



## GREEN LIGHT RECEIVED TO DRILL TEST BRAZIL REE TARGETS

Magnum Mining & Exploration Limited (ASX: **MGU**, **Magnum**, or the **Company**) is initiating an drilling campaign on priority targets identified on the Azimuth 125 and Palmares Rare Earth Element (REE) Projects in Brazil<sup>1</sup> (**Figure 1**).

### HIGHLIGHTS

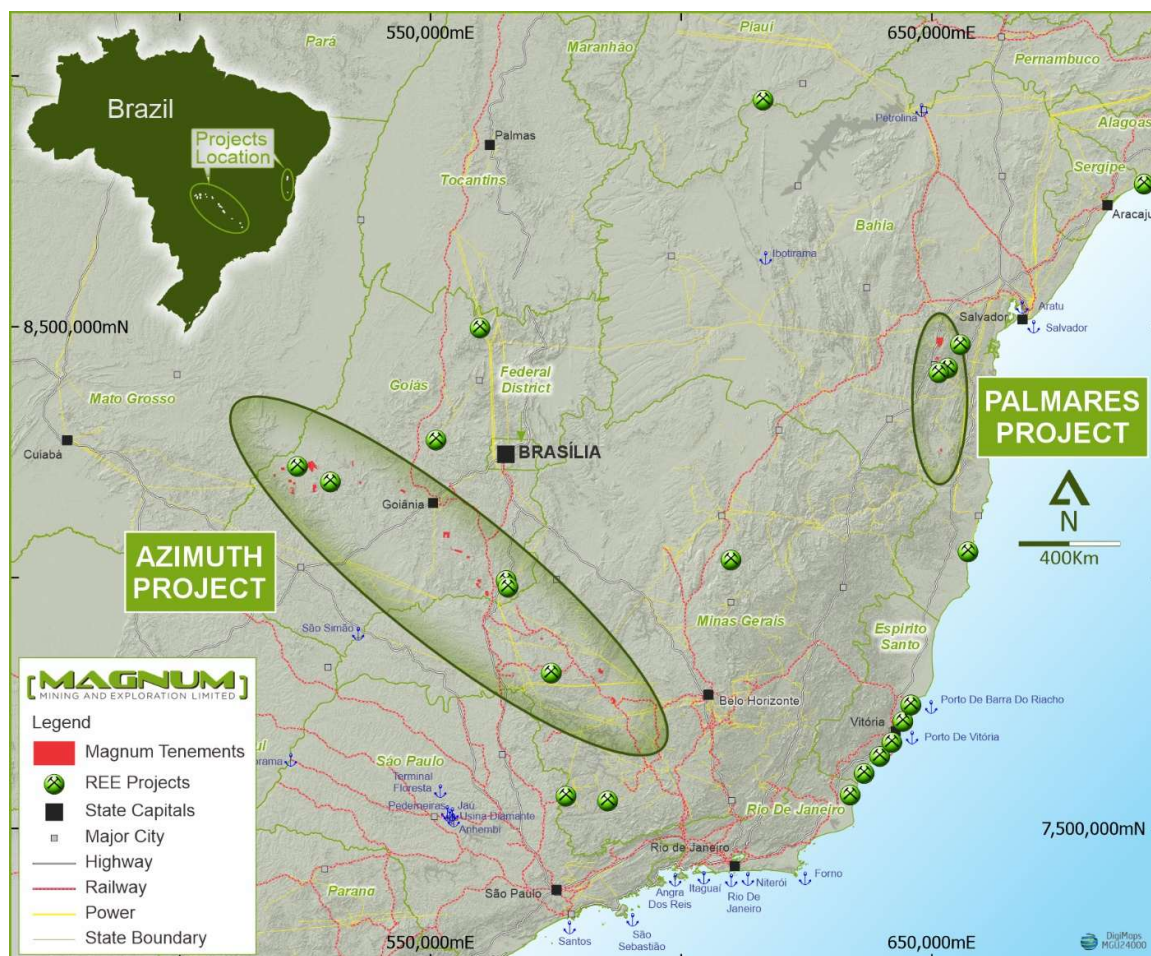
- Tenements now **fully permitted and land access negotiated** for drilling priority REE targets
- Four of a total of 19 targets identified will be tested in the first phase on the Azimuth 125 REE Project (Figure 2):  
Piranhas and Montes Claros de Goias (Figure 3 – proximal to ASX: FMG and CSE: API)  
Piracanjuba and Corumbaiba (Figure 4 – within 50km from CMOC Brazil Niobium Mine)
- **Ionic clays occurring over pegmatite dykes on the Feirinha Prospect** (1 of 18 tenements within the Palmares REE Project), are to be tested with auger and deeper RC drilling
- Feirinha has returned up to **1.69% (16,884 ppm) TREO** in trench sampling and **1.31% (13,082ppm) TREO** from rock chip sampling in an extensive area of hard rock mineralisation<sup>2</sup>
- Recent leach tests on Feirinha samples showed **excellent recoveries of 1,100ppm TREO at a very low residency time of 5 minutes**<sup>3</sup>
- The auger drill program is an initial phase of target evaluation to identify mineralised zones for subsequent, more detailed grid-based sampling
- **A notional 221 holes for 1,105m are planned for the current campaign**
- Field work to be managed by Magnum's experienced and well credentialed in-country manager
- Two auger rigs are being acquired for this work – **rigs ordered** and contractor to be engaged for RC drill rig
- Assaying will be done by recognised laboratories in Brazil and will included normal QA/QC procedures including repeats, blanks, and standards

