BARKLY RARE EARTHS

ASX ANNOUNCEMENT
ASX:BAK

16 September 2026

HIGH-GRADE MINERALISATION IN FIRST PHASE 1 DRILL RESULTS

Significant rare earth intercepts from every hole assayed spanning 23 km

Highlights

- Initial assay results received from the Phase 1 drilling campaign **exceed expectations** established during programme planning.
- Significant rare earth intercepts returned **from all 28 holes assayed** in drillholes up to **23 km apart,** from as shallow as 9 m downhole, which the Company interprets as the same rare earth horizon.
- Highlighted significant intercepts — pXRF-screened intervals only; full widths pending further assay:

  BAK0133 2,716 ppm TREO (951 ppm MREO): 2 m from 11 m
  including 6,064 ppm TREO (2,273 ppm MREO): 0.5 m from 11.5 m

  BAK0080 3,228 ppm TREO (1,195 ppm MREO): 1.5 m from 15 m
  including 5,170 ppm TREO (2,053 ppm MREO): 0.5 m from 15.5 m
- Magnet rare earth oxides (MREO) represent **31–40% of TREO** in 27 of 28 intercepts, consistent with the 34% MREO ratio of the existing Inferred Mineral Resource, and **uranium and thorium are consistently low**, which is considered favourable for processing flowsheets.
- Samples from **30 further drillholes** are at the laboratory, and 300-plus further holes are planned, with results expected to continue through **Q4 CY2026**.

Barkly Rare Earths Limited (**ASX:BAK**) (‘**Barkly**’ or the ‘**Company**’) has received the first assays from its 10,000 m Phase 1 drilling programme at the flagship Barkly Project in the Northern Territory. Every hole assayed returned significant rare earth intercepts, in 28 holes up to 23 km apart. The programme targets extensions near the current high-grade **40 Mt @ 2,100 ppm TREO** Inferred Mineral Resource[1], where mineralisation remains open in all directions.

> *“Twenty-eight holes assayed and twenty-eight intercepts — that is a very satisfying result, and the holes 23 km apart look like the same flat-lying horizon we mapped. Our ambition is to define a large-scale, high-grade resource, and results like these are why we are drilling another 300-plus holes.”*
>
> **Craig Wright — Managing Director**

[1] See Previous Disclosure section

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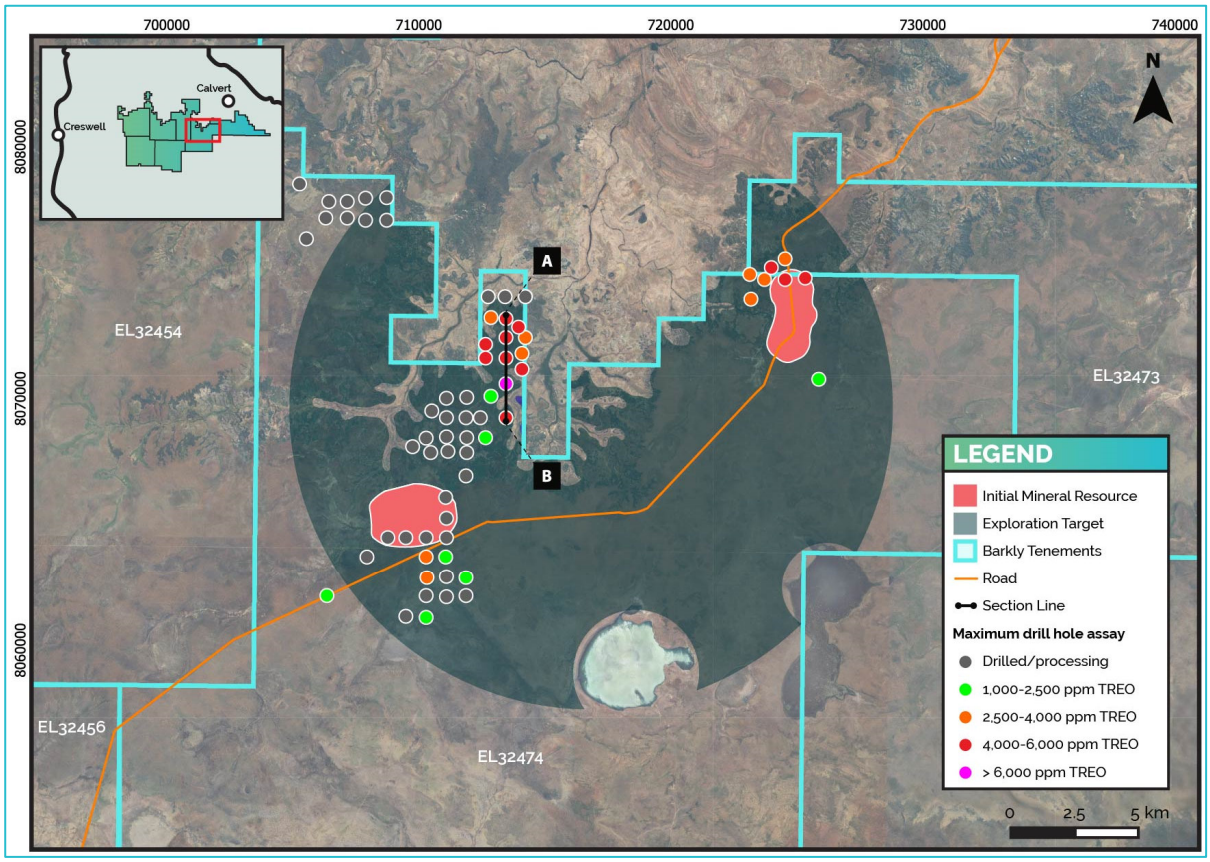

