

RESOURCE EXPANSION DRILLING MOBILISED

Barkly Rare Earths (**ASX:BAK**) (**'Barkly'** or the **'Company'**) is pleased to announce that it has mobilised for its Phase 1 drilling programme, which aims to significantly expand the existing 40 Mt Inferred rare earths Mineral Resource.

Highlights

- **Fuel supply contracted**
- **Civil contractors engaged**
- **Driller contracted**
- **Custom sampling system fabricated and due for installation**
- **Second Environmental Mining Licence granted**
- **Buntine exploration underway**

"Mobilisation marks an important step for Barkly as we move into active field execution. This programme is designed to test the scale potential of the Barkly Project and support our objective of materially expanding the existing 40 Mt Inferred Mineral Resource by testing mineralisation across the ~20 km corridor between the two existing resource areas."

With key logistics, contractors and sampling systems in place, we are well positioned to commence drilling once drill pad clearing is complete. The programme is the next step in demonstrating the broader potential of the Barkly Project and will generate important data on mineralisation continuity, bulk density and targeted resource growth."

The early commencement of reconnaissance work at Buntine also reflects our disciplined approach to building value across the broader portfolio. We look forward to updating shareholders as drilling progresses and results become available."

Craig Wright — Managing Director

BARKLY DRILLING PROGRAMME

The Company has mobilised for its Phase 1 drilling programme at the Barkly Project following an extensive wet season. The programme targets expansion of the existing 40 Mt Inferred Mineral Resource which grades 2,100 ppm Total Rare Earth Oxide (TREO) for 82,000 tonnes of contained

TREO, reported in accordance with the JORC Code (2012) above a 430-ppm NdPr cut-off grade (refer to Previous Disclosure section).

The initial 40-Mt Inferred Mineral Resource at Barkly is classified within two optimised pit shells (green ovals in Figure 1, below), and mineralisation is open in all directions laterally. Drilling between the two resource areas suggests the potential for lateral resource expansion in the intervening ~20 km expanse, and more broadly across the Immediate Zone (purple area in Figure 1, below).

