Unconfined fractured rock | *Brackish (average 2190 mg/L). Primary Industries, livestock drinking water.* |

**Golden Sophia Area**

| 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 |
|---|---|---|---|---|---|
| Unconsolidated clay, sand. | 0 – 6m | Pooraka Formation | N/A | Unconfined fractured rock | *Brackish (average 5000 mg/L). Primary Industries, livestock drinking water.* |
| Saddleworth Formation (laminated siltstone) | 6 – 300m | Burra Group | 6 – 17m | Unconfined fractured rock | *Brackish (average 5000 mg/L). Primary Industries, livestock drinking water.* |

**Blue Rose Area**

| 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 |
|---|---|---|---|---|---|
| **Unconsolidated clay, sand.** | 0 – 58m | Pooraka Formation | *N/A* | Unconfined fractured rock | *Brackish (average 5000 mg/L). Primary Industries, livestock drinking water.* |
| Saddleworth Formation **(laminated siltstone)** | 58 – 300m | Burra Group | *6 – 17m* | Unconfined fractured rock | *Brackish (average 5000 mg/L). Primary Industries, livestock drinking water.* |
| Anabama Granite | 300-1000m | Anabama Granite | *N/A* | N/A | *N/A* |

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

**Dodd Hill Area**

All recorded wells in the area have TDS values ranging from 2001 to 9400 (mg/L) when records were taken between 1964 and 1998. Per Schedule 1 – Environmental values of waters from the Environment Protection (Water Quality) policy 2016 – 1.7.2020 these background values indicate potential use for primary industries livestock drinking water.

**Golden Sophia – Luron - Esmonde Area**

All recorded wells in the area have TDS values ranging from 4407 to 8124 (mg/L) when records were taken between 1956 and 1980. Per Schedule 1 – Environmental values of waters from the Environment Protection (Water Quality) policy 2016 – 1.7.2020 these background values indicate potential use for primary industries livestock drinking water. Field testing of water from recent drilling here returned TDS above 9000 mg/L consistently. Water with lower TDS appears to be fault bound. Fault bound fresh water has been the target of bore drilling in the area.

**Blue Rose Area**

All recorded wells in the area have TDS values ranging from 1000 to 6200 (mg/L) when records were taken in 1977 and 2009. Per Schedule 1 – Environmental values of waters from the Environment Protection (Water Quality) policy 2016 – 1.7.2020 these background values indicate potential use for primary industries livestock drinking water.

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

**Dodd Hill Area**

The GDE Atlas shows that there is a low potential for Terrestrial GDE, mostly surrounding rocky outcrops. There is nil potential for Aquatic GDE and there has been no subterranean ecosystem assessment in the area.

**Golden Sophia – Luron – Esmonde Area**

The GDE Atlas shows that there is a low to moderate potential for Terrestrial GDE being mostly associated with minor creek systems. There is nil potential for Aquatic GDE and there has been no subterranean ecosystem assessment in the area.

**Blue Rose Area**

The GDE Atlas shows that there is a low to moderate potential for Terrestrial GDE being mostly associated with minor creek systems. There is nil potential for Aquatic GDE and there has been no subterranean ecosystem assessment in the area.

| Is the proposed program located within a prescribed wells area or prescribed water resource area?<br>If yes, provide the name of the area. | Yes ☐ | No ☒ |
|---|---|---|
| N/A | | |

Provide any additional information, if required.

N/A

## Native vegetation

| Will you be working within areas of native vegetation? If yes, provide the following information:<br>• description of the formation and structure of vegetation in the area (e.g. woodland, shrubland, grassland)<br>• list of the dominant species.<br>If no, indicate why you will not be working within areas of native vegetation? | Yes ☒ | No ☐ |
|---|---|---|
| Native vegetation at the proposed work areas is shown in Figure 9. It sits within the Benda Land system comprised of; hills of summer red mallee and white mallee woodland with lemon-scented grass, silvertails and rock sida; low hills of pearl bluebush low shrubland; plains with pearl bluebush low shrubland with bladder saltbush, blackbush and sugarwood; floodplains of blackbush low shrubland with river red gum creeks. | | |

**Native Vegetation within Pastoral Stations**

For the **Dodd Hill Area,** native vegetation within the pastoral station land subject to exploration activities is predominately Eucalyptus mallee forest and mallee woodland with chenopod shrubland along water courses and patches of tussock grassland in open areas.

For the **Golden Sophia and Blue Rose Areas,** native vegetation within the pastoral land subject to exploration activities is predominately low tussock grassland in open areas with patches of Eucalyptus mallee forest and mallee woodland, low open shrubland along rocky ridges and Casuarina woodland in sandy loam to clay loam plains. Chenopod shrubland dominates water courses and associated alluvial flood plains.

Work areas are heavily grazed, patches of heavier vegetation have been avoided during the planning of the program to avoid impact.

## 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† |
|---|---|---|---|
| The list below has been generated utilising Nature Maps and EPBC Protected Matters Report, generated on 12th August 2023. | | | |
| *Pterostylis xerophila* | Desert Greenhood | Vulnerable | Vulnerable |
| *Codonocarpus pyramidalis* | Slender Bell-fruit, Camel Poison | Endangered | Vulnerable |
| *Acacia carneorum* | Needle Wattle, Dead Finish, Purple-wood Wattle | Vulnerable | Vulnerable |
| *Swainsona murrayana* | Slender Darling-pea, Slender Swainson, Murray Swainson-pea | Vulnerable | Vulnerable |
| *Swainsona fuscoviridis* | Dark Green Swainson-pea | Rare | N/A |
| Refer to Figure 10 for all state and nationally rated flora sites and Figure 10 for the location of sightings for significant flora species within the areas subject to this application. | | | |

* *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*).

There were no significant invasive plant species listed in the EPBC Act Protected Matters Reports generated on 12th August 2023 for the proposed work areas. The NatureMaps Web App does list several sightings of the following invasive species if the search area is widened to include potential access tracks from the Barrier Highway to both the Dodd Hill and Golden Sophia work areas.

- *Opuntia robusta* (Wheel Pear) – Olary township
- *Lycium ferocissimum* (African Boxthorn) – Eringa Park Homestead
- *Tamarix aphylla* (Athel Pine)

## Fauna

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

Listed migratory and invasive species for the Dodd Hill, Golden Sophia, Blue Rose and Constellation work areas are the same and include:

**Native Mammal Species**
*Macropus (Osphranter) robustus* (Euro)
*Macropus (Osphranter) rufus* (Red Kangaroo)
*Macropus fuliginosus* (Western Grey Kangaroo)

**Native Bird Species**
*Dromaius novaehollandiae* (Emu)

**Migratory Marine Birds**
*Apus pacificus* (Fork-tailed Swift)

**Migratory Terrestrial Species**
*Motacilla cinerea* (Grey Wagtail)
*Motacilla flava* (Yellow Wagtail)

**Migratory Wetlands Species**
*Gallinago hardwickii* (Latham's Snipe, Japanese Snipe)
*Actitis hypoleucos* (Common Sandpiper)
*Calidris ferruginea* (Curlew Sandpiper)

*Calidris melanotos* (Pectoral Sandpiper)
*Calidris acuminata* (Sharp-tailed Sandpiper)

**Invasive Mammal Species**
*Capra hircus* (Goat (Feral Goat))

Please refer to the NatureMaps fauna species spreadsheets attached to this application for a full list of all species within each of the target areas and surrounds, and further information regarding occurrences and locations.

## 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.

| Species | Common name | NPW Act rating | EPBC Act rating |
|---|---|---|---|
| The list below has been generated utilising Nature Maps and EPBC Protected Matters Report, generated on 12th August 2023. See Figure 12. | | | |
| *Pedionomus torquatus* | Plains-wanderer | Critically Endangered | Critically Endangered |
| *Calidris ferruginea* | Curlew Sandpiper | Critically Endangered | Critically Endangered |
| *Pezoporus occidentalis* | Night Parrot | Endangered | Endangered |
| *Rostratula australis* | Australian Painted Snipe | Endangered | Endangered |
| *Melanodryas cucullata cucullata* | South-eastern Hooded Robin, Hooded Robin (south-eastern) | N/A | Endangered |
| *Lophochroa leadbeateri leadbeateri* | Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo | N/A | Endangered |
| *Amytornis modestus* | Thick-billed Grasswren | Vulnerable | Vulnerable |
| *Stagonopleura guttata* | Diamond Firetail | N/A | Vulnerable |
| *Neophema chrysostoma* | Blue-winged Parrot | N/A | Vulnerable |
| *Falco hypoleucos* | Grey Falcon | Vulnerable | Vulnerable |
| *Aphelocephala leucopsis* | Southern Whiteface | N/A | Vulnerable |
| *Galaxias rostratus* | Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow | Critically Endangered | Critically Endangered |
| *Petrogale xanthopus xanthopus* | Yellow-footed Rock-wallaby (SA and NSW) | N/A | Vulnerable |
| *Nyctophilus corbeni* | Corben's Long-eared Bat, South-eastern Long-eared Bat | Vulnerable | Vulnerable |
| *Corcorax melanorhamphos* | White-winged Chough | N/A | Rare |

Refer to Map 8 for all state and nationally rated fauna sites where species with a National Rating other than "rated sub species" have been specifically named. For the area, the majority of records relate to *Dromaius novaehollandiae* (Emu), a rated sub species.

