

# Environmental Approval

PURSUANT TO SECTION 65 OF THE ENVIRONMENT PROTECTION ACT 2019

Approval number	EP2020/001 - 001
Approval holder	Core Lithium Ltd
Australian Company Number (ACN)	146 287 809
Registered business address	Level 1, 366 King William Street Adelaide, South Australia 5000
Approval holder reference number	CORE-0001

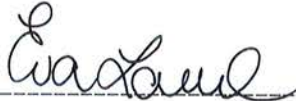
## Action

Development of an underground lithium mine at the BP33 resource on Mineral Leases 32346, 32074 and Mineral Lease Northern 16, on the Cox Peninsula approximately 33 km west of Berry Springs including:

- Clearing of 88 ha of native vegetation for the mine site
- Clearing of 0.4 ha of native vegetation for the **water** pipeline
- Clearing for 12.5 ha of native vegetation for the haul route
- Total resource recovery of 2.1 million tonnes
- Total **mine life** duration of 55 months.

Under section 65 of the EP Act approval is granted for the action to be undertaken in the manner described, including with implementation of the environmental management measures, commitments and safeguards documented, in the **Referral** and **SER**. If there is an inconsistency between the **Referral** or the **SER**, and this environmental approval, the requirements of this environmental approval prevail.

This approval does not authorise the approval holder to undertake an activity that would otherwise be an offence under section 16 of the *Water Act 1992*.

Address of action	2873 Cox Peninsula Road, Cox Peninsula Section 1 Hundred of Parsons & Section 2746 Hundred of Hughes
NT EPA Assessment Report number	94
Decision maker	 Hon Eva Dina Lawler MLA, Minister for Environment
Date of approval	26 April 2022

## 1 ENVIRONMENTAL APPROVAL CONDITIONS

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### 1 Limitations and extent of action

1-1 When implementing the action, the approval holder must ensure the action does not exceed the following extent:

Action element	Location	Limitation or maximum extent
Clearing for mine site	Figure 1	No more than 88 ha of the approved extent
Clearing for water pipeline	Figure 2	No more than 0.4 ha of the approved extent
Clearing for haul route	Figure 2	No more than 12.5 ha of the approved extent

### 2 Action implementation and closure

2-1 The approval holder must implement the action to meet the following environmental outcomes:

- (1) The action must be rehabilitated and closed in such a manner that the approval holder can demonstrate that it:
  - (a) is physically safe to humans and animals; and
  - (b) is geo-technically stable; and
  - (c) is non-polluting, non-contaminating; and
  - (d) does not cause material environmental harm or significant environmental harm; and
  - (e) is able to sustain the post-mining land use in the approved Mine Closure Plan required by condition 3.

### 3 Mine Closure Plan

3-1 To demonstrate that the outcomes required by condition 2-1 are achieved, the approval holder must prepare a Mine Closure Plan, before **substantial disturbance**, that is consistent with contemporary best practice guidance on mine closure.

### 4 Inland waters

4-1 The approval holder must implement the action to meet the following environmental objective and outcome:

- (1) Protect the quality and hydrological regimes of groundwater and surface **water** so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.
  - (2) Discharge of any mine-affected water from the action must not cause water quality at the **downstream compliance point(s)** to exceed the guideline values.
- 4-2 For the purpose of condition 4-1(2) the guideline values are the **ANZG** default guideline values for slightly to moderately disturbed systems (95% species protection level). Where natural background levels exceed **ANZG** default guideline values, or default guideline values have not been set by **ANZG**, site-specific guideline values must be derived in accordance with **ANZG**.
- 4-3 The site-specific guideline values required by condition 4-2 must be:
- (1) derived from **baseline data** prior to **substantial disturbance**; and
  - (2) re-derived at the end of the wet season in any year that discharge of **mine affected water** to waterways occurs, from the collected baseline and operational water quality dataset.
- Site-specific guideline values must be derived for the physical and chemical indicators appropriate to the mineralogical properties of mined material and the range of declared beneficial uses, in accordance with **ANZG**.
- 4-4 The draft Water Management Plan (Appendix C to the **SER**) must:
- (1) be revised by a qualified person and submitted to the **CEO** for review and approval at least three months before **substantial disturbance**, and within every 12 months thereafter for the **life of the action** unless otherwise directed by the **CEO** in writing, to ensure it is consistent with achievement of the environmental outcomes in conditions 4-3(1) and 4-1(2).
- 4-5 The revised Water Management Plan required by condition 4-4(1) must:
- (1) provide for the management of potential impacts of the action on waterways, waterbodies and aquifers; and
  - (2) include detailed **baseline data**, collected from a baseline study conducted in accordance with **ANZG** on:
    - (a) surface **water** flows and quality in waterways and/or waterbodies that could be affected by the action; and
    - (b) groundwater levels, yield and quality in aquifers that could be affected by the action.
  - (3) define the aspects to be monitored and measured including;