Figure 1: Drillhole location map illustrating maximum individual grade intervals of analysed drillholes, and completed drillholes that are awaiting sample preparation and laboratory analysis. A–B section line indicates Figure 3 cross section position. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

BARKLY DRILLING UPDATE

Results in Context

Drilling has returned significant rare earth intercepts in every hole assayed (Figure 1) to date, in drillholes up to 23 km apart across the Exploration Target — consistent with the Company's interpretation of laterally extensive, shallow mineralisation. Four features of the deposit reinforce each other: mineralisation starts as shallow as 3 m and is projected to be exposed at surface[2]; it is rich in the magnet rare earths, where most of the value in a rare earth deposit sits; it has scale — rare earth mineralisation intersected in every hole assayed to date, high-grade in most, across 23 km, where lateral extent builds the tonnage — and the horizon remains open, giving scope to grow the resource into the Exploration Target area (Figure 1) with ongoing drilling; and uranium and thorium are consistently low, which is advantageous for processing flowsheets where their content is a key cost driver.

[2] See Previous Disclosure section

A total of 109 samples assayed were pre-selected using pXRF screening, which on average under-reported REE grades, so the intervals reported here are screened intervals rather than full hole widths and each reported width may understate the mineralised zone. The 28 intercepts average 1.7 m, compared with the 2.4 m average from earlier drilling[3] that informed the current Inferred Mineral Resource; further assays immediately above and below each intercept are being requested to define the full mineralised horizon. The higher-grade component provides potential flexibility to focus on the most valuable material as further assays define the full width of the mineralised horizon.

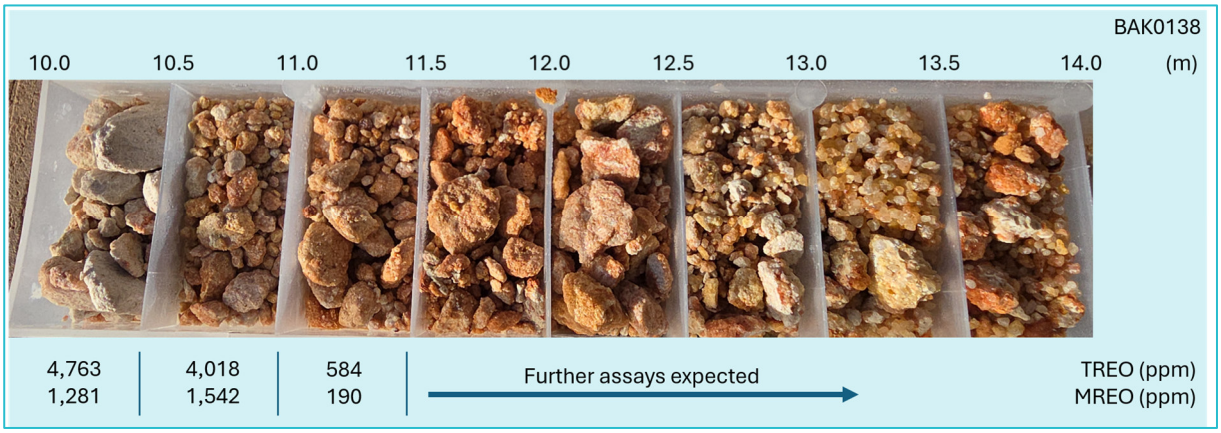

Figure 2: Shallow mineralised interval in a chip tray from drillhole BAK0138 illustrating TREO and MREO grades, and adjacent interval to be assessed in follow-up assays.

A total of 68 holes have been drilled to date, including the 28 reported here, a further 30 drillholes in analysis, and 10 being prepared on site for laboratory submission. A further 300-plus holes are planned — a continuous flow of results is expected through Q4 CY2026.

New Significant Rare Earth Intercepts

The 109 RC drill samples from 28 drillholes were selected for laboratory analysis using pXRF screening and were submitted to ALS Brisbane for analysis via lithium borate fusion with ICP-MS finish (ME-MS81). New significant intercepts were reported from all drillholes from as shallow as 9 m downhole, with 80% of samples exceeding the 500 ppm TREO cut-off.

The 28 significant intercepts average 1.7 m — possibly a minimum width, since assays to date cover selected pXRF-screened intervals within each hole. Further samples from these drillholes will be submitted following portable XRF calibration and completion of sample drying, de-agglomeration and splitting. By comparison, significant intercepts from the previous drilling that informed the current Mineral Resource average 2.4 m wide (see Previous Disclosure section) — the widths reported here will be updated as those assays are returned.

Samples from a further 30 drillholes are undergoing laboratory processing, and samples from another 10 are being prepared for dispatch from site.

[3] See Previous Disclosure section

Among significant intercepts (Table 1), the middle 50% range from 1,800 to 2,700 ppm TREO, with 570–950 ppm MREO, rounded to two significant figures.

Higher-grade internal intervals range up to 6,064 ppm TREO. High-grade intervals occur in most drillholes (Figure 1), indicating the consistent presence of a high-grade component to the deposit.

Table 1: Significant intercepts at the Barkly Project, weight averaged by length and presented above a lower cut-off of either ≥500 ppm TREO, where the reported intercept is ≥1.0 m in downhole width, or ≥100 ppm Y_2O_3, to which no minimum width applies. Maximum internal dilution of intercepts is 1 m. See Table 3 for drillhole collar locations.