For a more detailed map on sightings for each significant fauna species within the areas subject to this application please refer to Map 7 generated from Naturemaps exported data.

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.

### 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 ☒ |
| No environmentally sensitive areas are registered within Naturemaps SA in the EPEPR work areas or nearby. | | |
| Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have. | Yes ☐ | No ☒ |
| No environmentally sensitive areas are registered within Naturemaps SA in the EPEPR work areas | | |
| 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. | | |
| Two Aboriginal Heritage surveys were conducted in 2024. The survey resulted in the clearance of drilling transects and areas across the exploration prospects outlined.<br><br>In addition to the drilling and access tracks cleared, two camp sites and associated sample disposal pit locations were also cleared but will not be used for this program. | | |

## 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 | 2 | Hamelin Gully |
| Land access/environmental | 2 | Hamelin Gully |
| Field assistants/technicians | 2 | Hamelin Gully |
| Drilling crew | 3 | GMP Drilling |
| Site preparation and rehabilitation | 2 | Oulnina Station |
| Other (provide details) | | <Include name and contact details here.> |

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

| Equipment type | Owner/operator | Description/capacity | Activity/purpose |
|---|---|---|---|
| 2 x trayback utes | Hamelin Gully Pty Ltd | Light vehicle for logging, management and rehabilitation | *Core logging / sample management/ rehabilitation* |
| 1x tandem trailer` | Hamelin Gully Pty Ltd | Tandem Trailer | *Sample transport and rehabilitation* |
| Multi D and B Multi35 | GMP Drilling | Track mounted multi purpose drill rig | *Wireline Diamond Drilling (refer photograph 1).* |
| Hanjin CR10 support carrier | GMP Drilling | Track mounted support vehicle | *Hanjin CR10 support carrier and is fitted with a rod handling crane (refer photograph 1.)* |
| 1 trayback ute | GMP Drilling | Support/ Crew vehicle | *Transport for GMP Crew* |
| 1x 4.5 tonne Bobcat (or similar) | Pastoral Leaseholders | Skidsteer loader (bobcat) | *Construction and closure of residue disposal sump (refer photo 2).* |
| 1x x3 tonne excavator | Pastoral Leaseholders | 3-tonne excavator | *Construction and closure of residue disposal sump (refer photo 3).* |
| 1x water cart | Pastoral Leaseholders and/or drill contractor | Water cart for the storage of water | *Used during drilling operations to transport and store water for drilling* |

| | | | |
|---|---|---|---|
| 1x downhole logging truck | Hamelin Gully Pty Ltd or contractor | MR 4wd truck with mounted geophysical logging office and tools. | Downhole geophysical logging of holes |

Provide any additional information, if required.

<Include text here.>

## 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 ☒ |
| N/A | | |

## Drilling activities

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

| Tenement | Drilling type | Maximum number of drillholes | 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) |
|---|---|---|---|---|---|---|---|---|
| EL 6009 | Diamond | 6 | 300 | 2 | 4x1.5x2 | 400 (25mx16m) | 0 | 0 |
| EL 6009 | Diamond | 6 | 500 | 2 | 4x1.5x2 | 400 (25mx16m) | 0 | 0 |
| EL 6646 | Diamond | 6 | 200 | 2 | 4x1.5x2 | 400 (25mx16m) | 0 | 0 |
| **TOTAL** | | **18** | **6000** | **36** | **432** | **7,200** | **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.

Diamond drill pads will be approximately 25m x 16m. Where necessary, drill sites will be cleared with the use of bobcat (blade up) and roller to flatten vegetation, while maintaining rootstock. Two in-ground sumps will be constructed at each drill site in conjunction with above ground mixing tanks. ,. Sumps will be constructed with a 3-tonne excavator and approximately 4m (w) x 2.0m (l) x 1.5m (d) spaced approximately 0.5m apart. Sumps will be used to manage circulating drilling fluids and manage drill cuttings.. The sumps will be lined, in order to prevent fluid from seeping back into the ground. Plastic lining in the sumps will be disposed of at a designated waste facility prior to commencing rehabilitation activities. Topsoil will be separated from lower material adjacent to the excavation.

Diamond drilling within grazing lands will likely require limited vegetation clearing. Site preparation of cropping and grazing lands will be undertaken in accordance with the specific requirements of the landholders, and away from livestock.

Landholders will be consulted on collar locations prior to any drilling. All drilling locations are covered by Native Title work area clearances.

Sump preparation, drilling and rehabilitation will be completed progressively, one prospect (up to 6 holes) at a time.

## 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.

Diamond drillholes will be cased with up to 6m (or more as necessary) of 200mm PVC class 12 pipe installed with a 200mm blade or hammer where necessary. Casing will not be cemented (but may use Driller's A and B foam) and will be fitted with a hole plug after completion to prevent the creation of a fauna trap. Diamond drillholes will be constructed with an HQ or ND diamond bit.

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.

Diamond drillhole casing will not be cemented but may use Driller's A and B foam. Upon completion, casing will be removed (where possible) with the assistance of the drill rig head. Where casing cannot be removed, it will be fitted with a hole plug and buried per Earth Resources Information Sheet M21: Mineral Exploration Drillholes - General specifications for construction and backfilling (upon receipt of sample assays).

Drillholes where casing has successfully been removed will be temporarily plugged between completion and rehabilitation. Drillholes will be backfilled with cuttings or clean fill upon receipt of sample assays. Casing will be capped beneath ground level during rehabilitation. drill cuttings will be contained within the drill sumps, will be backfilled when dry with at least 30cm of cover and the top soil spread back over the surface once backfilled. No confined aquifers have been encountered during drilling in the proposed areas so downhole cement plugs will not be required.

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?<br>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) ($m^2$) |
|---|---|---|---|---|---|---|
| | | | | | | |
| **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.

## 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).

HQ and NQ core will be stored in core trays before being transferred offsite for storage. Cuttings will be retained in drill sumps at each drill site

## Access routes to work areas

| | | |
|---|---|---|
| Will existing tracks require upgrading and/or maintenance?<br>If yes, detail the work required to upgrade/maintain existing tracks. | Yes ☐ | No ☒ |
| Existing tracks are not expected to require maintenance or upgrades. Any unplanned maintenance required will be completed in consultation with the lease holders during and at the completion of the drill program. Previous track maintenance has been completed by each of the landholders for Hamelin Gully during 2024 exploration programs. | | |
| 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 will be required across adjoining Hamelin Gully tenements. Access will be via existing station tracks and will be limited. All station managers have been contacted regarding planned work and consultation will be ongoing throughout the program. | | |
| 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 ☐ |
| Any travel off existing tracks will be undertaken in conjunction with landholder and native title requirements and will be kept to a minimum. Off track travel will be single vehicle file for all staff and contractors. No vegetation clearance will be required. New access routes to the work areas will be overland without excavation to avoid the initiation of erosion.<br><br>A total of up to 4km of new 3m wide overland traverses will be required at Dodd Hill (EL 6009), at Golden Sophia a total of up to 500m of new 3m wide overland traverses will be required, at Blue Rose a total of up to 2km of 3m wide overland tracks will be required. See Figure 5 and 6 for reference. | | |

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. | | |
| Access will be provided at the shearers quarters or station houses at the host pastoral leases. No camping will be required. | | |
| What is the maximum number of personnel requiring accommodation? | 9 | |
| 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. | | |
| N/A | | |
| What will be the total area (ha) of the campsite(s)? | ha | |
| What will be the total area (ha) of vegetation clearance for the campsite? | ha | |
| If vegetation clearance is required, describe the methods used to prepare the site. | | |
| N/A | | |
| Will any excavations be required?<br>If yes, describe the purpose of the excavation and the maximum volume ($m^3$) of material to be excavated. | Yes ☐ | No ☒ |
| N/A | | |
| 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 ☒ |
| N/A | | |

| **Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)** | **Quantity** | **Description/capacity** |
|---|---|---|
| | | *<Tab to add rows.>* |

| **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 ☐ |
| Drilliers equipment will be stored at the shearers quarters area for the duration of the drill program. | | |
| What will be the maximum area (ha) required for the laydown area(s)? | | ha |
| What will be the total area (ha) of vegetation clearance for the site? | | ha |
| If vegetation clearance is required, describe the methods used to prepare the site. | | |
| N/A | | |
| Will any excavations be required? If yes, describe the purpose of the excavation and volume ($m^3$) of material to be excavated. | Yes ☐ | No ☒ |
| N/A | | |

| Proposed infrastructure (includes hydrocarbon and water storage requirements) | Quantity | Description/capacity |
|---|---|---|
| Trailer mounted diesel tank | 2 | *Self-bunded storage tanks designed and built to AS1692 and AS1940 standards stored on a tandem trailer or support vehicle* |
| 18kl water cart for water storage | 1 | *water procured from off site* |