- (a) determine the locations and methods for monitoring, measurement, analysis and evaluation to ensure valid results, including the **downstream compliance point(s)**; and
    - (b) define when monitoring must be performed, when the results from monitoring must be analysed and evaluated, how monitoring results will be communicated and reported and to whom; and
  - (4) include quantitative triggers and limits which would be used to initiate investigative and/or **adaptive management** actions when surface water and/or groundwater monitoring results exceed guideline values or deviate from the predictions outlined in the **Referral** and the **SER** and appended documents; and
  - (5) detail how monitoring exceedances and the outcomes of investigative and/or adaptive management actions would be notified to the **CEO**.
  - (6) be implemented for the **life of the action**.
- 4-6 The approval holder must continue to implement the last approved version of the Water Management Plan required by condition 4-4 until the **CEO** provides written confirmation that a revised version is approved.
- 4-7 At the end of the **mine life**, the approval holder must demonstrate that there has been no measurable adverse change in **water** quality compared to the pre-mining baseline condition at the **downstream compliance point(s)** established under condition 4-1(2).
- 5 Soil erosion and sediment control**
- 5-1 An Erosion and Sediment Control Plan must be developed by a Certified Professional in Erosion and Sediment Control, in accordance with International Erosion Control Association Australasia (IECA) 2008, *Best Practice Erosion and Sediment Control*, revised within every 12 months thereafter (or at more frequent intervals if site conditions significantly change), and implemented for the **life of the action** to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.
- 6 Groundwater dependent ecosystems**
- 6-1 The approval holder must implement the action to meet the following environmental outcomes:
- (1) identify the presence and extent of, and monitor the impacts of the action on, GDE vegetation within the predicted cone of groundwater drawdown; and
  - (2) avoid the loss of no more than 3.6 ha of identified GDE vegetation in 6-1(1).
- 6-2 A **GDE** Management Plan must:

- (1) be developed by a qualified person and submitted to the **CEO** for review and approval at least three months before **substantial disturbance**, and within every 12 months thereafter for the **life of the action** unless otherwise directed by the **CEO** in writing, to ensure it is consistent with achievement of the environmental outcomes in conditions 6-1(1) and 6-1(2); and
  - (2) provide for the collection of **baseline data** to assess the baseline condition of **GDEs** that could be affected by the action; and
  - (3) provide for monitoring and management of the impacts of the action on water availability for **GDE** vegetation within the area of drawdown; and
  - (4) define how the presence and extent of **GDEs**, and impacts of the action on **GDEs**, would be identified, monitored and measured including:
    - (a) determine the locations and methods for monitoring, measurement, analysis and evaluation to ensure valid results; and
    - (b) define when monitoring must be performed, when the results from monitoring must be analysed and evaluated, how monitoring results will be communicated and reported and to whom; and
  - (5) include quantitative triggers and limits which would be used to initiate investigative and/or adaptive management actions when:
    - (a) groundwater levels deviate significantly from the predictions outlined in the Finnis Lithium Project BP33 Groundwater Modelling Report, Final Version 3.0, October 2021, prepared by CloudGMS (Appendix B to the **SER**); and/or
    - (b) **GDE** vegetation monitoring identifies that the extent of impacts to **GDE** health exceeds 3.6 ha, which is the extent of potential **GDE** that occurs within the modelled extent of the groundwater drawdown cone as a result of the action;
  - (6) detail how monitoring exceedances and the outcomes of investigative and/or adaptive management actions would be notified to the **CEO**.
  - (7) be implemented for the **life of the action**.
- 6-3 The approval holder must continue to implement the last approved version of the **GDE** Management Plan required by condition 6-2 until the **CEO** provides written confirmation that a revised version is approved.
- 6-4 The approval holder must provide notice in writing to the **CEO** if **GDE** monitoring identifies that the total area of **GDE** loss attributable to the action exceeds 3.6 ha, within seven days of the identification of the exceedance.
- 7 Commencement of action**
- 7-1 This approval expires five years after the date on which it is granted, unless **substantial disturbance** has occurred on or before that date.

