

**ASX Release**  
30 January 2025

**Magnum Mining and Exploration Limited**  
ABN 70 003 170 376

**ASX Code**  
MGU

**Chief Executive Officer and Managing Director**  
Neil Goodman

**Non-Executive Chairman**  
Luke Martino

**Non-Executive Director**  
Athanasios Lekkas

**Company Secretary**  
John O'Gorman

**Issued Shares**  
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**Listed Options**  
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## QUARTERLY ACTIVITIES REPORT

For the Period Ending 31 December, 2024

Magnum Mining & Exploration Limited (ASX: **MGU**) (**Magnum** or the **Company**) is pleased to provide a summary of its activities.

### HIGHLIGHTS

- Magnum entered into an agreement to acquire the Palmares and Azimuth Rare Earth Element (**REE**) Projects, located in the Minas Gerais, Goias, and Bahia states, Brazil.
- Technical due diligence was performed on one of the Palmeres REE tenements
- Magnum continued negotiations with investors for a Green Pig Iron Project in Saudi Arabia

## BRAZIL RARE EARTH PROJECTS

See ASX announcements issued on November 21, December 4, December 11 and December 20

### MATERIAL TERMS OF THE ACQUISITION AGREEMENT

The material terms of the Acquisition Agreement are as follows:

**Conditions:** Settlement under the Acquisition Agreement will be conditional upon the satisfaction or waiver of all of the following conditions precedent on or before 31 January 2025 (**Conditions**):

- a. Completion of due diligence by Magnum on Palmares and the Projects;
- b. Magnum confirming, in its sole and absolute discretion, that there are no financial obligations, contingent or other not disclosed, existing over Palmares or the Projects; and
- c. Magnum and Beko obtaining all necessary regulatory and shareholder approvals required to complete the acquisition (including Magnum shareholder approval for the issue of the Consideration Shares pursuant to ASX Listing Rule 7.1).

**Consideration:** In consideration for the acquisition, Magnum agrees to:

- a) make a cash payment of US\$100,000 to Beko; and
- b) issue 190,000,000 Shares to Beko (or its nominees), subject to Magnum shareholder approval pursuant to ASX Listing Rule 7.1 (**Consideration Shares**).

The Consideration Shares will be subject to a period of 12 months voluntary escrow from the date of issue.

The Company has also agreed to issue an aggregate of 25,000,000 Shares to StarGroup and Interminico Services Limited (**Interminico**) (or their nominees), subject to Magnum shareholder approval pursuant to ASX Listing Rule 7.1, as follows:

- a. 15,000,000 Shares will be issued to StarGroup (or its nominees) in consideration for the assignment of the original acquisition agreement to the Company; and
- b. 10,000,000 Shares will be issued to Interminico (or its nominees) for the initial introduction of the acquisition to StarGroup.

Magnum will also make a cash payment to StarGroup of A\$150,000 as reimbursement for costs that StarGroup has incurred to date progressing the original acquisition agreement.

The Company intends to release a notice of meeting to convene a general meeting to seek approval for the Consideration Shares and the Shares to be issued to StarGroup and Interminico in due course.

## THE AZIMUTH REE PROJECT

### Background

The Azimuth REE Project is a green field exploration project highly prospective for REE. It consists of 72 granted tenements (Table 1) covering ~1,201km<sup>2</sup> of highly prospective ground. These extend over 900km of the regional AZ125° Lineament.

The AZ125° Lineament is a crustal trans-Brazilian feature that reflects the deep plumbing system in the region. Diamond bearing lamprophyres and kimberlites have been the historic exploration targets. The lineament is now recognised as a major source of other metal mineralisation due to the exotic intrusives that occur along it.

