



## UPDATE ON BRAZIL RARE EARTHS PROJECT

**Magnum Mining & Exploration Limited** (ASX: **MGU**, **Magnum**, or the **Company**) announced an agreement to acquire 100% of the issued shares of Palmares Estudos Geologicos LTDA (**Palmares**) from Beko Invest Limited on 21 November, 2024 ("Magnum Secures Major Rare Earths Landholding in Brazil").

The above agreement envisaged a Due Diligence period that would be completed by 31 January, 2025; however the thoroughness of the Due Diligence process that Magnum is undertaking has required the completion date to be extended by two months to 31 March, 2025.

This extension has been required to enable:

- Brazilian government agencies to supply the requisite documentation on lease ownership; and
- Magnum's Brazil based team to have sufficient time to engage with stakeholders and fulfil ESG requirements.

The Christmas and New Year period also delayed the Due Diligence process, however Magnum does not at this stage envisage any difficulties in completing the Due Diligence process positively and completing the acquisition of the Rare Earth Element projects from Palmares.

In line with this acquisition and the continuing development of other existing projects, it is the intention of the Company to undertake an appropriate capital raising to fund the development and growth of these important and strategic projects.

The Company is also still pursuing discussions with potential investors and joint venture partners for the production of **green steel pig iron** globally via its directors and consultants. In this regard Mr Neil Goodman is currently negotiating extended agreements with the new owners of the Hismelt technology and reviewing the recent developments of the new plants being built in China.

## ABOUT THE BRAZIL REE PLAY

### HIGHLIGHTS

- Magnum has entered into an Acquisition Agreement to **acquire a 100% interest** in Palmares Estudos Geologicos LTDA, owner of major portfolio of **mineral exploration licences prospective for Rare Earth Elements (REE)**
- Palmares holds two REE project areas: Azimuth and Palmares, **covering ~1,549km<sup>2</sup>** of prime green fields land, **one of the largest land holdings for REE in the region**
- The Azimuth Project consists of 72 granted claims (~1,201km<sup>2</sup>) across the states of Minas Gerais and Goiás, **known for hosting world-class ionic clay REE deposits** such as ASX: MEI (Meteoritic Resources Ltd)<sup>1</sup>
- Azimuth claims centre across the Azimuth 125° lineament, which represents a prospective geological feature in central Brazil
- The Palmares Project consists of 18 granted claims (~348km<sup>2</sup>) in Bahia State, **mainly surrounded by REE exploration projects held by ASX listed companies Equinox Resources Limited (ASX: EQN) and Brazilian Rare Earths Limited (ASX: BRE)**
- Palmares holds claims on the Jequié Belt, a carbonatite and alkaline intrusive corridor **known to host ionic clay REE, particularly heavy rare earths (HREEs) critical for green technologies**
- Exploration work across the Azimuth and Palmares Projects includes: mapping, sampling, geophysics, petrography & trenching. Magnum has not completed any due diligence on the exploration results & will not rely on the information until completed
- Exceptional in-country geological **team with previous Brazil REE discovery track record**, including development of the Belmonte HPQ Silica Project in Brazil (Homerun Resources Inc. CSE: HMR)
- Due diligence commenced on the Projects & the consideration payable is subject to shareholder approval

Magnum has entered into the Acquisition Agreement to acquire 100% ownership of Palmares. Palmares is the sole 100% owner of mineral claims comprising the Azimuth and Palmares REE Projects (Figure 1).

<sup>1</sup> ASX:MEI “Caldeira Project Scoping Study confirms potential for the world’s lowest cost source of rare earths with outstanding financial metrics”, 8 July, 2024.



**Figure 1 - The Azimuth and Palmares REE Projects are located across the states of Bahia, Minas Gerais and Goiás states in south-central Brazil. The area is the scene of intense exploration in this emerging REE region. Palmares is surrounded by ASX: EQN and ASX: BRE. The Azimuth Projects are proximal to notable REE projects and Fortescue Metals Group (ASX: FMG) have secured reasonable land holdings close to a number of Azimuth Projects.**

Collectively, the two Projects cover some of the most prospective ground in a highly contested area that is emerging as a significant REE province of Brazil.

