

12 December 2024

Company Announcements Office

Australian Securities Exchange

**LYCAON RESOURCES LIMITED**

**Update to “Drilling Completed at West Arunta”**

**Lycaon Resources Ltd** (ASX: LYN) (**Lycaon** or the **Company**) would like to provide an update to its ASX announcement lodged on 10 December 2024 to include additional cross-references to the information about recent geophysical modelling results and historical drilling results and the information about WA1 Resources Ltd (ASX: WA1) and Encounter Resources Limited (ASX: ENR).

Yours faithfully,

**Melanie Ross**

**Company Secretary**

# Drilling Completed at West Arunta

---

## HIGHLIGHTS

- Maiden drill program completed at the Stansmore Nb-REE/IOCG target at West Arunta Project
- Magnetic geophysical anomaly<sup>1</sup> correlated to a magnetic mafic lithology
- Samples dispatched to Intertek Laboratory in Perth for multi-element analysis with the aim of identifying presence of key pathfinder/trace elements to assess future drilling programs
- EIS exploration incentive providing up to \$180,000 funding towards drilling costs

Mr Thomas Langley, Technical Director commented, "It was a huge effort by all contractors to get the drilling program completed on such a tight timeframe ahead of the wet season. We now await receipt of the multi-element assays in mid to late January, with the aim of identifying anomalous trace element or pathfinders that can demonstrate the mafic intrusive has the potential to host mineralisation."

"As we have seen with WA1's and Encounter's recent drill results in the region, this area has proven to have a very good strike rate of success in drilling regionally significant geophysical anomalies like our Stansmore target."

"I look forward to updating the market on assay results in Q1, 2025."



*Figure 1. Stark Drilling RC rig at the first hole STRC001, Stansmore Project in West Arunta*

**Lycaon Resources Ltd** (ASX: LYN) (**Lycaon** or the **Company**) is pleased to announce the completion of drilling for the maiden drill program.

Samples have been sent to Perth for analysis with results anticipated to have a turn-around-time of 15 – 25 days upon receipt at the laboratory.

In May 2024, the Company was awarded a co-funding grant of up to a maximum of \$180,000 for drilling at Stansmore, under Round 29 of the Western Australian Exploration Incentive Scheme (refer to Lycaon's ASX Announcement dated 1 May 2024).