<sup>1</sup> ASX:MGU "Auger Drilling to Start on Brazil Rare Earths Project", 3 October, 2025

<sup>2</sup> ASX:MGU "Palmares Delivers up to 1.69% TREO Grades (Revised)", 20 December, 2024

<sup>3</sup> ASX:MGU "Breakthrough REE Test Work Delivers Exceptional Results", 2 October, 2025

As previously announced<sup>4</sup>, Magnum is now in a position to commence its auger & RC drill sampling program across its fully owned Brazilian REE assets at the Azimuth 125 and Palmares Projects. (**Figure 1 and Figure 2**). Permitting and land access have been finalised and auger rigs



**Figure 1** – Magnum’s Azimuth 125 and Palmares REE Projects are located across the states of Bahia, Minas Gerais and Goiás states in south-central Brazil. The area is experiencing intense exploration in this emerging REE region. Both project areas are proximal to notable REE deposits.

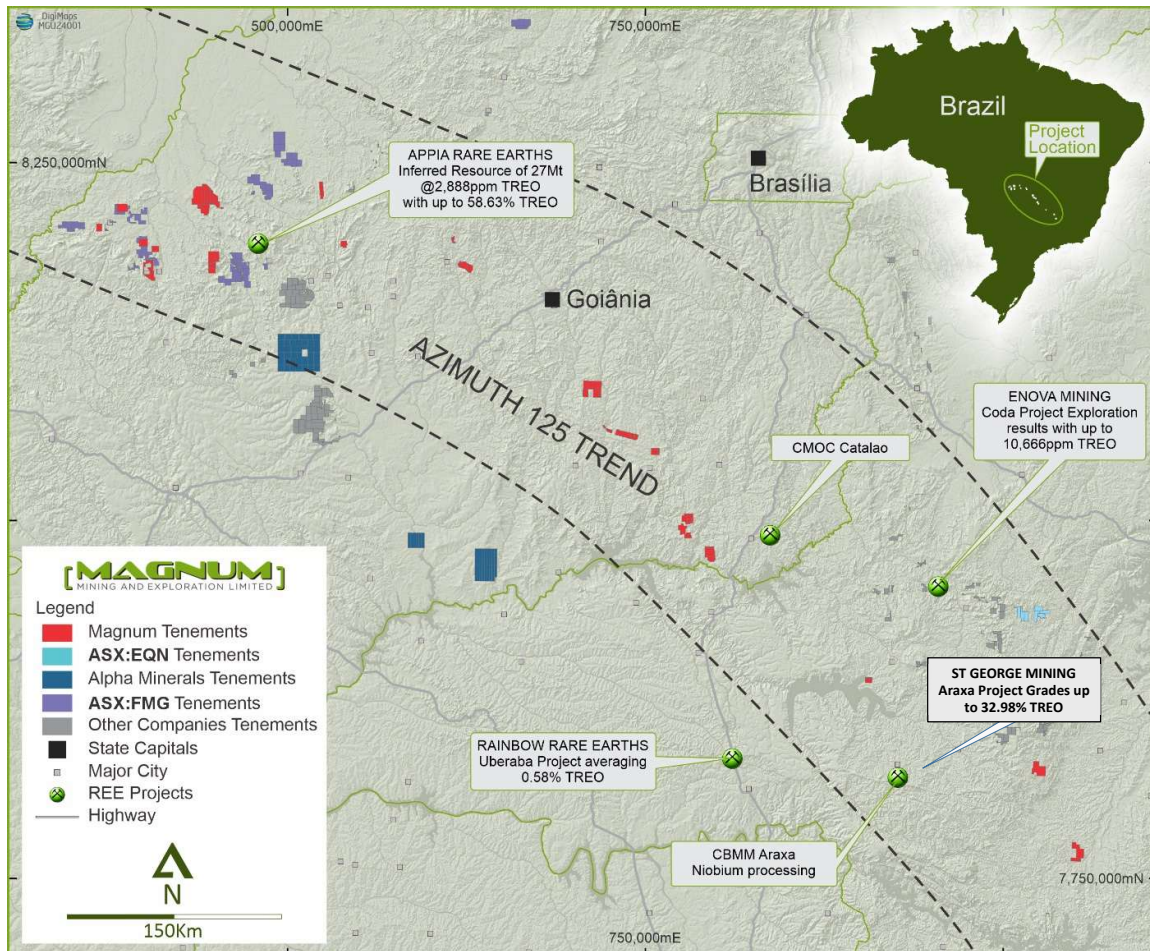
ordered. Contractor to be engaged for RC drilling.

