AUSTRALIAN
RARE EARTHS

AUSTRALIAN RARE EARTHS LIMITED

ACN 632 645 302

PROSPECTUS

For the offer of 40,000,000 ordinary Shares
at an offer price of 30 cents each to raise $12,000,000

ASX:AR3 • ar3.com.au

Important Information

This document provides important information to assist prospective investors in deciding whether or not to invest in the Company. It should be read in its entirety. If you do not understand it, you should consult your professional advisers.

THE SHARES OFFERED UNDER THIS PROSPECTUS ARE OF A SPECULATIVE NATURE.

TAYLOR COLLISON

IMPORTANT NOTICES

This Prospectus is dated 7 May 2021 and was lodged with the Australian Securities and Investments Commission (**ASIC**) on that date. Neither ASIC, ASX Ltd (**ASX**) or any of their respective officers takes any responsibility for the contents of this Prospectus. No Shares will be issued on the basis of this Prospectus later than 13 months after the date of this Prospectus. The Directors of and advisers to the Company do not guarantee the success of the Company, repayment of capital, payment of dividends or the price at which Shares will trade on ASX.

Electronic Prospectus

This Prospectus will be issued in paper form and as an electronic Prospectus which may be accessed on the internet at www.ar3.com.au. The Offer of Shares pursuant to the paper form or electronic Prospectus is only available to persons receiving this Prospectus in Australia. The Corporations Act prohibits any person passing onto another person the Application Form unless it is attached to, or accompanied by, the complete and unaltered version of this Prospectus. During the Offer Period, any person may obtain a hard copy of this Prospectus by contacting the Company by email at hello@ar3.com.au.

Financial Forecasts

The Directors have considered the matters set out in ASIC Regulatory Guide 170 and believe that they do not have a reasonable basis to forecast future earnings on the basis that the operations of the Company are inherently uncertain. Accordingly, any forecast or projection information would contain such a broad range of potential outcomes and possibilities that it is not possible to prepare a reliable best estimate forecast or projection.

Foreign Jurisdictions

This Prospectus does not constitute an offer or invitation in any place in which, or to persons to whom, it would not be lawful to make an offer. Distribution of this Prospectus in jurisdictions outside Australia may be restricted by law, and persons who come into possession of this Prospectus should seek advice and observe any such restrictions. Failure to comply with such restrictions may constitute a violation of applicable securities laws.

Risk Factors

Potential investors should be aware that subscribing for Shares in the Company involves a number of risks. The key risk factors of which investors should be aware are set out in Section 1.7 and Section 4 of this Prospectus. These risks together with other general risks applicable to all investments in listed securities not specifically referred to, may affect the value of the Shares in the future. Accordingly, an investment in the Company should be considered highly speculative. Investors should consider consulting their professional advisers before deciding whether to apply for Shares pursuant to this Prospectus.

Forward Looking Statements

This Prospectus may contain forward looking statements or information. Forward-looking statements can be identified by the use of words such as 'may', 'should', 'will', 'expect', 'anticipate', 'believe', 'estimate', 'intend', 'scheduled' or 'continue' or similar expressions. Such statements and information are subject to risks and uncertainties and a number of assumptions, which may cause the actual results or events to differ materially from the expectations described in such forward looking statements or information. Whilst the Company considers the expectations reflected in any perceived forward looking statements or information in this Prospectus are reasonable, no assurance can be given that such expectations will prove to be correct. The risk factors outlined in Section 1.7 and in Section 4 of this Prospectus, as well as other matters as not yet known to the Company or not currently considered material by the Company, may cause actual events to be materially different from those expressed, implied or projected in any perceived forward looking statements or information. Any forward looking statements or information contained in this Prospectus is qualified by this cautionary statement.

Website Address

The Prospectus can be downloaded from www.ar3.com.au.

Photographs and Diagrams

Items and undertakings depicted in photographs and diagrams in this Prospectus are not assets of the Company, unless otherwise stated. Diagrams appearing in this Prospectus are illustrative only and may not be drawn to scale.

Definitions

Throughout this Prospectus abbreviations and defined terms are used. Abbreviations and legal and technical terms are contained in the Definitions in Section 12 of this Prospectus. Defined terms are generally identified by the uppercase first letter.

Disclaimer

No person is authorised to give any information or to make any representation in connection with the Offer described in this Prospectus that is not contained in this Prospectus. Any information not so contained may not be relied upon as having been authorised by the Company or any other person in connection with the Offer. You should rely only on information in this Prospectus.

KEY OFFER INFORMATION

Key Dates

Lodgement of this Prospectus with ASIC and ASX	7 May 2021
Opening Date of the Offer	17 May 2021
Expected Closing Date of the Offer	4 June 2021
DvP Settlement	10 June 2021
Issue of Shares under this Prospectus	11 June 2021
Despatch of holding statements	16 June 2021
Expected Date for listing of Shares on ASX	25 June 2021

Note: This timetable is indicative only. Unless otherwise indicated, all times are in Adelaide Time. The Company and the Lead Manager reserve the right to vary the dates and times of the Offer, including to close the Offer early or to accept late Applications, either generally or in particular cases, without notification. Investors are encouraged to submit their Applications as soon as possible.

Key Offer Statistics

Company Name	Australian Rare Earths Limited (ACN 632 645 302)
Proposed ASX Code	AR3
Securities Offered	Fully paid ordinary shares
Issue Price per Offer Share	$0.30 per Share
Number of Shares available under the Offer	40,000,000 Shares
Gross proceeds from the Offer (before exercise of any Options)	$12,000,000
Total number of Shares and Options on issue at Completion of the Offer	110,680,000 Shares and 12,597,200 Options

How to Invest

Applications for Shares can only be made by completing and lodging the Application Form included in or accompanying this Prospectus.

Instructions on how to apply for Shares are set out in Section 2.5 of this Prospectus.

CONTENTS

CORPORATE DIRECTORY

Directors

Dudley John Kingsnorth - Non-Executive Chairman
Rickie James Pobjoy - Executive Director
Bryn Llywelyn Jones - Non-Executive Director

Company Secretary

Damien Scott Connor

Registered Office

Level 7, 19 Grenfell Street
Adelaide SA 5000
Email: hello@ar3.com.au
Website: www.ar3.com.au

Principal Office

Level 7, 19 Grenfell Street
Adelaide SA 5000

Share Registrar

Computershare Investor Services Pty Limited
Level 5, 115 Grenfell Street
Adelaide SA 5000

Solicitors to the Company

O'Loughlins Lawyers
Level 2, 99 Frome Street
Adelaide SA 5000

Investigating Accountant

Grant Thornton Corporate Finance Pty Ltd
Level 43, Central Park
152-158 St Georges Terrace
Perth WA 6000

Auditor

Grant Thornton Audit Pty Ltd
Grant Thornton House
Level 3, 170 Frome Street
Adelaide SA 5000

Independent Geologist

REESearch Pty Ltd
102 Park Street
Subiaco WA 6008

Lead Manager

Taylor Collison Limited
Level 16, 211 Victoria Square
Adelaide SA 5000

LETTER FROM THE CHAIRMAN

7 May 2021

Dear Investor,

On behalf of the Board of Directors it is a pleasure to present you with an opportunity to participate in the ownership and potential growth of Australian Rare Earths Limited (**AREL** or the **Company**). Our vision is to establish AREL as a leading rare earth company committed to strong environmental, social and governance principles as a cornerstone to the benefit of all our stakeholders.

The Company's primary focus is our 100%-owned Koppamurra Project (**Koppamurra**), a district scale ionic clay rare earth opportunity located in South Australia and Victoria containing a high value REE assemblage with low radioactivity. The Company has already had significant exploration success through the discovery of the Red Tail and Yellow Tail deposits, including the declaration of a maiden Mineral Resource the grade of which is comparable with those found in southern China, the major source of heavy rare earths.

The success of the Company's first drilling campaign, incorporating aircore, auger and push-tube core techniques, was obtained from drilling of less than 5% of our Project area.

The Directors are confident that further exploration will result in both an increase in the size of the Red Tail and Yellow Tail deposits as well as definition of additional resource areas where known similar rare earth anomalism exists. The low cost and simplicity of the drilling techniques employed indicate that an increase in resource could be achieved in a relatively short time.

This Prospectus is seeking to raise $12,000,000 through the issue of 40,000,000 Shares at an issue price of 30 cents per Share under the Offer. The purpose of the Offer is to provide adequate funds to implement the Company's business strategies (explained in Section 3).

Following a successful listing on the ASX, the Company will focus on district scale exploration drilling at Koppamurra to prioritise areas for additional resource definition. Parallel activities will continue to develop processing methodologies for the current resources and prepare the environmental and social cases for potential development of these resources.

The AREL Board has significant expertise and experience in the rare earth industry as well as the mining exploration industry and will direct the funds raised through the Offer to cost effective exploration and the advancement of the Company's business strategy.

Although the recognition of the Koppamurra region as a potential rare earth district is relatively recent, AREL considers this to be a fortuitous time to be embarking on our initial public offering. The global push for carbon neutrality through the adoption of Electric Vehicles (EVs) and renewable energy (particularly wind turbine) installations is driving global demand for the combination of rare earths with which Koppamurra is endowed.

In a global market dominated by China the major world economies are actively supporting the development of independent supply chains to ensure that the global population will continue to have unrestricted access to the materials that drive future economies.

This Prospectus is being issued for the purpose of supporting an application to list the Company on the Australian Securities Exchange (**ASX**). This Prospectus contains detailed information about the Company, its business and the Offer, as well as the risks of investing in the Company. I encourage you to read it carefully and seek professional advice if required. The Shares offered by this Prospectus should be considered speculative.

On behalf of the Board I look forward to welcoming you as a Shareholder as we enter what we believe will be an exciting period for the rare earths market and AREL investors.

Yours sincerely,

Professor Dudley J. Kingsnorth
Non-Executive Chairman

KEY ISSUES SUMMARY

The information set out in this Section is intended to be a summary only and should be read in conjunction with the more detailed information elsewhere in this Prospectus. In deciding whether to apply for Shares under the Offer, you should read this Prospectus carefully and in its entirety and consult your professional advisers.

Question	Answer	More information
Introduction and overview of the Company		
What is the business of the Company?	The Koppamurra Project (the **Project**) comprising one granted exploration licence in South Australia (EL6509) and three exploration licence applications in South Australia (ELA 2020/00129, ELA 2020/00240, ELA 2020/00239) and a granted exploration licence in Victoria (EL007254). The Company has recently completed a maiden Mineral Resource Estimate (MRE) on the Project. The Company is a speculative exploration company. Following completion of the Offer, the Company's proposed business model is to explore the Project which has the potential to host an economic deposit of rare earth elements capable of being developed.	Section 1.2, 1.3 Section 3.2, 3.3
How does the Company generate its income and what are its key costs?	The Company does not derive any income from mineral exploration activities nor anticipate any such income in the immediate future. The Company's key costs are anticipated to be the costs of the Offer, exploration and evaluation expenditure, working capital and administrative and compliance costs.	Section 3.2, 3.3
Who are the Company's customers?	The Company does not currently have any customers and does not anticipate achieving any sales to customers in the immediate future.	Section 3.2
Where are the Company's operations located?	The Company's registered office is located at Level 7, 19 Grenfell Street, Adelaide SA 5000. The Company's Koppamurra Project comprises two exploration licences and exploration licence applications located in South-Eastern South Australia and Western Victoria.	Section 3
Who are the Company's competitors?	The Company will compete in the highly competitive mineral exploration industry with its competitors including listed and unlisted companies of various sizes. China is the dominant force in the rare earths market; producing over 70% of global supply and consuming approximately 70% of total global demand. Lynas Rare Earths Ltd (**Lynas**) is the world's largest rare earths producer outside of China with current operations in Australia and Malaysia. Lynas' business is based on the exploitation of the Mt Weld light rare earths mine in Western Australia. AREL will be one of only two publicly listed pure-play ionic clay rare earth element companies globally with the other being Ionic Rare Earths Ltd (ASX:IXR) .	Section 3.2, 3.4 Section 4.3
What is the Company's strategy?	The Company's business strategy centres on the following key elements: • the conduct of exploration on the Project and, if warranted, the development of mining operations; and • the active pursuit of other opportunities, both in Australia and overseas, with the aim of creating value for the Company's shareholders.	Section 3.2, 3.3

Question	Answer	More information
Directors and key management		
Who are the Directors of the Company and what is their experience?	The Board is comprised of three Directors as follows: 1. Professor Dudley John Kingsnorth – Independent Non-Executive Chairman 2. Rickie James Pobjoy – Executive (Technical) Director 3. Bryn Llywelyn Jones – Non-Executive Director Professor Kingsnorth and Mr Jones are experienced ASX listed company directors. Professor Kingsnorth and Messrs Jones and Pobjoy have extensive experience in the rare earth elements industry as well as mineral exploration, evaluation and development. The Company has appointed Damien Scott Connor as the Company Secretary.	Section 1.15
Who are the leadership team of the Company and what is their expertise?	The Company's operations will be led by its Directors, headed by Rickie Pobjoy (Executive (Technical) Director) as follows: **Rickie Pobjoy** Mr Pobjoy is a Geologist with over 25 years' experience in the mining and minerals exploration industry. Mr Pobjoy has extensive experience in the definition, development and production from sedimentary hosted deposits across a number of commodities. **Dudley Kingsnorth** Professor Kingsnorth is a Metallurgist with over 50 years' experience in operations, project development and marketing, and is an internationally recognised independent expert on the rare earths industry. **Bryn Jones** Mr Jones is an Industrial Chemist with extensive evaluation, development and operational experience in the minerals industry across various commodities. The Company intends, shortly after admission to the ASX, to recruit a Managing Director or Chief Executive Officer of suitable experience and skills to continue the exploration and development of the Project.	Section 1.15
Overview of the Offer		
Who is the issuer of this Prospectus?	Australian Rare Earths Limited ACN 632 645 302	Section 2.2
What is the Offer?	An offer of new Shares at an Offer Price of 30 cents per Share to raise $12 million. The Offer is for fully paid ordinary shares in the capital of the Company ranking equally with existing Shares on issue. For details relating to the rights and liabilities of the Shares, refer to Section 10.4.	Section 2.2

Question	Answer	More information
What happens if the Minimum Subscription is not received?	The Minimum Subscription for the Offer to proceed is $12 million. If the Minimum Subscription is not obtained within four months after the date of this Prospectus (or any longer period permitted by law), the Company will repay all Application Money in full without interest as soon as practicable or issue a supplementary or replacement prospectus and allow Applicants one month to withdraw their Applications and be repaid their Application Money in full without interest.	Section 2.2
What is the Company's Capital Structure on Completion of the Offer?	The Company's indicative share capital structure will be: Existing shares on issue: 70,680,000 Shares issued under this Prospectus: 40,000,000 **Total Shares on issue at the Completion of the Offer: 110,680,000**	Section 1.11
What is the proposed use of proceeds received in connection of with the Offer?	The Company's primary use of funds will be to pay for: • Working Capital; • Resource Definition Drilling; • Regional Exploration; • Metallurgical Testwork and Studies; and • Expenses of the Offer and Capital Raising fees.	Section 1.13
How is the Offer structured? And where will the Offer be made?	The Offer presented in this Prospectus is open to investors who have a registered address in Australia. No action has been taken to register or qualify the Shares, or, otherwise permit a public offering of the Shares the subject of this Prospectus, in any jurisdiction outside Australia. Applicants who are resident in countries other than Australia should consult their professional advisers as to whether any governmental or other consents are required or whether any other formalities need to be considered and followed.	Section 2.11
Is the Offer underwritten?	The Offer is not underwritten.	Section 2.13
Who is the Lead Manager?	Taylor Collison Limited has been appointed as the Lead Manager.	Section 9.3
What fees and costs are payable to the Lead Manager?	In consideration for services provided by the Lead Manager in relation to the Offer, the Lead Manager will receive a management fee equal to 2% and a selling fee equal to 4% of the gross proceeds of the Offer (before any costs, expenses or other deductions of payments), together with corporate advisory fees as outlined in Section 9.3. In addition, the Company will issue 2,417,200 Options to the Lead Manager (or its nominee).	Section 9.3

Question	Answer	More information
When will the Shares be quoted?	The Company will apply to ASX within seven days of the date of this Prospectus, for its admission to the Official List and quotation of Shares on ASX. The Shares are expected to be quoted under the ASX code 'AR3'. Quotation of the Shares is expected to occur on or about 25 June 2021 (this date is subject to change). Completion of the Offer is conditional on ASX approving the Company's listing application and the Shares being admitted to quotation by ASX. If the Shares are not admitted to quotation within three months after the date of this Prospectus (or any longer period permitted by law), the Company will withdraw the Offer and refund all Application Money received without interest as soon as practicable in accordance with the requirements of the Corporations Act or issue a supplementary or replacement prospectus and allow Applicants one month to withdraw their Applications and be repaid their Application Money in full without interest.	Section 2.9
Are there any restrictions on the disposal of Shares?	Upon Completion of the Offer and subject to the ASX Listing Rules, the Shares issued under the Prospectus will not be subject to any restrictions on disposal. Subject to ASX approving the Company's listing application and the Shares being admitted to quotation by ASX, certain securities in the Company will be classified by ASX as restricted securities and will be required to be held in escrow for up to 24 months from the date of listing. The Company will announce to the ASX full details (quantity and duration) for the Shares and Options required to be held in escrow prior to the Shares commencing trading on ASX.	Section 1.21 Section 10.2(b)
What is the allocation policy?	The allocation of Shares will be determined by the Lead Manager and the Directors in their sole discretion.	Section 2.6 Section 2.7
Is there any brokerage, commission or stamp duty payable by Applicants?	No brokerage, commission or stamp duty is payable by Applicants on acquisition of Shares under the Offer.	Section 2.8
What are the tax implications of investing in the Shares?	The taxation consequences of an investment in the Shares will depend on your particular circumstances. It is your responsibility to make your own enquiries concerning the taxation consequences of an investment in the Company.	Section 1.19

Question	Answer	More information
How can I apply?	Applications for Shares under this Prospectus may only be made: 1. by applying online at the Company's website at https://ar3.com.au/ and paying by BPAY® The relevant online electronic Application Form and electronic version of this Prospectus can be downloaded from https://ar3ipo.thereachagency.com; or 2. by completing and returning a printed copy of the Application Form attached to or accompanying this Prospectus and paying by cheque, bank draft or money order. Applications must be for a minimum of 6,667 Shares ($2,000.10) and thereafter in multiples of 1,000 Shares ($300). To the extent permitted by law, an Application by an Applicant under the Offer is irrevocable. See Section 2.5 for further information on how to apply.	Section 2.5
When will I receive confirmation that my Application is successful?	The Company expects that holding statements confirming Applicants' allocations under the Offer will be sent to successful Applicants, by regular post, as soon as possible after the determination by the Company of entitlements.	Section 2.6
CHESS and Issuer Sponsorship	The Company participates in CHESS, for those investors who have, or wish to have, a sponsoring stockbroker. Investors who do not wish to participate through CHESS will be issuer sponsored by the Company.	Section 2.10
When are the Shares expected to commence trading?	It is expected that shares will commence trading on ASX on a normal settlement basis on or about 25 June 2021. After quotation, Shareholders and other investors may buy or sell Shares at the prevailing market price. There may or may not be a liquid market for Shares, and the Shares may trade above or below the Offer Price. It is the responsibility of each Applicant to confirm their holding before trading Shares. Applicants who sell Shares before they receive an initial holding statement do so at their own risk.	Section 2.9 Section 2.6
Can the Offer be withdrawn?	Yes. The Company reserves the right not to proceed with the Offer at any time before the issue of Shares to successful Applicants. If the Offer does not proceed, Application Monies will be refunded. No interest will be paid on any Application Monies refunded as a result of the withdrawal of the Offer.	Section 2.5, 2.6
Is there a cooling off period?	No.	Section 2.5

Question	Answer	More information
Where can I find more information about this Prospectus or the Offer?	If you would like more information or have any questions relating to the Offer, please call: • the Shareholder Information Line on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia) or • the Company on 1300 646 100 (within Australia) or +61 1300 646 100 (outside Australia). You may also email the Company Secretary at hello@ar3.com.au. An electronic copy of the Prospectus can be downloaded from the Company's website at www.ar3.com.au or directly at https://ar3ipo.thereachagency.com. If you are uncertain as to whether an investment in the Company is suitable for you, please contact your stockbroker, financial adviser, accountant, lawyer or other professional adviser.	Section 2.14
Key strengths and key risks		
What are the key strengths of the Company?	The Company's key strengths are: • The Project provides current and future shareholders of the Company with exposure to mineral exploration opportunities, and the Company will be sufficiently capitalised following the successful completion of the Offer and intends to direct existing and new funds to developing the Company's interests in the Project. • Proven prospectivity for near surface enrichment of rare earth elements in a clay setting over a very large project area. • The Company has a maiden Mineral Resource Estimate of 39.9Mt @ 725ppm TREO which it intends to expand on and develop following completion of the Offer. • An experienced Board and management within the mineral resource sector and specifically related to the rare earths industry.	Section 1.5 Section 3.2
What are the key risks?	The key risks are: • Mineral exploration is inherently associated with risk. Notwithstanding the experience, knowledge and careful evaluation a company brings to an exploration project there is no assurance that recoverable mineral resources will be identified. Even if identified, other factors such as technical difficulties, geological conditions, adverse changes in government policy or legislation or lack of access to sufficient funding may mean that the resource is not economically recoverable or may otherwise preclude the Company from successfully exploiting the resource. • The Company's Directors have significant experience in the mining exploration industry. If growth objectives are to be met, this will depend on the ability of the Directors, or their nominated expert consultants/advisers, to implement the current exploration strategies and to adapt, where necessary, to accommodate and manage any unforeseen difficulties. • Commodity prices are subject to influencing factors beyond the control of the Company and can be subject to significant fluctuations. Any significant and/or sustained fluctuation in commodity prices or exchange rates could have a materially adverse effect on the Company's operations and its financial position.	Section 1.7 Section 4.2

Question	Answer	More information
	• The funds raised by the Capital Raising will be used to carry out work on the Company's Project. If the Company incurs unexpected costs or is unable to generate sufficient operating income, further funding may be required. The Company may require additional funding to carry out further exploration, undertake feasibility studies, develop mining operations and/or acquire new projects in order to assess the technical and economic viability of developing the Company's Project. • The Company's potential future earnings, profitability and growth are likely to be dependent on the Company being able to successfully develop its Project and implement some or all of its commercialisation plans. The ability for the Company to do so is further dependent upon a number of factors, including matters which may be beyond the control of the Company. The Company may not be successful in securing identified customers or market opportunities. • Mining and exploration tenements are subject to periodic renewal. There is no guarantee that current or future tenements or future applications for production tenements will be approved or that current exploration tenement applications will be granted. • There is a substantial level of regulation and restriction on the ability of exploration and mining companies to have access to land in Australia. Negotiations with Native Title and/or land owners/ occupiers are generally required before the Company can access land for exploration or mining activities. Inability to access, or delays experienced in accessing, the land may impact on the Company's activities. • China is the dominant supplier and consumer of rare earths which is delegated to six State Owned Enterprises (SOEs). Accordingly, actions by the Chinese government with respect to the control and management of the domestic rare earths industry could have a material impact on the global rare earths market. • Tenements are subject to expenditure and work commitments which must be met in order to keep such tenements in good standing. Failure to meet the commitments could lead to forfeiture of the tenement.	

Question	Answer	More information

Significant interests of key people

Who are the key shareholders of the Company and what is their interest in the Company upon completion of the Offer

The key Shareholders in Australian Rare Earths Limited are currently as follows, and their Shareholding upon Listing is noted below:

Section 1.12

Shareholder	Shares Held	% Ownership as at date of this Prospectus	% Ownership on Completion of the Offer
Too Up Holdings Pty Ltd	14,070,000	19.91%	12.71%
Beechcrest Investments Pty Ltd	14,070,000	19.91%	12.71%
BNP Paribas Nominees Pty Ltd	9,750,000	13.79%	8.81%
Total	37,890,000	53.61%	34.23%

* Assumes no Options are exercised after the date of this Prospectus and before Quotation, and the Shareholders do not participate in the Offer.

What significant benefits are payable to Directors and the other persons connected with the Company or the Offer and what significant interests do they hold?

Section 1.16

Company Directors Professor Dudley Kingsnorth (Non-Executive Chairman) and Mr Bryn Jones (Non-Executive Director) will be paid a director's fee of $60,000 per annum and $40,000 per annum respectively (exclusive of statutory superannuation).

Directors are also entitled to be reimbursed for travelling and other expenses reasonably incurred in attending to the business of the Company.

The Company's Executive (Technical) Director Mr Rickie Pobjoy has entered into an Executive Services Agreement with the Company. He is to be paid an annual salary (exclusive of statutory superannuation) of $200,000 increased to $250,000 per annum until such time as the Company appoints a Managing Director or Chief Executive Officer.

The maximum interests that the Directors will hold in the Company upon Completion of the Offer are noted below:

	Shares beneficially held*	% Ownership on Completion of the Offer	Options beneficially held
Rickie Pobjoy	14,070,000	12.71%	4,700,000
Bryn Jones	15,270,000	13.80%	3,450,000
Dudley Kingsnorth	2,200,000	1.99%	1,600,000
Total	31,540,000	28.50%	9,750,000

* Assumes that Prof. Kingsnorth (or his associates) is issued up to 700,000 Shares under the Capital Raising

A further 2,000,000 Options are proposed to be issued to Mr Pobjoy under the Company's Employee Option Plan, pursuant to the terms of his Executive Services Agreement, if approved by Shareholders at the first annual general meeting following Listing (as outlined in Section 1.17)

Question	Answer	More information
What significant benefits are payable to Directors and the other persons connected with the Company or the Offer and what significant interests do they hold? (continued)	The Company has entered into a Royalty Deed dated 7 January 2021 with RAB Royalties Pty Ltd (**RAB**), a related entity of Directors Bryn Jones and Rickie Pobjoy (**Royalty Deed**), by which the Company has agreed to pay to RAB, a 0.5% net smelter return royalty (GST exclusive) in respect of the sale of minerals produced from South Australian EL6509, Victorian EL007254 and any EL issued pursuant to South Australian ELA 2020/129 , and any tenements which may be granted in lieu of those tenements (**Royalty Tenements**), commencing on the fifth anniversary of the date of commencement of the extraction and recovery of minerals from a Royalty Tenement which are capable of being sold or otherwise disposed of.	Section 1.17, 9.1

SECTION 1:
INVESTMENT OVERVIEW

1.1 Important

The Shares offered by this Prospectus are of a speculative nature. Prospective investors should carefully consider the risk factors outlined in Section 4 of this Prospectus.

The information in this Section 1 is a high level summary only and is not intended to provide comprehensive details of the Offer. Prospective investors should read the full text of this Prospectus and, if in any doubt, consult with their professional advisers before deciding whether to apply for Shares. The Shares offered under this Prospectus carry no guarantee in respect of return of capital, return on investment, payment of dividends or the future value of the Shares.

1.2 The Company

The Company was incorporated on 1 April 2019 as Tawel Exploration Pty Ltd for the purpose of exploration, development and investment in mineral resource opportunities in South Australia and Victoria. On 9 March 2021 the Company converted to a public company limited by shares and changed its name to Australian Rare Earths Limited.

1.3 The Project

The Company is the registered holder of the granted South Australian EL6509 and Victorian EL007254 and the registered applicant for South Australian ELA 2020/129, ELA 2020/239 and ELA 2020/240 (collectively the **Koppamurra Project** or the **Project**). The Company has entered into a Tenement Transfer Deed to effect the transfer for no consideration of the granted ELs (and in due course, the ELAs upon their grant), and subject to the requirements of applicable mining legislation in each of Victoria and South Australia to its wholly owned subsidiary RDBD Developments Pty Ltd.

The Company has a 100% interest EL6509 located in South Australia, Victorian EL007254 and will hold a 100% in the exploration licences upon granting of the current exploration licence applications registered by the Company (as detailed above).

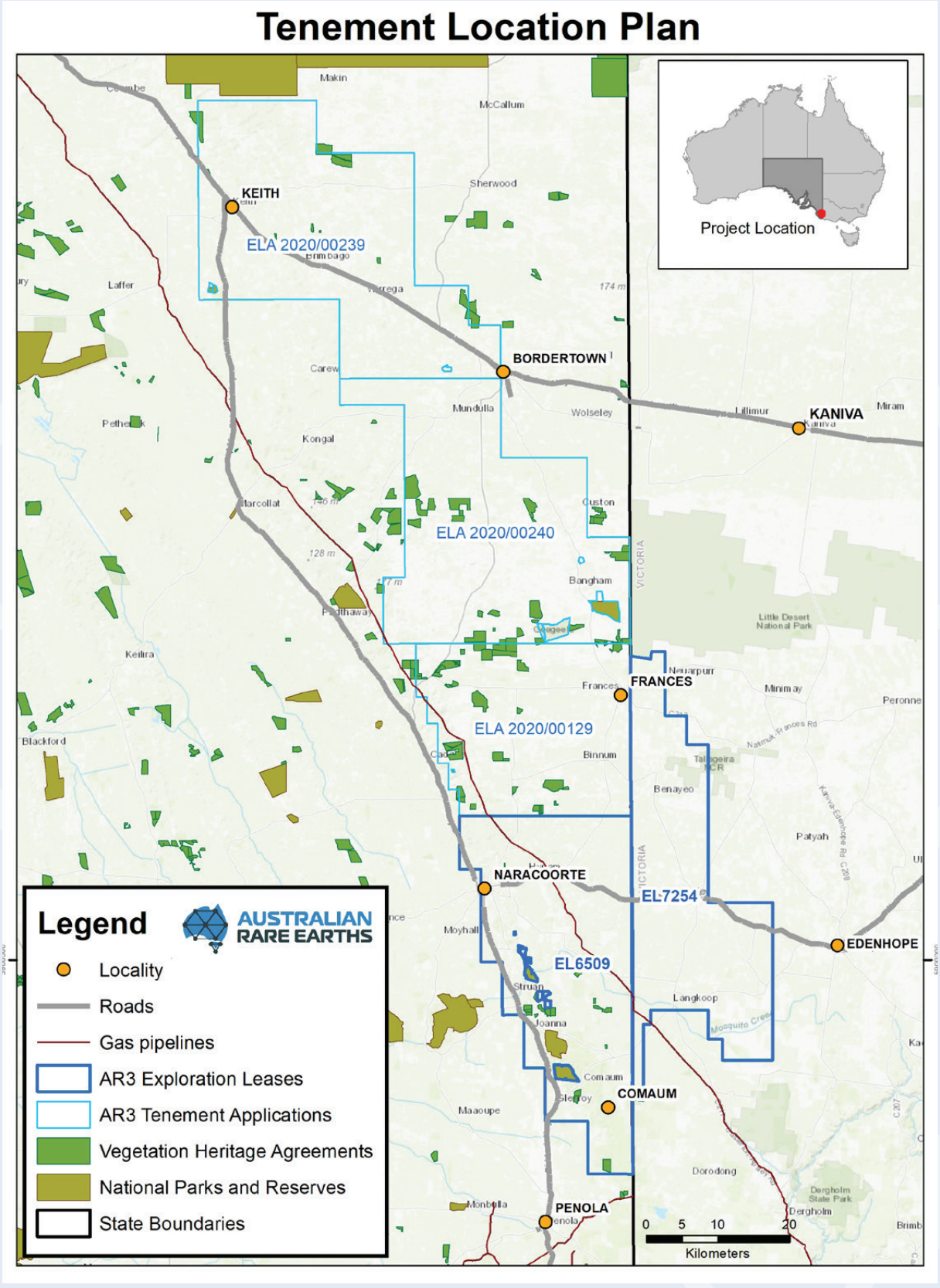
The Koppamurra Project is prospective for the accumulation of ionic clay hosted rare earths resources. The prospectivity of the Koppamurra Project was initially confirmed by obtaining historic drill core samples from the South Australia Drill Core Reference Library, and having those samples assayed for their rare earth element content.

The Company completed a follow up exploration drilling programme on EL6509 which was targeted at sufficiently defining the nature and extent of rare earth mineralization occurring there and to define a JORC compliant Inferred Mineral Resource.

Additional work to support the economic nature of any resources defined there includes the application of selected drill samples to clay hosted rare earth leaching testwork. Results received to date from six of the group of samples submitted for clay hosted rare earth leaching testwork demonstrated TREO (excluding CeO2) recoveries of between 50% and 70%. Results from the remainder of the leach tests are pending.

Further prospectivity of EL6509, outside the area drilled for Resource Definition, will also be tested through additional drilling at wide, regional spacings and the application of ground based geophysical techniques.

Below is a map which details the location of the Company's tenure interest as detailed above.



1.4 The Company's Objectives

The Company's main objective, post Completion of the Offer, is to explore and develop its interests in the Projects, with the aim of creating value for the Company's current and future shareholders. The Projects are further discussed in Section 3 of this Prospectus.

1.5 Investment Highlights

The main highlights of the Company's business are as follows:

- The Company has identified a district scale ionic clay rare earth opportunity located in the South-East of South Australia and Western Victoria, containing a high value REE assemblage with low radioactivity.
- The Company has already had significant exploration success through the discovery of the Red Tail and Yellow Tail deposits including the declaration of a maiden Mineral Resource, following an initial drilling campaign incorporating aircore, auger and push-tube core drilling.
- The success of this program has seen AREL explore under 5% of the Project area in a very short time at low cost.
- The Directors are confident that further exploration will result in both an increase in the size of the Red Tail and Yellow Tail deposits as well as definition of additional resource areas where known rare earth anomalism in comparable settings exists.
- The Company considers this to be a fortuitous time to be embarking on our initial public offering with the 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 with which Koppamurra is endowed.
- Furthermore, in a market dominated by a government-controlled supply from China the major world economies are motivated to build robust diversified supply chains to ensure the rest of the world's population continues to have unrestricted access to the materials that drive future economies.

1.6 Summary Financial Information

Historical Profit and Loss Statement

The table below presents the summarised historical statement of profit or loss and other comprehensive income for the Period from Incorporation on 1 April 2019 to 30 June 2020 ("PI20") and six months ended 31 December 2020 ("H1FY21").

	Audited	Reviewed
$'000	**PI20**	**H1FY21**
Loss Before Income Tax	**(6)**	**(27)**
Income Tax (Expense)/Benefit	-	-
Loss for the Period	**(6)**	**(27)**
Total Comprehensive Loss for the Year	**(6)**	**(27)**

Refer to Section 5: Financial information for further details on the Historical Profit and Loss Statement

Pro-forma Statement of Financial Position

	Pro-Forma 31 December 2020
	Statement of financial position $
Current Assets	
Cash assets	11,685
Total Assets	**12,438**
Total Liabilities	**(290)**
Net Assets	**12,148**

For an explanation of the pro-forma adjustments made, see the notes to the Historical and Pro-Forma Statements of Financial Position in Section 5 (Financial Information) of this Prospectus.

1.7 Key Risks

The business, assets and operations of the Company are subject to certain risk factors that have the potential to influence the operating and financial performance of the Company in the future. These risks can impact on the value of an investment in the securities of the Company.

The Board aims to manage these risks by carefully planning its activities and implementing risk control measures. Some of the risks are, however, highly unpredictable and the extent to which they can be effectively managed is limited.

Set out below are the key risks which the Directors consider are associated with an investment in the Company. Further risks associated with an investment in the Company are outlined in Section 4 of this Prospectus:

- ***Mineral Exploration***

  Mineral exploration is inherently associated with risk. Notwithstanding the experience, knowledge and careful evaluation a company brings to an exploration project there is no assurance that recoverable mineral resources will be identified. Even if identified, other factors such as technical difficulties, geological conditions, adverse changes in government policy or legislation or lack of access to sufficient funding may mean that the resource is not economically recoverable or may otherwise preclude the Company from successfully exploiting the resource.

- ***Reliance on Key Personnel***

  The Company's Directors have significant experience in the mining exploration industry. If growth objectives are to be met, this will depend on the ability of the Directors, or their nominated expert consultants/advisers, to implement the current exploration strategies and to adapt, where necessary, to accommodate and manage any unforeseen difficulties. Initially, the Company will rely heavily on the experience of its Directors and their nominated expert consultants/advisors. The loss of the services of certain personnel could have an adverse effect on the Company and its activities.

- ***Commodity Price and Currency Volatility***

  Commodity prices are subject to influencing factors beyond the control of the Company and can be subject to significant fluctuations. Just some of these influencing factors include:

  - world demand for particular commodities;
  - the level of production costs in major commodity producing regions;
  - expectations regarding inflation, interest rates and exchange rates;
  - China's decisions with respect to managing the domestic Chinese rare earths industry;
  - the development of new technologies that create new demands or eliminate the demand for particular rare earth elements.

  Any significant and/or sustained fluctuation in commodity prices or exchange rates could have a materially adverse effect on the Company's operations and its financial position.

- ***Additional Requirements for Capital***

  The funds raised by the Capital Raising will be used to carry out work on the Company's Project. If the Company incurs unexpected costs or is unable to generate sufficient operating income, further funding may be required. The Company may require additional funding to carry out further exploration, undertake feasibility studies, develop mining operations and/or acquire new projects in order to assess the technical and economic viability of developing the Company's Project. Any additional financing through share issues will dilute existing shareholdings. Debt financing may not be available to support the scope and extent of proposed developments. If available, it may impose restrictions on operating activities or anticipated expansion of the Company's operations.

- ***Commercialisation and contractual risk***

  The Company's potential future earnings, profitability and growth are likely to be dependent on the Company being able to successfully develop its Projects and implement some or all of its commercialisation plans. The ability for the Company to do so is further dependent upon a number of factors, including matters which may be beyond the control of the Company. The Company may not be successful in securing identified customers or market opportunities.

  In the course of development of the Company's Project, the Company is likely to become party to various contracts, including but not limited to, contracts relating to infrastructure access, mineral processing and customer product supply arrangements. Whilst the Company will have various contractual rights in the event of non-compliance by a contracting party, no assurance can be given that all contracts to which the Company is a party will be fully performed by all contracting parties. Additionally, no assurance can be given that if the contracting party does not comply with any contractual provisions, that the Company will be successful in securing compliance.

- ***Tenure and Access***

  Mining and exploration tenements are subject to periodic renewal. There is no guarantee that current or future tenements or future applications for production tenements will be approved or that current exploration tenement applications will be granted.

  Tenements are subject to numerous State-specific legislation conditions. The renewal of the term of a granted tenement (and grant of tenement applications) is also subject to the discretion of the relevant Minister. Renewal conditions may include increased expenditure and work commitments or compulsory relinquishment of areas of the tenements. The imposition of new conditions either during the term of a tenement or upon renewal, or the inability to meet those conditions may adversely affect the operations, financial position and/or performance of the Company.

- ***Land Access risk***

  There is a substantial level of regulation and restriction on the ability of exploration and mining companies to have access to land in Australia. Negotiations with Native Title and/or land owners/occupiers are generally required before the Company can access land for exploration or mining activities. Inability to access, or delays experienced in accessing, the land may impact on the Company's activities.

- ***China***

  China is the dominant supplier and consumer of rare earths which is delegated to six State Owned Enterprises (SOEs). Accordingly, actions by the Chinese government with respect to the control and management of the domestic rare earths industry could have a material impact on the global rare earths market.

- ***Compulsory Work Obligations***

  Tenements are subject to expenditure and work commitments which must be met in order to keep such tenements in good standing. These commitments may be varied on application by the tenement holder but any such variation is at the sole discretion of the Minister administering the relevant State mining legislation. If no variation is approved, and there is failure to meet the commitments, this could lead to forfeiture of the tenement.

1.8 The Offer

The Company is offering 40,000,000 Shares for subscription at an Offer Price of 30 cents per Share to raise $12,000,000. The key information relating to the Offer and references to further details are set out below.

1.9 Indicative Timetable for the Offer

Event	Date
Lodgement of this Prospectus with ASIC and ASX	7 May 2021
Opening Date of the Offer	17 May 2021
Expected Closing Date of the Offer	4 June 2021
DvP Settlement	10 June 2021
Issue of Shares under this Prospectus	11 June 2021
Despatch of Holding Statements	16 June 2021
Expected Date for Listing of Shares on ASX	25 June 2021

The above dates are indicative only and may vary, subject to the requirements of the ASX Listing Rules and the Corporations Act. The Company and the Lead Manager reserve the right to vary the dates and times of the Offer, including to close the Offer early or to accept late Applications, either generally or in particular cases, without notification. Investors are encouraged to submit their Applications as soon as possible.

1.10 Purpose of the Offer

The purpose of the Offer is to facilitate an application by the Company for admission of the Company to the official list of ASX and to raise $12,000,000.

The Company aims to achieve the objectives set out above and the exploration and development of the Projects as described in this Prospectus.

1.11 Capital Structure

Following completion of the Offer, the proposed issued capital structure of the Company will be as set out in the table below.

	Shares	% Total Shares	Options
Current issued capital	70,680,000	63.86%	10,180,000
Issued pursuant to Capital Raising	40,000,000	36.14%	–
Issued to Taylor Collison[1]	–	–	2,417,200
Total issued capital on listing (assuming none of the current issued Options are exercised before listing)	**110,680,000**	**100.00%**	**12,597,200**

[1] Options to be issued to Taylor Collison Ltd (or its nominee) pursuant to the terms of its mandate letter entered into with the Company in respect of the Offer.

A further 2,000,000 Options are proposed to be issued to Mr Pobjoy under the Company's Employee Option Plan, pursuant to the terms of his Executive Services Agreement, if approved by Shareholders at the first annual general meeting following Listing (as outlined in Section 1.17).

Rights attaching to the Shares are summarised in Section 10.4 of this Prospectus. Terms and conditions of the Options are summarised in Section 10.5 of this Prospectus.

1.12 Substantial Shareholders

Those Shareholders holding 5% or more of the Shares on issue at the date of this Prospectus are:

Shareholder	Shares	%
Too Up Holdings Pty Ltd	14,070,000	19.91%
Beechcrest Investments Pty Ltd	14,070,000	19.91%
BNP Paribas Nominees Pty Ltd	9,750,000	13.79%

Following completion of the Offer, (assuming no existing substantial Shareholder subscribes for and receives additional Shares pursuant to the Offer other than as set out below) those Shareholders holding 5% or more of the Shares on completion of the Offer will be:

Shareholder	Shares	%
Too Up Holdings Pty Ltd[1]	14,070,000	12.71%
Beechcrest Investments Pty Ltd[2]	14,070,000	12.71%
BNP Paribas Nominees Pty Ltd	9,750,000	8.81%

1. Too Up Holdings Pty Ltd is associated with Director Rickie Pobjoy.
2. Beechcrest Investments Pty Ltd is associated with Director Bryn Jones.

The Company will announce to the ASX details of its top-20 Shareholders (following completion of the Offer) prior to the Shares commencing trading on ASX.

1.13 Use of Funds

The proposed application of funds over two calendar years from the date on which the Shares allotted under this Prospectus are quoted on the ASX is as follows:

Use of Funds (A$)	Notes	Funds Available Post IPO	Post-IPO /Year 1 Spend	Year 2 Spend	Total Spend
Pre-offer Cash	1	732,000			
Total Funds Raised Under the Offer		12,000,000			
Total Funds Available		**12,732,000**			
Expenses of the Offer	2	1,047,000			1,047,000
Resource Definition Drilling	4		1,200,000	2,800,000	4,000,000
Regional Exploration	4		1,000,000	1,000,000	2,000,000
Metallurgical Testwork and Studies	4		1,300,000	1,700,000	3,000,000
Working Capital	3		1,342,500	1,342,500	2,685,000
Total Funds Applied		**1,047,000**	**4,842,500**	**6,842,500**	**12,732,000**

Notes:
1. Represents cash on hand as at 31 March 2021 (actual cash levels at the date of the completion of the Offer will likely differ from the above).
2. Refer to section below which details the expenses of the Offer.
3. Available cash to manage growth aspirations even weighted across Year 1 and Year 2.
4. The use of exploration and evaluation expenditure is more fully described in Section 3 of this Prospectus.

1.14 Expenses of the Offer

The estimated expenses (exclusive of GST) connected with the Offer which are payable by the Company are as follows:

Expense Item	(A$)
Investigating Accountant's Report	16,000
Legal Expenses	100,000
Independent Geologist's Report	20,000
ASX and ASIC fees	105,523
Lead Manager Fees	290,000
Capital Raising Fees	480,000
Other including accounting, audit, share registry, printing, marketing and distribution	35,477
Total	**1,047,000**

The above tables are statements of current intentions at the date of the lodgement of this Prospectus with ASIC. As with any budget or estimate, intervening events (including market success or failure) and new circumstances have the potential to affect the ultimate way funds will be applied. The Board reserves the right to alter the way funds are applied in these circumstances.

The Directors consider that following completion of the Offer, the Company will have sufficient working capital to carry out its stated objectives, as detailed in this Prospectus, for a period of at least two years.

1.15 Directors and Key Personnel

The Company is managed by an energetic Board possessing a broad range of technical, commercial and financial skills with each Director having significant experience in the mineral exploration and resources sector.

Profiles of the Directors are set out below:

Professor Dudley Kingsnorth FAICD, FAusIMM, FIMM, B.Met (Hons), M.Sc
Non-Executive Chairman

Dudley Kingsnorth is a Metallurgist with over 50 years' experience in operations, project development and marketing. Professor Kingsnorth is an internationally recognised independent expert on the rare earths industry, providing advice to producers, end users and government entities. Professor Kingsnorth was a former Project Manager for the Mt Weld Rare Earths Project, and is currently a non-executive director of Boss Energy Limited (ASX: BOE). Professor Kingsnorth is a Fellow of the Australian Institute of Company Directors.

Rickie Pobjoy BSc, MAusIMM
Executive (Technical) Director

Rickie Pobjoy is a Geologist with over 25 years' experience in the mining and minerals exploration industry. Mr Pobjoy has extensive experience in the definition, development and production from sedimentary hosted deposits across a number of commodities. Mr Pobjoy has recent experience in managing the geological evaluation of mineral deposits in the Murray Basin.

Bryn Jones BAppSc (Chem), MMinEng, FAusIMM
Non-Executive Director

Bryn Jones is an Industrial Chemist with extensive evaluation, development and operational experience in the minerals industry across various commodities. Mr Jones specialises in development of extractive metallurgical solutions for economic development. Mr Jones is the Technical (Exec) Director of Boss Energy Ltd (ASX: BOE). Mr Jones is also a non-executive director of DevEx Resources Ltd (ASX: DEV) and is the Managing Director of PhosEnergy Limited

The profiles of other Key Management Personnel are set out below:

Damien Connor CA, GAICD, AGIA, B.Com
Chief Financial Officer and Company Secretary

Damien Connor is an experienced Company Secretary and CFO, with over 20 years finance and accounting experience including 15 years in the mining and mineral exploration industry. Mr Connor is a member of the Institute of Chartered Accountants of Australia (Chartered Accountant), an associate of the Governance Institute of Australia (Chartered Secretary) and a graduate of the Australian Institute of Company Directors. Mr Connor has been providing Company Secretary and CFO services to a number of ASX Listed and unlisted entities since 2011.

1.16 Disclosure of Interests

Each Director is entitled to such remuneration from the Company as the Directors decide, but the total amount provided to all non-executive directors must not exceed in aggregate the amount fixed by the Company in a general meeting. The aggregate maximum remuneration for all non-executive Directors is currently $500,000 per annum.

Following the Company being admitted to the Official List, the annual remuneration of Directors (exclusive of superannuation) it is expected to be as follows:

Director	Remuneration (per annum)
Dudley Kingsnorth	$60,000
Rickie Pobjoy*	$200,000
Bryn Jones	$40,000

*The Company has agreed to pay Executive (Technical) Director, Rickie Pobjoy $200,000 per annum (exclusive of superannuation) increased to $250,000 per annum until such time as the Company appoints a Managing Director or Chief Executive Officer. The key terms of Mr Pobjoy's Executive Services Agreement are summarised below in Section 1.17.

Additionally, 2,000,000 Options (on terms outlined in Section 10.6(a)) are proposed to be issued to Mr Pobjoy under the Company's Employee Option Plan, pursuant to the terms of his Executive Services Agreement, if approved by Shareholders at the first annual general meeting following Listing. Refer to the summary of the Executive Services Agreement in Section 1.17 of this Prospectus.

The remuneration of the Directors as outlined above is current as at the date of this Prospectus, but is subject to adjustment in the ordinary course of business. All Directors are entitled to be paid all travelling and other expenses properly incurred by them in attending, participating in and returning from meetings of the Directors or any committee of the Directors or general meetings of the Company or otherwise in connection with the Company's business.

The Company maintains Directors' and Officers' Liability Insurance on behalf of the Directors and officers of the Company.

The direct and indirect interests of the Directors in the securities of the Company as at the date of this Prospectus are as follows:

Director	Shares			Options	
	Direct	Indirect	% Total Shares	Direct	Indirect
Rickie Pobjoy	–	14,070,000	19.91%	–	4,700,000
Bryn Jones	–	15,270,000	21.60%	–	3,450,000
Dudley Kingsnorth	750,000	750,000	2.12%	600,000	1,000,000
Total	**750,000**	**30,090,000**	**43.63%**	**600,000**	**9,150,000**

Upon Completion of the Offer, the maximum direct and indirect interests of the Directors in the securities of the Company will be as follows:

Director	Shares			Options	
	Direct	Indirect	% Total Shares[1]	Direct	Indirect
Rickie Pobjoy[2]	–	14,070,000	12.71%	–	4,700,000
Bryn Jones	–	15,270,000	13.80%	–	3,450,000
Dudley Kingsnorth[3]	750,000	1,450,000	1.99%	600,000	1,000,000
Total	**750,000**	**30,790,000**	**28.50%**	**600,000**	**9,150,000**

[1] Assumes that 40,000,000 Shares are issued such that the Company has total issued capital on listing of 110,680,000 Shares (assuming none of the current issued Options are exercised before listing).
[2] A further 2,000,000 Options are proposed to be issued to Mr Pobjoy under the Company's Employee Option Plan, pursuant to the terms of his Executive Services Agreement, if approved by Shareholders at the first annual general meeting following Listing (as outlined in Section 1.17)
[3] Professor Dudley Kingsnorth (and/or his associates) intend to apply for up to 700,000 Shares under the Capital Raising.

1.17 Agreements with Directors or Related Parties

The Company's policy in respect of related party arrangements is:

(a) a Director with a material personal interest in a matter is required to give notice to the other Directors before such a matter is considered by the Board; and

(b) for the Board to consider such a matter, the Director who has a material personal interest is not present while the matter is being considered at the meeting and does not vote on the matter.

Executive Services Agreement – Rickie Pobjoy

The Company entered into an Executive Services Agreement (**Agreement**) with Rickie Pobjoy on 31 March 2021.

By the Agreement, the Company agrees to employ Mr Pobjoy as Executive Director (Technical) of the Company for an indefinite term, commencing on the Listing Date and continuing until terminated in accordance with its terms.

Pursuant to the Agreement, the Company will pay Mr Pobjoy an annual base salary (exclusive of statutory superannuation) of $200,000, together with an additional salary component of $50,000 per annum (exclusive of statutory superannuation) until such time as the Company appoints a Managing Director or Chief Executive Officer. As part of the executive remuneration package under the Agreement, Mr Pobjoy (or his nominee) has been issued 2,000,000 Options, on the terms set out in Section 10.5(c), and will, subject to obtaining Shareholder approval at the first annual general meeting of Shareholders following Listing be issued a further 2,000,000 Options under the Company's Employee Option Plan, on the terms set out in Section 10.6(a). The remuneration package is subject to annual review on 1 July each year. Mr Pobjoy is also entitled to receive short term and long term incentive awards, upon the Company meeting certain milestones and conditions as determined by the Company in consultation with Mr Pobjoy.

The Company will reimburse travel and all other reasonable out-of-pocket expenses necessarily incurred by Mr Pobjoy in or about its business (or of its subsidiaries) and will pay for the cost of a mobile phone and calls and data usage as agreed.

The Company may terminate Mr Pobjoy's employment summarily because of, among other things, wilful breach of the Agreement, gross or wilful misconduct, conduct which may injure the reputation or business of the Company and its subsidiary, or failure to meet independent performance objectives after two written notices and at least three months to remedy. Mr Pobjoy can also terminate the Agreement in writing in the event that the Company commits (and fails to remedy) a serious breach of its obligations, and if within the first two years of the Agreement, Mr Pobjoy will receive three months' base salary in addition to benefits accrued and owing.

Either party may terminate the Agreement on three months' notice to the other (and the Company may in each case elect to pay to Mr Pobjoy remuneration in lieu). The Company may terminate the Agreement in the event of continuing incapacity for more than three months due to illness, accident or other cause by giving one month's notice (or payment in lieu of notice).

In the event of a change of control of the Company (by court ordered scheme of arrangement or compromise, or takeover bid or other acquisition by a person of a relevant interest in the Company exceeding 50%) Mr Pobjoy will receive a lump sum gross payment of 12 months' base salary.

Mr Pobjoy is entitled to usual annual leave, personal leave and long service leave in accordance with applicable legislation.

Mr Pobjoy is subject to confidentiality obligations during and following his employment, and during his employment must notify the Board of all business opportunities related to the business of the Company and its subsidiary.

Royalty Deed

The Company has entered into a Royalty Deed dated 7 January 2021 with RAB Royalties Pty Ltd (**RAB**), a related entity of Directors Bryn Jones and Rickie Pobjoy (**Royalty Deed**), by which the Company has agreed to pay to RAB, a 0.5% net smelter return royalty (GST exclusive) in respect of the sale of minerals produced from South Australian EL6509 and Victorian EL007254, any EL issued pursuant to South Australian ELA 2020/129, and any tenements which may be granted in lieu of those tenements (**Royalty Tenements**), commencing on the fifth anniversary of the date of commencement of the extraction and recovery of minerals from a Royalty Tenement which are capable of being sold or otherwise disposed of. By Deed of Assignment and Assumption dated 22 January 2021 between the Company, its wholly owned subsidiary RDBD Developments Pty Ltd (**RDBD**) and RAB, the Company has assigned its rights and obligations under the Royalty Deed to RAB with effect from completion under the Tenement Transfer Deed referred to below.

A summary of the Royalty Deed and the Deed of Assignment and Assumption is contained in Section 9.1 of this Prospectus.

Tenement Transfer Deed

The Company has entered into a Tenement Transfer Deed dated 22 January 2021 with its wholly owned subsidiary RDBD Developments Pty Ltd (**RDBD**), of which the Directors Bryn Jones, Rickie Pobjoy and Dudley Kingsnorth are the directors. Subject to the satisfaction of the conditions precedent referred to in the Tenement Transfer Deed, the Company will transfer to RDBD at Completion under the Tenement Transfer Deed, South Australian EL 6509, Victorian EL007254 and South Australian ELAs 2020/129, 2020/239 and 2020/240, and any tenements which may be granted in respect of those applications, and related technical information, for no monetary consideration.

A summary of the Tenement Transfer Deed is contained in Section 9.2 of this Prospectus.

Deeds of Access, Insurance and Indemnity

The Company has entered into a Deed of Access, Insurance and Indemnity with each Director and the CFO. Pursuant to the Deed the Director (or officer) is indemnified by the Company against any liability incurred in their capacity as an officer of the Company to the extent permitted by law subject to certain exclusions.

The Company must use its reasonable efforts to keep a complete set of company documents for a period of seven years after the Director (or officer) ceases to be an officer of the Company or of a group company (**Relevant Period**) or for a longer period if any of the documents are relevant to any legal, administrative or arbitral proceeding, mediation or other form of alternative dispute resolution, inquiry or investigation or any threat, complaint, demand or other circumstance which might reasonably cause the Director (or officer) to believe that such proceedings, investigation or inquiry will be initiated (**Claim**) as notified to the Company by the Director (or officer) during (and not concluded in) that period.

The Director (or officer) has the right to inspect and/or copy a company document in connection with a Claim commenced or arising during the Relevant Period in which the Director (or officer) is directly involved as a party, witness or otherwise because the Director (or officer) is or was an officer of the Company.

The Company must use reasonable endeavours to maintain at all times during the Relevant Period, to the extent permitted by law and available in the market at reasonable cost and subject to the prohibitions in the Corporations Act, an insurance policy insuring the Director (or officer) against liability as a director or officer of the Company (as the case may be).

1.18 Corporate Governance

To the extent applicable, in light of the Company's size and nature, the Company has adopted The Corporate Governance Principles and Recommendations (4th Edition) as published by ASX Corporate Governance Council (**Recommendations**).

The Company's main corporate governance policies and practices as at the date of this Prospectus and the Company's compliance and departures from the Recommendations are set out in Section 10.2(a) of this Prospectus.

In addition, the Company's full suite of Corporate Governance documents, including its overarching Corporate Governance Statement, are available from the Company's website: www.ar3.com.au.

1.19 Taxation

The Australian taxation consequences of any investment in Shares will depend upon an investor's particular circumstances. It is an obligation of investors to make their own enquiries concerning the taxation consequences of an investment in the Company. If you are in doubt as to the course of action you should take, you should consult your professional advisers.

1.20 Dividend Policy

The Company does not yet have a dividend policy. The Company has no immediate intention to declare or distribute dividends. Payment of future dividends will depend upon the future profitability and financial position of the Company.

1.21 Restricted Securities

Subject to the Company being admitted to the Official List, certain of the Shares and Options on issue prior to the Offer and certain of the Shares issued on the exercise of the Options on issue prior to the Offer (**Escrowed Securities**), are likely to be classified by ASX as restricted securities and will be required to be held in escrow for the period imposed by ASX under the ASX Listing Rules (**Escrow Period**).

Further details are set out in Section 10.2(b) of this Prospectus.

SECTION 2:
DETAILS OF THE OFFER

2.1 Introduction

The information set out in this Section is not comprehensive and should be read together with the entire context of this Prospectus.

2.2 The Offer and Subscription

The Company is offering 40,000,000 Shares for subscription at an Offer Price of 30 cents per Share to raise $12,000,000. The Minimum Subscription is 40,000,000 Shares.

All Shares issued pursuant to this Prospectus will be issued as fully paid ordinary shares and will rank equally in all respects with the Shares already on issue. The rights attaching to the Shares are summarised in Section 10.4 of this Prospectus.

If the Minimum Subscription for the Offer is not achieved within four months after the date of this Prospectus, the Company will repay all money received from Applicants, without interest, as soon as practicable or issue a supplementary or replacement prospectus and allow Applicants one month to withdraw their Applications and be repaid their Application Money in full without interest.

2.3 Offer Period

The Offer will open on the Opening Date and will remain open until 5.00 pm (Adelaide Time) on the Closing Date. The Company reserves the right to either open or close the Offer at an earlier time or date or to extend the time or date without prior notice. Applicants are encouraged to submit their Applications as early as possible.

2.4 Exposure Period

In accordance with Chapter 6D of the Corporations Act this Prospectus is subject to an Exposure Period of seven days from the date of lodgement with ASIC. This period may be extended by ASIC for a further period of up to seven days. The purpose of the Exposure Period is to enable this Prospectus to be examined by market participants prior to the raising of funds. If this Prospectus is found to be deficient, Applications received during the Exposure Period will be dealt with in accordance with section 724 of the Corporations Act. Applications received prior to the expiration of the Exposure Period will not be processed until after the Exposure Period.

2.5 How to Apply

Applications must be for a minimum of 6,667 Shares ($2,000.10) and thereafter in multiples of 1,000 Shares ($300) and can only be made by completing the Application Form attached to this Prospectus. The Company reserves the right to reject any Application or to allocate any investor fewer Shares than the number for which the Applicant has applied.

Applications under the Offer may be made, and will only be accepted, in one of the following forms:

- **Applying online and paying by BPAY®**

If you are an eligible investor, and you are applying online, you must complete the online Application by following the instructions and making a BPAY® payment.

Applicants can apply online at the Company's website at https://ar3.com.au/ and paying by BPAY®.

The relevant online electronic Application Form and electronic version of this Prospectus can be downloaded from https://ar3ipo.thereachagency.com.

BPAY® payment is only available for Applications received by the online electronic Application Form, payable in Australian dollars. You will need to check with your financial institution in relation to their BPAY® closing times to ensure that your Application Monies will be received by 5.00pm (Adelaide Time) on the Closing Date. If you do not pay your Application Monies by this time, your Application will be incomplete and will not be accepted. If you complete your Application by making a BPAY® payment, you do not need to complete or return the paper Application Form. By completing a BPAY® payment, you acknowledge you are applying pursuant to the Application Form.

Detailed instructions on how to complete an electronic version of the Application Form and pay by BPAY® can be accessed via https://ar3ipo.thereachagency.com.

- **Applying by Post and paying by Cheque, Bank Draft or Money Order**

If you do not wish to pay by BPAY®, a paper Application Form (whether in hard copy form or a paper copy of the electronic Application Form which accompanies the electronic version of this Prospectus, as referred to above) must be completed in accordance with its accompanying instructions.

Paper Application Forms must be accompanied by a personal cheque, bank draft, or money order, payable in Australian dollars, for an amount equal to the number of Shares for which you wish to apply multiplied by the Application Price of 30 cents per Share. Cheques, bank drafts or money orders should be made payable to 'Australian Rare Earths Limited' and crossed 'Not Negotiable'. No brokerage or stamp duty is payable by Applicants. The amount payable on Application will not vary during the period of the Offer.

Applicants should ensure that cleared funds are available at the time the paper Application Form is lodged, as dishonoured cheques will result in the Application being rejected. Application monies will be held in trust in a subscription account established and controlled by the Company until allotment has taken place.

Detailed instructions on how to complete paper Application Forms are set out on the reverse of those forms. You are not required to sign the Application Form. The Company reserves the right to reject any Application (including where an Application Form has not been correctly completed) or allocate any person fewer Shares than that person applied for, or vary the dates and times of the Offer without prior notice and independently of other parts of the Offer. Where Applications are rejected or fewer Shares are allotted than applied for, surplus Application Money will be refunded. No interest will be paid on any Application Money refunded.

An Application may not be withdrawn after lodgement unless the Applicant is permitted to withdraw the Application in accordance with the Corporations Act.

Completed paper Application Forms should be mailed to:

Mailing Address

Australian Rare Earths Limited
C/- Computershare Investor Services Pty Limited
GPO Box 52
MELBOURNE VIC 3001

Application Forms must be received by the Share Registrar no later than 5.00 pm (Adelaide Time) on the Closing Date.

2.6 Allocation and Allotment of Shares

Subject to ASX granting approval for quotation of the Shares, the allotment of Shares will occur as soon as practicable after the Offer closes. All Shares issued pursuant to the Offer will rank pari passu in all respects with the existing Shares of the Company. Holding statements will be dispatched as required by ASX. It is the responsibility of Applicants to determine their allocation prior to trading in Shares.

The Directors reserve the right to reject any Application or to allot a lesser number of Shares than subscribed for in an Application Form. If the number of Shares allocated is less than that applied for, or no allotment is made, the surplus Application Monies will be promptly refunded without interest.

2.7 Lead Manager

Taylor Collison Limited has agreed to act as Lead Manager to the Offer. Details of the terms of appointment of the Lead Manager, including fees payable, are set out in Section 9.3 of this Prospectus.

2.8 Brokerage and Handling Fees

No brokerage, commission or stamp duty is payable by Applicants on acquisition of Shares under the Offer.

2.9 Stock Exchange Listing

Application will be made to ASX within seven days after the date of this Prospectus for Quotation of the Shares issued pursuant to this Prospectus. If approval for Quotation of the Shares is not granted within three months after the date of this Prospectus, the Company will not allot or issue any Shares pursuant to the Offer and will repay all Application Money without interest as soon as practicable or issue a supplementary or replacement prospectus and allow Applicants one month to withdraw their Applications and be repaid their Application Money in full without interest.

2.10 Clearing House Sub-Register Systems CHESS and Issuer Sponsorship

The Company participates in the Clearing House Electronic Subregister System (**CHESS**), operated by ASX Settlement Pty Limited, a wholly owned subsidiary of ASX, in accordance with the Listing Rules and ASX Settlement Operating Rules.

Under this system, the Company will not issue certificates to investors in relation to their Shares. Instead, Shareholders will receive a statement of their shareholdings in the Company.

If an investor is broker sponsored, ASX Settlement Pty Limited will send them CHESS statements. The CHESS statements will set out the number of Shares allotted to each investor under this Prospectus, give details of the Shareholder's holder identification number (**HIN**) and give the participant identification number of the sponsor.

Alternatively, if an investor is registered on the issuer sponsored sub register, the statements will be dispatched by the Share Registrar and will contain the number of Shares allotted under this Prospectus and the Shareholder's securityholder reference number (**SRN**).

A CHESS statement or issuer sponsored statement will routinely be sent to Shareholders at the end of any calendar month during which the balance of their holding changes. A Shareholder may request a statement at any other time, however a charge may be made for additional statements.

2.11 Overseas Investors

This Prospectus does not constitute an offer or invitation in any place in which, or to any person to whom, it would not be lawful to make such an offer or invitation. The distribution of this Prospectus in jurisdictions outside Australia may be restricted by law and persons who come into possession of this Prospectus should seek advice on and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws. Lodgement of a duly completed Application Form will be taken by the Company as to constitute a representation that there has been no breach of such laws.

No action has been taken to register or qualify the Shares, or the Offer, or otherwise to permit a public offering of the Shares, in any jurisdiction outside Australia.

The Offer pursuant to the paper form or electronic Prospectus is only available to persons receiving this Prospectus within Australia.

2.12 Privacy Act

The Company collects information about each Applicant from the Application Form for the purposes of processing the Application and, if the Application is successful, to administer the Applicant's shareholding in the Company.

By submitting an Application Form, each Applicant agrees that the Company may use the information in the Application Form for the purposes set out in this Prospectus and may disclose it for those purposes to the Share Registrar, the Company's related bodies corporate, agents, contractors and third party service providers (including mailing houses), ASX, ASIC and other regulatory authorities.

If an Applicant becomes a Shareholder of the Company, the Corporations Act requires the Company to include information about the Shareholder (name, address and details of the Shares held) in its public registers. This information must remain in the registers even if that person ceases to be a Shareholder of the Company. Information contained in the Company's registers is also used to facilitate distribution payments and corporate communications (including the Company's financial results, annual reports and other information that the Company may wish to communicate to its Shareholders) and compliance by the Company with legal and regulatory requirements. Successful Applicants may request access to their personal information held by (or on behalf of) the Company by telephoning or writing to the Company Secretary.

If you do not provide the information required on the Application Form, the Company may not be able to accept or process your Application.

2.13 No Underwriting

The Offer is not underwritten.

2.14 Investor Enquiries

This document is important and should be read in its entirety. Persons in doubt as to the course of action to be followed should consult their stockbroker, solicitor, accountant or other professional adviser without delay.

Questions relating to the Offer or further advice on how to complete the Application Form can be directed to the Shareholder Information Line on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia) or by emailing the Company Secretary at hello@ar3.com.au.

SECTION 3: OVERVIEW OF THE COMPANY, THE PROJECT, AND INDUSTRY OVERVIEW

3.1 Introduction

The Company was incorporated on 1 April 2019 as Tawel Exploration Pty Ltd for the purpose of exploration, development and investment in mineral resource opportunities in South Australia and Victoria. On 9 March 2021 the Company converted to a public company limited by shares and changed its name to Australian Rare Earths Limited. The Company has recently made great progress into the exploration for and development of rare earths mineral resource opportunities with the drilling definition of a shallow clay hosted rare earth prospect within its Koppamurra Project area.

A maiden mineral resource estimate, incorporating detail from this recent drilling effort, of 39.9Mt at an average grade of 725ppm TREO has been generated. The feasibility for production from the clay hosted rare earth resources, using simple desorption processes, has been demonstrated with testwork conducted at the Australian Nuclear Science and Technology Organisation's (ANSTO) mineral processing laboratories. This recent work by the Company has demonstrated the significant future potential of the Koppamurra Project for district scale ionic clay rare earth resources, and for the potential to participate in building robust diversified supply chains to ensure populations continue to have unrestricted access to the materials that drive future economies.

3.2 Company and Project Overview

The Company is the registered holder of the granted South Australian EL6509, Victorian EL007254 and the registered applicant for South Australian ELA 2020/129, ELA 2020/239 and ELA 2020/240 . This granted tenure and tenure applications in South-Eastern South Australia and Western Victoria form the Koppamurra Project (the **Project**).