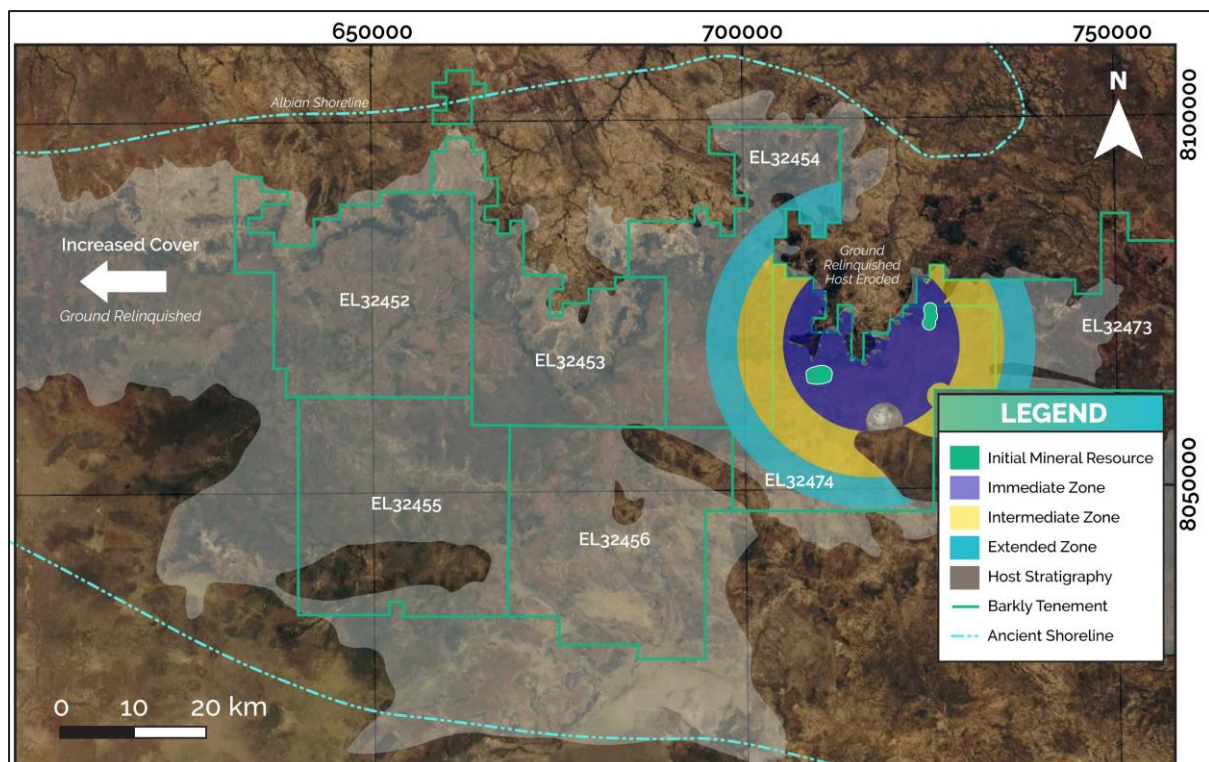


Figure 1: Extent of the initial Inferred Mineral Resource and the surrounding immediate, intermediate, and extended zones of exploration interest targeted by the Company.

The Company has designed the 10,000 metre Phase 1 drilling programme to target resource expansion across the Immediate Zone, coinciding with the Company's previously announced Exploration Target (refer to p.10 of the Investor Presentation released to the ASX on 7 April 2026). Planned drilling comprises ~400 shallow holes, averaging ~25 metres depth each.

The drilling programme will also test for extensions of rare earth mineralisation beyond the Immediate Zone of exploration interest, across the Intermediate Zone (yellow area in Figure 1, above) and more widely across the project area. It will also evaluate sample quality and bulk density data which the Company plans to use to support the future development of Indicated and Measured Mineral Resources.

The rare-earth-mineralised quartz sand at Barkly is interpreted to have been deposited on the seabed in a marine palaeo-embayment encompassed by the Barkly Project tenements. This depositional setting may support widespread continuity of grade and thickness. The extent of

mineralisation beyond the current resource remains to be tested by drilling, and this continuity will be determined through the Phase 1 drilling programme.

Drilling Programme Contracts

To manage fuel availability risk and reduce cost, the Company has contracted BP distributor, Recharge Petroleum, to deliver bulk fuel required for civil works and drilling. The Company is due to receive the initial 30,000 L tank of diesel, which will be used for clearing and drilling.

The Company has engaged two civil contractors using three earthmoving machines to form tracks and drill pads. Clearing will begin next week following fuel delivery.

The Company has also contracted a multi-purpose drill rig with a specialist contractor that will undertake the primary RC drilling at the Barkly Project. The RC drilling samples will be used to assess the continuity of mineralisation where the Company aims to expand the known rare earth horizon and grow its Mineral Resource. The same rig will drill initial twin holes using both air core and 100-mm core drilling methods, providing samples for the validation of RC sample quality, measurement of dry bulk density, and for building a detailed knowledge of the stratigraphy. The drilling rig is scheduled to begin drilling on 13 July.

Custom Sampling System

As part of its quality assurance, the Company commissioned specialist drill sampling equipment manufacturer, Drill Sampling Technologies Pty Ltd, to design and fabricate a sampling system for the drilling rig. The custom-made system is designed to maximise sample recovery and minimise grade bias, and is ideally suited to the material type at the Barkly Project. The equipment is due to be fitted and tested on the drill rig next week.

Second Environmental Mining Licence

The Company has been awarded a second Environmental Mining Licence (EML) and has received a Notice of Authority to commence exploration activities from the Minister for Mining and Energy (NT). This complements an existing EML and a Deemed Mining Licence held by the Company.

BUNTINE EXPLORATION UPDATE

The Company has advanced exploration activities at its Buntine Base Metals Project (Figure 2, below), originally planned for Q4 CY2026.

