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ASX RELEASE

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JEQUIE RARE EARTH PROJECT – SURFACE SAPROLITE–CLAYS & OUTCROPPING CHARNOCKITES IDENTIFIED

Australian Mines Limited[1] (ASX: AUZ) ("AUZ" or the "Company") is pleased to report on initial findings from exploration works carried out at the Jequie Rare Earth Project[2] located within the state of Bahia (Brazil). AUZ confirms the identification of a high priority target (the "Target") for follow up exploration.

Highlights

The Target comprises:

- An airborne radiometric thorium anomaly, contained within the licences, of approximately **30km in length** and with a width of up to 2.5km (see Figure 1)
- Identified thick, in-situ **saprolite and saprolite clay profiles** which have the potential to host Ionic Adsorption Rare Earth Clay deposits and / or monazite sand deposits. (See Figure 2)
- Identified **Outcropping Leucogranite** and **Charnockite** which have the potential to either host primary Rare Earth Elements ("REE") or the source of secondary REE oxides contained within weathered saprolite clays. (See Figure 3)
- Field testing with a portable scintillometer returned positive readings for the presence of potential REE-bearing minerals in outcrop.

AUZ's CEO, Andrew Nesbitt commented *"We are very pleased to have rapidly identified and ground truthed such a high priority Target. The Target has all the ingredients to contain a*

[1] To be renamed EcoMetal Resources Limited
[2] The Jequie Rare Earth Project is subject to acquisition terms as per ASX Release, 6 December 2023

significant Rare Earth Element resource, and we are looking forward to the next phase of exploration.