7-2 Within 10 business days of the commencement of the **substantial disturbance** the approval holder must provide notification in writing to the **CEO**.

## 8 Change of contact details

8-1 The approval holder must provide notification in writing to the **CEO** of any change of its name, physical address or postal address for the serving of notices or other correspondence within 10 business days of such change.

## 9 Submission of documents

9-1 All notices, reports, documents or other correspondence required to be provided to the **CEO** as a condition of this approval, unless otherwise specified as a condition of this approval, must be provided in electronic form by emailing [environmentalregulation@nt.gov.au](mailto:environmentalregulation@nt.gov.au).

## 10 Compliance reporting

10-1 The approval holder must:

- (1) within six months of **substantial disturbance**, obtain from an **independent qualified person**, a report on compliance with the conditions of this environmental approval; and
- (2) obtain further such reports at regular intervals not exceeding 12 months from the report referred to in condition 10-1(1); and
- (3) submit each report to the **CEO** within 90 days of its completion.

10-2 The reports required by conditions 10-1(1) and 10-1(2) must:

- (1) be endorsed by the approval holder's Chief Executive Officer or a person delegated to sign on the approval holder's Chief Executive Officer's behalf;
- (2) include a statement as to whether the approval holder has complied with the conditions of this approval; and
- (3) identify all non-compliances and describe corrective and preventative actions taken.

## 11 Environmental Performance Report

11-1 The approval holder must submit an Environmental Performance Report to the **CEO** on completion of the **mine life**.

11-2 The report required by condition 11-1 must be prepared by an **independent qualified person**.

- 11-3 The Environmental Performance Report must report on impacts of the action on the state of the following environmental values:
- (1) terrestrial environmental quality; and
  - (2) terrestrial ecosystems; and
  - (3) inland waters including surface water and groundwater hydrological processes and quality; and
  - (4) community and economy including social impacts, and community and stakeholder engagement; and
  - (5) the whole of environment within the area of influence of the action.
- 11-4 The Environmental Performance Report must include:
- (1) a comparison of the environmental values identified in condition 11-3 at the end of the **mine life** against the state of each environmental value prior to **substantial disturbance**; and
  - (2) a comparison of the predicted impacts of the action as identified in the **Referral** and **SER**, and the actual impacts of the action as verified by environmental monitoring data; and
  - (3) an assessment of the cumulative impacts of the action and other actions for which the approval holder is responsible.

## **12 Provision of environmental data**

- 12-1 All environmental monitoring data required to be collected or obtained under this environmental approval must be retained by the approval holder for a period of not less than 10 years commencing from the date that the data is collected or obtained.
- 12-2 The approval holder must, as and when directed by the **CEO**, provide any validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (such as maps)) relevant to the assessment of the action and implementation of this environmental approval, to the **CEO** in the form and manner, and at the intervals specified, in the direction.

## 2 DEFINITIONS

The terms used in this approval have the same meaning as the terms defined in the *Environment Protection Act 2019* and *Environment Protection Regulations 2020*.