	Significant Intercepts													Including		
Hole ID	From–To (m)	Width (m)	TREO (ppm)	MREO (ppm)	MREO ratio	NdPr (ppm)	Nd_2O_3 (ppm)	Pr_6O_{11} (ppm)	Tb_4O_7 (ppm)	Dy_2O_3 (ppm)	Y_2O_3 (ppm)	U (ppm)	Th (ppm)	From–To (m)	TREO (ppm)	MREO (ppm)
BAK0001A	29.0–31.0	2	1231	464	38%	443	369	74	5	16	31	2	9	29.0–30.0	1635	634
BAK0003	25.0–28.0	3	1293	487	38%	467	386	81	5	15	31	2	10	26.0–27.0	1672	663
BAK0036	16.5–18.5	2	1753	593	34%	570	465	105	5	18	42	2	5	17.0–17.5	3471	1213
BAK0038	16.0–18.0	2	1188	364	31%	351	284	67	3	11	24	1	8	17.0–17.5	1653	541
BAK0044	13.5–17.5	4	863	278	32%	259	211	48	4	15	33	3	7	14.0–14.5	2704	976
BAK0045	18.0–19.0	1	2193	694	32%	678	550	129	4	11	30	1	13	18.0–18.5	2310	694
BAK0050	20.5–21.0	0.5	1057	141	13%	49	39	10	10	82	638	7	15	20.5–21.0	1057	141
BAK0051	31.5–33.0	1.5	1990	642	32%	621	504	118	5	16	36	2	6	32.0–32.5	3442	1216
BAK0052	36.0–36.5	0.5	4041	1286	32%	1191	985	206	17	78	376	2	15	36.0–36.5	4041	1286
BAK0053	11.0–14.0	3	1851	610	33%	587	481	106	6	17	25	2	7	11.5–12.0	4482	1325
BAK0054	35.5–37.0	1.5	1877	629	34%	595	494	102	6	27	116	2	7	36.0–36.5	3473	1200
BAK0055	27.5–29.5	2	2160	750	35%	723	595	128	6	21	45	3	8	28.0–28.5	4229	1592
BAK0058	33.0–34.0	1	2046	702	34%	681	561	120	5	16	35	2	11	33.5–34.0	3071	1104
BAK0080	15.0–16.5	1.5	3228	1195	37%	1159	961	198	10	26	39	2	6	15.5–16.0	5170	2053
BAK0082	11.0–12.5	1.5	2683	887	33%	856	698	158	9	23	28	5	8	11.5–12.0	5855	1899
BAK0124	12.0–13.0	1	3543	1401	40%	1353	1132	221	14	33	32	4	6	12.0–12.5	5300	2029
BAK0125	9.0–10.5	1.5	2654	946	36%	918	755	163	8	20	22	7	8	9.5–10.0	5892	2218
BAK0129	12.5–14.5	2	1155	398	34%	373	309	64	6	19	28	2	6	13.0–13.5	1618	570
BAK0131	20.5–21.5	1	1989	711	36%	685	564	122	6	19	37	1	9	20.5–21.0	2469	864
BAK0133	11.0–13.0	2	2716	951	35%	916	754	162	9	26	39	4	6	11.5–12.0	6064	2273
BAK0134	10.5–12.0	1.5	2573	863	34%	827	680	147	10	26	30	4	7	11.0–11.5	3594	1339
BAK0138	10.0–11.5	1.5	3122	1004	32%	961	784	177	12	32	35	3	6	10.0–10.5	4763	1281
BAK0168	26.5–27.5	1	2000	645	32%	626	509	117	4	14	29	3	8	26.5–27.0	3266	1053
BAK0287	10.0–11.5	1.5	2648	885	33%	858	700	158	8	19	22	3	8	10.5–11.0	4828	1712
BAK0289	9.5–11.0	1.5	2977	1089	37%	1046	865	182	12	30	32	2	8	10.0–10.5	5979	2349
BAK0291	9.5–11.0	1.5	1809	570	32%	553	452	101	5	12	18	4	9	10.5–11.0	2796	992
BAK0292	10.5–12.5	2	1813	623	34%	599	494	105	7	18	23	3	9	11.0–11.5	3159	1036
BAK0294	10.0–11.5	1.5	2805	926	33%	897	729	168	8	21	28	3	8	10.5–11.0	4008	1495