The team undertaking reconnaissance mapping and rock-chip sampling will complete its fieldwork by the second week of July and submit samples to the laboratory. The sampling work is to further assess the prospectivity for polymetallic mineralisation within outcropping Blue Hole and Campbell Springs formations over a 9-km strike length.

The Company has identified three different anomalous zones of Pb-Co, U-W-Pb-Ni, and Zn-Pb-Co-Cu along the mineralised corridor, with various historical rock chip samples grading up to 667 ppm Zn, 1% Pb, 1,760 ppm Co, 316 ppm Cu, 10% Mn, 7,100 ppm Ni, and 239 ppm Cr (refer to BAK prospectus dated 1 December 2025).

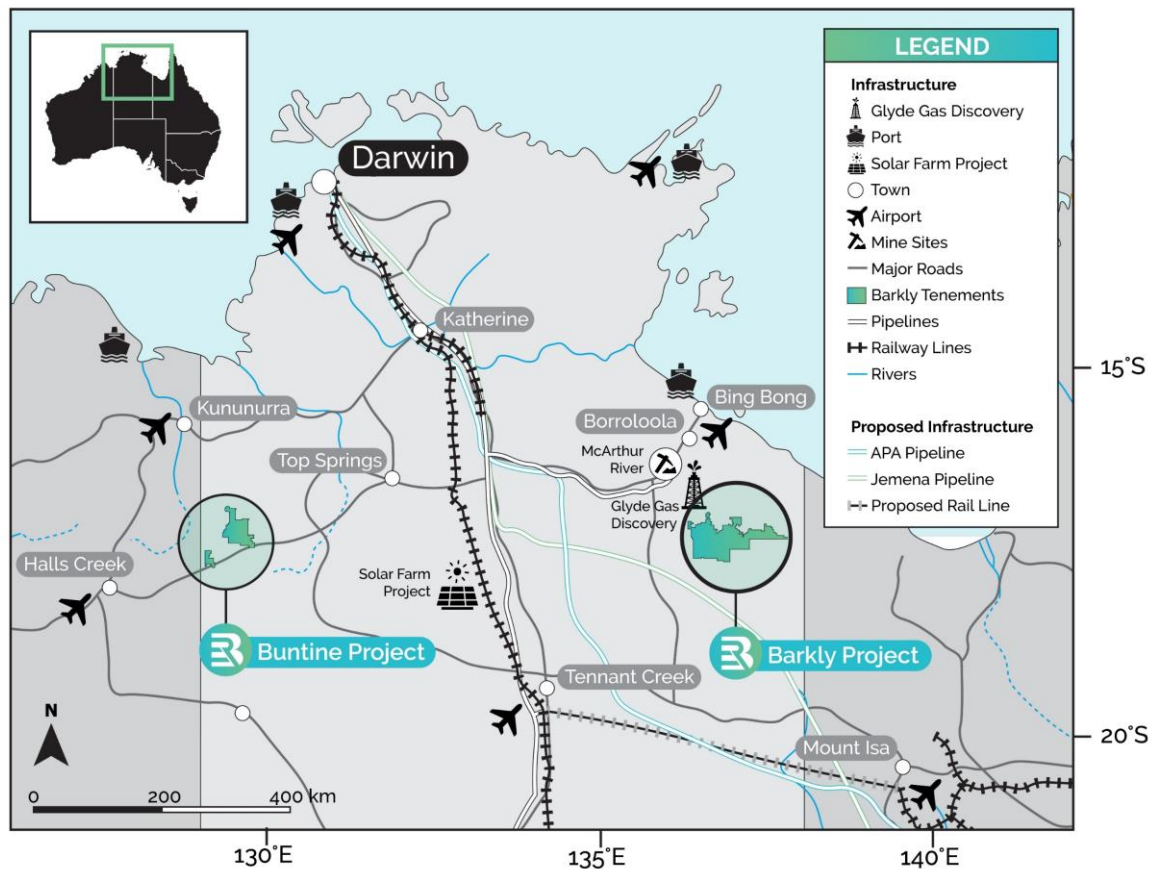


Figure 2: Location of the Barkly and Buntine projects.