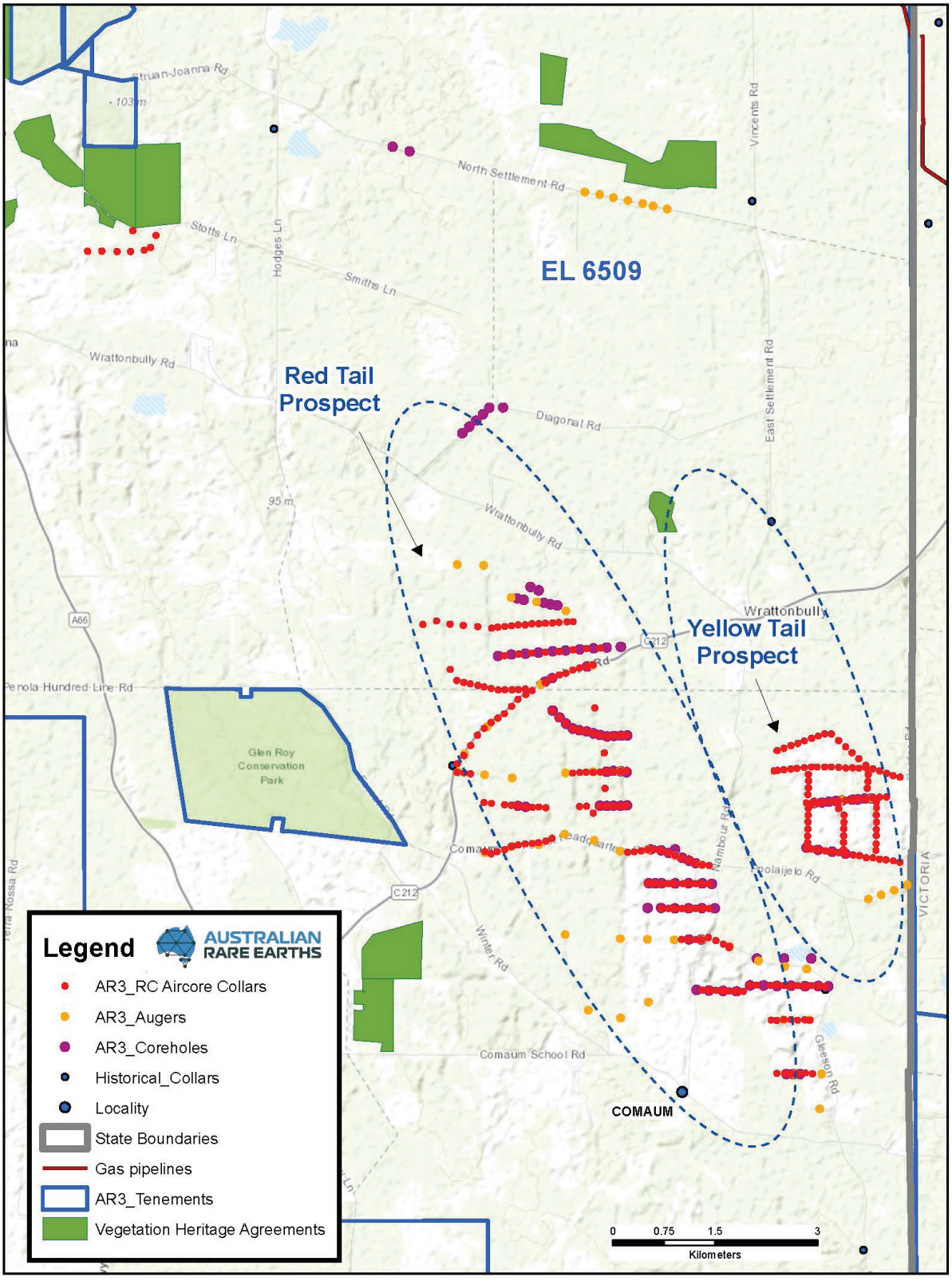
The Project, which is 100% owned by Australian Rare Earths, is prospective for rare earth element (**REE**) mineralisation and is interpreted to have analogies to ion adsorption ionic clay deposits being developed elsewhere in the world. Indications of anomalous REE in shallow sediments in the Project area were first identified by Australian Rare Earths following a review of geochemical data acquired from a 2016 PhD project that was initiated and supported through the Deep Exploration Technologies Cooperative Research Centre to characterise sedimentary cover of Loxton Sand across the Murray Basin.

Exploration undertaken by Australian Rare Earths to date has been primarily directed towards the delineation of rare earth mineralisation at Koppamurra and includes sampling of historical core, two auger drilling programs, a push tube drilling program, a two phase air core drilling program, mineralogical studies, and metallurgical testwork.

Drilling to date has intersected laterally extensive rare earth mineralisation within a (on average) 2 to 3 metre thick clay horizon which has delineated two prospect areas, Red Tail and Yellow Tail. The Red Tail Prospect area extends along strike for over 10 kilometres (at the longest point) and 3 kilometres wide (at the widest point), whilst the Yellow Tail Prospect is approximately 3 kilometres long and 1.9 kilometres wide (at the widest point). This drilling has generated a maiden mineral resource estimate for the Red Tail and Yellow Tail REE prospects within the wider Koppamurra Project area. The Mineral Resource Estimate, completed by IHC Robbins Pty Ltd and reviewed by the competent person in this matter, Rebecca Morgan, has taken into consideration the drill hole spacing in plan view and downhole, as well the sample support within domains and the variography for these Koppamurra deposits for classification of the resource under JORC. Ms Morgan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined by the 2012 JORC Code as incorporated in the ASX Listing Rules. The deposit has been assigned a JORC Classification of Inferred, and comprises a total Mineral Resource of 39.9 Mt @ 725 ppm TREO and 485 ppm TREO-CeO_2 and is tabled here below.

Prospect	Zone	Tonnes (Mt)	TREO (ppm)	TREO-CeO_2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	ThO_2 (ppm)	U_3O_8 (ppm)
Yellow Tail	2	10.0	903	586	638	265	329	19.0	1.6
Red Tail	2	29.5	668	452	465	203	250	18.4	1.6
Red Tail	3	0.4	520	359	363	157	195	14.0	1.7
Total		**39.9**	**725**	**485**	**507**	**218**	**269**	**18.5**	**1.6**

NOTE: Totals may not add up due to rounding.


EL 6509
Red Tail Prospect
Yellow Tail Prospect
COMAUM
Glen Roy Conservation Park
Legend
AUSTRALIAN RARE EARTHS
AR3_RC Aircore Collars
AR3_Augers
AR3_Coreholes
Historical_Collars
Locality
State Boundaries
Gas pipelines
AR3_Tenements
Vegetation Heritage Agreements
0 0.75 1.5 3
Kilometers
North Settlement Rd
Wrattonbully Rd
Diagonal Rd
East Settlement Rd
Vincents Rd
Hodges Ln
Smiths Ln
Stotts Ln
Penola Hundred Line Rd
Comaum School Rd
Winter Rd
Nambour Rd
Gleeson Rd
VICTORIA
A66
C212

Ion adsorption clay hosted REE deposits are the dominant source of heavy REEs currently mined in the world today. There are several known types of regolith hosted REE deposits including, ion adsorption clay deposits, alluvial and placer deposits, with all economic examples of this deposit style confined almost exclusively to areas underlain by granitic rocks in southern China. Whilst Koppamurra shares similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also several differences, highlighting the need for further work before a genetic model for REE mineralisation at Koppamurra can be confirmed.

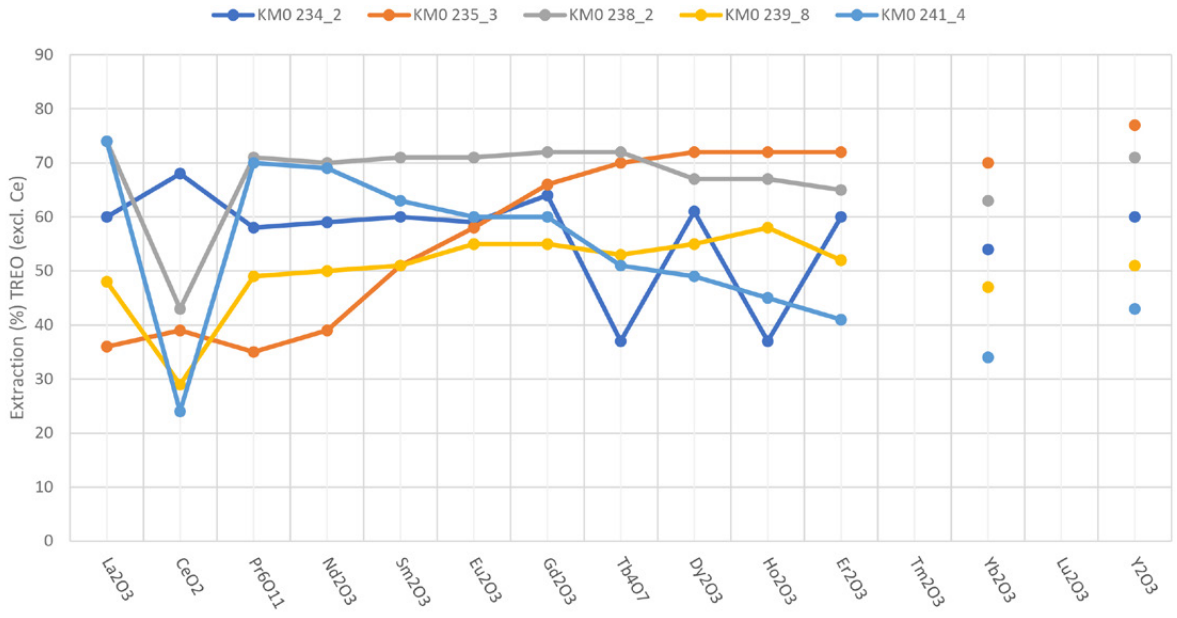
Work completed by Australian Rare Earths on the Koppamurra Project has confirmed the presence of REE mineralisation at Koppamurra, which is hosted by clay unit interpreted to have been deposited onto a limestone base (Gambier Limestone) and accumulated in an interdunal, lagoonal or estuarine environment. The source of the REE at Koppamurra is interpreted to most likely be basalt associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia. Mineralogical test work conducted on clay sample from the project area established that the dominant clay minerals are smectite and kaolin.

Results from six (6) of the 22 samples submitted by Australian Rare Earths to ANSTO for metallurgical testwork (variation leach testwork) have been received. These leach tests were performed at a pH of 1 based on the positive impact on REE extraction identified from the leach chemistry optimisation work completed to date. Results demonstrated TREO (excluding Ce) recoveries of between 50% and 70% within the Red Tail Prospect area.

The slurry density of each of the six tests was 25 wt% with 0.3 M $MgSO_4$ solution as leachant.

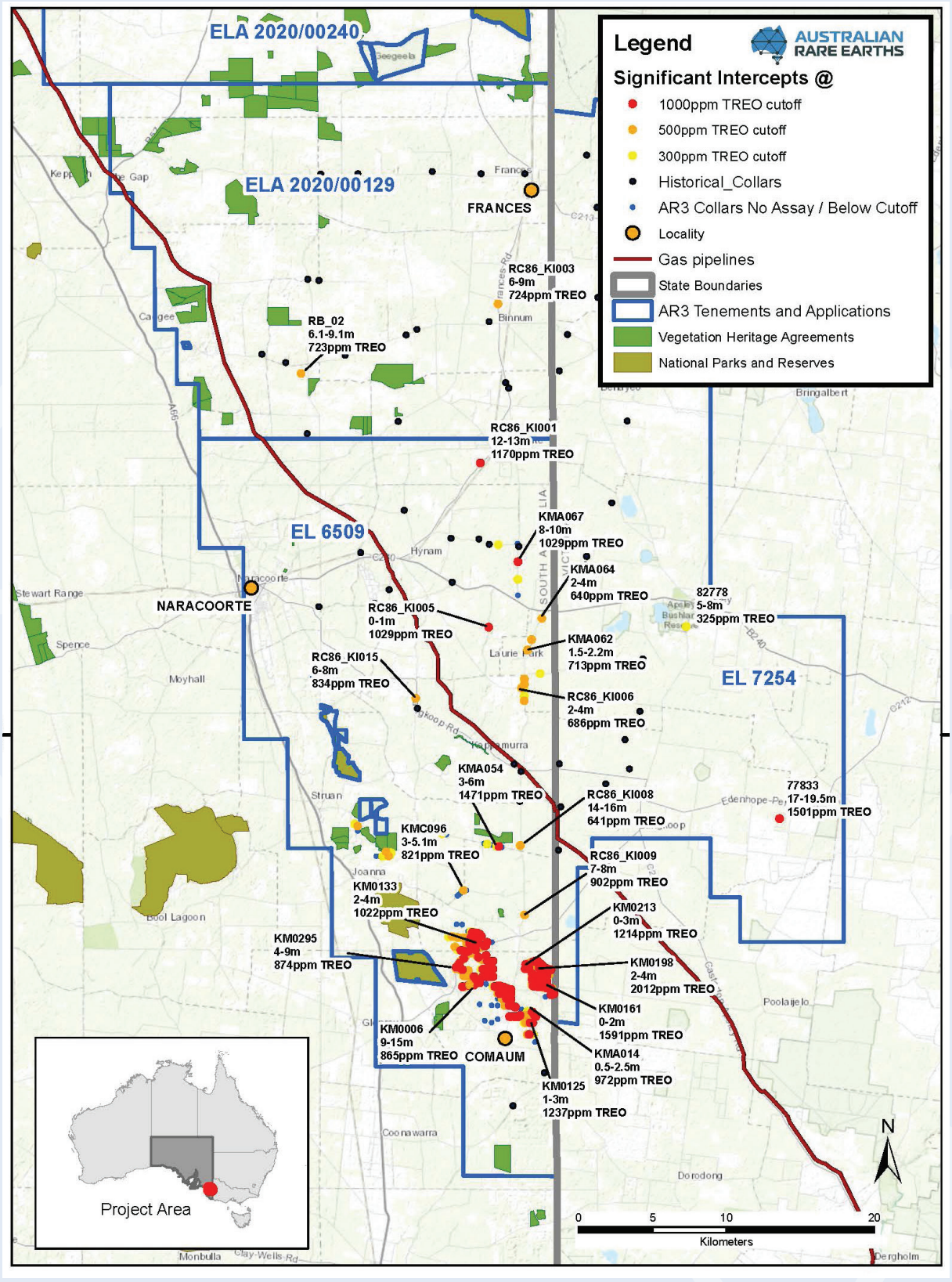
The tests were conducted in 1 litre titanium baffled leach vessels and the pH control was managed by addition of H_2SO_4 (conc.). The leach feed was slurried in DI water and a zero hour head sample withdrawn prior to addition of $MgSO_4$ reagent and acid to start the test and to adjust the pH to target. No intermediate samples were taken for analysis. The preliminary results of the variability leach test work for each rare earth oxide, from samples of the Red Tail Prospect area, are summarised in the chart below.

Results from the remainder of the variation leach test program are pending.



Despite the unknowns surrounding the source and genesis of REE mineralisation at Koppamurra, results received to date confirm the presence of laterally extensive clay hosted rare earth mineralisation with low radioactivity, and the sampling of historical drillholes support the interpretation that rare earth mineralisation extends beyond the area covered by the Red Tail and Yellow Tail resource areas and that the wider Koppamurra Project area is prospective for rare earth mineralisation.

Significant intersections identified within the wider prospect area, in historic and recent Company drillholes, can be seen in the figure below.



3.3 Project and Development Programmes

The main initial focus for the Company post Listing will be to explore and develop the Project, with the aim of creating value for the Company's current and future shareholders.

The majority of the Company's planned expenditure over the next two years will be applied to increasing the confidence of known prospect areas as well as identifying additional clay hosted rare earth mineralisation within its Project area through drilling, assay, and ground based geophysical surveys. This includes approximately 12,000 metres of drilling as well as regional assessments of the prospectivity of the wider exploration tenure.

In addition, the budget makes allowances for mineral resource estimation of up to four geographically separate and distinct areas, process testwork, and studies to further establish the feasibility of the production of rare earth concentrates from clay lithologies at Koppamurra.

The Company proposes to fund its intended activities as outlined in the table below from the proceeds of the Offer. It should be noted that the budgets will be subject to modification on an ongoing basis depending on the results obtained from exploration undertaken. This will involve an ongoing assessment of the Company's project interests and may lead to increased or decreased levels of expenditure on certain interests, reflecting a change in emphasis. Subject to the above, the following budgets are proposed which takes into account the proposed expense over the next two years to complete initial exploration of the Project.

Funds (net of costs) raised from this Offer will be used as follows:

Item	Year 1 (AU$ M)	Year 2 (AU$ M)	Total (AU$ M)
Working Capital	1.0	1.0	2.0
Resource Definition Drilling	1.2	2.8	4.0
Regional Exploration	1.0	1.0	2.0
Metallurgical Testwork and Studies	1.3	1.7	3.0
Expenses of the Offer and Capital Raising fees	1.0	0	1.0
Total	**5.5**	**6.5**	**12.0**

3.4 Rare Earth Industry Overview

3.4.1 Introduction

The term 'rare earths' refers to a series of 17 chemically similar metals, consisting of the 15 elements known as the lanthanides, plus yttrium and scandium. The rare earths are of particular interest to scientists and industrialists, due to their unique magnetic, chemical and luminescent properties.

Throughout the industry rare earths are usually expressed in terms of rare earth oxides (REO) and often classified into two groups: Light and Heavy as shown in the table below:

The Rare Earth Elements

Element	Type	Atomic Number	Symbol	Atomic xWeight
Lanthanum	Light	57	La	138.91
Cerium		58	Ce	140.12
Praseodymium		59	Pr	140.91
Neodymium		60	Nd	144.24
Promethium*		61	Pm	(145)
Samarium	Heavy	62	Sm	150.36
Europium		63	Eu	151.96
Gadolinium		64	Gd	157.25
Terbium		65	Tb	158.93
Dysprosium		66	Dy	162.50
Holmium		67	Ho	164.93
Erbium		68	Er	167.26
Thulium		69	Tm	168.93
Ytterbium		70	Yb	173.04
Lutetium		71	Lu	174.97
Yttrium		39	Y	88.91
Scandium		21	Sc	44.96

Note: *Does not occur naturally

Rare earths are a critical constituent of many high technology components that are essential inputs to the manufacture of items such as electric vehicles, hybrid vehicles, mobile telephones, computers, wind turbines, energy efficient lights, and missile guidance systems. Some of the major applications for rare earths, which fall into eight categories are given in the table below.

Rare Earth Applications and End-Uses (Adamas Intelligence)

End-Use Category	Description
Battery Alloys (La, Ce, Pr, Nd)	Rare earth elements are used to produce anode materials for nickel-metal hydride ("NiMH") batteries. NiMH batteries are used in hybrid electric vehicles, consumer electronics, cordless shavers, cordless powertools, baby monitors and other applications of rechargeable batteries.
Catalysts (La, Ce)	Rare earth elements, such as cerium and lanthanum, are used in catalytic converters of gasoline- and diesel-powered vehicles, as well as fuel cracking catalysts and additives used by oil refiners to break down crude oil into lighter distillates, such as gasoline, diesel, kerosene and more.
Ceramics, Pigments and Glazes (La, Ce, Pr, Nd, Y)	Rare earth elements are used to produce decorative ceramics, functional ceramics, structural ceramics, bio ceramics and many other types of ceramics used in everything from jet engine coatings to ceramic cutting tools, dental crowns, ceramic capacitors, ceramic tiles, and more.
Glass Polishing Powders and Additives (Ce, La, Er, Gd, Y)	Rare earth elements, such as cerium, are used to polish optical glass, hard disk drive platters, LCD display screens and gemstones, among a long list of applications. Cerium is also used as an additive in UV-filtering glass and container glass, whereas lanthanum, yttrium and gadolinium are used to produce high quality optical glass used in camera lenses, microscopes and telescopes.
Metallurgy and Alloys (La, Ce, Ho, Gd, Y)	Rare earth mischmetal (a mixture of light REE metals) is used during production of some types of steel, as well as ductile iron making. Rare earth elements are also used to produce a variety of different alloys, such as ferro-cerium, ferro-holmium, ferro-gadolinium and a growing list of others.
Permanent Magnets (Nd, Pr, Dy, Tb, Sm)	Rare earth elements are used to produce high-strength permanent magnets that have enabled the production of ubiquitous gadgets and electronics, such as mobile phones and laptops, as well as power dense energy-efficient electric motors and generators used in electric vehicles, wind turbines, energy efficient appliances and hundreds of other applications.
Phosphors (Ce, La, Y, Tb, Eu)	Rare earth elements are used in phosphors for energy efficient lamps, display screens and avionics, and are added to fiat currency in some nations as an anti-counterfeit measure.
Other (La, Ce, Nd, Dy, Tb, Gd, Lu, Tm)	Aside from the above-described end uses and categories, rare earth elements are used in a long list of other end uses and applications, including many in defense, medicine, aerospace, agriculture, high-tech and chemical industries.

3.4.2 Rare Earth Concepts

The rare earths market is small and highly specialised, such that the major mining companies have, to date, shown no significant public interest in entering the market. As a result, most of the rare earths projects under study or development are owned by single purpose companies with no existing source of revenue.

In most applications, rare earth products are not commodities; they are customer specific chemicals, produced to precise chemical and physical specifications. As a result, before customers are willing to enter into sales contracts, that may subsequently be used to underwrite the project, they require the potential producer to demonstrate their capability to produce meaningful quantities to specification through a continuously operated pilot plant.

The issue of demonstrating the capability to supply a customer on a sustainable basis is further complicated by the fact that the customer's needs are continually evolving; which requires successful suppliers to become an integral link in the supply chain. This can often involve the joint funding of research into new products and processes for both parties to remain competitive; a somewhat difficult undertaking when the rare earths extraction process itself is being developed.

As demonstrated by the delays experienced by Lynas in receiving approval for the disposal of the waste associated with rare earths radioactivity is an issue that has to be addressed with care as it is a matter of great concern to local communities.

3.4.3 The Dimensions of the Global Rare Earths Industry Today

- Estimated consumption in 2020: 150,000t REO.
- Estimated value in 2020: US$4-5 billion.
- Global demand in 2025 is forecast to be approximately 200,000t REO, increasing to 280,000t REO in 2030.
- China remains the dominant force in the rare earths market; producing approximately 70% of supply and consuming approximately 70-75% of global demand. China is a threat to more diverse, secure, and environmentally sound global rare earths supply chains; compounded by illegal mining of rare earths in China, which is now being tackled at last.
- There are signs that the major State Owned Enterprises (SOEs), who have been entrusted with leading the Chinese rare earths industry, are returning to profitably as illegal production is being progressively shut down, the government is enforcing the production quotas more strictly and prices are rising.

3.4.4 The Enigma that is the Rare Earths Industry in China

3.4.4.1 China's Balancing Act

The Chinese Rare Earths industry does not publish detailed production and sales data; in fact company records are somewhat imprecise as the chemistry of processing is so complex.

China is developing its rich endowment of rare earths for the prime benefit of China. Accordingly, in the 1980s and 1990s in order to maximise the creation of jobs in China associated with the value-add rare earth manufacturing industries a number of export taxes and quotas were put in place. The outcome of these measures was to facilitate a significant shift of employment to China. As a result USA, Japan and the EU lodged a complaint with the WTO in 2012 to have these artificial incentives removed as they were deemed to be contrary to the principles of free trade. The action was successful, resulting in the removal of the Rare Earth Taxes and Quotas in 2015.

However, today the VAT on unimproved rare earth exports is still not refunded to primary producers, although the producers of downstream products such as rare earth magnets do receive a refund on the VAT; advantaging the domestic value-add industry.

3.4.4.2 China's Rare Earth Resources are Finite

There is an imbalance between the demand and supply of rare earths in China as acknowledged by Chinese authorities at rare earth conferences in the past (including by Dr Z. Chen at the Argus Rare Earths Conference in 2015); but there has been little recent data published on the matter.

In 2013 a Paper entitled "China's Ion-adsorption Rare Earth Resources, Mining Consequences and Preservation" by X. Jin Yang, Aijun Lin, Xiao-Liang Li, Yiding Wu, Wenbin Zhou, Zhanheng Chen of the Department of Environmental Science and Engineering, Beijing University, indicated that at that time China's heavy rare earth resources would be exhausted in 10-15 years. Although improved technologies have reduced the growth in demand for heavy rare earths there are clear indications that alternative sources need to be developed.

3.4.4.3 Illegal Mining and Processing is being Eliminated (Gradually)

A number of years ago, in order to control the exploitation of its rare earth resources, China put a series of Production Quotas in place. In past years these quotas have been insufficient in terms of meeting domestic demand leading to a thriving illegal mining and production sector which has had a significant impact on the environment surrounding these operations. It is pleasing to note that today the Chinese authorities are increasing their efforts to eliminate the illegal mining, including the raising of the 2021 Production Quotas by a significant amount.

3.4.4.4 Made in China 2025 (Reference: "China Manufacturing 2025 – Putting Industrial Policy Ahead of Market Forces" – published by the EU Chamber of Commerce in China in 2017)

China's rationale for focusing on the value-add initiatives is to find employment for the millions of people moving from the countryside to the cities (between 2015 and 2025), where they will need jobs. For example under the 13th 5 year Plan (2016 to 2021), published in 2016, one objective is for China to be a major global manufacturer of EVs and hybrids which are the major consumers of, praseodymium, neodymium, terbium and dysprosium in the production of rare earth permanent magnets (REPMs). Achieving this objective requires a significant increase in the production of REPMs, while reducing automotive industry employment in the rest of the world (ROW). Unless the ROW develops new independent REPM supply chains there could be a significant impact on automotive industry employment.

3.4.4.5 The Future Global Demand and Supply for Rare Earths

(Reference: "Rare Earths Market Outlook" a custom report prepared by Adamas Intelligence for AREL)

The first recorded commercial production of rare earths was in Treibach, Austria, in 1903, which took the form of mischmetal for lighter flints. Fifty years later (1955) global demand had grown to 1,000 tpa REO valued at approximately US$25 million. Global demand in 2019 was estimated to have been approximately. 160,000 tonnes REO, falling to approximately 150,000 tonnes REO in 2020 under the impact of COVID19. The strong increasing demand for rare earths, which are fundamental to many of the components used in energy efficient equipment, could see demand double to approximately 280,000 tonnes REO in 2030, indicating Compound Annual Growth Rate (**CAGR**) of 7-9% over the next decade.

The green energy sector will be the main driver for demand over the next decade; in particular for neodymium, praseodymium, terbium and dysprosium as indicated by the following typical applications:

- Electric vehicles (EVs) which contain 2-4kg in REPMs in the drive motor and up to another 2kg in other motors; equivalent in total to 1-3 kg REO - forecast to grow at 20-30% p.a.
- Wind turbines, which require approximately 600kg per MW are forecast to grow at 10-12% p.a.
- Consumer appliances and electronics, where the rare earths are essential due to their unique properties, but used in small quantities could grow at 10-20% p.a.

In 2019 the demand for rare earths in REPMs was 30-35% by volume and 85-90% by value of the total rare earths demand, equivalent to 60,000 tonnes REO with an aggregate value of approximately US$4 billion dollars. Adamas estimates that global demand for REPMs will grow at a CAGR of 9-10% over the next decade requiring the production of approximately 150,000 tonnes REO in 2030.

The forecast high growth in demand for not only REPMs but catalysts and phosphors will place pressure on rare earth resources and the associated processing capacity which will lead to an increase in prices. The table below summarises the forecast increase in rare earth prices over the next decade:

Adamas Intelligence Scenario 1: Ongoing Sentiment and Speculation Drive High Prices
Chinese Domestic Prices (incl. VAT) US$/kg REO (in Real 2020 dollars)

Oxide (Grade)	2019	2020	1Q2021	2025	2030
La_2O_3 (3N)	$1.73	$1.64	$1.50	$2.79	$3.23
CeO_2 (3N)	$1.76	$1.47	$1.51	$2.02	$2.28
Pr_6O_{11} (2N5)	$54.15	$45.76	$68.83	$95.00	$120.00
Nd_2O_3 (2N5)	$44.51	$49.14	$96.03	$107.00	$110.00
Sm_2O_3 (3N)	$1.82	$1.76	$1.88	$2.22	$2.77
Eu_2O_3 (5N)	$33.69	$29.81	$31.44	$40.91	$55.77
Gd_2O_3 (2N5)	$23.05	$24.59	$32.89	$38.40	$42.00
Tb_4O_7 (4N)	$503.51	$671.32	$1,382.06	$1,462.50	$1,600.00
Dy_2O_3 (2N5)	$235.41	$260.54	$384.16	$585.00	$640.00
Ho_2O_3 (2N5)	$50.50	$58.07	$116.81	$115.20	$126.00
Er_2O_3 (2N5)	$23.62	$22.56	$28.03	$33.77	$39.14
Yb_2O_3 (4N)	$15.80	$14.52	$15.48	$17.22	$19.96
Lu_2O_3 (4N)	$604.12	$613.56	$794.20	$800.00	$800.00
Y_2O_3 (5N)	$2.83	$2.94	$4.98	$7.20	$8.35

Adamas Intelligence forecasts the Koppamurra basket value under Scenario 1 will increase from US$24.6/kg REO in 2020 to US$51.5/kg REO in 2025 to US$55.9/kg REO in 2030.

Adamas Intelligence Scenario 2: Near-Term Supply Drags Prices Down Moderately, but Prices Minimised by Ongoing Myanmar-related Uncertainty

Chinese Domestic Prices (incl. VAT) US$/kg REO (in Real 2020 dollars)

Oxide (Grade)	2019	2020	1Q2021	2025	2030
La_2O_3 (3N)	$1.73	$1.64	$1.50	$2.79	$3.23
CeO_2 (3N)	$1.76	$1.47	$1.51	$2.02	$2.28
Pr_6O_{11} (2N5)	$54.15	$45.76	$68.83	$86.00	$110.50
Nd_2O_3 (2N5)	$44.51	$49.14	$96.03	$92.00	$105.50
Sm_2O_3 (3N)	$1.82	$1.76	$1.88	$2.22	$2.77
Eu_2O_3 (5N)	$33.69	$29.81	$31.44	$40.91	$55.77
Gd_2O_3 (2N5)	$23.05	$24.59	$32.89	$33.20	$41.00
Tb_4O_7 (4N)	$503.51	$671.32	$1,382.06	$1,250.00	$1,375.00
Dy_2O_3 (2N5)	$235.41	$260.54	$384.16	$500.00	$550.00
Ho_2O_3 (2N5)	$50.50	$58.07	$116.81	$99.60	$123.00
Er_2O_3 (2N5)	$23.62	$22.56	$28.03	$32.46	$37.63
Yb_2O_3 (4N)	$15.80	$14.52	$15.48	$17.22	$19.96
Lu_2O_3 (4N)	$604.12	$613.56	$794.20	$800.00	$800.00
Y_2O_3 (5N)	$2.83	$2.94	$4.98	$6.58	$7.63

Adamas Intelligence forecasts the Koppamurra basket value under Scenario 2 will increase from US$24.6/kg REO in 2020 to US$44.9/kg REO in 2025 to US$51.1/kg REO in 2030.

SECTION 4:
RISKS

4.1 Introduction

The risks contained both in Section 1.7 and this Section 4 should be considered carefully by potential investors

The Shares offered under this Prospectus should be considered speculative because of the nature of the commercial activities of the Company. Potential investors should be aware that an investment in the Company involves risks, which may be higher than the risks associated with an investment in other companies.

There are numerous widespread risks associated with investing in any form of business and with investing in the share market generally. There is also a range of specific risks associated with the Company's activities and its proposed involvement in the mineral exploration industry. These risk factors are largely beyond the control of the Company and its Directors because of the nature of the proposed activities of the Company.

Persons considering whether or not to invest in the Company should read the whole of this Prospectus in order to fully appreciate such matters and the manner in which the Company intends to operate, before any decision is made to apply for Shares. Prospective investors should consider whether the Shares offered are a suitable investment for them having regard to their own personal investment objectives and financial circumstances and the risk factors set out below. If in any doubt, prospective investors should consult with their professional advisers before deciding whether to apply for Shares.

The following, which is not exhaustive, identifies some of the major risks associated with an investment in the Company, of which potential investors need to be aware before making a decision on whether or not to invest in the Company's Shares.

4.2 Key Risks

The Key Risks identified in Section 1.7 of the Prospectus are as follows:

- ***Mineral Exploration***

Mineral exploration is inherently associated with risk. Notwithstanding the experience, knowledge and careful evaluation a company brings to an exploration project there is no assurance that recoverable mineral resources will be identified. Even if identified, other factors such as technical difficulties, geological conditions, adverse changes in government policy or legislation or lack of access to sufficient funding may mean that the resource is not economically recoverable or may otherwise preclude the Company from successfully exploiting the resource.

- ***Reliance on Key Personnel***

The Company's Directors have significant experience in the mining exploration industry. If growth objectives are to be met, this will depend on the ability of the Directors, or their nominated expert consultants/advisers, to implement the current exploration strategies and to adapt, where necessary, to accommodate and manage any unforeseen difficulties. Initially, the Company will rely heavily on the experience of its Directors and their nominated expert consultants/advisers. The loss of the services of certain personnel could have an adverse effect on the Company and its activities.

- ***Commodity and Currency Price Volatility***

Commodity prices are subject to influencing factors beyond the control of the Company and can be subject to significant fluctuations. Just some of these influencing factors include:

- world demand for particular commodities;
- the level of production costs in major commodity producing regions;
- expectations regarding inflation, interest rates and exchange rates;
- China's decisions with respect to managing the domestic Chinese rare earths industry;
- the development of new technologies that create new demands or eliminate the demand for particular rare earth elements.

Any significant and/or sustained fluctuation in exchange rates or commodity prices could have a materially adverse effect on the Company's operations and its financial position.

- ***Additional Requirements for Capital***

The funds raised by the Capital Raising will be used to carry out work on the Company's Projects. If the Company incurs unexpected costs or is unable to generate sufficient operating income, further funding may be required. The Company may require additional funding to carry out further exploration, undertake feasibility studies, develop mining operations and/or acquire new projects in order to assess the technical and economic viability of developing the Company's Projects. Any additional financing through share issues will dilute existing shareholdings. Debt financing may not be available to support the scope and extent of proposed developments. If available, it may impose restrictions on operating activities or anticipated expansion of the Company's operations.

- ***Commercialisation and contractual risk***

The Company's potential future earnings, profitability and growth are likely to be dependent on the Company being able to successfully develop its Project and implement some or all of its commercialisation plans. The ability for the Company to do so is further dependent upon a number of factors, including matters which may be beyond the control of the Company. The Company may not be successful in securing identified customers or market opportunities.

In the course of development of the Company's Project, the Company is likely to become party to various contracts, including but not limited to, contracts relating to infrastructure access, mineral processing and customer product supply arrangements. Whilst the Company will have various contractual rights in the event of non-compliance by a contracting party, no assurance can be given that all contracts to which the Company is a party will be fully performed by all contracting parties. Additionally, no assurance can be given that if the contracting party does not comply with any contractual provisions, that the Company will be successful in securing compliance.

- ***Tenure and Access***

Mining and exploration tenements are subject to periodic renewal. There is no guarantee that current or future tenements or future applications for production tenements will be approved or that current exploration tenement applications will be granted.

Tenements are subject to numerous State-specific legislation conditions. The renewal of the term of a granted tenement (and grant of tenement applications) is also subject to the discretion of the relevant Minister. Renewal conditions may include increased expenditure and work commitments or compulsory relinquishment of areas of the tenements. The imposition of new conditions either during the term of a tenement or upon renewal, or the inability to meet those conditions may adversely affect the operations, financial position and/or performance of the Company.

- ***Land Access risk***

There is a substantial level of regulation and restriction on the ability of exploration and mining companies to have access to land in Australia. Negotiations with Native Title and/or land owners/occupiers are generally required before the Company can access land for exploration or mining activities. Inability to access, or delays experienced in accessing, the land may impact on the Company's activities.

- ***China***

China is the dominant supplier and consumer of rare earths which is delegated to six State Owned Enterprises (SOEs). Accordingly, actions by the Chinese government with respect to the control and management of the domestic rare earths industry could have a material impact on the global rare earths market.

- ***Compulsory Work Obligations***

Tenements are subject to expenditure and work commitments which must be met in order to keep such tenements in good standing. These commitments may be varied on application by the tenement holder but any such variation is at the sole discretion of the Minister administering the relevant State mining legislation. If no variation is approved, and there is failure to meet the commitments, this could lead to forfeiture of the tenement.

4.3 Risks

The future performance of the Company and the future investment performance of the Shares may be influenced by a range of factors. Some of these factors can be mitigated. However, many are outside the control of the Board and the Company. Prior to making any decision to accept the Offer, investors should carefully consider the following general and specific risk factors applicable to the Company:

(a) **Specific Risk Factors**

There are a range of specific risks associated with the Company's business and its proposed involvement in the mineral exploration industry. The following list of specific risk factors ought not to be taken as exhaustive. The risk factors referred to in this Section 4, and others not specifically referred to, may in the future materially affect the financial performance of the Company and the value of the Shares to be offered under this Prospectus.

- ***Resource Estimations***

  Resources estimates are inherently imprecise as they are expressions of judgement at a particular time based on available information, interpreted using experience and resource modelling techniques. The estimates, while made by qualified professionals, may change over time as other information becomes available which differs from information known or predicted by past drilling, sampling, geological interpretation and processing test work. Estimates remain subject to change which may adversely affect the Company's operations or the commercial viability of its projects.

- ***Development and Mining***

  Possible future development of mining operations at the Project is also subject to numerous risks. The Company's operations may be delayed or prevented as a result of weather conditions, mechanical difficulties, shortage of technical expertise or equipment. There may be difficulties with obtaining government and/or third party approvals, operational difficulties encountered with extraction and production activities, unexpected shortages or increase in the price of consumables, plant and equipment, cost overruns or lack of access to required levels of funding.

  If the Company commences production, its operations may be curtailed or disrupted by a number of risks beyond its control such as environmental hazards, industrial accidents and disputes, technical failures, unusual or unexpected geological conditions, adverse weather conditions, fires, explosions and other accidents.

The Company's operations may be adversely affected by higher than anticipated ore treatment costs, worse than anticipated metallurgical conditions, fluctuations in base and metal prices or a lack of availability of physically or commercially acceptable processing techniques to convert the ore into a saleable product.

No assurance can be given that the Company will achieve commercial viability through development of any of its projects.

- ***No profit to date and limited operating history***

The Company has incurred operating losses since its inception and does not have a significant history of business operations. It is therefore not possible to evaluate the Company's prospects based on past performance. No assurance can be given that the Company will achieve commercial viability through the successful exploration and/or mining of the Koppamurra Project or any tenements which are subsequently applied for or acquired. Since the Company intends to invest in the exploration and development of Koppamurra Project, the Directors anticipate that the Company will make losses in the foreseeable future.

- ***Native Title and Aboriginal Heritage***

The Native Title Act 1993 (Cth) recognises certain rights of indigenous Australians over land where those rights have not been extinguished. These rights, where they exist, may impact on the ability of the Company to carry out exploration or obtain production tenements. In applying for certain production tenements, the Company must observe the provisions of Native Title legislation (where applicable) and Aboriginal Heritage legislation which protects Aboriginal sites and objects of significance.

In certain circumstances the consent of registered Native Title claimants must be obtained prior to carrying out certain activities on land to which their claim relates. It is possible that the terms of registered Native Title agreements may restrict the Company's ability to gain access to its tenements and conduct exploration, development and mining operations, or that the conditions imposed by Native Title claimants on such consent may be on terms unacceptable to the Company.

- ***Environmental***

The Company's projects are subject to both the relevant State and also Commonwealth laws and regulations relating to environmental matters. Should the Company proceed to development of one or more mines, it could be expected that such developments would have numerous environmental impacts which would require various statutory approvals to be put in place. There is no guarantee that such approvals would be granted. The Company intends to conduct its operations in an environmentally responsible manner and in accordance with relevant legislation. However, the Company is unable to predict the effect of future changes to environmental legislation or policy and the cost effect of such changes on its operations and financial position.

- ***Non-granting of ELAs***

There is no guarantee the Company's application for the South Australian ELAs will be successful or that the Company will be granted an EL or other exploration rights as a result of those applications.

- ***Joint Ventures***

The Company may wish to undertake future projects through joint venture arrangements. Any joint ventures entered into by, or interests in joint ventures assigned to, the Company could be affected by the failure or default of any of the joint venture participants.

- ***Government Policies and Legislation***

  The Company may be affected by changes to domestic or international government policies, legislation and taxation. Changes in government policies, legislation and taxation can have a significant influence on a business' prospects and return to investors. The Company's products could be subject to government regulation, and the regulatory approval and maintenance process for such products may be expensive, time-consuming, and uncertain both in timing and in outcome.

- ***Insurance Risks***

  In keeping with sound mining industry practice the Company insures its business and operations. However, the Company's insurance may not be of a nature or level to provide adequate insurance cover to insure against the occurrence of all events that may impact on the operations of the Company. The occurrence of an event that is not covered or fully covered by insurance could have a material adverse effect on the business, financial conditions and results of the Company.

  Insurance against all risks associated with mining exploration and production is not always available and where available the costs can be prohibitive.

- ***Competition Risk***

  The industry in which the Company will be involved is subject to domestic and global competition. Although the Company will undertake all reasonable due diligence in its business decisions and operations, the Company will have no influence or control over the activities or actions of its competitors, which activities or actions may, positively or negatively, affect the operating and financial performance of the Company's projects and business.

- ***Litigation***

  The Company may in the ordinary course of business be involved in possible disputes. These disputes could give rise to litigation. While the extent of any disputes and litigation cannot be ascertained at this time, any dispute or litigation may be costly and may adversely affect the operational and financial results of the Company.

- ***Climate Change Risk***

  The Company may be affected by changes to local or international compliance regulations in the context of, and market changes related to, climate change mitigation. These may include new or expanded regulations associated with transitioning to a lower carbon economy, taxation mechanisms or penalties for carbon emissions or environmental damage, and other industry impacts which may affect the Company and its profitability. Increased regulation and government policy designed to mitigate climate change may adversely affect the Company's cost of operations and financial performance.

  Climate change may also result in physical and environmental risks which cannot be predicted by the Company and may significantly affect the industry in which the Company operates. These may include events such as increased severity of weather patterns, incidence of extreme weather events and longer term risks such as shifting climate patterns and adverse weather events which may disrupt fieldwork and exploration and mining activities.

  Although the Company will endeavour to manage these risks and limit the consequences of those occurrences, the Company cannot guarantee that it will not be impacted as a result.

- ***COVID-19 Risk***

  Global economic markets, commodity prices and foreign exchange rates have been significantly impacted by the outbreak of the coronavirus disease COVID-19. The Company's share price may be adversely affected in the short to medium term by the economic uncertainty caused by COVID-19.

  While COVID-19 has not materially impacted the Company's operations to date, if any Company personnel or contractors became infected, this could potentially result in the suspension of or other disruption to the Company's operations, adversely affecting the Company's operations and financial condition.

  Government or industry measures adopted in response to COVID-19, and supply chain disruptions as a result of the pandemic and measures implemented by government authorities at a national and international level to limit the transmission of the virus, such as travel bans and quarantining, may also adversely affect the Company's operations, financial position and prospects, in addition to the general level of economic uncertainty caused by the pandemic.

(b) **General Risk Factors**

- **Currency Risk**

  The selling price of the Company's products may eventually be denominated in a variety of currencies depending upon the country in which they are available for sale. The risk exists that fluctuations in the exchange rate against the Australian dollar may adversely affect the Company's financial position and the value of these assets.

- ***Absence of Dividends Risk***

  The Board has yet to establish a dividend policy, and does not expect to pay dividends in the near term. The Company is not currently forecasting to make a profit while it continues to evaluate the commercial, technical and economic viability of its business opportunities in the rare earths sector. Accordingly, in the immediate term the Company expects to continue to reinvest in its growth rather than distribute profits in the form of dividends. The ability of the Company to pay any dividend in the future is dependent on many factors. The Directors do not give any assurance regarding the payment of dividends in the future.

- ***Share Market Conditions***

  Share market conditions may affect listed securities regardless of operating performance. Share market conditions are affected by many factors such as general economic outlook, movements in, or outlook on interest rates and inflation rates, currency fluctuations, commodity prices, changes in investor sentiment towards particular market sectors, press newspaper and other media reports and the demand for, and supply of, capital. Investors should recognise that once the Shares are listed on ASX, the price of the Shares may fall as well as rise. Many factors will affect the price of the Shares including those listed above.

- ***Accounting Standards***

  Changes in accounting standards and subjective assumptions, estimates, and judgements by management related to complex accounting matters could significantly affect the Company's financial results or financial position.

- ***Taxation Risks***

  Tax policies in the countries where the Company operates from time to time may change so as to adversely affect the profitability of the Company's operations, and where the Company trades.

- ***Operational Risks***

  The Company is exposed to a number of risks beyond its control, such as industrial actions and disputes or unusual or unexpected events such as fires or other accidents.

  There may be difficulties with obtaining government and/or third party approvals, unexpected shortages or increase in the price of consumables, plant and equipment.

  The Company's operations may be adversely affected by higher than anticipated costs or worse than anticipated fluctuations in prices and currencies.

  No assurance can be given that the Company will achieve commercial viability through development of any of its Projects.

- ***Economic Conditions Risk***

  The performance of the Company is likely to be affected by changes in economic conditions. Profitability of the business may be affected by some of the matters listed below:

  1. future demand for rare earth products;
  2. general financial issues which may affect policies, exchange rates, inflation and interest rates;
  3. deterioration in economic conditions, possibly leading to reductions in spending and other potential revenues which could be expected to have a corresponding adverse impact on the Company's operating and financial performance;
  4. the strength of the equity and share markets in Australia and throughout the world;
  5. financial failure or default by any entity with which the Company may become involved in a contractual relationship;
  6. industrial disputes in Australia and in countries in which the Company may trade or operate from time to time;
  7. changes in investor sentiment towards particular market sectors;
  8. the demand for, and supply of, capital;
  9. terrorism or other hostilities; and
  10. the development of new technologies which could impact on the demand for some rare earths.

- ***Other General Risks***

  Other general risks associated with investment in the Company may include:

  - fluctuation of the price at which the Company's shares trade due to market factors; and
  - price volatility of the Company's shares in response to factors such as:
    - additions or departures of key personnel;
    - litigation and legislative change;
    - press newspaper or other media reports; and
    - actual or anticipated variations in the Company's operating results.

Summary

This investment is regarded as highly speculative. Neither the Company nor its Directors nor any other party to be associated with the preparation of this Prospectus represents or warrants that any specific objective of the Company will be achieved or that any particular targets of the Company will be achieved.

SECTION 5:
FINANCIAL INFORMATION

5.1 Introduction

The financial information set out in this Section includes the following:

- Summary historical statement of profit and loss and other comprehensive income for Australian Rare Earths Ltd ("AREL" or "the Company") for the Period from Incorporation on 1 April 2019 to 30 June 2020 ("PI20") and six months ended 31 December 2020 ("HIFY21");
- Summary historical statement of financial position for AREL as at 30 June 2020 and 31 December 2020;
- Summary historical statements of cash flows for AREL for PI20 and HIFY21;
- The Pro Forma statement of financial position of the Group (defined below) at 31 December 2020 and supporting notes which includes the Pro Forma transactions, subsequent events, consolidation adjustments and capital raising together referred to as the 'Historical Financial Information'.

All amounts disclosed in the tables in this Financial Section are presented in Australian dollars and, unless otherwise noted, are rounded to the nearest thousand dollars. Some numerical figures included in this Prospectus have been subject to rounding adjustments. Any discrepancies between totals and sum of components in figures contained in this Prospectus are due to rounding.

The Historical and Pro Forma Financial Information should be read together with the other information contained in this Prospectus, including:

- Management's discussion & analysis set out in this Section;
- The risk factors described in Section 1 and 4;
- The Investigating Accountant's Report on the Historical and Pro Forma Financial Information set out in this section of the Prospectus; and
- The other information contained in this Prospectus.

Investors should also note that historical results are not a guarantee of future performance.

5.2 Basis of preparation of the Historical and Pro Forma Financial Information

(a) Background

The Historical and Pro Forma Financial Information included in this Section has been prepared in accordance with the recognition and measurement principles of International Financial Reporting Standards ("IFRS"), issued by the International Accounting Standards Board ("IASB"). The Directors are not aware of any reconciliatory differences between the application of IFRS and the Australian equivalents to International Financial Reporting Standards ("AIFRS") which require disclosure within this financial information Section.

The Historical and Pro Forma Financial Information is presented in an abbreviated form insofar as it does not include all the presentation, disclosures, statements or comparative information as required by Australian Accounting Standards applicable to annual financial reports prepared in accordance with the Corporations Act. Significant accounting policies applied to the Historical and Pro Forma Financial Information are noted at the end of this section under the heading 'Significant Accounting Policies'. The accounting policies of the Company have been consistently applied throughout the periods presented.

The general purpose financial statements of the Company will be prepared in accordance with the Corporations Act, Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board. Compliance with Australian Accounting Standards results in full compliance with IFRS as issued by the International Accounting Standards Board. The first reporting period under AIFRS will occur at 30 June 2021.

(b) Basis of preparation of the Historical and Pro Forma Financial Information

The Historical Financial Information has been extracted from the consolidated audited PI20 and reviewed H1FY21 financial statements of Australian Rare Earths Limited (AREL).

AREL's historical financial performance has been audited by Grant Thornton Audit Pty Ltd for the period 1 April 2019 (date of incorporation) to 30 June 2020 and reviewed for the six months to 31 December 2020. An unqualified audit opinion was issued.

AREL is a mineral exploration and development company focused on ionic clay hosted rare earths resource opportunities in South Australia and Victoria. AREL was incorporated on 1 April 2019 to undertake exploration and ultimately commercialisation of these resources. The Company will undertake an initial public offer and apply for admission to the official list of the Australian Securities Exchange.

The Directors are responsible for the inclusion of all financial information in this Prospectus. Investors should note that historical financial performance is not a guide for future financial performance.

The Historical and Pro Forma Financial Information has been reviewed by Grant Thornton Corporate Finance Pty Ltd, whose Investigating Accountant Report is contained in Section 6 of this Prospectus. Investors should note the scope and limitations of that report. The information in this Section should also be read in conjunction with the risk factors set out in Section 1 and 4 and other information contained in this Prospectus.

All amounts disclosed in this Section are presented in Australian Dollars unless otherwise noted.

The financial information in this Section includes certain measures for assessing the financial performance and position of the business, which are not recognised under Australian Accounting Standards. Such measures are referred to as 'non-IFRS financial measures'.

Non-IFRS financial measures are not a substitute for measures calculated in accordance with Australian Accounting Standards, but rather are intended to provide further information for potential investors.

As the non-IFRS measures have no defined meaning under recognised accounting standards, the way in which they have been calculated in this Prospectus has been detailed below. As there is no standardised measure of non-IFRS information, potential investors should take care in comparing non-IFRS information between companies as the method of calculation may not be the same.

5.3 Historical statement of profit or loss and other comprehensive income

The table below presents the summarised historical statement of profit or loss and other comprehensive income for PI20 and H1FY21.

	Audited	Reviewed
$'000	**PI20**	**H1FY21**
Revenue	–	–
Other Income – Loans from Related Parties Forgiven	20	4
Expenses		
Corporate Consulting/Accounting Expense	(1)	(23)
Occupancy Expense	–	(1)
Exploration Expenditure Expensed	(23)	(4)
Other Expenses	(1)	(4)
Loss Before Income Tax	**(6)**	**(27)**
Income Tax (Expense)/Benefit	–	–
Loss for the Period	**(6)**	**(27)**
Total Comprehensive Loss for the Year	**(6)**	**(27)**

Below is a discussion of the main factors which affected the operations and relative financial performance in PI20 and H1FY21 of AREL. The discussion of these general factors is intended to provide a summary only and does not detail all factors that affected the company's historical operating and financial performance, nor everything which may affect operations and financial performance in the future.

Revenue: AREL's operations have been focused upon progressing exploration and development activities at its flagship Koppamurra ionic clay rare earths project ("Koppamurra Project"). The company is therefore pre-revenue across PI20 and H1FY21.

Other income: Other income relates to funding provided by the Directors following incorporation of AREL and later forgiven. Directors Bryn Jones and Rickie Pobjoy loaned the combined $24,000 before agreeing a Deed of Release between each of the Directors and the Company.

Expenses: The Company only commenced capitalisation of Exploration Expenses effective from 1 July 2019. Corporate/Consulting Expenses in H1FY21 are primarily accounting and auditing expenses incurred as the Company commenced preparation for listing on the ASX.

5.4 Historical statement of cash flows

The table below presents the summarised historical statement of cash flows for PI20 and H1FY21.

	Audited	Reviewed
$'000	**PI20**	**H1FY21**
Cash Flows from Operating Activities		
Payments to Suppliers	(3)	(59)
Net Cash (Used In) Operating Activities	**(3)**	**(59)**
Cash Flows from Investing Activities		
Payments for Exploration Expenditure	(11)	(83)
Payments for Plant and Equipment	–	–
Net Cash Used in Investing Activities	**(11)**	**(83)**
Cash Flows from Financing Activities		
Proceeds from Issue of Shares	0	1,300
Proceeds from Loans from Related Parties	20	4
Net Cash Flows Generated from Financing Activities	**20**	**1,304**
Net Increase/(Decrease) in Cash and Cash Equivalents	5	1,162
Cash and Cash Equivalents at Beginning of the Period	–	5
Cash and Cash Equivalents at End of the Financial Year	**5**	**1,167**

Operating cash flows - There has been a net operating cash outflow for each period.

Investing cash flows - There has been continued investment in exploration expense as the Company commenced exploration and development activities at Koppamurra Project.

Financing cash flows - In November 2020, the Company raised pre-IPO seed funding of $1,300,000 by issuing 13,000,000 fully paid ordinary shares at $0.10 cents per share.

5.5 Historical statement of financial position

The table below presents the summarised historical statement of financial position as at 30 June 2020 and 31 December 2020.

	Audited	Reviewed
$'000	**30 June 2020**	**31 December 2020**
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	5	1,167
Trade Receivables and Other Receivables	1	35
Prepayments	–	13
TOTAL CURRENT ASSETS	**6**	**1,215**
NON-CURRENT ASSETS		
Exploration and Evaluation Expenditure	–	249
TOTAL NON-CURRENT ASSETS	**–**	**249**
TOTAL ASSETS	**6**	**1,464**
LIABILITIES		
CURRENT LIABILITIES		
Trade Payables and Other Payables	(12)	(197)
TOTAL CURRENT LIABILITIES	**(12)**	**(197)**
TOTAL LIABILITIES	**(12)**	**(197)**
NET (LIABILITIES)/ASSETS	**(6)**	**1,267**
EQUITY		
Issued Capital	0	1,300
Retained Losses	(6)	(33)
TOTAL (DEFICIT)/EQUITY	**(6)**	**1,267**

5.6 Pro-Forma Historical Statement of Financial Position

The table below sets out the audited historical statement of financial position of the Company, the pro forma adjustments that have been made to it (further described in Section 5.7) and the pro forma consolidated statement of financial position as at 31 December 2020.

The pro forma statement of financial position is provided for illustrative purposes only and is not represented as being necessarily indicative of the Company's view of its future financial position.

	Reviewed	Pro Forma Adjustments	Pro Forma
$'000	**31 December 2020**		**31 December 2020**
ASSETS			
CURRENT ASSETS			
Cash and Cash Equivalents	1,167	10,518	11,685
Trade Receivables and Other Receivables	35	14	49
Prepayments	13	(4)	9
TOTAL CURRENT ASSETS	**1,215**	**10,528**	**11,743**
NON-CURRENT ASSETS			
Exploration and Evaluation Expenditure	249	446	695
TOTAL NON-CURRENT ASSETS	**249**	**446**	**695**
TOTAL ASSETS	**1,464**	**10,974**	**12,438**
LIABILITIES			
CURRENT LIABILITIES			
Trade Payables and Other Payables	(197)	(93)	(290)
TOTAL CURRENT LIABILITIES	**(197)**	**(93)**	**(290)**
TOTAL LIABILITIES	**(197)**	**(93)**	**(290)**
NET (LIABILITIES)/ASSETS	**1,267**	**10,881**	**12,148**
EQUITY			
Issued Capital	1,300	11,700	13,000
Options Reserve	–	357	357
Retained Losses	(33)	(1,176)	(1,209)
TOTAL EQUITY	**1,267**	**10,881**	**12,148**

5.7 Pro Forma Transactions

The following transactions contemplated in this Prospectus which are to take place on or before the completion of the Offer, referred to as the subsequent events and pro forma adjustments, are presented as if they, together with the Offer, had occurred subsequent to 31 December 2020 and are set out below.

With the exception of the subsequent events and pro forma transactions noted below no other material transactions have occurred between 31 December 2020 and the date of this Prospectus which the Directors consider require disclosure.

Pro forma transactions:

a) **"The Public Offer"**: issue of 40 million ordinary shares at an issue price of $0.30 per share, amounting to $12 million under the Public Offer.

b) **"Offer costs"**: total expenses associated with the Offers (including broking, legal, accounting and administrative fees as well as printing, advertising and other expenses) are estimated to be $1,047,000 (exclusive of GST) under the Offer. Those costs which directly related to the issue of new shares have been offset against contributed equity, while the remaining costs have been expensed to the profit and loss account as detailed as follows:

	$'000
Offset against contributed equity	378
Expensed to profit and loss	669
Total	**1,047**

c) **"Issue of Options to Advisors"**: the issue of 2,417,200 new Options to Taylor Collison within 10 days of the listing date which are exercisable at $0.45 and expire on the third anniversary of the IPO. Fair value per option of $0.11 and a total value of $258,470.

Subsequent Events:

d) **"Issue of Options to Directors – Tranche 1"**: the issue of 2,000,000 new Options to the directors on 10 February 2021 which are exercisable at $0.30 and expire on 25 January 2025. The allocation of new Options to the directors are as follows:

Director	Number of options issued	Fair value per option	Option value
Dudley Kingsnorth	200,000	$0.02	$4,673
Bryn Jones	900,000	$0.02	$21,027
Rick Pobjoy	900,000	$0.02	$21,027
Total	**2,000,000**	**$0.02**	**$46,727**

On 15 April 2021, the Company's shareholders approved a subdivision of Shares and Director Options (being Tranche 1 Director Options), which resulted in the number of options issued under Tranche 1 increasing from 2,000,000 to 6,000,000 options. The table below reflects the allocation of the 6,000,000 new Options to the directors following the subdivision:

Director	Number of options issued	Fair value per option	Option value
Dudley Kingsnorth	600,000	$0.02	$4,673
Bryn Jones	2,700,000	$0.02	$21,027
Rick Pobjoy	2,700,000	$0.02	$21,027
Total	**6,000,000**	**$0.02**	**$46,727**

e) **"Issue of Options to Directors and Officers– Tranche 2"**: the issue of 4,000,000 new Options to the directors on 10 February 2021 and Company Secretary on 12 March 2021, which are exercisable at $0.45 and expire on the third anniversary of the IPO. The allocation of new Options to the directors and Officers are as follows:

Directors and Officers	Number of options issued	Fair value per option	Option value
Dudley Kingsnorth	1,000,000	$0.01	$12,963
Bryn Jones	750,000	$0.01	$9,722
Rick Pobjoy	2,000,000	$0.01	$25,926
Damien Connor	250,000	$0.01	$3,241
Total	**4,000,000**	**$0.01**	**$51,853**

f) **"Issue of consultant Options pre-IPO"**: the issue of 180,000 new Options to a consultant on 23 April 2021 which are exercisable at $0.45 and expire on the third anniversary of the IPO. The allocation of new Options are as follows:

Other Options pre-IPO	Number of options issued	Fair value per option	Option value
Consultant	180,000	$0.00	$158

g) **"Issued Share Capital":** 780,000 shares (2,340,000 shares post share subdivision) issued to Directors and Officers in lieu of services rendered (see summary of equity at section 5.10).

h) **"Working capital":** since 31 December 2020 there has been a net movement of $72,000 in the working capital of AREL primarily as a result of payment of Trade Payables incurred through exploration expenses.

i) **"Exploration assets"**: Further exploration costs incurred since 31 December 2020 of $446,000.

5.8 Reviewed pro forma cash and cash equivalents

The reviewed pro forma cash and cash equivalents has been set out below:

	Subsequent Event/ Pro Forma Adjustment	Pro Forma $'000
Reviewed cash and cash equivalents at 31 December 2020		**1,167**
Pro forma transactions:		
Proceeds from shares issued under the Public Offer	a	12,000
Payment of the costs relating to the Public Offer	b	(1,047)
Subsequent event transactions:		
Working Capital	h	11
Exploration Assets	i	(446)
Pro forma cash and cash equivalents		**11,685**

5.9 Contributed equity

The reviewed pro forma contributed equity has been set out below:

	Subsequent Event/ Pro Forma Adjustment	Pro Forma $'000
Reviewed contributed equity at 31 December 2020		**1,300**
Pro forma transactions:		
Subscription received under the Public Offer (before costs)	a	12,000
Public Offer costs offset against contributed equity	b	(378)
Shares issued to Directors and Officers	g	78
Pro forma share capital		**13,000**

5.10 Number of shares

	Pro Forma no. of shares
Reviewed shares at 31 December 2020	**22,780,000**
Shares Issued to Directors and Officers on 10 February 2021 and 12 March 2021.	780,000
Total Shares Prior to Share Subdivision	23,560,000
Total Shares Post Share Subdivision on 15 April 2021	**70,680,000**
Shares to be Issued Under the Public Offer	40,000,000
Shares on Issue Post-Listing (Undiluted)	**110,680,000**
Options Currently on Issue	10,180,000
Options to be Issued on IPO	2,417,200
Shares on Issue Post-Listing (Fully diluted)	**123,277,200**

5.11 Accumulated losses

The reviewed pro forma retained earnings have been set out below:

	Pro forma adjustment	Pro Forma $'000
Reviewed accumulated losses at 31 December 2020		**(33)**
Pro forma transactions:		
Offer costs expensed	b	(669)
Issue of Options to Advisors – on IPO	c	(258)
Subsequent events:		
Issue of Options to Directors – Tranche 1	d	(47)
Issue of Options to Directors and Officers – Tranche 2	e	(52)
Issue of Options – Consultant	f	(–)
Share Issue	g	(78)
Working Capital	h	(72)
Pro forma accumulated losses		**(1,209)**

5.12 Significant Accounting Policies

The historical financial information has been prepared in accordance with the recognition and measurement requirements of Australian Accounting Standards, and other authoritative pronouncements of the Australian Accounting Standards Board. The financial information has been prepared on an accruals basis and is based on historical cost.

New or amended Accounting Standards and Interpretations adopted

The company has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the reporting periods.

Basis of preparation

The general purpose financial statements are prepared in accordance with Australian Accounting Standards - Reduced Disclosure Requirements and Interpretations issued by the Australian Accounting Standards Board ('AASB') and the Corporations Act 2001, as appropriate for for-profit oriented entities.

Historical cost convention

The financial statements are prepared under the historical cost convention, except for, where applicable, the revaluation of financial assets and liabilities at fair value through profit or loss, financial assets at fair value through other comprehensive income, investment properties, certain classes of property, plant and equipment and derivative financial instruments.

Current and non-current classification

Assets and liabilities presented in the statement of financial position are based on current and non-current classification.

- An asset was classified as current when: it was either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it was held primarily for the purpose of trading; it was expected to be realised within 12 months after the reporting period; or the asset was cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets were classified as non-current.
- A liability was classified as current when: it was either expected to be settled in the consolidated entity's normal operating cycle; it was held primarily for the purpose of trading; it was due to be settled within 12 months after the reporting period; or there was no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities were classified as non-current.

Cash and cash equivalents

Cash and cash equivalents included cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that were readily convertible to known amounts of cash and which were subject to an insignificant risk of changes in value. For the statement of cash flows presentation, cash and cash equivalents also included bank overdrafts, which were shown within borrowings in current liabilities on the statement of financial position.

Trade and other receivables

Trade receivables were initially recognised at fair value and subsequently measured at amortised cost using the effective interest method, less any allowance for expected credit losses. Trade receivables were generally due for settlement within 30 days.

The consolidated entity applied the simplified approach to measuring expected credit losses, which used a lifetime expected loss allowance. To measure the expected credit losses, trade receivables were grouped based on days overdue.

Other receivables were recognised at amortised cost, less any allowance for expected credit losses.

Exploration and Evaluation Expenditure

Exploration and evaluation expenditure incurred was accumulated in respect of each identifiable area of interest. These costs were only carried forward to the extent that they were expected to be recouped through the successful development of the area or where activities in the area had not yet reached a stage that permitted reasonable assessment of the existence of economically recoverable reserves.

Accumulated costs in relation to an abandoned area were written off in full against profit in the year in which the decision to abandon the area was made.

When production commences, the accumulated costs for the relevant area of interest are expected to be amortised over the life of the area according to the rate of depletion of the economically recoverable reserves.

A regular review was and is undertaken of each area of interest to determine the appropriateness of continuing to carry forward costs in relation to that area of interest

Costs of site restoration will be provided for over the life of the facility from when exploration commences and will be included in the costs of that stage. Site restoration costs include the dismantling and removal of mining plant, equipment and building structures, waste removal, and rehabilitation of the site in accordance with clauses of the mining permits. Such costs will be determined using estimates of future costs, current legal requirements and technology on an undiscounted basis.

Any changes in the estimates for the costs will be accounted on a prospective basis. In determining the costs of site restoration, there is uncertainty regarding the nature and extent of the restoration due to community expectations and future legislation. Accordingly, the costs will be determined on the basis that the restoration will be completed within one year of abandoning the site.

Trade and other payables

These amounts represented liabilities for goods and services provided to the consolidated entity prior to the end of the financial period and which were unpaid. Due to their short-term nature they were measured at amortised cost and were not discounted. The amounts were unsecured and usually paid within 30 days of recognition.

Fair value measurement

When an asset or liability, financial or non-financial, was measured at fair value for recognition or disclosure purposes, the fair value was based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date; and assumed that the transaction would take place either: in the principal market; or in the absence of a principal market, in the most advantageous market.

- Fair value is usually measured using the assumptions that market participants would use when pricing the asset or liability, assuming they act in their economic best interests. For non-financial assets, the fair value measurement is usually based on its highest and best use. Valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, are used, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.
- Assets and liabilities measured at fair value are classified into three levels, using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. Classifications were reviewed at each reporting date and transfers between levels determined based on a reassessment of the lowest level of input significant to the fair value measurement.
- For recurring and non-recurring fair value measurements, external valuers may be used when internal expertise is either not available or when the valuation was and is deemed to be significant. External valuers are selected based on market knowledge and reputation. Where there is a significant change in fair value of an asset or liability from one period to another, an analysis is undertaken, which includes a verification of the major inputs applied in the latest valuation and a comparison, where applicable, with external sources of data.

Issued capital

Ordinary shares were classified as equity.

Incremental costs directly attributable to the issue of new shares or options were shown in equity as a deduction, net of tax, from the proceeds.

Leases

The Group elected to account for short-term leases and leases of low-value assets using the practical expedients. Instead of recognising a right-of-use asset and lease liability, the payments in relation to these were recognised as an expense in profit or loss on a straightline basis over the lease term.

Leases of fixed assets where substantially all the risks and benefits incidental to the ownership of the asset, but not the legal ownership that are transferred to entities in the consolidated Group, were classified as finance leases.

Finance leases were capitalised by recording an asset and a liability at the lower of the amounts equal to the fair value of the leased property or the present value of the minimum lease payments, including any guaranteed residual values. Lease payments were allocated between the reduction of the lease liability and the lease interest expense for the period.

Leased assets were depreciated on a straight-line basis over the shorter of their estimated useful lives the lease term. Lease payments for operating leases, where substantially all the risks and benefits remain with the lessor, were charged as expenses in the periods in which they are incurred.

The Company did not have any leases during the reporting periods.

Income Tax

The income tax expense/(revenue) for the year comprised current income tax expense/(income) and deferred tax expense/(income).

