

ADDRESS Level 11, BGC Centre 28 The Esplanade Perth WA, 6000 Australia PHONE +61 (8) 9486 4036 ABN 96 095 684 389

WEBSITE www.frontierresources.net.au

ASX Limited Market Announcements Platform

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Murraydium Rare Earth Project Acquisition

Highlights:

- Material acquisition of prospective ionic clay hosted rare earth element (REE) project in the Murray Basin heavy mineral province, South Australia
- Numerous deposits and prospects in the region including Australian Rare Earths (ASX:AR3) Koppamurra Project with an Inferred Mineral Resource of 39.9 Mt @ 725 ppm TREO¹
- Project geology consists of extensive series of stranded shorelines formed during marine regression in Miocene to early Pliocene, the primary host to regional REE mineralisation
- Early mover securing 873km² of Murray Basin sediments with the potential to host a high value REE assemblage with low radioactivity ore characteristics
- A series of auger, push tube and aircore drilling is being planned to investigate the project area for the presence of laterally extensive shallow clay hosted rare earth mineralisation
- Land access and native title discussions underway for future exploration programs
- Company's focus in REE directly in line with global push for carbon neutrality driven by renewable energy (particularly wind turbine) installations and Electric Vehicle (EV) adoption driving global demand for the combination of rare earths
- Global magnet rare earth oxides consumption forecast to rise 5x by 2030, from US\$2.98B in 2020 to US\$ 15.65B by 2030³

Frontier Resources Ltd (ASX: FNT) (**Frontier** or the **Company**) is pleased to announce that it has entered into a conditional Binding Heads of Agreement (**HoA**) to acquire all of the shares in Southern Rare Earths Pty Ltd (**Southern Rare Earths**) which holds four exploration licence applications in the Murray Basin region in South Australia that are considered to be prospective for ionic clay hosted rare earth element's (REE) (**Murraydium Project**).

Chairman Alec Pismiris commented "The acquisition of Southern Rare Earths represents an exciting exploration opportunity in a region that is highly prospective for ionic clay hosted rare earth deposits. The Murraydium Rare Earth Project offers exciting exploration upside potential. Previous work done in the area has outlined an extensive mineralised system where shallow near surface exploration has the potential to delineate shallow JORC Resources."



Figure 1. Location Map of the Southern Rare Earth's Pty Murraydium Projects in the south-eastern region of South Australia.

The Murraydium Project (**Project**) is located in the south-eastern region of Naracoorte in South Australia's Murray Basin, consisting of four exploration licence applications, covering an area of 873 square kilometres. The region is seeing a renewed focus for REE minerals with the success of Australian Rare Earths (ASX:AR3) at their 100% owned Koppamurra Project, host to an inferred mineral resource of 39.9 Mt @ 725 ppm TREO¹.

Tenement Details

Details of the tenements which cover the project area are set out in the table below. The four exploration tenements that make up the Murraydium Project, all are 100% owned by Southern Rare Earths and all have the same tenement identification number:

Murraydium Project	Tenement	Registered Holder	Ownership
Naracoorte	ELA 2021/00058	Southern Rare Earths Pty Ltd	100%
Bordertown	ELA 2021/00058	Southern Rare Earths Pty Ltd	100%
qil qil	ELA 2021/00058	Southern Rare Earths Pty Ltd	100%
Keith	ELA 2021/00058	Southern Rare Earths Pty Ltd	100%



Figure 2. Tenement Map of the Southern Rare Earth's Pty Murraydium Projects in the south-eastern region of South Australia.

Regolith hosted REE deposits - background

There are several known types of regolith hosted REE deposits globally including, ion adsorption clay deposits, alluvial and placer deposits (Jowitt et al 2017). The development of potentially economic regolith-hosted REE deposits requires a combination of a REE enriched protolith and weathering processes that concentrate the REE in the regolith⁴. Ion adsorption type REE deposits are the dominant source of heavy REE currently mined in the world, with all economic examples of this type of deposit confined almost exclusively to areas underlain by granitic rocks in southern China⁵. REE mineralisation in the Murray Basin at Australian Rare Earths (ASX:AR3) Koppamurra Project is hosted by clay material interpreted to have been deposited onto a limestone base (Gambier Limestone) and accumulated in an interdunal, lagoonal or estuarine environment. The mineralogy of the clay is indicative of formation under mildly alkaline conditions in a marine or coastal environment from fine grained sediments either river transported or windblown thereby supporting this interpretation.