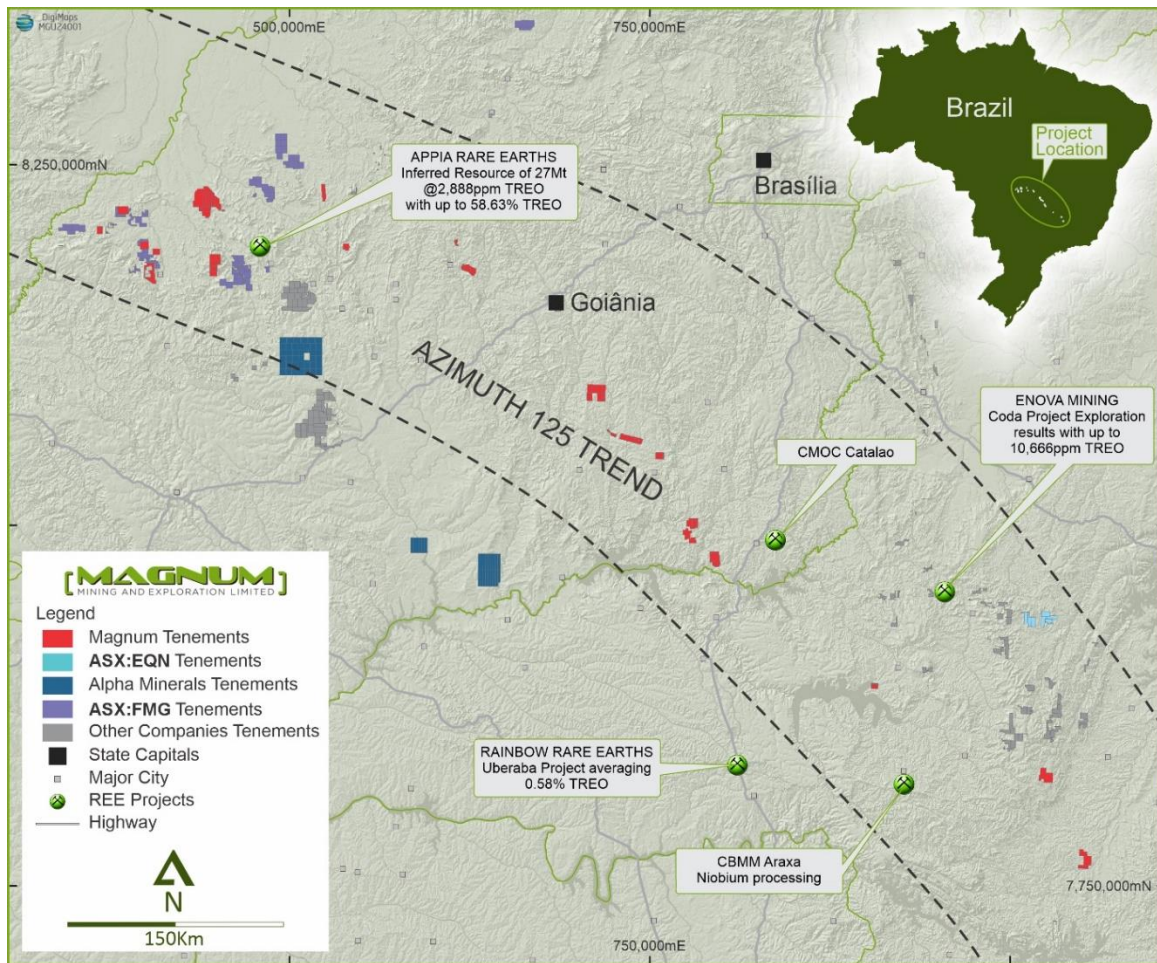
The Azimuth Project's leases cover granitic and alkaline intrusives lithologies that are a primary source of REEs, including monazite, xenotime, allanite, titanite, and apatite. These minerals are weathered, adsorbed and concentrated into surficial ionic clay deposits. The geophysical signatures of the source rocks are key to the exploration for REE deposits along this lineament. Aeromagnetic data is used extensively to focus in on permissive lithologies for REE.

Carbonatites that are characterised by expressive geophysics anomalies are especially renowned for hosting significant concentrations of REEs and are often associated with minerals like bastnäsite and monazite. Intrusive alkaline rocks contain REE minerals eudialyte and loparite.

The region has attracted major REE explorers, which include those with both announced REE resources and significant exploration results, as well as Fortescue Metals Group (ASX: FMG) whom have secured a landholding close to some of the Azimuth Project granted claims (Figure 1).

### Work completed to date

No exploration, including geological mapping, sampling, drilling, petrography, geophysics and trenching, have been completed on the Azimuth Project to date. This is a package of virgin ground in a rapidly developing and emerging REE province. Magnum has not completed any due diligence on historic work in the district and will not rely on any such information until completed.