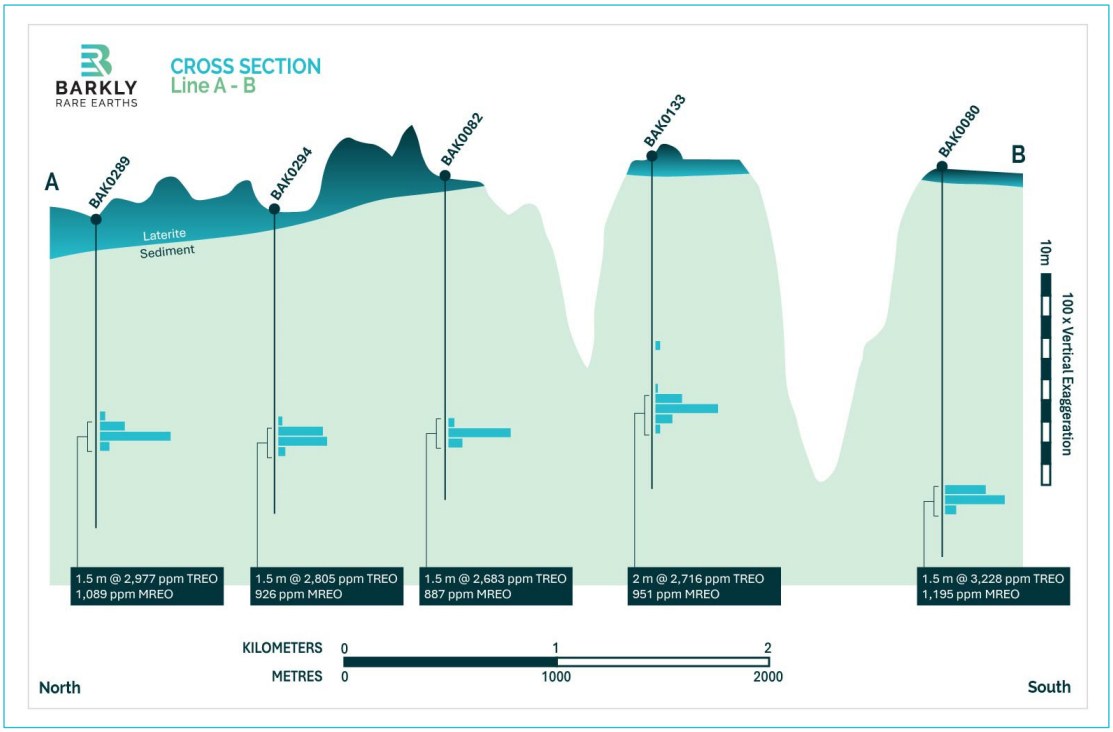

Figure 3: Cross section illustrating mineralised drill intercepts. 100x vertical exaggeration. Location of section line indicated in Figure 1. Blue TREO bars indicate intervals submitted for analysis; remaining intervals are pending assay.

Results are consistent with Barkly's interpretation of shallow, flat-lying rare earth mineralisation at the Barkly Project. Mineralisation has now been intersected in drillholes as far as 23 km apart, including one hole outside of the Exploration Target area. The drill results will inform ongoing resource expansion drilling, geological interpretation, and portable XRF calibration.

MREO ratios are consistently high, with 27 of 28 significant intercepts having ratios of 31–40%. This aligns with the 34% MREO ratio of the existing Inferred Mineral Resource.

Three intercepts returned elevated yttrium up to 638 ppm Y_2O_3, corresponding with elevated heavy rare earths, including terbium of up to 17 ppm Tb_4O_7 and dysprosium up to 82 ppm Dy_2O_3 (Table 1). Terbium, dysprosium and yttrium are all subject to the Chinese export control measures introduced on 4 April 2025, which have constrained supply to manufacturers outside China. Given the value of terbium and dysprosium and the tightening of yttrium supply, the Company will investigate opportunities to selectively target additional heavy rare earths.

Importantly, U and Th concentrations remain consistently low (Table 1), which is advantageous for rare earths processing flowsheets, where U and Th content is a key cost driver.

The laboratory results should be read together with the drilling information, significant intercept methodology and JORC Code Table 1 disclosures included in this announcement.

Exploration Target

Barkly Rare Earths Limited's Exploration Target is reported as a range of potential tonnes and grades in Table 2, and its area is illustrated in Figure 1. Exploration Targets are approximations. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for the target area and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target is reported in accordance with the JORC Code (2012).

Table 2: Barkly Project Rare Earths Exploration Target

Category	Tonnage (Mt)	TREO (ppm)	NdPr (ppm)
Exploration Target	200–1,000	1,600–1,900	500–700

The Exploration Target represents potential extensions of mineralisation beyond the current Inferred Mineral Resource. It is interpreted based on possible extensions of mineralisation in mapped, laterally extensive, near-horizontal Cretaceous sandstones, and on laboratory results from previously disclosed samples collected from 755 m of aircore drilling from 46 holes, and on samples reported here from 28 RC drillholes at the Barkly Project. Drillhole spacing is variable, ranging from 150–300 m to single drill lines with approximately 1,000 m hole spacing (refer to Previous Disclosure section). The Exploration Target relates to an area where the presence of a mineral deposit can be suggested on the basis of interpreted geological continuity, and on the presence of mineralisation in drillholes across the Exploration Target area.

Barkly Rare Earths is currently testing the Exploration Target through its 10,000 m Phase 1 resource drilling programme, due for completion in Q4 CY2026. The majority of the programme's planned ~400 shallow holes, averaging ~25 m deep, are within the Exploration Target area illustrated in Figure 1. Assays from the initial drilling are currently being assessed.

Project and Programme Background

The Company's 10,000 m Phase 1 resource drilling programme at the Barkly Project in the Northern Territory (Figure 4) 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 at a 34% MREO ratio including 28,000 tonnes of MREO. The Mineral Resource is reported in accordance with the JORC Code (2012) above a 430 ppm NdPr cut-off grade (see Previous Disclosure section).

The programme is designed to test whether the Inferred Mineral Resource can be materially expanded. An updated Mineral Resource estimate is targeted for Q4 CY2026, subject to drilling and laboratory assay progress.