### AZIMUTH 125 PROJECT TARGETS

Four high priority targets will be tested by auger drill sampling in the first phase. Exceptional thorium anomalies have been identified at the **Piracanjuba, Montes Claros de Goiás, Piranhas, and Corumbaiba Prospects (Figure 3 and Figure 44)**. Underlying lithologies at these prospects have been identified as similar to that underlying the Appia’s nearby PCH REE Project (**Figure 3**).

<sup>4</sup> ASX:MGU “Auger Drilling to Start on Brazil Rare Earths Project”, 3 October 2025

It is anticipated that the targets areas will be sampled with multiple auger holes. In-field flexibility will allow on site decisions to be made dependent on clay layer thickness and morphology.



**Figure 2** -The Az125 REE Project is centred on the Azimuth 125° Lineament. The lineament is associated with significant REE mineralisation with Appia, Enova and Rainbow announcing exploration success. The tenements straddle the north-north-east trending Transbrazilian Lineament at its intersection with the Azimuth 125° Lineament.

### FEIRINHA PROSPECT, PALMARES REE PROJECT

The advanced Feirinha Prospect has had extensive rock chip and soil sampling undertaken on it<sup>5</sup>. Trenching on identified pegmatite dykes have returned assays of up to **1.69% TREO** and **2,633ppm THREO** (Total Heavy Rare Earth Oxides) in trench sampling and **1.31% TREO** in rock chip sampling (**Figure 3**). Exceptional averages are seen across all samples: **1,166 ppm TREO** for the trench sampling and **1,827ppm** for the rock chip sampling. In addition Cerium (Ce) values of up to **6,507ppm** suggests the mineralisation is similar to ionic clay deposits seen elsewhere in the district (e.g. Brazilian Rare Earths (ASX: BRE) Monte Alto REE Project<sup>6</sup>).

<sup>5</sup> ASX:MGU "Palmares Delivers up to 1.69% TREO Grades (Revised)", 20 December, 2024

<sup>6</sup> ASX:BRE "Ultra-High Grade Rare Earth Assays at Monte Alto Project", 1 February, 2024



While the focus has been on the pegmatite dykes, an overburden of clays has been recognised for its ionic clay potential. Auger drill sampling will be taken over a wide area of the pegmatite occurrences to test these clays. Deeper drilling will be undertaken using an RC drill rig.

Initial leach test work has provided Magnum with the confidence that REE from the Feirinha Prospect are readily recoverable at ambient temperatures and pressures - **excellent recoveries of 1,100ppm TREO at a very low residency time of 5 minutes**<sup>7</sup>. Once additional mineralisation is verified from the auger work the leach process will be optimised to maximise recovery.

### **SAMPLING AND ASSAYING**

It is planned to sample every half metre of the augured material. Assays will be done in-country by globally recognised laboratories in Brazil. Duplicates, blanks, and geochemical standards will be used for QA/QC. A subset of samples will be sent to a second laboratory for referee assaying.