**Figure 1** - The Azimuth REE Project is centred on the Azimuth 125° Lineament. The lineament is associated with major mineralisation. The area is currently being explored by a number of international companies, including Fortescue Metals Group (ASX: FMG). The tenements straddles the north-north-east trending Transbrazilian Lineament at its intersection with the Azimuth 125° Lineament. An extensive road network facilitates access to the ground (DL are dunite and lamprophyre rocks).

## PALMARES REE PROJECT

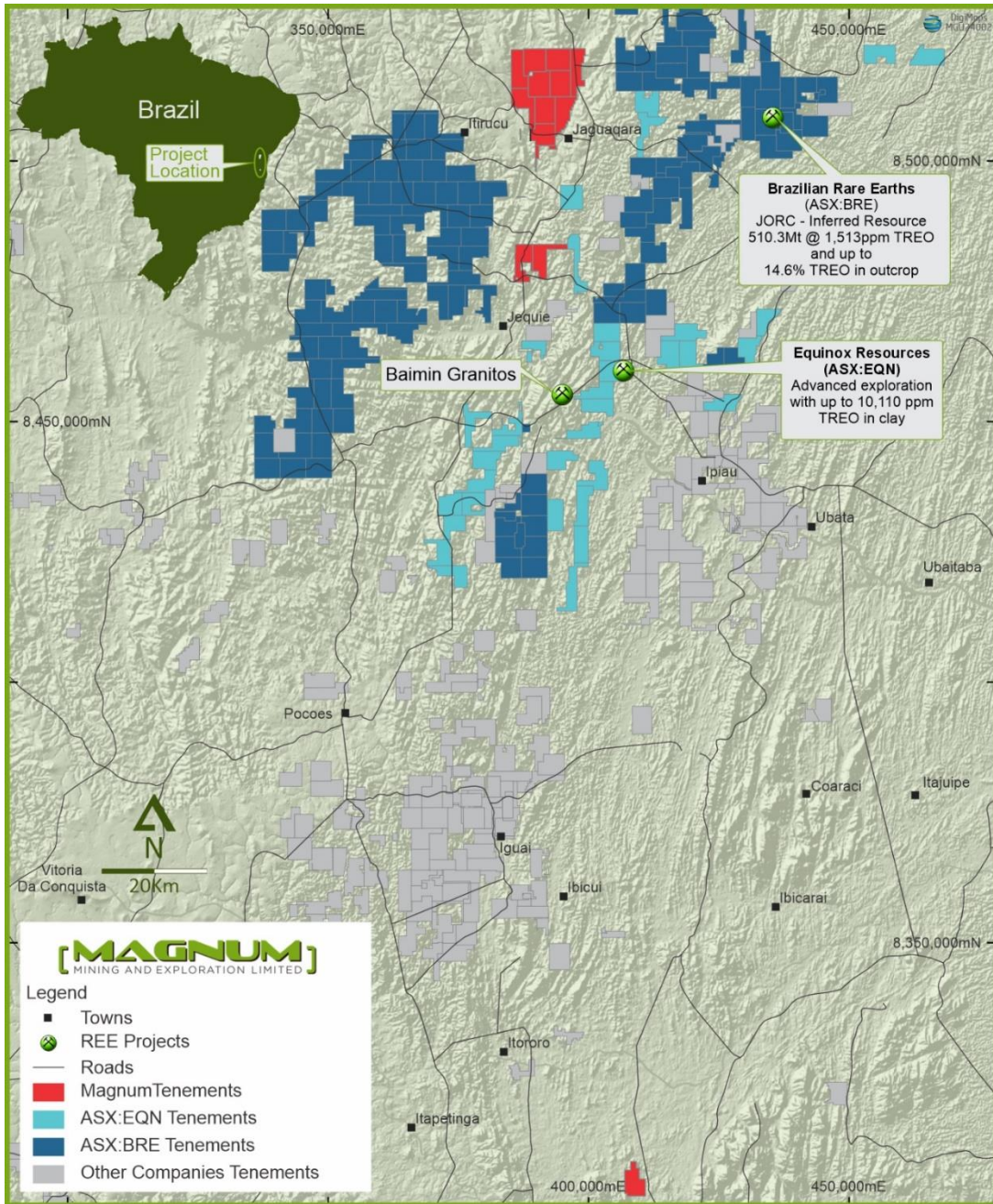
### Background

The Palmares REE Project is a green field exploration project consisting of 18 granted claims (Table 2) situated in the centre-south of Bahia state. The leases cover a 43 km long and 13 km wide target zone totalling ~348 km<sup>2</sup> in a very tightly held area (Figure 3).