## Other exploration methods and/or ancillary operations

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

## Water supply and management

| | | |
|---|---|---|
| Will camp and/or drilling water be required?<br>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 ☐ |
| Drill contractors will require water during drilling operations. Diamond drilling requires a water cart to be on site. This water will be sourced from SA Water at Yunta or from station water bores if approval is received (this has currently been agreed to be Oulnina Station). Landholders will supply potable water or it will be brought if required.<br><br>Drillholes are not expected to intercept any unmanageable water during the drill program. In ground sumps at drill sites and mixing tanks will be at each drill site to manage water during the drilling program and prevent surface runoff.<br><br>Drillholes are expected to require about 15kl of water per hole (approx. 90kl for each drill stage) Personnel are anticipated to use about 1kl per day at the shearers quarters (approx. 40kl maximum per stage of the drill program)<br><br>Surface water bodies will be avoided during exploration activities. | | |
| Will surface water and/or mineral drillholes be used as a water source/supply?<br>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 ☒ |
| N/A | | |

## 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?<br>If yes, describe the water drilling and investigation activities, including site preparation, vegetation clearance, and safety and maintenance requirements. | Yes ☐ | No ☒ |
| N/A | | |
| 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.<br>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 ☒ |
| N/A | | |

## 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)?<br>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 ☒ |
| N/A | | |

## Management of hazardous materials

| | | |
|---|---|---|
| Will activities be conducted in areas of known uranium and thorium mineralisation?<br>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?<br>If yes, list the types of hazardous materials and provide a management plan on how these materials will be managed. | Yes ☐ | No ☒ |
| N/A | | |

## Rehabilitation

| |
|---|
| Detail all the activities and strategies relating to the remediation of impacts associated with the proposed exploration operations.<br><br>Completion of rehabilitation must be achieved within 3 months after the expiry of this PEPR. |
| Drill sites will take advantage of natural clearings where possible and be moved to avoid significant trees.<br><br>Plastic ground sheeting will be used underneath the drill rig to contain potential any surface contamination for disposal.<br><br>Drillhole casing will consist of up to 6m of 150mm PVC class 12 pipe Casing will not be cemented (but may use Driller's A and B foam) and will be capped beneath ground level upon rehabilitation. Casing will also be fitted with a hole plug between the completion of drillholes and rehabilitation (upon receipt of assay results).<br><br>Diamond core will be place in core trays and transported off site.<br><br>Plastic ground-sheeting and any rubbish will be removed from site during and at the completion of drillholes and disposed of at a registered disposal facility.<br><br>During rehabilitation, clean fill will be used to fill ensure that the drill holes is completely backfilled. Casing (unable to be extracted is) capped below ground level per ISM21 Mineral Exploration Drillholes – General specifications for construction and backfilling. |
| State the estimated budget required to rehabilitate impacted sites. |
| **Indicative cost estimates are:**<br>$6,000 for each stage of drilling based on 2024 rehabilitation costs for a total of $18,000 for all rehabilitation - plus provision for overland travelrehabilitation of $5,000 for a total of $23,000<br><br>Drillholes will be completely backfilled and plugged, in accordance with ISM21 Mineral Exploration Drillholes – General specifications for construction and backfilling. |

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

## 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.

| |
|---|
| N/A |

## 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**<br>Lists are not exhaustive. | **Potential impacts**<br>Lists are not exhaustive. | **Is the potential impact applicable (Yes/No)**<br>Some potential impacts are applicable to all programs. | **Control strategies**<br>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**<br>LH = likelihood of consequence<br>CQ = severity of consequence<br>**LH** | **CQ** | **Risk** | | |
| Stakeholders:<br>• freehold land owners<br>• perpetual lease holders<br>• pastoral lease holders<br>• Aboriginal land (Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands)<br>• Department of Defence<br>• state government departments.<br>• local government (councils)<br>• federal government<br>• native title parties. | Interference to:<br>• existing or permissible land use (includes loss of income, noise, dust, light and other emissions).<br>• buildings, structures, existing tracks or other infrastructure.<br>• aesthetic values of an area.<br><br>Noncompliance with legislative requirements. | Yes<br>(Applicable to all programs.) | The company maintains a register of stakeholder engagement and a register of complaints of which there has been none.<br><br>Pastoral Lease holders are and will be kept regularly updated with planned exploration activates and exploration activates factor landholder's business concerns. Open two-way communication is promoted and any landholder concerns are promptly resolved.<br><br>Native Title Holders, the Wilyakali will be advised of the location, commencement and culmination of exploration activities, with respect to Work Area Clearances. Cultural Exclusion Zones will be identified in induction material and all parties will be forbidden to encroach on these areas. | 2 | 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.<br><br>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:<br>DEW | Interference to:<br>• existing or permissible land use.<br>• buildings, structures, existing tracks or other infrastructure.<br>• aesthetic values of an area.<br><br>Noncompliance with legislative requirements. | No<br>(Applicable to programs located adjacent to or within parks and reserves.) | <If the potential impact is applicable, list the control and rehabilitation strategies> | | | | **For activities located within or adjacent to regional reserves, national, conservation and marine parks only:**<br>• **no unauthorised interference with park management activities.** | Provide confirmation that:<br>• 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<br>• 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**<br>Lists are not exhaustive. | **Potential impacts**<br>Lists are not exhaustive. | **Is the potential impact applicable (Yes/No)**<br>Some potential impacts are applicable to all programs. | **Control strategies**<br>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**<br>LH = likelihood of consequence<br>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<br>(Applicable to exploration programs located within or impacting on native vegetation.) | • Proposed drill collars are pegged ahead of time and shifted to accommodate the input of land holders and Native Title holders<br>• Where vegetation is present, observed fauna nests/habitats will be avoided in favour of alternative routes and documented for future reference and training. Any known fauna nests/habitats will be discussed with the landholder prior to commencing the activities.<br>• The risk of loss of native vegetation through fire will be controlled via the use of diesel vehicles only on exploration/ drill sites. Fire risks will also be discussed with the landholder prior to commencing the activities.<br>• All vehicles will carry fire extinguishers and work will cease on total fire ban days.<br>• Local ABC radio will be monitored for updates on fire danger<br>• Fire risks will also be discussed with the respective landholders<br>• Existing farm tracks will be used wherever possible. Any driving off track will be undertaken in the most direct and practicable route possible and the same route will be used where possible to prevent additional disturbance.<br>• Access to vegetated land will be avoided these areas will be demarcated and communicated to staff and contractors to be avoided.<br>• Relevant GIS databases will be reviewed by staff and contractors in closer detail so that the location or any significant flora and fauna in the areas are familiar<br>• No vegetation will be cleared during access or drilling. | *1* | *B* | *Low* | **No permanent loss/modification of native flora and fauna populations and their habitats through:**<br>• **clearance**<br>• **fire**<br>• **other**<br>**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:<br>• The area and method of disturbance is consistent with that described in the PEPR.<br>• No uncontrolled fires* occurred as a result of exploration activities.<br><br>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<br>(Applicable to all programs.) | • Site inspections will be undertaken and observations will be made of the presence of any weed species in the area.<br>• All equipment will be cleaned and inspected for weeds prior to entry<br>• Vehicle and other equipment washdown and inspection will be undertaken on site to ensure no weeds or pathogens are introduced through our activities<br>• Vehicle and other equipment will be checked for transported weeds daily and tyres, undercarriage and wheel arches inspected and brushed down when moving between properties. Sites where brushing down has occurred will be located on maps with inspections and management of any weed species that germinate<br>• Landholders will be consulted prior to the carrying out of any exploration activities to identify any concerns regarding weeds or pathogens and to discuss standard protocols for washing down vehicles and other equipment and preventing contamination to the land.<br>• Sites of activities will be inspected for weeds or other invasive species following completion if the program and will be reported to the relevant landholder. Removal of any identified weed species will be undertaken in consultation with the landholder to avoid further impacts to surrounding vegetation or livestock.<br>• Photographs will be taken prior, and following completion and rehabilitation of the activities at the relevant sites so that any unintended modification of the environment is clearly identifiable and progress is documented. | *2* | *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:<br>• 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.<br>• 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. |