Mineralogical test work conducted on a clay sample from the Koppamurra Project area established that the dominant clay minerals are smectite and kaolin, and the few REE-rich minerals detected during the SEM investigation are not considered inconsistent with the suggestion that a significant proportion of REE are distributed in the sample as adsorbed elements on clay and iron oxide surfaces¹. Work to date suggests that the source of the REE at Koppamurra is most likely basalt associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia, with the wider Koppamurra project area being considered prospective for rare earth mineralisation.

However, whilst Koppamurra clays display ionic character, and the deposit shares a number of similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also a number of differences, with further work required before a genetic model for REE mineralisation at Koppamurra and the broader Murray Basin can be conclusively defined. In addition, further work is required to better define metallurgical recoveries, process flow sheets, effective mining methods, and project economics¹.

Critical Minerals - REE market and forecasts

Critical minerals are metals and non-metals that have important economic functions, cannot be easily substituted and face some degree of supply risk. Supply risks can stem from geological scarcity, geopolitical issues, trade policy or other factors, resulting in critical mineral lists differing by jurisdiction.

Critical minerals typically have an important role in industrial applications, but it is their vital, and rapidly growing, role in new technologies that is sparking interest and expectations of faster demand growth.

Economic security and supply-chain reliability is also driving attention in critical minerals, as some governments look to avoid the negative impacts of trade dependence and related market shocks. Increasing awareness of mineral sourcing ethics, including environmental and social impacts, is driving further interest in mineral supply chains (e.g. EU battery regulations and industry led cobalt traceability measures)⁶.

Permanent rare earth magnets are used extensively in low-emissions technologies like wind turbines and electric vehicles, and the forecast demand is expected to grow⁶ (Figure 3).

The average annual growth for the price of magnet metals over the next 10 years to 2030 (in real terms) is projected to be 8-9% (Figure 4). The global rare earths market was valued at around US\$2 billion in 2020, and is forecast to grow to around US\$12billion by 2030, up an average 16% a year⁷ (Figure 4).



Figure 3. Critical Minerals such as rare earth elements that make up permanent magnets are expecting strong demand due to growing demand from electric vehicles and renewable energies such as wind turbines⁶.



Figure 4. Rare earths market size outlook⁷. Source: Roskill (2021); Department of Industry, Science, Energy and Resources (2021)

Proposed exploration and study activities on the Murraydium Project

On completion of the acquisition, the Company proposes to undertake the following exploration and study activities:

- Review of available desktop literature including geological models and historical exploration data
- Field mapping to confirm prospective geological horizons to validate geological models and assist in exploration targeting
- Extensive surface sampling and testing as required
- Systematic drilling in the early stages testing for a broad scale, relatively shallow deposit including but not limited to auger, push tube and aircore drilling
- Surface excavations of costeans for sampling and bulk metallurgical studies

Key terms of the Proposed Transaction

The Company proposes to acquire 100% of the issued capital of Southern Rare Earths Pty Ltd from the shareholders of the entity, none of whom are related parties to the Company. The consideration (**Consideration**) payable for the Proposed Acquisition pursuant to the HoA is:

- 57,692,307 fully paid ordinary shares at a deemed issue price of \$0.013; and
- two separate classes of 13,461,538 Performance Shares.

In addition to the Consideration, Frontier will reimburse Project Risk Pty Ltd, a shareholder of Southern Rare Earths, \$35,000 (plus GST) being expenses incurred in applying for and maintaining the tenement applications.

The class A Performance Shares vest if within 24 months of the date of issue the Company achieves at least one drill intercept grading a minimum of 400ppm TREO over at least 10 metres. The class B Performance Shares vest if within 36 months of the date of issue the Company delineates a JORC compliant resource of a minimum of 15 million tonnes grading a minimum of 500ppm TREO. In each case the relevant performance condition needs to be independently verified by a competent person under the JORC code.

The full terms and conditions of the Performance Shares will be set out in a shareholder meeting materials that will be sent to the Company's shareholders in the near future. The acquisition of Southern Rare Earths remains subject to receipt of shareholder approval in a general meeting. The Proposed Acquisition is also conditional on Frontier completing technical, financial and legal due diligence on Southern Rare Earths and the Tenement Application to its satisfaction within 30 days from the date of execution of the HoA.