Current assaying turnaround is approximately four weeks.

### **EXCEPTIONAL IN-COUNTRY MANAGER**

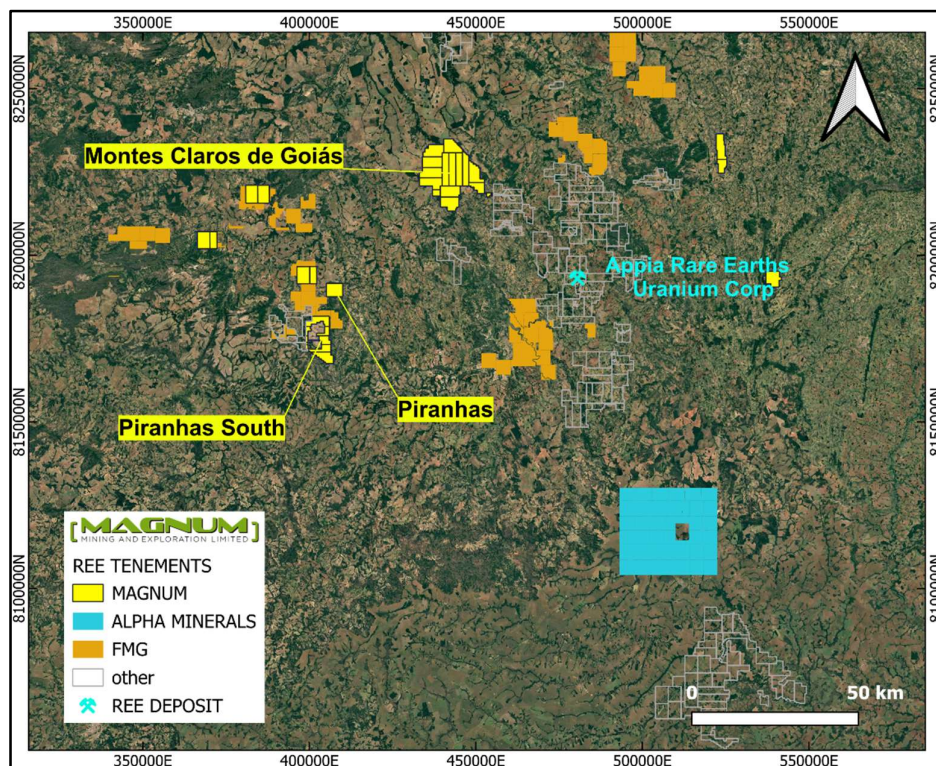
Lead investigator and substantial shareholder, Antonio Vitor, has been instrumental in pegging the Brazilian REE ground for Magnum. Both his experience in managing field operations and his wide network of contacts drives Magnum's confidence in a successful field campaign.

### **NEXT STEPS AND EXPECTED TIMELINE**

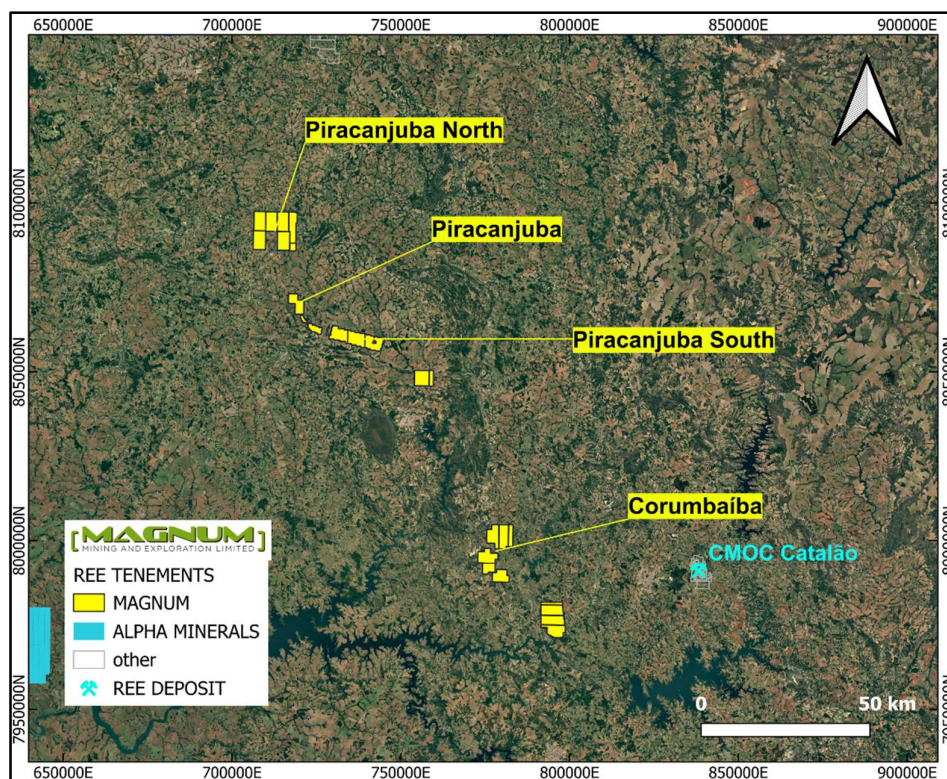
The auger drill sampling programme is expected to start this month. While it is very flexible and dependent, the work is expected to take approximately eight weeks pending delays that may arise from rain. All assaying is scheduled to be completed by January.