## 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.

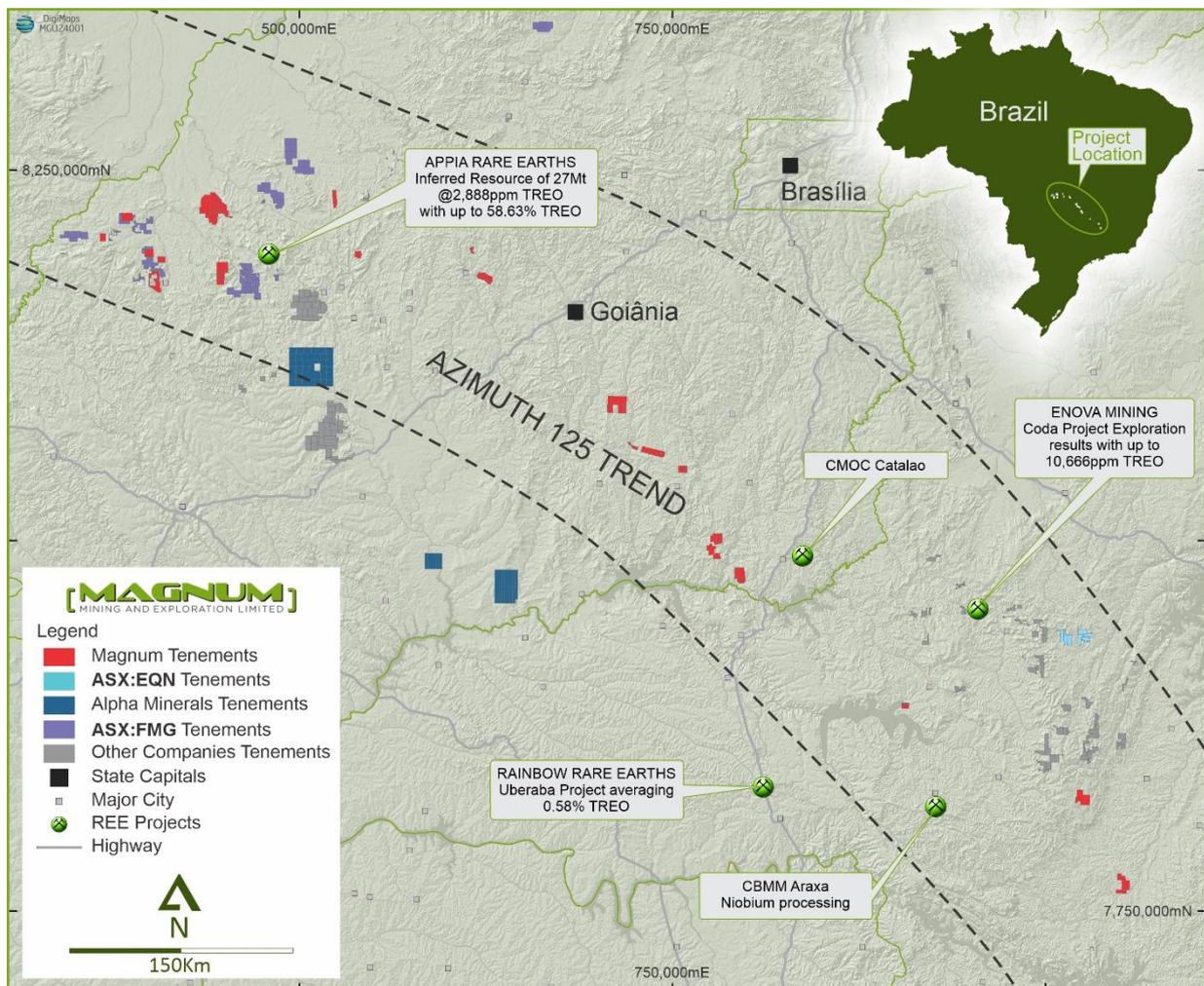
The Azimuth Project's leases cover granitic and alkaline intrusives lithologies that are a primary source of REEs, including monazite, xenotime, allanite, titanite, and apatite. These minerals are weathered, adsorbed and concentrated into surficial ionic clay deposits. The geophysical signatures of the 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 whom have secured a landholding close to some of the Azimuth Project granted claims (Figure 2).