Capital Raising

The Company has received firm commitments for a capital raising of \$1,300,000 (before costs) at a price of \$0.013 per share by way of placement to professional and sophisticated investors (**Capital Raising**). CPS Capital and Inyati Capital have been appointed Joint Lead Managers (**JLMs**) to the Capital Raising and will be paid a fee of 6% of the amount raised. The JLM's will be issued 10,000,000 options over Frontier Shares at an issue price of \$0.00001 (each exercisable at \$0.02 and expiring 3 years from the date of issue) that will be issued pursuant to Listing Rule 7.1. Following completion of the Capital Raising, the Company's cash position will be in excess of \$4 million.

It is proposed that subject to shareholder approval, the directors of Frontier will also subscribe for 4,570,000 shares at an issue price of \$0.013, raising an additional \$59,410 ("**Director Placement**").

The Company expects to complete the Capital Raising and therefore issue the new shares and options on or about 9 August 2021. The proposed issue of shares to directors will be completed on the Company obtaining the requisite shareholder approval. The issue of 48,910,193 shares pursuant to the Capital Raising will be made utilising the Company's placement capacity under Listing Rule 7.1A. The remaining issue of 51,089,807 shares and the 10 million options will be made under Listing Rule 7.1.

The funds raised from the Capital Raising and Director Placement will be applied to exploration and development work on the Company's Tolukuma Gold Tenement, the Murraydium Project, general working capital purposes and business development purposes.

The Company has commenced preparing a Notice of General Meeting seeking shareholder approval for the Consideration and the proposed issue of shares under the Director Placement. The General Meeting is expected to be held on or around mid-September 2021.

The Company also intends to undertake an underwritten 1 for 8 non-renounceable rights issue to existing shareholders at the same price as the Capital Raising being \$0.013 per share (**Rights Offer**). The Rights Offer will be underwritten by the JLMs on terms to be determined in due course.

An indicative timetable is set out below with the key milestones for the Rights Offer. The timetable is indicative and may be subject to change.

Activity	Indicative Date
Lodgement of Appendix 3B and offer document with ASX	27 August 2021
Shares quoted on an "ex" basis	31 August 2021
Record Date for determining entitlements	1 September 2021
Offer document and Entitlement and Acceptance Form despatched to Eligible Shareholders	6 September 2021
Entitlement Offer Opening Date	6 September 2021
Entitlement Offer Closing Date (unless extended)	15 September 2021
New shares quoted on a deferred settlement basis	16 September 2021
Anticipated date for issue of New Shares / lodgement of Appendix 2A	22 September 2021
Anticipated date for commencement of New Shares trading on a normal settlement basis	23 September 2021

Indicative Capital Structure

The Company's capital structure following completion of the Proposed Transaction and that the full subscription is achieved under the Capital Raising and Rights Offer and that no options are exercised, will be as follows.

Class of Frontier Security	Number
Ordinary Fully Paid Shares (Shares)	
Shares currently on issue	489,101,938
Consideration Shares issued to Southern Rare Earths shareholders Shares issued pursuant to Capital Raising	57,692,307
Placement	100,000,000
Director Placement	4,570,000
Rights Offer	73,637,742
Total Shares at completion of Proposed Transaction and Capital Raising	725,001,987
Options exercisable @ \$0.02 and expiring 3 years	
Options issued to JLMs	10,000,000
Performance Shares	
Class A Performance Shares	13,461,538
Class B Performance Shares	13,461,538
Total Performance Shares at completion of Proposed Transaction	26,923,076

-ENDS-

This announcement has been authorised for release by the Directors of the Company. For additional information please visit our website at <u>www.frontierresources.net.au</u>.

For more information contact: Alec Pismiris Chairman

The information referred to in this announcement relates to the following sources:

¹ 29/6/21 - Prospectus - Australian Rare Earths Limited (ar3.com.au)

² Adamas Intelligence September 2020

³ Jowitt SM., Wong VNL., Wilson SA., Gore O., 2017. Critical metals in the critical zone: controls, resources and future prospectively of regolith hosted rare earth elements. Australian Journal of Earth Sciences, 64:8, 1045-1054, DOI: 10.1080/08120099.2017.1380701

⁴ Sanematsu K., and Watanabe Y., 2016. Characteristics and Genesis of Ion Adsorption-Type Rare Earth Element Deposits. Society of Economic Geologists Inc. Reviews in Economic Geology V.28, pp 55-70

⁵ Outlook for Selected Critical Minerals (industry.gov.au)

⁶ Roskill (2021) - Department of Industry, Science, Energy and Resources (2021)