<b>approved extent</b>	The extent identified in Figures 1 and 2 of this approval which includes equipment, plant and structures, whether stationary or portable, and the land on which the action is situated.
<b>adaptive management</b>	A systematic approach to improving environmental results and management practices during action implementation through the application of learning from monitoring of outcomes and management actions.
<b>ANZG</b>	ANZG 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia. Available at <a href="http://www.waterquality.gov.au/anz-guidelines">www.waterquality.gov.au/anz-guidelines</a> .
<b>baseline data</b>	Environmental monitoring data collected (from studies undertaken) prior to <b>substantial disturbance</b> , that is used to characterise baseline conditions.
<b>CEO</b>	The Chief Executive Officer of the Department of Environment, Parks and Water Security [or another name for that department, which may vary from time to time], or their delegate.
<b>closure certificate</b>	Certificate of closure under section 213 of the <b>EP Act</b> .
<b>downstream compliance point(s)</b>	The <b>downstream compliance point(s)</b> for water quality monitoring associated with mine-affected water discharge approved by the <b>CEO</b> or their delegate (post-approval and prior to <b>substantial disturbance</b> ). Identification of the <b>downstream compliance point(s)</b> must include the monitoring point name, location description, latitude and longitude (GDA94, decimal degree).
<b>ecologically sustainable</b>	Meeting the principles of ecologically sustainable development as defined in Part 2 Division 1 of the <b>EP Act</b> , to ensure that development improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.
<b>EP Act</b>	<i>Environment Protection Act 2019</i> .
<b>GDE</b>	Groundwater Dependent Ecosystem.
<b>life of the action</b>	The period of time from <b>substantial disturbance</b> until the issue of a <b>closure certificate</b> under section 213 of the <b>EP Act</b> , or revocation of the environmental approval by the Minister at the request of the approval holder under section 114 of the EP Act.
<b>mine life</b>	The period of time nominated by the approval holder in the <b>SER</b> to carry out construction, operation and rehabilitation of the action, including 6 months construction, 44 months operation and 5 months rehabilitation (55 months total).
<b>mine affected water</b>	Includes the following types of water: <ul style="list-style-type: none"> <li>• pit water, dam water, processing water;</li> </ul>



	<ul style="list-style-type: none"> <li>• water contaminated by a mining activity</li> <li>• rainfall runoff which has been in contact with any areas disturbed by the action which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;</li> <li>• groundwater which has been in contact with any areas disturbed by the action which have not yet been rehabilitated;</li> <li>• groundwater from the mine dewatering activities;</li> <li>• a mix of <b>mine affected water</b> and other water.</li> </ul> <p>Does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by the action that have not yet been completely rehabilitated, has only been in contact with:</p> <ul style="list-style-type: none"> <li>• land that has been rehabilitated to a stable landform and either revegetated in accordance with the approved Mine Closure Plan</li> </ul> <p>land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater.</p>
<b>NT EPA</b>	Northern Territory Environment Protection Authority.
<b>independent qualified person</b>	<p>A qualified person as defined under section 4 of the <b>EP Act</b>; and who also meets the following requirements:</p> <ol style="list-style-type: none"> <li>a) was not involved in the preparation of the approval holder's <b>Referral</b> or <b>SER</b>;</li> <li>b) is independent of the personnel involved in the design, construction and operation of the action</li> <li>c) has obtained written approval from the <b>CEO</b> to be the qualified person to satisfy the <b>independent qualified person</b> reporting requirements under this approval.</li> </ol>
<b>Referral</b>	<p>The approval holder's <b>Referral</b> to the <b>NT EPA</b> under section 48 of the <b>EP Act</b>:</p> <p>Finniss Lithium Project BP33 Underground Mine Environment Protection Act (EP Act) Referral Supporting Information Document, Revision 2, dated 1 July 2020 (including appendices A to E).</p>
<b>substantial disturbance</b>	Means <b>substantial disturbance</b> of a mining site as defined under section 35(3) of the <i>Mining Management Act 2001</i> .
<b>SER</b>	The approval holder's Supplementary Environmental Report prepared under regulation 119 of the Environment Protection Regulations 2020:

	Finniss Lithium Project BP33 Underground Mine Supplementary Environmental Report, Revision 2, dated 15 November 2021 (including appendices A to L)
<b>water</b>	Surface water, groundwater and tidal waters; and coastal waters of the Territory, within the meaning of the <i>Coastal Waters (Northern Territory Powers) Act 1980</i> (Cth); and water containing an impurity.
<b>wet season</b>	For the purpose of this environmental approval, the <b>wet season</b> is defined as the period from 1 October to 30 April for any calendar year.