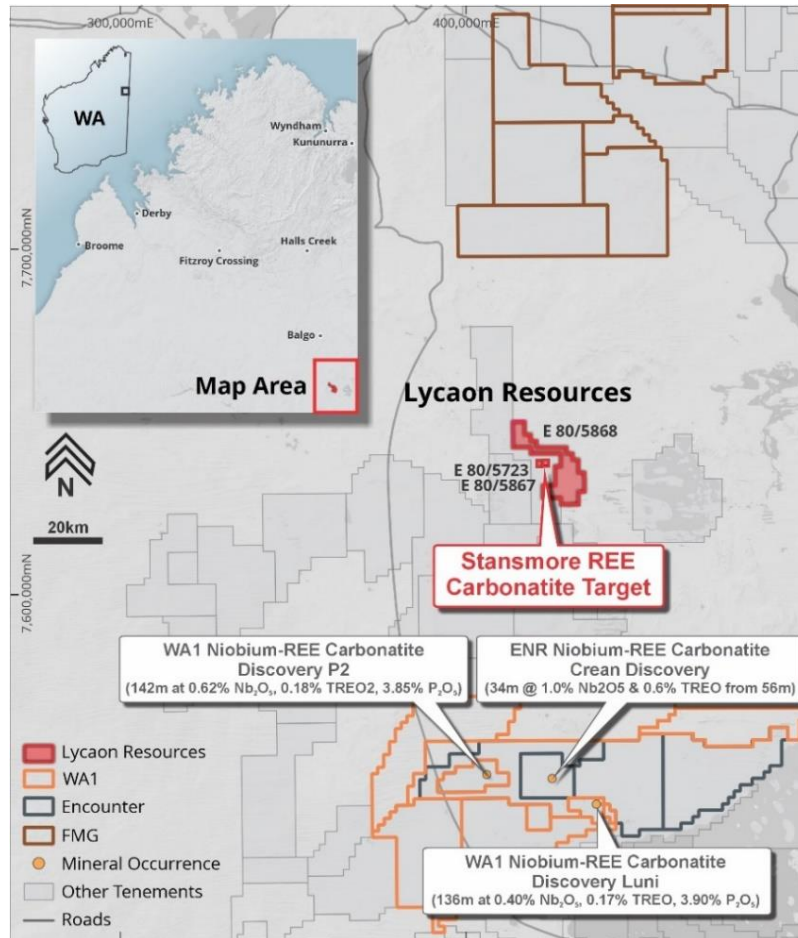


Figure 2. Stansmore Nb-REE Carbonatite ± IOCG Project Location Map

### Stansmore – West Arunta Project (Nb-REE/IOCG ± Intrusion Related Gold Copper)

The 100% owned West Arunta Stansmore Niobium-REE Project granted tenure extends over 173km<sup>2</sup> and is approximately 90km north of WA1 Resources' Luni and P2 discoveries, Figure 2. The project consists of three high priority magnetic anomaly drill targets (Stansmore, Volt and Ions) and three secondary drill targets (Edi, Earl and Menlo) that may be prospective for Niobium-REE Carbonatite, Iron-Oxide Copper Gold (IOCG) or Intrusion Related Gold Copper, Figure 3, 4, 5.

The recent drilling completed by the Company at the Stansmore Project targeted a regionally prominent 500m diameter magnetic feature<sup>1</sup>. Recent discoveries by WA1 Resources and Encounter Resources have demonstrated the potential for the West Arunta region to host significant Nb-REE mineral systems.