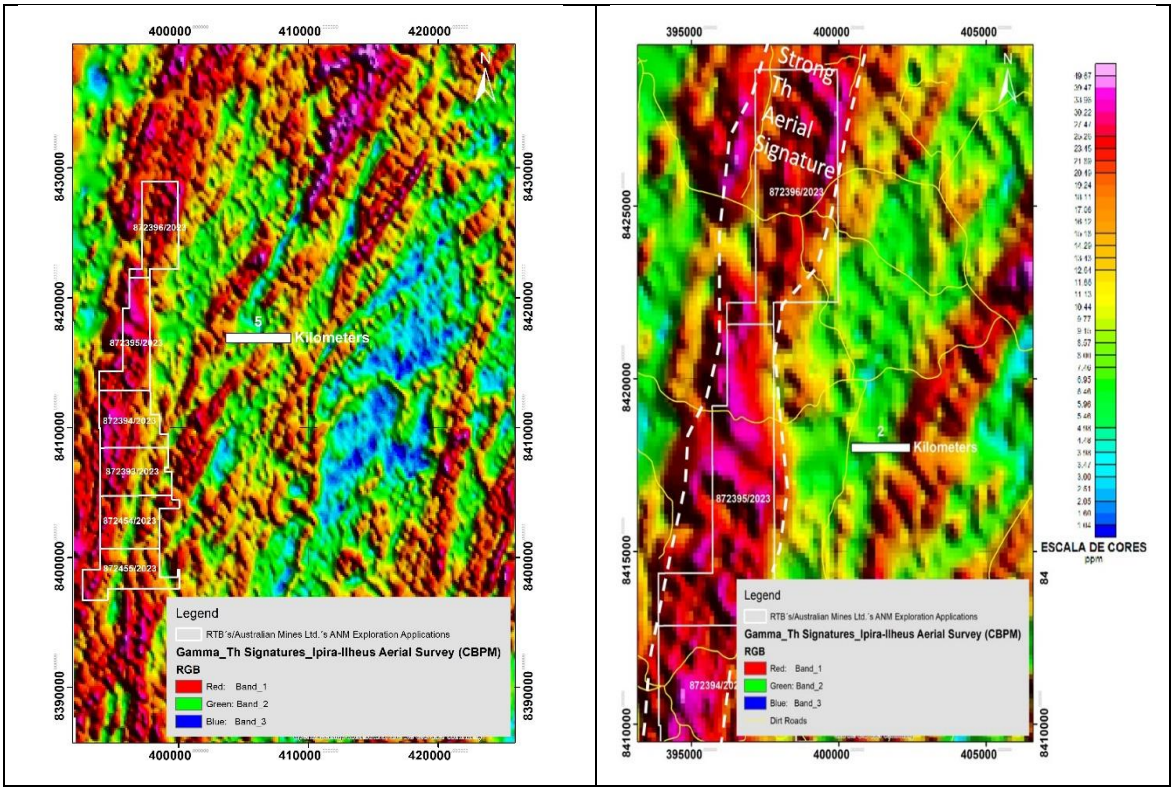

Figure 1: Airborne radiometric thorium anomaly.

Figure 2: In-situ weathered saprolite and saprolite clay profile and Remnant Charnockite outcrop.

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Figure 3: Charnockite, outcrop, subcrop (boulders and rock fragments), note in-situ eluvial weathering.

Rare Earth Element ("REE") mineralisation, within the region, can generally be described by the following mineralisation models, which are:

- REE-enriched phases within hard rocks.
- REE concentration by the physical degradation of REE-enriched source rocks by weathering to form soils and sands (e.g. monazite sands).
- REE concentration by the advanced weathering of source rocks to form saprolite and saprolite clay horizons in which REE are enriched by adsorption (ionic clay mineralisation).

All of these ingredients have been confirmed on neighbouring properties and will form the basis for planning ongoing exploration on the Jequie Rare Earth Project. Such exploration will include tracing and mapping more highly radioactive rock sequences in the field by gamma aerial geophysics (Th and U products) and by portable scintillometers.

Given the highly encouraging results from this initial reconnaissance program, AUZ will rapidly progress surface soil and outcrop rock-chip sampling to prioritize targeting thick weathered saprolite and saprolite clay horizons for **auger drill testing.**

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Resende Lithium Project (Lithium Valley, Minas Gerais)[3]

Minas Gerais is a global leading mining jurisdiction. The government is well known for supporting productive and sustainable operations in the state. Recently the government is focused on encouraging the development of the lithium minerals sector within the province. The Lithium Valley is home to 3 notable lithium producers and several ASX explorers. The notable producers include the Mina da Cachoeira underground mine with a production capacity of 45,000t per annum of 5.5% Li_2O spodumene concentrate[4], AMG's[5] Mibra lithium-tantalum-niobium-tin mine which has capacity to produce 130,000t lithium concentrate per annum[6] and Sigma Lithium Corporation's (NASDAQ: SGML) Grota do Cirio operation, which is ramping up to 270,000t per annum of lithium concentrate[7] . There is no guarantee that the Resende Lithium Project will have the same or similar levels of results, or that it will become a producing project.

The Resende Lithium Project comprises 8 mineral right claims with total aggregate land holding of **13,314 HA** or ~**133km²** (Figure 4). The licences are in the Sao Joao del Rey Pegmatite Province, which is widely known for the presence of various mineralised bodies and is located~17km west of the AMG Mibra Spodumene producing Mine.

The licences are believed to contain the eastern extensions of the geological structures and intrusive rocks, responsible for the forming the mineralised pegmatites that are currently being mined at AMG's Mibra lithium-tantalum-niobium-tin mine. The district is characterised by numerous pegmatite bodies of varying mineralogical composition dominated by spodumene but including beryl, tantalite-columbite and monazite. **Several historically mapped pegmatite and tantalum occurrences have been mapped within the boundaries of the exploration licences[8] and have not been previously tested/explored for lithium.**

[3] The Resende Lithium Project has no current or historical minerals resources
[4] Mina da Cachoeira underground mine, https://www.cblitio.com.br/nossas-opera%C3%A7%C3%B5es, production rates and grades are not compliant with JORC 2012 reporting guidelines.
[5] AMG Lithium GmbH ("AMG")
[6] https://amglithium.com/solutions/resources
[7] Sigma Lithium, NI 43-101 TECHNICAL REPORT GROTA DO CIRILO LITHIUM PROJECT, 31 October 2022
[8] Based on Geological Survey of Brazil, https://geoportal.sgb.gov.br/geosgb/