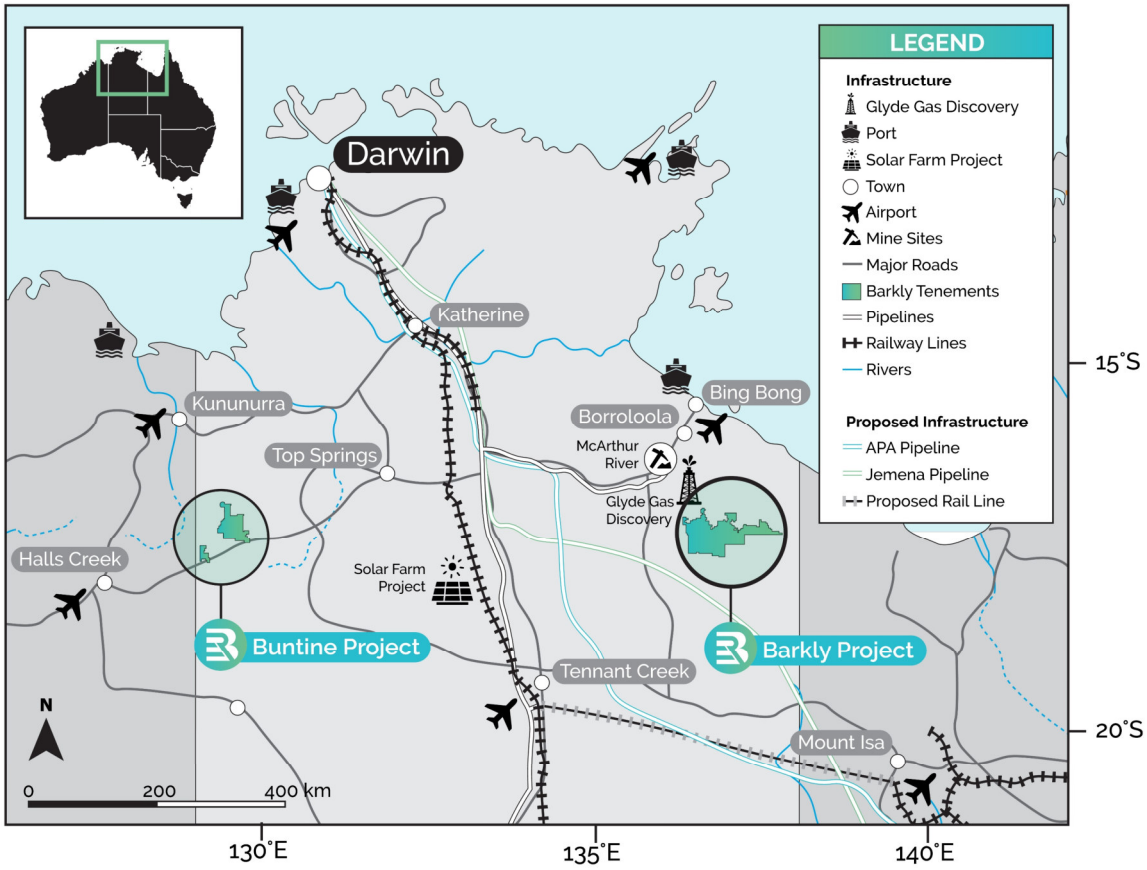

Figure 4: Location of the Barkly Project, Northern Territory, Australia.

On 4 April 2025 China added seven medium and heavy rare earth elements — including terbium, dysprosium and yttrium — to its export control list[4], requiring export licences for material that had previously traded freely. Manufacturers and governments outside China are consequently seeking to diversify sources of magnet and heavy rare earth feedstock. The Barkly Project's magnet-rich basket is directed at that demand.

METALLURGY RECAP

A recent caustic conversion and acid leach sighter test resulted in 99% of MREO[5] reporting to the acid leach solution on a calculated-head, product-stream basis, and 94% of yttrium reporting to those streams. The next phase of this testwork will use larger, representative composites to test repeatability and extraction performance at scale, optimise operating conditions and reagent consumption, and assess impurity deportment, product recovery and flowsheet viability.

[4] https://www.reuters.com/world/china/chinas-2025-rare-earth-exports-hit-highest-since-least-2014-despite-restrictions-2026-01-14/
[5] See Previous Disclosure section

EXPLORATION NEXT STEPS

- Ongoing laboratory assay results from 10,000 m of drilling (Q3 & Q4 CY2026)
- Rare earths concentration and extraction testwork (ongoing)
- Mineral Resource update (Q4 CY2026, subject to drilling and laboratory assay progress)
- Geometallurgical testwork and modelling (Q3 & Q4 CY2026)
- Buntine exploration results (Q3 CY2026)
- Follow-up exploration at Buntine (Q4 CY2026)

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 km^2 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. A caustic conversion and acid leach sighter test resulted in 99% of MREO reporting to the acid leach solution on a calculated-head, product-stream basis, and 94% of yttrium reporting to those streams. Initial beneficiation testwork returned a mineral concentrate of 29,000 ppm TREO (see Previous Disclosure section). The combination of shallow, flat-lying mineralisation, a consistently high magnet rare earth ratio and low uranium and thorium provides the basis on which the Company is testing whether the Barkly Project can support long-term production at scale.

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. The two formations are likely linked in the subsurface, making the Fraynes Formation a target for greenfields base metal exploration. Polymetallic mineralisation is exposed at the Buntine Project along a 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 (see Previous Disclosure section).

For more information, please visit https://barklyrareearths.com/link/eYOJWP

COMPETENT PERSON'S STATEMENT

The information in this announcement that relates to an Exploration Target and new Exploration Results is based on information evaluated by Richard Hall, who is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM), and a Member of the Geological Society of Australia. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code, 2012). He consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Mr Hall serves as General Manager—Exploration of Barkly Rare Earths Limited as a full-time employee of the Company, in which he has a shareholding. This association may give rise to a perceived conflict of interest in relation to his role as Competent Person.

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 previous Exploration Results and Mineral Resources is extracted from the reports listed below, each prepared in accordance with the 2012 Edition of the JORC Code and available to view on the Company's website at 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 those reports and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from those reports.

1. Barkly and Buntine Projects, Northern Territory, Australia, Independent Technical Report, included as Annexure A to the Company's Prospectus dated 1 December 2025. Competent Person: Paul Teniere.
2. ASX announcement dated 31 August 2026 titled 'Barkly Achieves 99% Magnet Rare Earth Oxide Extraction in Sighter Test'. Competent Persons: Richard Hall and Lu Zhang.

Glossary

TREO (Total Rare Earth Oxide)
$La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3$

NdPr (Neodymium-Praseodymium mixed oxide)
$Nd_2O_3+Pr_6O_{11}$

MREO (Magnet Rare Earth Oxide)
$Nd_2O_3+Pr_6O_{11}+Tb_4O_7+Dy_2O_3$

MREO Ratio (%)
MREO/TREO x 100

Table 3: Planned (unsurveyed) drill collar locations and actual depths of completed holes at the Barkly Project. Actual locations may vary from planned locations by up to c.±100 m. Coordinates are reported in GDA2020 MGA Zone 53. All drillholes are vertical (dip -90°, azimuth 000°).