| Impact assessment | | | | | | | Outcomes | Outcome measurement criteria (inc. monitoring plan) |
|---|---|---|---|---|---|---|---|---|
| **Receptor**<br>Lists are not exhaustive. | **Potential impacts**<br>Lists are not exhaustive. | **Is the potential impact applicable (Yes/No)**<br>Some potential impacts are applicable to all programs. | **Control strategies**<br>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**<br>LH = likelihood of consequence<br>CQ = severity of consequence | | | | |
| | | | | **LH** | **CQ** | **Risk** | | |
| All fauna | Entrapment of fauna through open drillholes and excavations. | Yes<br>(Applicable to exploration programs that involve drilling and/or require excavations.) | • Drilling Sumps will have an egress slope on one side to allow wildlife to exit in the event they enter the sump<br>• Uncased holes will be temporarily plugged to prevent the creation of a fauna trap and be fully rehabilitated after assay data and wireline logging has been completed in accordance with Earth Resources Information Sheet M21. This will be completed as soon as possible after the program.<br>• The landholder will be provided with detailed information regarding the area of the proposed activities prior to commencement so that stock and other domestic animals are kept away from the proposed sites.<br>• Pre- during and post drilling photos will be taken and will be included in the annual compliance report | *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:<br>• All drillholes were permanently or temporarily capped/plugged immediately upon completion.<br>• No fauna and livestock became trapped in drillholes and/or excavations throughout the duration of the program.<br>• 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.<br><br>Representative photos are to be included within the annual exploration compliance report.<br><br>Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report. |
| Aboriginal heritage sites | Disturbance to Aboriginal heritage. | Yes<br>(Applicable to all programs.) | • The register of Aboriginal Sites and Objects indicated that there are no known historic sites or cultural sites in the proposed work areas.<br>• Staff and contractors will be instructed to keep a close eye out for any potential sites of significance and if any are through to be found, the office of the Minister for Aboriginal Affairs will be notified, per section 20 of the Aboriginal Heritage Act, 1988.<br>• Landholders will be consulted prior to entering the land to discuss any known or potential Aboriginal sites or objects.<br>• A Work Area Clearance have been completed in 2024 over planned drilling areas. only areas cleared for drilling will be used for drill programs.<br>• Any exclusion zones identified during the Work Area Clearances will be included in site and visitor inductions with all workers prohibited from visiting the sites. | *2* | *B* | *Low* | **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:<br>• Heritage sites were not impacted during the conduct of the exploration program, unless prior approval was obtained under the appropriate legislation.<br>• Work ceased on discovery of a significant site and recommenced only after authorisation.<br>• 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<br>(Applicable to exploration programs located close to or within European heritage sites and sites of scientific and environmental significance.) | N/A | | | | **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:<br>• 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.<br>• 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**<br>Lists are not exhaustive. | **Potential impacts**<br>Lists are not exhaustive. | **Is the potential impact applicable (Yes/No)**<br>Some potential impacts are applicable to all programs. | **Control strategies**<br>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**<br>LH = likelihood of consequence<br>CQ = severity of consequence<br>**LH** | **CQ** | **Risk** | | |
| Soil/vegetation/fauna | Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, ablutions, other sources). | Yes<br>(Applicable to all programs.) | • Light Vehicles will be refuelled at the accommodation area only,<br>• Drill rigs will be refuelled with standard operating practices designed to minimise the chances of hydrocarbon spills.<br>• Plastic ground sheeting will be used to contain drill cuttings and ground water to prevent surface contamination.<br>• All cleaning compounds and hydrocarbons will be contained on support vehicles on hydrocarbon bunding<br>• Fuel will be contained in self-bunded storage tanks designed and built to AS1692 and AS1940 standards<br>• Spill kits will be kept on the drill rig and support vehicles<br>• Green Bags, used for the collection of drill samples will be kept in the vehicles for the disposal of rubbish and any contaminated material. All rubbish will be removed from the drill sites daily.<br>• On completion of the program, all rubbish associated with the drilling will be disposed of at the Hallett Waste Transfer Station, North Terrace, Hallet SA, 0438884340, a licensed waste facility | *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:<br>• The name, location and contact details of the authorised waste disposal facility.<br>• 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.<br>• Photographic evidence within the annual exploration compliance report demonstrating that all fuel and chemical storage facilities were managed in accordance with EPA requirements.<br><br>Maintain photographs of all exploration sites and provide representative photos within the annual exploration compliance report demonstrating that drill cuttings are:<br>• removed from site and disposed of at a licensed facility<br>• 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<br>• 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.<br><br>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<br>(Applicable to all programs.) | • Areas that require traversing will be discussed with the landholder prior to commencing the activities. Fence lines and existing access tracks will be used where possible.<br>• Using only one track to access the drill site, all vehicles will follow the first vehicles wheel tracks. No clearing of vegetation digging/ grading of tracks will be required. Tracks will be kept to the minimum needs of the largest exploration vehicle.<br>• Tracks will be checked after drilling is completed to determine if any unexpected rehabilitation (such as sheet mesh levelling) is required.<br>• Vehicle movements will be minimised to limit surface disturbance.<br>• Work will cease in the case of significant rain. Work will not continue until the landholder and exploration supervisor have given the all clear to re-commence work.<br>• ISM33 guidelines will be followed with regards to "Constructing an Access Track". ISM33 will be included in site induction material for staff and contractors. Soil stockpiling will be limited to the bulk sample disposal pits where it will be set aside and returned to replace the original soil profile.<br>• Sites will be inspected and monitored following completion of rehabilitation to identify any environmental risks such as compaction or erosion. Rehabilitation will be completed to the landholders satisfaction. | *2* | *B* | *Low* | **Where soil disturbance occurs as a result of exploration activities, ensure that:**<br>• **topsoil quality and quantity is maintained**<br>• **the soil profile and topography is reinstated to original conditions**<br>• **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:<br>• 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.<br>• 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.<br>• There are no signs of accelerated soil erosion during and post rehabilitation of disturbed sites.<br><br>Representative photos to be included within the annual exploration compliance report.<br><br>Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report. |

| Impact assessment | | | | | | | Outcomes | Outcome measurement criteria (inc. monitoring plan) |
|---|---|---|---|---|---|---|---|---|
| **Receptor**<br>Lists are not exhaustive. | **Potential impacts**<br>Lists are not exhaustive. | **Is the potential impact applicable (Yes/No)**<br>Some potential impacts are applicable to all programs. | **Control strategies**<br>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**<br>LH = likelihood of consequence<br>CQ = severity of consequence<br>**LH** | **CQ** | **Risk** | | |
| Surface water | Alteration to surface water – interference to surface drainage. | Yes<br>(Applicable to exploration programs that are likely to impact on surface drainage channels.) | Driving across ephemeral creeks will be limited to existing station tracks and be kept to a minimum.<br><br>Where drainage lines are to be crossed, flatter, rocky crossing areas have been scouted where avoiding the drainage lines is not possible. | *2* | *B* | *Low* | **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).<br><br>Alternatively, provide copies of water affecting permits within the annual exploration compliance report. |
| Groundwater/aquifer | Groundwater contamination:<br>• contamination of aquifers through entry of pollutants from the surface<br>• interconnection between aquifers<br>• degradation of natural hydrostatic conditions (maintain pre-drilling pressures). | Yes<br>(Applicable to all exploration programs that may intersect groundwater.) | • No hydrocarbons will be discharged down drillholes<br>• All cleaning compounds and hydrocarbons will be contained on support vehicles on fuel and chemical bunds.<br>• Light vehicles will be re-fuelled at the accommodation only.<br>• The drill rig will be re-fuelled with standard operating practices designed to minimise the chances of hydrocarbon spills.<br>• Fuel will be contained in self-bunded storage tanks designed and built to AS1692 and AS1940 standards<br>• Spill kits will be kept on the drill rig and/or drill contractor support vehicles.<br>• Green sample bags used for the collection of drill cuttings will be kept on the vehicles for the disposal of rubbish and any contaminated material.<br>• Any contaminated soil will be removed and disposed of at an approved EPA facility.<br>• Plastic ground sheeting will be used to contain drill spoil and prevent chemicals making their way into groundwater.<br>• Drillholes will be temporarily capped/ plugged following the completion of drilling and rehabilitated (backfilled with cuttings and/or clean fill) once assay results for drill samples have been received. This will be completed as soon as possible following the completion of the drill program. | *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 and the casing cemented so that all aquifers are isolated to prevent the movement of any fluids behind the casing.** | 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.<br><br>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<br>(Applicable to all exploration programs that may intersect groundwater or where activities require the discharge of groundwater into the surrounding environment.) | Any groundwater intersected during the drilling will be captured by plastic ground sheeting and drill sumps. No discharge to the surrounding environment will be required. | *2* | 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.<br><br>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. | No<br>(Applicable to all exploration programs that may require the use of water from existing dams, water bores or mineral drillholes.) | • No water will be extracted from existing bores, dams or mineral drillholes during the proposed program. | | | | **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.<br><br>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<br>(Applicable to exploration programs that create new access tracks.) | • Any access tracks will be directed in consultation with the landholder and be covered as a part of the Work Area Clearance.<br>• No rehabilitation of access tracks is anticipated. If required, tyre tracks will be scarified. | *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.<br><br>Representative photos are to be included within the annual exploration compliance report. |

| Impact assessment | | | | | | | Outcomes | Outcome measurement criteria (inc. monitoring plan) |
|---|---|---|---|---|---|---|---|---|
| **Receptor**<br>Lists are not exhaustive. | **Potential impacts**<br>Lists are not exhaustive. | **Is the potential impact applicable (Yes/No)**<br>Some potential impacts are applicable to all programs. | **Control strategies**<br>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**<br>LH = likelihood of consequence<br>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<br>(Applicable to all programs.) | • CFS bans and ratings will be monitored throughout the planned exploration.<br>• No works will be undertaken on a Total Fire Ban.<br>• Only diesel vehicles will be allowed on exploration/drill sites.<br>• All vehicles will carry fire extinguishers<br>• Local ABC radio will be monitored for fire warnings/ weather conditions updates.<br>• Particular fire risks and existing practices will be discussed with the relevant landowners prior to undertaking exploration activities.<br>• No fires will be lit for any reason in association with the program. | *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.<br><br>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<br>(Applicable to all programs.) | • Induction will be mandatory for the landholders to be able to visit specific drill site areas.<br>• Signage will be placed away from the drill rig advising no entry and the mandatory PPE for the site.<br>• Drilling will be undertaken in areas where there will be no interference with landholder activities of the landholders and this will be discussed with landholders prior to commencement particularly with respect to stock movement.<br>• Vehicle speeds will be minimised to minimise dust generation and any risks to nearby fauna, livestock or persons.<br>• The operator will maintain ongoing communications with the landholders to keep them informed of the landholder's grazing activities in nearby areas. | *2* | *C* | *Moderate* | **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.<br><br>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.<br><br>Public and employee/contractor exposure to low level radiation. | No<br>(Applicable to exploration programs located within known uranium or thorium deposits.) | There is no evidence of sources of exposure to low level radiation from drill programs to date. No sources of radiation are expected during the program | | | | **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:<br>• Radiation levels post exploration and rehabilitation are consistent with pre-existing background levels.<br>• Employee and contractors exposure levels were within safe limits during the exploration program. |
| Other (if applicable) | | | | | | | | |
| | | | | | | | | |

* 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)

All staff and contractors receive an induction before commencing work on the site, including the proposed work areas. the induction addresses site specific OHS, environmental and heritage issues.