Current income tax expense charged to the profit or loss was the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at reporting date. Current tax liabilities/(assets) were therefore measured at the amounts expected to be paid to/(recovered from) the relevant taxation authority.

Current tax assets and liabilities were offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities were offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

Goods and Services Tax ('GST') and other similar taxes

Revenues, expenses and assets were recognised net of the amount of associated GST, unless the GST incurred was not recoverable from the tax authority. In this case it was recognised as part of the cost of the acquisition of the asset or as part of the expense.

Receivables and payables were stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the tax authority was included in other receivables or other payables in the statement of financial position.

Cash flows were presented on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to the tax authority, were presented as operating cash flows.

Commitments and contingencies were disclosed net of the amount of GST recoverable from, or payable to, the tax authority.

Critical Accounting Estimates and Judgements

The directors evaluated estimates and judgments incorporated into the financial statements based on historical knowledge and best available current information. Estimates assume a reasonable expectation of future events and were based on current trends and economic data, obtained both externally and within the Company.

Key estimates

(i) Impairment

The Company assessed impairment at the end of each reporting period by evaluating conditions and events specific to the Company that may be indicative of impairment triggers. Recoverable amounts of relevant assets are reassessed using fair value less cost of disposal calculations which incorporate various key assumptions. No impairment expense was recognised for the period ended 30 June 2020.

(ii) Exploration and evaluation expenditure

The Company capitalised expenditure relating to exploration and evaluation where it was considered likely to be recoverable or where the activities had not reached a stage that permitted a reasonable assessment of the existence of reserves. While there are certain areas of interest from which no reserves have been extracted, the directors are of the continued belief that such expenditure should not be written off since feasibility studies in such areas have not yet concluded.

SECTION 6:
INVESTIGATING ACCOUNTANT'S REPORT

The Board of Directors
Australian Rare Earths Limited
C/- Messenger Zerner
157 Grenfell Street
Adelaide SA 5000

4 May 2021

Grant Thornton Corporate Finance Pty Ltd
Level 43 Central Park
152-158 St Georges Terrace
Perth WA 6000

PO Box 7757
Cloisters Square
Perth WA 6850

T +61 8 9480 2000

Dear Directors,

AUSTRALIAN RARE EARTHS LIMITED – INVESTIGATING ACCOUNTANT'S REPORT AND FINANCIAL SERVICES GUIDE

Introduction

Grant Thornton Corporate Finance Pty Ltd ("Grant Thornton Corporate Finance") has been engaged by Australian Rare Earths Limited ("Australian Rare Earths", or the "Company") to prepare this report for inclusion in the prospectus to be issued by the Company on or about 4 May 2021 (the "Prospectus") in respect of the initial public offering of fully paid ordinary shares in the Company ("the Public Offer") and admission to the Australian Securities Exchange.

Grant Thornton Corporate Finance holds an Australian Financial Services Licence (AFS Licence Number 247140). This report is both an Investigating Accountant's Report, the scope of which is set out below, and a Financial Services Guide, as attached at **Appendix A**.

Expressions defined in the Prospectus have the same meaning in this report, unless otherwise specified.

Scope of this Report

Grant Thornton Corporate Finance Pty Ltd has been engaged by the Directors to perform an Investigating Accountant's Report engagement in relation to the following statutory historical and pro forma historical financial information of Australian Rare Earths included at Section 5 of the Prospectus.

Statutory Historical Financial Information for Australian Rare Earths

- Audited statutory historical statements of comprehensive income for the Period from Incorporation on 1 April 2019 to 30 June 2020 ("PI20") and six months ended 31 December 2020 ("H1FY21") (Historical Statement of Profit or Loss and Other Comprehensive Income included at Section 5.3);
- Audited statutory historical cash flow statements for PI20 and H1FY21 (Historical Statement of Cash Flows included at Section 5.4); and
- Audited statutory historical statements of financial position as at 30 June 2020 and 31 December 2020 (Historical Statement of Financial Position included at Section 5.5).

(together, the "Statutory Historical Financial Information")

Pro Forma Historical Financial Information

- The pro forma historical statement of financial position of the Company as at 31 December 2020 which assumes completion of the transactions outlined in Section 5.6 of the Prospectus as though they had occurred at that date.

The Pro Forma Historical Financial Information is presented in the Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to the general purpose financial reports prepared in accordance with the Corporations Act 2001.

As described in Section 5.1 of the Prospectus, the stated basis of preparation is the recognition and measurement principles contained in the Australian Accounting Standards and the Company's adopted accounting policies.

The Pro Forma Historical Financial Information has been derived from the Statutory Historical Financial Information after adjusting for the effects of the pro forma adjustments described in Section 5.7 of the Prospectus ("the Pro Forma Adjustments"). The stated basis of preparation is the recognition and measurement principles contained in Australian Accounting Standards and the Company's adopted accounting policies applied to the Pro Forma Adjustments as if those events or transactions had occurred as at the date of the Statutory Historical Financial Information and does not represent the Company's actual or prospective financial position.

Prospective investors should be aware of the material risks and uncertainties relating to an investment in the Company, which are detailed at Section 1 and 4 of the Prospectus, and the inherent uncertainty relating to the prospective financial information.

Directors' Responsibility

The Directors of the Company are responsible for:

- The preparation and presentation of Statutory Historical Financial Information;
- The preparation and presentation of Pro Forma Historical Financial Information, including the selection and determination of the pro forma adjustments included in the Pro Forma Historical Financial Information; and
- The information contained within the Prospectus.

This responsibility also includes compliance with applicable laws and regulations and for such internal controls as the Directors determine necessary to enable the preparation of the Statutory Historical Financial Information and Pro Forma Historical Financial Information that are free from material misstatement, whether due to fraud or error.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Statutory Historical Financial Information and Pro Forma Historical Financial Information based on the procedures performed and evidence we have obtained. We have conducted our engagement in accordance with the Standard on Assurance Engagements ASAE 3420: *"Assurance Engagements to Report on the Compilation of Pro Forma Historical Pro Forma Financial Information"* and ASAE 3450: "*Assurance Engagements involving Corporate Fundraisings and/ or Prospective Historical Pro Forma Financial Information".*

A limited assurance engagement consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and review procedures. A limited assurance engagement is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards, and consequently does not enable us to obtain reasonable assurance that we would become aware of all significant matters that might be identified in an audit. We have not performed an audit and, accordingly, we do not express an audit opinion.

Our engagement did not involve updating or re-issuing any previously issued audit reports used as a source of the financial information.

We have performed the following procedures as we, in our professional judgement, considered reasonable in the circumstances:

- Consideration of work papers, accounting records and other documents;
- Consideration of the appropriateness of the pro forma adjustments described in Section 5.7;
- Enquiry of Directors and management in relation to the Statutory Historical Financial Information and the Pro Forma Historical Financial Information;
- Analytical procedures applied to the Statutory Historical Financial Information and the Pro Forma Historical Financial Information;
- A review of the accounting records and other documents of the Company and its auditors; and
- A review of the consistency of the application of the stated basis of preparation and adopted accounting policies as described in the Prospectus used in the preparation of the Statutory Historical Financial Information and the Pro Forma Historical Financial Information.

Our limited assurance engagement has not been carried out in accordance with auditing or other standards and practices generally accepted in any jurisdiction outside of Australia and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

We have assumed, and relied on representations from certain members of management of the Company, that all material information concerning the prospects and proposed operations of the Company has been disclosed to us and that the information provided to us for the purpose of our work is true, complete and accurate in all respects. We have no reason to believe that those representations are false.

Conclusion

Statutory Historical Financial Information and Pro Forma Historical Financial Information

Based on our limited assurance engagement, which is not an audit, nothing has come to our attention which causes us to believe that the Statutory Historical Financial Information and Pro Forma Historical Financial Information is not presented fairly, in all material respects, in accordance with the stated basis of preparation and the pro forma adjustments as described in Section 5.7 of the Prospectus.

Restriction on Use

Without modifying our conclusion, we draw attention to Section 5.7 of the Prospectus, which describes the purpose of the Financial Information, being for inclusion in the Prospectus. As a result, this Investigating Accountant's Report not be suitable for use for another purpose.

Consent

Grant Thornton Corporate Finance has consented to the inclusion of this Investigating Accountant's Report in the Prospectus in the form and context in which it is included.

Liability

The liability of Grant Thornton Corporate Finance is limited to the inclusion of this report in the Prospectus. Grant Thornton Corporate Finance makes no representation regarding, and has no liability, for any other statements or other material in, or omissions from the Prospectus.

Independence or Disclosure of Interest

Grant Thornton Corporate Finance does not have any pecuniary interests that could reasonably be regarded as being capable of affecting its ability to give an unbiased conclusion in this matter. Grant Thornton Corporate Finance will receive a professional fee for the preparation of this Investigating Accountant's Report.

Yours faithfully

GRANT THORNTON CORPORATE FINANCE PTY LTD

Mitesh Ramji

Partner and Authorised Representative

4 May 2021

Grant Thornton Corporate Finance Pty Ltd
Level 43 Central Park
152-158 St Georges Terrace
Perth WA 6000

PO Box 7757
Cloisters Square
Perth WA 6850

T +61 8 9480 2000

Appendix A (Financial Services Guide)

This Financial Services Guide is dated 4 May 2021.

1 About us

Grant Thornton Corporate Finance Pty Ltd (ABN 59 003 265 987 and Australian Financial Services Licence no 247140) ("Grant Thornton Corporate Finance") has been engaged by Australian Rare Earths Limited ("Australian Rare Earths" or the "Company") to provide general financial product advice in the form of an Investigating Accountant's Report (the "Report") in relation to the initial public offering of fully paid ordinary shares in the Company (the "Public Offer") and admission to the Australian Securities Exchange. This report is included in the prospectus dated on or about 4 May 2021 (the "Prospectus"). You have not engaged us directly but have been provided with a copy of the Report as a retail client because of your connection to the matters set out in the Report.

2 This Financial Services Guide

This Financial Services Guide (FSG) is designed to assist retail clients in their use of any general financial product advice contained in the report. This FSG contains information about Grant Thornton Corporate Finance generally, the financial services we are licensed to provide, the remuneration we may receive in connection with the preparation of the report, and how complaints against us will be dealt with.

3 Financial services we are licensed to provide

Our Australian financial services licence allows us to provide a broad range of services, including providing financial product advice in relation to various financial products such as securities and superannuation products and deal in a financial product by applying for, acquiring, varying or disposing of a financial product on behalf of another person in respect of securities and superannuation products.

ABN-59 003 265 987 ACN-003 265 987 AFSL-247140

4 General financial product advice

The report contains only general financial product advice. It was prepared without taking into account your personal objectives, financial situation or needs. You should consider your own objectives, financial situation and needs when assessing the suitability of the Report to your situation. You may wish to obtain personal financial product advice from the holder of an Australian Financial Services Licence to assist you in this assessment.

Grant Thornton Corporate Finance does not accept instructions from retail clients. Grant Thornton Corporate Finance provides no financial services directly to retail clients and receives no remuneration from retail clients for financial services. Grant Thornton Corporate Finance does not provide any personal financial product advice directly to retail investors nor does it provide market-related advice directly to retail investors.

5 Fees, commissions and other benefits we may receive

Grant Thornton Corporate Finance charges fees to produce reports, including the report. These fees are negotiated and agreed with the entity which engages Grant Thornton Corporate Finance to provide a report. Fees are charged on an hourly basis or as a fixed amount depending on the terms of the agreement with the person who engages us. In the preparation of this report, Grant Thornton Corporate Finance will receive from the Company a fee of $16,000 which is based on commercial rates plus reimbursement of out-of-pocket expenses.

Partners, Directors, employees or associates of Grant Thornton Corporate Finance, or its related bodies corporate, may receive dividends, salary or wages from Grant Thornton Australia Ltd. None of those persons or entities receive non-monetary benefits in respect of, or that is attributable to, the provision of the services described in this FSG.

6 Referrals

Grant Thornton Corporate Finance - including its Partners, Directors, employees, associates and related bodies corporate - does not pay commissions or provide any other benefits to any person for referring customers to us in connection with the reports that we are licenced to provide.

7 Associations with issuers of financial products

Grant Thornton Corporate Finance and its Partners, Directors, employees or associates and related bodies corporate may from time to time have associations or relationships with the issuers of financial products. For example, Grant Thornton Australia Ltd may be the auditor of, or provide financial services to the issuer of a financial product and Grant Thornton Corporate Finance may provide financial services to the issuer of a financial product in the ordinary course of its business.

In the context of the report, Grant Thornton Corporate Finance considers that there are no such associations or relationships which influence in any way the services described in this FSG.

8 Independence

Grant Thornton Corporate Finance is required to be independent of the Company in order to provide this report. The following information in relation to the independence of Grant Thornton Corporate Finance is stated below.

"Grant Thornton Corporate Finance and its related entities do not have at the date of this report, and have not had within the previous two years, any shareholding in or other relationship with Australian Rare Earths Limited (and associated entities) that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Public Offer.

Grant Thornton Corporate Finance has no involvement with, or interest in the outcome of the Public Offer, other than the preparation of this report.

Grant Thornton Corporate Finance will receive a fee based on commercial rates for the preparation of this report. This fee is not contingent on the outcome of the Public Offer.

Grant Thornton Corporate Finance's out of pocket expenses in relation to the preparation of the report will be reimbursed. Grant Thornton Corporate Finance will receive no other benefit for the preparation of this report.

9 Complaints

Grant Thornton Corporate Finance has an internal complaint handling mechanism and is a member of the Australian Financial Complaints Authority (AFCA) (membership no. 11800). All complaints must be in writing and addressed to the Head of Corporate Finance at Grant Thornton Corporate Finance. We will endeavour to resolve all complaints within 30 days of receiving the complaint. If the complaint has not been satisfactorily dealt with, the complaint can be referred to AFCA who can be contacted at:

Australian Financial Complaints Authority

GPO Box 3
Melbourne, VIC 3001
Telephone: 1800 367 287

Email: info@afca.org.au

Grant Thornton Corporate Finance is only responsible for the report and FSG. Grant Thornton Corporate Finance will not respond in any way that might involve any provision of financial product advice to any retail investor.

10 Compensation arrangements

Grant Thornton Corporate Finance has professional indemnity insurance cover under its professional indemnity insurance policy. This policy meets the compensation arrangement requirements of section 912B of the Corporations Act, 2001.

11 Contact Details

Grant Thornton Corporate Finance can be contacted by sending a letter to the following address:

Head of Corporate Finance
Grant Thornton Corporate Finance Pty Ltd
Level 17, 383 Kent Street
Sydney, NSW, 2000

SECTION 7:
INDEPENDENT GEOLOGIST'S REPORT

Independent Geologist's Report

PREPARED FOR AUSTRALIAN RARE EARTHS LIMITED

Prepared by:
REBECCA MORGAN
BSc (Hons) Applied Geology, PGradDip(Mine Engineering), MEngSc(Mine Engineering)
28 April 2021

The Directors
Australian Rare Earths Limited
157 Grenfell Street,
Adelaide
South Australia 5000

Dear Sir/Madam,

INDEPENDENT GEOLOGIST'S REPORT

REESearch Pty Ltd (ACN 606 650 971) (REESearch) has been requested by Australian Rare Earths Limited (Australian Rare Earths or the Company) to prepare an Independent Geologist's Report ("IGR" or the "Report") on Australian Rare Earths' Koppamurra Project (the Project) in South Australia, Australia.

The Project is located in South Australia, Australia and the primary commodities of interest are Rare Earth Elements (REE).

This Report is to be included in a Prospectus to be lodged by Australian Rare Earths with the Australian Securities and Investment Commission (ASIC) on or about the 7 May 2021, offering for subscription of 40,000,000 fully paid ordinary shares in the capital of Australian Rare Earths (Shares) at an issue price of $0.30 per Share to raise $12,000,000. The funds raised will be used primarily for the purpose of exploration and evaluation of the Project.

This IGR has been prepared in accordance with the rules and guidelines issued by such bodies as ASIC and the Australian Securities Exchange (ASX). Where exploration results, Mineral Resources or Ore Reserves have been referred to in this IGR, the classifications are consistent with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code), prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia, effective December 2012.

The information in this Report that relates to exploration results and Mineral Resources for the Project is based on, and fairly represents, information and supporting documentation provided to and compiled by Rebecca Morgan; BSc (Hons) in Applied Geology, Post Grad Dip in Mine Engineering, and MScEng in Mine Engineering. Ms. Morgan is the sole director of REESearch and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists with over 19 years of experience. Ms. Morgan 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 JORC Code. Ms. Morgan consents to the inclusion in this Report of the matters based on his information in the form and content in which it appears.

The legal status of the Tenement is subject to a separate Independent Solicitor's Report which is set out in the Prospectus and these matters have not been independently verified by REESearch. The present status of tenements listed this Report is based on information provided by the Company and the Report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation and development.

In addition, REESearch has not been requested to provide an Independent Valuation, nor has it been asked to comment on the Fairness or Reasonableness of any vendor or promoter considerations, and therefore it has not offered any opinion on these matters.

In the course of the preparation of this Report, access has been provided to all relevant data held by Australian Rare Earths and various other technical reports and information quoted in Sections 16, and 18 of this Report. The information used to prepare this Report is drawn from:

- Discussions with consultants, directors, and management of Australian Rare Earths
- Reports, presentations, data, and other documents provided by Australian Rare Earths
- Publicly available reports prepared by previous tenement holders and their consultants
- Publicly available reports prepared by other companies
- Scientific, technical research and government reports and publicly available papers.

None of the reports accessed and used to prepare this report were prepared in connection with an offer of shares by Australian Rare Earths.

REESearch does not doubt the authenticity or substance of previous investigating reports. REESearch has not however, carried out a complete audit of the information but has relied on previous reporting and documentation where applicable and has used this for research purposes with qualifications applied, where necessary.

The authors and competent persons of the reports referred to in Section 18 of this Report (References) have not consented to the references made to their reports in this Report.

This Report has been prepared by REESearch strictly in the role of an independent expert. Professional fees payable for the preparation of this Report constitutes REESearch's only commercial interest in Australian Rare Earths. Payment of fees is in no way contingent upon the conclusions of this Report.

The Project contains Inferred Mineral Resources as defined by the JORC Code (2012). Under the definition provided by the ASX and the VALMIN Code, the Koppamurra Project is considered to be sufficiently prospective, subject to varying degrees of risk, to justify the exploration expenditure and work programmes outlined in the Prospectus.

Ms. Morgan is of the opinion that Australian Rare Earths has satisfactory and clearly defined exploration and expenditure programs which are reasonable having regard to the nature of the mineralisation and the stated objectives of the Company. Australian Rare Earths 's exploration programs are included in this Report. It is noted that the programs may be altered in view of results gained which could revise the emphasis of current priorities.

Yours faithfully,

Rebecca Morgan
BSc (Hons) Applied Geology
PGradDip (Mine Engineering)
MEngSc (Mine Engineering)
MAusIMM, MAIG

1 Executive Summary

This Independent Geologists Report (IGR, or the Report) has been prepared by REESearch Pty Ltd (REESearch) at the request of Australian Rare Earths Limited (Australian Rare Earths or the Company). Australian Rare Earths was previously called Tawel Exploration Pty Ltd. This Report covers the Koppamurra Rare Earth Project (the Project), located approximately 340 km south east from Adelaide in South Australia.

The Project comprises of a single granted exploration license, EL6509, which covers an area of 794 km^2. Australian Rare Earths has submitted applications for three (3) additional exploration licenses in South Australia, ELA 2020/00129, ELA 2020/00239, ELA 2020/00240, and one (1) additional exploration license in Victoria, EL007254 covering a total area of 3,237 km^2). As at the effective date of this Report, these additional exploration licenses had not been granted.

The Project, which is 100% owned by Australian Rare Earths, is prospective for clay hosted rare earth element (REE) mineralisation. The clays display an ionic character and Koppamurra is interpreted to have some analogies to ion adsorption ionic clay deposits. Exploration activities by other exploration companies in the area have not previously targeted or identified REE mineralisation. Historical exploration activities in the vicinity of Koppamurra include investigations for coal, gold and base metals, uranium, and heavy mineral sands.

Indications of anomalous REE in shallow sediments in the Project area were first identified by Australian Rare Earths following a review of geochemical data acquired from a 2016 PhD project that was initiated and supported through the Deep Exploration Technologies Cooperative Research Centre to characterise sedimentary cover of Loxton Sand across the Murray Basin. The review identified total rare earth oxide (TREO) grades of up to 1,858 ppm. When the dataset was filtered to > 400 ppm TREO, the average grade of the samples was 846 ppm.

Exploration undertaken by Australian Rare Earths to date has been primarily directed towards the delineation of rare earth mineralisation at Koppamurra and includes sampling of historical core, two (2) auger drilling programs, a push tube drilling program, a two (2) phase air core drilling program, mineralogical studies, and metallurgical testwork.

Drilling to date has intersected laterally extensive rare earth mineralisation within a (on average) 2 to 3 m thick clay horizon which has delineated two (2) prospect areas, Red Tail and Yellow Tail. The Red Tail Prospect area extends along strike for over ten (10) kilometres at the longest point) and three (3) km wide (at the widest point), whilst the Yellow Tail Prospect is approximately three (3) km long and 1.9 km wide (at the widest point).

Notable drillhole intercepts from assays received to date include:

- KMA054: 3 m @ 1,471 ppm TREO from 3 to 6 m
- KMC096: 2.1 m @ 821 ppm TREO from 3 to 5.1 m
- KM0133: 2 m @ 1,022 ppm TREO from 2 to 4 m
- KM0295: 5 m @ 874 ppm TREO from 4 to 9 m
- KM0006: 6 m @ 865 ppm TREO from 9 to 15 m
- KM0125: 2 m @ 1,237 ppm TREO from 1 to 3 m
- KMA014: 2 m @ 972 ppm TREO from 0.5 to 2.5 m
- KM0161: 2 m @ 1,591 ppm TREO from 0 to 2 m
- KM0198: 2 m @ 2,012 ppm TREO from 2 to 4 m
- KM0213: 3 m @ 1,214 ppm TREO from 0 to 3 m
- KMA042: 6 m @ 813 ppm TREO from 4 to 10 m
- KMA044: 3 m @ 780 ppm TREO from 5 to 8 m

Results from six (6) of the 22 samples submitted by Australian Rare Earths to ANSTO for metallurgical testwork (variation leach testwork) have been received. These leach tests were performed at a pH of 1 based on the positive impact on REE extraction identified from the optimisation work completed to date. Results demonstrated TREO (excluding Ce) recoveries of between 50 and 70% within the Red Tail Prospect area.

In April 2021, Australian Rare Earths engaged IHC Robbins Pty Ltd (IHC) to prepare an updated Mineral Resource estimate for the Koppamurra Project which covers both the Red Tail and Yellow Tail Prospect areas

Table 1: Inferred Mineral Resource Estimate for the Koppamurra Project at 325 ppm TREO-Ce cut-off grade dated April 2021

Prospect	Zone	Tonnes (Mt)	TREO (ppm)	TREO-CeO_2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	ThO_2 (ppm)	U_3O_8 (ppm)
Yellow Tail	2	10.0	903	586	638	265	329	19.0	1.6
Red Tail	2	29.5	668	452	465	203	250	18.4	1.6
Red Tail	3	0.4	520	359	363	157	195	14.0	1.7
Total		**39.9**	**725**	**485**	**507**	**218**	**269**	**18.5**	**1.6**

NOTE: Totals may not add up due to rounding.

In REESearch's opinion, the Mineral Resource estimate has been prepared to a sufficient quality standard, reported in accordance with the guidelines of the JORC Code and is considered to be reasonable as a global representation of tonnes and grade. All aspects of the Koppamurra Mineral Resource estimation were undertaken by IHC. REESearch has undertaken a review of the April 2021 Koppamura Mineral Resource and Ms Morgan has provived Competent Person sign-off for the Koppamurra Phase 2 Mineral Resource Estimate April 2021.

Work completed by Australian Rare Earths on the Koppmurra Project has confirmed the presence of laterally extensive REE mineralisation at Koppamurra, which is hosted by a 2 to 3 metre clay unit interpreted to have been deposited onto a limestone base (Gambier Limestone), and accumulated in an interdunal, lagoonal or estuarine environment. The source of the REE at Koppamurra is interpreted (but not yet confirmed) to most likely be basalt associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia. 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 clay sample from the project area established that the dominant clay minerals are smectite and kaolinite, 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 surfaces.

There are several known types of regolith hosted REE deposits including, ion adsorption clay deposits, alluvial and placer deposits. Ion adsorption clay hosted REE deposits are the dominant source of heavy REE currently mined in the world today with all economic examples of this deposit style confined almost exclusively to areas underlain by granitic rocks in southern China. However, whilst Koppamurra shares a number of similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also a number of differences, confirming that further work is required before a genetic model for REE mineralisation at Koppamurra can be conclusively defined. In addition, further work is required to better define metallurgical recoveries, and determine process flow sheets, effective mining methods, and project economics.

Despite the unknowns surrounding the source and genesis of REE mineralisation at Koppamurra, results received to date confirm the presence of laterally extensive clay hosted rare earth mineralisation with low radioactivity and recoveries of 50 to 70% TREO (excluding Ce). Also, the sampling of historical drillholes supports the interpretation that rare earth mineralisation extends beyond the area covered by the Red Tail and Yellow Tail Prospects and that the wider Koppamurra Project area is prospective for rare earth mineralisation.

REESearch has reviewed the planned work programs and the amounts allocated to those programs and is of the opinion that the proposed work programs are reasonable for the purpose of advancing the study status of the Project and the funds allocated by Australian Rare Earths should be sufficient to sustain the planned exploration activities. Each step in the proposed exploration programme will be contingent upon the success of the preceding activity. Progressive expenditure will naturally depend on the success of the proposed drilling and technical studies and Australian Rare Earths may require additional funds should the outcome of the drilling necessitate modifications to the proposed work program. REESearch considers the planned work program to be adequate to effectively test the immediate targets and to generate new targets beyond the current mineralisation extents.

In REESearch's opinion, the REE mineralisation identified to date through initial exploration drilling and metallurgical testwork is reasonable for the current stage of the project and based on prevailing market sentiment and commodity prices, exploration for rare earth elements is warranted. The Project is considered sufficiently prospective to justify the exploration expenditure and work programmes outlined in the Prospectus to advance the Koppamurra Project.

The facts, opinions and assessments presented in this Report are current at the Effective Date of this Report.

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2 Introduction

REESearch Pty Ltd (REESearch) was commissioned by Australian Rare Earths Limited (Australian Rare Earths or the Company) to provide an Independent Geologists Report (IGR or Report) on the Koppamurra Ionic Clay Project (Koppamurra or the Project). Australian Rare Earths Limited was previously called Tawel Exploration Pty Ltd. REESearch understands that this IGR is to be included in a prospectus to be issued by the Company for an Initial Public Offer (IPO) of 40,000,000 shares at $0.30 per share to raise $12,000,000 to facilitate listing on the Australian Securities Exchange (ASX). The funds raised will be used to fund the ongoing exploration and evaluation of Australian Rare Earths' Project and for working capital purposes.

The mineral assets to be considered in the Report comprise of a single granted exploration licence (EL6509) covering an area of approximately 794 km^2 in the upper South East region of South Australia. In addition, Australian Rare Earths has submitted applications for four (4) additional exploration licences contiguous with EL 6509; three (3) in South Australia totalling 2,560 km^2, and one (1) exploration license in Victoria totally 677 km^2. As of the date of this report, applications for these exploration licenses had not been granted.

The project is known as the Koppamurra Rare Earth Project (Koppamurra or the Project), which contains clay hosted rare earth element (REE) mineralisation. The Koppamurra Project area currently consists of two (2) prospects, Red Tail Prospect and Yellow Tail Prospect.

This report does not comment on the 'fairness and reasonableness' of any transaction between Australian Rare Earths and any other parties.

2.1 Reporting Standard

This IGR has been prepared in accordance with the rules and guidelines issued by the Australian Securities and Investment Commission (ASIC) and the Australian Securities Exchange (ASX). Where exploration results, Mineral Resources or Ore Reserves have been referred to in this IGR, the classifications are in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition) and the Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets for Independent Expert Reports (VALMIN Code 2015 Edition).

For this Report, the mineral assets were classified in accordance with the categories outlined in the VALMIN Code (2015), these being:

- **Early-Stage Exploration Projects**: Tenure holdings where mineralisation may or may not have been identified, but where Mineral Resources have not been identified.
- **Advanced Exploration Projects**: Tenure holdings where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A Mineral Resource estimate may or may not have been made, but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the Mineral Resources category.
- **Pre-Development Projects**: Tenure holdings where Mineral Resources have been identified and their extent estimated (possibly incompletely), but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral Resources have been identified, even if no further work is being undertaken.

- **Development Projects**: Tenure holdings for which a decision has been made to proceed with construction or production or both, but which are not yet commissioned or operating at design levels. Economic viability of Development Projects will be proven by at least a pre-feasibility study (PFS).
- **Production Projects**: Tenure holdings – particularly mines, wellfields and processing plants that have been commissioned and are in production.

REESearch has classified the Koppamurra Project as an Advanced-Stage Exploration Project.

A final draft of this report was provided to Australian Rare Earths, prior to finalisation by REESearch, requesting that Australian Rare Earths identify any material errors or omissions prior to its final submission. REESearch does not accept responsibility for any errors or omissions in the data and information upon which the opinions and conclusions in this report are based and does not accept any consequential liability arising from commercial decisions or actions resulting from errors or omissions in that data or information.

2.2 Qualifications, Experience, and Independence of Authors

This IGR has been compiled by Ms Rebecca Morgan with contributions by Mr John Keeling. A summary of the authors qualifications, professional memberships and responsibilities pertaining to this report are summarised in Table 2.

Table 2: Summary of authors Qualifications, Professional Memberships and Responsibilities

Name	Qualifications	Professional Memberships	Responsible Sections
John Keeling	BAppSc (Applied Geology), MSc (Industrial Mineralogy)	MAusIMM	Chapters 4, 5, 6, 7, 8.1, 12, 14.1,and 14.2
Rebecca Morgan	BSc (Hons) Applied Geology, PGradDip (Mine Engineering), MEngSc (Mine Engineering).	MAusIMM MAIG	All other sections

Author: John Keeling, BAppSc (Applied Geology), MSc (Industrial Mineralogy), MAusIMM

Mr Keeling has over 30 years' experience in geological investigations and minerals research, principally in industrial minerals and regolith geoscience. This includes international collaborations on developments in clay mineralogy and geochemical exploration in areas of thick regolith and sedimentary cover. Past roles include 8 years as Assistant Director with the Cooperative Research Centre for Landscape Environments and Mineral Exploration (CRCLEME) and inaugural Team Leader with the Deep Exploration Technologies Cooperative Research Centre (DETCRC). Recent role was 7 years as Senior Principal Geologist and Program Coordinator of the Mineral Systems Team at the Geological Survey of South Australia, Department for Energy and Mining. Since leaving the Department in 2019 he has continued in his roles as a Member of the Scientific and Technical Advisory Committee for the Qing Yang Institute for Industrial Minerals, China, and Member of the Editorial Board of international journal Applied Clay Science. He has extensive relevant experience with heavy mineral sand investigations and knowledge of the geology of the Murray Basin.

Author: Rebecca Morgan, BSc (Hons) Applied Geology, PGradDip (Mine Engineering), MEngSc (Mine Engineering), MAIG, MAusIMM.

Ms Morgan has over 19 years' international experience working on projects at all stages of development from grassroots to operations across a wide range of commodities spanning five continents whilst working for both large companies and junior explorers. She has experience as a Non-Executive Director (NED), and has held roles in senior management, consulting, exploration, development, open-cut and underground mining. Miss Morgan is a Director for REESearch, and currently works for Minbos Resources. As of February 2021, her role with Minbos Resources is

as their Raw Materials Manager, and prior to that she has held roles as Technical Consultant, Exploration Manager, and Geology & Business Development Manager all with Minbos Resources. As of March 2021, she was appointed to the board of Peak Resources as a Non-Executive Director. Previously she was a Non-Executive Director of Koppar Resources, the General Manager Technical Services for Tiger Resources, and worked as a Senior Mining & Resource Consultant for Optiro Pty Ltd for just under 5 years. Ms. Morgan has undertaken numerous geological consulting assignments including scoping, prefeasibility, feasibility and review studies, geological audits, resource estimates, project valuation, and due diligence. She has undertaken numerous reviews of rare earth element (REE) projects, completed her Master's project on a REE project, and was involved in REE price forecasting and market analysis whilst working as a Research Assistant with Curtin University's Graduate School of Business. Ms. Morgan holds the relevant qualifications and professional associations required by the ASX, JORC and VALMIN Codes in Australia to qualify as a Competent Person as defined in the JORC Code.

2.3 Principal Sources of Information

In preparing this report, the authors were reliant in relevant data collated and provided by Australian Rare Earths as well as publicly available information regarding geology and historical exploration activities. This report is based on exploration data collected by Australian Rare Earths, internal technical reports, figures and memos, available government data, technical papers, press releases and other publicly available information. The principal sources of information are listed in Section 16 of this IGR. REESearch does not doubt the authenticity or substance of previous investigating reports. REESearch has not however, carried out a complete audit of the information but has relied on previous reporting and documentation where applicable and has used this for research purposes with qualifications applied, where necessary.

Figures used in this report have been prepared either by Australian Rare Earths or REESearch with appropriate direction, input, and review by Australian Rare Earths. Mr John Keeling visited sites within the exploration properties on 9 December 2020 while reconnaissance auger drilling was underway. Mr Keeling inspected sample preparation and initial sample screening using portable XRF at Australian Rare Earths' field base in Naracoorte township.

REESearch has endeavoured, by making all reasonable enquiries, to confirm the authenticity, accuracy, and completeness of the technical data upon which this report is based. As far as REESearch has been able to ascertain, the information provided by Australian Rare Earths was complete and not incorrect, misleading, or irrelevant in any material aspect, and has no reason to believe that any material facts have been withheld.

2.4 Tenement Status Verification

The current ownership and legal standing of Australian Rare Earths' Project(s) is subject to a separate Solicitor's Report which is included in the Prospectus. REESearch has not undertaken an independent verification of the Company's tenements is not qualified to make legal representations in this regard. The present status of tenements listed in this report is based on information provided to REESearch by Australian Rare Earths and this report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation and development.

Specific details regarding the tenements and any material agreements pertaining to them are detailed in the Solicitor's Report in the Prospectus.

2.5 Disclaimer

This IGR has been prepared by REESearch strictly in the role of an independent expert and has no economic or beneficial interest (present or contingent) in any of the mineral assets being reported on. Professional fees payable for the preparation of this IGR constitutes REESearch's only commercial interest in Australian Rare Earths. Payment

of fees is not contingent upon the conclusions of this Report. Fees arising from the preparation of this Report are listed in the Prospectus. In April 2020, Ms. Morgan undertook a review of and provided Competent Person sign-off for the Koppamurra Phase 2 Mineral Resource Estimate April 2021, which was prepared by IHC Robbins. Ms. Morgan is not, and has never been, an employee of Australian Rare Earths and has no economic or beneficial interest (present or contingent) in any of the mineral assets being reported on.

Mr John Keeling is a contributing author to this report (Chapters 4, 5, 6, 7, 8.1, 12, 14.1, and 14.2). In June 2020, Mr Keeling contributed to a CSIRO study on electron microscopy of REE mineralogy of a Koppamurra clay sample, which was commissioned by Australian Rare Earths. Mr Keeling is not, and has never been, an employee of REESearch or Australian Rare Earths and has no economic or beneficial interest (present or contingent) in any of the mineral assets being reported on. Professional fees payable for the Mr Keeling's contribution to this IGR constitutes his only commercial interest in Australian Rare Earths. Payment of fees is not contingent upon the conclusions of this Report. Fees arising from Mr Keeling's contribution to this Report are listed in the Prospectus.

The relationship with Australian Rare Earths is solely one of professional association between client and independent consultant. None of the authors are officers, employees, or proposed officers of Australian Rare Earths or any group, holding or associated companies of Australian Rare Earths.

The report has been prepared in compliance with the Corporations Act and ASIC Regulatory Guides 111 and 112 with respect to REESearch's independence as an expert. REESearch regards RG112.31 to be in compliance whereby there are no business or professional relationships or interests which would affect the expert's ability to present an unbiased opinion within this report.

REESearch does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from errors or omissions in that data or information. Opinions presented in this IGR has been compiled based on information made available to REESearch up to 28 April 2021. Any statements and opinions are based on this date and could alter over time depending on exploration results, commodity prices and other relevant market factors. As such, these opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which REESearch had no prior knowledge nor had the opportunity to evaluate. Australian Rare Earths has not advised REESearch of any material change, or event likely to cause material change, to the information made available.

This report specifically excludes any aspects relating to legal issues commercial and financing matters, land titles and agreements.

2.6 Indemnities

Australian Rare Earths has agreed to indemnify REESearch for any liability arising as a result of or in connection with the information provided by or on behalf of Australian Rare Earths being incomplete, incorrect or misleading in any material respect. Australian Rare Earths has confirmed in writing to REESearch that, to its knowledge, the information provided by it (when provided) was complete and not incorrect or misleading in any material respect. REESearch has no reason to believe that any material facts have been withheld and Australian Rare Earths has confirmed in wiring that it believes that it has provided all material information available to it.

2.7 Specialist Declarations and Consent

The information in this report that relates to the Technical Assessment of Mineral Assets reflects information compiled and conclusions derived by Ms Rebecca Morgan who is a Member of the Australian Institute of Geoscientists (AIG) and a Member of Australian Institute of Mining and Metallurgy (AusIMM). Ms. Morgan is not an employee of Australian Rare Earths and has sufficient experience relevant to the Technical Assessment of the

Mineral Assets under consideration and to the activity which she is undertaking to qualify as a Specialist as defined in the JORC Code (2012 Edition).

This Report has an effective date of 28 April 2021, this being the most recent date in which Australian Rare Earths made material in its possession available to REESearch. REESearch is unaware of any material change since this date. Ms. Morgan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

2.8 Competent Person Statement

The Competent Person for the preparation of this IGR is Ms Rebecca Morgan, BSc (Hons) Applied Geology, PGradDip (Mine Engineering), MEngSc (Mine Engineering). Ms Morgan is a member of the Australian Institute of Geologists (AIG) (MAIG 3836) and a member of the Australian Institute of Mining and Metallurgy (AusIMM) (301912) and has over 19 years of experience across a variety of commodities and countries. Ms Morgan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined by the 2012 JORC Code as incorporated in the ASX Listing Rules.

3 Background

3.1 Location & Access

The Koppamurra Project is located approximately 340 km south east from Adelaide in South Australia close to the border with Victoria. The project area is in agricultural land of the upper South East region of South Australia and the south-western region of the Wimmera District in Victoria. Land use is primarily sheep and cattle grazing, with areas of cereal cropping, viticulture, and forestry. The Project can be accessed from the Riddoch Highway via Naracoorte (Figure 1).

3.2 Tenure

The Koppamurra Project comprises of a single granted Exploration Licences (EL), EL6509 covering an area of 794 km^2 (Table 3), which was granted on 15 September 2020 and due to expire on 14 September 2022.

EL6509 is within 100m of a Glen Roy Conservation Park and the Naracoorte Caves National Park, the latter of which is excised from the tenement. The License area contains several small Extractive Mineral Leases (EML) held by others, Native Vegetation Heritage Agreement areas, as well as the Deadman's Swamp Wetlands which are wetlands of national importance.

The South East Australia SEA Gas Pipeline runs through the exploration license area, which may need to be factored into future exploration programs and mining studies.

Table 3: Australian Rare Earths tenement status

Number	Status	Project	Area km^2	Holder	Grant Date	End Date
EL6509	Granted	Koppamurra	794	RDBD Developments Pty Ltd*	15/09/2020	14/09/2022

**RDBD Developments Pty Ltd is a wholly owned subsidiary of Australian Rare Earths Exploration Pty Ltd*

Australian Rare Earths has submitted applications for three (3) additional EL's in South Australia, ELA 2020/00129 (649 km2), ELA 2020/00239 (977 km2), ELA 2020/00240 (934 km2), and one (1) additional exploration license in Victoria, EL007254 (677 km^2) (Table 4 and Figure 1).

Table 4: Exploration Licenses under application

Number	Status	Area km^2	Location	Special Locations/ Comments
ELA 2020/ 00129	Under application	649	South Australia	Petroleum Tenement; Native Vegetation Heritage Agreement Area (NVHA); Mining Production Tenement Regulation area; Pipeline Licence; NT-SC17/002(A): First Nations of the SE #1; State Heritage Area
ELA 2020/ 00239	Under application	977	South Australia	Native Vegetation Heritage Agreement Area (NVHA); Geological Monument; Conservation Park: Mount Monster; NT-SC17/002(A): First Nations of the SE #1; State Heritage Area; SA Heritage Place; Poocher & Mundulla Swamps
ELA 2020/ 00240	Under application	934	South Australia	Native Vegetation Heritage Agreement Area (NVHA); Pipeline Licence; NT-SC17/002(A): First Nations of the SE #1; State Heritage Area; SA Heritage Place; Poocher & Mundulla Swamps; Conservation Park: Geegeela
EL007254	Under application	677	Victoria	Small pockets of Restricted and Unavailable Crown Land for Mining and/or Exploration are present, which are categorised as Bushland Areas. A gas pipeline runs through the license area.

3.3 Native Title

A Native Title Claim by the First Nations of the South East #1 has been registered but is yet to be determined. The claim area includes the areas covered by EL6509, ELA 2020/00129, ELA 2020/00239, and ELA 2020/00240.

In its application for EL007254, Australian Rare Earths have chosen to 'Excise all Crown Land except those areas where Native Title has been extinguished'.

3.4 Royalties

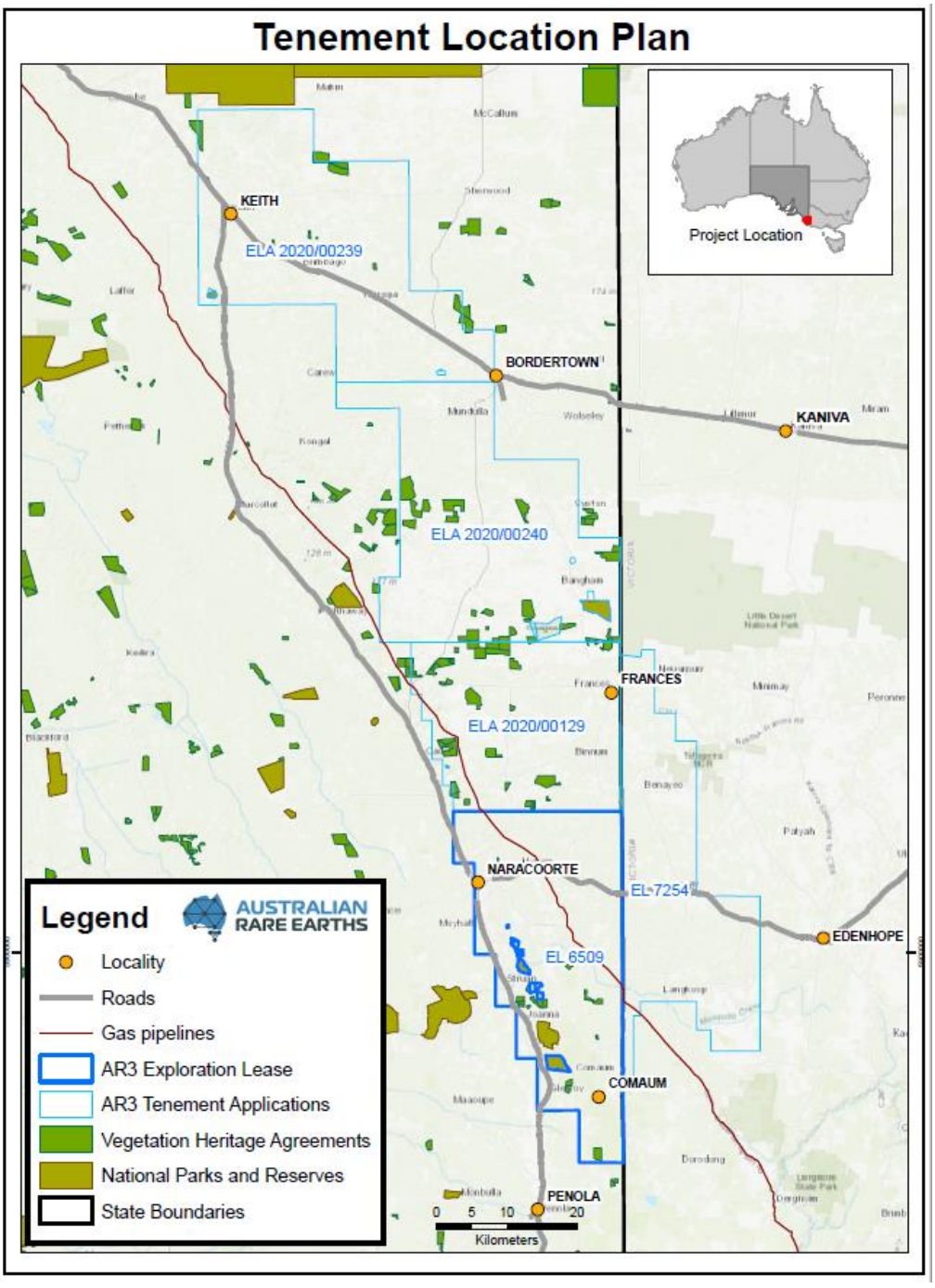
The Company has recently incorporated a wholly owned subsidiary, RDBD Developments Pty Ltd ACN 646 685 010 (RDBD) and is in the process of transferring its mineral exploration assets to RDBD for no consideration. In addition, the Company has entered into a royalty deed in favour of RAB Royalties Pty Ltd (RAB), a company associated with two of the Directors. The Royalty Deed provides for the payment to RAB of a 0.5% net smelter royalty in respect of the Company's granted exploration licence (EL6509), and two (2) of the four (4) exploration licence applications. This royalty obligation is to be transferred to RDBD by Deed of Assignment and Assumption upon completion of the transfer of the mineral tenements

In South Australia, the royalty rate on refined mineral products is 3.5% of the value of the mineral. Section 17A of the South Australia Mining Act 1971 provides for a reduction in the rate of royalty to 2.0% for new mines for a period of five (5) years. The reduced royalty commences from the date the first royalty is due and payable and the reduced royalty rate will apply for a maximum period of 10 consecutive 6-month returns.

In Victoria, the Mineral Resources (Sustainable Development) Act 1990 (MRSDA) requires that "the holder of a mineral licence must pay royalties in accordance with the rate or method of assessment". Mineral Industries Regulations gives the royalty rate as 2.75% of the "net market value" for all minerals other than lignite. Net market value is defined as the market value of the mineral at the time it is first sold, transferred, or disposed of less any

costs reasonably, necessarily, and directly incurred by the licensee in connection with the sale, transfer or disposal (including insurance, freight, and marketing). The minerals royalty under the MRSDA is a royalty on value, and not profit. As such, the costs that are deductible are only those that relate to the movement or sale of the finished product from the mine site to the customer.

Figure 1: Overview of Australian Rare Earths granted EL's and EL's under application in relation to Vegetation Heritage Agreement Areas, and National Parks & Reserves.



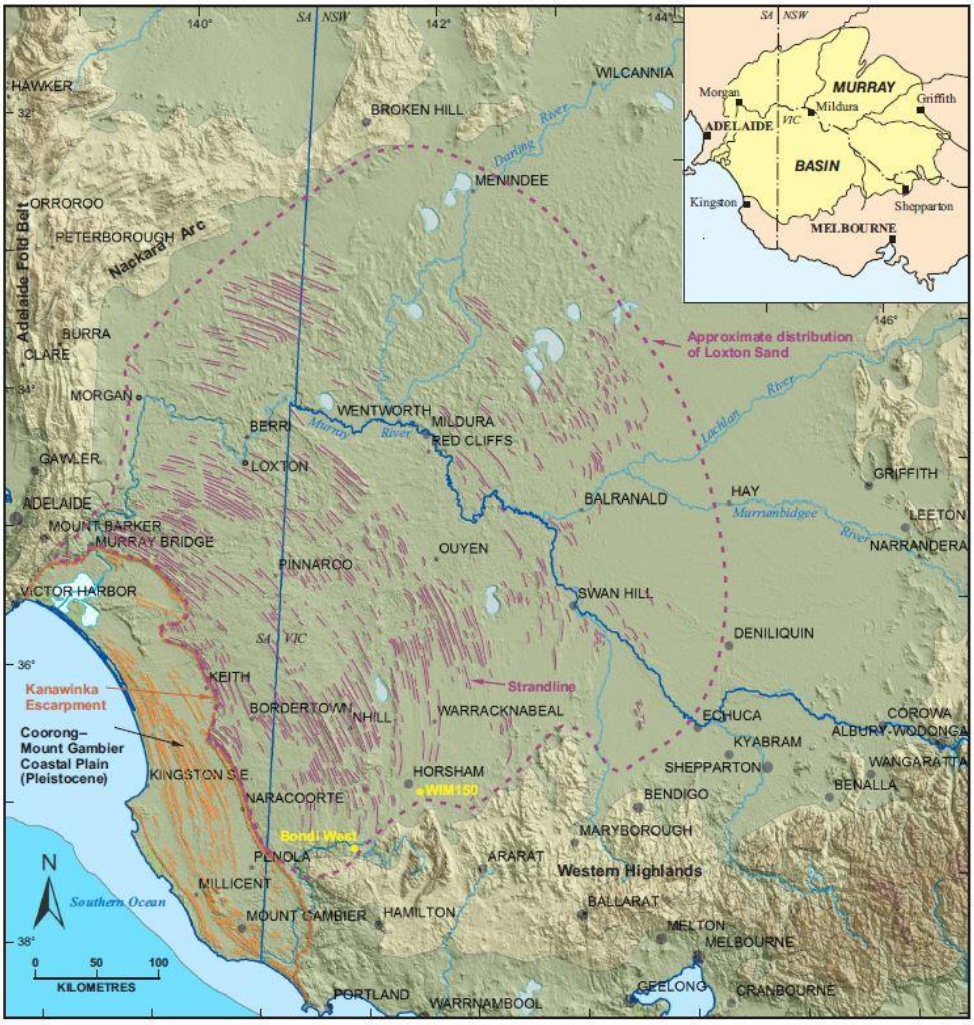
4 Regional Setting

The Koppamurra Project is located in Murray Basin sedimentary rocks and unconsolidated sediments that crop out in the southwestern portion of the basin near Naracoorte. Additional areas of interest extend from South Australia across the border into Victoria. The geological setting is described by a summary of the depositional history of the basin. The interaction of sediment deposition with local tectonic activity provides background to the setting of an unusual style of sediment-hosted Rare Earth Element (REE) mineralisation identified by Australian Rare Earths at shallow depth in the Koppamurra Project area.

The Murray Basin is an intracratonic sedimentary basin covering more than 300,000 km^2 of south-eastern Australia (Figure 2). The basin is approximately 850 km from east to west and 750 km from north to south and contains a thin package of flat-lying sediments. The sediments include two marine transgressions from Late Oligocene to Middle Miocene (c. 29 - 13 Ma) and from Late Miocene to Early Pliocene (c. 7 - 4 Ma).

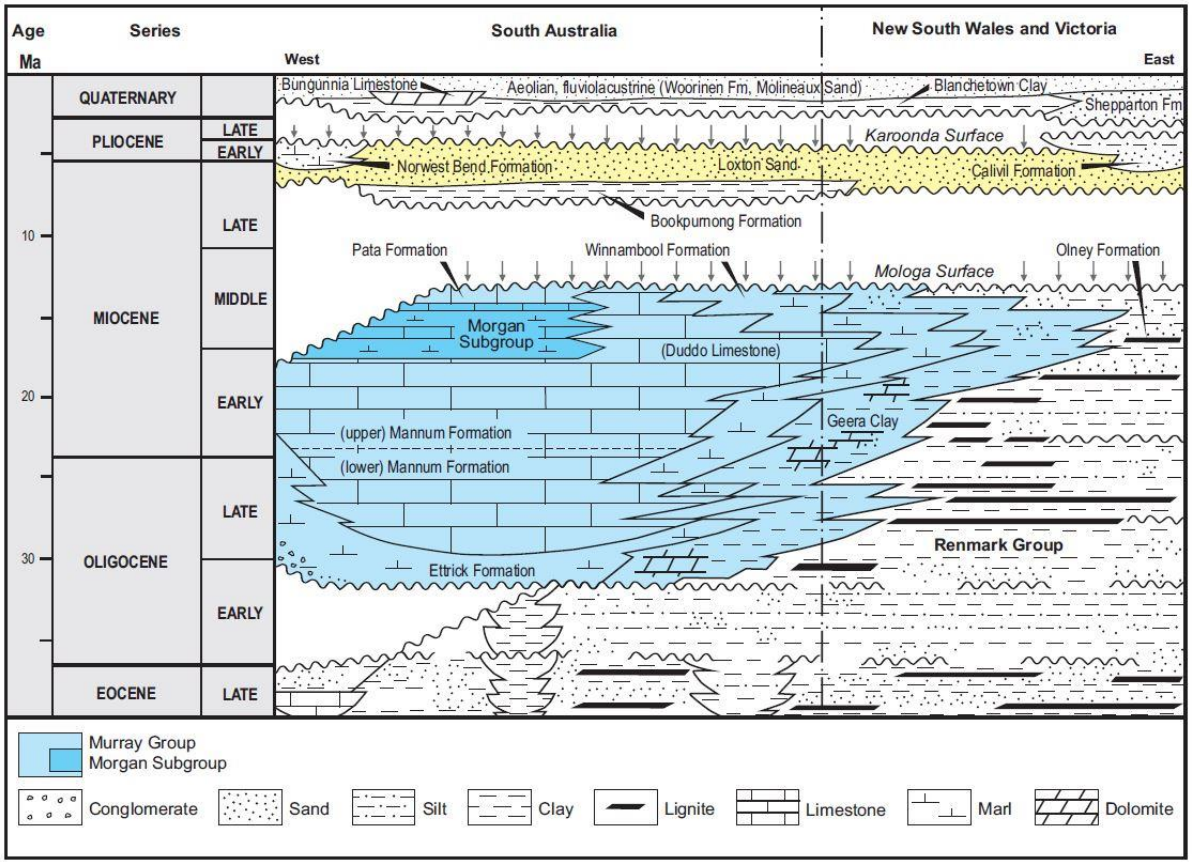
Maximum sediment thickness of ~600 m is recorded in the deepest depocentre in the central-western part of the basin, to the west of Mildura.

Figure 2: Murray Basin (inset) showing approximate distribution of Loxton Sand including coastal strandline traces from topographic data. Site of WIM 150 and Bondi West heavy mineral deposits shown in yellow



Basin sedimentation began as river and swamp deposits of the Lower Renmark Group (Figure 3). Marine flooding commenced around 29 Ma as a shallow sea that spread inland behind the Padthaway High. The Pathaway High is a NW-SE trending ridge of Cambrian metasediments intruded by early Paleozoic granites of the Delamerian Orogeny (c. 480 Ma). Marine calcareous muds of Ettrick Formation were deposited in deeper water, with dark marine muds of Geera Clay in the shallower basin margins.

Figure 3: Generalised Cenozoic stratigraphy of the western Murray Basin



Onshore deposits included river sands of Olney Formation of the upper Renmark Group. From Late Oligocene to Middle Miocene time, cool water 'Murray Group carbonates', were deposited in the more open marine environment of the western basin and formed thick deposits of fossiliferous bryozoan limestone.

Retreat of the sea began in the Middle Miocene when global climatic conditions changed from warm and wet to cooler and dryer. The upper Murray Group carbonates were the last marine sediments to be deposited, up until c. 13.5 Ma. The break with marine sedimentation lasted about 6 Ma. Over this period, Middle Miocene sediments were exposed to weathering and erosion, particularly the limestone along the western extent of the basin. The weathered land surface is referred to as the Mologa Surface.

A second major marine incursion commenced in the Late Miocene with deposits of Bookpurnong Formation, a greenish-grey clayey silt and fine-grained sand with fossil shell fragments. These offshore shallow marine deposits were mostly thin (average thickness 15 m) distributed across the central-western Murray Basin. Strontium isotope dating of shell fragments from Bookpurnong Formation indicate that marine sedimentation during this second event had commenced by c. 7.2 Ma Miranda et al. (2009). Bookpurnong Formation is not thought to have been deposited in the shallower seas over the Padthaway High but extended to the east for a maximum of ~400 km (Brown and Stephenson 1991).

The full extent of the second marine incursion is ~500 km inland of the present coastline. This marks the most easterly and northerly coastal beach and dune deposits of Loxton and Parilla sands, the main host of heavy mineral sand deposits across the Murray Basin. There are few sites in the basin where the Loxton and Parilla sands can be reliably identified as separate units and the sands are generally not differentiated and are referred to as Loxton-Parilla sands or Loxton Sand (with Parilla Sand as a member unit). The term Loxton Sand now has wider acceptance and is used in this review in preference to the term Loxton-Parilla sands.

By Late Miocene – Early Pliocene time, interactions along the Australian–Pacific plate boundary had established an approximate E-W to SE-NW oriented compressional stress field across southeastern Australia. The stress regime initiated faulting within the basin sediments and reactivated faults along the basin margin. Tectonic uplift and fluctuating global sea levels resulted in the overall retreat of the sea across the basin.

Extensive shorelines of quartz-rich sandy beaches and dunes were successively developed and stranded as the sea retreated. Coastal and offshore heavy mineral concentrations were formed during this time.

Tectonic uplift of the basin sediments continued throughout the Late Pliocene, with accelerated uplift in the southwest along the Padthaway High and Gambier axis (Figure 4). Uplift on the Padthaway High resulted in reduced river flows to the sea and increased coastal erosion, with cliff development along the line of the Kanawinka Fault Escarpment (Miranda et al. 2009).

Progressive Pliocene strandline development had probably ceased by c. 4 Ma. At this time, the Murray Basin sandplain was exposed to weathering, resulting in widespread development of the Karoonda Surface. In Loxton Sand, this is marked by the formation of ferruginous and siliceous duricrust.

The halt of progression of the Pliocene strandline was likely due to reduced sand supply but the cause is controversial. A long-held view is that the ancestral Murray River, as the major river outlet to the sea across the Murray Basin, became blocked by dense coastal sand barriers which formed at the western end of the Marmon–Jabuk sand range, near Nildottie, north of Murray Bridge (Belperio and Bluck 1990). The buildup of sand was likely influenced by continuing uplift on the Padthaway High.

Surface water was ponded inland until a new overflow outlet developed to the southeast, in a river valley excavated along lowlands of the Douglas Depression (Bowler et al. 2006). Drainage to the southeast was later defeated by ongoing uplift on the Padthaway High in the Naracoorte area (Bowler et al. 2006). This resulted in reversal of river flow towards the north along the Douglas Depression and formation of a large shallow inland lake, Lake Bungunnia (McLaren et al. 2011).

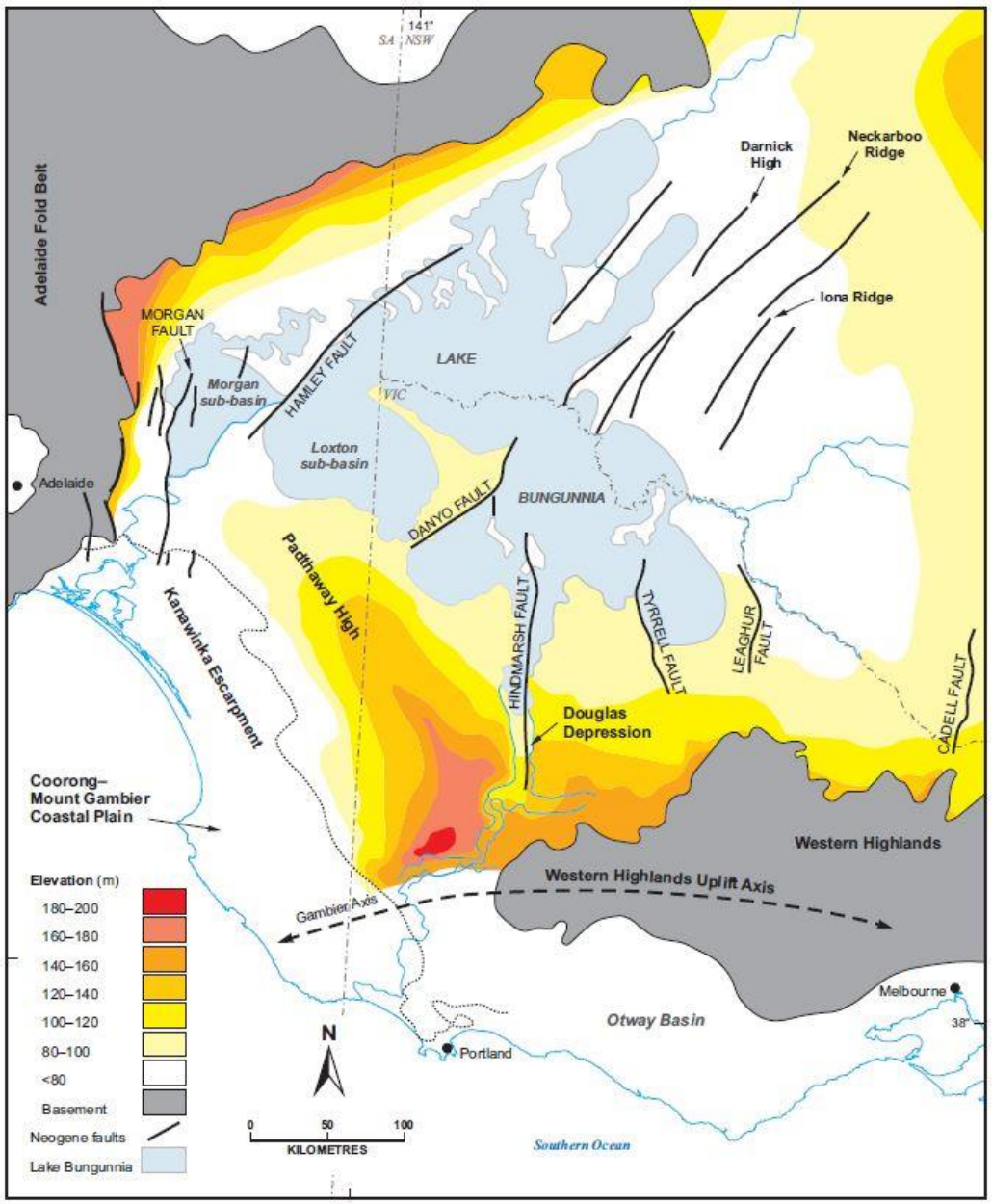
At its height, Lake Bungunnia covered an area of over 50,000 km^2 (Figure 4). Paleomagnetic analysis of lake sediments and extrapolation of sedimentation rates give a timeline of 2.4-0.8 Ma for the lake history (McLaren et al. 2011). The relationship between the extent of Lake Bungunnia and changes in river flow along the Douglas Depression provide information on the timing of uplift on the Padthaway High in the area south of Naracoorte. Pliocene sediments deposited across the Padthaway High in this area show differential uplift of the order of 100-150 m, since deposition (Bowler et al. 2006).

The fluctuating extent of Lake Bungunnia was influenced by a drying climate but the demise of the lake was the result of breakthrough of the River Murray and reconnection to the sea at around 0.8 Ma.

In mid-Pleistocene time (c. 1 Ma) the Coorong – Mount Gambier coastal plain was covered by sea that extended to the Kanawinka Escarpment. Continuing uplift of the land and fluctuating sea levels combined to affect overall retreat of the sea. Extensive highstand shoreline beach and dune deposits across the coastal plain were preserved as the sea retreated. The Pleistocene calcareous dunes are up to 30 m high and 10 km apart and form long, sub-parallel 'sand ranges' between the Kanawinka Escarpment and the present coastline (Murray-Wallace et al. 2001).

During the Pleistocene, the older Pliocene strandlines of Loxton Sand were partly reworked by westerly winds to form linear dunes of Woorinen Formation and areas of extensive sub-parabolic siliceous dune fields (Molineaux Sand) of the Sunset, Big, and Little Deserts in the Mallee region of South Australia and Victoria (Bowler et al. 2006).

Figure 4: Elevation and neo-tectonic features of the Murray Basin, with maximum extent of lacustrine sediments and floodplain of Pleistocene Lake Bungunnia (modified from McLaren et al. 2011)

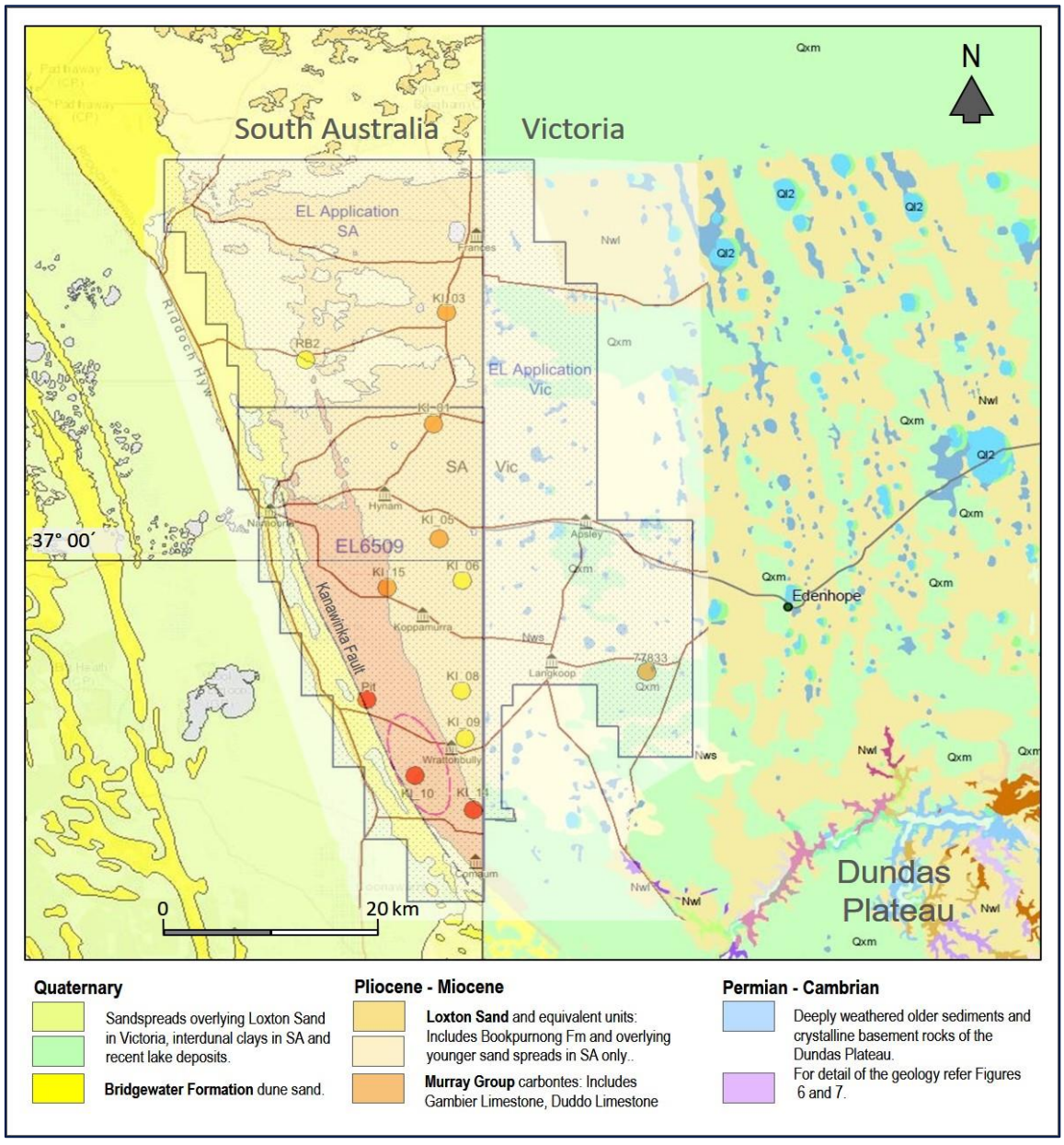


5 Koppamurra

5.1 Local Geology

The Koppamurra project area follows approximately the western margin of the southeastern extent of West Naracoorte Range in South Australia and extends eastwards across the Kanawinka Fault to the South Australian border and beyond into the state of Victoria. The area covers a portion of the western extent of Pliocene Loxton Sand that was uplifted on the Padthaway High (Figure 5).