Hole ID	Easting	Northing	RL (m)	Depth
BAK0001A	725973	8070915	284	61
BAK0003	706236	8062122	288	60
BAK0004	713431	8058928	279	57
BAK0007	711064	8068596	283	30
BAK0008	711831	8068525	284	26
BAK0010	710231	8068525	272	16
BAK0011	709676	8068188	264	6
BAK0012	710409	8067977	283	25
BAK0013	711064	8067977	286	29
BAK0014	711862	8067970	284	28
BAK0016	711829	8067038	281	24
BAK0021	711032	8066126	288	28
BAK0028	711031	8065325	287	29
BAK0032	708687	8064505	275	17
BAK0033	711032	8064504	286	26
BAK0034	710231	8064502	274	12
BAK0035	709432	8064499	280	20
BAK0036	710232	8063727	283	25
BAK0038	711031	8063725	284	25
BAK0040	707831	8063725	279	25
BAK0041	711032	8062927	281	23
BAK0044	710231	8062925	282	21
BAK0045	711831	8062925	285	27
BAK0046	711832	8062126	281	23
BAK0047	711030	8062125	282	22
BAK0048	710231	8062125	282	22
BAK0049	709431	8061325	281	23
BAK0050	710231	8061325	281	24
BAK0051	724634	8075724	291	35
BAK0052	724069	8075435	292	46
BAK0053	725429	8074975	273	19
BAK0054	723832	8074926	291	40
BAK0055	724631	8074925	285	31
BAK0058	723294	8074128	291	38
BAK0079	711831	8070125	281	25

Hole ID	Easting	Northing	RL (m)	Depth
BAK0080	713357	8069327	276	18
BAK0082	713431	8071725	273	15
BAK0119	710428	8069661	271	16
BAK0121	711032	8070126	275	22
BAK0122	711032	8069326	282	25
BAK0123	711832	8069326	275	18
BAK0124	712620	8072310	271	16
BAK0125	712632	8071726	272	14
BAK0127	712388	8069326	275	19
BAK0129	712834	8070207	273	18
BAK0131	712632	8068526	282	25
BAK0133	713371	8070728	275	16
BAK0134	714056	8071929	273	16
BAK0138	714081	8071268	272	14
BAK0168	723238	8075138	285	31
BAK0191	706370	8078014	272	15
BAK0192	705138	8078757	266	10
BAK0194	708638	8078229	274	17
BAK0212	713431	8074125	259	4
BAK0223	714223	8074125	261	4
BAK0243	708632	8077326	287	29
BAK0256	707831	8077325	283	29
BAK0268	707032	8077326	280	30
BAK0286	707032	8078126	274	22
BAK0287	713892	8073000	272	15
BAK0289	713432	8073326	271	15
BAK0290	707833	8078149	273	22
BAK0291	714198	8072551	272	15
BAK0292	712821	8073327	271	16
BAK0294	713432	8072526	270	14
BAK0295	705431	8076525	271	26
BAK0296	706231	8077325	272	27
BAK0299	712785	8074124	258	4

JORC Code, 2012 Edition — Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Drill samples were collected through a cyclone into plastic bulk bags at 1-m intervals (holes BAK0001A and BAK0003) or 0.5-m intervals (all other holes and intervals). Dry samples were passed through the rig-mounted cone splitter, which delivered the bulk reject to the bulk bag and two splits simultaneously into numbered calico bags. • Where clays and water made the primary sample wet, the splitter was bypassed and the entire sample was collected in a bulk bag for drying and future de-agglomeration, splitting, and laboratory analysis. • Sample representativity was supported through the application of SOPs that specified processes to optimise recovery and prevent contamination and sampling errors such as collecting the entire sample for wet intercepts. • A sieved undersize fraction of each sample was analysed by portable XRF to support logging, determine end of hole and select samples for laboratory analysis.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• The contractor, Colling Exploration Pty Ltd, used a Hydrapower Scout Mark IV multi-purpose drill rig fitted with an on-board cone splitter. Drilling predominantly used an RC hammer and cross-over sub, which allows the hammer to operate while reversing the flow of the drill cuttings up the inner tube of the drill rod. The bit comprised a 4-inch vacuuming-vortex bit, whereby the drill bit employs venturis that permit air forced down the hole to return up the inner tube of the drill rod, taking drill cuttings with it. The removal of the drill cuttings is further assisted by injecting compressed air onto a shroud located in the annulus of the drill bit between the inner tube and the drill rod, which deflects air up the inner tube, thereby enhancing the vacuuming effect. This technique significantly reduces outside air return and fine sample loss. 3.5-inch RC rods were also utilised with the 4-inch bit. Clays and water-logged