EXPLORATION NEXT STEPS

- Resource expansion drilling commencement (imminent)
- Exploration results from 10,000 m of drilling in ~400 shallow holes (Q3 & Q4)
- Rare earths concentration and extraction testing (ongoing)
- Mineral Resource estimate update (Q4)
- Geo-metallurgical test work and modelling (Q3 & Q4)
- Buntine exploration results (Q3)
- Follow-up exploration at Buntine (Q4)

This announcement has been authorised for release by the Board of Barkly Rare Earths Limited.
ENDS

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About Barkly Rare Earths Limited:

Barkly Rare Earths Limited (**ASX:BAK**) is an Australian mineral exploration company focussed on the discovery and development of economic mineral deposits, driven by technical expertise, and disciplined execution. Its strategy is to discover, delineate, and develop deposits capable of supporting long-term production to meet growing global demand.

The Company's flagship Barkly Project in Australia's Northern Territory spans 5,030 km² and is held 100% by Barkly Rare Earths. It has an initial Inferred Mineral Resource of 40 Mt @ 710 ppm Magnet Rare Earth Oxide (MREO), within 2,100 ppm Total Rare Earth Oxide (TREO) (reported above a 430-ppm NdPr cut-off grade). The Mineral Resource includes a high terbium component, with low uranium and thorium. Initial conventional leaching tests achieved 74% MREO extraction, with initial beneficiation test work returning a mineral concentrate of 29,000 ppm TREO. The consistently high magnet rare-earth grade, and continuity of mineralisation presents an opportunity to build a project of global significance.

At the Company's Buntine Project in the Northern Territory, the Fraynes Formation is chronostratigraphically equivalent to the Barney Creek Formation that hosts the McArthur River Pb-Zn deposit, making the Fraynes Formation a target for greenfields base metal exploration. Polymetallic mineralisation is exposed at the Buntine Project along a nine-kilometre (9 km) strike length of late-Paleoproterozoic sedimentary rocks and overlying Cenozoic sediments, with three different anomalous zones of Pb-Co, U-W-Pb-Ni, and Zn-Pb-Co-Cu along the mineralised corridor. Rock chip samples grade up to 667 ppm Zn, 1% Pb, 1,760 ppm Co, 316 ppm Cu, 10% Mn, 7,100 ppm Ni, and 239 ppm Cr.

For more information, please visit: <https://barklyrareearths.com/>.

Forward Looking Statements

This announcement includes various 'forward-looking statements' with respect to, among other things, goals, plans, and strategies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors beyond the control of the Company that may cause the actual results, performance and outcomes to be materially different from those expressed or implied by such statements. Forward-looking statements are provided as a general guide only and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, recipients are cautioned not to place undue reliance on any forward-looking statement. Subject to any continuing obligations under applicable law, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in this announcement to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any such statement is based.

Previous Disclosure

The information in this announcement that relates to Exploration Results and Mineral Resources is extracted from the previous report titled Barkly and Buntine Projects, Northern Territory, Australia, Independent Technical Report, as Annexure A to the Company's Prospectus, of 1 December 2025. The previous report was prepared in accordance with the 2012 Edition of the JORC Code, and it is available to view at the Company's website www.barklyrareearths.com. The Company confirms that it is not aware of any new information or data, as at the date of this announcement, that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's (Paul Teniere) findings are presented have not been materially modified from the original market announcement.

Glossary

TREO (Total Rare Earth Oxide)

$\text{La}_2\text{O}_3 + \text{CeO}_2 + \text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Sm}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3 + \text{Ho}_2\text{O}_3 + \text{Er}_2\text{O}_3 + \text{Tm}_2\text{O}_3 + \text{Yb}_2\text{O}_3 + \text{Lu}_2\text{O}_3 + \text{Y}_2\text{O}_3$

NdPr (Neodymium-Praseodymium mixed oxide)

$\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$

MREO (Magnet Rare Earth Oxide)

$\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11} + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3$

MREO Ratio (%)

$\text{MREO}/\text{TREO} \times 100$