Figure 5: Surface geology in the region of the Koppamurra Project area



The Kanawinka Fault is a small displacement on the western flank of the Padthaway High and traces the trend of the western margin of the uplift. The fault exposes Middle Miocene Murray Group carbonates (Naracoorte Limestone Member and underlying Gambier Limestone) on the upthrown eastern side of the fault. The total displacement of Gambier Limestone is estimated at ~40 m, uplifted to the east (Murray-Wallace 2018). The line of the fault marks a long-lived coastal escarpment, that is about 20 m high in the region to the south of Naracoorte. The escarpment can be traced for several 100 km and controlled the alignment of strandlines that developed in the Early Pleistocene at c. 1 - 0.8 Ma.

West Naracoorte Range is a calcareous coastal shoreline dune (Bridgewater Formation) formed on the downthrown side of the Kanawinka Fault in the Early Pleistocene at c. 0.8 Ma. The nearby East Naracoorte Range is older (c. 0.86 Ma) and more quartz-rich and was uplifted 20 m by displacement on the Kanawinka Fault before the formation of the West Naracoorte Range (Murray-Wallace 2018).

Murray Group limestones are the oldest rocks in the Koppamurra Project area. The limestone can be traced at surface for approximately 65 km extending from ~10 km north of Naracoorte, south-southeasterly across the border into Victoria for ~15 km, before being obscured by cover of Quaternary sandy sediment. Patches of limestone outcrop are mapped up to ~5 km east of the fault beyond which, the limestone is overlain unconformably by Loxton Sand, or equivalent units of sandy clay and Parilla Sand.

In the Koppamurra area, Gambier Limestone is ~60 to 90 m thick. Karst features are developed in the limestone close to the Kanawinka Escarpment. These include the Naracoorte cave system, 10 km south of Naracoorte, which is a World Heritage-listed fossil mammal site. The caves are in Naracoorte Limestone Member and underlying Gambier Limestone and formed just inland of the then coastline on the Kanawinka Escarpment at around 1.1 -0.9 Ma. More than 150 caves have been recorded in an area 1 km wide by 11 km long in a zone of enhanced dissolution at the seaward margin of the freshwater lens (White and Webb 2015).

The Gambier Limestone is a porous bryozoan limestone that is widely distributed to the east and south of Naracoorte within the Gambier Basin and is an important groundwater aquifer in SE South Australia. Equivalent limestone extends eastward into the Murray Basin as the main carbonate unit of the Murray Group and is referred to as Duddo Limestone in Victoria. The permeable limestone is a low salinity and relatively high yielding groundwater aquifer and a valuable groundwater resource in western Victoria.

East of the Kanawinka Fault the Murray Group limestones are overlain by clay, sandy clay or fine- to medium-grained sand between <1 m to 15 m in thickness (CRA Exploration Pty. Ltd., 1986). The variation in clay and sand thickness in part reflects undulations in the surface of the underlying limestone. The moderately weathered and mottled clay and sand are equated to fine-grained backshore lagoon or shallow offshore equivalents of Loxton Sand. The stratigraphic position, high clay content and the presence of minor calcium carbonate recorded for some clay samples suggest these might also include weathered equivalents of Bookpurnong Formation clay. This weathered sedimentary sequence hosts the high levels of REE in the Koppamurra Project area.

5.2 REE Mineralisation

The high REE content of the clays was reported initially in a PhD study of the Loxton-Parilla sands (see section 7.2 of this report), which analysed samples from two CRA Exploration drill holes (RC86KI-1 and RC86KI-10) (details in Section 5.2 - Exploration History). The samples were from 1 and 2 m intervals of clay or silty clay (equated with Parilla Sand) directly overlying the Gambier Limestone.

The results of high REE were confirmed by analysis on subsamples taken by Australian Rare Earths from the CRA Exploration RC samples stored at the South Australian Government Core Reference Library. This included a duplicate sample interval from RC86KI-10 (3-4 m) and an additional 11 samples from 6 drill holes. In all but one hole, the interval selected for sampling was silty or sandy clay directly above the limestone contact. In hole RC86KI-14 the

interval 1-3 m was 2 m above the limestone contact. Results for high REE content were confirmed by initial analysis at Bureau Veritas Laboratories in Adelaide using acid digest and ICP-MS analysis. Excess sample from the same intervals were reanalysed at Australian Nuclear Science and Technology Organisation (ANSTO) in New South Wales using mixed acid/ammonium fluoride digest and ICP-MS to achieve improved detection limits for some REE (typically <2.5 ppm).

The ANSTO results for all samples gave Total Rare Earth Oxide plus Yttrium Oxide (TREO+Y) greater than 500 ppm with the range TREO+Y = 518 ppm – 1907 ppm (ANSTO/TM_21.05.20). The lowest value of TREO+Y = 518 ppm was for sample RC86KI-14 (1-2 m), which was 3 m above the limestone contact. All samples contained predominantly Light Rare Earths (LREE) La, Ce, Pr, Nd and Y. Relative concentrations of individual Rare Earth elements showed some variation in samples from the same drill hole but with no clear trends.

Preliminary leach tests by ANSTO, on selected samples with the highest TREO+Y contents, using 1.5 M NaCl at room temperature, gave mixed low results, due in part to the small amount of sample available for testing and the presence of carbonate in one sample. Some refinement to the leach technique was made using sample RC86KI-15 (7-8 m) (TREO+Y = 1119 ppm). Acidification of leach solution to pH=1 and using 3 washing steps with 1.5M NaCl in a 2:1 liquid:solid ratio at pH 4.2 achieved recovery of 51% TREO+Y (ANSTO/TM_21.05.20). Chemical analyses and leach tests by ANSTO confirmed that thorium (Th) content was low in all samples and below detection in leach solutions. Uranium content was at negligible levels in all samples, and below detection in leach solutions.

Additional work was done to understand the mineralogy of the host clay and associated REE. Clay sample from CRA drill hole RC86KI-09 (7-8 m) was examined by CSIRO Mineralogical Services at the Waite Campus Laboratory, Adelaide.

The bulk sample and separated clay fractions were analysed for mineralogy by X-ray diffraction (XRD) and semi-quantitative element analysis by X-ray fluorescence spectroscopy (XRF). Results showed the bulk sample was composed of 70% clay minerals, as smectite and kaolin in approximately equal amounts, 20% quartz and 10% iron oxide (goethite). REE were present at comparatively high levels in all sample fractions with Ce concentrated 2-3 times in the size fraction 0.2-2.0 microns, which also had the highest content of kaolin and iron oxide (CSIRO Land and Water Consultancy Report D5060).

The size fraction, 0.2-2.0 microns, (TREE = 1263 ppm) was further examined using scanning electron microscopy to determine if any REE minerals could be imaged and their chemistry analysed. Only 10 discrete particles with high REE content were observed. All particles were <1 micron in size. Eight of these were Ce only minerals, probably cerianite (CeO2); two were phosphate minerals ((Ce,La,Nd,Sm)PO4), most probably Ce-rich monazite. The fine particle size and absence of thorium suggest these REE minerals are secondary in origin and were formed with the clay at the time of deposition or during subsequent weathering. Only three small zircon grains were observed. These contained some detectable Nd, but no uranium. The few REE-rich minerals detected during SEM investigation is not inconsistent with a significant proportion of the REE being distributed in the sample as adsorbed elements on clay mineral or iron oxide surfaces (CSIRO Land and Water Consultancy Report D5060ac).

The clay mineralogy is indicative of formation under mildly alkaline conditions in a marine or coastal environment from fine-grained sediment either river transported or windblown. A high smectite content can form from detrital clay under these conditions or could also form as the result of alteration of fine volcanic ash deposited in the same environment. Kaolin may have been deposited along with the sediment or formed later by the breakdown of smectite during weathering.

Possible sources of REE mineralisation are discussed in Chapter 6.

6 Possible Sources of REE

As part of their exploration strategy, Australian Rare Earths considered three (3) possible sources for of REE:

1. Fine grained heavy minerals sands
2. Weathered basement rocks forming the Dundas Plateau along the southwestern margin of the Murray Basin.
3. Volcanic ashfall originating from eruptive volcanic centres in the Newer Volcanic Province of the Western Highlands in Victoria, extending into the Lower South East of South Australia.

6.1 Heavy Mineral Sands

Heavy minerals (HM) are widely distributed in the Loxton Sand. In various localities across the Murray Basin, HM have been concentrated to form valuable placer deposits in offshore, shoreface and dune environments.

The Murray Basin heavy minerals are comprised of dominantly ilmenite ($FeTiO_3$), with lesser amounts of zircon ($ZrSiO_4$) and rutile (TiO_2), which are of primary economic interest, along with minor to trace amounts of chromite ($FeCr_2O_4$), magnetite (Fe_3O_4), various aluminium silicate minerals (e.g. garnet, sillimanite, stuarolite), and REE-containing minerals monazite ($[Ce,La,Th]PO_4$) and xenotime (YPO_4).

Extensive offshore fine-grained (20-80 micron) HM deposits (WIM-type) have been defined by drilling in the Wimmera district in the southeast Murray Basin, to the south and northeast of Horsham. Strandline deposits with coarser-grained (90-300 micron) HM are also present at locations south of Horsham, including Bondi West, Bondi Main, Bondi East and Echo HM deposits.

In SE Murray Basin, near-shore strandline deposits can grade 5-20% total heavy minerals (THM) but with relatively low tonnage. WIM-type deposits formed in low energy offshore environments and can cover up to 50 km^2 in sheet-like distribution, typically 2-6 m in thickness, beneath 8-20 m of overburden. These are volumetrically very large deposits, but generally with lower HM grades, typically 3-4% THM (Bruckard et al. 2015).

The WIM-type deposits (WIM 050, WIM 100, WIM 150, WIM 200 and WIM 250) on the southeastern margin of the Murray Basin contain large resources of ilmenite, zircon and rutile but have not been mined to date due to their fine grain size which precludes processing by conventional routes. Test work in 2011 on a bulk sample from WIM150 deposit showed ~15% of the total HM was contained in the 20-38 micron size fraction, which contained more than 40% ZrO2 and CeO2, presumed to be as zircon and monazite, respectively (Klinger and Standing, 2016). The five (5) WIM deposits, in total, have been estimated previously to contain of the order of 3 million tonnes of REO, mainly contained in monazite and xenotime, in over 200 million tonnes of HM concentrate (Hoatson et al. 2011).

The possibility that fine-grained HMs (including monazite, xenotime and zircon) were the host of REE in the Koppamurra samples was considered by Australian Rare Earths. Initial geochemical data, however, showed low zirconium values, low uranium values, and no correlation of thorium content with variation in elevated REE values, in particular Ce values. Mineralogy by X-ray diffraction of various particle size fractions prepared and analysed by CSIRO did not detect crystalline minerals known to host REE in the crystal structure (i.e. REE minerals, monazite, xenotime or zircon). Subsequent electron microscopy identified only trace amounts of zircon and Ce-monazite and possible cerianite (CeO_2).

The work to date does not rule out fine-grained heavy minerals in WIM-type deposits as a possible source of REE. The resistant REE-containing minerals would, however, need to have been weathered, post-deposition, to release the contained REE, and the REE mobilised and accumulated elsewhere in the sediment.

Information on alteration of REE-containing minerals in WIM-type deposits, if available, was not provided or discovered during the review. Ilmenites in strandline HM deposits from southeast Murray Basin do show some

evidence of alteration and loss of Fe (Paine et al. 2005) but typically they are less altered, with higher Fe content, than ilmenites from the northern areas of the basin (Bruckard et al. 2015).

6.2 Weathered Basement Rocks of the Dundas Plateau

The Dundas Plateau is a variably dissected tableland that forms the westernmost part of the Western Uplands of Victoria. The tableland separates the Wimmera Plains to the north, overlying the Murray Basin, from the Western Plains to the south, overlying the Otway Basin (Figure 5).

Basement rocks on the Dundas Plateau are part of the Delamerian Fold Belt incorporating two structural zones, the Glenelg Zone, and the Grampians-Stavely Zone. The rocks are predominantly Cambrian age that include high-grade metamorphic rocks, sedimentary rocks, and minor volcanic rocks. The Cambrian sequence is overlain by Silurian sediments of the Grampians Group. On the Eastern Dundas Tableland, Early Devonian volcanics of the Rocklands Volcanic Group unconformably overlie the older basement rocks. Scattered remnants of Permian fluvioglacial sediments occur in the Coleraine and Moree areas and Cretaceous Otway Group sedimentary and volcanic rocks underlie the Merino Tableland in the southwest (Morand et al. 2003, Figure 6).

Potential source rocks for minerals containing REE include:

- Cambrian metamorphosed ultramafic rocks and mafic to intermediate rocks of the Truro Volcanics
- Delamerian-age plutons of tonalite and granodiorite composition
- Early Devonian ignimbrite and lava, mostly of alkali rhyolite composition, forming the Rocklands Volcanic Group (Morand et al. 2003).

The Dundas Plateau was intensely weathered during Miocene – Pliocene time, which produced a deep regolith profile of kaolinitic saprolite capped by ferricrete and ironstone gravel.

The clayey weathered rocks would have been susceptible to erosion and incorporation into Murray Basin sediments. REE liberated by weathering of minerals may have been transported attached to clay-sized dust particles, as colloidal particles in streams, or dissolved in groundwaters.

The provenance of zircon grains in Loxton Sand was investigated by Paine (2004). Paine concluded that the various age populations of zircons in the sediment could mostly be derived from rocks forming the Dundas Plateau, suggesting this was an important source terrain for Pliocene sediments in the southwestern Murray Basin.

No information was provided or discovered during this review on the REE content of potential source rocks on the Dundas Plateau or any studies specific to REE dispersion in sediment or groundwater from the Dundas Plateau. The pattern of groundwater flow in the district is influenced by topography over the Padthaway High. Flows on the eastern flank of the Padthaway High are to the north towards the Murray River. The Murray Group limestone and overlying Loxton Sand are important aquifers. Flows on the western flank are to the west and southwest, towards the coast. Murray Group limestone (Gambier Limestone) is an important aquifer; Loxton Sand is unsaturated.

Figure 6: Dundas Plateau - possible bedrock source area for REE south-east of Koppamurra Project area – digital elevation model colour coded for relative height above sea level (from Morand et al. 2003).

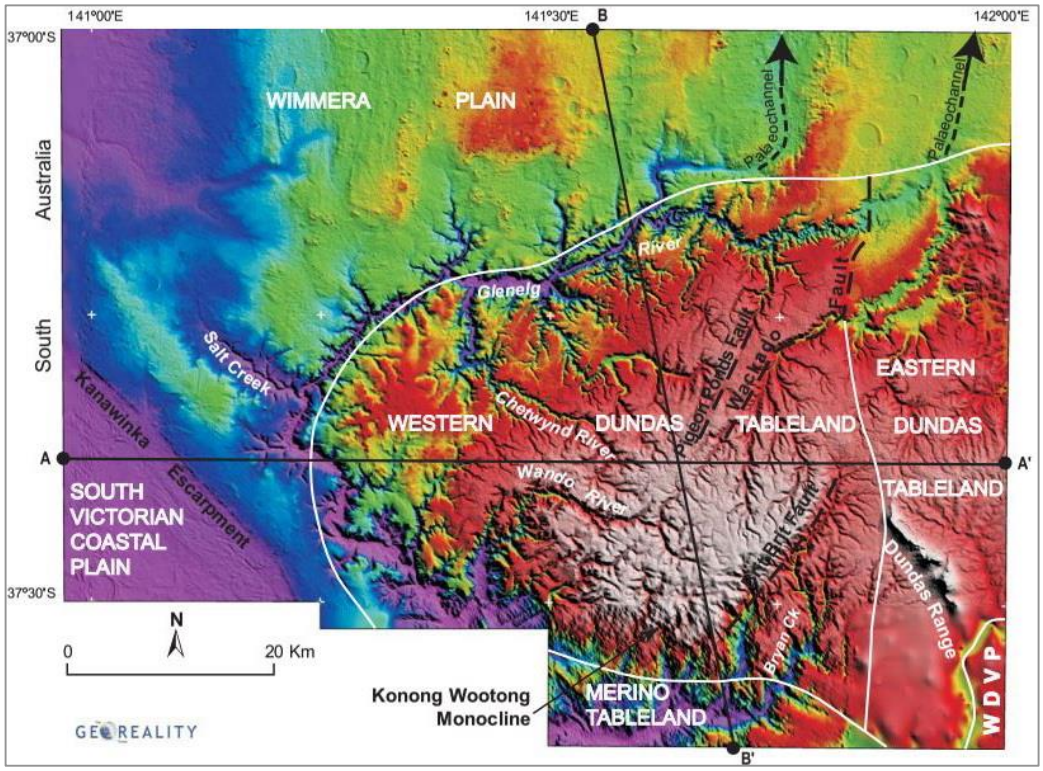
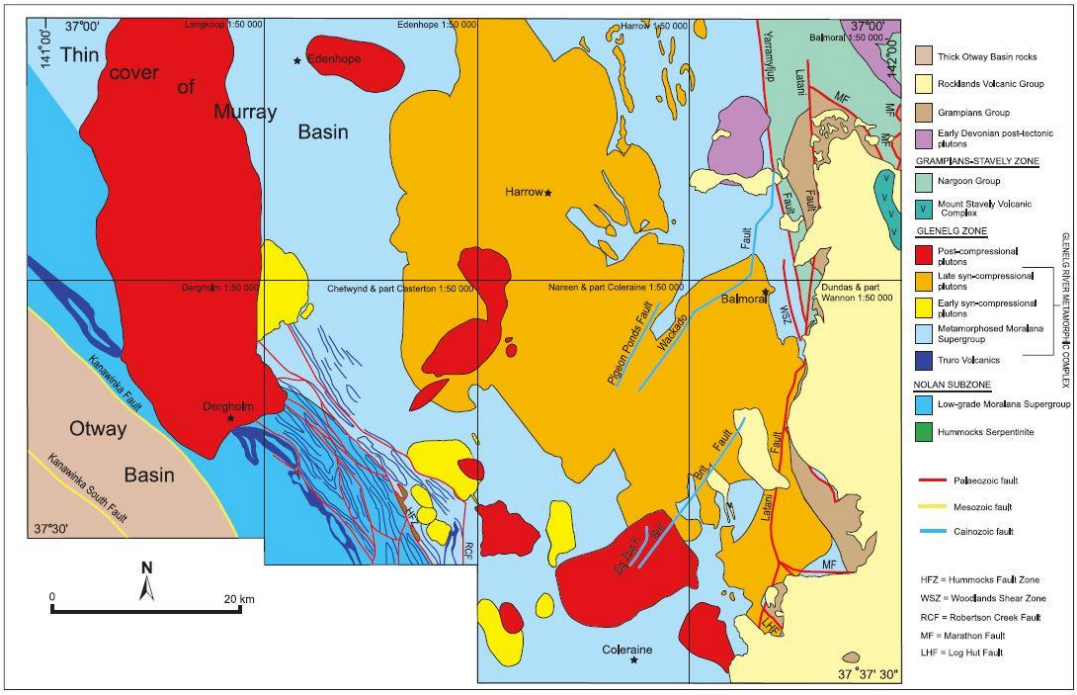


Figure 7: Basement geology showing interpreted distribution of rock types across the Dundas Plateau and beneath thin Murray Basin sediments for the area in Fig. JK5 (from Morand et al. 2003).

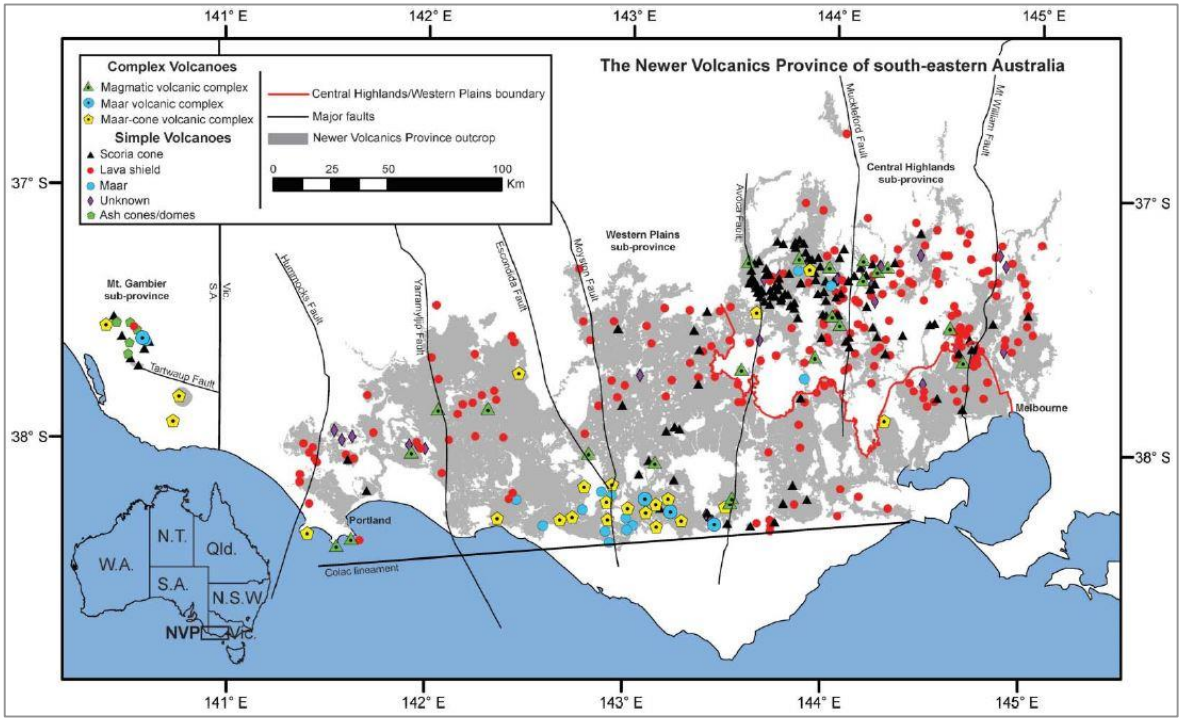


6.3 Volcanic Ashfall of the Newer Volcanic Province

The Newer Volcanic Province extends for over 400 km from Melbourne in Victoria to the Mount Burr Range, northwest of Mount Gambier (Figure 8). This is the youngest phase of volcanic activity in Australia with basaltic eruptions spanning from 4.5 Ma to c. 5000 years before present, incorporating basalt lava flows and >700 eruption points extending across more than 19,000 km^2 (Boyce 2013). Peak volcanic activity was between 3.0 to 1.8 million years (Gray and McDougall 2009).

While the Newer Volcanic Province is generally regarded as being composed of products of short-lived basaltic volcanoes, more complex volcanic activity is evident, particularly from volcanic centres in the Western Plains in Victoria and the South East of South Australia. At these localities, ascending lava interacted with groundwater in highly porous sediments to create explosive phreatomagmatic eruptions and maar volcanic complexes. Evidence of strombolian volcanic activity with volcanic ash ejected several kilometres into the atmosphere is recorded for Mount Gambier (van Otterloo et al. 2013). While coarse volcanic deposits tend to settle out within a few kilometres of the vent, fine volcanic ash can be entrained by prevailing winds and carried for tens of kilometres before settling out. Similar eruptions were likely from centres in the Mount Burr volcanic cluster (Sheard 1990), and elsewhere in the western region of the Newer Volcanic Province.

Figure 8: Distribution of volcanic centres in the Newer Volcanics Province, showing major faults and extent of Newer Volcanics outcrop (from Boyce 2013).



If volcanic ashfall deposits were the source of REE in the Koppamurra Project area, then these would need to have been dispersed at least 40-50 km from the source of volcanic eruption. This is plausible, but a question remains as to whether the volume of ash would have been sufficient to generate the observed concentration of REE.

The most westerly volcanic cluster in South Australia occurs along the Mount Burr range in the Mount Gambier volcanic sub-province. These commenced approximately 1 million years ago and are a potential source of fine ash dispersed by southwesterly winds. Volcanoes in the Mount Burr area are much older than volcanic centres at Mount Gambier and Mount Schank, which erupted ~5000 years before present.

In the early stages of the Mount Burr eruptions, these would have formed offshore islands. The sea would have extended to the Kanawinka Fault, just west of the project area.

According to Holt et al. (2014), the alkali basaltic magmas of the Mount Burr cluster include primitive olivine nephelinites that contain very high Mg, Ni and Cr and REE contents. The magma melts originated in the lithospheric mantle and were rapidly emplaced resulting in low levels of fractional crystallisation. Under these conditions, REE were not readily incorporated into mineral phases and were more likely to be a component of the glassy phase at the point of eruption. Volcanic glass makes up the bulk of fine ash. Fine glassy volcanic ash would readily be altered to clay minerals in lagoonal or marine environments along with the release of any REE component of the glass. This would provide an REE source that was not associated with resistant minerals containing thorium or uranium and might offer an explanation for the style of REE mineralisation observed in the Koppamurra Project area.

The timings of eruption from the Mount Burr cluster and from Mount Gambier, however, appear to be too recent to have played a role as a significant source of REE at Koppamurra. This does not exclude the possibility of similar style eruptions occurring elsewhere and at earlier times in the Newer Volcanic Province that might have might have contributed ashfall deposits across the Kopperamana area.

7 Previous Work

7.1 Previous Exploration Activities by Other Company's

Exploration activities by other exploration companies in the area have not previously targeted or identified REE mineralisation. Historical exploration on tenements that intersect the project area include investigations for the following:

- Coal in Paleogene and older sediments in the northern extent of the Otway Basin.
- Heavy mineral sands in probable Pliocene coastal sands, east of the Kanawinka Fault and in Pleistocene strandlines and associated beach deposits preserved across the Mount Gambier-Coorong Plains, west of the Kanawinka Fault. In Victoria, the Koppamurra area has attracted a low level of exploration interest, predominantly for heavy mineral sands.
- Gold and base metal mineralisation inferred in basement rocks beneath the sedimentary cover, where airborne magnetic and ground gravity and magnetic geophysical data were used to trace inferred basic volcanic layers, possible equivalents of Mount Read Volcanics, within folded Cambrian metasediments, intruded by Delamerian-age granite.
- Sediment-hosted uranium concept, where Delamerian-age granite bodies with anomalous high uranium content (>40 ppm U), intruded along the Padthaway Ridge were considered potential source rocks. Target was carbonaceous sediments in the Murray and Ottway basins west of the Padthaway Ridge where oxidised uranium, mobilised in groundwater, may have precipitated and concentrated through interaction with organic matter in the sediment.

Exploration tenement history and minerals sought are summarised inTable 5, including source reference to public reports available through the South Australian Government Resources Information Gateway (SARIG). Information on Victorian mineral exploration was obtained from the online Earth Resources Gateway, GeoVic. Outcomes of previous investigations that intersected the area covered by the Koppamurra project are as follows:

- Lignitic coal beds intersected in Paleogene sediments were mostly thin (<1 m thick) and not of economic significance. Thicker and more extensive lignite deposits were located further west in the Kingston region in South Australia where development ultimately was not progressed due to modelled environmental impacts of dewatering and limitations imposed by the low rank of the coal.
- Heavy minerals were present in sandy sediments interpreted as paleocoastal strandlines but analyses of widely spaced drill hole samples returned grades less than 0.5% HM from Pliocene and Pleistocene deposits in South Australia. Pliocene strandlines in Victoria, close to the South Australian border are mostly poorly developed with thin and discontinuous heavy mineral layers, where present. An RC-aircore drill program completed by Iluka in 2004-05 comprised 42 holes totalling 817 m on 6 widely spaced traverses. Drilling mostly intersected thin silt and clay (4-6 m thick) over carbonate sand and limestone. Only one traverse encountered foreshore sands containing heavy minerals, visually estimated at <1% HM over 6 m from 7.5 m depth (EL 4600) (summary in Olshina and van Kann 2012).
- Geophysical evidence for basic volcanic units within interpreted Cambrian metasediments basement rocks below moderate thickness (>100 m) of sedimentary cover in the Koppamurra area is convincing. Drill testing of possible targets for base metal mineralisation has not been supported, to date. The work extends earlier unsuccessful attempts by North Broken Hill Ltd to use low-level detection of mercury in geochemical analysis of soils to generate targets for possible VHMS mineralisation in buried Cambrian basement in this district.
- The concept of uranium mineralisation in sediments was tested with qualitative scintillator analyses of stored samples from previous drilling in the area. Results were not sufficiently encouraging to proceed with field testing.

Table 5: Historical Exploration Mineral Tenements intersecting the Koppamurra project area

Tenement	Licence Holder	Location	Commenced	Relinquished	Area km²	Target Minerals	Reference
SML 198	North Broken Hill Ltd	Southern Murray Basin	17/06/1968	31/03/1970	23100	VHMS Base Metals	Env 01048
SML 287	North Broken Hill Ltd	Bordertown	01/04/1969	31/03/1970	2460	VHMS Base Metals	Env 01151
SML 288	North Broken Hill Ltd	Bordertown-Naracoorte	01/04/1969	31/03/1970	2138	VHMS Base Metals	Env 01153
SML 459	North Broken Hill Ltd	Coonawarra	27/08/1970	26/08/1971	1515	VHMS Base Metals	Env 01488
EL 0169	Jennings Mining Ltd	Tailem Bend-Mt. Gambier	20/01/1975	19/07/1975	12717	Heavy Mineral Sands	Env 02518
EL 0426	BHP Billiton (formerly WMC)	Kingston S.E.	03/11/1978	02/11/1980	2389	Lignite	Env 03383
EL 0518	BHP Billiton (formerly WMC)	Kingston S.E.	21/08/1979	20/08/1981	1462	Lignite	Env 04795
EL 0706	BHP Billiton (formerly WMC)	Penola	27/08/1980	26/08/1982	1489	Lignite	Env 04795
EL 0791	BHP Billiton (formerly WMC)	Kingston S.E.	12/02/1981	15/12/1982	2389	Lignite	Env 04795
EL 0839	Theiss Bros Pty Ltd	Bordertown	13/04/1981	12/04/1982	2154	Lignite	Env 04265
EL 0907	BHP Billiton (formerly WMC)	Kingston S.E.	19/10/1981	18/10/1982	1462	Lignite	Env 04795
EL 1309	CRA Exploration Pty Ltd	Kiama	15/11/1985	06/11/1986	1033	Heavy Mineral Sands	Env 06509
EL 1555	Demis Pty Ltd	Woorloo Hill	09/01/1989	08/07/1989	1428	Heavy Mineral Sands	Env 08137
EL 2104	Rosscraft Minerals Pty Ltd	Koppamurra	29/08/1995	28/02/1999	157	VHMS Base Metals	Env 09105
EL 2243	Rosscraft Minerals Pty Ltd	Naracoorte South	10/12/1996	09/12/1997	366	VHMS Base Metals	Env 09283
EL 2537	Yardarino Ltd	Naracoorte North	18/08/1998	29/06/1999	1531	Heavy Mineral Sands	Env 09656
EL 2538	Strand Minerals NL	Bordertown-Naracoorte	18/08/1998	17/08/1999	1041	Heavy Mineral Sands	Env 09578
EL 2576	Lynch Mining Pty Ltd	Naracoorte	04/01/1999	01/10/1999	1060	Heavy Mineral Sands	Env 09542
EL 2872	Iluka Resources Ltd	Bordertown-Naracoorte	30/11/2001	15/12/2003	460	Heavy Mineral Sands	Env 09979, 09941
EL 2950	Falcon Minerals Ltd	Naracoorte South	21/05/2002	20/05/2004	55	Gold, VHMS Base Metals	Env 09934
EL 4042	South East Energy Ltd	Naracoorte North	30/01/2008	29/01/2013	245	Uranium, Heavy Mineral Sands	Env 11984, 11854
EL 4838	South East Energy Ltd	Naracoorte Northwest	15/02/2012	31/07/2013	154	Heavy Mineral Sands	Env 11854
EL 685	WMC Resources Ltd	West Wimmera	27/06/1978	25/08/1982	758	Coal	GeoVic
EL 783	CRA Exploration Pty Ltd	West Wimmera	20/12/1979	07/07/1982	698	Heavy Mineral Sands	No data
EL 785	CRA Exploration Pty Ltd	West Wimmera	29/05/1986	30/07/1988	255	Heavy Mineral Sands	GeoVic
EL 1562	CRA Exploration Pty Ltd	West Wimmera	28/06/1985	30/07/1989	477	Heavy Mineral Sands	GeoVic

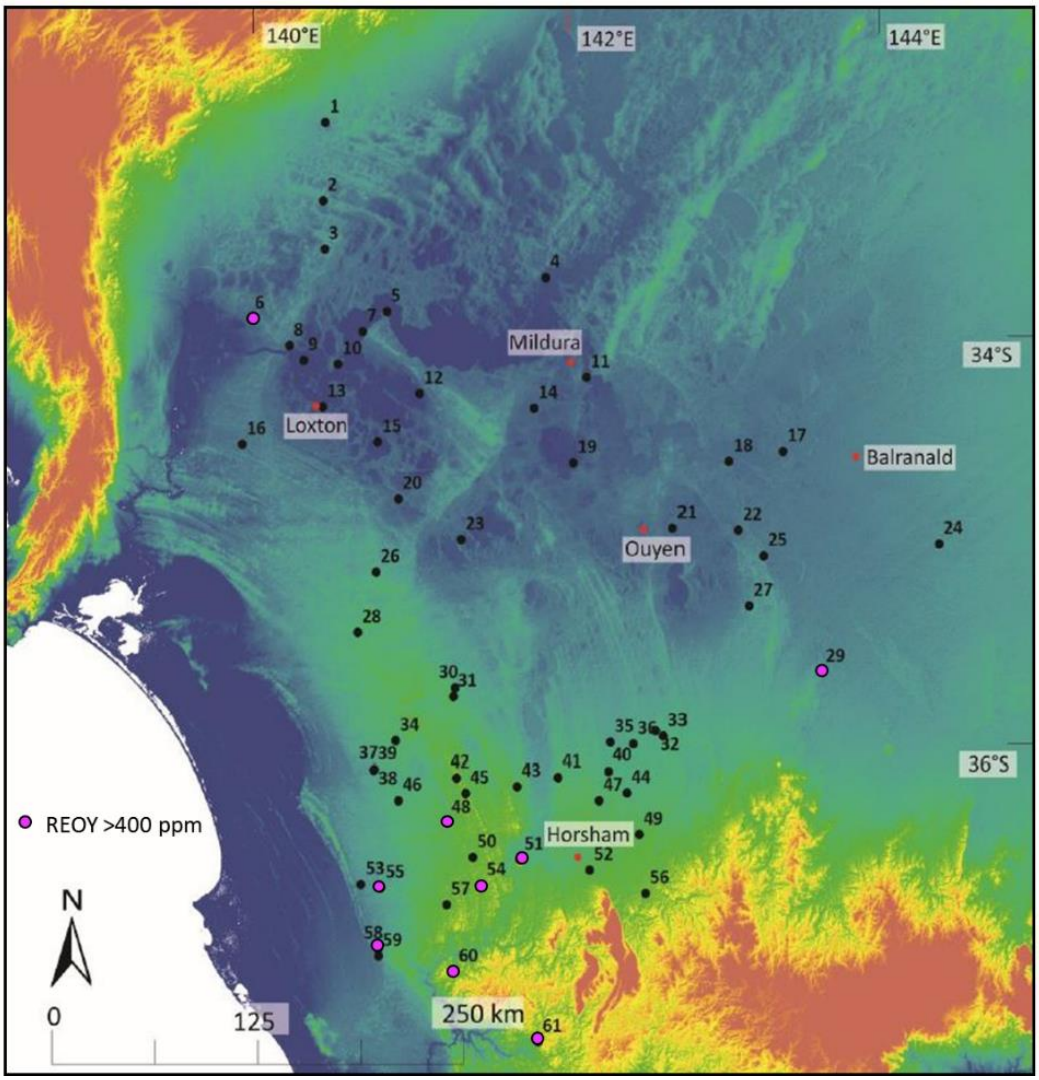
Tenement	Licence Holder	Location	Commenced	Relinquished	Area km²	Target Minerals	Reference
EL 1563	CRA Exploration Pty Ltd	West Wimmera	01/07/1985	30/07/1989	494	Heavy Mineral Sands	GeoVic
EL 1564	CRA Exploration Pty Ltd	West Wimmera	01/07/1985	30/07/1989	456	Heavy Mineral Sands	GeoVic
EL 1565	CRA Exploration Pty Ltd	West Wimmera	28/06/1985	30/07/1990	444	Heavy Mineral Sands	GeoVic
EL 1924	CRA Exploration Pty Ltd	West Wimmera	12/01/1987	07/07/1989	434	Heavy Mineral Sands	GeoVic
EL 2594	Renison Ltd	West Wimmera	09/03/1990	22/08/1992	405	Heavy Mineral Sands	GeoVic
EL 2595	Renison Ltd	West Wimmera	09/03/1990	22/08/1992	493	Heavy Mineral Sands	GeoVic
EL 2596	Renison Ltd	West Wimmera	13/03/1990	09/07/1991	318	Heavy Mineral Sands	GeoVic
EL 4301	Basin Minerals Holdings Pty Ltd	Horsham Rural	09/04/1998	26/08/2002	2442	Heavy Mineral Sands	GeoVic
EL 4600	Iluka Resources Ltd	West Wimmera	02/08/2001	31/03/2005	869	Heavy Mineral Sands	GeoVic
EL 4880	Inco Resources (Australia) Pty Ltd	West Wimmera	02/05/2005	17/01/2007	533	Nickel	GeoVic
EL 5084	Plumridge Gold Pty Ltd	West Wimmera	13/08/2007	06/11/2008	1215	Heavy Mineral Sands	GeoVic

7.2 PhD Regional Study of Loxton Sand

First indications of anomalous REE in shallow sediments in the Koppamurra Project area were from geochemical data acquired as part of a PhD project to characterise sedimentary cover of Loxton Sand across the Murray Basin (McLennan 2016). The PhD project was initiated and supported through the Deep Exploration Technologies Cooperative Research Centre (DETCRC).

The project included descriptions of lithological profiles through the Loxton Sand at 61 sites across the Murray Basin (Figure 9). Field sections and drill hole samples were examined and a total of 695 samples from 55 sites were selected for full geochemical analysis. These included duplicate field samples and samples above and below the interpreted interval of Loxton Sand.

Figure 9: Digital elevation model of portion of the Murray Basin showing distribution of sample sites (numbered) for Loxton Sand and associated lithologies analysed by McLennan (2016). Sites highlighted in purple returned samples with anomalous high REE values (>400 ppm TREO+Y).



Samples were submitted for analysis without any pre-treatment. A minimum 15 g sample size was used, and sample analyses were done by ACME Laboratories, Vancouver, Canada, a Division of Bureau Veritas Laboratories. At the laboratory, the samples were air-dried, crushed, and sieved to minus 200 mesh (180 micron). Major oxides were determined by XRF on lithium borate fused samples. Rare earth and refractory elements were analysed using ICP-MS on acid digested lithium borate fused samples. Detection limit for individual rare earth elements by this method was 0.5 ppm or lower; upper limit was mostly 10,000 ppm or higher. Protocols were followed for duplicate samples, replicate analyses, and certified standard reference materials (McLennan et al. 2017).

Sites where samples returned >400 ppm Total Rare Earth Oxides plus yttrium oxide (TREO+Y) are summarised in Table 6 and the locations are highlighted in Figure 9.

Table 6: Summary of samples with high REE (reported as total oxides TREO+Y) extracted from regional geochemistry of Loxton Sand and associated units (compiled from McLennan (2016)). [Median value of samples in the full data set is TREO+Y = 46 ppm.]

Sample ID	Site	Sample	Depth (m)	Unit/lithology	TREO+Y (ppm)
KI10_03	58	RC86KI-10 - drill cuttings	2-3	Bookpurnong Fm? – green clay	1858
HOR771	48	Horsham-7 - drill core	68.84	Loxton Sand - fine sand	1214
KI1_13	55	RC86KI-1 - drill cuttings	12-13	Loxton Sand? Yellow brown clay	1170
KI10_04	58	RC86KI-10 -drill cuttings	3-4	Bookpurnong Fm? green-grey clay	1153
HOR774	48	Horsham-7 - drill core	73.01	Loxton Sand - fine sand	1054
HOR770	48	Horsham-7 - drill core	67.96	Loxton Sand - fine sand	999
GRQ07	29	Gredgwin Ridge - quarry section	3	Loxton Sand - medium sand	972
CW01	60	Chetwynd – road cutting	13	Bacchus Marsh Fm Permian - clayey medium sand	919
GRQ09	29	Gredgwin Ridge - quarry section	1	Loxton Sand– very fine sand	870
HOR554	54	Horsham-5 - drill core	67	Bookpurnong Fm - clay	803
FT15	6	M-12 - drill cuttings	36	Bookpurnong Fm - clay	685
HOR780	48	Horsham-7 - drill core	79.2	Loxton Sand - clay, fine sand	590
HOR553	54	Horsham-5 - drill core	66	Bookpurnong Fm - clay	572
HOR773	48	Horsham-7 - drill core	71	Loxton Sand - fine sand	564
CW02	60	Chetwynd - road cutting	12	Bacchus Marsh Fm Permian - mottled fine sand	500
MR01	51	Mitre Rock – outcrop section	0.5	Devonian quartzite - sandy clay	446
HOR781	48	Horsham-7 - drill core	82.4	Bookpurnong Fm - clay and fine sand	434
WA09	61	Wannon - quarry section	11.5	Nigretta Ignimbrite	424

8 Australian Rare Earths Exploration Activity

8.1 PhD Study Geochemical Data Review

The geochemical data from the PhD study was reviewed and all samples with high TREO+Y were identified (Table 6). Observations Despite the distribution of a relatively small number of samples with high anomalous TREO+Y values (18 samples from 11 sites) in a very targeted (mostly Loxton Sand) but large data set (695 samples from 55 sites), the following observations were made:

- In the southern margin of the Murray Basin, high REE values were widely dispersed. These included surficial regolith developed on various rock types on the Dundas Plateau including Permian fluvioglacial sand of Bacchus Marsh Formation and Nigretta Ignimbrite of Early Devonian Rocklands Volcanic Group, and Devonian quartzite on the Wimmera Plains at Mitre Rock.
- In the subsurface, high REE values were concentrated in Bookpurnong Formation clay and fine-grained clayey sand near the base of Loxton Sand in drill holes west of Horsham (sites 48, 54), and in upper Loxton Sand further east at Gredgwin Ridge quarry (site 29). These sites are in addition to the high values recorded for samples from drill holes RC86KI-1 and RC86KI-10 in the Koppamurra Project area.
- Four samples of fine-grained Loxton Sand at depth in the Horsham drill holes also recorded elevated Zr and Th contents, as did the two samples from Gredgwin Ridge (range for 6 samples: Zr 1967-5074 ppm; Th 37-67 ppm). The REE content in these sediments might therefore reflect WIM-type HM concentration. Sample HOR781 in Bookpurnong clay in drill hole Horsham 7, recorded TREO+Y 434 ppm with low Zr 212 ppm and Th 19 ppm, indicating a non-HM source of the REE.

8.2 Resampling of Historical Drillholes 2020

Lithological logs from shallow drilling for heavy mineral sands across the Koppamurra Project area were used by Australian Rare Earths to identify clayey intervals. Australian Rare Earths inspected historic exploration drill samples stored at the State Government, South Australian Drill Core Reference Library at Tonsley, Adelaide and selected intervals were subsampled for REE analysis and preliminary characterisation of REE.

A total of 30 intervals from 14 holes were selected for resampling as well as three (3) duplicate samples (RC86_KI006 2 to 3m, RC86_KI006 3 to 4m, and RC86KI010 (2 to 3 m)) (Table 7). Sample intervals were selected of 1 and 2 m intervals of clay or silty clay (equated with Parilla Sand) directly overlying the Gambier Limestone. Samples were submitted to Bureau Veritas Mineral Laboratories in Adelaide for geochemical analysis by acid digest and ICP-MS and/ or to Australian Nuclear Science and Technology Organisation (ANSTO) in New South Wales using mixed acid/ammonium fluoride digest and ICP-MS to achieve improved detection limits for some REE (typically <2.5 ppm) (see Chapter 9 for detail on the ANSTO metallurgical testwork).

Results of the resampling program recorded grades of up to 1,904ppm TREO and 1,215 ppm TREO-Ce (Table 7 and Figure 10) and confirmed the high REE results identified from the PhD study of the Loxton-Parilla sands (see section 7.2 for further details on the PhD study).

TREO grades of all samples ranged from 92 ppm to 1,904 and averaged 629 ppm TREO with 50% of the samples > 500ppm TREO. TREO-Ce grades of all samples ranged from 62 ppm to 1,215 and averaged 402 ppm TREO. The proportion of HREO was on average 31%, but up to 48% in sample 2974445, and the proportion of NdPr was on average 20%, but ranged up to 28% in sample 2979558.

Table 7: Historical assay results (sourced from SARIG) and results from historical samples and the resampling of historical core (samples with TREO >500 ppm highlighted in orange). NOTE: results <LOR have been set to half the LOR when calculating TREO, TREO-Ce, CREO, and HREO values.

BHID	Sample ID	From (m)	To (m)	Width (m)	Analysis By	TREO (ppm)	TREO-Ce (ppm)	CREO (ppm)	HREO (ppm)	% NdPr
77833	TA0022a	17	19.5	2.5	BV	1501	1168	705	660	19%
82778	TA0006	5	8	3	BV	325	169	93	85	14%
105671	TA0011	1.8	2.7	0.9	BV	125	84	45	42	16%
RB_02	3036491	6.1	9.1	3	BV	723	405	213	166	19%
RC86_KI001	2019682	11	12	1	Historical	248	101	45	39	10%
RC86_KI001	2019683	12	13	1	Historical	1170	901	417	253	29%
RC86_KI003	3036497	6	7	1	BV	1384	775	401	305	19%
RC86_KI003	3036498	7	8	1	BV	474	304	159	122	22%
RC86_KI003	3036499	8	9	1	BV	314	216	116	98	21%
RC86_KI005	2979554	0	1	1	ANSTO	1026	696	370	270	24%
RC86_KI005	2979555	1	2	1	ANSTO	104	72	33	26	24%
RC86_KI006	2974444	1	2	1	BV	422	319	187	165	21%
RC86_KI006	2974445	2	3	1	BV	569	453	284	272	20%
RC86_KI006	2974445	2	3	1	ANSTO	523	404	256	245	20%
RC86_KI006	2974446	3	4	1	BV	802	729	396	316	26%
RC86_KI006	2974446	3	4	1	ANSTO	106	93	44	33	32%
RC86_KI006	2974447	4	5	1	BV	273	240	142	122	24%
RC86_KI007	3036504	5	6	1	BV	167	113	61	55	19%
RC86_KI008	2974460	14	15	1	ANSTO	526	305	179	172	17%
RC86_KI008	2974461	15	16	1	ANSTO	751	542	292	223	24%
RC86_KI009	2974462	4	5	1	BV	157	118	64	60	21%
RC86_KI009	2974463	5	6	1	BV	131	92	48	45	18%
RC86_KI009	2974464	6	7	1	BV	142	104	56	51	21%
RC86_KI009	2974465	7	8	1	BV	902	398	226	225	12%
RC86_KI009	2974466	8	9	1	BV	191	123	68	64	18%
RC86_KI010	2019685	1	2	1	Historical	367	242	142	128	19%
RC86_KI010	2019686	2	3	1	Historical	1857	1020	525	356	20%

BHID	Sample ID	From (m)	To (m)	Width (m)	Analysis By	TREO (ppm)	TREO-Ce (ppm)	CREO (ppm)	HREO (ppm)	% NdPr
RC86_KI010	2979557	2	3	1	ANSTO	1904	1215	637	442	23%
RC86_KI010	2019687	3	4	1	Historical	1153	920	478	323	29%
RC86_KI010	2979558	3	4	1	ANSTO	1267	937	500	340	28%
RC86_KI014	2979560	1	2	1	ANSTO	514	390	240	217	20%
RC86_KI014	2979561	2	3	1	ANSTO	1709	690	324	222	13%
RC86_KI015	2979571	6	7	1	ANSTO	1116	578	315	232	19%
RC86_KI015	2979572	7	8	1	ANSTO	543	305	155	111	21%
RC86_KI018	3036492	2	3	1	BV	99	64	33	30	17%
RC86_KI018	3036493	3	4	1	BV	92	62	32	29	17%

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$

LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$

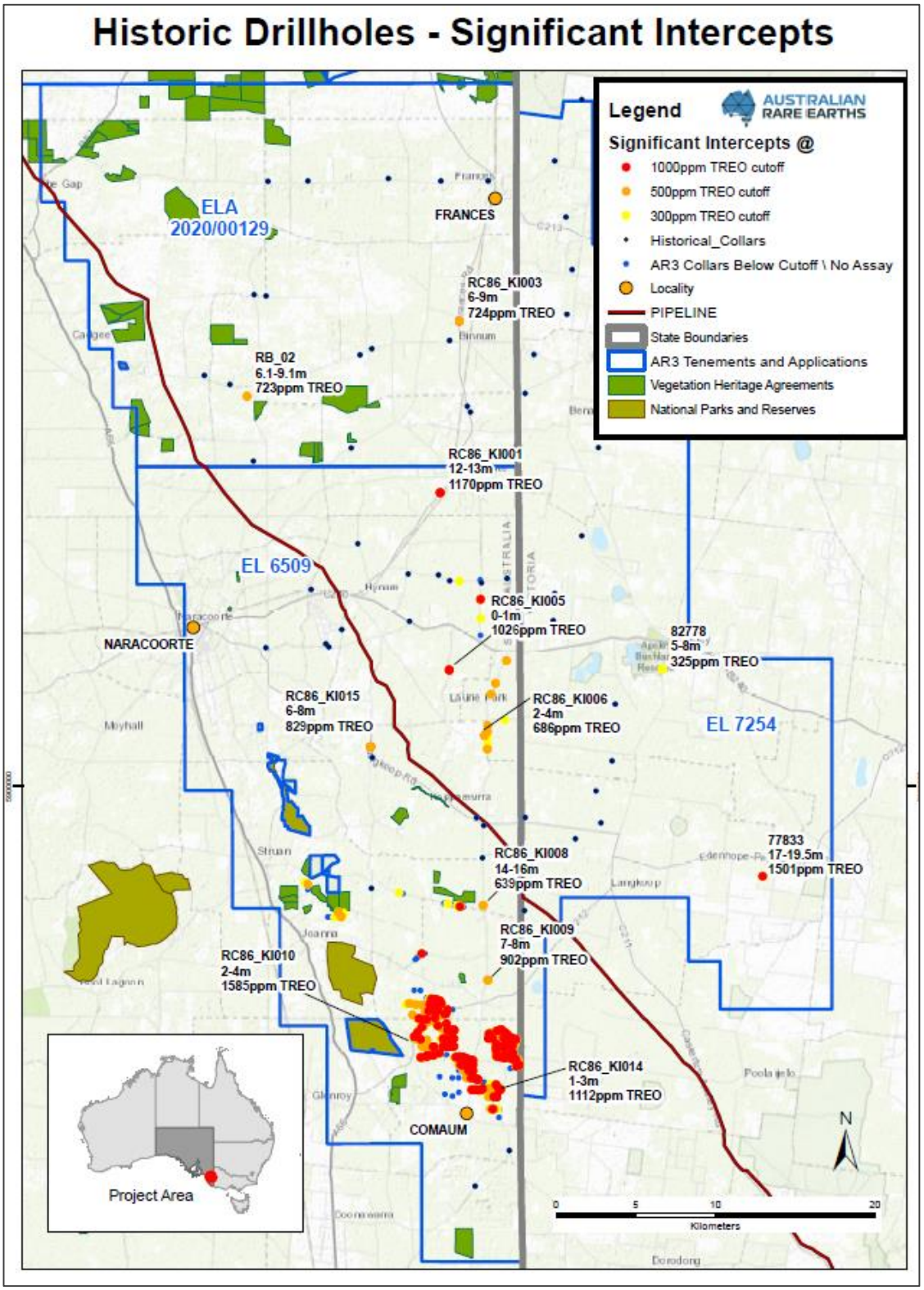
HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

NdPr = $Nd_2O_3 + Pr_6O_{11}$

TREO-Ce = TREO - CeO_2

% NdPr = NdPr/ TREO

Figure 10: Overview of the Koppamurra project area showing the location of historical drillhole TREO intercepts and resampled intervals in relation to recent drilling (which is discussed in subsequent sections of this report)



8.3 Mineralogy Test Work 2020

To understand the mineralogy of the host clay and associated REE mineralisation at Koppamurra, Australian Rare Earths collected a clay sample from historical drillhole RC86KI-09 (7-8 m) for mineralogical assessment by CSIRO Mineralogical Services at the Waite Campus Laboratory, Adelaide. The sample, (which had a TRE grade of 876 ppm, was submitted to CSIRO for bulk and clay mineralogy by X-ray diffraction (XRD) analysis and element analysis by X-ray fluorescence (XRF) spectroscopy (CSIRO 2020a). This was followed by Scanning electron microscopy (SEM) investigation of the 0.2 µm to 2 µm sample fraction to determine the presence and composition of any mineral or amorphous phases with high content of rare earth elements, in addition to presumed rare earth elements adsorbed onto clay or iron oxide mineral surfaces (CSIRO 2020b).

Results of these mineralogy studies are summarised below:

- The sample was composed of major smectite, kaolin and goethite with minor quartz, anatase and orthoclase.
- Particle size data shows the sample is mostly represented in the fine clay fraction (i.e. <0.2µm).
- Smectite and kaolin dominate the mineralogy of the <0.2µm fraction with minor goethite and trace quartz and anatase.
- The <0.2µm fraction, which represented 65.3% of the sample, contained 45% smectite, 42% kaolin & 12% goethite.
- The 0.2 – 2µm fraction, which represented 12.1% of the sample, contained 5% smectite, 56% kaolin & 18% goethite.
- The >0.2µm fraction, which represented 18.8% of the sample, contained dominant quartz (88%), with minor anatase, illite and/or mica, goethite and orthoclase.
- Cerium is the dominant rare earth element in the bulk and finer size fractions followed by lanthanum, neodymium and samarium and minor amounts of praseodymium, ytterbium and hafnium.
- Semi quantitative XRF analysis of the size fractions showed that the 02-2µm size fraction has the highest concentration of rare earth elements (i.e., La+Ce+Pr+Nd+Sm+Yb+Hf = 1263ppm).
- XRD analysis showed no evidence of rare earth bearing mineral phases.
- The fine grain size and mineral chemistry of particles containing high REE in the sample are consistent with secondary REE minerals formed as the result of soil/ regolith processes.
- Thorium is not present in concentrations detectable by EDX
- Cerium is effectively decoupled from La in the cerium-rich particles (possibly as cerianite-(Ce) (CeO_2))
- Cerium together with La, Nd, and minor Sm are present in rare particles of phosphate (probably monazite-(Ce) and ((Ce,La,Nd) PO_4).
- Minor to trace levels of Nd are present in rare zircon.
- Other REEs are below detection in the mineral phases probed.
- The REE minerals are intimately associated with fine-grained iron (hydr)oxides and are accompanied by both kaolinite and smectite.
- Detail of the interrelationship of the mineral phases is unclear due to the level of sample pre-processing in the attempt to concentrate the REE component.
- The fine particle size and absence of thorium suggest these REE minerals are secondary in origin and were formed with the clay at the time of deposition or during subsequent weathering.
- The results 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 surfaces.

The mineralogical study outlined the following possible scenarios regarding the source and transport of REE to the site of deposition (CSIRO 2020b):

- Fluvial transport in solution or suspension with deposition in coastal estuarine and back barrier lagoon environments as precipitates or colloidal flocs initiated by increase in salinity or alkalinity, or through evaporation. While evidence of substantial drainage to the Kanawinka coastline in this location is not obvious in the present-day landscape, the presence of coarse quartz sand and gravel, forming Pleistocene beach deposits along the Kanawinka coast at Comaum and north of Naracoorte (Keeling et al. 1985) are indicative of nearby fluvial outlets, given that offshore sources of coarse quartz sand and gravel are lacking. A fluvial network is possibly linked to historic sites of discharge from paleo-drainage defined by the Douglas depression.
- Groundwater transport in solution via the Murray Group carbonate aquifer (complexed with carbonate or organic ligands) with groundwater discharge at sites adjacent to the coast. Precipitation of REE due possibly to salinity change or interaction with reduced organic-rich coastal, lagoonal sediments.
- Glassy volcanic ash deposits emanating from explosive eruptions on the Mt Burr Peninsula, with fine-grained windblown ash deposited and/or concentrated in lagoonal depressions adjacent to the coast and inland of the Kanawinka coastline.
- Irrespective of the mode of transport, the ultimate source of the REEs is most likely basalt and associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia, extending across southern Victoria and into South Australia.

8.4 Auger Drilling 2020

Australian Rare Earths' maiden drilling program consisted of 44 of auger drillholes (KMA001 to KMA044) on 400m spacing across the wider Comaum Forest area using a Landcruiser mounted Auger Rig (Figure 11 and Figure 15). Drilling commenced in December 2020 and totalled 224.5 metres. All the holes were drilled vertically (i.e. -90°) and hole depth ranged from 1 to 12.5 metres.

The objective of the auger program was to test to depth to limestone and as a regional assessment of the prospect area. The typical profile encountered was sand/soil underlain by clay on a limestone basement. The thickness of the clay ranged from 0.5 to up to 6.5 metres, and on average was 1.4 metres thick.

All holes were geologically logged, and samples were collected at 0.5 and 1.0 metre intervals and placed into calico sample bags. Intervals were selected for sampling based on geological logging and handheld XRF results. XRF readings were collected using a handheld Olympus Delta XRF Analyser. Five (5) field duplicates were collected. No blanks or standards were inserted.

A total of 103 samples were submitted to Bureau Veritas Mineral laboratories in Perth for sample preparation and analysis.

Figure 11: Auger drilling program at Koppamurra 2020

8.5 Air Core Drilling 2020

In December 2020, Australian Rare Earths completed an aircore (AC) drilling program at Koppamurra consisting of 140 holes (KM0001 to KM0140) totalling 1,411 metres to test the depth to limestone and identify the extent of REE mineralisation. Holes were spaced nominally at 100m intervals on fencelines approximately 500 m apart and drilled to an average depth of 10 metres using a Wallis Drilling Toyota Landcruiser Mantis 81 aircore rig (Figure 12 and Figure 16).

All holes were drilled vertically (i.e. -90°) using an NQ-sized drill string (approx. 76mm OD). Each metre drilled passed from the bit-face up the inside of the innertube using compressed air, passing through the cyclone and rotary splitter mounted at the bottom of the cyclone. The rotary splitter was set to an approximate 20% split, which produced approximately 1.5kg sample for each meter interval. The 1.5kg sample was collected in a prenumbered calico bags and the remaining 80% was collected in plastic UV bags labelled with the hole number and sample interval.

All holes were geologically logged. The typical profile encountered was sand/soil underlain by clay on a limestone basement. The basement in the area consists of a fossiliferous limestone, often relatively shallow (<10m) below overlying sands/clays. The thickness of the clay ranged from 1 to up to 14 metres and averaged 3.5 metres. The depth to basement was highly variable, likely due to irregular karst topography of the underlying limestone and ranged from 3 to 25 metres (Williamson G. 2020).

Intervals were selected for sampling based on geological logging and handheld XRF readings collected using a handheld Olympus Vanda XRF Analyser. A total of 23 duplicate samples were collected within the clay zones during drilling by placing a second calico bag under the rotary splitter which collected a 20% split. However, due to the nature of the clay lithologies it was not always possible to split the sample with the rotary spitter and the duplicate had to be collected manually. No blanks or standards were inserted.

A total of 1,219 samples were submitted Bureau Veritas Mineral laboratories in Perth for sample preparation and analysis.

Figure 12: Wallis Drilling Toyota Landcruiser Mantis 81 aircore rig

8.6 Push Tube Drilling 2020

In December 2020, Australian Rare Earths completed a short Push Tube Core Drilling program consisting of 103 drillholes totalling 435.2 metres (KMC001 to KMC103) which were drilled to supplement and twin the AC drilling program. All the holes were drilled vertically (i.e. -90°). The holes had an average depth of 4.2 metres and were drilled by In-Depth Drilling Pty Ltd using Landcruiser-mounted hydraulic ram system (Figure 13 and Figure 16).

The push tube drilling method was found to produce good quality core samples with reasonably good recovery in unconsolidated sediments and highly weathered clays (Figure 14). Limitations of this method were the maximum depth (6 to 8 metres), being unable to push through hard, cemented or limestone saprock intervals, and minor downhole smearing of transported sands into the underlying clay zones.

The typical profile encountered was sand/soil underlain by clay on a limestone basement. The thickness of the clay ranged from 0.4 to up to 4.9 metres and averaged 1.3 metres. All holes were geologically logged and photographed. XRF readings were collected using a handheld Olympus Vanda XRF Analyser.

Intervals were selected for sampling based on geological logging and handheld XRF results. No field duplicates were collected, and no blanks or standards were inserted. A total of 156 samples were submitted Bureau Veritas Mineral laboratories in Perth for sample preparation and analysis.

Figure 13: Push tube drilling December 2020 at Koppamurra

Figure 14: KMC025 and KMC026

8.7 Regional Auger Drilling 2020/2021

Tawel completed a regional auger drilling program consisting of 25 drillholes (KMA045 to KMA069) on spacings ranging from 200m up to 1200m across EL6509 using a Landcruiser mounted Auger Rig (Figure 11). The majority of the holes were drilled in the north east portion of EL6509 (Figure 15). Drilling was completed in two (2) phases, the first in December 2020, and the second in January 2021 and totalled 110.9 metres. All the holes were drilled vertically (i.e. -90°) and drill depth ranged from 1.5 to 10.0 metres.

The objective of the auger program was to undertake a regional assessment of the prospect area. The typical profile encountered was sand/soil underlain by clay on a limestone basement. The thickness of the clay ranged from 0.5 to up to 1.5 metres and averaged 0.75 metres.

All holes were geologically logged, and intervals were selected for sampling based on geological logging and handheld XRF results. A total of 108 samples were submitted to Bureau Veritas Mineral laboratories in Perth for sample preparation and analysis. No field duplicates were collected, and no blanks or standards were inserted.

8.8 Air Core Drilling 2021

In late January to early February, Australian Rare Earths completed a second phase AC drilling program at Koppamurra consisting of 158 holes (KM0141 to KM0298) totalling 1,724 m. The holes had an average depth of 10.9 m and were drilled by Wallis Drilling using a Toyota Landcruiser Mantis 81 aircore rig (Figure 12, Figure 15, and Figure 16).

All holes were drilled vertically using an NQ-sized drill string (approx. 76mm OD). Each metre drilled passed from the bit-face up the inside of the innertube using compressed air, passing through the cyclone and rotary splitter mounted at the bottom of the cyclone. The rotary splitter was set to an approximate 20% split, which produced approximately 1.5kg sample for each meter interval. The 1.5kg sample was collected in a prenumbered calico bags and the remaining 80% was collected in plastic UV bags labelled with the hole number and sample interval.

The typical profile encountered was sand/soil underlain by clay on a limestone basement. The thickness of the clay ranged from 1 to up to 8 m and averaged 1.7 metres. All holes were geologically logged, and intervals were selected for sampling based on geological logging and handheld XRF results collected using a handheld Olympus Vanda XRF Analyser

Several aircore (drillhole prefix KM), auger (drillhole prefix KMA) and push tube core (drillhole prefix KMC) sites were selected to be twinned as part of this program. In total 11 drillholes were twinned (KM0232 – KM0242). In total, 18 field duplicate samples were collected within the clay zones during drilling by placing a second calico bag under the rotary splitter, which collected a 20% split. However, due to the difficulty collecting the sample with the rotary spitter, the duplicates were collected manually. No blanks or standards were inserted.

A total of 1,139 samples have been prepared sent to Bureau Veritas Mineral laboratories in Perth for analysis.