Criteria	JORC Code explanation	Commentary
		sediments occasionally necessitated the use of a 4-inch AC blade bit in places. • Completed drillholes reported in Table 3 were between 4 and 61 m in length and drilled vertically to their planned depths, or terminated on the basis of lithological logging.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Assessment of recovery was undertaken by weighing each bulk sample and both calico splits and monitoring the weights in real time against process control charts, with reference weights checked at the start of each session and after every fiftieth sample. • The drilling contractor actively worked to optimise sample recovery and quality: drilling was stopped for ~3 s after each sample interval so that all material was blown into the cyclone, holes were blown dry with high-pressure air where water was encountered, and hammer-shroud clearance, air pressure and loss of fines were monitored. SOPs were in place to ensure consistency. The field duplicate precision is currently being further investigated and will be monitored, with the objective of improving the splitting, particularly of wet samples. • No relationship between grade and recovery has been observed.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All samples were geologically logged, including colour, grain size, indicative moisture content, and lithology, captured directly into MX Deposit at the rig using validated logging sheets and standard logging codes. • The holes were logged both qualitatively and quantitatively (pXRF), and chip trays were photographed. All intervals were logged. • The Competent Person considers the logging procedures to have been carried out to an appropriate level of detail to support a Mineral Resource estimate.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for*	• No core was drilled. • Dry samples were split at the rig through the inline cone splitter into two splits in numbered calico bags. Wet samples were not passed through the cone splitter, to avoid clogging and cross-contamination; they were collected whole in a bulk bag for drying and future de-agglomeration and splitting in accordance with the Barkly RC Drilling and Sampling SOP. • Duplicates were collected at the rig and inserted into the sample stream at the rate of one in every ten mineralised samples, and certified reference materials and coarse blanks were each inserted at a rate of one in every twenty samples submitted. • Selected samples were subsequently sent to ALS Brisbane for further preparation, including an industry-standard approach of weighing (ALS code WEI-21, average sample weight was 0.99 kg), and pulverising (ALS code PUL-32, pulverising to 85% passing 75 µm).

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	field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• All techniques were standard and are considered appropriate by the Competent Person. • The Competent Person considers the sample sizes appropriate for the material sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• A selection of split sample intervals was made (using pXRF pre-screening) for submission to ALS for geochemical analysis. Samples were analysed at ALS Brisbane via Li-borate fusion followed by acid digest and analysed by ICP-MS (ALS code ME-MS81). Flux fusion is a complete digestion technique. A subset of samples was additionally analysed for whole-rock major element oxides by Li-borate fusion and ICP-AES (ME-ICP06), with loss on ignition determined gravimetrically (ME-GRA05). • Two Evident Vanta VMR handheld pXRFs were used as a first-pass screening tool. The three-beam 'Geochem' mode was used with beam times of 15-15-40 seconds, respectively. Portable XRF results are not reported and will be calibrated against the laboratory data. • Certified reference materials and coarse blanks were inserted into laboratory sample submissions at a rate of one in every 20 samples each and monitored for consistency, and field duplicates were submitted at one in every ten mineralised samples. Laboratory quality control comprised internal reference materials, pulp blanks, pulp repeats and coarse-crush and pulp sizing tests. Some minor possible laboratory contamination issues were noted, which are currently being further investigated.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intercepts have been reviewed by the Competent Person. • Twin holes have not been completed at this stage. • Apart from the routine QC procedures of the Company and the laboratory, there was no other independent or alternative verification of sampling and assaying procedures. Data were logged digitally at the rig into MX Deposit, with validation-controlled back-up logging sheets, and are stored in the exploration database maintained by RSC. Transcription errors were limited due to validation-controlled entries, original unedited data are retained, and all data are backed up daily. At least 10% of all data received are spot-checked before Mineral Resource estimation work begins. • No adjustment was made to the assay data. REE analyses were originally reported in elemental form and were subsequently converted to relevant oxide concentrations, as per industry standard conversions: La:1.1728, Ce:1.2284, Pr:1.2082, Nd:1.1664, Sm:1.1596, Eu:1.1579, Gd:1.1526, Tb:1.1762, Dy:1.1477, Ho:1.1455, Er:1.1435, Tm:1.1421, Yb:1.1387, Lu:1.1371, and Y:1.2699.

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		Abbreviations used throughout this document in accordance with IUPAC guidelines or common industry usage are as follows. ***TREO*** *(Total Rare Earth Oxide)* $La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3$ ***NdPr*** *(Neodymium-Praseodymium mixed oxide)* $Nd_2O_3+Pr_6O_{11}$ ***MREO*** *(Magnet Rare Earth Oxide)* $Nd_2O_3+Pr_6O_{11}+Tb_4O_7+Dy_2O_3$ ***MREO Ratio*** *(%)* MREO/TREO x 100
Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Collar locations reported in this announcement are planned locations as the collar survey is currently incomplete. Actual locations may vary from planned locations by up to c.±100 m. • All holes were drilled vertically and were not downhole surveyed due to their short nature. • Coordinates are reported in GDA2020 MGA Zone 53. • An orthorectified 16-bit DTM bundle with 2 m resolution was utilised for the project. A QGIS Zdrape function overlaid the holes onto the DTM to derive an RL for each planned collar position.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill lines and drillholes were spaced approximately 800 m apart where buffer zones, required under the Environmental Mining Licence, permitted it. • No new Mineral Resource or Ore Reserve is reported in this document. • No sample compositing has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• All holes were drilled vertically, which is approximately perpendicular to the sub-horizontal mineralised strata; therefore, sampling is considered unbiased with respect to the sampling orientation.
Sample security	• *The measures taken to ensure sample security.*	• All samples have been in the custody of Barkly Rare Earths or its consultants at all times, and hand-over procedures were in place for shipment to the laboratory. Chain of custody follows the Barkly Sample Transfer and Security SOP, naming a custodian for the samples at each stage, and requiring samples to be checked against the sample list, photographed, sealed