The Project is situated in a belt of Archaean granites and alkaline intrusives of high metamorphic grade in the Jequié Belt. This belt is the scene of intensive exploration that has identified areas between 1% Total Rare Earth Oxides (TREO)<sup>1</sup> as reported by Equinox Resources and 14.6% TREO<sup>2</sup> by Brazilian Rare Earths. These occur as both hard rock and surficial ionic clay deposits. The latter are particularly attractive due to their low exploration, mining, and beneficiation costs.

<sup>1</sup> ASX:EQN "Ultra-High Grade REE in Clay of 10,110ppm TREO at Surface at Mata da Corda", 30 July, 2024.

<sup>2</sup> ASX:BRE "Exceptional Heavy Rare Earth Discovery at Monte Alto Project", 23 October, 2024.



**Figure 2** - The Palmares REE Project is located in the Jequié Belt of metamorphosed intrusives in Bahia State. The project is tightly surrounded by ASX REE explorers, including Equinox Resources (ASX: EQN) and Brazilian Rare Earths (ASX: BRE). The background is the 1:1 million scale geology of Brazil.

The unique tectonic setting and the presence of prospective lithologies, including carbonatites and alkaline igneous rocks, contributes to the potential for REE mineralisation. The Jequié Belt's geological history is conducive to REE concentrating processes, enhancing the region's prospectivity for the development of REE deposits.

## Work completed to date

Exploration, including geological mapping, sampling, ground geophysics, petrography, and trenching, have been completed on the Palmares Project to date. Magnum has not completed any due diligence on the exploration results & will not rely on the information until completed.

## PALMARES TECHNICAL DUE DILIGENCE

Magnum completed the technical due diligence on one of eighteen tenements from the Palmares REE Project. The Feirinha Prospect tenement (871332/2020) has undergone geological mapping that has identified an area of extensive pegmatite dyke swarms.

Surface geochemical rock sampling returned up to 13,082ppm (1.31%) Total Rare Earth Oxides (TREO) and averaging 1,827ppm. Follow-up trenching totalled 16 trenches for a total of 329.6m. Trenches were up to 2.9m deep and averaged 2m. The trenches targeted pegmatite dykes that were mapped at surface that assayed up to 16,884ppm (1.69%) TREO from trench TR-01 and averaged 1,166ppm TREO.

The assay results show particular anomalism in Terbium (Tb), with up to 47ppm Tb<sub>4</sub>O<sub>7</sub>, and Dysprosium (Dy), with up to 285ppm Dy<sub>2</sub>O<sub>3</sub>. Tb and Dy are critical heavy rare earths. Significantly, the area returned high Cerium of up to 6,507ppm. These levels are often associated with, and diagnostic of, mineralised ionic clay deposits, a style characteristic of the area.

## NEXT STEPS

The Board is presently reviewing various funding arrangements in relation to the acquisition and a potential work program on the Projects and will update the market in due course when any arrangements are finalised.

The anticipated activities over the period to 31 January 2025 are:

1. Completion of the Due Diligence.
2. Shareholder meeting to authorise the issuing of shares under the Acquisition Agreement.
3. Undertaking potential capital raising.
4. Settlement of Acquisition Agreement and issue of Shares.

## SAUDI GREEN PIG IRON PROJECT

Magnum continued negotiations with potential investors to advance its Green Pig Iron Project in Saudi Arabia<sup>3</sup>. That agreement envisages the construction of a HIs melt plant that will be fed by steel mill waste augmented by magnetite from the Company's proposed Buena Vista Magnetite mine. Negotiations with a Saudi steelmaking company are progressing well. Magnum is confident that these negotiations are on target and are drawing to an agreeable conclusion.

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<sup>3</sup> ASX:MGU "Funding Round for Green Pig Iron Project in Saudi Arabia", 13 May, 2024

## **APPENDIX 5B**

In accordance with ASX Listing Rule 5.3.2, the Company advises that no mining development or production activities were conducted during the December 2024 Quarter.

As set out in the attached Appendix 5B, exploration expenditure during the quarter totaled A\$53,240. Payments to related parties during the December 2024 quarter were zero.

*This document has been authorised for release to the ASX by the Company's Board of Directors.*

Further information please contact:

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