Figure 15: Overview of all Australian Rare Earths and historical drillholes

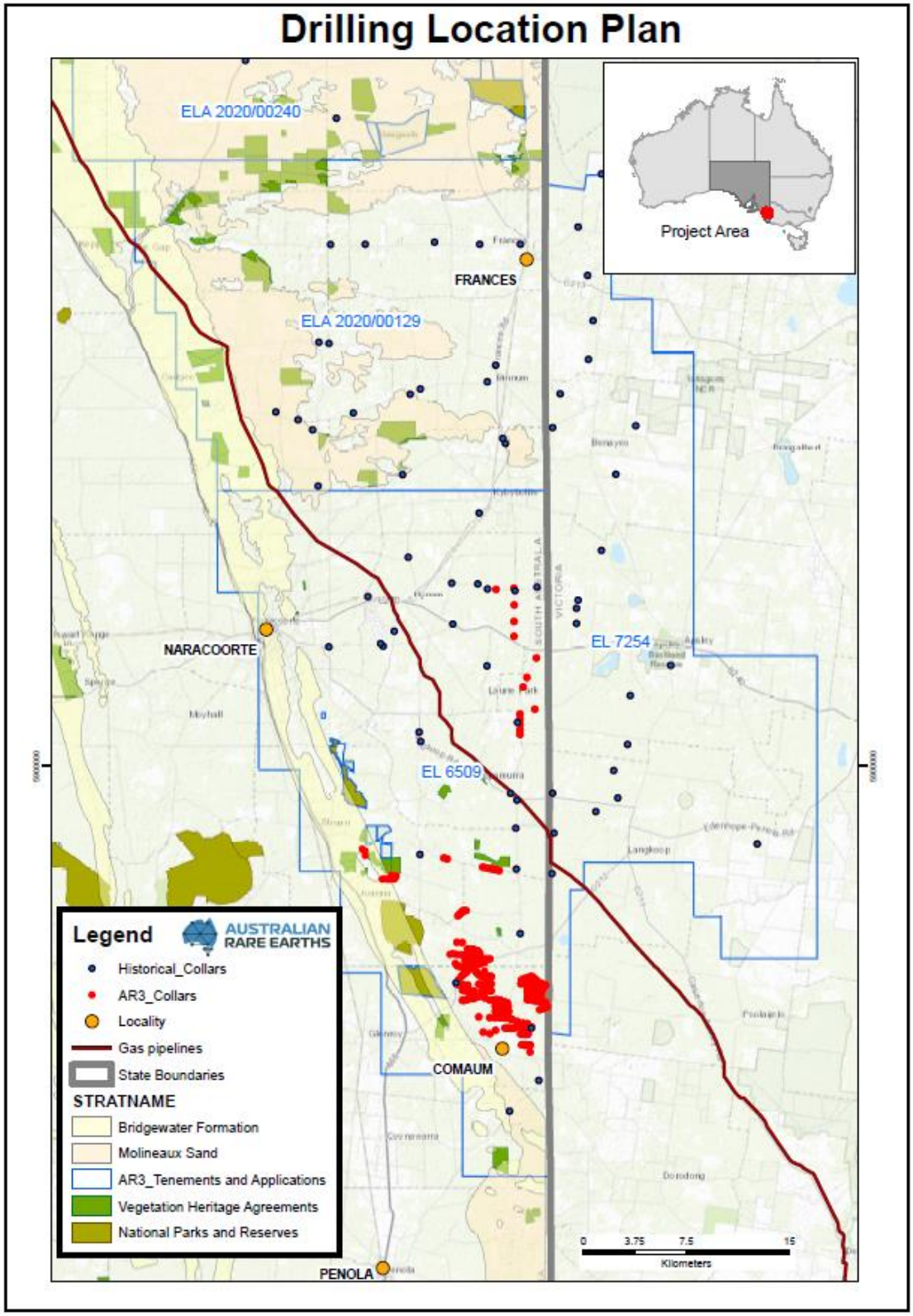
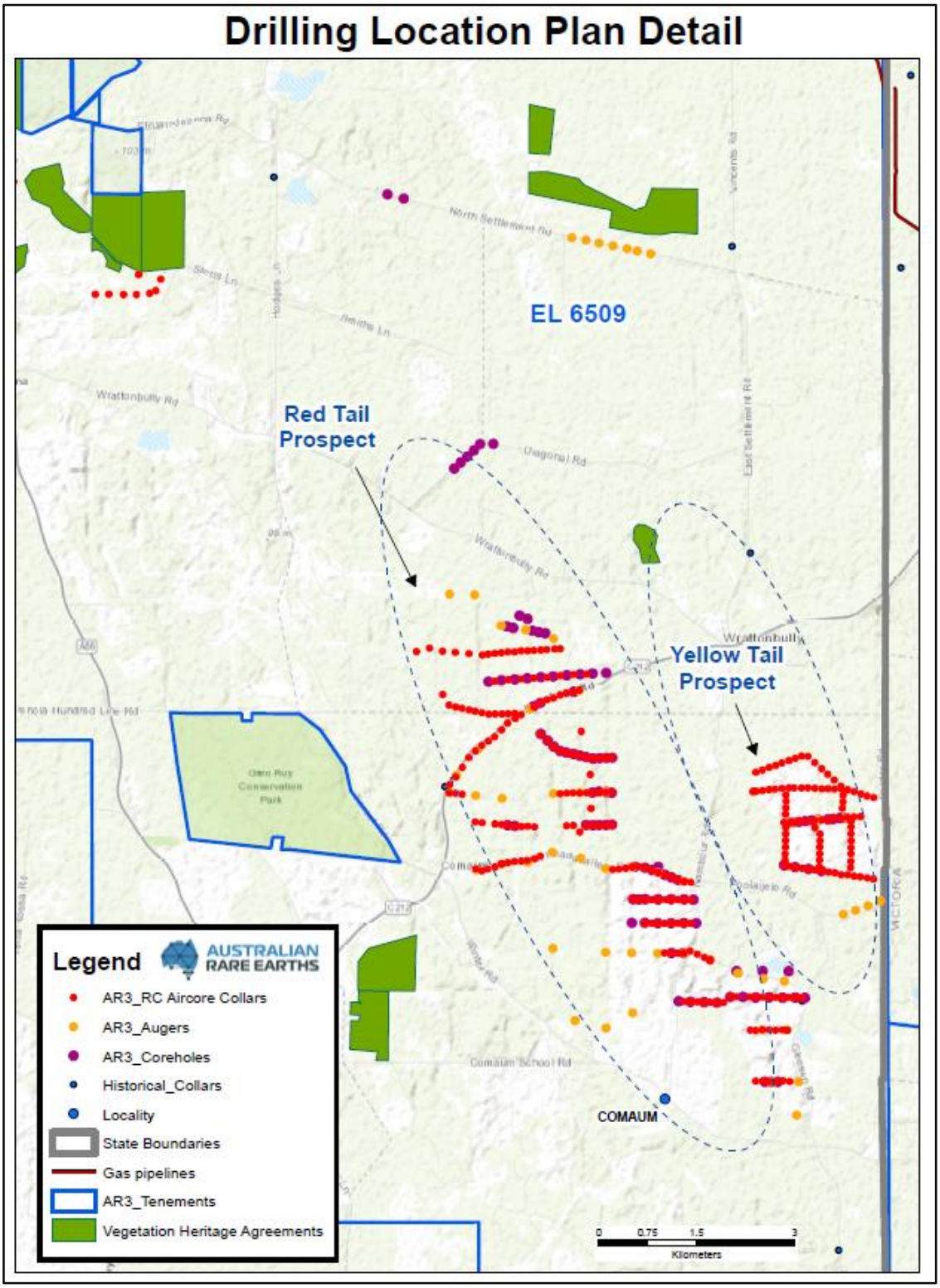


Figure 16: Overview of all drilling to date within EL6509 coloured by hole type and showing the two prospect areas (Red Tail and Yellow Tail)



8.9 Ground Geophysical Survey 2021

In January 2021, GBG Australia (GBG) was commissioned by Australian Rare Earths to undertake a Ground Penetrating Radar (GPR) investigation to determine the layer thicknesses and bedrock depth to assist in identifying further prospective areas within EL6509. The GPR data acquisition was achieved using a Mala GX 80 MHz antenna coupled to a Mala GX Controller and Monitor.

Results of the survey showed a poor correlation between the borehole data and the GPR profiles collected. There appears to be a reasonable correlation for Layer 1 (sands). However, Layers 2 (clay) and 3 (limestone) whilst sometimes well defined, do not show correlation with the existing boreholes. It is likely that the layers were difficult to detect due to the poor material differentiation possibly from graduation of materials with depth, material intermixing and variability of clay and sand content.

8.10 Ground electromagnetic Survey 2021

In January 2021, Zonge Engineering and Research Organization was commissioned by Australian Rare Earths to undertake a time domain electromagnetic (EM) survey trial within EL6509.

The results of this survey are pending.

8.11 Mineralogy Test Work 2021

In Q1, 2021, Australian Rare Earths sent two (2) samples to ANSTO for mineralogical characterisation using QEMSCAN, an automated mineralogical analysis technique, and manual scanning electron microscopy (SEM). The samples included a lower-grade sample containing limestone (KMO-241/5), and a higher-grade sample (KMC-042). The samples had been crushed to a particle size of < 1mm.

Crushed portions of each sample were used for examination by SEM and QEMSCAN, and a representative portion of each crushed sample was mixed with similarly sized particles of graphite to ensure good separation of the particles for examination using QEMSCAN (ANSTO 2021b). The sample/graphite blends were impregnated with epoxy resin to form a resin block with a polished surface for examination by SEM/QEMSCAN, and the polished surface of each resin block was coated with a thin layer of carbon (a few nanometres thick), prior to analysis, to maintain electrical conductivity during examination (ANSTO 2021b).

8.11.1 QEMSCAN

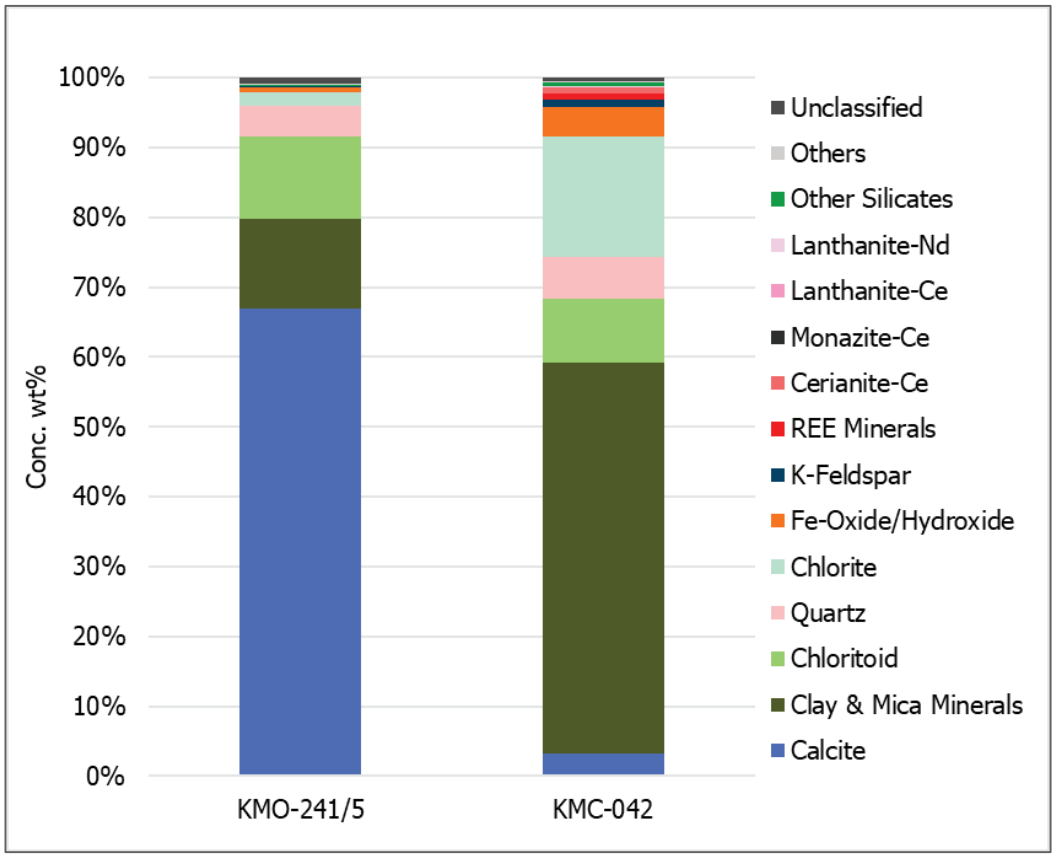
The QEMSCAN modal mineralogy results show that the KMO-241/5 sample is predominantly comprised of calcite (66.9 wt%), with minor concentrations of “clay & mica minerals” (12.9 wt%), chloritoid (11.8 wt%), quartz (4.39 wt%), chlorite (1.86 wt%) and Fe-oxide/ hydroxide (0.73 wt%) with traces of K-feldspar, other silicates, and a trace amount of unidentified REE containing minerals (i.e. “REE Minerals”, 0.001 wt%) (ANSTO 2021b) (Table 8 and Figure 17).

The QEMSCAN modal mineralogy results show that the KMC-042 sample is dominated by “clay & mica minerals” (55.9 wt%) with minor amounts of chlorite (17.2 wt%), chloritoid (9.13 wt%), quartz (6.01 wt%), Fe-oxide/hydroxide (4.17 wt%), calcite (3.33 wt%) and K-feldspar (1.09 wt%), with traces of other silicates (ANSTO 2021b). REE minerals Cerianite (0.83 wt%), lanthanite-Nd (0.17 wt%), lanthanite-Ce (0.067 wt%) and monazite (0.003 wt%) were identified whilst a proportion of the REE-containing phases in the sample could not be conclusively identified by the QEMSCAN software (0.89 wt% “REE Minerals”) on account of their fine grain size and/or being finely intergrown with other minerals (ANSTO 2021b) (Table 8 and Figure 17).

Table 8: QEMSCAN Modela Mineralogy (wt%) (ANSTO 2021b)

Mineral	Chemical Formulae	KMO-241/5	KMC-042
Cerianite-Ce	CeO2	<0.001	0.83
Monazite-Ce	(Ce,La,Nd,Th)PO_4	<0.001	0.003
Lanthanite-Ce	$(Ce,La,Nd)_2(CO_3)_3 \bullet 8H_2O$	<0.001	0.067
Lanthanite-Nd	$(ND, LA)_2(CO_3)_3 \bullet 8H_2O$	<0.001	0.17
REE Minerals	REE, Y, CO_3, PO_4, O	0.001	0.89
Calcite	$CaCO_3$	66.9	3.33
Clay & Mica Minerals	Various	12.9	55.9
Chloritoid	$(Fe^{2+},Mg,Mn)_2Al_4Si_2O_{10}(OH)_4$	11.8	9.13
Quartz	SiO_2	4.39	6.01
Chlorite	$(Fe,Mg)_5Al(Si_3Al)O_{10}(OH,O)_8$	1.86	17.2
Fe-Oxide/Hydroxide	Fe_xO_y/FeO(OH)	0.73	4.17
K-Feldspar	$KAlSi_3O_8$	0.15	1.09
Other Silicates	Various	0.29	0.50
Others	Various	0.18	0.16
Unclassified	-	0.84	0.51

Figure 17: Comparison of the Modal Mineralogy of the Tawel Samples (ANSTO 2021b)



8.11.2 Scanning Electron Microscopy

Summary of findings (ANSTO 2021b):

KMO-241/5

- Only one particle containing small REE-rich inclusions was detected in the QEMSCAN analysis.
- The REE-containing phase presents as a cluster of fine-grained inclusions within the clay/smectite.
- The EDS spectrum taken from the REE-containing phase contains small amounts of Ca, Si, Al, Mg and Fe. Given the fine-grain size of the REE phase it is likely that these elements are a contribution from the surrounding clay/smectite.
- La and Nd are the dominant REEs in the REE-containing phase. The elemental composition appears to be roughly consistent with lanthanite-Nd, which is a secondary mineral typically formed by alteration or weathering of earlier REE containing minerals.

KMC-042

- A rare example of a monazite grain present as an inclusion within a large particle of clay/smectite was identified.
- Cerianite appears to be the dominant REE-containing mineral in the KMC-042 sample.
- Given the finely intergrown nature of the cerianite and the clay minerals it is likely that these elements are a contribution from the surrounding clay minerals.
- A well-liberated particle comprised of a La and Nd-rich phase has an elemental composition roughly consistent with the mineral lanthanite-Nd, however, there are some trace elements within the EDS analysis such as Ca, Si, Fe, Al and Mg which are not typically found in lanthanite-Nd. These elements may be a contribution from the small darker-coloured inclusions present in the particle.
- A REE-rich phase of annite/biotite and clay minerals is rich in La and Nd and also contains a significant amount of Ce. The elemental composition of the REE-rich phase is roughly consistent with the alteration product lanthanite-Nd.
- A REE-rich phase present within a large particle of clay/smectites and annite/biotite is finely intergrown with the clay/smectites and annite/biotite.
- A significant proportion of the REE-containing material in the sample was present in the form of extremely fine-grained inclusions within large particles of clay/smectites.

8.11.3 Conclusions

Conclusions drawn by ANSTO are as follows (ANSTO 2021b):

- The KMO-241/5 sample is predominantly comprised of calcite (66.9 wt%), with minor concentrations of “clay & mica minerals” (12.9 wt%), chloritoid (11.8 wt%), quartz (4.39 wt%), chlorite (1.86 wt%) and Fe-oxide/ hydroxide (0.73 wt%). Traces of K-feldspar and other silicates were also detected.
- Only a trace amount of REE containing minerals (i.e. “REE Minerals”, 0.001 wt%) was detected by QEMSCAN in the KMO-241/5 sample. The REE containing minerals were unable to be conclusively identified by the QEMSCAN analysis software due to their small grain size and being intergrown with clay/smectite minerals. An EDS spectrum obtained from one of the small REE-phase grains exhibited an elemental composition that is roughly consistent with lanthanite-Nd.
- The KMC-042 sample is dominated by “clay & mica minerals” (55.9 wt%). Minor amounts of chlorite (17.2 wt%), chloritoid (9.13 wt%), quartz (6.01 wt%), Fe-oxide/hydroxide (4.17 wt%), calcite (3.33 wt%) and K-feldspar (1.09 wt%) were also detected with traces of other silicates.

- Cerianite (0.83 wt%), lanthanite-Nd (0.17 wt%), lanthanite-Ce (0.067 wt%) and monazite (0.003 wt%) were identified in the KMC-042 sample. A significant proportion of the REE-containing phases in the sample could not be conclusively identified by the QEMSCAN software (0.89 wt% “REE Minerals”).
- QEMSCAN liberation statistics suggest that the REE-containing minerals in each of the samples are in general poorly liberated. Manual SEM examination revealed that the REE-containing minerals were predominantly finely intergrown with clay minerals.

9 Drillhole Results and Interpretation

During the period December 2020 to February 2021, Australian Rare Earths drilled a total of 470 holes totalling 3,905.6 metres (Table 9) at the Koppamurra Project. The majority of which was focused on the Red Tail Prospect (Figure 16).

Table 9: Summary of drilling completed by Australian Rare Earths

Hole Type	No. Holes	Total Meters	Min Depth	Max Depth	Av. Depth	No. Samples Submitted	No. Assays Received
Auger	69	335.4	1	12.5	4.8	211	211
Push Tube	103	435.2	1.6	8	4.2	156	156
Air Core	298	3,135	3	30	10.5	2,358	2,358
Total	470	3,905.6				2,725	2,725

Drilling indicates that the lithological sequence can be separated into three (3) primary units, a sandy clay overburden, clay, and a basal limestone. The sandy clay overburden typically consists of a surficial layer of transported unconsolidated sands with occasional calcrete development, which are underlain by more competent clayey reddish to yellow sand units, which are interpreted to have been transported given the occurrence of the sub-rounded pisoliths/gravels (Williamson G. 2020).

The Koppamurra deposit has been separated into five (5) lithological domains (Table 10), with Zones 2 and 3 being the target clay zones. The upper domain, Zone 1 is defined from surface and is comprised of a sandy clay lithology. Rare earth mineralisation occurs within Zone 2, which is a clay zone situated above the limestone basement which ranges in thickness from 0.4 to 21 metres and averages 3.5 metres. Zone 3 is a low to medium grade clay unit situated within Zone 1 that ranges in thickness from 1 to 11 metres and averages 3.8 metres. Zone 4 strikes NW to SE and in some cases sits below Zone 3 within troughs characterised by sandy clay material.

Table 10: Lithological domains at Koppamurra

Domain No.	Domain Name	Description
Zone 1	Sandy clay overburden	Sandy clay overburden with occasional elevated TREO grades
Zone 2	High grade clay unit	Primary REE mineralised zone
Zone 3	Low to medium grade clay unit	Low grade clay unit typically within Zone 1 and situated within the troughs
Zone 4	Sandy clay	Low grade sand clay units associated with NW-SE striking troughs, and sometimes below Zone 3
Zone 200	Basement	Highly weathered limestone basement

Drilling confirms that REE mineralisation is predominantly in Zone 2 and elevated grades in Zone 1 are associated with clay lithologies. High TREO values transgress the contact between Zone 2 and the basement but are associated with high calcium values. Mineralisation strikes northwest-south east and is open on the northern and eastern ends of the deposit (Figure 18.).

Assay results produced values of up to 5,874 ppm TREO, 3,676 ppm TREO-Ce, 1,998 ppm CREO, 36% NdPr and 86% HREO. Within Zone 2, average assay grades are 618 ppm TREO, 409 ppm TREO-Ce, 228 CREO, with 20% NdPr and 32% HREO and average U_3O_8 and ThO_2 grades of 1.6 ppm and 18.4 ppm respectively (Table 11).

Some of the notable intercepts from drill assays received include:

- KMA054: 3 m @ 1,471 ppm TREO from 3 to 6 m
- KMC096: 2.1 m @ 821 ppm TREO from 3 to 5.1 m
- KM0133: 2 m @ 1,022 ppm TREO from 2 to 4 m
- KM0295: 5 m @ 874 ppm TREO from 4 to 9 m
- KM0006: 6 m @ 865 ppm TREO from 9 to 15 m
- KM0125: 2 m @ 1,237 ppm TREO from 1 to 3 m
- KMA014: 2 m @ 972 ppm TREO from 0.5 to 2.5 m
- KM0161: 2 m @ 1,591 ppm TREO from 0 to 2 m
- KM0198: 2 m @ 2,012 ppm TREO from 2 to 4 m
- KM0213: 3 m @ 1,214 ppm TREO from 0 to 3 m
- KMA042: 6 m @ 813 ppm TREO from 4 to 10 m
- KMA044: 3 m @ 780 ppm TREO from 5 to 8 m

A full list of drillholes with intercepts > 300ppm TREO can be found in the Appendices.

The drilling completed by Australian Rare Earths confirms the presence of laterally extensive clay hosted rare earth mineralisation and combined with the resampling of historical core supports the proposition that rare earth mineralisation extends beyond the area covered by the Red Tail and Yellow Tail Prospects and that the wider Koppamurra project area can be considered prospective for rare earth mineralisation (Figure 19).

Table 11: Summary statistics of Zone 2 assays results received to date. NOTE: samples have not been top-cut or composited prior to running the below statistics (approximately 70% of the below samples are 1m in length and the average sample length is 0.9m)

	TREO ppm	TREO-Ce ppm	CREO ppm	HREO ppm	LREO ppm	% NdPr	% HREO	La_2O_3 ppm	CeO_2 ppm	Nd_2O_3 ppm	Pr_6O_{11} ppm	Sm_2O_3 ppm
No. Samples	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169
Minimum	46	31	16	14	31	6.8%	6.0%	9.12	9.58	5.87	1.72	1.15
Maximum	5874	3767	1998	1385	4864	35.7%	69.4%	1255.00	2825.00	1283.00	333.00	253.00
Mean	618	409	228	186	431	20.2%	32.2%	92.26	208.60	103.83	26.79	21.52
Variance	449234	193896	55468	31770	259458	0.0012	0.0051	14234.69	69938	16367	1117	594.53
Standard Deviation	670.25	440.34	235.52	178.24	509.37	0.03	0.07	119.31	264.46	127.93	33.42	24.38
Coefficient of Variance	1.09	1.08	1.03	0.96	1.18	0.17	0.22	1.29	1.27	1.23	1.25	1.13

	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	Ho_2O_3 ppm	Er_2O_3 ppm	Tm_2O_3 ppm	Yb_2O_3 ppm	Lu_2O_3 ppm	Y_2O_3 ppm	U_3O_8 ppm	ThO_2 ppm
No. Samples	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169
Minimum	0.21	1.06	0.18	1.18	0.22	0.62	0.08	0.58	0.08	7.77	0.18	1.55
Maximum	53.00	176.00	25.10	121.00	21.70	58.10	7.48	45.30	6.39	825.00	6.17	61.90
Mean	4.78	19.15	2.93	16.25	3.27	8.87	1.20	7.29	1.02	99.95	1.63	18.43
Variance	28.25	413.76	8.85	252.68	9.85	69.31	1.20	42.45	0.80	8951.84	0.37	55.37
Standard Deviation	5.32	20.34	2.97	15.90	3.14	8.32	1.10	6.52	0.89	94.61	0.61	7.44
Coefficient of Variance	1.11	1.06	1.01	0.98	0.96	0.94	0.91	0.89	0.88	0.95	0.37	0.40

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$
LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$
HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
NdPr = $Nd_2O_3 + Pr_6O_{11}$
TREO-Ce = TREO - CeO_2
% NdPr = NdPr/ TREO
% HREO = HREO/TREO
U_3O_8 and ThO_2 are deleterious elements

Figure 18: Plan view over the Red Tail, Yellow Tail Prospects and regional Koppamurra area showing drilling results received to date coloured by significant intercepts

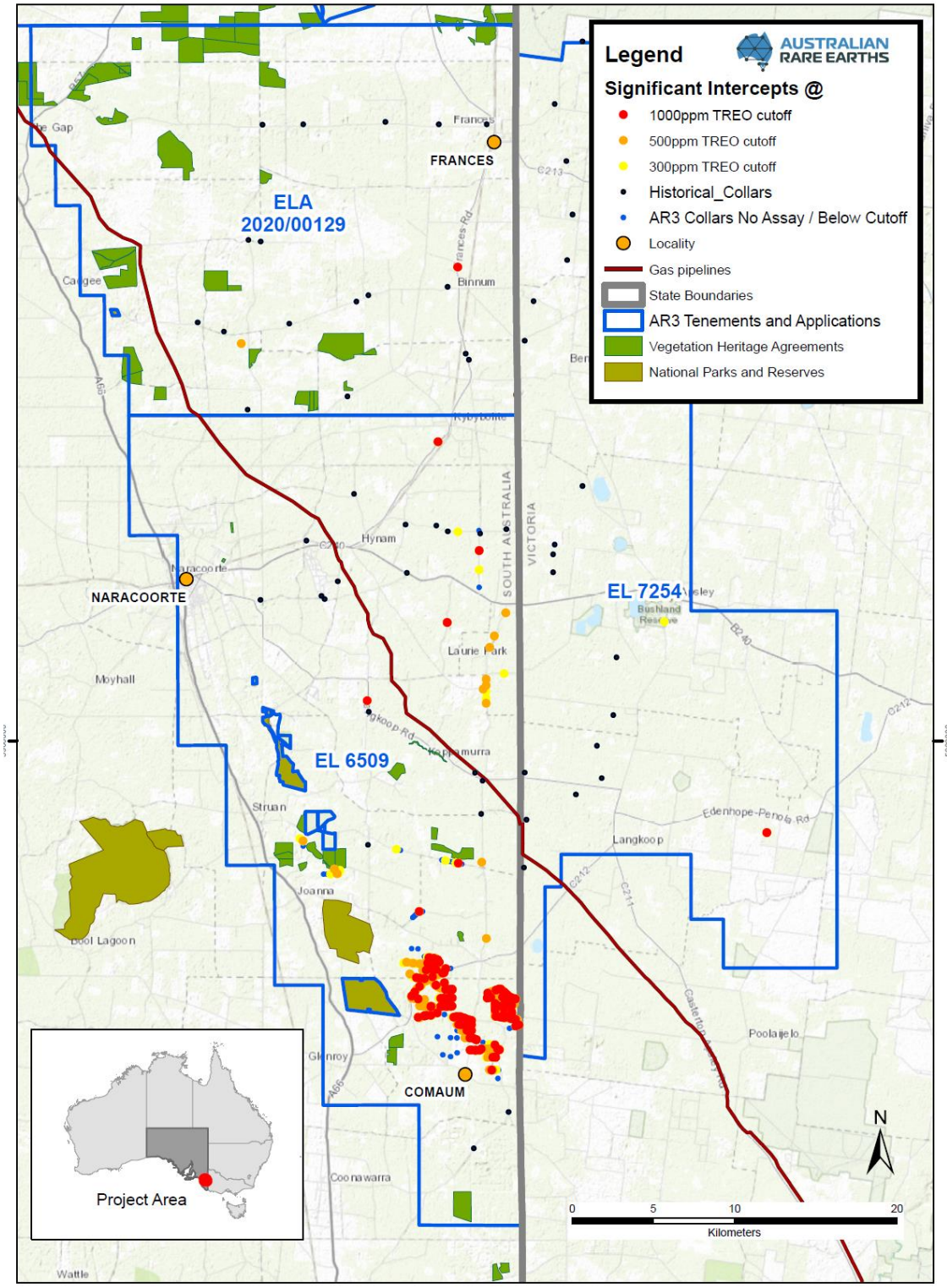
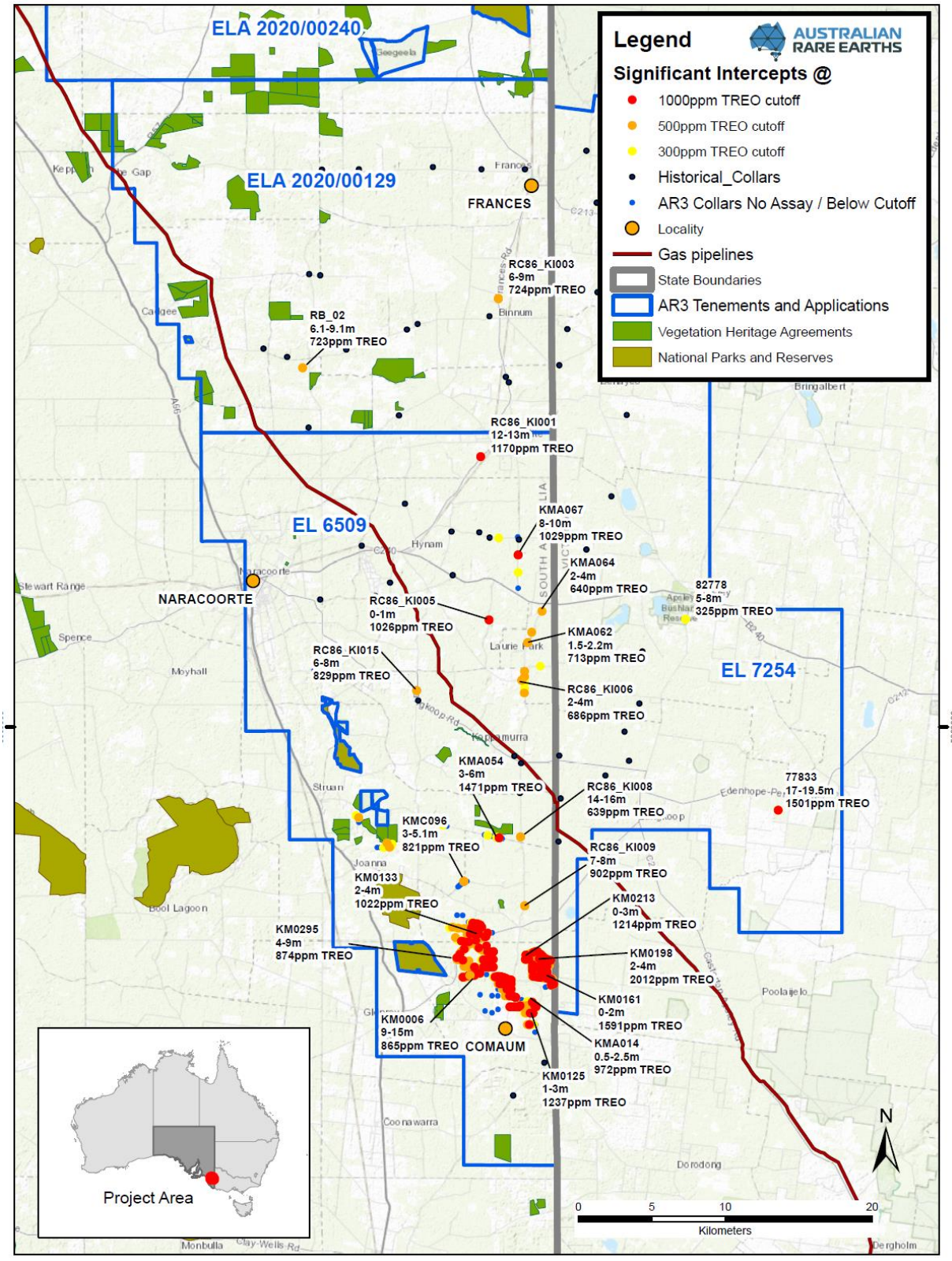


Figure 19: Plan view of significant intercepts from recent and historical drillholes



10 Metallurgical Testwork

10.1 ANSTO Characterisation and Leach of Ionic Clay Samples 2020

In May 2020, Australian Rare Earths sent 12 samples collected from six (6) historical drill holes to ANSTO Minerals (ANSTO) for characterisation and preliminary leach test work. Two (2) samples were received already pulverised for assay and the remaining ten were crushed and pulverised prior to analysis. Each sample was analysed by XRF and digest/ICP-MS.

Several digest methods were tested in this program. Initially a standard peroxide fusion digest method was used however, the detection limits for the rare earth elements were too high (<20 ppm) and interference of zirconium from the crucible produced elevated scandium results. An alternative method using a mixed acid/ammonium fluoride digest produced lower detection limits (typically <2.5 ppm) for the REEs and scandium and was used for the remainder of the program for the majority of the samples.

The total REO content (including yttrium) of the samples varied between 518 and 1900 ppm across the drill holes, dominated by the light rare earth elements (La, Ce and Nd).

Four scoping leach tests were conducted to assess the amenability of the samples for rare earth extraction. Typical conditions for REE extraction from ionic clay samples are relatively mild, with a sodium chloride lixiviant at room temperature selected for these tests. Samples were leached for 2 hours at ambient conditions in a 25 wt% slurry density with 1.5M NaCl.

Two of the leach tests were completed on samples as received (2974461 and 2979571) and two composites were prepared by combining 2979557 + 2979558 (Comp_KI010), and 2974445 + 2974446 (Comp_KI006). For the first 3 tests, the initial test pH was 4.2, with the NaCl solution adjusted to target pH with HCl. However, after adding the ore, the pH increased to >7, with all acidity immediately consumed. This was attributed to the high calcium content, presumably present as calcite.

The final liquor only was assayed by ICP-OES for gangue elements and ICP-MS for REEs. After filtration, the solids were washed on the filter with DI water and the solids dried in an oven overnight (100 °C). There was no scope for analysis of wash liquors. The final solid was digested and assayed by ICP-MS only for REEs. Due to dilution of the leach liquors because of acid addition, coupled with low extractions in some cases, many of the REEs were below detection limit by ICP-MS.

Further tests were undertaken to determine whether further recovery was possible through repeated contacts with NaCl solution. Each wash liquor was assayed ICP-MS only for REEs and liquor analysis showed further recovery of REEs from all of the residues. The overall process recoveries from the original ore head samples were determined based on liquor analysis. Many of the REEs of interest remained below detection limits by ICP-MS. The breakdown in overall recovery for each rare earth element indicates that the LREs lanthanum, praseodymium and neodymium contributed to the majority of the extraction, with cerium only extracting from two of the four samples (higher grade). Higher recovery of LREs is typical for ionic clay deposits as the HREs are more strongly adsorbed.

The following conclusions were made by ANSTO (ANSTO 2020a):

- Modest extraction (<10%) of REEs was obtained from leaching a high-grade TREO sample under the chosen leach conditions (1.5 M NaCl, pH 4.2, room temp.)
- Recovery of REEs was significantly increased by repeated washing with NaCl solution (at pH 4.2), and with optimisation of the leach and wash conditions, there is scope to further improve the overall REE recovery
- Extraction was low from intermediate grade TREO samples, with most rare earth elements at less than detection limits in solution, exacerbated by dilution due to acid consumption in leach. Difficulties in

maintaining the preferred leach conditions could have negatively impacted REE extraction from these samples

- Increasing the acidity (pH 1) improved REE extraction from a high-grade TREO sample to a considerable 33%, and with further washing, recovery was improved to 51%; and
- The chosen leach conditions did not achieve high recovery of REEs. The increased REE recovery at higher acidity suggests that all of the REEs may not have been adsorbed on clay minerals, which is not uncommon for ionic clay deposits.

10.2 ANSTO Optimisation Leach Study

In November 2020, Australian Rare Earths sent a 25 kg of composite sample (631416) to ANSTO for further testing to optimise the leach parameters and further investigation of the wash conditions for improved overall REE recovery, and to explore the application of ion-exchange for improved REE recovery.

To date a total of six leach tests of two (2) hour duration conducted at room temperature under varying pH conditions, three each in two different lixiviants (0.5 M (NH4)2SO4 and 0.3 M MgSO4) at 25 wt% slurry, have been carried out on a wet cake (200 g, dry equivalent) of the composite sample (ANSTO 2021a)

The following comments regarding results received to date were made by ANSTO (ANSTO 2021a):

- Preliminary REE extraction results from the six leach tests illustrates that irrespective of the nature of lixiviants, extraction of the REEs was enhanced significantly with a decrease in test pH. This observation is also applicable to extraction of most of the individual REEs.
- Extension of the leach duration at low pH also had a positive impact on REE extraction, particularly at pH 1.
- The leach residues were re-pulp washed once with the lixiviant at test pH (1:1 wash ratio) followed by one displacement wash with DI water (1:1 wash ratio). Previously reported testwork on wash conditions indicated that REE recovery may be improved with additional washing steps.
- The liquor analysis by ICP-MS showed that a number of the elements remained below detection limits (<1 ppm) and therefore showed no result. However, the trend of increased extraction with lower pH is clear.
- The acid addition in kg/t, as expected, increased with decrease in pH and was significantly higher at pH 1.

Additional leach testwork is still underway and includes the following:

- Additional washing phases of the leached material
- Variation (of 'ore' material) testwork using an optimised leach chemistry and process on 22 individual samples from nine (9) drillholes (Figure 20).
- Resin in pulp testwork – aimed at maximising the recovery given the very rapid kinetics of the desorption process.

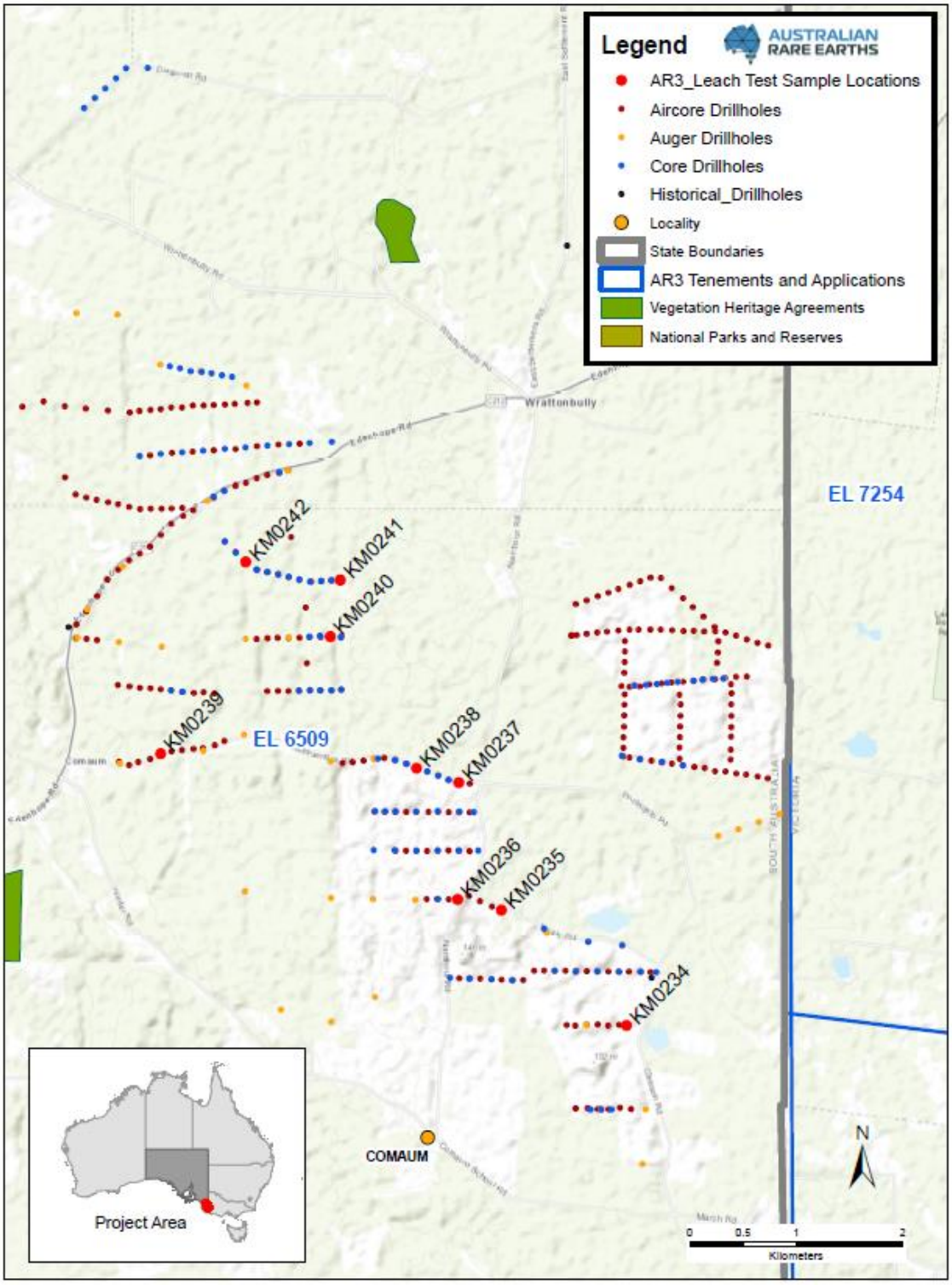
Results from six (6) of the 22 samples submitted for variation leach testwork have been received. These leach tests were performed at a pH of 1 based on the positive impact on REE extraction identified from the optimisation work completed to date. Results demonstrated TREO (excluding Ce) recoveries of between 50 and 70% within the Red Tail Prospect area (Table 12).

Results of the remainder of the leach test optimisation program are pending.

Table 12: ANSTO preliminary leach variability testwork results received to date

Ore	KMO 234_2		KMO 235_3		KMO 238_2		KMO 239_8		KMO 241_4		631416 Composite	
Leach Slurry Density (%)	25		25		25		25		25		25	
Leach pH	1		1		1		1		1		1	
Leach Duration (h)	2		2		2		2		2		2	
Ca Content of Feed (%)	4.9		11.8		5.9		1.8		3.7		0.88	
Acid Addition (kg/t) (as conc. H2SO4)	145		301		156		82		123		66	
Extraction (%)	Well Washed	Regular Washed	Well Washed	Regular Washed	Well Washed	Regular Washed	Well Washed	Regular Washed	Well Washed	Regular Washed	Well Washed	Regular Washed
La2O3	60	51	36	31	74	69	48	30	74	69	39	29
CeO2	68	28	39	29	43	37	29	21	24	15	10	9
Pr6O11	58	47	35	29	71	65	49	29	70	64	40	29
Nd2O3	59	48	39	33	70	64	50	30	69	62	41	32
Sm2O3	60	48	51	45	71	65	51	33	63	57	44	35
Eu2O3	59	50	58	51	71	64	55	36	60	54	45	35
Gd2O3	64	54	66	59	72	67	55	36	60	52	45	36
Tb4O7	>37	>37	70	63	>72	65	>53	37	51	45	>42	>42
Dy2O3	61	49	72	63	67	63	55	40	49	42	43	35
Ho2O3	>37	>37	72	66	67	62	>58	39	45	38	>38	>38
Er2O3	60	50	72	66	65	61	52	37	41	33	42	34
Tm2O3	0	0	0	0	0	0	0	0	0	0	0	0
Yb2O3	54	43	70	66	63	57	47	34	34	25	37	30
Lu2O3	0	0	0	0	0	0	0	0	0	0	0	0
Y2O3	60	49	77	70	71	66	51	37	43	37	39	28
LREO	62	41	38	31	61	56	42	27	52	44	28	21
MREO	62	51	59	52	71	66	53	34	62	54	45	35
HREO	46	38	66	60	59	55	46	33	40	33	34	28
TREO (incl. Y)	61	42	49	42	64	58	45	30	51	44	31	24
TREO (excl. Ce)	**58**	**48**	**52**	**46**	**71**	**65**	**50**	**32**	**64**	**57**	**40**	**30**

Figure 20: Location of leach test samples. NOTE the location of composite sample 631416 is located outside the extents of this figure.



11 Mineral Resource Estimate

In April 2021, Australian Rare Earths engaged IHC Robbins Pty Ltd (IHC) to prepare an updated Mineral Resource estimate for the Koppamurra Project which covers both the Red Tail and Yellow Tail Prospect areas (Table 13, Table 19, and Figure 27).

In REESearch's opinion, the Mineral Resource estimate has been prepared to a sufficient quality standard, reported in accordance with the guidelines of the JORC Code and are considered to be reasonable as a global representation of tonnes and grade. All aspects of the Koppamurra Mineral Resource estimation were undertaken by IHC. REESearch has undertaken a review of the April 2021 Koppamura Mineral Resource and Ms Morgan is providing Competent Person sign-off for the April 2021 Koppamurra Mineral Resource Estimate Update.

Table 13: Inferred Mineral Resource Estimate for the Koppamurra Project at 325 ppm TREO-Ce cut-off grade dated April 2021

Prospect	Zone	Tonnes (Mt)	TREO (ppm)	TREO-CeO_2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	ThO_2 (ppm)	U_3O_8 (ppm)
Yellow Tail	2	10.0	903	586	638	265	329	19.0	1.6
Red Tail	2	29.5	668	452	465	203	250	18.4	1.6
Red Tail	3	0.4	520	359	363	157	195	14.0	1.7
Total		**39.9**	**725**	**485**	**507**	**218**	**269**	**18.5**	**1.6**

NOTE: Totals may not add up due to rounding.

A maiden Mineral Resource was estimated in March 2021 by IHC which produced an Inferred Mineral Resource of 26.6 Mt at 682 ppm TREO, and 458 ppm TREO-CeO_2. The maiden Mineral Resource covered the Red Tail Prospect area only and the difference between the March and April 2021 MRE's is attributable to all pending assays being received.

The March 2021 resource estimation exercise for the Koppamurra deposit also identified an Exploration Target in the range of 13.7 – 29.5 Mt @ 652 – 879 ppm TREO at cut-off grades of 225 ppm and 425 ppm TREO-CeO_2. This cut-off grade range for the Exploration Target was selected on the basis of a 325 ppm TREO-CeO_2 cut-off grade (as used for the Mineral Resource estimate) +/- 100 ppm. The Exploration Target covered the area with pending assay results, which have now been received and form part of the April Mineral Resource Estimate.

The technical information summarised below is applicable to the April 2021 Koppamura Mineral Resource Estimate and has been sourced from IHC's technical report (IHC 2021b). Further information is also available in Table 1 (Appendix E - JORC Table 1).

11.1 Database

Australian Rare Earths' database is managed by Inception Group Pty Ltd (Inception). The following checks were completed by Inception as part of a full database audit at the request of Australian Rare Earths and REESearch:

- No overlapping intervals (both assay and logging)
- Depth FROM not greater than TO
- No duplication of records
- No missing records
- Samples sent = samples received (where assays fully received)
- All lithology codes correspond with library codes only
- Sample intervals in logging sheets match those in the database

- Lab duplicates, standards and blanks are in the database
- Oxide conversion factors are correct
- No rounding of assays values
- No negative assays
- All LOR values are set to half the LOR
- Total metres drilled (on log sheets) matches database
- Number of holes drilled matches database
- Data input validation inside range for the geology logs

The database was reviewed by REESearch using raw in-put files, various provided exports files and dashboards generated by Inception. The drillhole data was also desurveyed by REESearch in Datamine to check for errors. No major errors were identified, and all the checks listed above can be confirmed as completed. The database was found to be in good condition and free of errors (as of the date of this Report).

In addition, all drill collars, lithology, survey, and assay files (including duplicate/replicate, standard and primary assay assignment) were checked by IHC prior to being imported into Datamine using standard routines prior to carrying out any data analysis, domaining, and estimation activities.

11.2 Drillhole Data

Of the 470 holes were drilled by Australian Rare Earths in 2021/ 2021, 429 holes were used for the Koppamurra MRE (Table 14). Holes that were excluded were located outside the immediate boundaries defined for the resource estimate. Twin holes were not used in the grade interpolation.

Table 14: Summary information for drillholes used in the April 2021 MRE

Hole Type	No. Holes	Total Meters	Min Depth	Max Depth	Av. Depth	No. Samples Submitted
Auger	41	218	1.5	12.5	5.3	100
Push Tube	101	427	1.6	8	4.2	148
Air Core	287	3,021	3	30	10.5	2,234
Total	429	3,666	1.5	30	8.5	2,482

Drillholes KMA001 to KMA044 were located by a licenced surveyor, while the rest of the drillholes were surveyed by Australian Rare Earths field crews using a handheld GPS, which has an accuracy of +/-5m. A topographic DTM surface was developed from Shuttle Radar Topography Mission (SRTM) digital elevation model and drillhole collars were projected to the generated topographic surface.

Drilling was carried out via a conventional drill grid pattern along public gravel access roads which traverse the Project areas. Drillhole spacing is nominally 100 m along each traverse and each traverse was spaced approximately 500 m apart.

11.3 Assay Analysis

Samples were dispatched to Bureau Veritas laboratory In Perth which followed the general assay process flow described as follows:

- 1.5 kg samples were received into the Bureau Veritas laboratory and oven dried for 24 hours at 105°C
- All samples were secondary crushed to 3 mm and reduced by a rifle splitter
- Samples were pulverised and screened to 90% passing 75 µm.

- Excess residue was maintained for storage.
- Sample placed in 8x4 packets and sent to the central weighing laboratory.
- All weighed samples were then analysed using the XRF-LA_ICP-MS analytical method.
- a single lithium borate fusion which provides major elements from XRF and
- LA-ICP-MS method provides trace and minor elements.
- Laboratory repeats were performed on every 11th sample
- Standard reference samples were inserted by Bureau Veritas at a rate of 1 in 17 samples.

11.4 QAQC

11.4.1 Field Duplicates

Australian Rare Earths collected 41 field duplicates during the air core drilling programs and 5 during the auger drilling program. All duplicates were collected from clay lithologies with the exception of one (1) duplicate, which was collected from a sandy lithology.

Log scatter plots for the TREO-CeO_2 and TREO duplicates show a linear trend, whilst the CREO plot shows that above 190 ppm duplicates sample values are generally lower than the original samples. The LREO plot shows a weak spread around 150 ppm and around 900 ppm, however this is not of material concern, especially when considering the laboratory precision. In general, the rank (spearman) correlation is greater than 0.93 for TREO-CeO_2, TREO, CREO and LREO. Overall, the correlation is good and there is no clear bias, even with a factor of laboratory variability to be considered.

The rate overall rate of submission for field duplicates was 1 in 54 which is outside the industry standards of between 1 in 20 and 1 in 40.

11.4.2 Lab Repeats

Bureau Veritas submitted a total of 193 laboratory duplicates which represents an insertion rate of 1 in 14. The rank (spearman) correlation is greater than 0.99 for TREO-CeO_2, TREO, CREO and LREO.

11.4.3 Lab Standards

Bureau Veritas submitted a total of 354 standards, of which 96 were reviewed by IHC. The analysis included one (1) certified reference material (CRM) for trace elements, and four (4) for minor elements. The overall rate of submission was 1 in 26, which is within the industry standards of between 1 in 20 and 1 in 40. There is a slight high bias for Dy_2O_3, Eu_2O_3 and Y_2O_3. All trace element standards were within the acceptable limits of $\pm$3SD. Overall, the performance of CeO_2, Dy_2O_3, Eu_2O_3, Y_2O_3 and La_2O_3 was close to the expected mean and all trace element standards were within the acceptable limits of +3SD.

11.4.4 Umpire Duplicates

A total of 58 pulp samples were submitted to ALS for umpire analysis. Samples were analysed by Laser ablation ICP-MS and XRF analysis using methods ME-MS61L-REE, ME-MS85, ME-XRF26 and MEGRAO5. The MS61L-REE constitutes a super trace package with low detection limits on key pathfinder elements and rare earth elements and lead isotopes are available as add-ons to the MS61L analytical method. The ME-MS85 method utilises the lithium borate fusion & ICP-MS finish to analyse most resistive elements at trace levels.

The log scatter plots for TREO-CeO_2, TREO and CREO display a linear trend with the rank (spearman) correlation greater than 0.99. Overall, the correlation is good.

11.4.5 Twin Holes

Ten (10) aircore and two auger twin holes were drilled by Australian Rare Earths. Assays have been received for three (3) pairs of holes and the rest of the assays are still pending. A twin hole analysis between the original and the twin hole assays will be undertaken once all assays have been received.

11.5 Geological Interpretation and Domaining

Geological interpretation was undertaken by IHC in collaboration with the Australian Rare Earths and then validated using logging data, sampling information and observations. The geology can be separated into three primary rock types: sandy clay overburden, clay host material and the basal limestone unit. The sandy clay overburden typically consists of a surficial layer of transported unconsolidated sands, with occasional calcrete development. The clay zones are the primary target zone for mineralisation and the primary REE mineralisation typically occurs within a 2 to 3 metre interval above the limestone basement. The highly weathered limestone basement varies in depth throughout the project region, forming an undulating contact zone against the clay unit above with some occurrences of floating limestone clasts present in this zone.

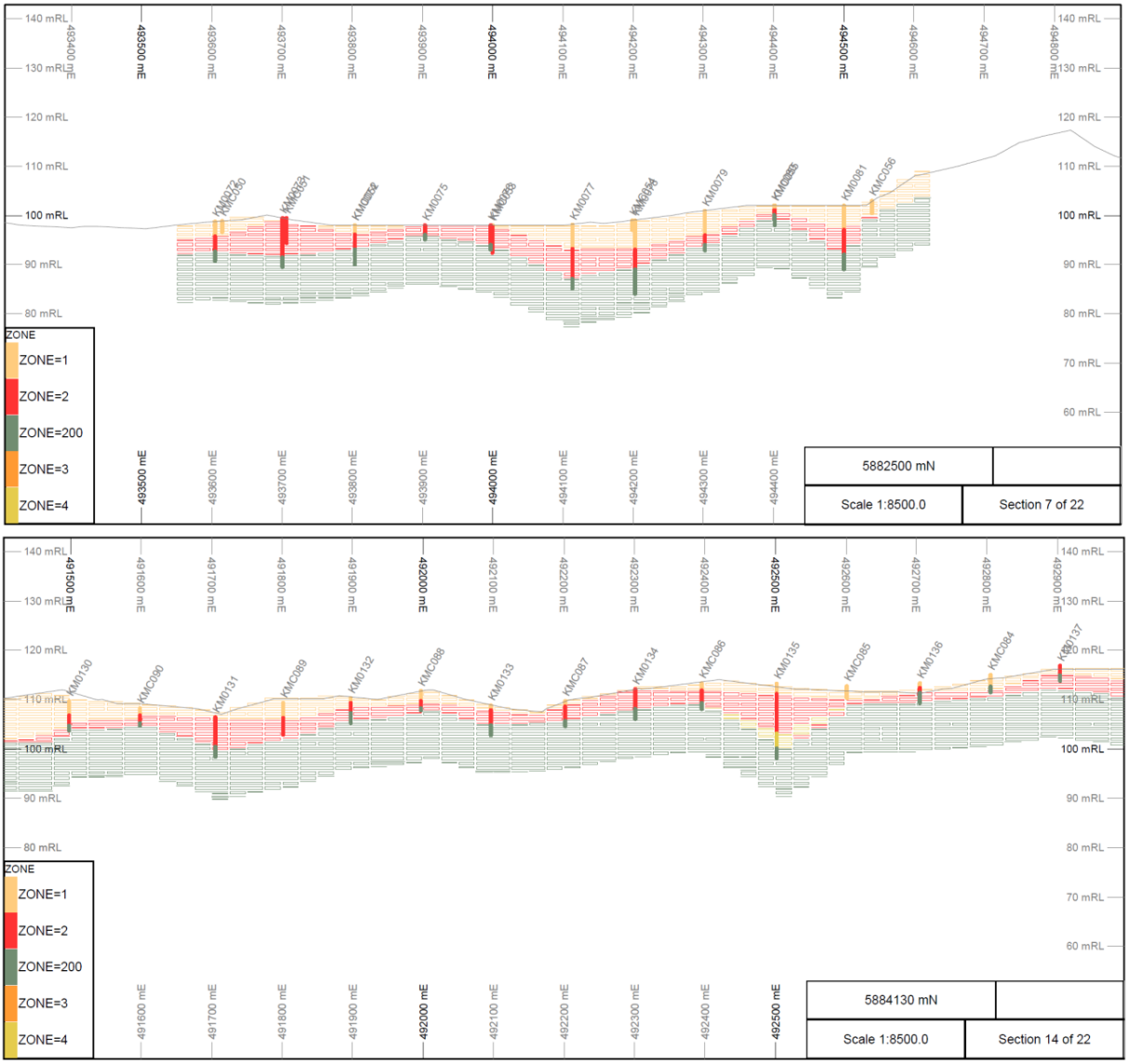
Five (5) domains were identified based on the lithological logging; Zones 1, 2, 3, 4 and 200 (Table 15). The upper domain, Zone 1 is defined from surface up to 10 m depth and is comprised of sandy clay lithology. Zone 2 is the primary target zone for mineralisation and is situated between Zone 1 and the basement (Zone 200). Zone 2 generally has high TREO-CeO_2, TREO values and low CaO values. The contact between the basement and Zone 2 was based on logging and CaO values. Intervals with greater than 10% Cao (and Lith2 was not competent limestone that could potentially be screen out) were considered part of the basement. However, intervals with elevated CaO values which had Lith2 logged as competent limestone were included in Zone 2. These intervals were included based on the assumption that competent limestone may be able to be screened out during processing. Additional testwork will be required to confirm this assumption.

Zone 3 is a low to medium grade clay unit floating within Zone 1 and located within the troughs. Zone 4 is a floating unit of lower sandy material typically positioned below a body of clay material that strikes NW to SE and in some cases sits below Zone 3 and/or Zone 2 within the troughs characterised by sandy clay material.

Table 15: Summary of drillholes used in the April 2021 MRE

Zone	Domain	Description
1	Sandy clay overburden	Sandy clay overburden with occasional elevated TREO values.
2	High grade clay unit	High grade clay unit – target mineralisation unit.
3	Low to medium grade clay unit	Low to medium grade mineralised unit within Zone 1 and situated within troughs.
4	Sandy clay	Low grade sandy clay units striking NW-SE associated with troughs and in some cases located below Zone 3.
200	Basement	Highly weathered cream-yellow-khaki limestone basement.

Figure 21: East West cross section through Koppamurra at 5,882,500 mN (top) and at 5,884,130 mN (bottom) coloured by ZONE (note: 7 x vertical exaggeration)



11.6 Top-cuts and Composites

Approximately 77% of the sample intervals from the drilling were 1 m in length with interval lengths ranging from 0.1 m and 5.3 m. Samples used for the estimation process were composited to 1 m which is the dominant sample length. After compositing, 96% of the intervals were 1 m in length.

Statistical analysis indicated a positively skewed dataset with outliers and the application of top-cuts was considered necessary prior to grade interpolation. Histograms, log probability plots and coefficient of variation (CV) were generated and used to select appropriate top cuts for REO. No domaining was considered during the top-cut analysis. The top cuts were determined from the inflexion points in the probability plot and also distinct breaks in the histograms. Top cut values were generally selected above the 99th percentile. Top-cutting was required for

CeO_2, Eu_2O_3, Gd_2O_3, La_2O_3, Lu, Nd_2O_3, Pr_6O_{11}, Sm_2O_3, Tb_4O_7, and Y_2O_3 (Table 16). Top-cuts were not considered for REO's with low CV's.

Table 16: Statistical analysis and top-cut assignment

REO	Number Of Samples	Mean	Maximum	CV	Percentile	Number Of Samples Cut	Cut Mean	Cut CV	Top cut
CeO2	2,482	123.80	2,825	1.64	99.6%	9	121.60	1.50	1,350
Eu2O3	2,482	2.91	53	1.46	99.7%	7	2.88	1.40	30
Gd2O3	2,482	11.80	176	1.39	99.6%	9	11.73	1.35	110
La2O3	2,482	58.66	1,255	1.56	99.7%	7	57.77	1.43	700
Nd2O3	2,482	63.90	1,283	1.55	99.7%	7	63.27	1.48	800
Pr6O11	2,482	16.53	333	1.56	99.7%	7	16.32	1.46	200
Sm2O3	2,482	13.13	253	1.47	99.8%	5	13.03	1.41	150
Tb4O7	2,482	1.80	25.1	1.34	99.8%	6	1.80	1.32	17
Y2O3	2,482	65.64	825	1.20	99.7%	7	65.38	1.18	500
Dy2O3	2,482	10.07	121	1.29	-	-	-	-	-
Er2O3	2,482	5.58	58.1	1.23	-	-	-	-	-
Ho2O3	2,482	2.05	21.7	1.26	-	-	-	-	-
Lu2O3	2,482	0.65	6.39	1.15	-	-	-	-	-
Sc2O3	2,482	16.55	108	0.72	-	-	-	-	-
ThO2	2,482	12.76	61.9	0.66	-	-	-	-	-
Tm2O3	2,482	0.76	7.48	1.20	-	-	-	-	-
U3O8	2,482	1.36	9.03	0.49	-	-	-	-	-
Yb2O3	2,482	1.18	45.3	1.18	-	-	-	-	-

11.7 Density

The resource model was assigned bulk density values on a domain basis. No density measurements were collected by Australian Rare Earths. As such, average textbook densities for sand and limestone were assigned to Zone 1, 4 and 200 (Table 17). A density value of 1.4 was assigned to Zones 2 and 3 based on a review of density values from similar sediment hosted REE deposits. To be conservative, the density value selected was from the lower end of the range of density values obtained during the desktop review. At this stage of project, the density values used for the Koppamurra model are considered reasonable.

Table 17: Density values assigned to the model by Zone

Model Zone	Domain	Bulk Density
1	sandy clay overburden	1.6
2	high grade clay unit	1.4
3	low to medium grade clay unit	1.4
4	sandy clay	1.6
200	limestone basement	2.11

11.8 Variography

Variography analysis was undertaken on TREO, TREO-CeO_2, LREO fro domains 1, 2 and 200. The variography demonstrates that there are limited sample pairs at a closer range due to the wide drill spacing and that a closer spaced drilling program along strike is required to determine the short-range variability/ grade continuity of the Koppamurra deposit.

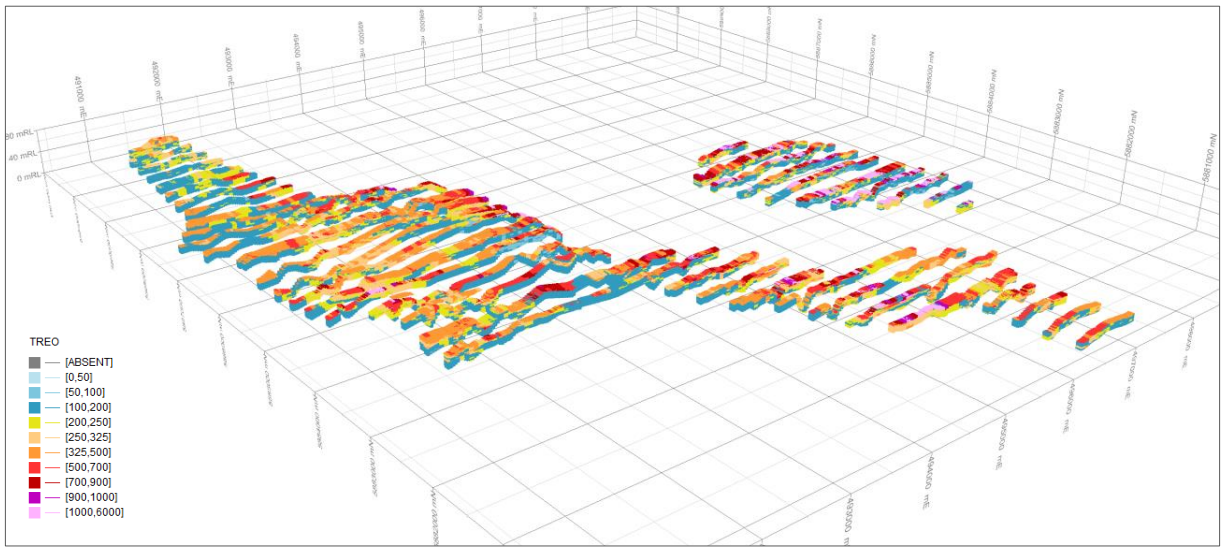
11.9 Block Model and Estimation

A parent cell dimension of 50 m x 250 m x 1 m in XYZ was selected as this represents half the distance between drill holes spacing in the easting and northing directions for most of the model area. Sub-cell splits of 2 x 4 in the X and Y direction, and to the nearest 20 cm in the Z direction were used to control sub-cell splitting of parent cells.

The model was coded by domain using the generated Zone wireframes. Ordinary Kriging was used to interpolate TREO, CREO, LREO, TREO-CeO_2, and CaO as well as CeO_2, Dy_2O_3, Er_2O_3, Eu_2O_3, Gd_2O_3, Ho_2O_3, La_2O_3, Lu_2O_3, Nd_2O_3, Pr_6O_{11}, Sc_2O_3, Sm_2O_3, Tb_4O_7, ThO_2, Tm_2O_3, U_3O_8, Y_2O_3 and Yb_2O_3 grades into the block model. Appropriate and industry standard search ellipses were used to search for data for the interpolation, and suitable limitations on the number of samples and the impact of those samples was maintained. Dynamic anisotropy was used during the estimation search process. Hard domain boundaries were used, and these were defined by the geological wireframes that were interpreted.

The Koppamurra Mineral Resource model coloured by TREO grade is shown in Figure 22.

Figure 22: Oblique view of the Koppmurra model coloured on TREO grade, Zone 2, 3, 4 and 200 (7x vertical exaggeration)

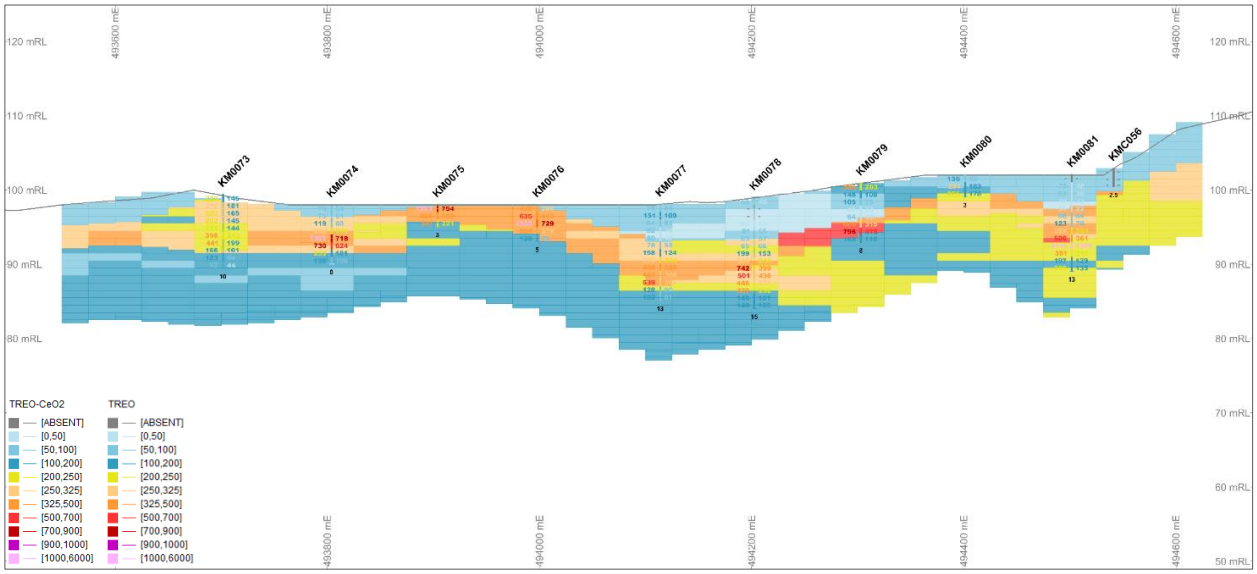


11.10 Model Validation

The model was validated by IHC using the following methods:

- The volume models and drill hole files for the Koppamurra deposits were validated on-screen against the geology and basement wireframes to ensure zone allocation had been correctly assigned.
- The volume model was validated to ensure that the grade interpolation was supported and that the selected block size and sub-celling was adequate for the estimation process.
- The location of the model cells with respect to drill section spacing was checked in both X and Y directions and adjusted to ensure that the block centroids were almost coincident with the drilling sections.
- Checking for any miscoded drill hole values.
- Visual inspection of the model (Figure 23).
- Comparing population distributions calculated for the assay fields; TREO-CeO2, TREO and CREO as normal distributions for both model and drill hole (Figure 24).
- Grade profile plots (Figure 25)

Figure 23: Koppamurra section: 5882500 mN showing TREO (LHS), TREO-CeO2 (RHS) (with 7 x vertical exaggeration)



The model validation process highlighted the following:

- Zone 2 is the main mineralised domain and demonstrates good geological continuity along and across strike.
- Zone 2 thickness averages 3 m and lies between surface and 20 m depth at varying depths due to the undulating nature of the limestone basement material.
- The higher TREO-CeO_2 values follow the north-east to south-west trend but are mostly confined to the eastern edge of the Red Tail Prospect and the western edge of the Yellow Tail Prospect.
- Zone 2 also exhibits variations in TREO-CeO_2 grades across strike.
- Zone 1 is the sandy unit from surface and generally has low TREO-CeO_2 grades.
- The basement is equivalent to Zone 200 exhibiting lower TREO-CeO_2 grades but has isolated elevated values.
- The elevated grades in Zone 200 are associated with greater than 10% CaO values.
- The grade distribution in Zone 3 and Zone 4 is still unclear due to insufficient drilling covering these domains.

The model validation process indicated that:

- The comparison of population distributions showed that generally, the grade interpolation has worked quite effectively in representing the drill hole assay results into the 3D block model.
- The block model shows higher values than the drill holes for TREO-CeO_2 values between 270 ppm and 500 ppm and for TREO values between 400 ppm and 725 ppm in Zone 2.
- The block model displays higher values than the drill holes for TREO-CeO_2 values between 60 ppm and 100 ppm and for TREO values between 100 ppm and 160 ppm and for CREO values between 30 ppm and 50 ppm in Zone 1. This could be attributed to the wide drill spacing in some parts and grades have to be interpolated across considerable distances.
- The TREO-CeO_2, TREO and CREO interpolation in Zone 1 and 2 is quite reasonable.
- The grade interpolation for the project is considered to be effective enough to support the mineralisation continuity of the deposit.

- The model and drill hole comparisons using grade profile plots showed for each of the assay grade fields, their corresponding Zone and model all showed trends consistent with an effective interpolation of grades from drill holes into the block model. This is attributed to the tight domaining, regular drill grid and sampling down hole, and Datamine dynamic ellipse routine used by IHC.
- There is higher variance between model and drill hole assay fields where sample numbers are low. This is quite evident in the north-south direction for all domains.