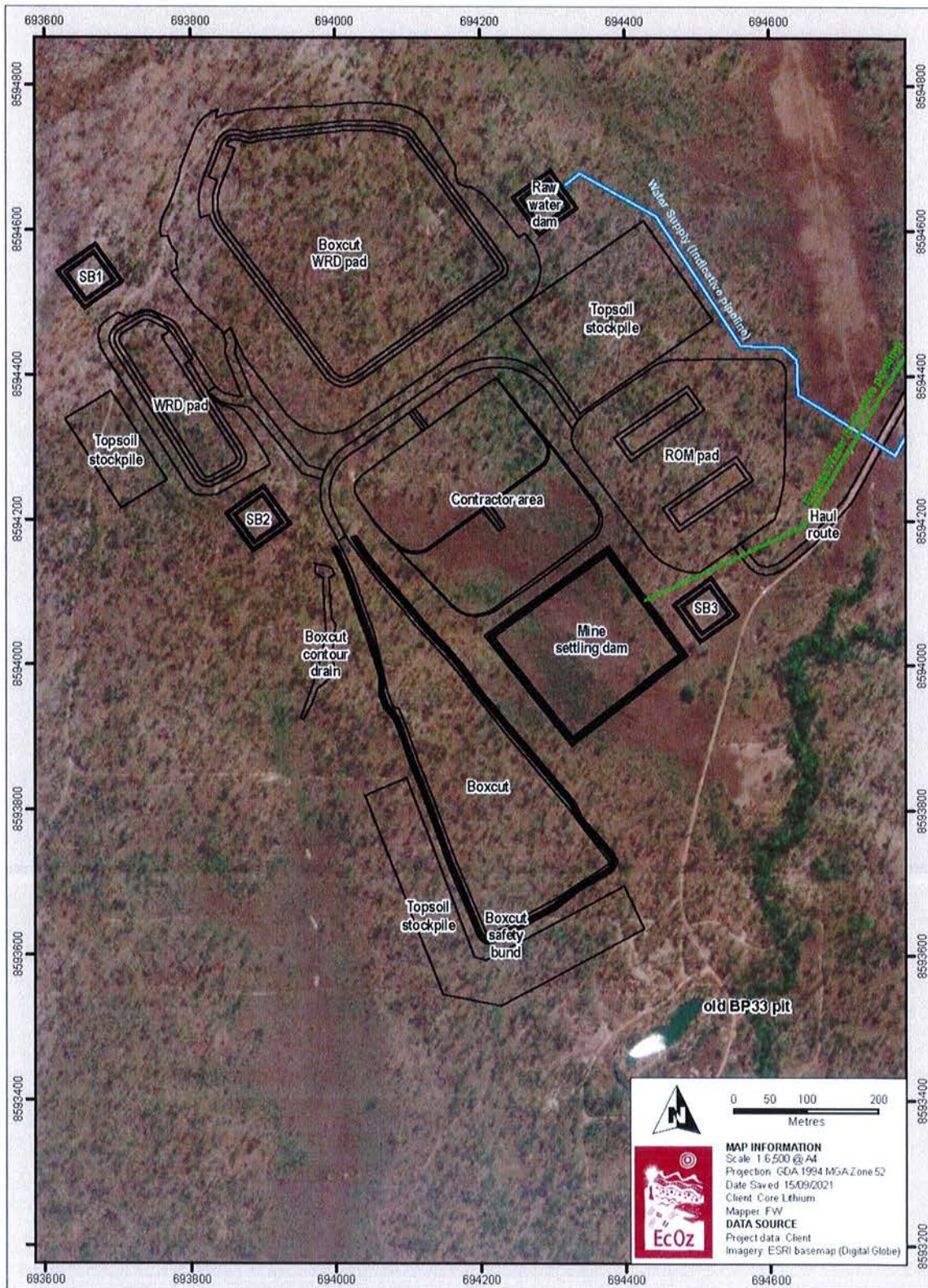
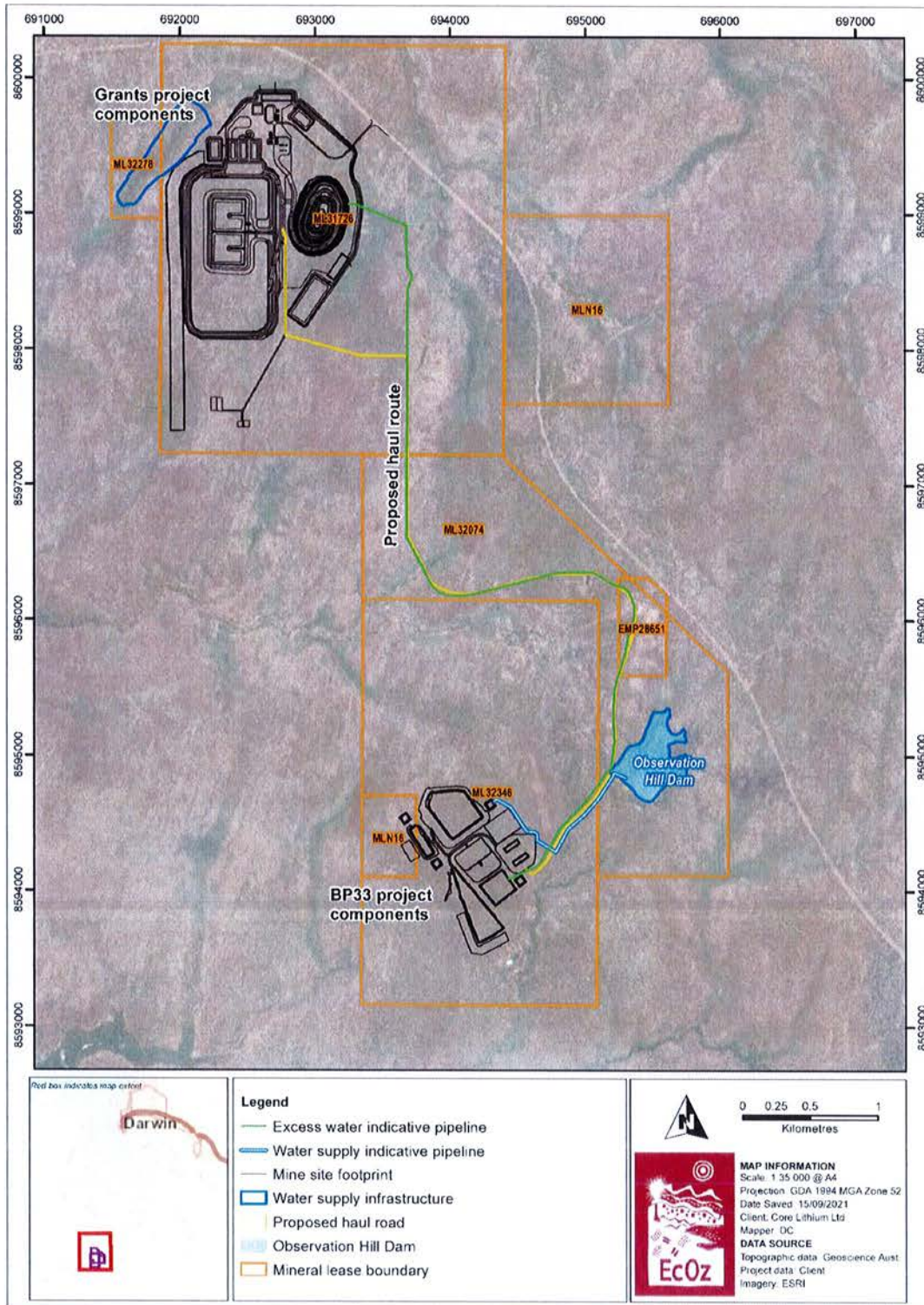


Figure 1 Location and extent of mine site



**Figure 2 Location and extent of haul road and water pipeline** (Haul route is shown in green and water pipeline is shown in blue).

All co-ordinates are in metres, listed in Map Grid of Australia Zone 52 (MGA Zone 52), datum of Geocentric Datum of Australia 1994 (GDA94).

Spatial data depicting Figures 1 and 2 (Location and extent of action) are held by the Department of Environment and Water Security as follows:

NTEPA2020/0048-021~0017 BP33 Spatial Data.