### **Work completed to date**

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



**Figure 2 - 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

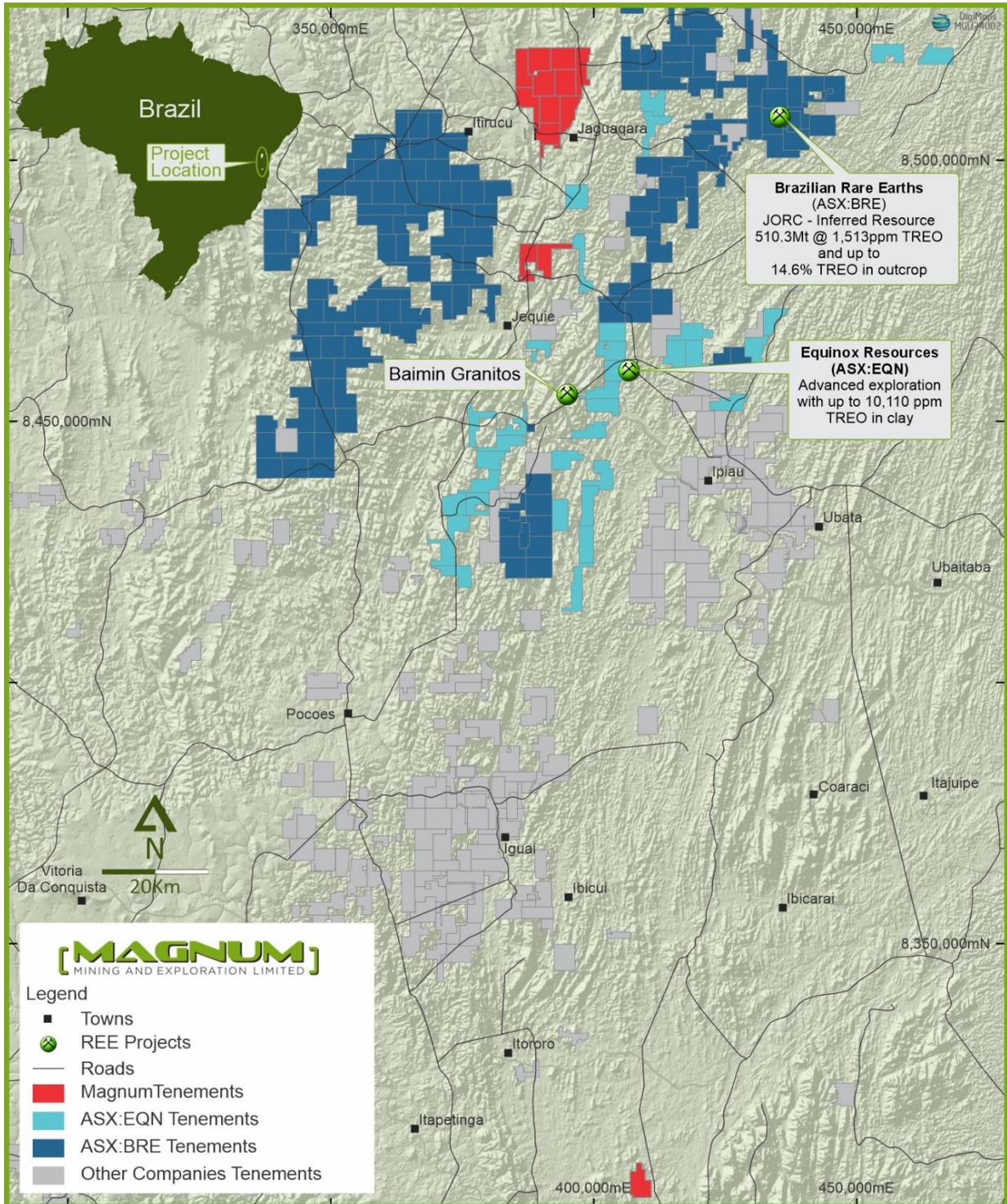
The Palmares REE Project is a green field exploration project consisting of 18 granted claims (Table 2) situated in the centre-south of Bahia state. The leases cover a 43 km long and 13 km wide target zone totalling ~348 km<sup>2</sup> in a very tightly held area (Figure 3).