All staff receive more detailed training and induction on the operation of exploration activities, which includes familiarisation with safe work procedures, including:

- Principle Hazard Management
- Contractor Vehicle Inspections and operator inductions
- Program rehabilitation compliance reporting
- Safety and environmental incident reporting
- Work procedures and standards

All documentation can be provided upon request.

A copy of the approved EPEPR is provided to all staff working on the exploration activity.

The operator maintains a vehicle inspection log in the safety culture app. And stores photographic digital evidence of the of vehicle inspections.

A drillhole rehabilitation register is maintained to document in a brief internal report containing details of work completed and before and after photos.

FORM 21B notices inform landholders of the operators planned exploration activities. The Exploration Manager provides updates to the station managers as exploration activities progress.

A complaints register will be maintained by the operator.

Compliance will be reported to the DEM in the annual Exploration Compliance Report

## 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.

<Include text here.>

## 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 |
|---|---|---|---|---|---|---|
| N/A | | 1 | | | | Picture of Drill Rig and Support Vehicle |

## SECTION J – MAPS

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

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

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

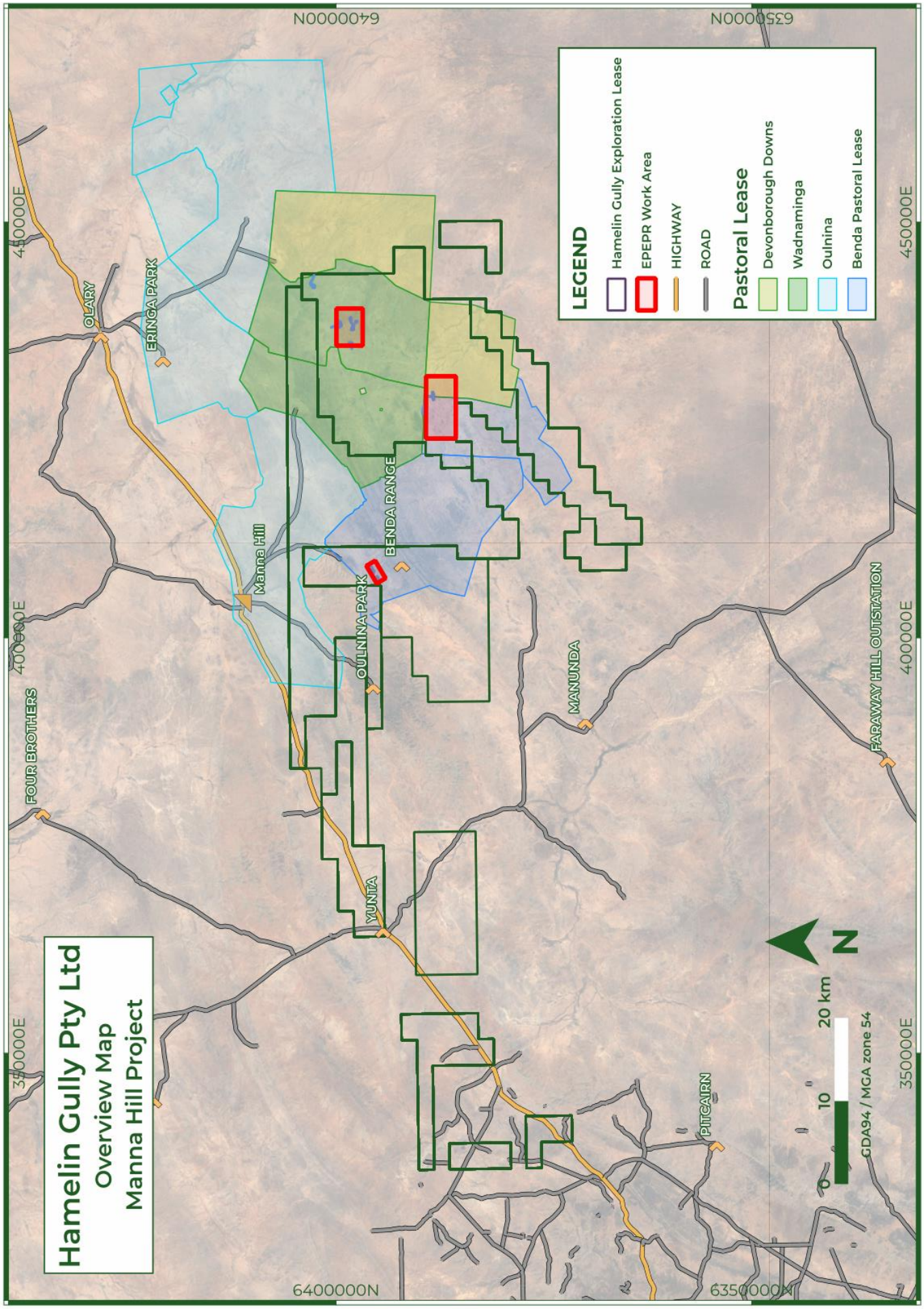


*Figure 1. Locality Map of EPEPR Coverage Areas and Pastoral Lease Coverage*

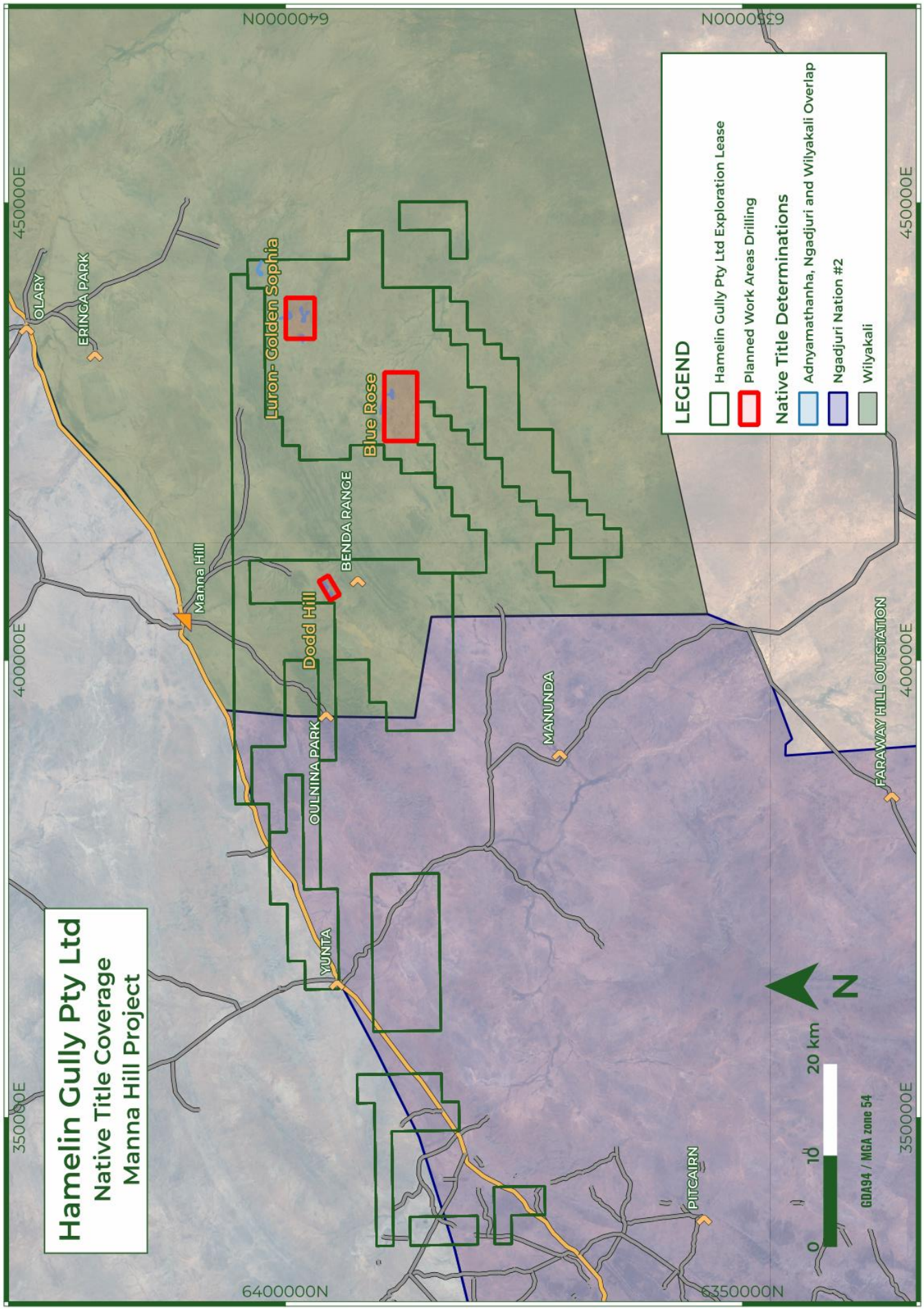


*Figure 2. Native Title Coverage*

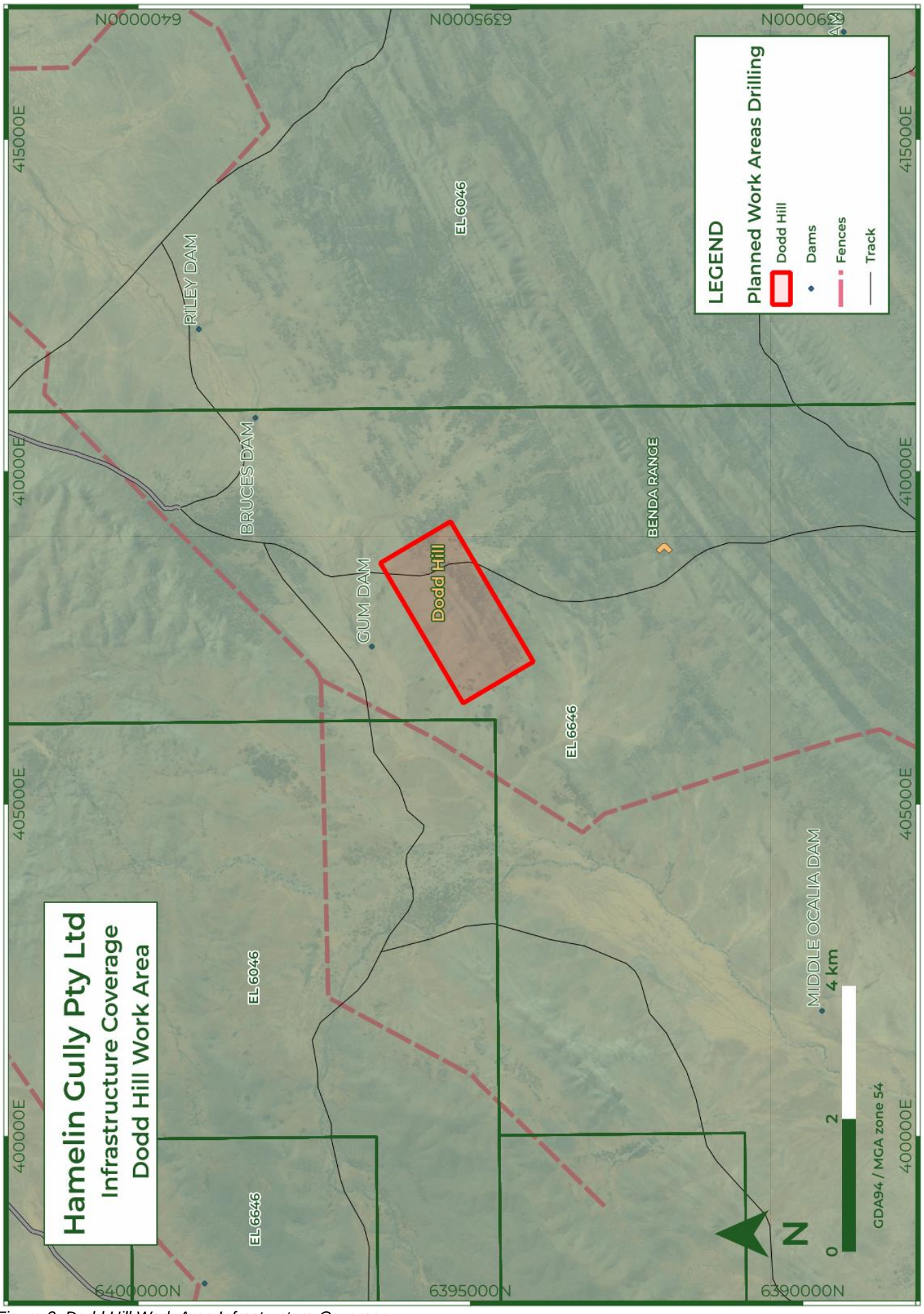


*Figure 3. Dodd Hill Work Area Infrastructure Coverage*

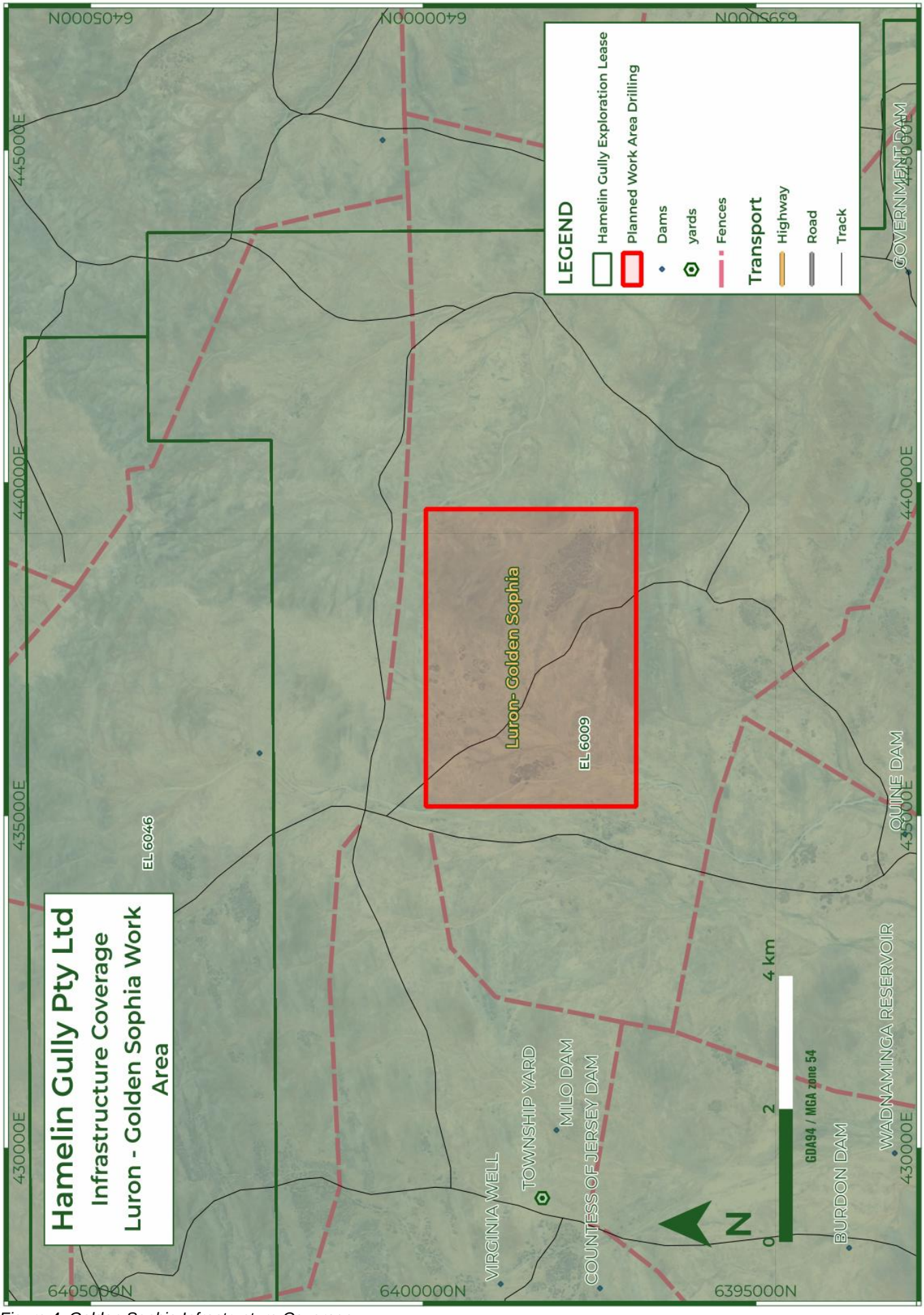


*Figure 4. Golden Sophia Infrastructure Coverage*