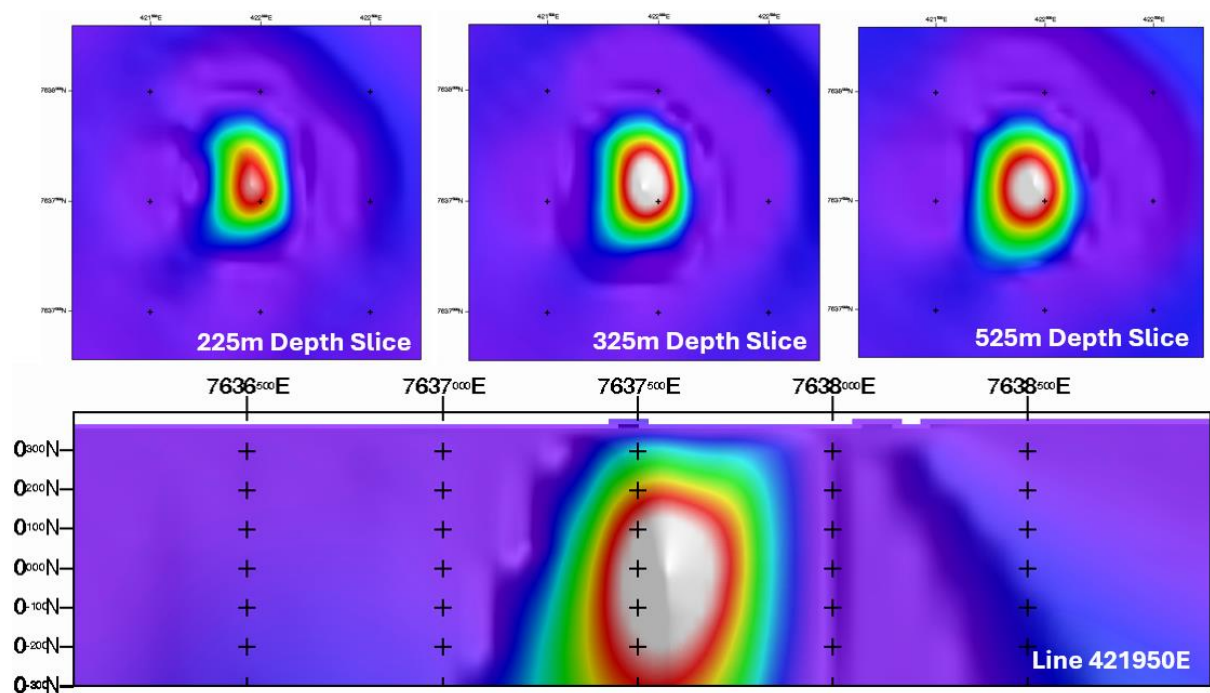


Figure 3. Stansmore Prospect – Magnetic Inversion

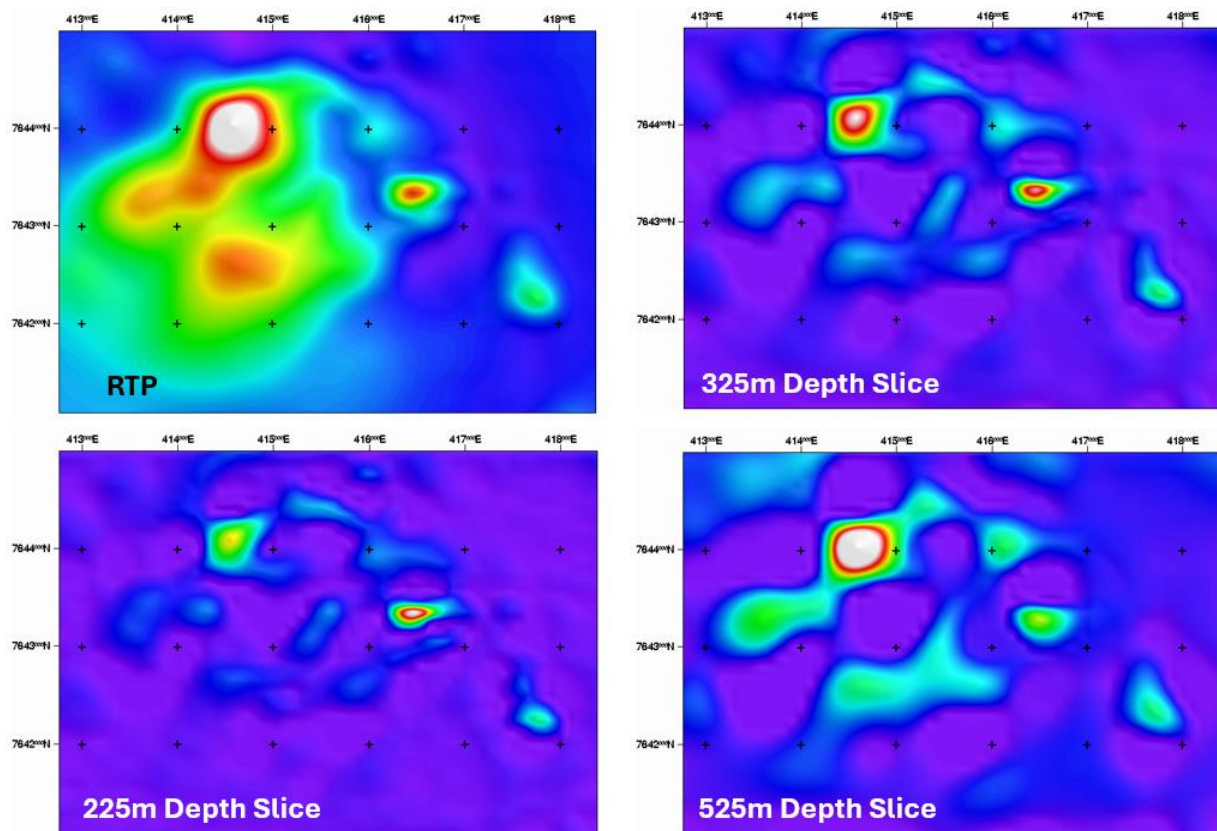
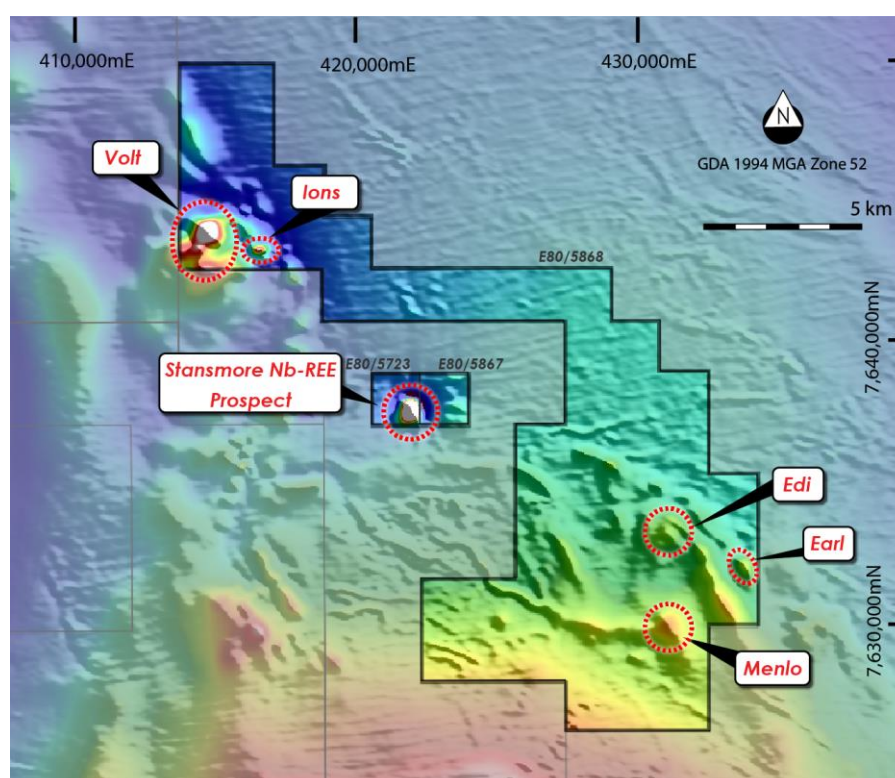