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>2</sup> as reported by Equinox Resources and 14.6% TREO<sup>3</sup> by Brazilian Rare Earths. These occur as both hard rock and surficial ionic clay deposits.

<sup>2</sup> ASX:EQN "Ultra-High Grade REE in Clay of 10,110ppm TREO at Surface at Mata da Corda", 30 July, 2024.

<sup>3</sup> ASX:BRE "Exceptional Heavy Rare Earth Discovery at Monte Alto Project", 23 October, 2024.

The latter are particularly attractive due to their low exploration, mining, and beneficiation costs.



**Figure 3 - 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.

**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 March 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.

**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.

**BY ORDER OF THE BOARD****John O’Gorman**

Company Secretary

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**Table 1 - Azimuth REE Project 72 granted tenements covering ~1,201km<sup>2</sup>**

#	TENEMENT	HA	COUNTY STATE	STATUS	SUBSTÂNCIA
1	830284/2024	1765.35	PATROCÍNIO /MG	GRANTED	REE
2	830285/2024	1978.36	SANTA ROSA DA SERRA /MG	GRANTED	REE
3	830286/2024	1711.35	SANTA ROSA DA SERRA /MG	GRANTED	REE
4	830287/2024	1731.35	SANTA ROSA DA SERRA /MG	GRANTED	REE
5	830288/2024	1478.97	SANTA ROSA DA SERRA /MG	GRANTED	REE
6	830289/2024	1604.16	IGUATAMA /MG	GRANTED	REE
7	830290/2024	1815.11	IGUATAMA /MG	GRANTED	REE
8	830291/2024	1882.06	IGUATAMA /MG	GRANTED	REE
9	830281/2024	1531.83	IGUATAMA /MG	GRANTED	REE
10	860.248/2024	1758.56	PIRACANJUBA /GO	GRANTED	REE
11	860247/2024	1028.19	PIRACANJUBA /GO	GRANTED	REE
12	860219/2024	1964.55	PIRACANJUBA /GO	GRANTED	REE
13	860220/2024	1963.93	PIRACANJUBA /GO	GRANTED	REE
14	860221/2024	1932.79	PIRACANJUBA /GO	GRANTED	REE
15	860222/2024	1932.53	PIRACANJUBA /GO	GRANTED	REE
16	860227/2024	1976.42	PIRACANJUBA /GO	GRANTED	REE
17	860226/2024	1899.26	PIRACANJUBA /GO	GRANTED	REE
18	860225/2024	396.81	PIRACANJUBA /GO	GRANTED	REE
19	860224/2024	1889.61	PIRACANJUBA /GO	GRANTED	REE
20	860223/2024	1954.28	PIRACANJUBA /GO	GRANTED	REE
21	860190/2024	1894.43	BOM JARDIM DE GOIÁS /GO	GRANTED	REE
22	860191/2024	1972.35	PIRANHAS /GO	GRANTED	REE
23	860192/2024	1066.45	PIRANHAS /GO	GRANTED	REE
24	860246/2024	1972.35	PIRANHAS /GO	GRANTED	REE
25	860198/2024	1448.05	PIRANHAS /GO	GRANTED	REE
26	860196/2024	1916.3	PIRANHAS /GO	GRANTED	REE
27	860194/2024	1897.74	PIRANHAS /GO	GRANTED	REE
28	860197/2024	1597.89	PIRANHAS /GO	GRANTED	REE
29	860195/2024	1975.17	PIRANHAS /GO	GRANTED	REE
30	860241/2024	1965.49	PIRANHAS /GO	GRANTED	REE
31	860193/2024	1798.77	CÓRREGO DO OURO /GO	GRANTED	REE
32	860189/2024	1951.59	BOM JARDIM DE GOIÁS /GO	GRANTED	REE
33	860187/2024	1933.25	BOM JARDIM DE GOIÁS /GO	GRANTED	REE
34	860199/2024	1993.41	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
35	860202/2024	1997.22	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
36	860200/2024	1295.98	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE

37	860203/2024	1949.28	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
38	860204/2024	1851.99	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
39	860205/2024	1999.62	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
40	860207/2024	1999.68	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
41	860208/2024	1923.15	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
42	860206/2024	1999.65	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
43	860209/2024	1969.44	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
44	860210/2024	1963.35	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
45	860211/2024	442.5	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
46	860243/2024	1977.68	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
47	860242/2024	1854.61	MONTES CLAROS DE GOIÁS /GO	GRANTED	REE
48	860212/2024	1919.77	JUSSARA /GO	GRANTED	REE
49	860213/2024	958.19	NOVO BRASIL /GO	GRANTED	REE
50	860217/2024	1907.76	ANICUNS /GO	GRANTED	REE
51	860218/2024	751.18	ANICUNS /GO	GRANTED	REE
52	860215/2024	745.7	ANICUNS /GO	GRANTED	REE
53	860216/2024	1970.98	ANICUNS /GO	GRANTED	REE
54	860229/2024	1953.94	CALDAS NOVAS /GO	GRANTED	REE
55	860228/2024	1972.11	CALDAS NOVAS /GO	GRANTED	REE
56	860231/2024	552.95	CALDAS NOVAS /GO	GRANTED	REE
57	860230/2024	1894.26	CORUMBAÍBA /GO	GRANTED	REE
58	860232/2024	1862.56	CORUMBAÍBA /GO	GRANTED	REE
59	860236/2024	1600.2	CORUMBAÍBA /GO	GRANTED	REE
60	860234/2024	1961.99	CORUMBAÍBA /GO	GRANTED	REE
61	860235/2024	1063.27	CORUMBAÍBA /GO	GRANTED	REE
62	860233/2024	821.25	CORUMBAÍBA /GO	GRANTED	REE
63	860239/2024	1902.73	CUMARI /GO	GRANTED	REE
64	860240/2024	505.19	CUMARI /GO	GRANTED	REE
65	860238/2024	1860.12	ANHANGUERA /GO	GRANTED	REE
66	860237/2024	1852.56	ANHANGUERA /GO	GRANTED	REE
67	860384/2020	1997.33	Block Arenopolis GOIAS	GRANTED	Au
68	860385/2020	1670.48		GRANTED	Au
69	860386/2020	1906.42		GRANTED	Au
70	860397/2020	1698.09		GRANTED	Au
71	860398/2020	1800.17		GRANTED	Au
72	860519/2020	212.7		GRANTED	Au
<b>TOTAL</b>		<b>120,144.76</b>			

**Table 2 - Palmares REE Project 18 granted tenements covering ~348 km<sup>2</sup>**

#	TENEMENT	HA	COUNTY STATE	STATUS	SUBSTÂNCIA
1	871332/2020	1933.3	PALMARES-BA	GRANTED	ETR
2	870199/2024	1984.2	Itaquara / BA	GRANTED	REE
3	870198/2024	1966.36	Itaquara / BA	GRANTED	REE
4	870200/2024	1966.44	Itaquara / BA	GRANTED	REE
5	870201/2024	1981.75	Itaquara / BA	GRANTED	REE
6	870202/2024	1966.43	Jaguaquara / BA	GRANTED	REE
7	870203/2024	1960.3	Jaguaquara / BA	GRANTED	REE
8	870204/2024	1961.76	Jaguaquara / BA	GRANTED	REE
9	870205/2024	1922.23	Jaguaquara / BA	GRANTED	REE
10	870206/2024	1970.37	Jaguaquara / BA	GRANTED	REE
11	870207/2024	1947.71	Jaguaquara / BA	GRANTED	REE
12	870208/2024	1970.21	Jaguaquara / BA	GRANTED	REE
13	870211/2024	1929.87	Jaguaquara / BA	GRANTED	REE
14	870210/2024	1930.7	Jaguaquara / BA	GRANTED	REE
15	870209/2024	1894.25	Jaguaquara / BA	GRANTED	REE
16	870212/2024	1551	Jaguaquara / BA	GRANTED	REE
17	870213/2024	1984.35	JEQUIÉ / BA	GRANTED	REE
18	870214/2024	1962.61	JEQUIÉ / BA	GRANTED	REE
<b>TOTAL</b>		<b>34,783.84</b>			