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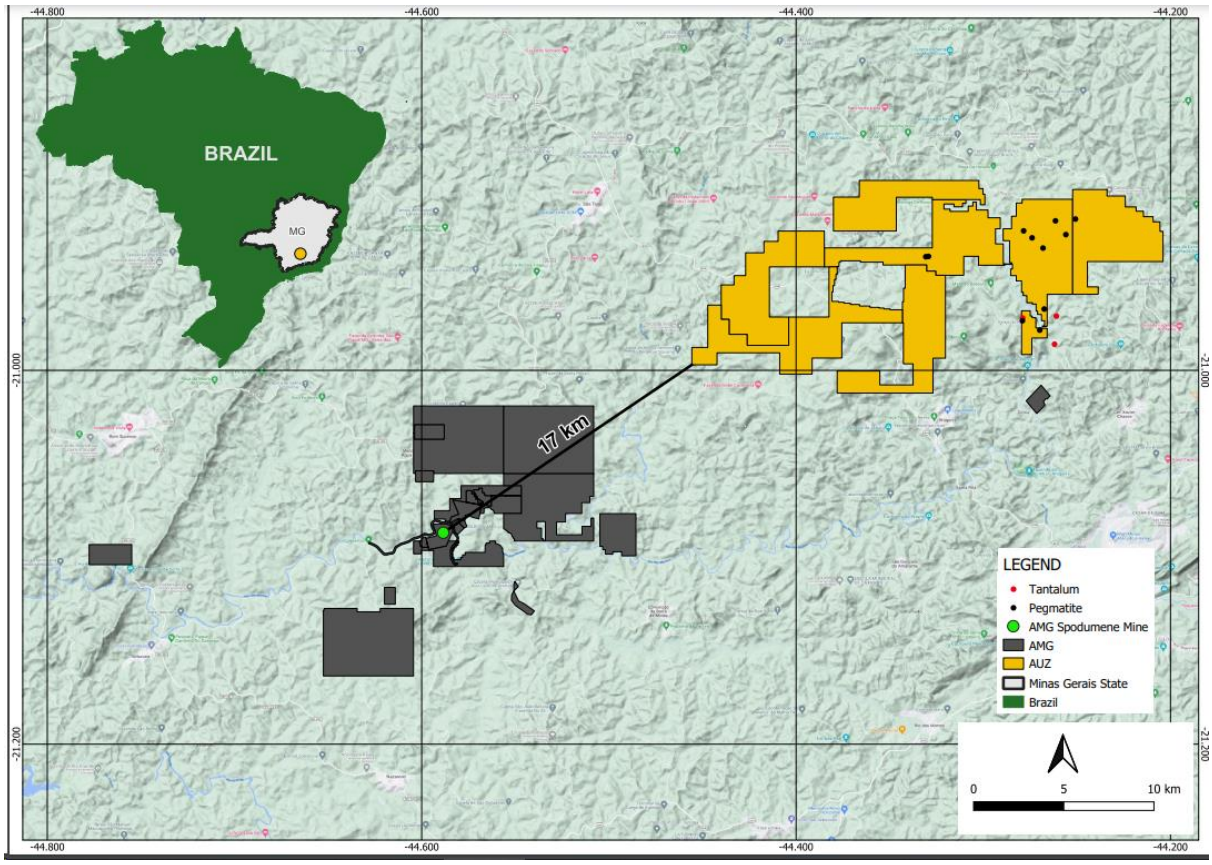

Figure 4: Location of Resende Lithium Project

Jequie Rare Earth Project (Bahia State)[9]

The project is located within the state of Bahia (Northeast Brazil). This renowned geological and government friendly jurisdiction has resulted in the establishment of several large-scale mining operations in the vicinity of the Jequie Rare Earth Project. The Jequie Rare Earth Project is expected to benefit from the associated complementary infrastructure of sealed roads and access to clean hydropower and a major deep-water port less than 200km distant.