Figure 4. Volt/Ions Area – Magnetic Inversion

Recent geophysical modelling was completed by renowned geophysical expert Terry Hoschke<sup>1</sup>. Mr Hoschke's work followed the initial review completed by Southern Geoscience Consultants (SGC) to further strengthen our understanding of drill targeting. The geophysical review included re-processing magnetic data and a 3D inversion of the magnetic data to assist with targeting of drillholes ahead of the maiden drill program. 3D inversion efforts utilised the best available public domain magnetic data (circa 2010) consisting of 200m line spacing survey data (north-south lines) with a nominal terrain clearance of ~50m.



**Figure 5. Reduced to Pole Magnetics (TMI grid) highlighting the prominent magnetic anomaly at Stansmore Prospect and other magnetic targets**

The 3D inversion results defined the Stansmore magnetic anomaly as a pipelike body of approximately 500m diameter, starting from ~120m depth, and dipping to the south<sup>1</sup>.

The Stansmore Project has had limited historic work completed within the project area with the broader area having limited exploration focussed on gold, copper and diamonds. BHP Minerals Limited completed 6 shallow RAB drillholes over the Stansmore magnetic anomaly in 1983 (WAMEX Report A12302) exploring for diamonds. Drilling at the main Stansmore magnetic anomaly (ST2) consisted of 5 drillholes with a maximum depth of 12m. Lithologies intersected by the drilling included ultrabasic rock, 'possibly pyroxenite', and sericitic altered claystone<sup>2</sup>.

Overall, the results did not display kimberlitic affinities to potentially host diamonds and the tenement was surrendered in the following year. Encouragingly the RAB drilling has highlighted the shallow depth of cover and saprolite interface. The drilling did not adequately test the magnetic anomaly which starts at ~150m depth.

The WA1 discoveries at Luni and P2 have been large first order geophysical anomalies which had never been drilled<sup>3</sup>. The identification of Niobium and Rare Earth mineralisation associated with carbonatite intrusions by WA1 Resources and Encounter Resources nearby in their first ever drill programs signifies the extremely prospective and underexplored nature of the West Arunta.<sup>3,4,5,6</sup>

**- ENDS-**

This announcement has been authorised for release by the Directors of the Company.

<sup>1</sup> ASX: LYN, West Arunta Refined Geophysical Modelling, 5 September 2024

<sup>2</sup> ASX: LYN, Recipient of \$180K EIS Co-Funded Program, 1 May 2024

<sup>3</sup> ASX: WA1, West Arunta Project Discovery of Niobium-REE Mineralised Carbonatite System, 26 October 2022

<sup>4</sup> ASX: WA1, West Arunta Project High-Grade Infill at Luni, 8 November 2023

<sup>5</sup> ASX: ENR, Thick, high-grade Niobium-REE at Aileron – West Arunta, 25 July 2023

<sup>6</sup> ASX: ENR, New West Arunta high-grade niobium intercepts - Crean & Emily, 8 July 2024

For additional information please visit our website at [www.lycaonresources.com](http://www.lycaonresources.com)

**For enquiries:**

Lycaon Resources Limited

T: +61 8 6188 8181

E: [admin@lycaonresources.com](mailto:admin@lycaonresources.com)

### Cautionary Statement

This announcement and information, opinions or conclusions expressed in the course of this announcement contains forecasts and forward-looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. There are a number of risks, both specific to Lycaon, and of a general nature which may affect the future operating and financial performance of Lycaon, and the value of an investment in Lycaon including and not limited to title risk, renewal risk, economic conditions, stock market fluctuations, commodity demand and price movements, timing of access to infrastructure, timing of environmental approvals, regulatory risks, operational risks, reliance on key personnel, reserve estimations, native title risks, cultural heritage risks, foreign currency fluctuations, and mining development, construction and commissioning risk.

### Competent Person's Statement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Thomas Langley who is a member of the Australian Institute of Geoscientists (MAIG) and a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Thomas Langley is a full-time employee of Lycaon Resources Limited, and is a shareholder, however Mr Thomas Langley believes this shareholding does not create a conflict of interest, and Mr Langley has sufficient experience which is 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". Mr Langley consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.