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		and held in a secure storage facility before dispatch. The laboratory confirms receipt of all samples once these have been entered into its laboratory information management system.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No formal audits or reviews of the original sampling techniques and data have been undertaken at this stage. • The SOPs have been drafted by RSC consultants in collaboration with Barkly Rare Earths and the Competent Person considers them to be fit for purpose.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Barkly Project licences are located in the northern Barkly region of the NT on pastoral land. • The drill samples were collected within Exploration Licences EL32473 and EL32474, granted pursuant to the NT Mineral Titles Act. The licences were granted on 21 May 2021 and expire on 20 May 2027. The Company expects to renew the licences at expiry. • Barkly Rare Earths has 100% ownership of the Barkly tenements through direct grant of tenure. There are no overriding royalty arrangements or any other overriding obligations on Barkly Rare Earths. • Barkly Rare Earths has executed an earn-in agreement with DevEx Resources Limited (ASX:DEV) for the exploration for uranium minerals on its Barkly tenements, including those to which this announcement refers. The earn-in agreement allows DevEx to earn 75% of the uranium rights. Barkly Rare Earths retains 100% of the rights to all non-uranium minerals, including V and REE. • Barkly Rare Earths applied for an Mine Management Plan in 2021 and three Environmental Mine Licences in 2026 for drilling in this area, which disclosed all known historical sites, wilderness sites, national parks, and significant environmental sensitivities known for the area. The approved MMP demonstrates the ability to operate in the area with no known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration in the Barkly area was carried out by Carpentaria and Rio Tinto, and later CRA, Bondi Mining, North Australian Diamonds, and Redbank Copper, focussing mainly on base metals, U, and diamonds. Several generations of work can be grouped by commodity: • 1956–1960: predominantly U exploration; • 1965–1971: mostly U with a secondary focus on Cu; and • 1978 to present: U, Au, diamonds, and base metals. • Modern (post-2000) exploration activities, according to STRIKE (Northern Territory Government Tenure and Geoscience information), are summarised below. There has been no historical exploration for REEs, nor any previous production of REEs at the Barkly Project.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Company</th><th>Commodities</th><th>Licence</th><th>Year</th><th>Activities</th></tr>
<tr><td>De Beers</td><td>Diamonds</td><td>EL23041</td><td>2004</td><td>4 soil samples collected at Lancewood in Walhallow</td></tr>
<tr><td>Bondi Mining</td><td>U, Base Metals</td><td>EL25710</td><td>2008</td><td>12 RAB holes and 2 diamond holes drilled</td></tr>
<tr><td rowspan="2">Bondi Mining</td><td rowspan="2">U, Base Metals</td><td>EL24841</td><td>2008–2009</td><td>77 soil samples, 3 stream-sediment samples, 115 drillholes (including four diamond) in Walhallow</td></tr>
<tr><td>EL24694</td><td>2008–2009</td><td>17 RAB, 2 diamond, 1 RC pre-collar holes</td></tr>
<tr><td>Southern Uranium Ltd./ Uranium West/ Investigator Resources JV</td><td>U, Au, V, Base Metals</td><td>EL24837</td><td>2009–2011</td><td>65 rock-chip samples, 113 soil samples, 4 diamond holes from Coanjula and Surprise Creek in Calvert Hills drilled</td></tr>
<tr><td>Hartz Range Mines Pty Ltd.</td><td>U, Diamonds, Base Metals</td><td>EL24358</td><td>2010</td><td>7 soil samples from Wollogorang in Calvert Hills</td></tr>
<tr><td>North Australian Diamonds Ltd.</td><td>Diamonds</td><td>EL26181</td><td>2010–2012</td><td>369 soil samples from Surprise Creek and Puzzle in Calvert Hills</td></tr>
<tr><td rowspan="2">Redbank Copper Ltd</td><td rowspan="2">Base Metals, Diamonds</td><td>EL26999</td><td>2011–2014</td><td>425 soil samples from Benmara; V_2O_5 anomalies were picked up in the area</td></tr>
<tr><td>EL27737</td><td>2011</td><td>23 stream-sediment samples</td></tr>
<tr><td>Lagoon Creek Resources Pty Ltd.</td><td>U, Au</td><td>EL24645</td><td>2012</td><td>4 RC holes drilled, combined depth 684 m.</td></tr>
</table>
</td></tr>
<tr><td>Geology</td><td>• Deposit type, geological setting and style of mineralisation.</td><td>• The Barkly Project is within the Greater McArthur Basin and overlies sedimentary and volcanic rocks of the McArthur Basin and sedimentary rocks of the Georgina and Carpentaria basins.
• REE mineralisation at Barkly is stratabound within marine sandstones deposited at the shoreface and in the shoreface-to-offshore transitional zone within a large Cretaceous marine embayment. The REEs are hosted within aluminium-phosphate-sulphate (APS) minerals that are likely diagenetic; however, they may have also been subject to supergene weathering processes.</td></tr>
<tr><td>Drillhole Information</td><td>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:
○ easting and northing of the drillhole collar</td><td>• A summary of all drillhole information is provided in Table 3. All holes were drilled vertically and all depths reported are downhole lengths.
• All drillhole information is provided in this announcement.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Significant intercepts are weight averaged by length and presented in Table 1 above a lower cut-off of either ≥500 ppm TREO, where the reported intercept is ≥1.0 m in downhole width, or ≥100 ppm Y_2O_3, to which no minimum width applies. These thresholds are ~2–4x average upper crustal abundance. These thresholds are used for reporting Exploration Results and should not be interpreted as economic or Mineral Resource cut-off grades. • Internal maximum dilution of aggregated intercepts is 1 m. No top-cut is applied. High-grade portions within intercepts are defined as the highest-grade single assay within the intercept. • No metal equivalent values are presented in this report.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• All holes intersect the mineralisation at 90 degrees and represent true widths. All sample depths tabulated in this Report are downhole lengths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being*	• Appropriate maps and sections of drillhole data are presented in this announcement.

Criteria	JORC Code explanation	Commentary
	reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All available relevant data have been reported. Uncalibrated pXRF results, used for screening samples to be sent to the laboratory, are not reported. Samples from 30 holes remain at the laboratory awaiting processing and reporting. Samples from 10 drilled holes are on site to be prepared for laboratory submission.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• There is no additional substantive exploration data to report currently.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further drilling (c. 8,000 m) to test for lateral extensions of mineralisation and presence of REE mineralisation on other tenements at the project. • Further metallurgical testwork. • Mineralogical studies.