The Jequie Rare Earth project comprises 45 mineral right claims covering a total aggregate land holding of **82,568 HA** or **~826km²** (Figure 5). The licences are located in the Jequié Block, a tectono-structural block of the northeastern Sao Francisco craton. The Jequié Block comprises granulite facies-metamorphosed intrusive rocks with demonstrated rare

[9] The Jequie Rare Earth Project has no current or historical mineral resources

earth element ("REE") anomalism, with Ionic clay and hard rock REE occurrences in the district. The Jequie project which is targeting Rare Earths/ Niobium is located adjacent to Brazilian Rare Earth Limited (BRE.AX), with their Inferred Mineral Resource Estimate of 510Mt at 1,513ppm Total Rare Earth Oxide[10]. This has resulted in large scale pegging activity within the area. These results do not guarantee the same or similar levels of results at the Jequie Rare Earth Project.

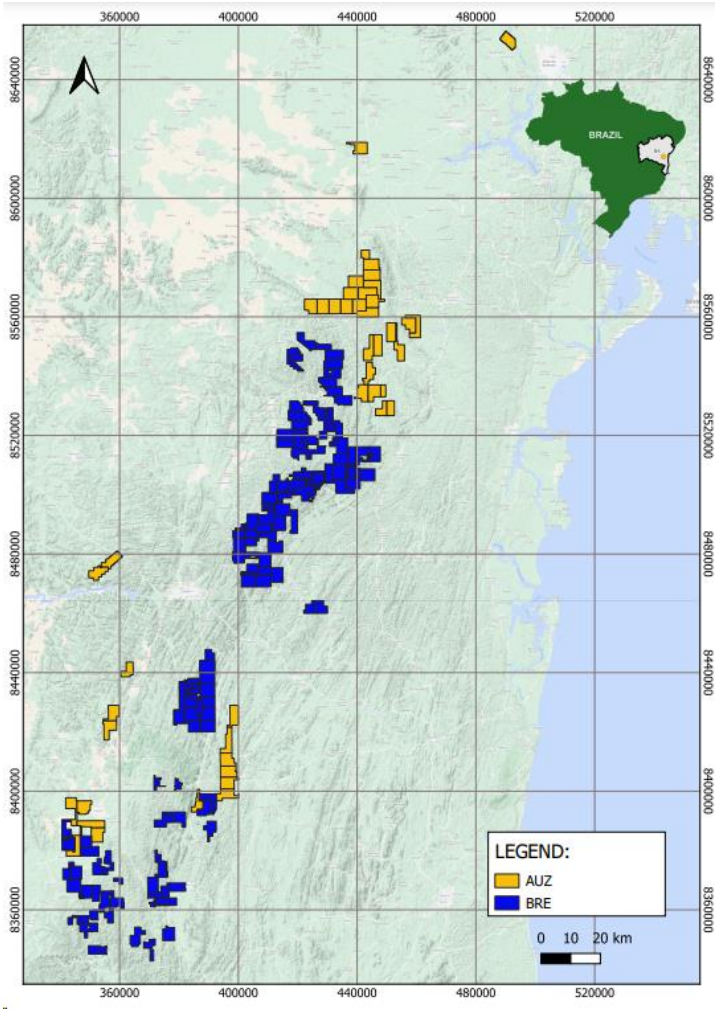

Figure 5: Location of Jequie Rare Earth Project (Orange)

ENDS

[10] Brazilian Rare Earth Prospectus of 13 November 2023,Pg 164. Rocha da Rocha Inferred mineral resource statement as of 23 May 2023 (reported in accordance with the JORC Code (2012)). These results do not guarantee the same or similar levels of results at the Jequie Rare Earth Project.

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Authorised for release by the Board of Directors of Australian Mines Limited

Australian Mines Limited supports the vision of a world where the mining industry respects the human rights and aspirations of affected communities, provides safe, healthy, and supportive workplaces, minimises harm to the environment, and leaves positive legacies.

COMPETENT PERSONS STATEMENT

"The information in this report is based on and fairly represents information and supporting documentation reviewed by Rodrigo Mello, who is a consultant to Australian Mines Ltd. Mr. Mello is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Mello consents to the inclusion in this report of the matters based on his information in the form and context in which they appear."