Figure 24: Normal distributions showing drill hole (red line) vs model (black line) for TREO for Zone 1 (left) and Zone 2 (right)

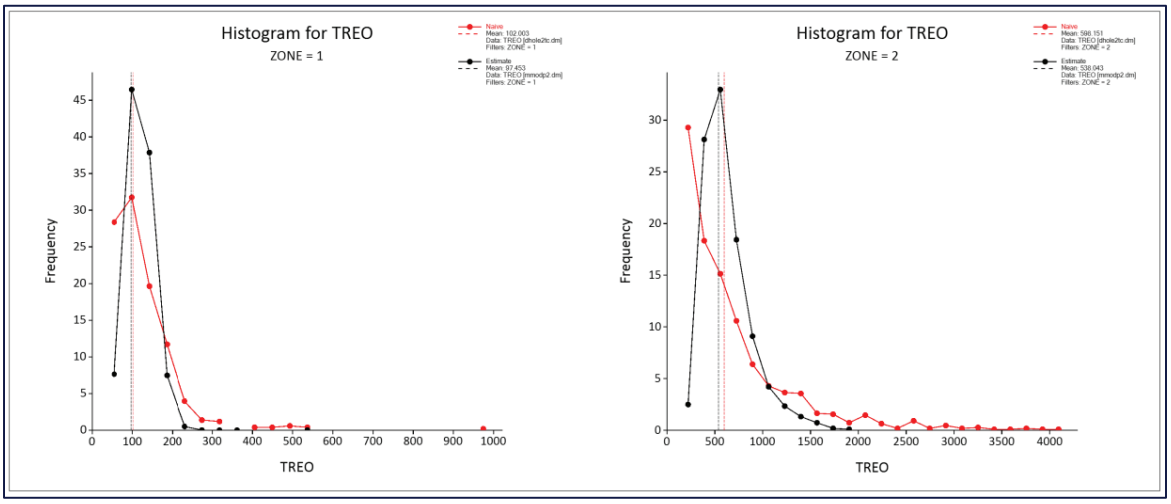
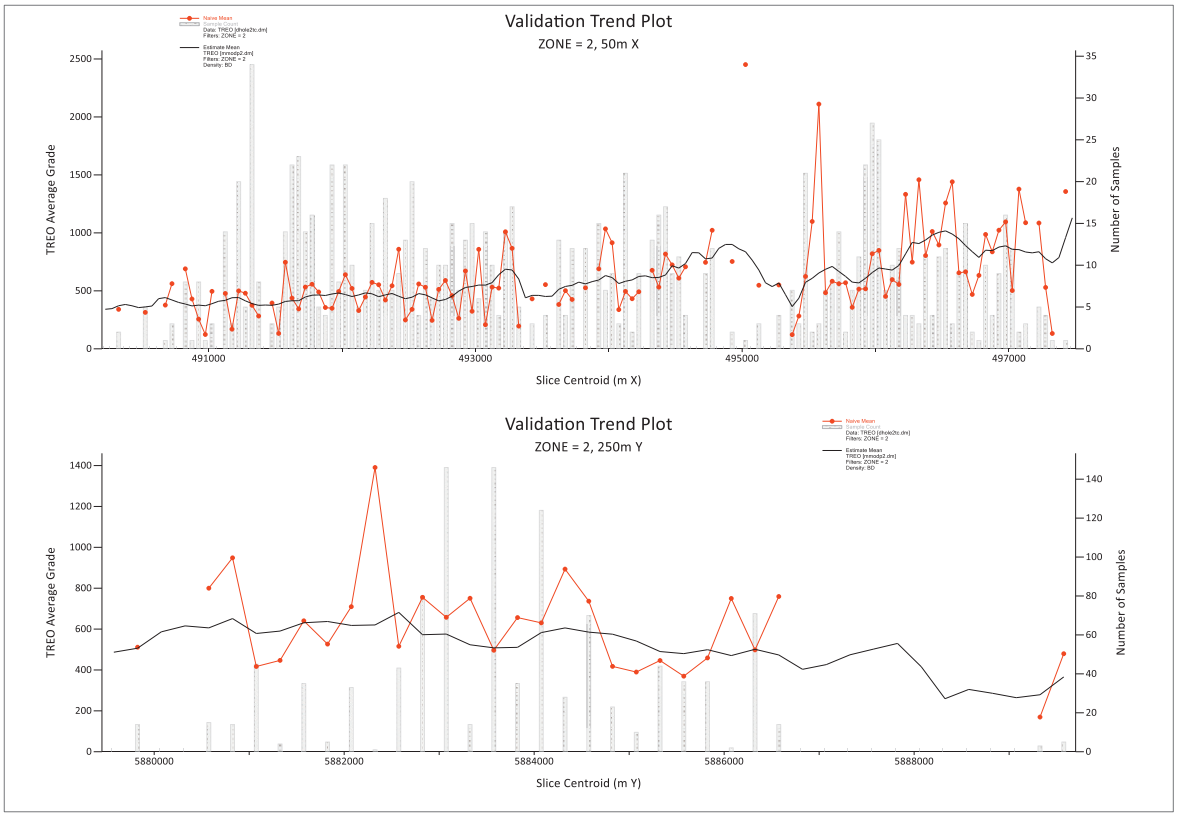


Figure 25: Comparison of TREO grade in Zone 2 between drill holes (orange line) vs model (black line)



11.11 Classification

The Inferred JORC (2012) classification of the Koppamura Mineral Resource has taken into account the following:

- regular drill hole spacing that has defined the geological continuity of the deposit
- variography for TREO-CeO_2 that supports the drill spacing for the classifications
- industry standard QA/QC data supporting the assaying process
- the use of a specialised and reputable commercial laboratory
- the use of commercially prepared standards by the laboratory assaying and ongoing duplicates in both the field and laboratory.

11.12 Cut-off Grade

The Koppamurra Mineral Resource has been reported above a cut-off grade (COG) of 325 ppm TREO-CeO_2. Given the early stage of the Koppamurra project, this COG was selected based on a peer review of publicly available information from more advanced projects with comparable mineralization styles (i.e. clay hosted rare earth mineralisation) and comparable conceptual processing methods. Material above this cut-off generates a head feed grade of over 700 ppm TREO, and in the opinion of the Competent Person meets the conditions for reporting of a Mineral Resource with reasonable prospects of economic extraction.

A grade tonnage curve is shown in Figure 26 and the Koppamurra Mineral Resource reported at various COG's in Table 19.

Figure 26: Grade tonnage curve showing material tonnes versus grade (TREO-CeO2, TREO and CREO)

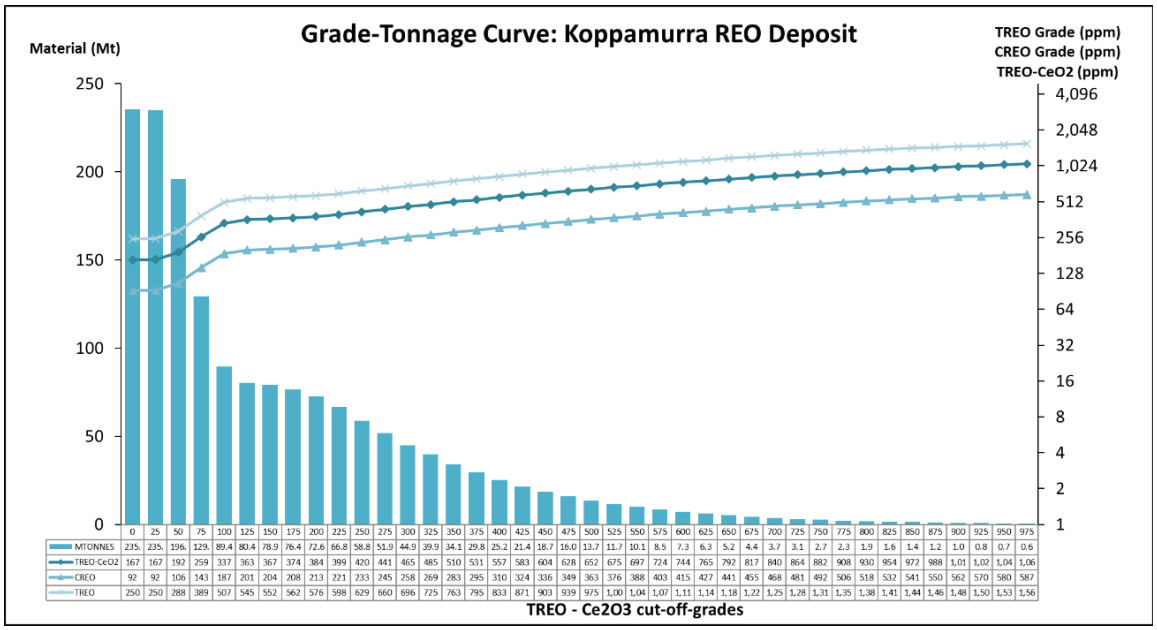


Table 18: JORC (2012) Inferred Koppamurra Mineral Resource Estimate reported at various COG's

Cut-Off Grade TREO-Ce (ppm)	Tonnes (Mt)	TREO (ppm)	TREO-CeO_2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	ThO_2 (ppm)	U_3O_8 (ppm)	**La_2O_3 (ppm)**	**CeO_2** (ppm)	**Pr_6O_{11} (ppm)**	**Nd_2O_3 (ppm)**
100	80.4	545	363	381	165	201	17.3	1.6	83.2	182.6	23.6	91.4
200	72.6	576	384	403	174	213	17.6	1.6	87.8	192.8	25.0	96.9
300	44.9	696	465	486	210	259	18.4	1.6	105.8	230.6	30.7	119.2
400	25.2	833	557	583	250	310	18.9	1.6	125.3	275.8	37.1	144.7
500	13.7	975	652	683	292	363	19.3	1.6	145.0	322.8	43.8	171.8

Cut-Off Grade TREO-Ce (ppm)	**Sm_2O_3 (ppm)**	**Eu_2O_3** (ppm)	**Gd_2O_3 (ppm)**	**Tb_4O_7 (ppm)**	**Dy_2O_3** (ppm)	**Ho_2O_3 (ppm)**	**Er2O3** (ppm)	**Tm_2O_3 (ppm)**	**Yb_2O_3 (ppm)**	**Lu_2O_3 (ppm)**	**Y_2O_3 (ppm)**	**Sc_2O_3 (ppm)**
100	18.8	4.2	16.7	2.6	14.3	2.9	7.8	1.1	6.4	0.9	89.0	23
200	19.9	4.4	17.7	2.7	15.1	3.0	8.3	1.1	6.8	0.9	93.9	23
300	24.5	5.4	21.8	3.3	18.4	3.7	10.0	1.3	8.1	1.1	112.2	25
400	29.8	6.6	26.4	4.0	22.1	4.4	11.9	1.6	9.6	1.3	132.0	27
500	35.4	7.9	31.2	4.7	26.1	5.2	14.0	1.9	11.3	1.6	152.4	28

NOTE: Totals may not add up due to rounding.

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$
LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$
HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
NdPr = $Nd_2O_3 + Pr_6O_{11}$
TREO-Ce = TREO - CeO_2
% NdPr = NdPr/ TREO
% HREO = HREO/TREO
U_3O_8 and ThO_2 are deleterious elements

Table 19: JORC (2012) Inferred Mineral Resource Estimate for the Koppamurra Project dated April 2021

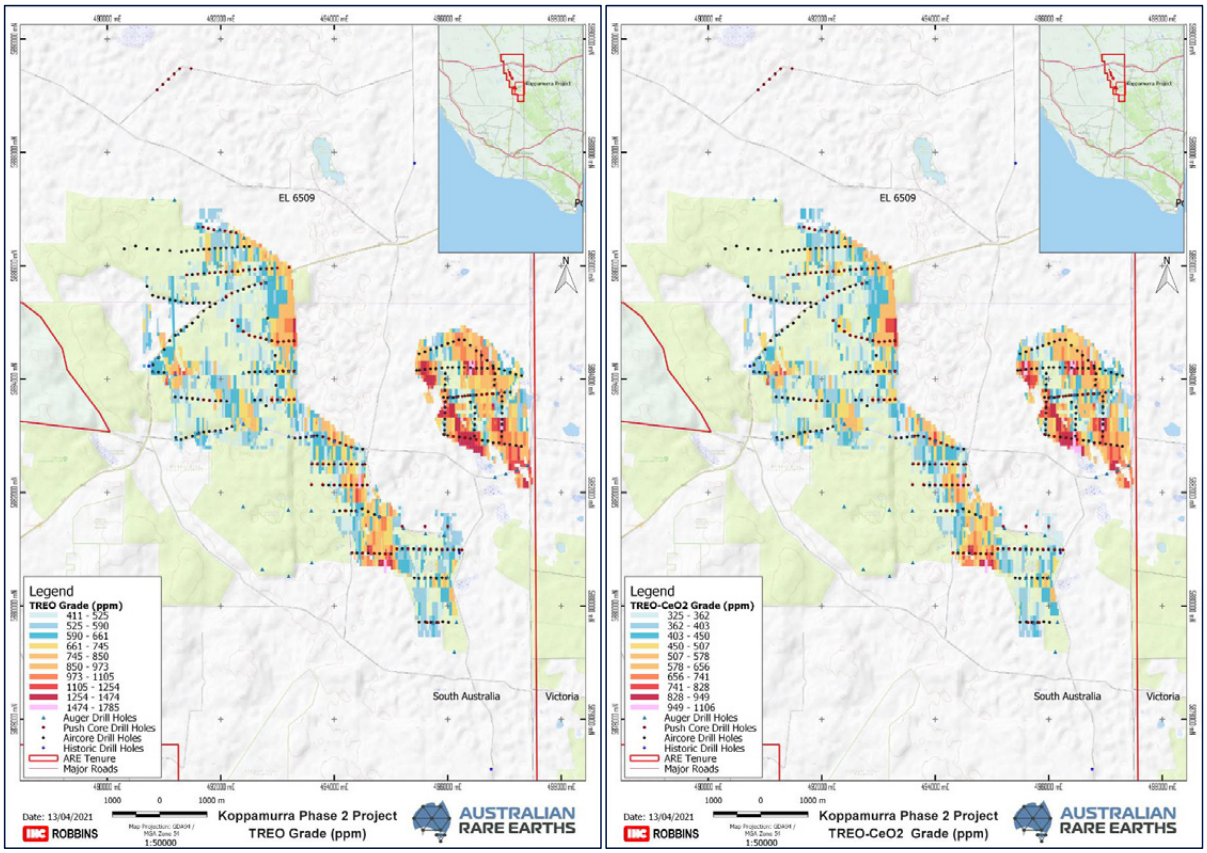
Prospect	Zone	Tonnes (Mt)	TREO (ppm)	TREO-CeO_2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	ThO_2 (ppm)	U_3O_8 (ppm)	**La_2O_3 (ppm)**	**CeO_2** (ppm)	**Pr_6O_{11} (ppm)**	**Nd_2O_3 (ppm)**
Yellow Tail	2	10.0	903	586	638	265	329	19.0	1.6	124.2	316.8	39.8	156.9
Red Tail	2	29.5	668	452	465	203	250	18.4	1.6	105.4	215.6	29.5	114.1
Red Tail	3	0.4	520	359	363	157	195	14.0	1.7	89.7	161.0	23.5	89.1
Total		**39.9**	**725**	**485**	**507**	**218**	**269**	**18.5**	**1.6**	**110.0**	**240.4**	**32.0**	**124.6**

Prospect	Zone	**Sm_2O_3 (ppm)**	**Eu_2O_3** (ppm)	**Gd_2O_3 (ppm)**	**Tb_4O_7 (ppm)**	**Dy_2O_3** (ppm)	**Ho_2O_3 (ppm)**	**Er2O3** (ppm)	**Tm_2O_3 (ppm)**	**Yb_2O_3 (ppm)**	**Lu_2O_3 (ppm)**	**Y_2O_3 (ppm)**	**Sc_2O_3 (ppm)**
Yellow Tail	2	32.8	7.3	28.6	4.3	23.9	4.7	12.8	1.7	10.5	1.4	137.0	29
Red Tail	2	23.3	5.2	20.9	3.2	17.7	3.6	9.6	1.3	7.8	1.1	109.8	24
Red Tail	3	17.5	3.8	15.8	2.4	13.3	2.7	7.4	1.0	5.9	0.8	86.2	16
Total		**25.6**	**5.7**	**22.7**	**3.5**	**19.2**	**3.8**	**10.4**	**1.4**	**8.4**	**1.2**	**116.3**	**25**

NOTE: Totals may not add up due to rounding.

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$
LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$
HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
NdPr = $Nd_2O_3 + Pr_6O_{11}$
TREO-Ce = TREO - CeO_2
% NdPr = NdPr/ TREO
% HREO = HREO/TREO
U_3O_8 and ThO_2 are deleterious elements

Figure 27: Plan view of the Koppmurra Mineral Resource coloured by TREO (left) and TREO-CeO_2 (right)



12 Near-by Mines & Deposits

There are 14 current mining tenements within the area covered by EL 6509 and 10 current mining tenements in the three Exploration Licence Application (ELA) areas in South Australia (Table 20, Table 21 and Figure 28). All mining tenements are for extractive minerals, principally limestone for concrete aggregate, road rubble and agricultural lime, and sand for construction and fill purposes. The two (2) most significant resources are the construction sand resources in Comaum Forest, south of the Glen Roy Conservation Park, and the Henschke's limestone quarry in Naracoorte.

No current mining tenements are located within EL007254 on the Victorian side of the border.

Table 20: Current Mining Tenements on EL 6509

Mining Tenement	Tenement Holder/Operator	Start Date	Expiry Date	Area (Ha)	Commodities
EML 5110*	Bull Bros Pty Ltd	29/03/1983	28/03/2025	9.75	Sand
EML 5112*	Gambier Earth Movers Pty Ltd	07/04/1983	06/04/2032	6.02	Sand
EML 5113*	Gambier Earth Movers Pty Ltd	07/04/1983	06/04/2022	6.56	Sand
EML 5114*	Boral Resources (SA) Limited	07/04/1983	06/04/2021	7.2	Sand
EML 5526	Pitt, Kym David	19/08/1988	18/08/2019	10.15	Sand
EML 6086	Henschke Industries Pty Ltd	10/01/2001	09/01/2029	9.1	Limestone
EML 6105 (ML 6119)	Hamilton, Mark Eric	06/11/2001	04/09/2021	3	Limestone
EML 6113*	Gambier Earth Movers Pty Ltd	16/05/2002	15/05/2030	35.8	Sand
EML 6274*	Holmes Civil Pty Ltd	11/09/2007	10/09/2035	9.1	Sand
EML 6353	D.G. Pitt Pty. Ltd.	18/05/2010	17/05/2031	9.8	Limestone
EML 6383*	Holmes Civil Pty Ltd	19/11/2010	18/11/2024	3.16	Sand
EML 6404	Bull Bros Pty Ltd	14/08/2012	13/08/2033	25.98	Sand; Limestone
EML 6461	Gambier Earth Movers Pty Ltd	03/08/2016	02/08/2037	10.49	Limestone
PM 307**	Henschke Industries Pty Ltd	22/04/1976	n/a	10.49	Limestone

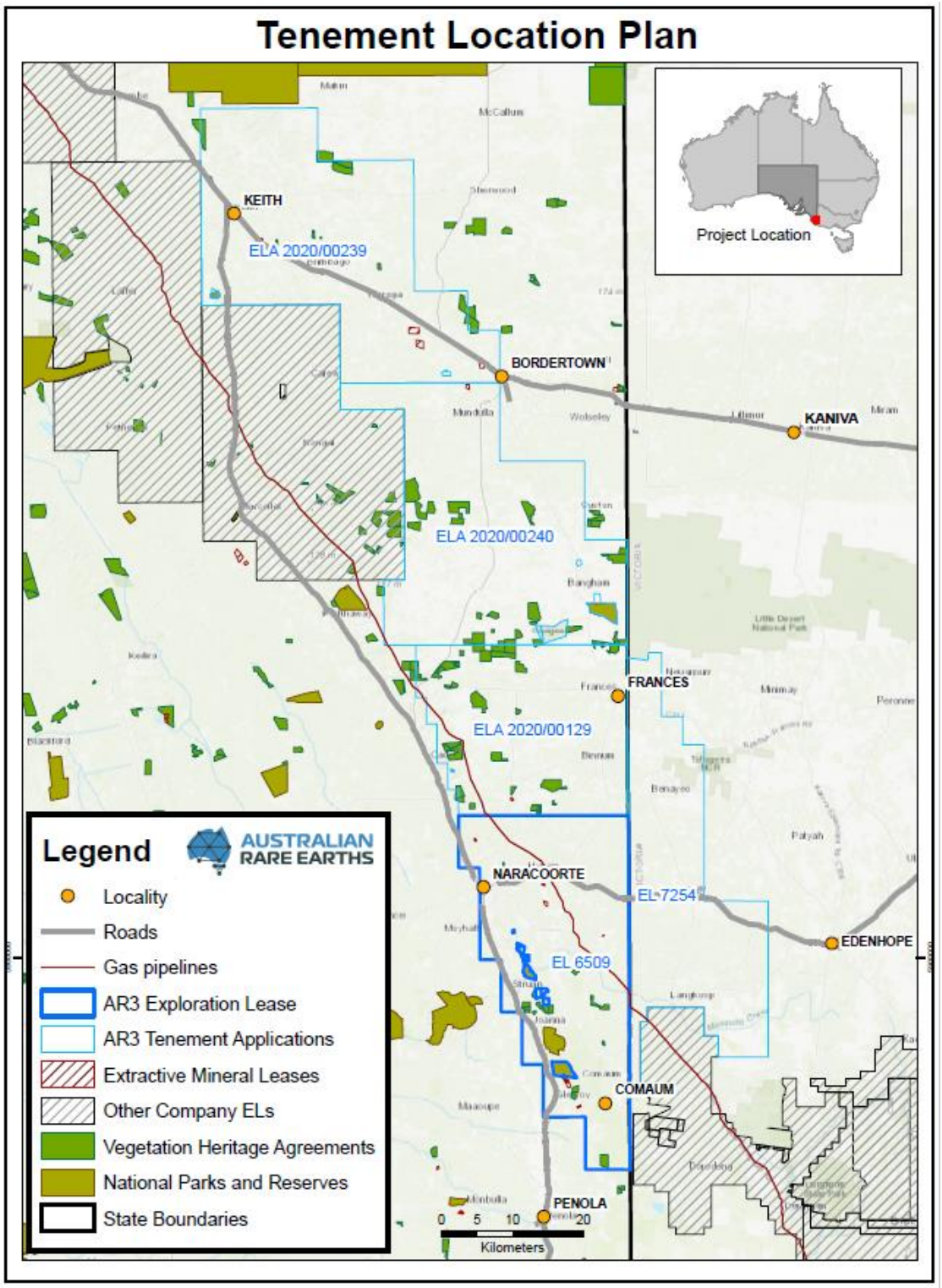
*Extractive Mineral Lease for construction sand from deposit in Comaum Forest south of Glen Roy Conservation Park

**Private Mine- Henschke Industries Naracoorte Quarry - important local supplier of limestone aggregate, limestone road base, agricultural lime.

Table 21: Current Mining Tenements on ELA 2020/00129, ELA 2020/00239, and ELA 2020/00240

Mining Tenement	Tenement Holder/Operator	Start Date	Expiry Date	Area (Ha)	Commodities
EML 6032	L.E. & P.J. Murch	22/01/1999	21/10/2033	45	Sand
EML 6087	R.J. Mock	25/01/2001	24/01/2025	94.21	Calcrete rubble
EML 6098	Gambier Earth Movers Pty Ltd	27/06/2001	26/06/2029	8.8	Limestone rubble
EML 6197	Bull Bros Pty Ltd	11/07/2005	10/07/2033	12.5	Sand
EML 6272	H.F. & R.G. Betts Pty. Ltd.	03/09/2007	02/09/2035	25.5	Limestone
EML 6405	G. Rayner	11/10/2012	10/10/2033	7.12	Limestone
EML 6432	G.R. & K.E. Hunt	12/05/2014	11/05/2027	121.63	Limestone
EML 6444	G.R. & K.E. Hunt	15/05/2015	14/05/2027	5.28	Calcrete rubble
EML 6506	A. & S. Hines	19/12/2019	18/12/2040	2.81	Calcrete rubble
PM 173	J. Woodall	13/09/1973	n/a	169.27	Mount Monster granite/aggregate

Figure 28: Overview of current granted Extractive Mineral Leases, and private mines in relation to over the Koppamurra Project area granted EL and ELA's.



13 Placer, Alluvial, and Clay Hosted REE Deposits

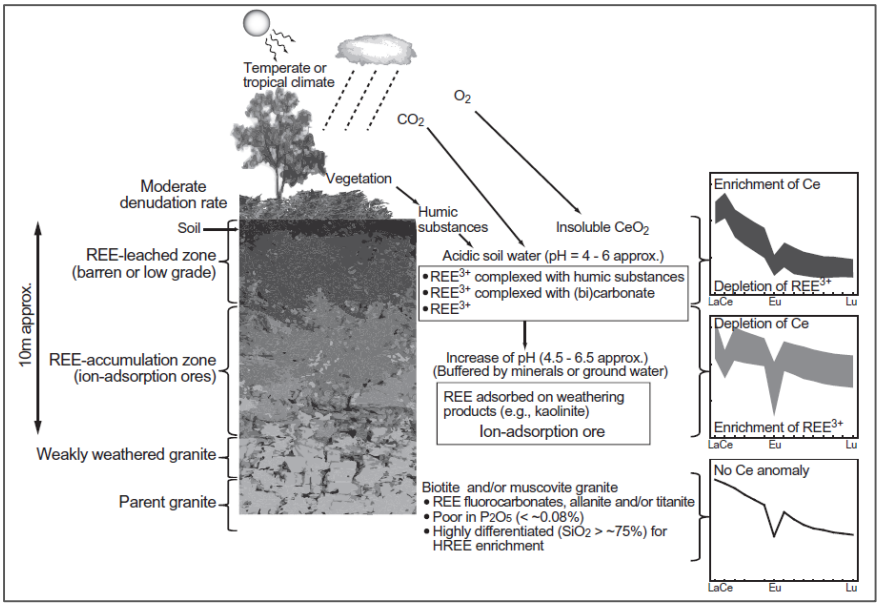
There are several known types of regolith hosted REE deposits including, ion adsorption clay deposits, alluvial and placer deposits (Jowitt et al 2017). However, the development of potentially economic regolith-hosted REE deposits requires a combination of a REE enriched protolith and pedogenic processes that concentrate the REE in the regolith (Jowitt et al 2017).

13.1 Ion Adsorption REE Clay Deposits

Ion adsorption type REE deposits are the dominant source of heavy rare earth elements (HREE) currently mined in the world with all economic examples of this deposit style confined almost exclusively to areas underlain by granitic rocks in southern China (Sanematsu et al 2016). The term ion-adsorption deposit (IAD) is ubiquitously used to describe easily leachable REE deposits associated with lateritic weathering that readily liberate the metals following mild acidification during addition of ammonium sulfate leach solutions (Borst et al. 2020).

The present genetic model of IAD's formation proposes that they develop from the weathering of REE-enriched granites (Figure 29), where the breakdown of REE-bearing minerals allows mobilised REE ions to become adsorbed onto clays, themselves derived from the weathering of primary minerals such as feldspar, and given the right conditions, the continuous breakdown of bedrock and downward mobilisation is believed to allow sufficient concentrations of REE to accumulate in the lower clay-rich horizons of the profile to form a deposit (Pinto Ward 2017). However, whilst REE enriched granites are thought to be necessary for IAD formation, not all weathered REE-enriched granites develop REE-enriched ionic clay deposits (Pinto Ward 2017).

Figure 29: Schematic model of the genesis of ion adsorption-type REE ores developed on granites. Columnar diagram represents a typical weathering profile hosting the REE ores. Graphs show the typical examples of chondrite-normalized REE patterns of the REE leached zone, REE accumulation zone (ion adsorption ores), and parent granite (Papangelakis et al. 2014)



The main controls on the development of IAD deposits are parent bedrock, geomorphology, climate and tectonic conditions (Pinto Ward 2017). These types of deposits form from physical, chemical and biological (microbial) weathering of REE-rich granitic or igneous rocks resulting in the formation of aluminosilicate clays (Papangelakis et

al. 2014). This subtropical weathering causes ionized REE's to be absorbed onto clay minerals. These deposits are termed "ion adsorption-type" because the clays contain more than ~50% ion-exchangeable REY (REE + Y), relative to whole-rock REY (Sanematsu et al 2016).

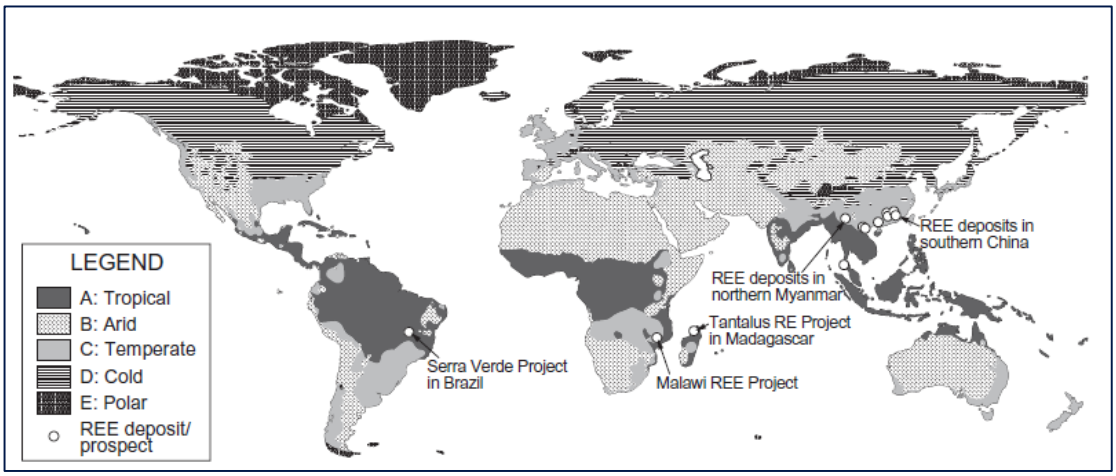
The grades of IAD's range from 140 to 6,500 ppm and are on average ~800 ppm) REY (Sanematsu et al 2016). Typical weatherable REE-bearing minerals include fluorocarbonates, allanite, and titanite, which are the source minerals for the ion adsorption ores (Sanematsu et al 2016). Only REE adsorbed onto clay minerals are recovered. REE associated with competent REE-carrying minerals (e.g., monazite, xenotime) are refractory and not typically extracted during the clay desorption process (Verbaan et al. 2015). Typically, 50 to 90% of the contained REE can be recovered through ion exchange processes (Jones et al. 1996).

Some IAD's are enriched in HREEs (though this is not always the case). HREE grades of the ion adsorption ores are strongly influenced by the relative abundances and weathering susceptibilities of REE-bearing minerals in the parent granites (Sanematsu et al 2016). The presence of easily weathered HREE minerals in the underlying granites appears to be the primary control of the HREE-rich deposits, although solution and solid phase chemistry during development of the weathering profile may influence REE fractionation (Sanematsu et al 2016). Another observation is that HREE-dominant deposits appear to form more commonly over hydrothermally altered granites produced by fluorine-rich fluids (Pinto Ward 2017).

IAD's are typically 3 to 10 m thick and occur primarily in the completely weathered zone, and sometimes part of the upper part of the sub-weathered zone (Jones et al. 1996). Grades of ionic clay REE deposits are substantially lower than hard rock REE deposits, but the low grades are largely offset by simpler processing, lower mining and processing costs (compared to hard rock REE deposits), and the typically low content of radioactive elements (normally associated with yttrium) (Papangelakis et al. 2014). Hard rock rare earth deposits, which despite being higher grade, are more difficult to mine, separate, beneficiate and require aggressive conditions to dissolve the REE (Papangelakis et al. 2014). IAD's are typically mined by open pit methods and processed via in-situ or heap leach methods.

The majority of exploited IADs occur in southern China, where they account for approximately 35% of China's total REE production and approximately 80% of global HREE supply (Borst et al. 2020). Ionic adsorption clay REE deposits are also mined (but to a lesser extent) in Myanmar (Sanematsu et al 2016), but information is limited. Several small ion-adsorption type deposits and prospects in Vietnam, Thailand, Madagascar, Malawi, Brazil, and Japan have been identified in the last decade (Sanematsu et al 2016 and Pinto Ward 2017) (Figure 30), and weathering profiles have also been studied in USA, the Philippines, Laos, Chile, and South Africa in the search for ionic clay REE deposits outside of China in (Borst et al. 2020).

Figure 30: World map of the Köppen-Geiger climate classification showing known Ion adsorption-type REE deposits and prospects (Sanematsu et al 2016).



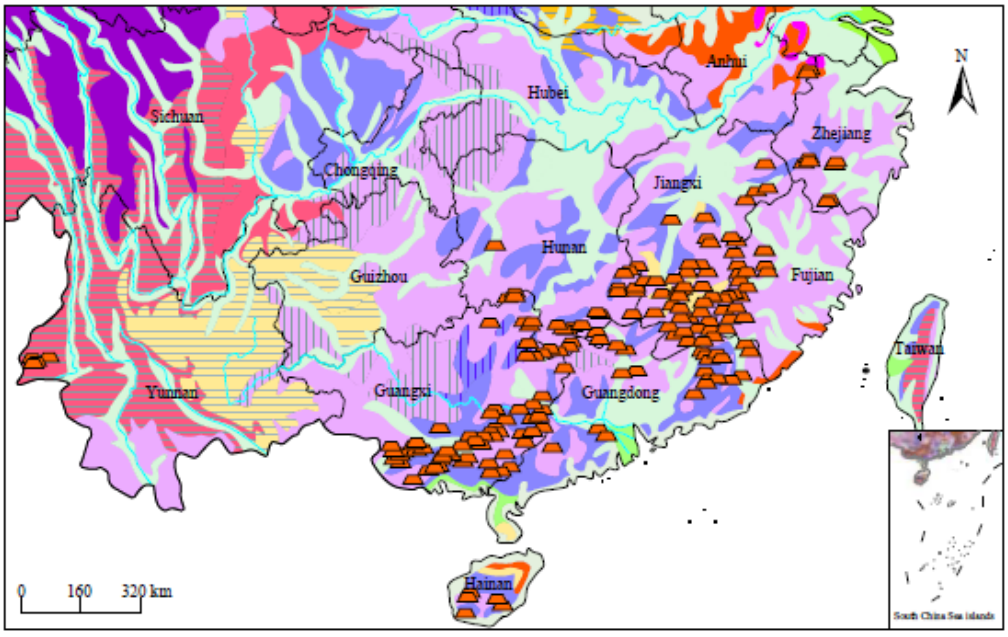
13.2 Ion Adsorption REE Clay Deposits in China

Ion adsorption clay deposits of REE were first discovered in 1969 in the Jiangxi province of southern China (Papangelakis et al. 2014). Ion Adsorption clay deposits of REE are known to occur in seven (7) provinces in China including Yunnan, Guangxi Hunan, Jiangxi, Guangdong, Fujian and Zhejiang Provinces (Wang et al. 2018) (Figure 31), where the majority of economically exploited IADs are hosted in the weathered crusts of igneous, mostly granitic, bedrock (Borst et al. 2020) formed through in-situ weathering under warm, humid, and slightly acidic conditions (Moldoveanu et al. 2016).

These deposits, whilst low grade (140 to 6,500 ppm and averaging 800 ppm), are the predominant source of heavy REE and yttrium in the world (Sanematsu et al. 2016). The southern China deposits typically consist of several layers; an upper surface soil zone (soil cap) of 0 to 2m thick with negligible/ no REE content, a strongly weathered zone of kaolinite, halloysite, quartz, mica and feldspar enriched in REE between 3 and 20m thick and containing around 80 to 90% of the REE mineralisation, a semi weathered layer up to 5m thick and containing less than 15% of the REE mineralisation, and a weakly weathered bottom layer (Papangelakis et al. 2014, Jones et al. 1996). Depending on the nature of the original host rocks, the weathered zones that host the REE are variously composed of kaolinite, halloysite and mica (Papangelakis et al. 2014).

Resources of ion adsorption deposits in China are reported to be approximately 1 Mt at 0.05 to 0.5% TREO (Borges de Lima et al. 2016), though the accuracy of this figure is debatable.

Figure 31: Distribution of ion-adsorption type REE deposits in South China (Wang et al. 2018)



13.3 Placer REE Deposits

REE mineralisation associated with placer deposits are generated by eluvial, alluvial and aeolian processes that have concentrated REE-bearing minerals, such as monazite and xenotime (Jowitt et al 2017). These REE minerals are alteration-resistant refractory minerals that are commonly denser than the majority of silicate minerals, meaning that they can be preferentially concentrated during weathering resulting in the formation of REE placer deposits (Jowitt et al 2017).

The most well-known REE placer style deposits are heavy mineral sands deposits where monazite is mined with other heavy minerals such as zircon, titanium, ilmenite, and rutile. Historically, alluvial and beach sand deposits were the main global sources of REE until the 1960's (Deady 2019). In recent years, approximately 5% of the world's REE production comes from monazite bearing mineral sands deposits predominantly from India (Lucas et al 2015). Whilst work to date does not rule out fine-grained heavy minerals in WIM-type deposits as a possible source of REE at Koppamurra, the resistant REE-containing minerals would, however, need to have been weathered, post-deposition, to release the contained REE, and the REE mobilised and accumulated elsewhere in the sediment.

Alluvial type REE deposits form when REE minerals are concentrated as a response to changes in flow regimes or the nature of the river or lakebed during sediment transport in rivers or lakes (Jowitt et al 2017). An example of this is the Charley Creek REE deposit, which is discussed further in Section 13.4.6.

Other types of REE placers deposits are those derived from extrusive volcanic sources, which are rare (Deeady et al 2019). Two examples of these include Nettuno in Italy, a beach sand deposit containing monazite and other heavy minerals derived from volcanic tuffs from the nearby Latium volcano, and the Aksu Diamas REE deposit at Çanakli in the Burdur Province of Turkey, which is discussed further in Section 13.4.5.

13.4 Sedimentary & Clay Deposits (outside of China)

Other regolith hosted REE deposits outside of China, which are either Advanced Exploration Projects, Pre-Development Projects, or Development Projects, include the Serra Verde Project in Brazil, the Tantalus Rare Earth Ionic Clay Project in Madagascar, The BioLantanidos Rare Earth Ionic Clay Project in Chile, the Makutuu Rare Earth Ionic Clay Project in Uganda, the Aksu Diamas REE Deposit in Turkey, and the Charley Creek Rare Earth Alluvial Project in Australia.

These projects are described below using publicly available information. None of these projects are currently in production.

13.4.1 Serra Verde Rare Earth Project, Brazil

Serra Verde Rare Earth Project owned by a private company Mineracao Serra Verde (MSV), which is part of the Mining Ventures Brazil Group. The Serra Verde Project is located in the Goiás province of central Brazil and includes a combination of ionic clays, alluvium deposits, and resistant REE minerals remaining in the lateritic profile (Borges de Lima et al. 2016). REE mineralisation occurs in an argillaceous layer located close to the saprolitic zone above the fresh Serra Dourada granite (Borges de Lima et al. 2016), which has historically been mined for tin (Pinto Ward 2017). The main REE bearing minerals in the Serra Dourada granite are zircon, allanite, xenotime, monazite, and bastnaesite (Borges de Lima et al. 2016).

Serra Verde contains a NI 43-101 compliant Measured, Indicated and Inferred Mineral Resource totalling 911 Mt at 0.12% TREO (MSV 2015). REE mineralisation occurs in a continuous saprolite horizon ranging in thickness from 2 to 8m and averaging 4.65m thick (MSV 2016). The weathering profile at Serra Verde is characterized by a REE depleted upper part with a zone of REE-accumulation in the lower, kaolinised part of the profile (Herrington et al. 2019). The high REE grades of the Serra Verde deposit are, in part, attributed to the high starting concentration of REE in the

granite protolith due to its highly evolved magmatic composition (Pinto Ward 2017). More than 50% of the Serra Verde REE mineralisation is ion-exchangeable except for Ce (Sanematsu et al 2016).

A Preliminary Economic Assessment (PEA) was completed in 2012, and a Pre-Feasibility Study (PFS) was completed in 2015 based on a 350Mt reserve averaging 0.15% TREO and annual production of around 26,000t contained TREO for a 20-year mine life (BDB 2017). According to MSV's website, construction was scheduled to commence in 2019 and production in 2020/2021. However, as MSV is not publicly listed, very little information about the project is publicly available and the current status of the project is unknown.

13.4.2 BioLantanidos Ionic Clay Rare Earth Project, Chile

BioLantanidos Ionic Rare Earth Clay Project (also known as the El Cabrito or Penco deposit) is 100% owned by Hochschild Mining PLC (Hochschild), who acquired the remaining 93.8% from private company BioLantanidos in 2019 (Hochschild 2019). The project is located 15 km from Concepcion in central Chile, approximately 500 km south of the capital, Santiago. The project contains a NI 43-101 Mineral Resource (dated September 2016) of 23 Mt at 580 ppm TREO (at a 0-cut-off grade) (BioLantanidos 2018).

The deposit is an ion-adsorption clay deposit resulting from intense weathering of Palaeozoic granitic rocks (Collao et al 2019). Rare earth mineralisation is hosted in kaolinite rich clays (Hochschild 2020a), which are on average 10 to 15 m thick and contain REE grades ranging from 200 to 3,000 ppm (Collao et al 2019).

Prior to the acquisition, BioLantanidos constructed and commissioned in 2016 an on-site pilot plant that has demonstrated both technical and commercial viability and produced a +92% quality mixed REO concentrate (BioLantanidos 2018). Hochschild undertook a re-evaluation of the project in 2020, which included a resource update, additional metallurgical tests, and equipment piloting (Hochschild 2020b). Results of the re-assessment have not been made publicly available. Hochschild have a Feasibility Study (FS) on track for completion in H1 2021 (Hochschild 2020c).

13.4.3 Tantalus Rare Earth Ionic Clay Project, Madagascar

The Tantalus Rare Earth Project is owned by Reenova Rare Earths (Reenova), of which 75% was acquired by ISR Capital in 2019, who changed their name to Reenova Investment Holding in 2019, and 25% owned by Tantalus Rare Earths AG (REENOVA 2020c). Reenova are listed on the Singapore Exchange Securities Trading Limited (SGX-ST) under the stock code 5EC. In September 2020, Reenova submitted a Mining License application for the rare earth project (REENOVA 2020b) and entered into a pilot mining agreement with YQS ARC Limited (REENOVA 2020a).

The Tantalus Rare Earths Project (Tantalus) is located on the Ampasindava Peninsula, in Antsiranana Province in north western Madagascar, approximately 500 km north of the capital, Antananarivo (BDB 2017). The project contains a NI 43-101 compliant Measure, Indicated, and Inferred Mineral Resource totalling 628 Mt at 895 ppm TREO (BDB 2017). REE mineralisation occurs in the upper 10m of the lateritic soil and saprolitic clay horizon, with an average thickness defined to date of 6m (BDB 2017).

Initial work was focused on hard rock mineralisation (i.e., primary deposits of REE) within sediments, syenites and alkali granites where REE-bearing accessory minerals including chevkinite, eudialyte, monazite, pyrochlore, bastnaesite, columbite, and zircon were identified (BDB 2017). However, during 2009 it was recognised that elevated levels of REE in the regolith overlying the Ambohimirahavavy igneous complex represented the principal zone of potential economic interest (BDB 2017). The source of the secondary REE mineralisation in the regolith is interpreted as being derived from the alkaline dykes and sills and other alkaline intrusives in the complex (BDB 2017).

Testwork has confirmed that the rare earths within the regolith are adsorbed onto clay minerals and amenable to leaching and recovery. In-situ leach mining is the preferred mining approach currently being considered by Reenova, but to date no mining or feasibility studies have been completed (REENOVA 2020c). According to a recent

announcement (REENOVA 2021), Reenova has engaged METC Engineering (Pty) Ltd to assist in managing and completing a PFS for the Phase 1 Commercial Plant with a production capacity of 2,000 tonnes of TREO ≥ 92% per annum.

13.4.4 Makutuu Rare Earth Ionic Clay Project, Uganda

The Makuutu Rare Earth Project is 51% held by Ionic Rare Earths (Ionic), who were previously known as Oro Verde Limited. The remaining 49% is held by a Ugandan company, Rwenzori Metals Limited. Ionic Rare Earths are listed on the ASX under the stock code IXR and have the right to earn up to 60% of the project on completion of a Bankable Feasibility Study (BFS).

The Makuutu Rare Earths Project is located 120 km east of Kampala, Uganda, and contains a JORC (2012) compliant Indicated and Inferred Mineral Resource totalling 315 Mt at 650 ppm TREO (Ionic 2021). The Makuutu deposit is interpreted to be an ionic adsorption REE clay-type deposit which contains REE mineralisation within a tropical lateritic weathering profile of a basin filled with sedimentary rocks (Ionic 2020). The basin comprises of a sequence of interbedded shales and mudstone that are overlain by clays and mudstone that are kaolinitic and interbedded in places with sandstones and siltstones (Benzu Minerals 2017).

REE mineralisation at Makuutu is interpreted to have been derived from surrounding granitic and mafic rocks (Ionic 2021) and occurs from surface to depths of 15-20 m with an average vertical thickness of 12 m (Ionic 2020). The REE mineralisation is concentrated in the regolith profile where it has dissolved from its primary mineral form (monazite and xenotime) and ionically bonded (adsorbed) or colloidally bonded onto fine particles of aluminosilicate clays such as kaolinite, illite and smectite (Ionic 2021).

Simple shallow bulk mining and heap leach processes using dynamic heaps are the proposed mining and processing method of Ionic. Metallurgical testwork indicates metallurgical recoveries ranged from 3 to 75% TREE Ce 3 (Total Rare Earth minus Cerium) using simple extraction techniques (Ionic 2020). However, no mining studies have been undertaken at this stage. A Scoping Study followed by a Bankable Feasibility Study (BFS) are scheduled to commence sometime in 2021.

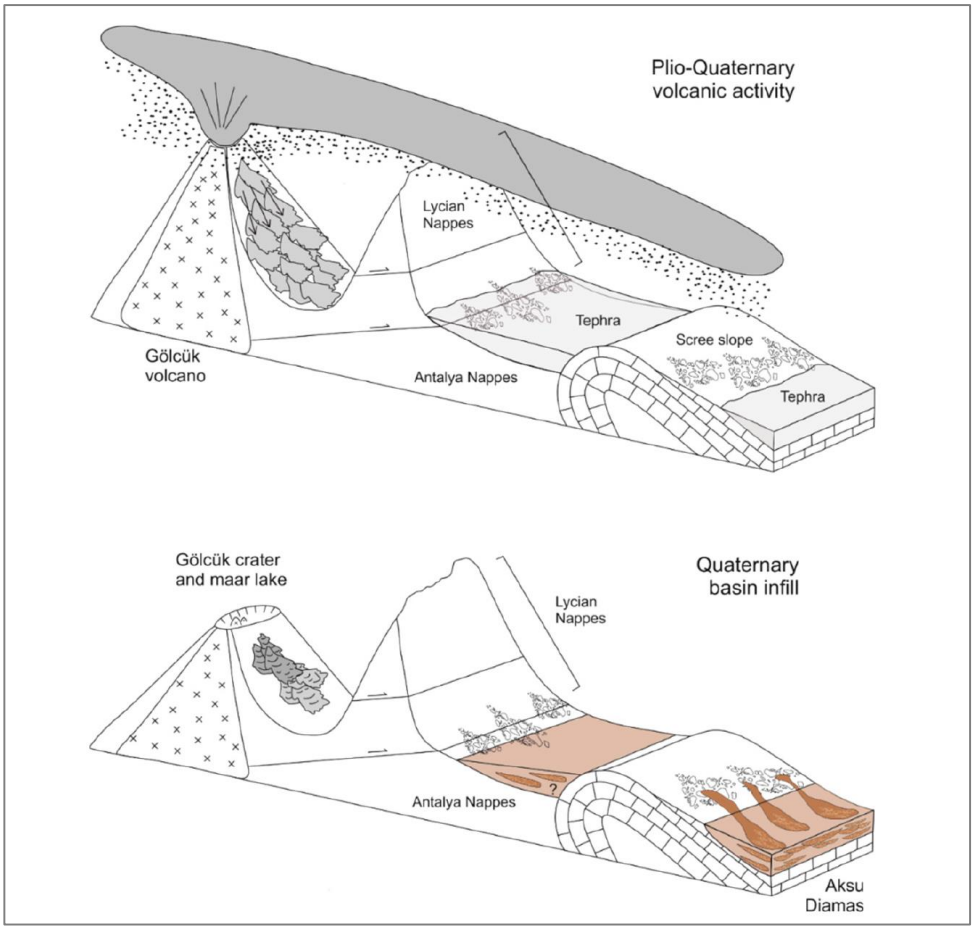
13.4.5 Aksu Diamas Rare Earth Project, Turkey

The Çanakli, REE deposit, which is part of the Aksu Diamas project in western Turkey, contains a NI 43-101 Inferred Mineral Resource of 632 Mt at 698 ppm TREO, 427 ppm ZrO_2, and 0.70% TiO_2 (RPA 2013). The deposit is an atypical ashfall placer deposit containing magnetite and a range of REE minerals, which was formed by tephra material that was reworked into a basin by alluvial processes (Deadly et al 2019).

REE at Aksu Diamas are hosted in an array of mineral phases, including apatite, chevkinite group minerals (CGM), monazite, allanite and britholite, which are concentrated in lenses and channels in unconsolidated Quaternary sands (Deadly et al 2019). The deposit is hosted in a tectono-karstic basin in Mesozoic limestone and was formed by reworking of volcaniclastic material derived from the Gölcük volcano by alluvial processes (Deadly et al 2019).. Fingerprinting of pyroxene, CGM, magnetite and zircon have identified the source of the REE as the nearby Gölcük alkaline volcanic complex, which is located approximately 20 km north-west Çanakli and has a history of eruption throughout the Plio-Quaternary (Deadly et al 2019). Due to the lack of fluvial systems between Gölcük and Aksu Diamas, the heavy minerals are interpreted to have been transported as airborne particles before being deposited onto the palaeo-topography (Deadly et al 2019) (Figure 32).

Air-borne particles of ash from explosive eruptions of Gölcük landed as multiple layers of tephra on the surrounding area, including the basin that now hosts the Aksu Diamas deposit, where the heavy minerals were preserved in the matrix of lens-shaped channels with angular limestone clasts in a muddy sand matrix in the basin at the foot of the hills (Deadly et al 2019).

Figure 32: Formation of the Aksu Diamas deposit, post Plio-Quaternary eruption of the Gölcük volcano, shown schematically (Deadly et al 2019)



Due to the abundance of magnetite in the deposit, if the project were to be developed, REE would mostly likely be produced as a by-product of iron production (Deady et al 2019). The current ownership and status of the project is uncertain. The project was owned and explored by a private company, AMR Mineral Metals Inc (AMR), from 2007 until 2013/ 2014. During this time AMR completed several programs of pitting and drilling, mineral resource estimation, trial mining, establishment of a 100 tph demonstration plant, hydrometallurgical and floatation testwork as well as the commissioning of a PEA (RPA 2013). It is unknown whether AMR still holds the project, or whether it is owned by another company.

13.4.6 Charley Creek Rare Earth Alluvial Project

The Charley Creek Rare Earth Project is located approximately 100 km northwest of Alice Springs in the Northern Territory, Australia. The project is majority owned by Enova Mining Limited (Enova), who was previously called Crossland Strategic Metals Limited (Crosslands). Essential Mining Resources holds 43.72% of four (4) of the eight (8) exploration licenses that make up the Charley Creek Project (Crosslands 2020).

Charley Creek is an alluvial REE deposit hosted by alluvial fans shedding of the West MacDonnell Ranges, which are an uplifted, tilted and dissected plateau of basement Proterozoic rocks comprising metasediments, mafic and felsic granulites, gneisses, migmatites and granites (Crosslands 2013). Rare earths are contained in the phosphate minerals, monazite, and xenotime derived from disintegration of granitoids and metamorphic rocks of the West MacDonnell Ranges (Crosslands 2013). The alluvium appears to have been deposited in thin (10's of cm) pulses with

the overall average thickness of the deposit is 15m, but fans range up to 80m thick in places (Crosslands 2013). The buried basement rocks commonly show a zone of saprolitic weathering, overlain by Tertiary sediments and calcrete, overlain in turn by Quaternary colluvial and alluvial gravels and sands, representing outwash fans from the weathering of the older basement rocks (Crosslands 2013).

The project contains a JORC (2012) compliant Indicated and Inferred Mineral Resource of 805 Mt at 292 ppm TREO (Crosslands 2013). A scoping Study was completed in 2013, along with further drilling in 2019, and metallurgical testwork in 2020.

14 Summary Review

Following the review of the regional setting, geological history, academic studies, and exploration activities to-date, several key geological events were identified that possibly influenced the timing of REE mineralisation at Koppamurra. These events are discussed below in Section 14.1.

Taking into account of all the available information from past and current exploration work examined for this review, several points were concluded regarding REE mineralisation, which are summarised in section 14.2.

14.1 Key Geological Events

For the period 4 Ma – 1 Ma, the key geological events that are interpreted to have impacted the Koppamurra project area include:

- Widespread volcanic activity forming the Newer Volcanic Province to the south and east of the project area (4.5 Ma – 5,000 years before present).
- River blockage and cessation of sand supply to the northwest Murray Basin with coastal erosion of the Loxton Sand strandlines (c. 4 Ma).
- Timing of development of main river flow across the Murray Basin south along the Douglas Depression with outlet to the sea south of the Koppamurra area (c. 3.5 Ma).
- Timing and rate of uplift on the Padthaway High in the Naracoorte area (c. 3 Ma - 1 Ma).
- Timing of defeat of the main river flow to the coast along the Douglas Depression by uplift on the Padthaway High and reversal of flow to the north (c. 2.4 Ma).
- Timing of formation of Lake Bungunnia (c. 2.4 Ma).
- Breakthrough of River Murray to the coast, south of Murray Bridge and the demise of Lake Bungunnia (c. 1 Ma – 0.8 Ma).
- Commencement of progradation of coastal sediments to form the Coorong - Mount Gambier Coastal Plain (c. 0.8 Ma).

It is beyond the scope of this review to fully resolve the timing of these events and their impacts on sediments in the Koppamurra area. None-the-less, from the collation and review of information for this IGR, the following observations and tentative conclusions were made:

- Current ideas that the initial early course of the River Murray was developed along the Douglas Depression (McLaren et al. 2011) appear inconsistent with the high volumes of sand required to be delivered to the south-western Murray Basin to maintain Loxton Sand progradation across Miocene limestone. Also, the provenance of zircon in HM strandlines south of Loxton in South Australia (Keeling et al. 2016) record a high proportion of zircons sourced from Lachlan Orogen granites, consistent with an ancestral Murray-Darling River system as an important route of sediment supply.
- With regards to river development, some aspects of the model of evolution of the western Murray Basin synthesised by Bowler et al. (2006) are preferred. In this model, blockage of the River Murray outlet to the sea near Nildottie, north of Murray Bridge, had important impacts in curtailing the seaward advance of the Pliocene shoreline. Ponded river water found a new outflow point from which a new river valley was excavated, the Douglas Depression, with an outlet to the sea, south of the Koppamurra Project area.
- Revised dates from paleomagnetic measurements on Blanchetown Clay (McLaren et al. 2009) indicate that this event did not result in the formation of Lake Bungunnia proper. The age of clay sediments in the lake was determined to commence before c. 2 Ma, most probably about 2.4 Ma, assuming lake sedimentation rates. The formation of Lake Bungunnia was most probably linked with uplift on the Padthaway High, near Naracoorte, and reversal of drainage along the Douglas Depression.

- The progradation of Loxton Sand in the Koppamurra area was possibly unaffected by large river flows and tectonic activity before uplift in the north western Murray Basin altered the pattern of river drainage. The seaward advance of the sandplain of Loxton Sand across offshore Bookpurnong clay and Miocene limestone was limited mostly by sand supply. Blockage of the Murray River outlet, after c. 4 Ma, reduced sand volumes available for distribution to the south by coastal longshore drift. Local sources of sand from the Dundas Plateau and Western Highlands were disrupted by the subsequent development of a new river along the Douglas Depression with a coastal outlet to the south of Edenhope (c. 3.5 Ma).
- Differential uplift on the Padthaway High in the area between Naracoorte and Horsham possibly began around 3 Ma and by c. 2.4 Ma had effectively raised the Gambier Limestone and overlying Miocene sediments between 100-150 m and reversed the flow of the river occupying the Douglas Depression (Bowler et al. 2006, Figure 33 and Figure 34). The reversal of the river coincided with beginnings of Lake Bungunnia (McLaren et al. 2011). In the Koppamurra area, coastal and offshore marine sedimentation probably ceased sometime between 3 Ma and 2.4 Ma as sediments were uplifted across the Padthaway High. The timing for incorporation of REE in the Pliocene sediments in the southwestern margin of the Murray Basin is therefore likely to have been sometime between 5 to 2.4 Ma.
- In the Koppamurra Project area, on the western flank of the Padthaway High, displacement on the Kanawinka Fault exposed Murray Group Limestone to further weathering. Variable erosion of Pliocene sand, to the east of the fault, reduced sand thickness and partly exposed underlying clay and limestone.

Figure 33: Shuttle Radar image of topography across the Murray Basin with fault traces and location of section across the Padthaway High (in yellow - see Figure 34) (modified from Bowler et al. (2006).

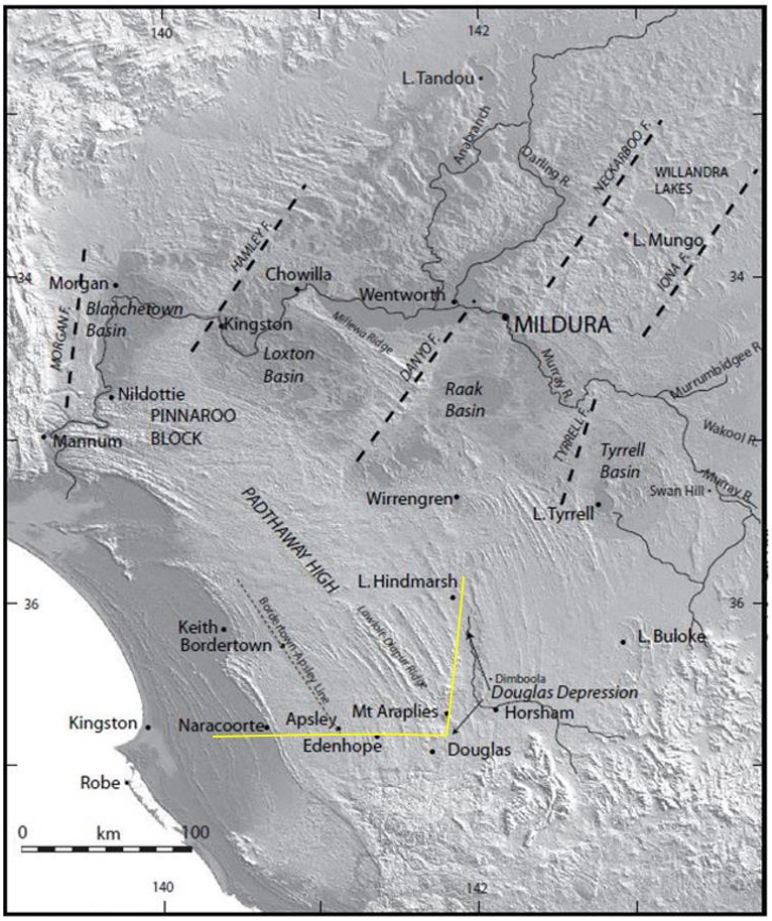
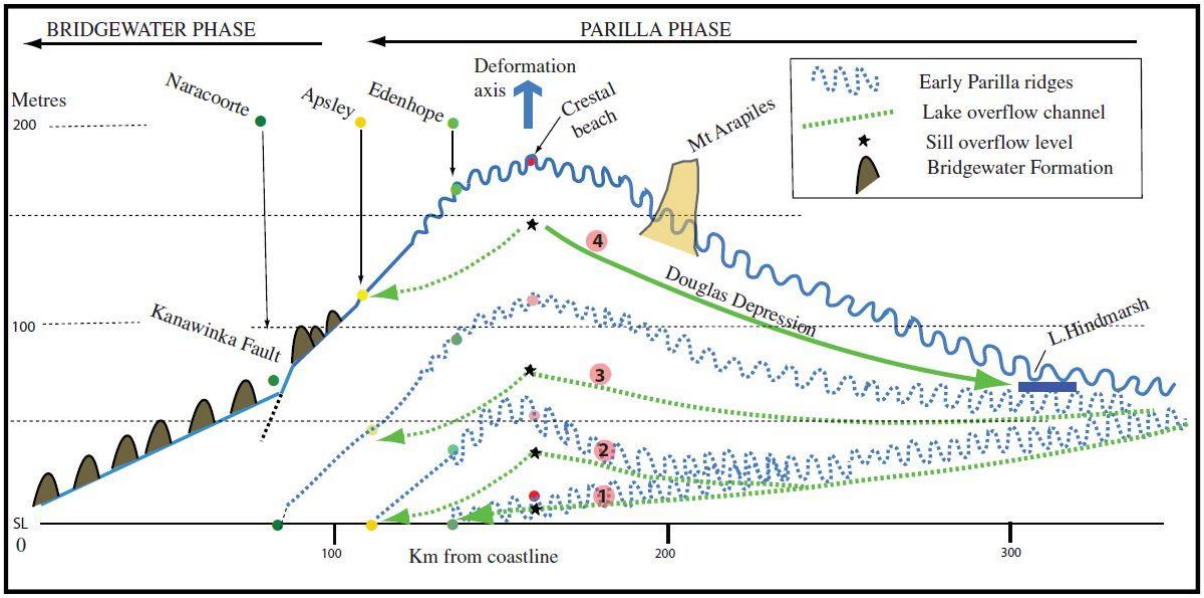


Figure 34: Sketch of stages of uplift of Loxton Sand (Parilla) across the Padthaway High and relationship of sandplain elevation (blue) to river channel incision (green), with drainage defeated at stage 4 and the reversal of river flow within the Douglas Depression towards Lake Hindmarsh (from Bowler et al. 2006). Approximate line of section shown on Figure 33.



14.2 REE Mineralisation at Koppamurra

Findings and observations from this review regarding REE mineralisation at Koppamurra and potential sources of the REE are summarised below:

- Geochemical analyses confirm high REO+Y content, in various clay and clayey sand samples that overlie the Miocene Murray Group Limestone in the southwestern region of the Murray Basin. Highest values, at shallowest depth were recorded in the Koppamurra Project area.
- Sparse, but reliable regional REE geochemical data indicate widespread dispersion of REE in the southern Murray Basin, including across old landsurfaces and Pliocene sediments now buried at 80 m depth. The data highlight the significance of the role of regional geological events over the period c. 5 Ma to c. 2.4 Ma in REE dispersion and preservation.
- Geochemical data indicates that REE were retained and possibly concentrated in fine-grained sediments deposited in the SW Murray Basin during the final stages of the Pliocene coastal transgression over the eroded surface of Miocene Murray Group Limestone.
- Three (3) possible sources of the REE mineralisation at Koppamurra were considered as part of this review; fine-grained heavy mineral sands; weathered basement rocks forming the Dundas Plateau along the southwestern margin of the Murray Basin; and volcanic ashfall originating from eruptive volcanic centres in the Newer Volcanic Province of the Western Highlands in Victoria, extending into the Lower South East of South Australia.
- The work to date does not rule out fine-grained heavy minerals in WIM-type deposits as a possible source of REE. However, the resistant REE-containing minerals would need to have been weathered, post-deposition, to release the contained REE, and the REE mobilised and accumulated elsewhere in the sediment.
- The timings of volcanic eruption from the Mount Burr cluster and from Mount Gambier appear to be too recent to have played a role as a significant source of REE at Koppamurra, but similar style eruptions

occurring elsewhere and at earlier times in the Newer Volcanic Province are considered a possible REE source.

- REE associated with clay sediments at Koppamurra are characterised by dominantly LREE, low levels of thorium, and negligible uranium.
- Iron oxide mottles in the sand and clay indicate weathering and oxidation, which may have redistributed and concentrated some REE. The contact between clay and limestone possibly creates a change in chemical environment with significance in modifying weathering processes and mineral precipitation. These are factors that influence REE distribution in other clay-hosted REE deposits, but the significance in the Koppamurra area is still to be evaluated.
- The geological setting and available geochemical and drill hole data confirm the potential for preservation of extensive, shallow and thin deposits of clay hosted REE in the Koppamurra Project area.

14.3 Closing Comments

There are several known types of regolith hosted REE deposits 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 regolith (Jowitt et al 2017). 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 China (Sanematsu et al 2016).

REE mineralisation at Koppamurra 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 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 surfaces.

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 (but this is not conclusive at this stage), and results received to date confirm the presence of laterally extensive clay hosted rare earth mineralisation at Koppamurra. Which combined with the sampling of historical drillholes supports the interpretation that rare earth mineralisation extends beyond the area covered by the Red Tail and Yellow Tail Prospects, and that the wider Koppamurra project area can be 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 (Table 22), confirming that further work is required before a genetic model for REE mineralisation at Koppamurra can be conclusively defined. In addition, further work is required to better define metallurgical recoveries, process flow sheets, effective mining methods, and project economics.

Table 22: Comparison of Koppamurra with the "typical" ion adsorption clay deposits of Southern China, and the regolith hosted REE deposits; Serra Verde, Makuutu, Tantulas, BioLantanidos and the volcanic ash fall place deposit Aksu Diamas

	Koppamurra	"Typical" Ionic Clay deposit of Southern China	Serra Verde	Tantalus	BioLantanidos	Makuutu	Aksu Diamas
TREO Grade (ppm)	725	140 to 6,500 ppm (average 800 ppm)	1214	907	580	650	698
% of HREO	30%	30 to 90%	27%	20%	59%	26%	11%
% of La + Ce	48%	2 to 32%	55%	61%	18%	52%	70%
Mineralisation	Continuous	Discontinuous	Continuous	Discontinuous	Unknown	Discontinuous	Discontinuous
Host lithology	Clay	Clay	Clay	Clay	Clay	Clay	Unconsolidated sediments
Clay type	Smectite & kaolinite	Kaolinite and/ or halloysite	Kaolinite	kaolinite, smectite, gibbsite	Kaolinite	Kaolinite, ilite, smectite	N/A
Form of occurrence	Limestone basement within Gambier Basin	Regolith over granites/ other intrusives	Regolith over granite	Regolith above alkaline dykes and sills and other alkaline intrusives	Regolith over granites	Sedimentary basin	Tectono-karstic basin and slopes of surrounding limestone mountains.
In-situ weathering or transported REE	Transported	In-situ	In-situ	In-situ	In-situ	Transported	Transported
Source of REE	Unknown	Granitic basement rocks	Granitic basement rocks	Alkaline dykes and sills, and other alkaline intrusives	Granitic basement rocks	Nearby granites	Volcanic Ash
Source of REE	Possibly volcanic ash fall or basement rocks of the Dundas Plateau.	Granitic basement rocks	Granitic basement rocks	Granitic basement rocks	Granitic basement rocks	Nearby granites	Volcanic ash
REE phase	Most likely ion adsorption	Ion-adsorbed	Ion-adsorbed	Ion-adsorbed	Ion-adsorbed	Ion-adsorbed	REE Minerals
TREO Extraction	To be determined	Ammonium sulphate	Sodium Chloride	Either sodium chloride or ammonium sulphate	Unknown	Ammonium sulphate	Gravity, magnetic seperation, floatation, cracking, leaching.
U_3O_8 ppm	2	50	12	Bedrock = 12ppm	Unknown	10	8.2
ThO_2 ppm	19	50	90	Bedrock = 57 ppm	Unknown	30	40

15 Exploration Budget

REESearch has been advised that Australian Rare Earths has budgeted approximately A$9 million to spend on exploration activities over the next 24 months (Table 23) that rely on funds raised from the Proposed Listing as detailed in the Prospectus. The budget focuses on advancing the Project through additional drilling and metallurgical testwork and studies.