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<sup>7</sup> ASX:MGU "Breakthrough REE Test Work Delivers Exceptional Results", 2 October, 2025



**Figure 3** - Magnum's REE targets in the western part of the Azimuth 125 Project. Note proximity to Alpha's REE deposit.



**Figure 4** - Magnum's REE targets in the eastern part of the Azimuth 125 Project. CMOC Catalão (subsidiary of China Molybdenum Co., Ltd.) is a producing niobium mine.

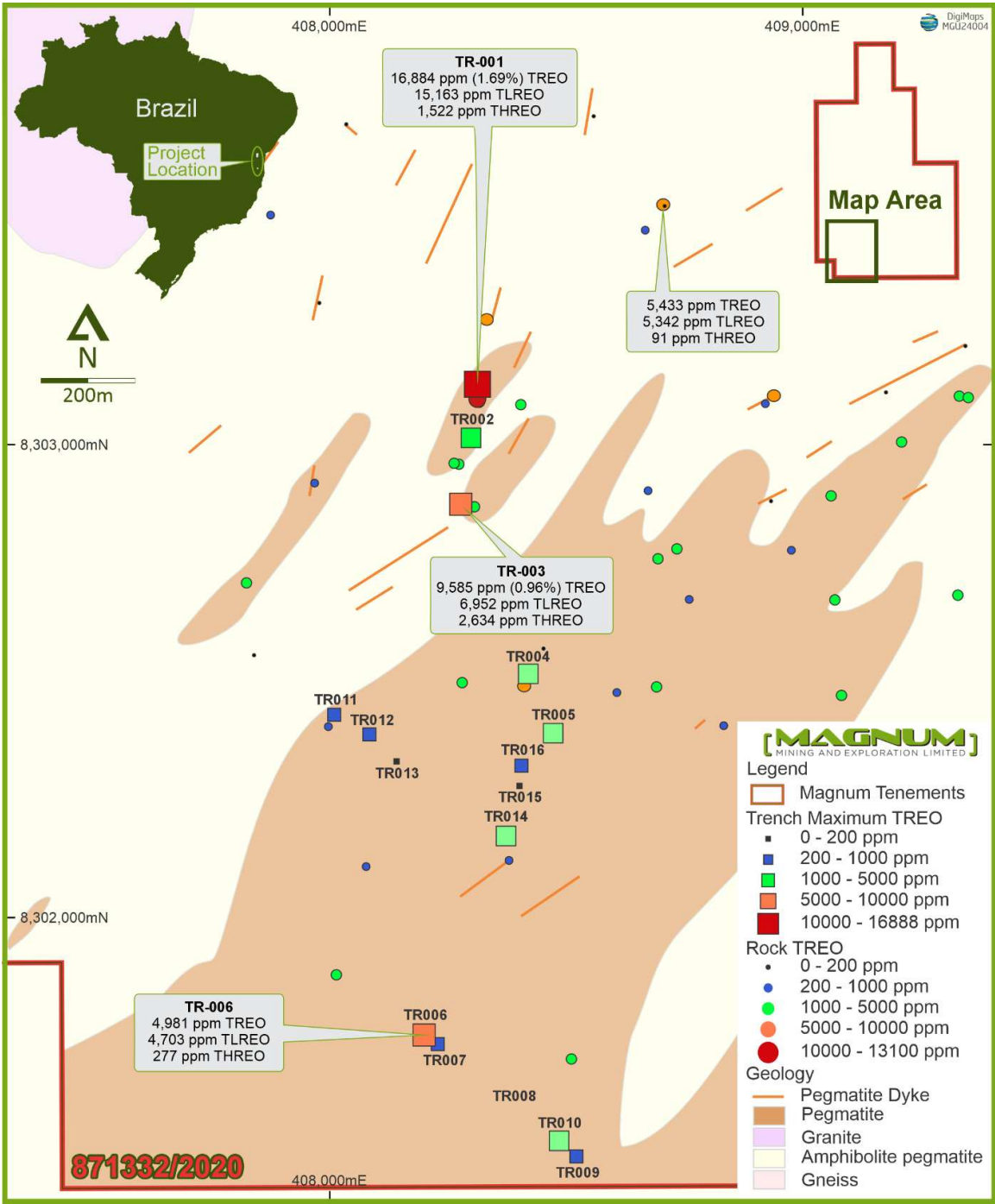


Figure 3 - Summary of geochemistry results from the Feirinha Prospect (Palmares REE Project).



## **ABOUT THE AZIMUTH 125 REE PROJECT**

The Azimuth 125 (Az125) REE Project is a green field exploration project highly prospective for REE. It consists of 72 granted tenements (refer to JORC 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 Az125 leases cover granitic and alkaline intrusives lithologies that are a primary source of REEs, including monazite, xenotime, allanite, titanite, and apatite. Intrusive alkaline rocks typically host REE minerals eudialyte and loparite. These minerals may be weathered, and 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.

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.

Aeromagnetic data is used extensively to focus in on permissive lithologies for REE, while radiometric data is used to prioritise those targets.

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.

### CAUTIONARY STATEMENTS

This release contains “forward-looking information” that is based on the Company’s expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to studies, the Company’s entry into a definitive agreement with Midmetal, the Company’s business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as ‘outlook’, ‘anticipate’, ‘project’, ‘target’, ‘likely’, ‘believe’, ‘estimate’, ‘expect’, ‘intend’, ‘may’, ‘would’, ‘could’, ‘should’, ‘scheduled’, ‘will’, ‘plan’, ‘forecast’, ‘evolve’ and similar expressions. Persons reading this news release are cautioned that such statements are only predictions, and that the Company’s actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current development activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of metals; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information.