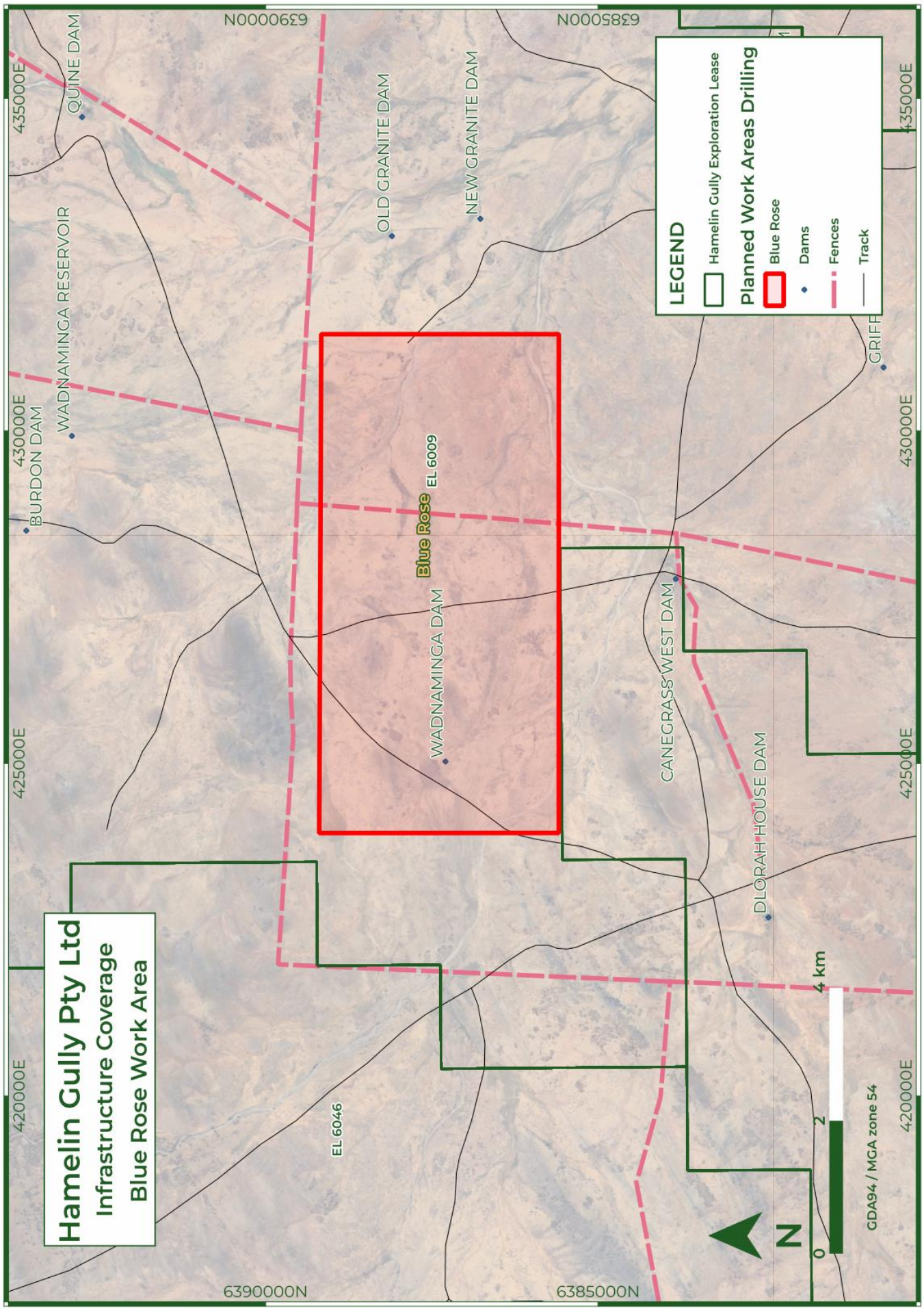


*Figure 5. Blue Rose Infrastructure Coverage*

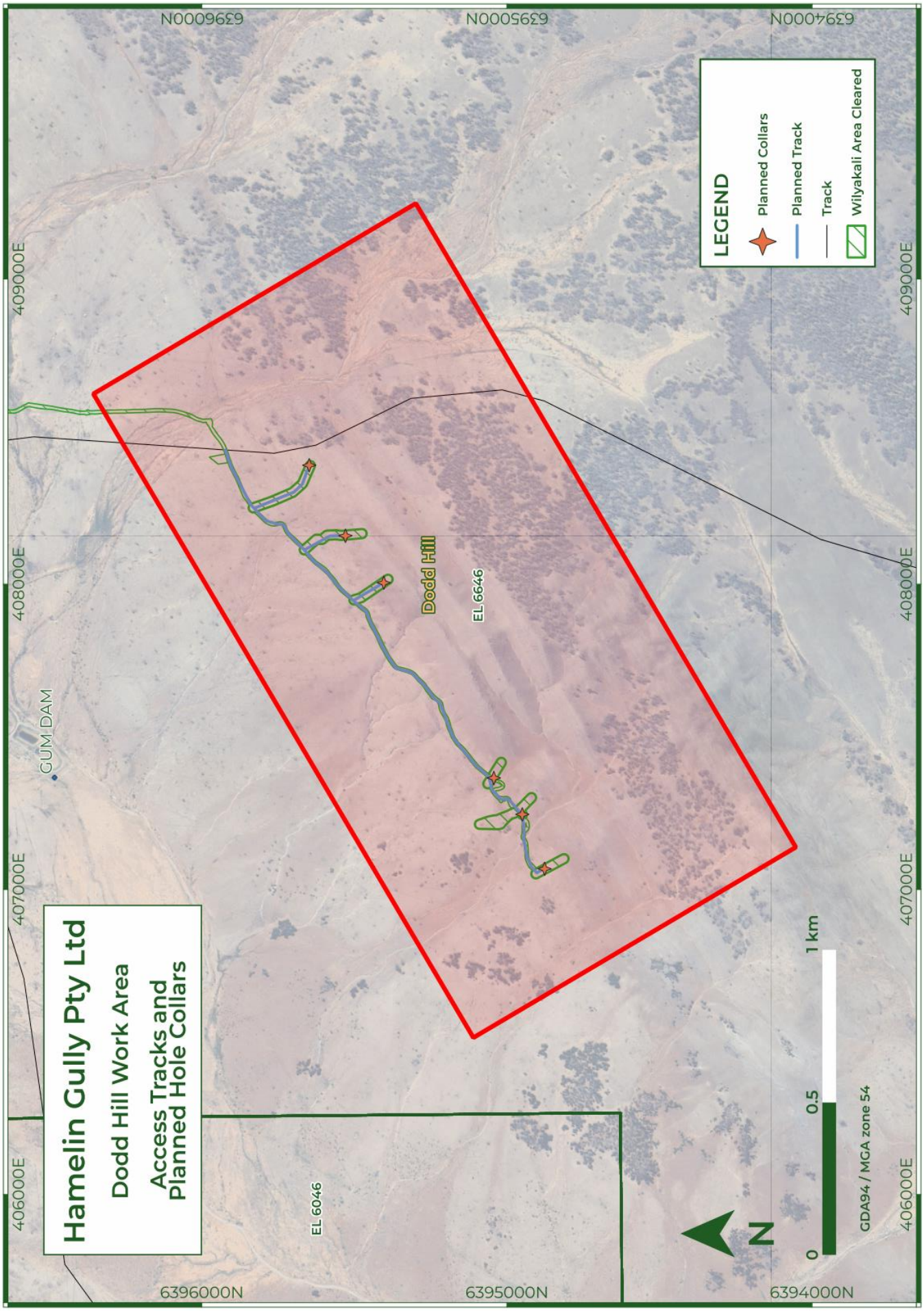


*Figure 6. Dodd Hill Drill Proposal and Planned Access Tracks*


*Figure 7. Golden Sophia Planned Drill holes and Access Tracks*

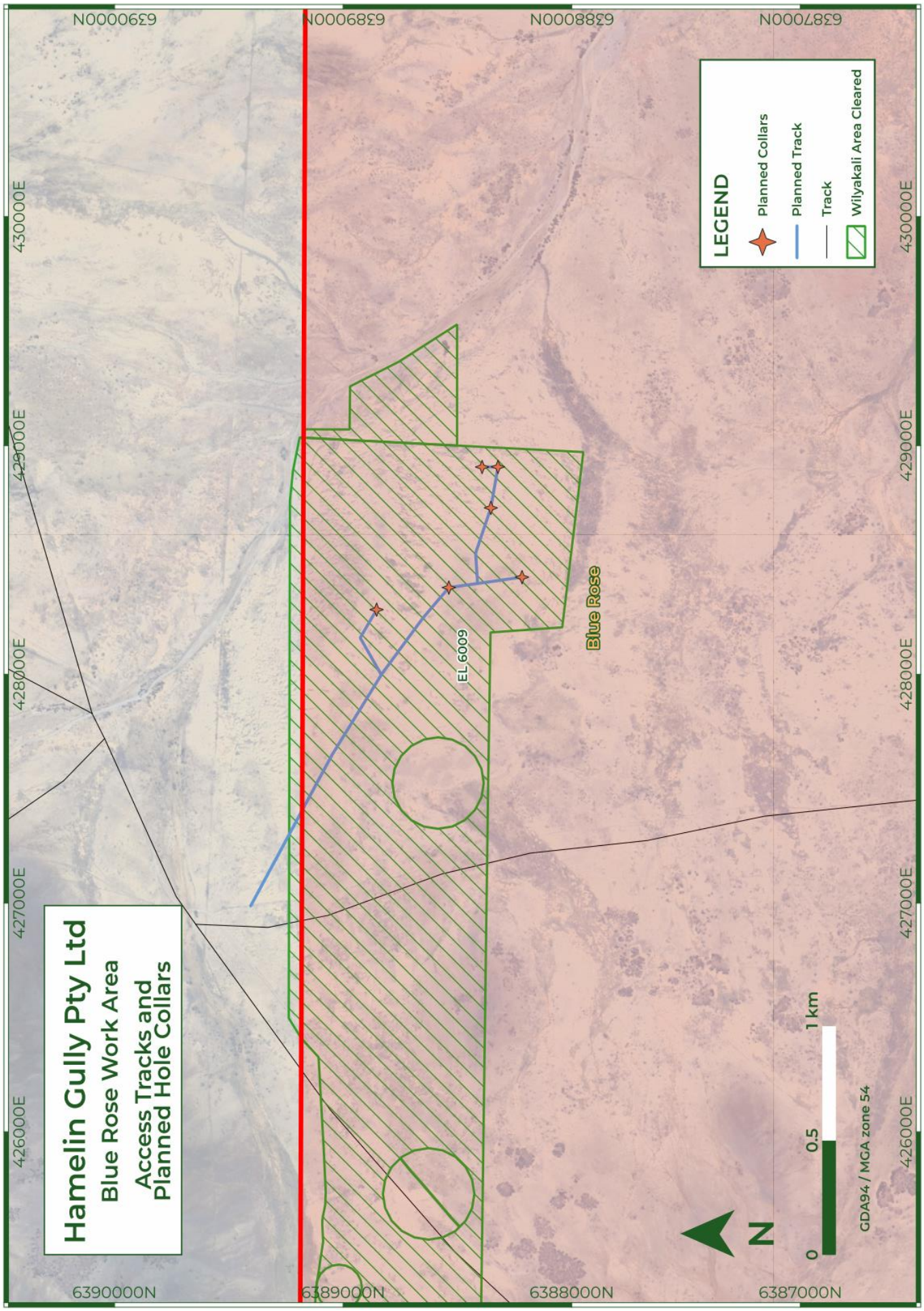


*Figure 8. Blue Rose Planned Drill holes and Access Tracks*

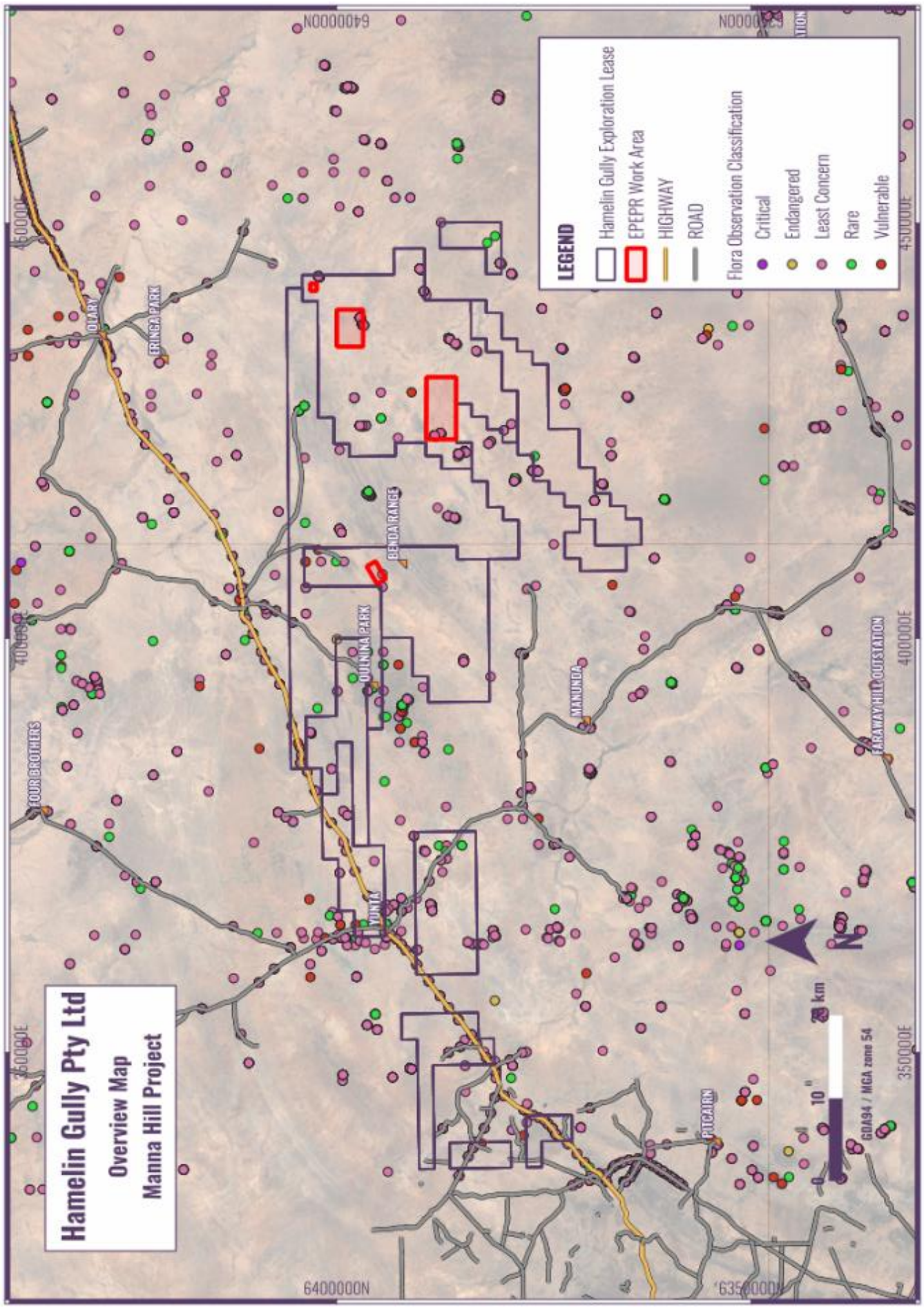


*Figure 9. Manna Hill Project Native Vegetation Observation Sites*

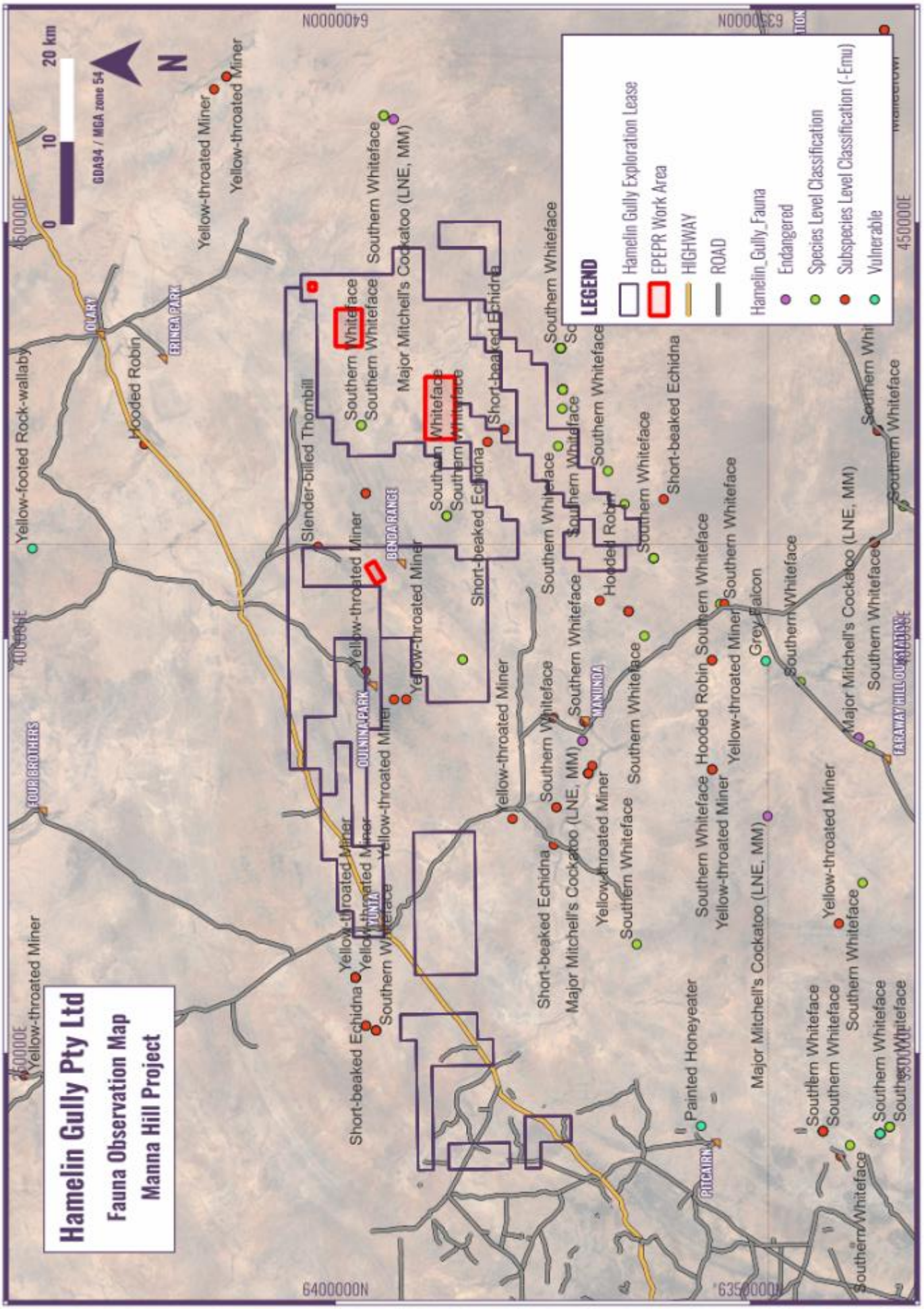


*Figure 10. Manna Hill Fauna Observation Sites (minus Emu)*

## 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.