Over the 2-year budget period, Australian Rare Earths intends to increase confidence of known prospect areas as well as identifying additional clay hosted rare earth mineralisation within its project area. This includes approximately 12,000 metres of drilling as well as regional assessments of the prospectivity of the wider exploration tenure.

In addition, the budget makes allowances for mineral resource estimation of up to four (4) geographically separate and distinct areas, process testwork, and studies to establish the feasibility of the production of rare earth concentrates from clay lithologies at Koppamurra.

Table 23: Australian Rare Earths proposed 2-year budget

Item	Year 1 (AU$ M)	Year 2 (AU$ M)	Total (AU$ M)
Working Capital	1.0	1.0	2.0
Resource Definition Drilling	1.2	2.8	4.0
Regional Exploration	1.0	1.0	2.0
Metallurgical Testwork & Studies	1.3	1.7	3.0
Expenses of the Offer and Capital Raising Fees	1.0	-	1.0
Total	5.5	6.5	12.0

REESearch has reviewed the planned work programs and the amounts allocated to those programs and is of the opinion that the proposed work programs are reasonable for the purpose of advancing the study status of the Project. The funds allocated by Australian Rare Earths should be sufficient to sustain the planned exploration activities for the next 24 months.

Each step in the proposed exploration programme will be conducted contingent upon the success of the preceding activity. Progressive expenditure will naturally depend on the success of the proposed drilling and technical studies and Australian Rare Earths may require additional funds should the outcome of the drilling necessitate modifications to the proposed work program.

In REESearch's opinion, Australian Rare Earths' current understanding of the local geology and the REE mineralisation identified to date through initial exploration drilling and metallurgical testwork is reasonable and warrants further exploration and assessment. REESearch considers the work program to be adequate to effectively test the immediate targets and to generate new targets beyond the current mineralisation extents.

16 Principal Sources of Information

The principal information sources used to compile this IGR are listed below:

- South Australian Government websites
  - https://www.energymining.sa.gov.au/minerals/online_tools/free_data_delivery_and_publication_downloads/sarig
  - https://data.sa.gov.au/data/dataset/
  - https://www.energymining.sa.gov.au
- Victorian Government websites
  - https://discover.data.vic.gov.au/
  - https://gsv.vic.gov.au
  - https://earthresources.vic.gov.au
  - http://services.land.vic.gov.au/
- Company announcements, drillhole data, reports, and presentations
- Consultant reports
- Government reports and datasets
- Technical papers published in various journals or bulletins
- PhD studies and research documents available online
- Results of analyses for Australian Rare Earths Exploration by Australian Nuclear Science and Technology Organisation (ANSTO)
- Recent scientific journal publications on the geology of the Murray Basin, principally arising from research by the University of Melbourne
- Geochemical data accompany PhD thesis by S McLennan completed in 2016 at the University of Adelaide
- Data, reports, and memos provided by Australian Rare Earths
- Discussions with Australian Rare Earths

17 Declaration

This report has been prepared independently and in accordance with the VALMIN and JORC Codes. The authors do not hold any interest in Australian Rare Earths Exploration Pty Ltd, associated parties, or in any of the mineral properties which are the subject of this report. REESearch does not have any pecuniary or other interests which could be reasonably regarded as being capable of affecting the ability of REESearch to provide an unbiased opinion in relation to the assets and the assumptions included in the various technical studies completed by Australian Rare Earths, opined upon by REESearch and reported herein. REESearch will receive a professional fee based on standard rates for the preparation of this report. The payment of these fees is not contingent upon the success or otherwise of the proposed IPO and capital raising pursuant to the prospectus within which is report is contained.

The Competent Person for the preparation of this Report is Ms. Rebecca Morgan, BSc (Hons) Applied Geology, PGradDip (Mine Engineering), MEngSc (Mine Engineering). Ms Morgan is a member of the Australian Institute of Geologists (AIG) (MAIG 3836) and a member of the Australian Institute of Mining and metallurgy (AusIMM) (301912) with over 19 years professional experience as a geologist.

Ms Morgan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined by the 2012 JORC Code as incorporated in the ASX Listing Rules.

Ms. Morgan consents to the inclusion in this Report of the matters based on his information in the form and content in which it appears.

This Report has an effective date of 28 April 2021, this being the most recent date in which Australian Rare Earths made material in its possession available to REESearch. REESearch is unaware of any material change since this date. Ms. Morgan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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ANSTO 2020d. Optimisation Leach Study for REE Recovery from an Ionic Clay Deposit – Phase 2. Progress Note #2. ANSTO report dated 17 December 2020.

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19 Abbreviations

AC	Air core (drillhole)
AIG	Australian Institute of Geoscientists
ASIC	Australian Securities and Investment Commission
AUD	Australian dollar
ASX	Australian Securities Exchange
AusIMM	Australasian Institute of Mining and Metallurgy
BFS	Bankable Feasibility Study
c. 2.4 Ma	circa (around or approximately) million years before present
Ce	Cerium
CREE	Critical rare earth elements
CREO	Critical rare earth oxides
Dy	Dysprosium
EL	Exploration License
EOH	End of hole
Eu	Europium
Er	Erbium
FS	Feasibility Study
Gd	Gadolinium
g/t	grams per tonne
Ho	Holmium
HREE	Heavy rare earth elements
HREO	Heavy rare earth oxides
IAD	Ion-adsorption deposit
ICP-MS	Inductively Coupled Plasma - Mass Spectrometry
IGR	Independent Geologist's Report
JORC	Joint Ore Reserves Committee
JORC Code	2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
La	Lanthanum
LREE	Light rare earth elements
LREO	Light rare earth oxides
Lu	Lutetium

Km^2	Square kilometres
m	Metre(s)
M	Million(s)
m^3	Cubic metres
Ma	Million years before present
MRE	Mineral Resource Estimate
mRL	Metres reduced level
Mt	Million tonnes
Nd	Neodymium
PFS	Pre-Feasibility Study
ppb	Parts per billion
ppm	Parts per million
Pr	Praseodymium
REE	Rare earth elements
REO	Rare earth oxides
SARIG	South Australian Resources Information Gateway
Sm	Samarium
t	Tonne(s)
Tb	Terbium
Tm	Thulium
TREO	Total Rare Earth Oxides
TREO+Y	Total Rare Earth Oxides plus Yttrium oxide
USD	United States dollar
VALMIN Code	Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports.
Yb	Ytterbium
Y	Yttrium

20Glossary of Terms

Advanced Exploration Projects Tenure holdings where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A Mineral Resource estimate may or may not have been made, but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the Mineral Resources category.

Aeolian Relating to wind-formed surficial deposits, typically composed of fine sand and sediment.

Alluvium loose, unconsolidated (not cemented together into a solid rock) soil or sediment that has been eroded, reshaped by water in some form, and redeposited in a non-marine setting. Detrital material which is transported by a river and usually deposited along the river's pathway, either in the riverbed itself or on its floodplain.

Anomalous Having statistically significantly higher or lower values than the norm.

Anomaly A portion of an area surveyed that is different in appearance from the area surveyed in general or containing higher or lower values than considered normal.

Assay An examination of a sample to determine by measurement certain of its ingredients.

Auger a rotary drill that uses a screw device to penetrate, break, and then transport the drilled material.

Basalt A fine-grained, dark igneous rock, generally extrusive, composed of half feldspar and half mafic materials.

Basement The igneous or metamorphic rock that exist below the oldest sedimentary cover. In some areas such as shields the basement rocks may be exposed at surface

Basin a topographic depression containing or capable of receiving sediment.

Bedrock a deposit of solid rock that is typically buried beneath soil and other broken or unconsolidated material (regolith).

Beneficiation the treatment of mined material, making it more concentrated or richer. Crushing and separating ore into valuable substances or waste by any of a variety of techniques.

Bryozoan Microscopic invertebrates that live in colonies and build calcium carbonate exoskeletons in seawater, much like coral, which can accumulate to form limestone reefs.

Bulk Mining Any large-scale, mechanized method of mining involving many thousands of tonnes of ore being brought to surface per day.

Calcrete A surficial form of carbonate, usually formed during weathering processes.

Cambrian A geological period from 541 to 485 Ma.

Carbonate Rock of sedimentary or hydrothermal origin, composed primarily of CO3.

Cenozoic The current geological era, from 66 Ma to the present day.

Clay A fine-grained material composed of hydrous aluminum silicates.

Cretaceous A geological period from 145 to 66 Ma.

Cut-off Grade the unit metal content at which ore is separated from waste. This is an economic distinction.

Depocentre The site or area of maximum deposition of a particular sediment in a sedimentary basin.

Deposit a natural layer or accumulation of sand, rock, minerals, etc

Deposition The precipitation of mineral matter from solution.

Detrital Referring to rock or mineral particles derived from mechanical breakdown of preexisting rocks and transported by water or wind.

Development Projects Tenure holdings for which a decision has been made to proceed with construction or production or both, but which are not yet commissioned or operating at design levels. Economic viability of Development Projects will be proven by at least a pre-feasibility study (PFS).

Devonian A geological period from 419 to 360 Ma.

Duricrust A soil, sediment or weathered rock strongly cemented by iron oxide, silica or alumina to form a hard crust within a land surface exposed to weathering.

Early Stage Exploration Projects Tenure holdings where mineralisation may or may not have been identified, but where Mineral Resources have not been identified.

Eluvial process used to describe in-situ weathering or weathering plus gravitational movement or accumulation of soil, sediments or other unconsolidated material. Weathered material still at or near its point of formation

Eolian See aeolian.

Erosion The action of surface processes (such as water flow or wind) that remove soil, rock, or dissolved material from one location on the Earth's crust, then transport it away to another location

Eluvium in-situ weathered bedrock

Exploration Projecting, sampling, mapping, drilling and other work involved in the search for

Exploration Target: An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource.

Fault A fracture in rock along which there has been relative displacement of the two sides either vertically or horizontally; this may provide a channel for the passage of mineral-bearing solutions.

Fe Chemical symbol for iron**.**

Feldspar A group of common rock-forming minerals that includes microcline, orthoclase, plagioclase and others.

Ferruginous Pertaining to or containing iron; red-coloured rocks in which the iron content has been oxidised.

Fluvial Produced by the action of flowing water.

Formation A body of rock identified by lithic characteristics and stratigraphic position and is mappable at the earth's surface or traceable in the subsurface.

Geological Time (or chronostratigraphy) is divided into Eons, Era, Periods and Epochs.

Grade Any physical or chemical measurement of the characteristics of the material of interest in samples or product. Note that the term quality has special meaning for diamonds and other gemstones. The units of measurement should be stated when figures are reported.

Granite Coarse-grained igneous crystalline rock with a high silica content.

Granodiorite Coarse grained igneous rock, similar to granite, but with more plagioclase feldspar than orthoclase feldspar.

Grid Systematic array of points or lines along which field observations are made.

Halloysite an aluminosilicate clay mineral with the formula Al2Si2O5(OH)4.

Heap Leach A process whereby valuable metals, usually gold and silver, are leached from a heap, or pad, of crushed ore by leaching solutions percolating down through the heap and collected from a sloping, impermeable liner below the pad.

Heavy minerals Minerals with high specific gravity concentrated in sandy sediment by the action of water or wind (e.g. ilmenite, rutile, zircon, monazite).

Ignimbrite Volcanic rock composed of pyroclastic fragments ejected from an explosive volcanic eruption.

Igneous Formed by solidification from the molten state.

In situ in the natural or original position. Applied to a rock, soil, or fossil when occurring in the location in which it was originally formed or deposited. In situ is a Latin phrase meaning in the place.

In-situ Leach a mining process used to recover minerals through boreholes drilled into a deposit, in situ. In situ leach works by artificially dissolving minerals occurring naturally in a solid state.

Intermediate A descriptive term applied to igneous rocks that are transitional between basic and acidic with silica (SiO_2) between 54% and 65%.

Intracratonic With reference to events, such as faulting or basin formation, that take place within rather than on the margins of a craton.

Ironstone Generic name for an iron bearing rock, usually at surface. May be a Banded Iron Formation or a weathering product similar to a laterite.

Kaolin A 1:1 layer clay mineral composed essentially of aluminium and silicon oxides in equal amounts.

Kaolinite a clay mineral, with the chemical composition Al2Si2O5(OH)4.

Karst Near-surface solution features formed by dissolution of limestone by groundwater.

Laterite Iron-rich residual surface rock capping formed by weathering in tropical conditions.

Lignite A soft brown combustible sedimentary rock formed from naturally compressed peat often referred to as brown coal.

Longshore drift Refers to the movement of sand and sediment along a coast by waves that approach at an angle to the shore but recede directly away from it.

Ma A symbol for millions of years before the present time.

Maar volcanic complex A complex of low relief volcanic craters formed by phreatomagmatic eruptions from hot lava interaction with groundwater.

Mafic Referring to igneous rocks composed dominantly of iron and magnesium minerals.

Magnetite A mineral; magnetic oxide of iron.

Marine transgression A period of flooding of the land by the sea

Metamorphic Alteration and re-crystallisation or rocks because of heating or application of pressure or both.

Mica A group of minerals characterised by nearly perfect basal cleavage

Micron Particle size where 1 micron is one thousandth of a millimetre (0.001 mm).

Mineral Resource: a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories

Mineral Sands A class of placer deposit formed in beach environments due to the specific gravity of the mineral grains.

Mineralisation: Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest. The term is intended to cover all forms in which mineralisation might occur, whether by class of deposit, mode of occurrence, genesis or composition.

Mining All activities related to extraction of metals, minerals and gemstones from the earth whether surface or underground, and by any method (eg quarries, open cast, open cut, solution mining, dredging, etc).

Miocene: A geological epoch from 23 to 5.3 Ma

Monazite is a primarily reddish-brown phosphate mineral that contains rare-earth elements.

Mudstone A fine-grained sedimentary rock whose original constituents were clays or muds

Oligocene A geological epoch from 66 Ma – 56 Ma

Open Pit - A mine that is entirely on surface. Also referred to as open-cut or open-cast mine.

Ordovician A geological period from 485 Ma – 443 Ma

Ore - rock containing minerals that have economic value.

Orebody a solid, naturally occurring mineral aggregate of economic importance, from which one or more valuable constituents may be recovered by treatment

Orogeny An event that leads to a large structural deformation of the Earth's lithosphere (crust and uppermost mantle) due to the interaction between tectonic plates

Outcrop An exposure of bedrock at the surface, projecting through the overlying soil cover.

Oxidation is the loss of electrons or an increase in oxidation state by a molecule, atom, or ion

Oxidised Near-surface decomposition by exposure to the atmosphere and groundwater.

Paleocene A geological epoch from 34 Ma – 23 Ma

Paleomagnetic Refers to measurement of magnetic characteristics of iron minerals in a rock or sediment to determine the position of Earth's magnetic pole at the time the minerals crystallised.

Pedogenesis the process of soil formation (also referred to as soil development, soil evolution, soil formation, and soil genesis)

Permeable Allows water flow

Permian A geological period from 299 to 252 Ma.

Phreatomagmatic An explosive volcanic eruption that results from interaction of hot magma or lava with groundwater and expels both volcanic gasses and steam, which disperse volcanic ash.

Placer A concentration of detrital minerals with high specific gravity formed by the action of water or wind that selectively removes the lighter detrital particles.

Pleistocene A geological epoch from 2.6 Ma to 12,000 years before present

Pliocene A geological epoch from 5.3 Ma – 2.6 Ma.

Pre-Development Projects Tenure holdings where Mineral Resources have been identified and their extent estimated (possibly incompletely), but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral Resources have been identified, even if no further work is being undertaken.

Production Projects Tenure holdings – particularly mines, wellfields and processing plants that have been commissioned and are in production.

Progradation Refers to the growth of coastal sediments farther out to sea over time.

Project An area including a group of tenements that constitute a logical working unit.

Prospectus - A document filed with the appropriate securities commission detailing the activities and financial condition of a company seeking funds from the public through the issuance of shares.

Protolith the original, unmetamorphosed rock from which a metamorphic rock is formed.

Provenance Refers to the origin of sediments or the source area of crystallisation of mineral grains contained in sedimentary rocks.

Quartz A very common mineral composed of silica.

Quaternary – the current geological system, from 2.6 Ma to present day

RC drilling Reverse circulation drilling, a technique in which the cuttings are recovered through the drill rods, thereby minimising sample losses and contamination.

Rare earth element a group of 17 elements in the third group of the periodic table which includes yttrium (Y, 39) and the lanthanides, which are lanthanum (La, 57), cerium (Ce, 58), praseodymium (Pr, 59), neodymium (Nd, 60), promethium (Pm, 61), samarium (Sm, 62), europium (Eu, 63), gadolinium (Gd, 64), terbium (Tb,65), dysprosium (Dy, 66), holmium (Ho, 67), erbium (Er, 68), thulium (Tm, 69), ytterbium (Yb, 70) and lutetium (Lu, 71).

Recovery The percentage of material of interest that is extracted during mining and/or processing. A measure of mining or processing efficiency.

Refractory elements Refers to metal elements that have exceptionally high melting point.

Regolith Weathered portion of the land surface down to bedrock.

Rhyolite A volcanic rock with more than 69% silica composed of mostly quartz and alkali feldspar in a glassy groundmass.

Royalty - An amount of money paid at regular intervals by the lessee or operator of an exploration or mining property to the owner of the ground. Generally based on a certain amount per tonne or a percentage of the total production or profits. Also, the fee paid for the right to use a patented process.

Sandstone A clastic sedimentary rock composed mainly of sand-sized minerals or grains

Saprolite a chemically weathered rock. Saprolites form in the lower zones of soil profiles and represent deep weathering of the bedrock surface.

Scintillator A detector for charged particles and gamma rays.

Scoping Study is an order of magnitude technical and economic study of the potential viability of Mineral Resources.

Sediment Formed by the deposition of solid fragmental or chemical material that originates from the weathering of rocks.

Sedimentary Containing sediments.

Sedimentary Basin A low area in the earth's crust, of tectonic origin, in which sediments have accumulated. These may include volcaniclastic sediments.

Shale A fine-grained, clastic sedimentary rock composed of mud that is a mix of flakes of clay minerals and tiny fragments (silt-sized particles) of other minerals

Siliceous Referring to rocks or sediments containing a high proportion of quartz or other forms of silica.

Siltstone A clastic sedimentary rock primarily composed of silt sized particles, defined as grains 2–62 µm

Silurian A geological period from 444 to 419 Ma.

Smectite A 2:1 layer clay mineral typically composed of silica and aluminium in the tetrahedral layer and iron and magnesium in the octahedral layer.

Soil a mixture of organic matter, minerals, gases, liquids, and organisms that together support life. Soil is also commonly referred to as earth or dirt.

Strandline Sedimentary deposits of beach and backshore sand dunes that trace the coastal shoreline.

Stratigraphic Pertaining to the composition, sequence and correlation of stratified rocks.

Stratigraphy The study of stratified rocks, especially their age, correlation and character.

Strombolian Refers to a style of volcanic activity that varies from small volcanic blasts to kilometre-high eruptive columns that are mostly short-lived.

Tectonic deformation of the rocks that make up the Earth's crust and the forces that produce such deformation.

Tenement Area of land defined by a government authority over which an applicant may conduct exploration or mining activity, aka 'Mineral Property'. eg Mining Lease or Prospecting Licence.

Tephra pyroclastic material ejected during a volcanic eruption comprising ash-sized glass shards, pumice, scoria and lithic clasts.

Tonalite A coarse- to medium-grained igneous rock with greater than 90% feldspar, mostly as plagioclase feldspar.

Tonnage An expression of the amount of material of interest irrespective of the units of measurement (which should be stated when figures are reported).

Topsoil is the upper, outermost layer of soil, usually the top 5–10 inches (13–25 cm). It has the highest concentration of organic matter and microorganisms and is where most of the Earth's biological soil activity occurs. Topsoil is composed of mineral particles, organic matter, water, and air.

Ultramafic An igneous rock with less than 45% silica and composed mainly of dark minerals with high iron and magnesium content.

Unconformity A substantial break or gap in the geologic record where a rock unit is overlain by another that is not next in stratigraphic succession, such as an interruption in the continuity of a depositional sequence of sedimentary rocks or a break between eroded igneous rocks and younger sedimentary strata.

VHMS Volcanic-Hosted Massive Sulphide

Volcanic Class of igneous rocks that have flowed out or have been ejected at or near the Earth's surface, as from a volcano.

Volcaniclastics A sediment formed by material (dust, rocks) ejected from a volcano, which usually includes additional material derived from the weathering of volcanic rocks.

Waste Unmineralized, or sometimes mineralized, rock that is not minable at a profit.

Weathering The set of all processes that decay and break up bedrock by physical fracturing

Xenotime a rare-earth phosphate mineral, the major component of which is yttrium orthophosphate (YPO4).

XRF X-Ray Fluorescence – elemental analysis technique

21 Appendix A - Rare Earth Element to Oxide conversion

REE to REO conversion factors.

Element	Symbol	Atomic Weight	Oxide	Conversion Factor
Lantham	La	138.91	La_2O_3	1.1728
Cerium	Ce	140.12	CeO_2	1.2284
Praseodymium	Pr	140.91	Pr_6O_{11}	1.2082
Neodymium	Nd	144.24	Nd_2O_3	1.1664
Samarium	Sm	150.36	Sm_2O_3	1.1596
Europium	Eu	151.96	Eu_2O_3	1.1579
Gadolinium	Gd	157.25	Gd_2O_3	1.1526
Terbium	Tb	158.92	Tb_4O_7	1.1762
Dysprosium	Dy	162.50	Dy_2O_3	1.1477
Holmium	Ho	164.93	Ho_2O_3	1.1455
Erbium	Er	167.26	Er_2O_3	1.1435
Thulium	Tm	168.93	Tm_2O_3	1.1421
Ytterbium	Yb	173.04	Yb_2O_3	1.1387
Lutetium	Lu	174.97	Lu_2O_3	1.1371
Yttrium	Y	88.91	Y_2O_3	1.2699

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$

LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$

HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

NdPr = $Nd_2O_3 + Pr_6O_{11}$

22 Appendix B – Drillhole Information

Holes drilled by Australian Rare Earths

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0001	491210	5882967	92.18	AC	18	0	-90
KM0002	491302	5882937	96.77	AC	18	0	-90
KM0003	491389	5882965	99.10	AC	24	0	-90
KM0004	491501	5882995	95.51	AC	15	0	-90
KM0005	491610	5883048	95.94	AC	12	0	-90
KM0006	491700	5883065	92.45	AC	15	0	-90
KM0007	491799	5883078	93.98	AC	15	0	-90
KM0008	491906	5883089	100.58	AC	12	0	-90
KM0009	491996	5883096	102.06	AC	18	0	-90
KM0010	492106	5883124	105.48	AC	18	0	-90
KM0011	492197	5883163	108.51	AC	15	0	-90
KM0012	492105	5883610	109.03	AC	15	0	-90
KM0013	492001	5883620	106.52	AC	24	0	-90
KM0014	491911	5883614	106.87	AC	24	0	-90
KM0015	491802	5883622	109.07	AC	12	0	-90
KM0016	491697	5883638	108.14	AC	15	0	-90
KM0017	491600	5883648	110.92	AC	30	0	-90
KM0018	491502	5883657	111.58	AC	15	0	-90
KM0019	491403	5883660	111.71	AC	9	0	-90
KM0020	491306	5883674	112.73	AC	27	0	-90
KM0021	491198	5883687	115.74	AC	12	0	-90
KM0022	492400	5885586	104.63	AC	9	0	-90
KM0023	492500	5885630	107.02	AC	24	0	-90
KM0024	492600	5885660	112.24	AC	9	0	-90
KM0025	492710	5885681	110.35	AC	9	0	-90
KM0026	492796	5885705	107.99	AC	15	0	-90
KM0027	492302	5885557	108.07	AC	12	0	-90
KM0028	492195	5885514	109.10	AC	9	0	-90
KM0029	492096	5885448	107.40	AC	9	0	-90
KM0030	493294	5884147	109.39	AC	12	0	-90
KM0031	493200	5884143	120.38	AC	9	0	-90
KM0032	493101	5884138	123.45	AC	15	0	-90
KM0033	492997	5884139	120.63	AC	9	0	-90
KM0034	492903	5884134	121.69	AC	9	0	-90
KM0035	492800	5884129	118.23	AC	6	0	-90
KM0036	492696	5884131	118.83	AC	9	0	-90
KM0037	492602	5884128	115.75	AC	9	0	-90
KM0038	492200	5885033	114.43	AC	7	0	-90
KM0039	492303	5884936	116.00	AC	6	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0040	492396	5884844	116.99	AC	6	0	-90
KM0041	492503	5884770	117.28	AC	6	0	-90
KM0042	492603	5884748	118.08	AC	9	0	-90
KM0043	492703	5884728	120.04	AC	10	0	-90
KM0044	492800	5884703	120.30	AC	6	0	-90
KM0045	492900	5884675	120.10	AC	6	0	-90
KM0046	493012	5884659	120.05	AC	6	0	-90
KM0047	493106	5884666	121.50	AC	6	0	-90
KM0048	493200	5884672	120.56	AC	6	0	-90
KM0049	493287	5884675	113.14	AC	6	0	-90
KM0050	492499	5884120	115.13	AC	15	0	-90
KM0051	492599	5883631	114.99	AC	6	0	-90
KM0052	492700	5883633	118.62	AC	3	0	-90
KM0053	492800	5883531	115.59	AC	9	0	-90
KM0054	492899	5883631	118.47	AC	21	0	-90
KM0055	493001	5883640	116.40	AC	5	0	-90
KM0056	493098	5883636	118.37	AC	15	0	-90
KM0057	493202	5883637	120.71	AC	12	0	-90
KM0058	493292	5883644	111.94	AC	15	0	-90
KM0059	493306	5882957	102.00	AC	10	0	-90
KM0060	493401	5882963	101.93	AC	6	0	-90
KM0061	493504	5882979	101.91	AC	21	0	-90
KM0062	493603	5882998	100.80	AC	12	0	-90
KM0063	493697	5883004	100.62	AC	6	0	-90
KM0064	493800	5882985	101.70	AC	6	0	-90
KM0065	493902	5882950	100.63	AC	15	0	-90
KM0066	494005	5882914	101.56	AC	6	0	-90
KM0067	494102	5882875	102.21	AC	9	0	-90
KM0068	494204	5882838	101.85	AC	8	0	-90
KM0069	494301	5882798	101.94	AC	7	0	-90
KM0070	494401	5882774	102.30	AC	6	0	-90
KM0071	494501	5882762	105.80	AC	7	0	-90
KM0072	493605	5882501	98.66	AC	8	0	-90
KM0073	493701	5882500	99.40	AC	10	0	-90
KM0074	493804	5882497	98.00	AC	8	0	-90
KM0075	493904	5882497	98.00	AC	3	0	-90
KM0076	493998	5882498	98.00	AC	5	0	-90
KM0077	494114	5882497	98.08	AC	13	0	-90
KM0078	494203	5882500	98.98	AC	15	0	-90
KM0079	494303	5882496	100.89	AC	8	0	-90
KM0080	494401	5882496	102.00	AC	3	0	-90
KM0081	494501	5882494	102.00	AC	13	0	-90
KM0082	493803	5882134	101.03	AC	6	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0083	493902	5882133	103.32	AC	18	0	-90
KM0084	494001	5882134	101.97	AC	12	0	-90
KM0085	494101	5882132	102.45	AC	18	0	-90
KM0086	494201	5882135	101.35	AC	6	0	-90
KM0087	494300	5882136	100.53	AC	6	0	-90
KM0088	494400	5882133	101.05	AC	6	0	-90
KM0089	494498	5882130	102.69	AC	7	0	-90
KM0090	494793	5881560	102.73	AC	6	0	-90
KM0091	494709	5881610	100.34	AC	9	0	-90
KM0092	494598	5881660	103.44	AC	6	0	-90
KM0093	494491	5881709	100.45	AC	7	0	-90
KM0094	494390	5881673	103.69	AC	7	0	-90
KM0095	494302	5881676	103.28	AC	25	0	-90
KM0096	494194	5881680	103.75	AC	4	0	-90
KM0097	494096	5881678	102.85	AC	6	0	-90
KM0098	496198	5880992	111.63	AC	9	0	-90
KM0099	496106	5880996	110.85	AC	6	0	-90
KM0100	495996	5880999	109.88	AC	3	0	-90
KM0101	495899	5880998	108.76	AC	6	0	-90
KM0102	495803	5880999	109.80	AC	6	0	-90
KM0103	495699	5881000	105.89	AC	6	0	-90
KM0104	495600	5881002	104.10	AC	3	0	-90
KM0105	495499	5881004	103.25	AC	18	0	-90
KM0106	495399	5881007	104.15	AC	27	0	-90
KM0107	495298	5881007	104.06	AC	6	0	-90
KM0108	495199	5881008	106.29	AC	5	0	-90
KM0109	495103	5881006	108.00	AC	9	0	-90
KM0110	495001	5880919	105.69	AC	6	0	-90
KM0111	494900	5880919	104.78	AC	13	0	-90
KM0112	494799	5880923	103.65	AC	7	0	-90
KM0113	494704	5880926	102.60	AC	4	0	-90
KM0114	494600	5880931	101.10	AC	3	0	-90
KM0115	494500	5880936	101.17	AC	11	0	-90
KM0116	494401	5880936	100.35	AC	7	0	-90
KM0117	495495	5879714	108.66	AC	12	0	-90
KM0118	495606	5879717	107.15	AC	6	0	-90
KM0119	495702	5879710	107.86	AC	6	0	-90
KM0120	495805	5879707	110.50	AC	4	0	-90
KM0121	495912	5879721	111.67	AC	3	0	-90
KM0122	496014	5879709	110.71	AC	6	0	-90
KM0123	495977	5880494	105.27	AC	6	0	-90
KM0124	495901	5880499	104.49	AC	15	0	-90
KM0125	495799	5880493	106.80	AC	9	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0126	495702	5880503	110.40	AC	8	0	-90
KM0127	495598	5880501	107.33	AC	4	0	-90
KM0128	495490	5880491	105.96	AC	12	0	-90
KM0129	495411	5880497	106.56	AC	6	0	-90
KM0130	491498	5885844	109.66	AC	6	0	-90
KM0131	491706	5885866	106.33	AC	8	0	-90
KM0132	491898	5885878	110.23	AC	5	0	-90
KM0133	492097	5885891	108.73	AC	6	0	-90
KM0134	492302	5885902	111.99	AC	6	0	-90
KM0135	492502	5885929	113.08	AC	15	0	-90
KM0136	492705	5885945	113.26	AC	4	0	-90
KM0137	492904	5885952	116.79	AC	3	0	-90
KM0138	492825	5885075	115.29	AC	9	0	-90
KM0139	492961	5884415	122.10	AC	12	0	-90
KM0140	492973	5883894	117.12	AC	15	0	-90
KM0141	495925	5883679	110.91	AC	15	0	-90
KM0142	496000	5883670	110.34	AC	15	0	-90
KM0143	496097	5883674	111.56	AC	6	0	-90
KM0144	496185	5883694	112.76	AC	6	0	-90
KM0145	496302	5883702	113.66	AC	9	0	-90
KM0146	496396	5883712	113.55	AC	6	0	-90
KM0147	496504	5883718	114.38	AC	6	0	-90
KM0148	496601	5883724	116.04	AC	6	0	-90
KM0149	496691	5883741	116.79	AC	9	0	-90
KM0150	496802	5883743	119.21	AC	12	0	-90
KM0151	496896	5883755	120.17	AC	12	0	-90
KM0152	497001	5883765	118.53	AC	15	0	-90
KM0153	497102	5883768	118.77	AC	15	0	-90
KM0154	496953	5883696	117.70	AC	12	0	-90
KM0155	496958	5883610	116.72	AC	15	0	-90
KM0156	496955	5883507	116.06	AC	6	0	-90
KM0157	496957	5883399	114.00	AC	9	0	-90
KM0158	496955	5883293	114.00	AC	12	0	-90
KM0159	496954	5883203	115.53	AC	12	0	-90
KM0160	496951	5883082	114.62	AC	9	0	-90
KM0161	496949	5882988	115.81	AC	6	0	-90
KM0162	497297	5882812	116.77	AC	9	0	-90
KM0163	497203	5882829	118.02	AC	6	0	-90
KM0164	497094	5882847	118.21	AC	6	0	-90
KM0165	497002	5882857	117.80	AC	12	0	-90
KM0166	496902	5882877	117.92	AC	12	0	-90
KM0167	496802	5882879	119.08	AC	9	0	-90
KM0168	496705	5882908	114.21	AC	6	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0169	496609	5882920	115.73	AC	18	0	-90
KM0170	496500	5882935	114.53	AC	12	0	-90
KM0171	496399	5882951	115.87	AC	12	0	-90
KM0172	496302	5882963	112.02	AC	15	0	-90
KM0173	496204	5882979	116.11	AC	15	0	-90
KM0174	496098	5882992	115.08	AC	15	0	-90
KM0175	496000	5883007	114.90	AC	12	0	-90
KM0176	495942	5883019	117.72	AC	6	0	-90
KM0177	495944	5883099	115.93	AC	9	0	-90
KM0178	495943	5883198	113.96	AC	9	0	-90
KM0179	495949	5883297	114.15	AC	15	0	-90
KM0180	495951	5883402	114.04	AC	9	0	-90
KM0181	495953	5883502	111.89	AC	11	0	-90
KM0182	495955	5883600	112.00	AC	12	0	-90
KM0183	496043	5883686	110.61	AC	15	0	-90
KM0184	495951	5883803	109.03	AC	15	0	-90
KM0185	495955	5883904	108.38	AC	6	0	-90
KM0186	495958	5884003	108.70	AC	12	0	-90
KM0187	495957	5884101	111.59	AC	15	0	-90
KM0188	495454	5884154	109.11	AC	9	0	-90
KM0189	495504	5884157	108.10	AC	9	0	-90
KM0190	495598	5884170	108.84	AC	9	0	-90
KM0191	495697	5884181	108.50	AC	12	0	-90
KM0192	495790	5884188	108.78	AC	15	0	-90
KM0193	495897	5884199	111.13	AC	12	0	-90
KM0194	496001	5884207	112.40	AC	12	0	-90
KM0195	496084	5884207	111.42	AC	15	0	-90
KM0196	496195	5884207	112.08	AC	6	0	-90
KM0197	496292	5884208	113.59	AC	6	0	-90
KM0198	496401	5884202	113.21	AC	6	0	-90
KM0199	496508	5884194	114.44	AC	12	0	-90
KM0200	496602	5884196	114.98	AC	9	0	-90
KM0201	496699	5884191	115.89	AC	18	0	-90
KM0202	496805	5884193	116.57	AC	12	0	-90
KM0203	496833	5884098	117.62	AC	12	0	-90
KM0204	496829	5883994	119.59	AC	15	0	-90
KM0205	496821	5883897	120.18	AC	15	0	-90
KM0206	496472	5882997	112.01	AC	15	0	-90
KM0207	496470	5883102	108.05	AC	9	0	-90
KM0208	496474	5883200	108.69	AC	6	0	-90
KM0209	496475	5883300	112.24	AC	12	0	-90
KM0210	496479	5883399	112.54	AC	6	0	-90
KM0211	496480	5883504	113.39	AC	6	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0212	496400	5883597	114.24	AC	9	0	-90
KM0213	495496	5884447	104.33	AC	9	0	-90
KM0214	495598	5884482	106.26	AC	15	0	-90
KM0215	495701	5884521	109.06	AC	12	0	-90
KM0216	495802	5884555	111.70	AC	9	0	-90
KM0217	495896	5884591	110.92	AC	15	0	-90
KM0218	496003	5884628	109.56	AC	6	0	-90
KM0219	496100	5884662	112.36	AC	6	0	-90
KM0220	496197	5884697	114.79	AC	6	0	-90
KM0221	496294	5884693	116.76	AC	9	0	-90
KM0222	496397	5884597	117.41	AC	15	0	-90
KM0223	496503	5884503	111.86	AC	9	0	-90
KM0224	496595	5884418	113.97	AC	6	0	-90
KM0225	496695	5884330	115.03	AC	9	0	-90
KM0226	496799	5884233	117.40	AC	12	0	-90
KM0227	496902	5884181	117.79	AC	18	0	-90
KM0228	497000	5884152	117.81	AC	9	0	-90
KM0229	497101	5884117	118.00	AC	9	0	-90
KM0230	497200	5884083	119.66	AC	18	0	-90
KM0231	497301	5884059	117.98	AC	18	0	-90
KM0232	495454	5884152	109.17	AC	12	0	-90
KM0233	495734.1	5879706	108.59	AC	12	0	-90
KM0234	495973	5880494	105.23	AC	9	0	-90
KM0235	494798.3	5881576	103.89	AC	9	0	-90
KM0236	494385.5	5881676	103.77	AC	9	0	-90
KM0237	494398.2	5882771	102.12	AC	12	0	-90
KM0238	494001.9	5882907	101.40	AC	6	0	-90
KM0239	491599.4	5883043	95.44	AC	15	0	-90
KM0240	493192	5884142	120.82	AC	9	0	-90
KM0241	493285.5	5884675	113.35	AC	6	0	-90
KM0242	492397.5	5884844	117.02	AC	6	0	-90
KM0243	492503	5886340	106.75	AC	6	0	-90
KM0244	492415	5886337	107.97	AC	9	0	-90
KM0245	492294	5886328	108.00	AC	6	0	-90
KM0246	492204	5886321	108.57	AC	21	0	-90
KM0247	492096	5886316	109.73	AC	6	0	-90
KM0248	492001	5886312	112.09	AC	6	0	-90
KM0249	491900	5886311	108.79	AC	18	0	-90
KM0250	491799	5886292	106.67	AC	18	0	-90
KM0251	491699	5886292	106.00	AC	15	0	-90
KM0252	491600	5886278	107.62	AC	6	0	-90
KM0253	491502	5886270	106.27	AC	9	0	-90
KM0254	491399	5886260	104.09	AC	18	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0255	491308	5886246	104.98	AC	9	0	-90
KM0256	491105	5886265	105.19	AC	15	0	-90
KM0257	490895	5886284	104.22	AC	12	0	-90
KM0258	490699	5886304	105.05	AC	6	0	-90
KM0259	490500	5886350	101.53	AC	15	0	-90
KM0260	490301	5886300	102.54	AC	10	0	-90
KM0261	485382	5891772	71.43	AC	12	0	-90
KM0262	485590	5891774	70.10	AC	9	0	-90
KM0263	485814	5891768	72.67	AC	12	0	-90
KM0264	486014	5891769	68.54	AC	15	0	-90
KM0265	486213	5891788	72.11	AC	9	0	-90
KM0266	486305	5891828	75.36	AC	9	0	-90
KM0267	486387	5892002	76.22	AC	9	0	-90
KM0268	486046	5892074	74.04	AC	12	0	-90
KM0269	483929	5893960	61.09	AC	11	0	-90
KM0270	484123	5893821	60.80	AC	9	0	-90
KM0271	484132	5893497	69.39	AC	9	0	-90
KM0272	490701	5885637	98.26	AC	6	0	-90
KM0273	490800	5885477	94.11	AC	18	0	-90
KM0274	490900	5885448	92.93	AC	6	0	-90
KM0275	490998	5885427	93.34	AC	9	0	-90
KM0276	491106	5885403	94.27	AC	18	0	-90
KM0277	491200	5885384	94.32	AC	18	0	-90
KM0278	491303	5885360	93.96	AC	6	0	-90
KM0279	491405	5885339	95.36	AC	9	0	-90
KM0280	491505	5885343	100.19	AC	12	0	-90
KM0281	491608	5885343	98.98	AC	15	0	-90
KM0282	491703	5885344	97.61	AC	9	0	-90
KM0283	491803	5885350	100.90	AC	9	0	-90
KM0284	491904	5885329	105.85	AC	9	0	-90
KM0285	491812	5885274	103.62	AC	9	0	-90
KM0286	491698	5885202	97.61	AC	21	0	-90
KM0287	491601	5885097	98.19	AC	9	0	-90
KM0288	491498	5884989	97.94	AC	12	0	-90
KM0289	491401	5884923	97.80	AC	9	0	-90
KM0290	491302	5884858	99.71	AC	9	0	-90
KM0291	491201	5884772	99.90	AC	6	0	-90
KM0292	491101	5884677	96.02	AC	18	0	-90
KM0293	491004	5884522	94.78	AC	9	0	-90
KM0294	490901	5884377	96.53	AC	9	0	-90
KM0295	490807	5884255	96.06	AC	12	0	-90
KM0296	490803	5884130	102.40	AC	15	0	-90
KM0297	490903	5884121	105.82	AC	18	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KM0298	491002	5884111	109.26	AC	15	0	-90
KMA001	490818	5884131	104.53	Auger	2	0	-90
KMA002	491203	5884088	110.75	Auger	5.5	0	-90
KMA003	491606	5884045	108.39	Auger	4.5	0	-90
KMA004	492399	5884117	115.01	Auger	3	0	-90
KMA005	492800	5884137	118.32	Auger	3.5	0	-90
KMA006	493202	5884141	120.20	Auger	4	0	-90
KMA007	493200	5882996	112.25	Auger	5	0	-90
KMA008	493601	5883000	100.81	Auger	3.5	0	-90
KMA009	493999	5882911	101.41	Auger	3	0	-90
KMA010	494400	5882777	102.32	Auger	8	0	-90
KMA011	494798	5881577	103.92	Auger	3	0	-90
KMA012	495221	5881370	102.34	Auger	3	0	-90
KMA013	495609	5881279	110.88	Auger	4	0	-90
KMA014	495932	5881250	113.21	Auger	2.5	0	-90
KMA015	494396	5881674	103.41	Auger	3	0	-90
KMA016	492801	5883128	114.50	Auger	4	0	-90
KMA017	492398	5883213	112.24	Auger	6.5	0	-90
KMA018	492000	5883075	102.69	Auger	7	0	-90
KMA019	491597	5883042	95.30	Auger	10	0	-90
KMA020	491218	5882946	91.92	Auger	10	0	-90
KMA021	490913	5884399	96.99	Auger	4.3	0	-90
KMA022	491249	5884799	101.40	Auger	8.3	0	-90
KMA023	492035	5885413	109.93	Auger	11.5	0	-90
KMA024	492800	5885701	108.77	Auger	8.5	0	-90
KMA025	491186	5887165	97.44	Auger	6	0	-90
KMA026	490802	5887180	92.25	Auger	12.5	0	-90
KMA027	491606	5886691	94.64	Auger	9	0	-90
KMA028	491981	5886633	94.66	Auger	2.7	0	-90
KMA029	492410	5886495	100.30	Auger	10	0	-90
KMA030	493197	5880528	112.22	Auger	3.1	0	-90
KMA031	492732	5880653	116.20	Auger	1.5	0	-90
KMA032	493604	5880765	96.30	Auger	3	0	-90
KMA033	493996	5881674	100.40	Auger	8	0	-90
KMA034	493192	5881696	115.22	Auger	1.5	0	-90
KMA035	493596	5881682	100.82	Auger	1	0	-90
KMA036	492395	5881754	112.14	Auger	1	0	-90
KMA037	495995	5880513	106.09	Auger	2.8	0	-90
KMA038	495597	5880498	107.37	Auger	1.5	0	-90
KMA039	496154	5879715	108.55	Auger	7	0	-90
KMA040	495741	5879704	108.77	Auger	3.8	0	-90
KMA041	496116	5879192	113.61	Auger	3	0	-90
KMA042	496046	5883681	110.70	Auger	10	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KMA043	496454	5883716	113.66	Auger	1.5	0	-90
KMA044	496879	5883749	120.03	Auger	8	0	-90
KMA045	497407	5882479	122.19	Auger	1.5	0	-90
KMA046	497215	5882402	117.44	Auger	1.5	0	-90
KMA047	497024	5882334	117.01	Auger	3	0	-90
KMA048	496834	5882272	113.53	Auger	1.5	0	-90
KMA049	492677	5892640	96.06	Auger	5	0	-90
KMA050	492897	5892603	99.16	Auger	3	0	-90
KMA051	493099	5892560	96.67	Auger	3	0	-90
KMA052	493312	5892517	97.75	Auger	3.7	0	-90
KMA053	493526	5892471	100.26	Auger	7	0	-90
KMA054	493679	5892439	101.95	Auger	6	0	-90
KMA055	493886	5892392	102.92	Auger	4	0	-90
KMA056	495396	5902301	92.53	Auger	6	0	-90
KMA057	495402	5902616	89.50	Auger	3	0	-90
KMA058	495396	5903017	89.93	Auger	3	0	-90
KMA059	495399	5903405	92.94	Auger	3	0	-90
KMA060	495401	5903781	99.04	Auger	3	0	-90
KMA061	496484	5904130	100.65	Auger	1.5	0	-90
KMA062	495622	5905746	97.68	Auger	2.2	0	-90
KMA063	495895	5906443	90.26	Auger	6	0	-90
KMA064	496599	5907869	98.81	Auger	5	0	-90
KMA065	494967	5909442	101.60	Auger	6	0	-90
KMA066	494969	5910514	98.56	Auger	6	0	-90
KMA067	494973	5911713	102.49	Auger	10	0	-90
KMA068	494951	5912932	106.33	Auger	7	0	-90
KMA069	493658	5912859	105.55	Auger	10	0	-90
KMC001	494000	5883000	102.00	Push Tube	3.5	0	-90
KMC002	495200	5881400	102.59	Push Tube	3.7	0	-90
KMC003	495600	5881400	108.78	Push Tube	3.7	0	-90
KMC004	496000	5881400	113.01	Push Tube	2.6	0	-90
KMC005	496046	5883681	110.70	Push Tube	8	0	-90
KMC006	496453	5883716	113.65	Push Tube	3.1	0	-90
KMC007	496880	5883749	120.04	Push Tube	7.1	0	-90
KMC008	496784	5883745	118.74	Push Tube	3	0	-90
KMC009	496684	5883735	116.71	Push Tube	3.5	0	-90
KMC010	496600	5883729	115.99	Push Tube	3.8	0	-90
KMC011	496355	5883709	114.00	Push Tube	2	0	-90
KMC012	496256	5883697	112.76	Push Tube	5.9	0	-90
KMC013	496154	5883687	112.41	Push Tube	3.3	0	-90
KMC014	492000	5886800	87.23	Push Tube	1.8	0	-90
KMC015	491880	5886850	88.91	Push Tube	4	0	-90
KMC016	491780	5886660	91.92	Push Tube	2.1	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KMC017	491685	5886680	92.88	Push Tube	2.8	0	-90
KMC018	492075	5886615	95.01	Push Tube	2	0	-90
KMC019	492175	5886595	95.59	Push Tube	2	0	-90
KMC020	492270	5886580	98.96	Push Tube	3.2	0	-90
KMC021	493290	5884135	110.00	Push Tube	5	0	-90
KMC022	493200	5884145	120.44	Push Tube	4.9	0	-90
KMC023	493095	5884150	123.28	Push Tube	5.4	0	-90
KMC024	492995	5884140	120.58	Push Tube	6.5	0	-90
KMC025	491805	5883625	109.05	Push Tube	4.8	0	-90
KMC026	491697	5883636	108.20	Push Tube	4.6	0	-90
KMC027	493298	5884669	111.53	Push Tube	5	0	-90
KMC028	493206	5884668	120.53	Push Tube	3	0	-90
KMC029	493106	5884663	121.56	Push Tube	5.2	0	-90
KMC030	493002	5884659	119.91	Push Tube	4.2	0	-90
KMC031	492900	5884680	120.14	Push Tube	5	0	-90
KMC032	492804	5884703	120.26	Push Tube	6	0	-90
KMC033	492703	5884728	120.04	Push Tube	5.8	0	-90
KMC034	492598	5884748	117.99	Push Tube	6.5	0	-90
KMC035	492499	5884773	117.28	Push Tube	2.3	0	-90
KMC036	492402	5884843	117.08	Push Tube	3.1	0	-90
KMC037	492306	5884932	116.00	Push Tube	6.8	0	-90
KMC038	492204	5885037	114.50	Push Tube	7.5	0	-90
KMC039	493295	5883646	111.75	Push Tube	2	0	-90
KMC040	493202	5883639	120.75	Push Tube	1.6	0	-90
KMC041	493097	5883638	118.27	Push Tube	2.6	0	-90
KMC042	492999	5883637	116.44	Push Tube	6.5	0	-90
KMC043	492897	5883638	118.65	Push Tube	3.6	0	-90
KMC044	493908	5882949	100.36	Push Tube	6	0	-90
KMC045	493800	5882984	101.72	Push Tube	8	0	-90
KMC046	493640	5882999	100.48	Push Tube	5	0	-90
KMC047	494102	5882877	102.20	Push Tube	5	0	-90
KMC048	494205	5882837	101.85	Push Tube	2.3	0	-90
KMC049	494303	5882797	101.96	Push Tube	5.7	0	-90
KMC050	493615	5882504	98.80	Push Tube	2.3	0	-90
KMC051	493707	5882503	99.37	Push Tube	5	0	-90
KMC052	493804	5882504	98.00	Push Tube	7	0	-90
KMC053	494000	5882501	98.00	Push Tube	5.6	0	-90
KMC054	494199	5882505	98.94	Push Tube	2	0	-90
KMC055	494402	5882501	102.00	Push Tube	4	0	-90
KMC056	494541	5882496	102.88	Push Tube	2.5	0	-90
KMC057	494581	5882135	104.69	Push Tube	5	0	-90
KMC058	494396	5882136	101.03	Push Tube	5.2	0	-90
KMC059	494199	5882135	101.32	Push Tube	5.2	0	-90

BHID	Easting	Northing	RL	Hole Type	Hole Depth	Bearing	Dip
KMC060	493999	5882133	102.03	Push Tube	4.2	0	-90
KMC061	493796	5882140	100.75	Push Tube	3.6	0	-90
KMC062	493599	5882140	98.51	Push Tube	5.2	0	-90
KMC063	494385	5881677	103.76	Push Tube	4.5	0	-90
KMC064	494205	5881679	103.62	Push Tube	3	0	-90
KMC065	496250	5880992	113.68	Push Tube	2.2	0	-90
KMC066	496102	5880996	110.82	Push Tube	3.3	0	-90
KMC067	495904	5880995	108.78	Push Tube	4.8	0	-90
KMC068	495699	5881000	105.89	Push Tube	5.5	0	-90
KMC069	495495	5880997	103.77	Push Tube	3.7	0	-90
KMC070	495298	5881006	104.09	Push Tube	2.5	0	-90
KMC071	495103	5881006	107.99	Push Tube	3.4	0	-90
KMC072	494901	5880917	104.77	Push Tube	2.8	0	-90
KMC073	494706	5880927	102.62	Push Tube	3.5	0	-90
KMC074	494495	5880931	101.37	Push Tube	6.5	0	-90
KMC075	494315	5880941	100.19	Push Tube	4.4	0	-90
KMC076	495735	5879705	108.61	Push Tube	2.4	0	-90
KMC077	495833	5879705	111.26	Push Tube	7	0	-90
KMC078	495636	5879706	107.07	Push Tube	2	0	-90
KMC079	492094	5885457	107.04	Push Tube	5.5	0	-90
KMC080	492196	5885511	109.30	Push Tube	5.5	0	-90
KMC081	492711	5885684	110.10	Push Tube	3	0	-90
KMC082	493205	5885970	98.67	Push Tube	3.1	0	-90
KMC083	492997	5885960	116.62	Push Tube	2.3	0	-90
KMC084	492806	5885948	114.98	Push Tube	3.6	0	-90
KMC085	492602	5885935	112.70	Push Tube	2.5	0	-90
KMC086	492396	5885918	113.29	Push Tube	5.3	0	-90
KMC087	492202	5885904	109.55	Push Tube	5	0	-90
KMC088	491997	5885887	111.64	Push Tube	3.8	0	-90
KMC089	491802	5885872	109.26	Push Tube	6.5	0	-90
KMC090	491599	5885856	108.16	Push Tube	3.5	0	-90
KMC091	491402	5885838	107.91	Push Tube	2.9	0	-90
KMC092	495929	5883025	117.70	Push Tube	3.6	0	-90
KMC093	496098	5882992	115.08	Push Tube	2.4	0	-90
KMC094	496306	5882966	111.93	Push Tube	5.4	0	-90
KMC095	496501	5882936	114.47	Push Tube	3.3	0	-90
KMC096	491275	5889476	98.21	Push Tube	5.1	0	-90
KMC097	491180	5889382	88.26	Push Tube	5.1	0	-90
KMC098	491080	5889287	92.42	Push Tube	4.8	0	-90
KMC099	490980	5889197	87.55	Push Tube	5.2	0	-90
KMC100	490880	5889103	88.03	Push Tube	3.5	0	-90
KMC101	491478	5889479	96.37	Push Tube	6.5	0	-90
KMC102	489857	5893304	81.48	Push Tube	6.3	0	-90
KMC103	490105	5893239	83.25	Push Tube	2.9	0	-90

23 Appendix C – Historical Drillhole Information

Historical drillholes reviewed by Australian Rare Earths

Hole_ID	East	North	RL	TD	Bearing	Depth
49424	501323	5915690	115	unknown	0	-90
49436	502369.5	5921228	106	unknown	0	-90
50352	499519.3	5910378	104	unknown	0	-90
50353	499519.2	5911477	109	unknown	0	-90
50357	499618.9	5912078	113	unknown	0	-90
50366	503419.4	5905128	105	unknown	0	-90
50370	507771.4	5909243	unknown	unknown	0	-90
50376	504269.5	5904078	unknown	unknown	0	-90
60421	501319.2	5943078	119	38	0	-90
60422	499619.5	5939228	106	48.5	0	-90
74257	497719.5	5892178	108	unknown	0	-90
77825	504669.9	5896127	unknown	unknown	0	-90
77827	513969.7	5895678	unknown	unknown	0	-90
77832	511869.7	5895777	unknown	unknown	0	-90
77833	512670.1	5894328	133	26.5	0	-90
77836	515569.6	5892378	unknown	unknown	0	-90
82778	506368.8	5907327	106	unknown	0	-90
82789	505319.6	5899028	unknown	unknown	0	-90
82791	506619.7	5898127	unknown	unknown	0	-90
82792	512619.2	5904877	unknown	unknown	0	-90
82795	514068.8	5903427	unknown	unknown	0	-90
85619	500326	5935701	105	30.5	0	-90
85622	500712.3	5932412	109	29	0	-90
92809	503815.2	5924764	99	45.1	0	-90
92811	500378.4	5929596	100	29	0	-90
92840	498319.4	5927077	100	unknown	0	-90
92844	497768.7	5924628	100	unknown	0	-90
105667	497869.8	5895128	91	unknown	0	-90
105668	497769.5	5898028	103	unknown	0	-90
105671	500920	5896678	105	36	0	-90
105673	502519.4	5897678	106	unknown	0	-90
105674	503219.6	5901578	109	unknown	0	-90
105675	502219.4	5899678	110	unknown	0	-90
BMR36	494332.9	5923464	105	20.17	0	-90
BMR37	485444.9	5908717	87	20	0	-90
COMAUM_2	496764.9	5877123	113	342	0	-90
KI_01	492425.9	5918404	98	35	0	-90
KI_02	494134.9	5923836	105	30	0	-90
KI_03	493636.9	5929172	107	30	0	-90

Hole_ID	East	North	RL	TD	Bearing	Depth
KI_04	493029	5912885	98	24	0	-90
KI_05	492994.9	5907278	93	22	0	-90
KI_06	495211.9	5903169	87	6	0	-90
KI_07	495174.9	5897519	94	16	0	-90
KI_08	495131.9	5892508	100	18	0	-90
KI_09	495414.9	5887811	113	9	0	-90
KI_10	490735.9	5884230	91	6	0	-90
KI_11	494630.9	5874884	78	18	0	-90
KI_14	496205.9	5880941	107	6	0	-90
KI_15	488065.9	5902458	77	9	0	-90
KI_16	487264.9	5915196	91	13	0	-90
KI_17	486855.9	5921203	88	11	0	-90
KI_18	487402.9	5927052	94	12	0	-90
KI_19	486248.9	5909810	90	17	0	-90
R608	482036.9	5947140	95	unknown	0	-90
R611	480756.9	5930836	91	123	0	-90
R615	495031.9	5912754	105	66	0	-90
RB_01	481500.9	5930747	92	207	0	-90
RB_02	480310.9	5924455	86	178	0	-90
RB_03	480710.9	5920385	75	21	0	-90
S0001	488171.8	5901785	77	42	0	-90
S0002	494707.8	5898011	88	23	0	-90
S0003	481489.8	5908667	72	3	0	-90
S0004	485251.9	5908911	81	21	0	-90
S0005	490513.9	5910331	89	21	0	-90
S0006	490431.8	5913302	98	18	0	-90
S0007	496630.9	5913018	110	12	0	-90
S0008	492324.9	5913247	102	18	0	-90
S0009	493018.9	5927959	99	12	0	-90
S0010	488138.8	5927439	94	15	0	-90
S0011	483270.9	5925689	92	15	0	-90
S0012	477630.9	5925762	82	18	0	-90
S0013	479247.8	5925192	81	15	0	-90
S0014	481616.8	5937948	96	18	0	-90
S0016	484131.9	5937968	101	18	0	-90
S0018	489181.9	5938121	100	15	0	-90
S0019	492472.9	5937970	100	18	0	-90
S0020	495435.9	5937971	100	18	0	-90
S0049	475416.8	5951345	88	15	0	-90
S0050	477641.9	5953886	87	15	0	-90
S0087	490453.9	5952370	97	18	0	-90
S0088	492873.9	5952840	101	24	0	-90
S0090	496464	5953795	109	27	0	-90

Hole_ID	East	North	RL	TD	Bearing	Depth
SANR11	495087.9	5895482	94	142	0	-90
SE_10	488115.9	5893568	75	140	0	-90
SE_MEAT_1	484331.9	5912329	93	14	0	-90

24 Appendix D - Significant Drillhole Intercepts

Significant intersections (from both historical drillholes and those drilled by Australian Rare Earths) at a 300ppm TREO Cut-Off

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
77833	17	19.5	2.5	1501	1168	22.2	18.8	3.43	15	27
82778	5	8	3	325	169	48	14.3	2.32	11.7	14.2
KM0001	6	12	6	507	382	25.3	21.7	2.72	17.6	21.3
KM0002	3	4	1	539	330	38.7	17.9	2.49	13.6	16.8
KM0002	6	12	6	454	296	34.9	20.1	2.57	15.7	15.9
KM0003	17	18	1	375	240	36	23.3	1.86	18.4	11.3
KM0003	19	20	1	695	460	33.8	23.4	1.98	19.8	11.4
KM0003	21	22	1	419	277	34	20.5	2.23	19.2	14.4
KM0005	5	7	2	1462	1175	19.9	26.6	2.48	22.3	17.3
KM0006	9	15	6	865	677	21.6	24	2.54	19.9	20.5
KM0007	8	11	3	566	346	39.7	20.9	2.2	14.7	12.6
KM0008	1	3	2	506	351	29.3	21	3.17	14.7	18.9
KM0009	4	7	3	645	393	37.1	21.4	2.26	16.2	12.6
KM0009	10	13	3	520	341	33.1	21.7	2.17	19.8	13.6
KM0010	13	14	1	415	279	32.9	20.4	3.32	10.2	19.3
KM0011	11	12	1	463	251	45.7	16.9	1.99	15	11.4
KM0012	8	10	2	508	290	45.3	14.7	2.27	11.8	16.7
KM0013	7	10	3	1426	907	34.6	22.6	2.32	16.5	13.5
KM0013	13	18	5	842	567	33.4	20.9	2.41	16.5	16.2
KM0013	19	21	2	457	298	34.4	20.7	2.23	17.8	15
KM0015	2	6	4	635	400	37.1	19.6	2.56	13.5	16.3
KM0016	2	4	2	341	237	30.9	19.8	2.57	15.7	20.1
KM0017	6	8	2	668	466	30.9	21.7	2.75	13.6	19.2
KM0017	22	25	3	550	314	38.2	20.4	1.89	16.6	14
KM0019	1	6	5	520	404	22.7	22.6	2.94	16.8	22.5
KM0020	6	9	3	578	381	34.5	18.5	2.43	15.5	19
KM0020	11	12	1	319	206	35.5	19.9	2.02	18.8	14.7
KM0020	13	16	3	330	254	22.9	23.2	2.65	22.2	18
KM0020	19	21	2	581	396	31.6	24.1	2.48	17.8	13
KM0022	3	6	3	473	339	28.5	18.5	2.68	15.2	24.1
KM0023	17	18	1	678	363	46.5	14.7	3.01	7.95	16.3
KM0023	19	21	2	336	223	33.6	20.5	2.57	16.5	16.1
KM0024	0	3	3	547	414	25.5	24.5	2.41	20.7	15.9
KM0025	3	5	2	947	661	27.2	21.8	2.77	17.7	18.8
KM0026	7	13	6	907	563	36.1	19.9	2.52	14	16.7
KM0027	2	4	2	685	524	24.5	23	2.98	16.7	20.2
KM0028	2	5	3	624	425	29.5	18.1	2.75	15.9	22.5

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0029	2	5	3	668	489	28.9	21	2.57	18.7	18.1
KM0030	2	4	2	887	567	33.3	20	2.88	14.1	17.5
KM0031	2	4	2	804	499	39.4	18.8	2.56	15	13.5
KM0032	7	10	3	871	582	35.9	21.4	2.48	17.6	12
KM0033	4	7	3	671	477	32	20.5	2.16	18.7	17.2
KM0034	4	6	2	591	412	26.6	19.1	3	15	24.1
KM0035	3	5	2	497	381	22.6	22.6	2.49	18.7	22.2
KM0036	4	5	1	423	280	33.7	19.6	2.77	13.9	18.1
KM0037	2	4	2	1118	675	38.9	21.9	2.09	15.3	11.8
KM0038	4	5	1	724	567	21.7	23.4	2.3	24.3	17.9
KM0039	1	4	3	958	808	22.8	22.7	2.38	20.1	21.4
KM0040	0	3	3	403	284	28.1	21	2.45	17.8	20.1
KM0041	1	2	1	427	337	21	20	2.39	17.1	29.4
KM0042	3	7	4	521	386	27	19.1	2.74	14.4	25.6
KM0045	2	4	2	1018	643	39.6	20.4	2.62	14.3	11.9
KM0046	3	5	2	1482	908	41	19.4	2.43	13.9	12.8
KM0047	3	5	2	955	618	31.4	20.9	3.02	13.9	18.1
KM0048	3	5	2	1805	1280	26.6	23.7	2.41	20.1	16.4
KM0049	2	4	2	1734	1085	34.8	21.6	2.54	15.1	14.7
KM0050	4	5	1	355	245	31.1	22.5	2.46	17.7	15.3
KM0050	9	11	2	467	335	28.4	20.8	2.5	17.7	19.7
KM0051	3	5	2	1022	633	37.9	19.7	2.65	14	14.7
KM0052	0	2	2	850	608	31.9	21	2.12	18.4	16.9
KM0054	7	10	3	917	603	33.6	20.8	2.37	17.8	15.2
KM0054	14	16	2	477	293	38.4	19.1	2.22	15.1	15.5
KM0055	1	3	2	977	640	29.7	18.3	3.4	13.4	22.1
KM0056	7	9	2	334	209	37.4	20.1	2.28	16.2	14.1
KM0057	7	9	2	1994	1350	24.6	23.3	3.02	17.9	18.6
KM0058	12	15	3	821	555	29.5	20.1	2.87	16.6	19.3
KM0059	2	3	1	334	253	24	19.5	2.65	19.9	23
KM0060	3	4	1	1015	573	43.6	16.2	2.44	12	15.9
KM0061	8	10	2	1029	619	33.2	23.2	2.15	19.5	12.1
KM0061	13	15	2	357	265	25.1	20.6	2.67	17.8	22.5
KM0062	5	9	4	400	299	26.5	21.7	2.54	20	18.2
KM0063	2	4	2	806	490	35.6	19.8	2.44	15.5	16
KM0064	1	3	2	847	619	21.7	18.8	2.45	15.2	31.2
KM0065	9	14	5	1335	1093	22.7	25.3	2.31	23.5	15.5
KM0066	1	3	2	1365	992	25.6	23.7	2.46	17.1	19.6
KM0067	2	6	4	736	505	31.1	19.1	3.41	11	21.7
KM0068	0	4	4	496	326	32.2	19.6	3.15	13.7	18.4
KM0069	1	6	5	685	458	28.2	21.3	3.24	13.1	20.3
KM0070	2	5	3	855	624	30	20.6	2.85	15.2	19.2

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0071	2	6	4	658	468	25	20.5	2.98	15.4	23.9
KM0072	4	6	2	627	383	34.2	18.8	3.15	12.2	19.1
KM0073	5	7	2	419	206	50.7	15.3	2.2	10.3	12.2
KM0074	4	6	2	1043	671	30.8	21.5	2.92	15.5	17.1
KM0075	0	3	3	693	448	32.9	21.3	2.17	19	14.8
KM0076	0	4	4	690	426	34.4	20.2	2.58	15.5	16.4
KM0077	8	11	3	471	314	32.3	18.1	3.14	11	22.8
KM0078	8	13	5	465	317	29.7	18.6	3.05	14	22.3
KM0079	0	1	1	385	202	47.5	15.9	2.78	8.73	13.6
KM0079	5	7	2	630	445	29.9	19.4	3.51	11.1	21.7
KM0081	8	11	3	1001	627	35.5	18.4	2.9	13.3	18.1
KM0083	11	15	4	486	283	44.8	16.8	2.29	10.2	16
KM0084	7	10	3	407	316	20.8	21.9	3.02	14.7	26.8
KM0085	12	17	5	465	297	33.6	19.1	3.82	9.79	19.1
KM0086	3	5	2	709	492	23.7	22.3	2.64	19.8	20.1
KM0087	5	7	2	2000	1418	24.6	24.9	2.5	19	17.6
KM0088	2	5	3	1843	1277	31.1	21.6	2.97	14.4	17.5
KM0089	4	7	3	1264	906	25.5	22	2.92	16.5	20.6
KM0090	0	4	4	911	599	30.7	17.2	3.44	9.53	25.7
KM0091	5	7	2	1193	857	31.3	20.2	2.88	14.3	19.3
KM0092	2	4	2	1318	774	41.5	18.8	2.74	10.6	14.7
KM0093	3	6	3	822	581	29.4	20.9	3.93	9.4	20.5
KM0094	1	2	1	351	253	27.9	20.8	2.99	15.1	20.3
KM0094	3	6	3	514	331	35.2	21	2.23	17.6	14.1
KM0095	22	23	1	532	325	39	22.9	2.02	17.8	9.09
KM0096	0	2	2	432	304	29.5	20.5	2.53	16.3	20
KM0097	2	3	1	761	494	35.2	20.2	2.91	13.6	15.9
KM0098	4	6	2	524	329	36.3	18.7	2.9	11.7	18.6
KM0099	0	5	5	482	320	34.6	21	2.74	12.9	16.9
KM0100	0	1	1	521	375	28	23.6	3.13	12.8	19
KM0101	2	5	3	661	312	50	14.2	2.51	7.95	15.4
KM0102	3	4	1	368	251	31.9	21.1	3.3	14.2	16.5
KM0103	2	4	2	625	452	31.4	19.8	2.85	15.8	18.5
KM0104	0	2	2	690	447	30.1	21.4	3.01	13.9	19.1
KM0105	11	15	4	588	365	36.1	22.1	2.31	16.4	12.8
KM0107	2	5	3	644	377	41.7	17	2.79	9.38	17.7
KM0109	7	8	1	1287	935	27.3	21.9	3.04	14.1	20.6
KM0110	3	4	1	2452	1630	33.5	23	2.71	15.5	13.4
KM0111	3	5	2	753	489	31.7	19.6	3.82	10.8	19.1
KM0111	10	11	1	330	185	43.9	22	1.37	18.8	6.3
KM0112	5	7	2	1782	1243	25	23.8	2.97	15.8	19.9
KM0113	0	3	3	1061	834	31	21.8	2.37	17.8	16.4