Neither the Company, nor any other person, gives any representation, warranty, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. Except as required by law, and only to the extent so required, none of the Company, its subsidiaries or its or their directors, officers, employees, advisors or agents or any other person shall in any way be liable to any person or body for any loss, claim, demand, damages, costs or expenses of whatever nature arising in any way out of, or in connection with, the information contained in this document. The Company disclaims any intent or obligations to or revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law.

### COMPETENT PERSON’S STATEMENT

The information in this announcement is based on information compiled by Mr Marcus Flis, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy and a full time employee of Rountree Pty Ltd. Mr Flis 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 Exploration Results, Mineral Resources and Ore Reserves.” Mr Flis consents to the inclusion of the matters outlined in this announcement the form and context in which they appear.

The information in this announcement that is footnoted below relates to exploration results that have been released previously on the ASX. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and 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 Person’s finding is presented have not been materially modified from the original market announcements.

### ASX ANNOUNCEMENTS REFERENCED DIRECTLY IN THIS RELEASE

- *“Auger Drilling to Start on Brazil Rare Earths Project” released on the ASX on 3<sup>rd</sup> of October 2025 and available to view on <https://www.mmel.com.au/site/investor-information/asx-announcements-and-financial-reports>*



- *“Palmares Delivers up to 1.69% TREO Grades (Revised)” released on the ASX on 20<sup>th</sup> of December 2024 and available to view on <https://www.mmel.com.au/site/investor-information/asx-announcements-and-financial-reports>*
- *“Breakthrough REE Test Work Delivers Exceptional Results” released on the ASX on 2<sup>nd</sup> of October 2025 and available to view on <https://www.mmel.com.au/site/investor-information/asx-announcements-and-financial-reports>*
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