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0115	6	9	3	488	386	20.6	23.7	2.29	24.4	18.6
KM0116	1	3	2	825	589	24.6	23.8	2.93	17.8	18.2
KM0116	4	6	2	385	262	32.1	24.4	1.77	19.7	13.1
KM0118	2	4	2	553	356	31.5	22.3	2.32	17.4	15.9
KM0119	1	4	3	517	387	25.4	23.9	2.69	18.2	17.9
KM0120	1	2	1	562	393	30.1	21.6	2.73	15.5	18
KM0121	1	2	1	438	304	30.6	19.4	3.49	11.6	21.3
KM0122	1	2	1	438	167	61.9	10.2	2.17	6.8	10.6
KM0123	1	5	4	862	596	24.6	23.8	3.03	16	19.6
KM0124	10	13	3	1314	915	29.3	19.4	3.04	15	21.5
KM0125	1	3	2	1237	659	43.7	18.9	2.38	14.1	11
KM0125	6	7	1	314	226	28	19.6	2.85	13.2	24.2
KM0126	0	1	1	323	218	32.6	19.9	2.78	13.7	19.2
KM0126	4	5	1	334	140	58.1	12.6	1.98	8.74	10.7
KM0126	6	7	1	310	182	41.3	19.1	2.48	12.5	13.8
KM0128	7	10	3	609	399	30.1	20.8	2.69	15.6	19.2
KM0129	3	4	1	370	210	43.2	16.8	2.59	12.4	14.5
KM0130	4	5	1	845	683	19.2	30.1	2.28	24.7	12.2
KM0131	4	7	3	656	486	27.7	22	2.57	17.3	19.2
KM0132	1	3	2	396	248	37.2	18.5	2.65	13.2	17.3
KM0133	2	4	2	1022	726	27.9	21	3.25	13.5	20.8
KM0134	3	5	2	1032	730	24.9	23.3	1.98	22	18.3
KM0135	5	9	4	428	295	31.1	20.7	3.18	12.5	19.3
KM0135	12	13	1	359	208	42.1	21.1	2.07	15.5	9.74
KM0136	1	3	2	535	402	22.7	22.9	2.63	19.7	20.8
KM0137	1	3	2	828	651	21.1	22.7	2.78	18.2	23.5
KM0138	5	9	4	624	438	28.2	21.7	2.5	19.2	17.7
KM0140	9	10	1	865	580	32.9	20.4	2.63	14.8	18.1
KM0141	8	10	2	716	454	36.1	23.6	2.59	13.8	12.1
KM0141	11	12	1	345	223	35.3	23.4	2.4	14.7	13
KM0142	8	11	3	1562	1193	22	24.3	2.88	15.9	22.5
KM0143	0	1	1	524	376	28.1	23.6	2.07	21.5	14.9
KM0144	0	3	3	456	321	30.5	21.1	2.86	16.1	17.7
KM0145	6	8	2	540	413	23.6	17.7	2.61	15	30.5
KM0146	1	2	1	333	253	24.2	21.9	2.66	20.2	19.9
KM0147	1	4	3	940	486	37.7	17	3.17	11.3	18.5
KM0148	1	3	2	1024	722	28.3	22.3	2.76	17.5	17.5
KM0149	3	6	3	836	502	36.6	18.2	3	10.8	19
KM0150	9	10	1	397	266	33.1	23.2	3.03	17.9	10.7
KM0151	6	8	2	725	502	30.6	20.8	3.06	13.1	19.5
KM0152	8	11	3	616	443	28.9	19.1	2.91	14.7	22.5
KM0153	11	12	1	927	556	40	25.7	1.6	17.3	6.3

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0154	7	10	3	2626	1595	35.5	23.3	2.51	10.9	16.2
KM0156	1	3	2	585	395	31.7	24.4	2.03	21.4	11
KM0158	6	8	2	1343	1070	16.4	17.7	3.38	11.2	37.7
KM0159	5	8	3	901	555	37.4	23.5	2.34	14.5	11.5
KM0160	3	6	3	1726	1120	31.9	20.8	3.23	10.4	21.4
KM0161	0	2	2	1591	1128	30.2	20.8	3.57	8.93	21.7
KM0162	2	6	4	530	366	30.7	19.3	2.68	14.3	21.5
KM0163	1	3	2	1547	1100	25.1	29.7	2.84	18.7	10.5
KM0164	0	2	2	1378	784	37.5	24.8	2.18	12.2	12.1
KM0165	5	9	4	851	548	34.7	18.8	2.53	13.7	19.3
KM0166	5	8	3	879	583	32.2	24.3	3.02	12.2	15
KM0167	0	1	1	960	787	18	25	2.95	16.7	24.6
KM0168	0	2	2	469	331	29.7	19.7	3.15	12.5	22
KM0169	8	9	1	503	276	45	19.8	1.76	16.6	8.36
KM0170	5	12	7	1215	876	28.5	23.6	3.12	15.5	16.3
KM0171	3	10	7	1148	806	30.2	21	3.27	14.7	18
KM0172	9	13	4	1209	899	27.1	22.1	2.7	15.4	20.9
KM0173	9	13	4	1393	946	26.6	19.2	2.76	13.3	26
KM0174	7	10	3	483	358	25.6	22.3	2.8	14.8	22.3
KM0175	5	8	3	1434	854	38.5	21.2	2.51	13.7	12.8
KM0176	1	3	2	489	317	34.2	19.7	2.94	11.6	19.2
KM0177	4	7	3	494	328	32.5	22.3	2.84	14	16.1
KM0178	3	6	3	532	343	36.6	20.8	2.51	14.4	14.6
KM0180	3	8	5	645	404	30.6	17.8	3.32	10.5	24.9
KM0181	5	8	3	1518	1038	26.9	22.2	2.33	15.9	22
KM0182	8	10	2	1229	875	27.1	23.5	2.87	14.3	19.8
KM0183	6	9	3	793	561	29.5	23.9	4.16	11.3	14.6
KM0183	10	11	1	1274	1016	20.2	27.7	1.9	29.7	11.4
KM0184	8	12	4	1422	942	31.3	18.6	3.35	11.2	23.3
KM0185	0	4	4	484	280	39.7	22.1	2.02	16.2	10.5
KM0186	8	9	1	659	564	14.3	31.2	3.08	21.2	15.8
KM0187	9	11	2	416	275	33.7	18.8	2.35	17	17.9
KM0188	5	7	2	1222	789	36.2	21.1	2.57	14.5	14.2
KM0189	3	6	3	855	613	26.6	22.8	2.97	15.5	19.7
KM0190	3	5	2	2737	1852	32.7	24.9	2.72	12.6	14.7
KM0191	7	10	3	1005	686	31.7	20.4	2.89	13.5	19.6
KM0192	10	12	2	519	417	15.6	11.9	3.73	7.98	48.5
KM0193	5	7	2	442	259	39	18.1	2.26	16.3	14.6
KM0195	10	13	3	431	302	30.2	20.3	2.66	16.6	19.2
KM0196	3	4	1	428	253	40.8	19.2	2.82	12.8	13.4
KM0198	2	4	2	2012	1257	36.1	19.7	3.4	10.7	17.3
KM0199	6	8	2	1040	653	38.6	22.7	2.26	15.4	10.4

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0200	3	6	3	1116	715	36.4	19.4	2.74	13.3	16.7
KM0201	8	15	7	562	382	32.7	20.2	2.82	15.3	17.4
KM0202	7	9	2	1473	1004	31.8	21	3.2	12.9	18
KM0203	8	10	2	1777	1296	26.5	19.6	2.87	11.9	26.5
KM0204	8	10	2	938	602	37.5	21.8	2.2	15.7	12.6
KM0206	10	14	4	1396	877	37.2	22.6	2.3	14.8	12.6
KM0207	0	6	6	569	339	39.6	20.8	2.4	14.7	12.3
KM0208	4	5	1	348	227	34.9	25.9	2.25	16.1	9.67
KM0209	10	11	1	501	351	29.9	26.4	1.84	23.3	9.23
KM0211	1	3	2	942	625	32.4	23.3	2.54	18.7	12.1
KM0212	2	4	2	311	157	49.4	14.2	2.41	14.3	10.2
KM0213	0	3	3	1214	589	50.5	17.8	2.24	9.82	9.89
KM0213	4	7	3	667	347	46.3	17.5	1.97	13.6	11.9
KM0214	11	13	2	631	445	23.2	20.3	3.1	12.4	28.4
KM0214	14	15	1	401	328	18.2	22.6	2.5	18.4	27.4
KM0215	2	9	7	509	321	37.1	19.6	2.33	16.3	14.4
KM0216	2	5	3	628	421	29.5	19	2.74	16.1	21.2
KM0217	9	13	4	618	317	45.3	17.1	2.39	10.8	14.3
KM0218	1	4	3	928	718	22	20.7	3.01	13.5	27.9
KM0219	1	5	4	606	425	31	17.7	3	11.6	24.8
KM0220	1	3	2	1553	871	43.3	20.4	2.06	13.9	11
KM0221	3	4	1	2468	1605	35	25	2.26	18.5	8.85
KM0222	9	12	3	627	380	39.6	18.5	3.16	11.2	14.6
KM0223	3	5	2	1642	897	34.6	19.1	2.78	13.4	18.7
KM0223	6	7	1	1047	593	43.4	19.6	2.2	12.2	12.9
KM0224	1	3	2	2428	1289	39.8	21.2	2.42	13.1	12.6
KM0225	4	7	3	1353	943	29.1	20.8	2.9	13.2	21.8
KM0226	7	9	2	484	335	28.2	23.2	3.14	15.7	16.8
KM0227	11	16	5	752	508	35.3	16.7	1.81	20.7	17.3
KM0228	4	5	1	424	271	36.2	19.9	2.35	11.6	19
KM0229	0	2	2	1167	772	35.4	26.1	2.97	10.4	10.9
KM0229	5	6	1	896	364	59.3	15.2	1.63	9.62	6.84
KM0230	5	10	5	672	467	26.5	20	2.52	15	24.7
KM0230	11	12	1	302	196	35	19.9	2.6	14.8	16.7
KM0232	5	8	3	367	239	34.1	22.1	2.87	13.9	14.6
KM0233	3	6	3	472	276	43.6	18.4	2.61	11.4	13.3
KM0234	1	4	3	944	699	27.9	25.7	2.47	17.8	14.7
KM0235	1	5	4	1194	944	24.9	22	2.83	15.8	22.4
KM0236	3	5	2	647	411	35.5	20.1	3.08	11.4	17.3
KM0237	5	9	4	1011	723	27.9	20.1	3.23	12.7	22.4
KM0238	0	3	3	843	640	23.5	23.3	2.9	15.6	22
KM0239	5	12	7	874	595	30.3	21	2.66	14.6	19.9

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0240	3	4	1	1577	951	39.7	21.8	2.09	16.4	10.4
KM0241	2	5	3	1029	707	34.4	21.2	2.36	16	15.4
KM0242	1	3	2	459	337	24.5	21.3	2.46	18.5	22.6
KM0243	2	3	1	1541	915	40.6	19.5	2.12	13.9	14.4
KM0244	4	7	3	402	274	32.6	20.2	2.84	14.2	18.5
KM0245	0	4	4	604	343	42.2	18.3	2.52	11.8	14.5
KM0246	10	19	9	756	462	38.1	21.1	2.52	13.2	14.1
KM0247	2	4	2	670	458	33.5	22.2	2.26	17.7	14.2
KM0248	2	3	1	638	414	35.2	22.8	2.27	16.6	12.8
KM0249	9	18	9	536	374	31	22.1	2.66	15.3	17.4
KM0250	9	14	5	1196	718	40.4	18	2.54	13	15.7
KM0251	5	9	4	565	360	36.8	19.3	2.53	14.1	16.5
KM0252	2	4	2	555	326	37.8	17.1	2.53	13.2	19.2
KM0255	4	8	4	508	311	36.7	19.6	2.39	15.3	15.6
KM0256	9	11	2	347	220	36.6	19.5	2.35	14.8	16.4
KM0257	6	7	1	521	374	28.3	21.4	3.17	13.2	20.8
KM0257	9	11	2	397	229	41.5	18.7	2.4	12.8	14.5
KM0258	2	3	1	377	260	31	20.2	2.37	16.5	19.6
KM0259	9	10	1	356	194	45.5	17	2.85	9.61	13.4
KM0259	11	12	1	591	333	43.6	21.2	1.82	16	8.62
KM0260	4	5	1	490	301	38.6	18.1	2.26	15.4	16.3
KM0263	3	6	3	328	193	41.1	18.5	2.71	11.8	14.4
KM0265	3	5	2	523	354	36.8	20.2	2.55	14.9	14.5
KM0266	6	8	2	375	312	15.6	28.1	2.83	21.9	18.7
KM0267	4	6	2	322	211	34.7	20.5	2.61	14.8	16.2
KM0268	8	10	2	512	374	30.4	20.2	3.03	15.1	18.5
KM0269	6	8	2	366	254	30.6	20.7	3.71	12.8	17.7
KM0270	3	4	1	300	197	34.3	19.1	3.34	11.2	18.6
KM0270	5	6	1	558	389	30.4	24.5	2.78	14.6	15.4
KM0272	0	3	3	562	401	30.7	20.1	2.58	15.6	20.1
KM0274	3	4	1	347	240	30.7	21.6	2.29	20.7	14.7
KM0275	1	3	2	372	250	34.7	20.4	2.68	15.9	15.1
KM0276	12	16	4	921	592	37.3	23.2	1.53	21.4	8.55
KM0278	3	6	3	811	587	23.5	22.3	2.02	22.8	19.9
KM0281	11	15	4	605	309	44.8	18.4	2.41	12.4	11.8
KM0282	4	7	3	571	425	28.2	21.8	2.19	20.5	17.5
KM0283	4	5	1	393	129	67.1	9.85	1.37	7.33	8.49
KM0283	6	7	1	690	422	38.8	19.5	1.85	18.9	12.7
KM0284	4	5	1	423	346	18.1	23.7	2.77	19.4	24
KM0285	5	9	4	527	296	37.7	16.8	2.69	12.8	19.6
KM0286	9	12	3	385	202	47.3	16.5	2.45	11.1	12.8
KM0286	13	14	1	423	276	34.6	20.8	2.16	17.3	15.1

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KM0286	15	19	4	559	380	31.9	19.9	2.5	17.3	17.9
KM0289	2	4	2	659	404	34.1	20.2	2.32	17	16.3
KM0290	4	8	4	792	518	35.2	19.6	2.5	14.3	17.9
KM0291	0	2	2	548	379	39	18.2	2.45	13.3	16.6
KM0292	13	14	1	663	286	56.9	11.3	2.36	5.95	14.1
KM0293	6	8	2	782	591	22.2	22.6	2.51	19.5	22.4
KM0294	4	6	2	497	290	40.2	20.1	2.48	14.2	12.5
KM0295	4	9	5	874	565	31.7	19.8	2.58	14.3	20.5
KM0298	6	9	3	561	423	26.8	23.1	2.98	16.6	18
KMA001	0.15	1.1	0.95	592	441	24.9	23.5	2.52	20.2	17.6
KMA002	4.5	5.5	1	3030	1575	32.9	19.9	2.39	13.4	21.2
KMA003	4	4.5	0.5	614	527	14.2	25.1	3.53	20.6	22.1
KMA005	2.5	3.5	1	1360	926	24.6	21.7	2.48	19.1	21.5
KMA006	1.5	3	1.5	2124	1356	38.1	20.9	2.51	16.8	11
KMA008	1.5	3	1.5	759	557	27	22.9	2.94	17.8	16.9
KMA009	0	3	3	1610	1125	31.8	22.9	2.56	15.2	15.9
KMA010	3.5	4.5	1	580	420	26.9	17.5	3.84	10.6	26.3
KMA010	5	8	3	918	682	24.8	19	3.33	13	26.6
KMA011	0.5	3	2.5	739	541	27.5	21.7	2.76	15.8	20.2
KMA013	0.5	2.5	2	376	255	31.8	22.1	2.81	14.7	16.5
KMA013	3	3.5	0.5	365	286	21.7	24.4	2.34	21.3	19.2
KMA014	0.5	2.5	2	972	737	27.1	18.7	3.41	12.2	25.3
KMA015	2	3	1	1357	933	29.8	25.3	2.16	21.6	10.8
KMA017	5	6.5	1.5	1166	982	24.1	24	2.06	24.6	15.5
KMA018	5	7	2	823	627	25	20.4	2.75	15.8	24.4
KMA019	4	6.5	2.5	827	458	34.5	16.1	2.89	11	24.2
KMA019	7	10	3	691	525	24.7	21.5	2.58	17.8	22.2
KMA020	7.5	9.5	2	787	614	26.1	21.1	2.97	17.2	20.4
KMA028	0	2.7	2.7	567	419	25.8	23	2.69	16.2	20.4
KMA029	3	6	3	1707	911	43	18.9	2.5	12.2	12.9
KMA029	7	8	1	1014	720	29	23.2	2.68	17.5	15.9
KMA037	1	2.8	1.8	870	627	27.2	22	3.47	13.7	19.4
KMA040	1	3.8	2.8	814	670	16.8	26.1	2.74	22.6	19.4
KMA042	4	10	6	813	596	26.6	26.3	3.98	12.7	13.9
KMA043	0	1	1	1107	696	43.8	18.2	2.69	11.1	13.2
KMA044	5	8	3	780	522	32.3	22.2	2.75	14.3	16.6
KMA045	0.5	1.5	1	1006	520	41.8	16.7	2.19	13	16.8
KMA046	0	1	1	1390	1045	28.7	24.8	3.32	10	18.2
KMA050	1	1.5	0.5	351	180	48.7	17.9	1.64	15.6	8.58
KMA053	1.5	2	0.5	303	169	44.2	17.6	2.82	10.2	13.3
KMA053	6	7	1	328	192	41.5	19.6	3.05	12.2	10.7
KMA054	1	1.5	0.5	391	266	32	22	2.87	14.1	16

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
KMA054	3	6	3	1471	1193	20.3	21.9	3.05	17	24.7
KMA056	5	6	1	554	359	35.2	23.4	2.44	16.4	11.3
KMA057	1.5	3	1.5	471	333	28.9	23	3.07	17	15.1
KMA058	0.5	3	2.5	371	225	36.7	20.7	2.47	15.8	13.6
KMA059	0.5	3	2.5	522	385	26.5	23.8	2.84	17.3	17.1
KMA060	0.5	3	2.5	444	300	31.2	22.3	2.53	18.2	14.8
KMA061	0.5	1	0.5	353	276	22	24.3	2.41	22.5	17.6
KMA062	1	2.2	1.2	592	415	29.9	22	2.8	15.6	17.4
KMA063	4	6	2	534	346	33	21.4	3.1	13.6	15.6
KMA064	2	5	3	570	351	37.1	20.4	2.59	14.1	14.4
KMA066	0	0.5	0.5	389	256	34.1	21	2.09	18.3	15
KMA067	0	1.5	1.5	405	199	51.6	15.3	2.05	11	11.4
KMA067	8	10	2	1029	590	42.3	19	2.57	13.4	11.9
KMA069	0.5	1	0.5	305	198	35.1	19.8	2.28	17.3	15.5
KMC001	0.4	2.2	1.8	1283	864	31.2	20.2	3.19	11.8	20.1
KMC014	0.5	0.8	0.3	894	663	25.8	23.3	2.41	17.3	20
KMC015	1.7	2	0.3	1028	499	51.5	15.9	2.31	7	13.6
KMC016	0.3	1.2	0.9	403	267	32.1	21.5	2.97	11.7	18.6
KMC019	0.4	1.2	0.8	820	655	21.2	23.8	2.79	16	23.7
KMC020	0.3	3.2	2.9	484	318	33.9	19.5	2.86	12.9	19
KMC027	3.5	5	1.5	2257	1524	29.9	23	3.08	15.6	15.3
KMC031	2.7	5	2.3	1430	747	43.8	18.2	2.64	11.4	12.9
KMC042	4.9	6.5	1.6	1990	1296	31.7	22.7	2.62	16.5	15
KMC045	1	2	1	321	210	34.5	20.1	2.83	12.6	18.3
KMC045	2.5	5	2.5	691	466	27.9	17.8	3.38	11.6	26.3
KMC047	1.6	4.5	2.9	847	524	36	18.2	3.43	10.6	18.4
KMC051	1	3.8	2.8	960	437	47.6	16.2	2.82	9.06	13.1
KMC058	3	5.2	2.2	1585	905	26.5	21.7	3.47	13	21.3
KMC066	0.3	3.3	3	659	461	33.5	21.2	2.92	12.6	17.3
KMC068	3.7	5.5	1.8	634	494	22.6	23.4	2.74	19.5	19.9
KMC073	0.7	2.4	1.7	798	507	34.4	20.2	3.02	11.4	18.4
KMC073	2.9	3.5	0.6	447	222	49.8	15.3	2.59	8.4	13.5
KMC074	4.7	6.5	1.8	905	560	33.7	19.4	2.85	12	20.3
KMC096	3	5.1	2.1	805	624	23.3	22.2	2.58	17.8	22.9
KMC102	6	6.3	0.3	395	195	50.7	15.5	2.2	9.47	13
RB_02	6.1	9.14	3.05	723	405	44	19	2.19	14	11.1
RC86_KI001	12	13	1	1170	901	23	28.9	1.89	26.5	9.65
RC86_KI003	6	9	3	724	432	37.1	20.5	2.4	16.1	13.4
RC86_KI005	0	1	1	1026	696	32.2	24.2	2.24	17.2	13.4
RC86_KI006	1	4	3	598	500	18	22.2	3.13	17.7	25.6
RC86_KI008	14	16	2	639	423	35	20.6	3.05	13.2	15.3
RC86_KI009	7	8	1	902	398	55.9	12.2	2.86	7	11.3

BHID	From (m)	To (m)	Width (m)	TREO (ppm)	TREO-CeO_2 (ppm)	% CeO_2	% NdPr	% Dy_2O_3	% La_2O_3	% Y_2O_3
RC86_KI014	1	3	2	1112	540	41.9	16.6	2.11	13.9	16.8
RC86_KI015	6	8	2	829	441	46	19.9	1.85	13.5	9.59

25 Appendix E - JORC Table 1

Section 1 Sampling Techniques and Data		
Criteria	**Explanation**	**Comment**
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	*Aircore, push tube core and auger drilling methods were used obtain samples from the 2020 and 2021 drilling programmes. 67% of the samples were aircore, 23% push tube core and 10% auger samples.* *The following information covers the sampling process:* • *All air core samples were collected from the rotary splitter rotary splitter mounted at the bottom of the cyclone using a pre-numbered calico bag. The samples were geologically logged at 1 m interval. The aircore sample averaged ~1.5 kg in mass. The samples were then placed in marked calico bags maintaining their appropriate depths* • *All push core samples were placed in marked core trays, photographed and geologically logged. A number of push core samples were selected for sampling as half core by cutting the, predominantly, clay material with a knife, or where required, splitting it with a hammer and chisel. The collected sample interval lengths ranging from 0.1 m to 1.2m were placed in pre-numbered calico bags and made available for assay.* • *Solid auger drilling samples were used to obtain sub-surface material from the auger flights. The auger drilling intervals ranged from 0.5 m to 1 m. The samples were placed in pre-numbered calico bags.* • *A hand held Olympus Delta XFR Analyser was used to assess the geochemistry of the core in field samples. The XRF analysis provided a full suite of mineral elements for characterising the lithological units.* • *XRF readings were downloaded from the XRF Analyser at the end of each day and saved onto an Excel spreadsheet.* • *Field duplicates were taken at a rate of ~ 1:50 and inserted blindly into the sample batches* • *At the laboratory, the samples were oven dried at 105 degrees for a minimum of 24 hours and secondary crushed to 3 mm fraction. Samples were reduced s via a rifle splitter and then moved to the central weighing laboratory. The samples were submitted for analysis using XRF-LA-ICP-MS method* • *A laboratory repeat was taken at ~ 1 in 13 samples;*

Criteria	Explanation	Comment
		• *Commercially obtained standards were inserted by the laboratory at a rate of ~ 1 in 26 into the sample.*
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• *Wallis drilling used a Toyota Land cruiser Mantis 81 air core rig and support vehicle for the aircore drilling.* • ***Aircore drilling** is a form of reverse circulation drilling where the sample is collected at the face and returned inside the inner tube. The drill cuttings are removed by injection of compressed air into the hole via the annular area between the inner tube and the drill rod.* • *Aircore drill rods used were 3 m long.* • *NQ diameter (76 mm) drill bits and rods were used.* • *All aircore drill holes were vertical with depths varying between 3 m and 30 m.* • *The drilling is governed by the Aircore Drilling Guideline procedure to ensure consistency in the application of the method.* • ***Push tube coring** was conducted by In-Depth Drilling company utilising a Land cruiser-mounted hydraulic ram system to push tubes of known length into surficial transported sediments and underlying weathered saprolitic clays.* • *Each push core hole was cored using a short tube of 1 m in length which is initially pushed into the ground. The tube is removed, and the sample is placed into a core tray. A second longer tube of known length with a slightly smaller diameter is then pushed into the existing drill hole to extend the drill hole depth. The second tube is removed, and the sample is then placed into the core tray at the appropriate depth position. The drilling is continued using progressively longer drill tubes to attain the target total depth.* • *All holes were drilled vertically with depths ranging from 1.8 m and 8 m.* • ***Solid Stem Auger drilling** utilised a 125 mm auger cutting bit.* *This type of auger drilling consists of a solid stem or shaft with a continuous spiralled steel flight welded on the outside. An auger bit connected to the bottom disturbs soil material when rotated and the helical flights transport cuttings to the surface. At the desired depth, the entire auger string is removed to gain access to the bottom of the borehole. The bit cuts efficiently and the*

Criteria	Explanation	Comment
		large flights are effective at clearing cuttings in nearly all soil types.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• *Drill sample recovery for aircore is monitored by recording sample condition descriptions where 'Poor' to 'Very Poor' were used to identify any samples recovered which were potentially not representative of the interval drilled.* • *A comment was included where water injection was required to recover the sample from a particular interval. The use of water injection can potentially bias a sample and very little water injection was required during this drilling programme.* • *No significant loses of samples were observed due to the shallow drilling depths (≤30 m).* • *The rotary splitter was set to an approximate 20% split, which produced approximately 1.5 kg sample for each meter interval.* • *The 1.5 kg sample was collected in a pre-numbered calico bags and the remaining 80% (5 kg to 8 kg) was collected in plastic UV bags labelled with the hole number and sample interval.* • *At the end of each drill rod, the drill string is cleaned by blowing down with air to remove any clay and silt potentially built up in the sample pipes and cyclone.* • *Samples collected from the push tube core method were placed in core trays with 5 channels of 1 m length representing individual metres from the drill hole. Placement of the core into the core trays was monitored by the geologist or field crew at the rig to ensure effective representation of the interval drilled.* • *Push tube coring was effective and produced quality core samples representative of the intervals with good recoveries in unconsolidated and highly weathered zones.* • *the supply of core trays was exhausted prior to the rig demobilising and samples from drill holes KMC078 – KMC103 (generally 0.5 m lengths) were bagged in numbered calico bags (Sample No: 658501 – 658716) with actual sample intervals recorded at the drill rig in a sample book. Material collected was monitored by the geologist or field crew at the rig to ensure effective representation of the interval drilled.* • *Samples collected from the Auger drilling were monitored and collected in calico bags by the geologist at the rig to ensure their effective representation of the interval drilled.* • *No relationship exists between sample recovery and grade.*

Criteria	Explanation	Comment
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	• *All aircore samples collected in calico bags were logged for lithology, colour, cement type, hardness, percentage rock estimate, sorting and any relevant comments such as moisture, sample condition, or vegetation.* • *All core trays (KMC001 – KMC077), collected using the push tube coring method were geologically logged and photographed.* • *Bagged samples from push tube coring (KMC078 – KMC103) were also geologically logged and photographed. Representative core samples from each sample interval were placed at their appropriate depth level in a core tray, except when the sample was unconsolidated sands/powder and too difficult to return to the calico sample bag.* • *Samples from auger drilling were placed in the pre-numbered calico bags. Each drilled meter for KMA001 to KMA055 was logged by the onsite geologist. Each drilled meter for KMA056 to KMA069 was briefly described by a field assistant collecting the sample and placing it into a pre-numbered calico bag.* • *Geological logging data for all drill holes was qualitatively logged onto Microsoft Excel spreadsheet using a Panasonic Toughbook with validation rules built into the spreadsheet including specific drop-down menus for each variable, or written into a notebook and later transferred to Excel. The data was uploaded to the Azure Data Studio database and subjected to numerous validation queries.* • *Every drill hole was logged in full and logging was undertaken with reference to a Drilling template with codes prescribed and guidance to ensure consistent and systematic data collection*
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and*	• *1 m aircore sample interval were homogenised within the cyclone and the rotary splitter was set to an approximate 20% split producing around 1.5 kg sample for each metre interval.* • *The 1.5 kg sample was collected in a pre-numbered calico bag and the 80% (5 kg to 8 kg) portion was collected in plastic UV bags labelled with hole identity and interval.* • *Duplicates were generally taken within the clay lithologies above the basement as this is the likely zone of REE enrichment. These duplicate samples were normally collected by using a second calico bag*

Criteria	Explanation	Comment
	appropriateness of the sample preparation technique. *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	*and placing it under the rotary splitter collecting a 20% split but due to the difficulties of placing a second calico bag under the rotary splitter during sample collection, duplicates were collected by hand from the plastic UV bags which captured the other 80% of the material recovered from any particular interval.* • *The material in the plastic UV bags was mixed up and every attempt to take as representative sample of the material as possible by hand was made and then placed in a pre-numbered calico bag.* • *The 1.5 kg sample collected in the calico bag was logged by the geologist onsite. The logged samples were placed in polyweave bags and sent to Naracoorte base at the end of each day. The polyweave bags where then placed on pallets and dispatched to Bureau Veritas laboratory in Perth, Australia in 200 l drums.* • *The remaining 80% split from the aircore interval was stored for future reference only if it contained the clay component. Samples without the clay component were discarded at the drill site by pouring the samples back into the drilled hole.* • *Push Core sub-sampling was completed by halving the core using a sharp knife or sometimes a hammer and chisel. One half of the core was collected from intervals representing visible geological or oxidative boundaries ranging from 0.1 m to 1.2 m in length, and placed into pre-numbered calico bags. The intervals were recorded against the unique sample ID on the calico bags.* • *Auger subsampling required taking material off the flights of the auger by hand at regular spacing from each 0.5 m or 1.0 m interval intersected.* • *Field duplicates of all the samples were completed at a frequency of 1 per 50 samples. Standard reference Material (SRM) samples were inserted into the sample batches at a frequency rate of 1 per 26 samples by the laboratory and a repeat sample was taken at a rate of 1 per 13 samples.* • *A geologist was in charge the sampling and logging process while the Technical Director selected samples for analysis based on the logging descriptions. Clay rich sample and those adjacent to the limestone basement contact were selected for assay. REEs are known to be contained within the clay component of the sediment package based on analysis of XRF data and previous exploration work.*

Criteria	Explanation	Comment
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• *The detailed geological logging of samples provides lithology (clay component) and proximity to the limestone basement which is sufficient for the purpose of determining the mineralised zone.* • *The 1.5 kg aircore and the push core tube samples were assayed by Bureau Veritas laboratory in Canning Vale, Perth, Western Australia, which is considered the Primary laboratory.* • *The samples were initially oven dried at 105 degrees Celsius for 24 hours. Samples were secondary crushed to 3 mm fraction and the weight recorded. The sample was reduced on a rifle splitter, then pulverised to 90% passing 75 µm. Excess residue was maintained for storage while the rest of the sample placed in 8x4 packets and sent to the central weighing laboratory.* • *All weighed samples were then analysed using the Laser ablation ICP-MS (LA-ICP-MS) analytical method;* • *The laboratory used XRF-LA_ICP-MS combo package which requires a single lithium borate fusion to provide major elements from XRF and trace minor elements from LA-ICP-MS assay method.* • *Field duplicates were collected and submitted at a frequency of 1 per 54 samples.* • *Bureau Veritas completed its own internal QA/QC checks that included a Laboratory repeat every 13th sample and a standard reference sample every 26th sample prior to the results being released.* • *Analysis of QA/QC samples show the laboratory data to be of acceptable accuracy and precision;* • *Alternative analysis was conducted by ALS on a selection of 58 samples pulps. The pulps from BV were sent to ALS and they underwent the following analytical methods: MS611-REE, Ce-MS85, ME-XRF26, MEGRAO5, and ME-MS611.* • *No standards or blanks were submitted by Australian Rare Earths.* *The adopted QA/QC protocols are acceptable for this stage of test work.* *The sample preparation and assay techniques used are industry standard and provide a total analysis.*

Criteria	Explanation	Comment
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	• *All results are checked by the company's Technical Director.* • *Field based geological logging for drill holes was entered directly into an Excel spreadsheet format with validation rules built into the spreadsheet including specific drop-down menus for each variable. This digital data was then uploaded directly to the database.* • *Assay data was received in digital format from the laboratory and was uploaded directly to the database* • *Field and laboratory duplicate data pairs of each batch are plotted to identify potential quality control issues.* • *Standard Reference Material sample results are checked from each sample batch to ensure they are within tolerance (<3SD) and that there is no bias.* • *58 pulp samples were selected and sent for independent assay check at ALS laboratory.* • *The field and laboratory data was exported from the Australian Rare Earths Limited database and imported into Datamine by IHC Robbins which is appropriate for this stage in the program. Data validation criteria are included to check for overlapping sample intervals, end of hole match between 'Lithology', 'Sample', 'Survey' files and other common errors.* • *11 twinned aircore holes were completed.* • *Assay data yielding elemental concentrations for rare earths (REE) within the sample are converted to their stoichiometric oxides (REO) in a calculation performed within the database using the conversion factors in the below table.* Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations have been used for reporting throughout this report: Note that Y_2O_3 is included in the TREO, HREO and CREO calculation. TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$ CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$

<table>
<tr><th>Criteria</th><th>Explanation</th><th>Comment</th></tr>
<tr><td></td><td></td><td>
LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$

HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

NdPr = $Nd_2O_3 + Pr_6O_{11}$

TREO-Ce = TREO - CeO_2

• % NdPr = NdPr/ TREO

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<tr><td>Ce</td><td>CeO2</td><td>1.2284</td></tr>
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<tr><td>Eu</td><td>Eu2O3</td><td>1.1579</td></tr>
<tr><td>Gd</td><td>Gd2O3</td><td>1.1526</td></tr>
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<tr><td>La</td><td>La2O3</td><td>1.1728</td></tr>
<tr><td>Lu</td><td>Lu2O3</td><td>1.1371</td></tr>
<tr><td>Nd</td><td>Nd2O3</td><td>1.1664</td></tr>
<tr><td>Pr</td><td>Pr6O11</td><td>1.2082</td></tr>
<tr><td>Sc</td><td>Sc2O3</td><td>1.5338</td></tr>
<tr><td>Sm</td><td>Sm2O3</td><td>1.1596</td></tr>
<tr><td>Tb</td><td>Tb4O7</td><td>1.1762</td></tr>
<tr><td>Th</td><td>ThO2</td><td>1.1379</td></tr>
<tr><td>Tm</td><td>Tm2O3</td><td>1.1421</td></tr>
<tr><td>U</td><td>U3O8</td><td>1.1793</td></tr>
<tr><td>Y</td><td>Y2O3</td><td>1.2699</td></tr>
<tr><td>Yb</td><td>Yb2O3</td><td>1.1387</td></tr>
</table>
</td></tr>
<tr><td>Location of data points</td><td>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.

Specification of the grid system used.

Quality and adequacy of topographic control.</td><td>
• Down hole surveys for shallow vertical aircore, push tube core and auger holes are not required.
• The drill hole collars for KMA001 through KMA044 were located by a licenced surveyor while a GPS unit was used to identify the positions of the rest of the drill holes in the field. The handheld GPS has an accuracy of +/-5m in the horizontal.
• The datum used is GDA94/MGA Zone 54.
• Topographic DTM surface generated from the Shuttle Radar Topography Mission digital elevation model ('SRTM').
• To account for the disparity between collars and the topographic DTM all drill hole collars were pinned to the supplied topography wireframe surface.
The accuracy of the locations is sufficient for this stage of exploration.
</td></tr>
</table>

Criteria	Explanation	Comment
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	• *The holes were largely drilled at 100 m between hole stations and 500 m between drill lines.* • *The drilling program for aircore, push core and auger holes was conducted between December 2020 and February 2021 to determine the mineralisation extent of the deposit.* • *The 100 m x 500 m spaced holes the mineralisation continuity along and across strike on the Yellow Tail and Red Tail Prospects of the Koppamurra deposit.* *No sample compositing has been applied.*
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	*The Koppamurra mineralisation is interpreted to be hosted in flay lying clays that are horizontal.* *All drill holes are vertical which is appropriate for horizontal bedding and regolith profile.* • *The Koppamurra drilling was oriented perpendicular to the strike of mineralisation defined by previous exploration and current geological interpretation.* • *The strike of the mineralisation is north south and the high grades follow a northwest-southeast trend.* • *All drill holes were vertical and the orientation of the mineralisation is relatively horizontal.* • *The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralisation without any bias.*
Sample security	*The measures taken to ensure sample security.*	• *After logging, the samples in calico bags were tied and placed into polyweave bags, labelled with the drill hole and sample numbers contained within the polyweave and transported to the base of operations, Naracoorte, at the end of each day.* • *The samples were then placed on pallets ready for transport and remained in a secure compound until transport had been arranged. Pallets were labelled and then 'shrink-wrapped' by the transport contractor prior to departure from the Naracoorte base to the analytical laboratory.* • *Samples for analysis were logged against pallet identifiers and a chain of custody form created.* • *Transport to the analytical laboratory was undertaken by an agent for the TOLL Logistics*

Criteria	Explanation	Comment
		Group, and consignment numbers were logged against the chain of custody forms. • *The laboratory inspected the packages and did not report tampering of the samples.*
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	*Internal reviews were undertaken by IHC during the geological interpretation and throughout the modelling process.* *A review of the database was also undertaken by REESearch.*

Section 2 Reporting of Exploration Results		
Criteria	**Explanation**	**Comment**
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• *Koppamurra Project comprises of a single granted Exploration Licences (EL), EL6509 covering an area of 794 km2 which is believed to be in good standing.* • *EL6509 is within 100m of a Glen Roy Conservation Park and the Naracoorte Caves National Park, the latter of which is excised from the tenement. The License area contains several small Extractive Mineral Leases (EML) held by others, Native Vegetation Heritage Agreement areas, as well as the Deadman's Swamp Wetlands which are wetlands of national importance.* • *A Native Title Claim by the First Nations of the South East #1 has been registered but is yet to be determined. The claim area includes the areas covered by EL6509.* • *The exploration work was completed on the tenement (EL 6509) in South Australia and 100% owned by the company Australian Rare Earths Ltd.* • *The Exploration License original date of grant was 15/09/2020 with an expiry date of 14/09/2022.* • *Details regarding royalties are discussed in chapter 3.4 of this report.*
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• *Exploration activities by other exploration companies in the area have not previously targeted or identified REE mineralisation.* • *Historical exploration activities in the vicinity of Koppamurra include investigations for coal, gold and base metals, uranium, and heavy mineral sands.* • *Historical exploration by other parties is detailed in Chapter 7 of this report.*
Geology	*Deposit type, geological setting and style of mineralisation.*	*The Koppamurra deposit is interpreted to contain analogies to ion adsorption ionic clay REE deposits.* *REE mineralisation at Koppamurra is hosted by a clay unit interpreted to have been deposited onto a limestone base (Gambier Limestone) and accumulated in an interdunal, lagoonal or estuarine environment and the source of the REE at Koppamurra is most likely basalt associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia. Mineralogy of the clay is indicative of formation under mildly alkaline*

Criteria	Explanation	Comment
		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 clay sample from the 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 surfaces.* *There are several known types of regolith hosted REE deposits including, ion adsorption clay deposits, alluvial and placer deposits. Whilst Koppamurra shares similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also several differences, highlighting the need for further work before a genetic model for REE mineralisation at Koppamurra can be confirmed.* *There is insufficient geological work undertaken to determine any geological disruptions, such as faults or dykes, that may cause variability in the mineralisation.*
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the*	*The material information for drill holes relating to this report are contained within Appendices of this report.*

Criteria	Explanation	Comment
	report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	*No metal equivalents have been used.* *No data aggregation methods were utilised, no top cuts were employed for the reporting of exploration results and all cut-off grades used for the reporting of exploration results have been reported.*

Criteria	Explanation	Comment
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	*All intercepts reported are down hole lengths.* *The mineralisation is interpreted to be flat lying and drilling is vertical perpendicular to mineralisation. Any internal variations to REE distribution within the horizontal layering was not defined, therefore the true width is considered not known.*
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	*Diagrams are included in the body of this report.*
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	*This report contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.*
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock*	*All known relevant exploration data has been reported in this report.*

Criteria	Explanation	Comment
	characteristics; potential deleterious or contaminating substances.	
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	*Proposed exploration program is detailed in Chapter 15 of this report and includes drilling, assay, ground based geophysical surveys and further metallurgical testwork.*

Section 3 Estimation and Reporting of Mineral Resources		
Criteria	**Explanation**	**Comment**
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	• *Exploration data provided by the company to IHC Robbins in the form Excel files downloaded from the Australian Rare Earths Azure Data Studio database.* • *Visual screen checks of data to identify duplicate assays and the reproducibility of assays was conducted.* • *Database assay values have been subjected to random reconciliation with laboratory certified value is to ensure integrity.* • *Visual and statistical comparison was undertaken to check the validity of results.*
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	*Mr Rick Pobjoy, the Technical Director undertook regular site visits before and during drilling programme to observe the drilling, sampling and data collection.*

Criteria	Explanation	Comment
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	*The geological interpretation was undertaken by IHC Robbins in collaboration with the company's Technical Director and then validated using all logging and sampling data and observations.* *The data spacing and quality is sufficient to support geological and grade continuity.* *Interpretation of modelling domains was completed using TREO-CeO_2, TREO, CaO, lithology and geological logging. The interpretation of domains was also aided by the utilisation lithological logging which assisted with distinguishing domain boundaries.* *The Mineral Resource estimate was controlled by the geological surfaces, and basement surfaces.* *Five domains were identified with the main mineralisation unit being in Zone 2, the clay rich unit. The mineralised zone is geologically continuous with variable grades along and across strike. Zone 2 generally has high TREO-CeO_2, TREO values and low CaO values, however, there are some elevated CaO values in areas where Lith2 is logged as competent limestone. Zone 2 and 3 are associated with the troughs and will require more drilling to determine their geological extents. Isolated elevated TREO-CeO_2 values have been recorded in the basement and these are associated with high CaO values.*
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	*The Mineral Resource field for the Red Tail Prospect is approximately 10 km in length (at the longest point) and 3 km wide (at the widest point) and the Yellow Tail Prospect is about 3 km long and 1.9 km wide (at the widest point).*
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method*	*The mineral resource estimate was conducted using CAE mining software (also known as Datamine Studio). Ordinary Kriging estimation method were used to interpolate assay grades from drill hole samples into the block model. Ordinary Kriging works well when there is sufficient domaining and includes the built in declustering process and weighting of samples according to observed modelled variability. Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the*

Criteria	Explanation	Comment
	was chosen include a description of computer software and parameters used. *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of*	*number of samples and the impact of those samples was maintained.* *Hard domain boundaries were used and these were defined by the geological wireframes that were interpreted.* *No assumptions were made during the resource estimation as to the recovery of by-products.* *TREO, CREO, LREO, CaO and the rest of the individual REO CeO_2, Dy_2O_3, Er_2O_3, Eu_2O_3, Gd_2O_3, Ho_2O_3, La_2O_3, Lu_2O_3, Nd_2O_3, Pr_6O_{11}, Sc_2O_3, Sm_2O_3, Tb_4O_7, ThO_2, tm2O3, U_3O_8, Y_2O_3 and Yb_2O_3 and were estimated at the same time as estimating the TREO-CeO_2 grade.* *Further detailed characterisation and leach of Ionic clay sample studies are required that may affect the marketability of the heavy mineral products.* *The average parent cell size used for the interpolation was half the standard drill hole width and half the standard drill hole section line spacing.* *No assumptions were made regarding the modelling of selective mining units however it is assumed that a form of dry mining will be undertaken and the cell size and the sub cell splitting will allow for an appropriate dry mining preliminary reserve to be prepared. Any other mining methodology will be more than adequately catered for with the parent cell size that was selected for the modelling exercise.* *No assumptions were made about correlation between variables.* *The Mineral Resource estimates were controlled to an extent by the geological / mineralisation and basement surfaces.* *Grade capping was required for CeO_2, Eu_2O_3, Gd_2O_3, La_2O_3, Lu, Nd_2O_3, Pr_6O_{11}, Sm_2O_3, Tb_4O_7, and Y_2O_3 whose histograms showed some outliers . The top cuts were determined from the inflexion points in the probability plot and also distinct breaks in the histograms. Top-cuts were not considered for REO's with low coefficient of variation (CV).* *Validation of grade interpolations were done visually in CAE Studio (Datamine) software by loading model and drill hole files and annotating and colouring and using*

Criteria	Explanation	Comment
	reconciliation data if available.	*filtering to check for the appropriateness of interpolations.* *Statistical distributions were prepared for model zones from drill hole and model files to compare the effectiveness of the interpolation. Along strike distributions of section line averages (swath plots) for drill holes and models were also prepared for comparison purposes.*
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	*Tonnages were estimated an assumed dry basis.*
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	*Cut-off grades for TREO-CeO_2 were used to prepare the reported resource estimates. The selection of the TREO-CeO_2 cut-off grade used for reporting was based on the experience of the Competent Person and given the early stage of the Koppamurra project, this cut-off grade was selected based on a peer review of publically available information from more advanced projects with comparable mineralization styles (i.e. clay hosted rare earth mineralisation) and comparable conceptual processing methods.*
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the*	*No specific mining method is assumed other than potentially the use of dry mining methods.*

Criteria	Explanation	Comment
	basis of the mining assumptions made.	
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	*Australian Nuclear Science and Technology Organisation (ANSTO) carried out a test to characterise the ionic clay samples for Koppamurra deposit and undertake preliminary leach testing in May 2020. Modest extraction of REEs was obtained from leaching of high grade TREO samples and extraction was low in intermediate grade TREO samples. Repeated leaching with NaCl increased REE recovery.* *Optimisation leach testwork by ANSTO is currently underway – refer to Chapter 10 of this report.*
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental*	*No assumptions have been made regarding possible waste and process residue however the shallow depth of the deposit will minimise environmental impacts of mining.* *The potential processing method disregards the issue of radioactive tailings issues.*

Criteria	Explanation	Comment
	impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	*The selected density value for the mineralised zone is at the lower end of a range of values applied to estimate REO's in known deposits. The average density for sand and limestone were used on the sandy domains and the basement.* *The resource model was assigned bulk density (BD) values based on domains. A BD of 1.60 was applied to the sandy overburden (Zone 1 and Zone 4), while 1.4 was used for the clay mineralised domains (Zone 2 and Zone 3) and 2.11 was used for the basement limestone (Zone 200). The bulk density assigned to the mineralised zone was selected based on a review of similar sediment hosted REE deposits with known densities. The value selected was from the lower end of the range of density values obtained during the desktop review. The average density for sand and limestone were used on the sandy domains and the basement.* *At this stage of exploration, the density values used for the Koppamurra model are considered reasonable for REO deposits.*
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	*The Resource classification for Koppamurra deposit was supported by drill hole spacing, geological continuity and variography of TREO-CeO_2, TREO and CREO.* *The classification of Inferred Mineral Resources for the deposit was based on the above criteria.* *As a Competent Person, Rebecca Morgan considers that the result appropriately reflects a reasonable view of the deposit categorisation.*

Criteria	Explanation	Comment
Audits or reviews.	*The results of any audits or reviews of Mineral Resource estimates.*	*REESearch has undertaken a review of the mineral resource estimate and did not find any material concerns with the Koppamurra Mineral Resource Estimate and considers the Koppamurra Mineral Resource model to represent a fair and reasonable estimate.*
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	*The overall grade interpolation for this method was considered a reasonable methodology.* *Validation of the model vs drill hole grades by observation, swathe plot and population distribution analysis was favourable.* *Infill drilling is expected to improve the interpolation results.* *The statement refers to global estimates for the entire known extent of the Koppamurra deposit.* *No production data is available for comparison with the Koppamurra deposit at this point in time.*

SECTION 8:
SOLICITORS' REPORT ON TENEMENTS

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7 May 2021

The Directors
Australian Rare Earths Limited
Level 7
19 Grenfell Street
ADELAIDE SA 5000

Dear Sirs

Prospectus – Solicitors' Report on Tenements

This Report is prepared for inclusion in a Prospectus to be dated on or about 7 May 2021 (**Prospectus**) and issued by Australian Rare Earths Limited (**AREL**) offering for subscription 40,000,000 ordinary shares at an offer price of $0.30 each to raise $12,000,000.

1. **Scope of the Report**

The Report relates to:

1.1 the registered and unregistered interests of AREL and its wholly owned subsidiary RDBD Developments Pty Ltd (**RDBD**) (together **AREL Group**) in respect of the South Australian Exploration Licence (**EL**), South Australian Applications for Exploration Licence (**ELA**) and Victorian EL (collectively **Tenements**) identified in Part 1 of the Schedule to this Report;

1.2 the contracts relating to the Tenements which AREL has identified to us as being material contracts to which AREL is a party (**Material Contracts**) and which are summarised in Section 9 of this Prospectus; and

1.3 any claims lodged with (and determinations or other interests registered by) the National Native Title Tribunal (**NNTT**) relating to the land the subject of the Tenements.

2. **Searches**

2.1 **Title Searches**

We have reviewed the results of searches of the Tenements conducted by:

(a) the South Australian Department for Energy and Mining (**DEM**) of the register maintained by DEM pursuant to the *Mining Act 1971* (SA) (**SA Mining Act**); and

(b) the Victorian Department of Jobs, Precincts and Regions, Earth Resources Regulation (**DJPR**) of the register maintained by DJPR pursuant to the *Mineral Resources (Sustainable Development) Act 1990* (Vic) (**Vic Mineral Resources Act**).

The searches were conducted on 20 April 2021, and updated on 3 May 2021.

The key results of those searches are summarised in Part 1 of the Schedule to this Report.

As a result of those searches and our review of the Material Contracts, we consider that this Report (subject to the statements set out in this Report) provides an accurate statement of the status of, and of the AREL Group's interests in, the Tenements as at the date those searches were conducted.

AREL is the registered holder of the granted South Australian EL 6509 and Victorian EL 007254, and the registered applicant for South Australian ELA 2020/129, ELA 2020/239 and ELA 2020/240. RDBD's interests are contractual rights to acquire the Tenements which depend upon the parties to the Tenement Transfer Deed as summarised in Section 9.2 of this Prospectus complying with, and fulfilling the terms of, the Tenement Transfer Deed, and satisfaction of any conditions precedent contained in it.

2.2 **Native Title Searches**

We have reviewed the results of searches conducted by the NNTT of the Register of Native Title Claims maintained by the NNTT in respect of the land covered by the Tenements. The searches were conducted on 23 April 2021.

The key results of those searches are summarised in Part 2 of the Schedule to this Report.

2.3 **Material Contracts**

We have examined the Material Contracts described in Section 9 of this Prospectus. It is our opinion, based upon an examination of the Material Contracts, that the description of them does not contain any statement or matter that is false in a material particular or is materially misleading in the form and context in which it appears.

3. **Assumptions and Qualifications**

This Report (including the Schedule) is based on, and is subject to, the assumptions and qualifications set out below and as otherwise specified elsewhere in this Report:

3.1 In compiling this Report, we have relied upon the accuracy, completeness and currency of information provided by third parties, including DEM, DJPR, the NNTT, and AREL and its representatives and agents, in response to enquiries and searches made, or caused to be made, by us. We cannot comment on whether any changes have occurred in respect of the Tenements between the date on which the information was provided to us and the date of this Prospectus.

3.2 The references in Part 1 of the Schedule to this Report to the areas of the Tenements are taken from details shown on the searches we have obtained from DEM and DJPR. No independent survey was conducted to verify the accuracy of those areas.

3.3 We have assumed that the granted Tenements have been validly granted and that the relevant Minister and any persons exercising delegated authority in relation to the grant have acted within the scope of their powers and discretions.

3.4 We express no opinion as to whether and when the ELAs (or any of them) will ultimately be granted in whole or in part, or the terms and conditions upon which they may be granted.

3.5 Where Ministerial consent is required in relation to any agreements or the transfer of any Tenement, we express no opinion as to whether such consent will be granted or the consequences of consent being refused, although we are not aware of any matter which would cause consent to be refused.

3.6 We make the following assumptions in relation to the Material Contracts:

(a) the Material Contracts detailed in Section 9 of this Prospectus are the only material contracts in relation to the Tenements of which we are aware;

(b) the Material Contracts are duly executed and have been, or are in the course of being, stamped and lodged in compliance with the relevant legislation;

(c) the authenticity of all seals and signatures on the Material Contracts;

(d) the Material Contracts are within the capacity and powers of, have been validly authorised, executed and delivered by, and are binding on, each of the parties to them;

(e) each party to each of the Material Contracts had, and has, full corporate power and lawful authority to observe and perform all of its obligations under them;

(f) each Material Contract comprises the entire agreement of the parties;

(g) the parties to each of the Material Contracts are complying with and will continue to comply with and fulfil the terms of the Material Contracts; and

(h) the representations made by third parties (including AREL, its representatives and agents) in relation to the Material Contracts are true and correct.

3.7 Unless non-compliance with the terms and conditions of any Tenement and the provisions of the SA Mining Act, the regulations to the SA Mining Act, the Vic Mineral Resources Act or the regulations to the Vic Mineral Resources Act is disclosed on the face of the searches referred to in paragraph 2, we express no opinion as to such compliance.

3.8 Native title or Aboriginal heritage sites may exist in the areas covered by the Tenements. Whilst we have conducted searches to ascertain what native title determinations and claims have been registered over these areas, we have not undertaken the considerable legal, historical, anthropological and ethnographic research which would be necessary to determine if additional claims are likely, or to form an opinion as to whether the existing or any future claims for native title will succeed and, if so, what the implications would be for AREL.

4. South Australian Tenements – General Comments

4.1 Exploration Licences

In South Australia ELs are issued subject to standard conditions under the SA Mining Act, the *Mining Regulations 2020* (SA) (**SA Mining Regulations**) and the terms and conditions prescribed by the Minister from time to time.

We note also the *Statutes Amendment (Mineral Resources) Act 2019* (SA) (**Amended Provisions**) as passed by Parliament in October 2019, as part of a major review of South Australia's mining laws, and which commenced on 1 January 2021.

For the purposes of this Report we have therefore commented on the previous legislation to the extent that it continues to apply to South Australian EL 6509 granted prior to the commencement of the Amended Provisions, (noting that where a term or condition of an EL is inconsistent with the Amended Provisions, the Amended Provisions will expressly prevail to the extent of the inconsistency). We have also highlighted changes introduced as part of the Amended Provisions to which EL 6509 and the South Australian ELAs (together the **South Australian Tenements**) are subject, and an outline of those transitional provisions (**Transitional Provisions**) which will be of particular importance to the continued operation of EL 6509.

Under the current legislation (as amended) the standard EL conditions under the SA Mining Act, the SA Mining Regulations and the terms and conditions prescribed by the Minister from time to time, include the following key conditions:

(a) An EL authorises exploratory operations of the kind described in the EL in respect of land over which it is granted, except exploratory operations for extractive minerals or precious stones.

(b) Prior to the introduction of the Amended Provisions on 1 January 2021, an EL (such as EL 6509) was granted with an initial term of up to five years, but if granted for a lesser term, could be renewed for a period that did not in aggregate exceed five years. The Minister could then, on expiration of an EL the term or aggregate of terms of which was five years, grant to the licensee a subsequent EL.

Under the Amended Provisions, an EL may now be granted for a period of up to six years (and if for a lesser period can be renewed so as not to exceed six years in aggregate during the initial term). The EL can then be renewed on a six yearly basis (in aggregate) up to a maximum aggregate of 18 years, with the area of the EL to be reduced by 50% at the 12th anniversary of the grant of the EL. A new retention status has been introduced for ELs allowing the holder to apply for retention status for a period of up to six years pending application for a mining lease or retention lease, in certain circumstances.

On that basis, the Transitional Provisions as outlined in paragraph 4.2 will apply to the renewal of EL 6509.

(c) The maximum area of an EL is 1,000 square kilometres, but there is Ministerial discretion to grant an EL over a larger area in some circumstances. The Amended Provisions allow a holder to subdivide an area of an EL and to surrender the area on the condition that it is granted to a nominated third party, subject to the conditions as set out.

(d) The Minister may, at any time, require the holder to pay to any person an amount of compensation, stipulated by the Minister, to which that person is, in the opinion of the Minister, entitled in consequence of loss or damage suffered by that person as a result of operations conducted in pursuance of the EL.

(e) The licensee must, as soon as reasonably practicable, report to the Director of Mines the discovery of minerals potentially capable of economic production.

(f) The licensee shall conduct operations so as not to disturb the environment except in so far as this may be necessary to undertake the programme of exploration required by the EL, and must conduct operations under the EL in accordance with a programme for environment protection and rehabilitation (**PEPR**) approved from time to time by the Minister. Unless otherwise specified under conditions of the EL all low impact exploration activities must be undertaken in accordance with the standard low impact mineral exploration PEPR approved by the Minister under Part 10A of the SA Mining Act. Prior to conducting exploration activities outside of the scope of the generic low impact exploration PEPR, application must be made and a PEPR submitted in accordance with Part 10A and approved in writing by the Minister (or delegate).

These requirements are expanded and updated under the Amended Provisions, including audit and enhanced environmental protection provisions (including as outlined in paragraph 7.2(a)) and increased penalties for failing to comply with Part 10A.

(g) The licensee must comply with conditions imposed in relation to groundwater protection and water resource management.

(h) The terms and conditions of an EL may be varied (subject to certain rights of the licensee to appeal to the Environment, Resources and Development Court) upon renewal or at any time during its term, and an EL may be suspended or cancelled where the licensee contravenes or fails to comply with any provision of the SA Mining Act or any condition of the EL.

(i) An EL confers no right to carry out mining operations on native title land unless:

(1) the mining operations do not affect native title (that is, are wholly or partially inconsistent with the continued existence or enjoyment of native title rights);

(2) a declaration is made under a law of a State or the Commonwealth that the land the subject of the EL is not subject to native title;

(3) an agreement has been reached with the native title parties that authorises the mining operations; or

(4) a determination authorising the mining operations is made under Part 9B of the SA Mining Act.

(j) The holder of an EL must comply with minimum expenditure commitments prescribed by the SA Mining Act, and the provisions relating to expenditure and the Minister's powers in managing expenditure commitments have been expanded under the Amended Provisions.

(k) Effective from 1 January 2020 three exploration regulation fee zones were introduced, to replace the standard fees. From 1 January 2021, the annual fee for an EL within Exploration Regulation Fee Zone 1 (in which the South Australian Tenements are situated) is currently $576.00 or $13.30 per square kilometre (or part thereof) per year, whichever is greater.

(l) An EL may not be transferred without the written consent of the Minister, and the provisions relating to dealing with tenements and the mining register have been updated by the Amended Provisions. An ELA is not transferable.

(m) The tenement holder must give written notice to landholders of the relevant land (including native title holders) before entering the land for exploration or mining purposes, and access arrangements are to be entered into in accordance with the requirements of the SA Mining Act. Under the Amended Provisions, the provisions relating to notices and access arrangements have been updated and expanded, with longer notice periods to be given for entry from 21 days to at least 42 days.

Further conditions are specified in the licence for each EL. These conditions are summarised in Part 1 of the Schedule to this Report.

4.2 **Transitional Provisions**

Under the Transitional Provisions, an existing EL (such as EL 6509) will continue under the previous provisions relating to its term until the expiry of its initial aggregate five year term. At that time, EL 6509 will transition to the new renewal provisions applicable to ELs, and AREL Group may apply for a further six year renewal. At the expiry of the combined 11 years, a 50% relinquishment will apply and a further six year renewal may be sought to a maximum of 17 years. The Transitional Provisions also make provision for subsequent ELs already granted following the expiry of an initial aggregate five year term under the pre-amendment provisions as outlined in paragraph 4.1(b).

The Transitional Provisions provide that expenditure obligations imposed as a condition of an EL before the commencement of the Amended Provisions (such as EL 6509) will be taken to continue to apply under the new provisions.

4.3 **Exploration Licence Applications**

As each of the South Australian ELAs was applied for prior to the commencement of the Amended Provisions on 1 January 2021, they will be processed and assessed in accordance with the pre-amendment Act, as follows:

(a) Applications for ELs must be in a prescribed form and lodged (together with the prescribed application fee). If the Minister determines that he or she is

willing to grant to the applicant an EL (subject to the operation of the SA Mining Act and SA Mining Regulations), the Minister must advise the applicant by notice in writing of the proposed terms and conditions under which the Minister is prepared to grant the EL, and allow the applicant at least seven days (or such longer period as the Minister may allow) to make submissions on the terms and conditions before the Minister finalises them.

(b) Subject to the provisions of the SA Mining Act, an ELA which has been lodged under that Act confers priority over the subject area until the Minister has decided whether or not to grant the licence applied for. Once the offer is accepted and returned by the applicant (under the pre-Amended Provisions) the ELA will be advertised, and a period of 28 days allowed from the advertising date for objections, prior to the grant of the EL.

In relation to ELA 2020/129, DEM's records confirm that circulation to relevant government departments and assessment of the ELA was completed on 24 December 2020 and that the offer preparation and notification process is currently in progress. Upon following up the status of notification of an offer for this ELA, AREL has been informed that work is being delayed due to the implementation of the Amended Provisions and the new SA Mining Regulations in relation to mineral exploration, as outlined above.

In relation to ELA 2020/239, DEM's records confirm that this application was received on 24 December 2020 and validation was completed on 5 February 2021. The application is currently in the assessment phase for circulation to relevant government departments.

In relation to ELA 2020/240, DEM's records confirm that this application was received on 24 December 2020 and validation was completed on 19 January 2021. The application is also currently in the assessment phase for circulation to relevant government departments.

Although remaining subject to the EL application process under the pre-Amended Provisions as outlined above, if successful the South Australian ELAs will then be granted and regulated in accordance with the Amended Provisions, as outlined in paragraph 4.1.

Under the Amended Provisions, the provisions relating to the EL application process (and which will apply to all future applications made by AREL post-1 January 2021) have been amended for clarification. New definitions have been included for 'exploration release area', 'open ground' and 'relinquished ground', together with expanded provisions setting out the processes for grant of exploration licences in respect of exploration release areas, open ground and areas which have been partially surrendered or reduced. Notification processes have been amended through the EL application assessment procedures (leading to EL offer and grant of the EL) with a focus on ongoing stakeholder engagement, as included in the low impact generic PEPR and outlined as part of the application.

5. Victorian Tenements – General Comments

5.1 Exploration Licences

In Victoria ELs are issued subject to standard conditions under the Vic Mineral Resources Act, the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) (**Vic Mineral Resources Regulations**) and the terms and conditions prescribed by the Minister from time to time, including the following key conditions:

(a) An EL, subject to the requirements set out below, authorises the holder to carry out exploration for the specified minerals to which it relates on the land covered by the licence. Before work other than low impact exploration can be undertaken, the licensee must have an approved work plan, have entered into a rehabilitation bond, have complied with any condition to provide an environmental offset, obtained all necessary consents and other authorities, obtained public liability insurance and given the required period of notice of intention to commence work to the Chief Inspector and to owners and occupiers of the affected land, as applicable. Where the land is private land the licensee must have obtained written consent of the owners and occupiers of the land or registered a compensation agreement, as noted in further detail in paragraph 5.1(g)).

(b) The minimum section size is one square kilometre (equal to one graticular section or 100 hectares) and the maximum size is 500 km² (or 500 graticular sections) specified in the licence, unless the Minister decides otherwise.

(c) An EL can be granted for a term of up to five years and may be renewed once for up to five years. A second renewal for up to a further five years is only allowed in exceptional circumstances, where it can be demonstrated that there is a likelihood of the licensee identifying minerals during the period of the renewal. No further renewals are permitted.

(d) The Minister can impose conditions (in addition to those outlined in paragraph 5.1(a)) relating to work undertaken under the EL. These can include obligations in relation to submission, variation of and compliance with, a program of work, licence commitments (including the type of work which must be undertaken), minimum annual expenditure conditions, elimination and minimisation of risks that the work may pose to the environment, protection of groundwater, providing and implementing environmental offsets, requirements to take all reasonable measures to avoid or minimise and/or offset the removal or disturbance of native vegetation and fauna habitats, implement erosion and sediment controls to protect waterways, prevent contamination of the environment, ensure rehabilitation of affected land (including to implement a program for monitoring environmental impacts and rehabilitation, together with reporting requirements), reporting the discovery of minerals and payment of fees (as outlined in paragraph 5.1(f)).

(e) Relinquishments apply on the second anniversary of an EL (at least 25% of the total number of graticular sections), with at least a further 35% to be relinquished on the fourth anniversary, at least a further 20% on the seventh anniversary and on the tenth anniversary, the area must be decreased by at least a further 10% of the total number of graticular sections.

(f) An EL holder must pay annual rent at a prescribed rate of 6.9 fee units per 10 graticules or part thereof, calculated as at 30 June of that year. The fee unit for the 2020/2021 financial year is $14.81 such that the rent payable for an EL is currently $102.20 per 10 graticules.

(g) In order to undertake exploration works on private land, the licensee must obtain the written consent of the owners and occupiers of the affected land, and make and register a compensation agreement with any owners and occupiers, or pay compensation determined in accordance with the Vic Mineral Resources Act. Other consent requirements may apply in order to commence work on Crown land, depending whether the underlying land is unrestricted Crown land or restricted Crown land (in which case specific consents to work on restricted Crown land are required), as well as consents from other applicable authorities.

(h) An ELA is not transferable, and an EL must not be transferred during its first year. A licence other than an EL during its first year may be transferred by an instrument approved by the Minister, and a transfer has no effect until the instrument of transfer is approved by the Minister and registered.

(i) The Minister may after consultation with the licensee, vary a licence or vary, suspend or revoke a condition of a licence or add a new condition, at the request of the licensee, or if the Minister decides it is necessary to eliminate or minimise the risk that the work may pose to the environment, for the rehabilitation or stabilisation of the land, or to ensure appropriate environmental offsets are provided for, and other prescribed circumstances.

(j) An EL may be cancelled or a penalty imposed where the licensee contravenes or fails to comply with any provision of the Vic Mineral Resources Act or any condition of the EL.

(k) The grant of an EL is subject to compliance with the procedures for addressing native title rights (if any) in relation to the relevant land, as outlined in paragraph 6.4(b). If the ELA area includes Crown land requirements (other than Crown land where native title has been extinguished) the licence may be subject to native title and DJPR cannot grant the licence until the future act procedures of the *Native Title Act 1993* (Cth) have been met, or have complied with a relevant land use activity agreement under the *Traditional Owner Settlement Act 2010* (Vic) as outlined in paragraph 6.4(b). An applicant may elect to exclude from its application Crown land except those areas where native title has been extinguished (such as roads and road reserves) in order to remove these obligations (again further details are set out in paragraph 6.4(b)).

Further conditions are specified in the licence for each EL upon its grant.

6. Native Title

6.1 Introduction

The decision of the High Court of Australia in *Mabo v Queensland (No 2)* (1992) 175 CLR 1 (**Mabo**) recognised the concept of Aboriginal native title to land where those rights survived the acquisition of sovereignty by non-indigenous people.

Following Mabo, native title rights were recognised where the claimants could establish that they have enjoyed certain customary rights and privileges in respect of a particular area of land and that they have continuously maintained their traditional connection with that land. Such a claim will not be recognised if the native title has been extinguished.

The *Native Title Act 1993* (Cth)[1] (**NTA**) was enacted in response to Mabo to regulate dealings with native title land. The NTA commenced on 1 January 1994 and was substantially amended in 1998 by the *Native Title Amendment Act 1998* (Cth) in response to the High Court of Australia decision of *Wik Peoples v Queensland* (1996) 187 CLR 1 (**Wik**). In summary, the NTA currently provides a legislative framework to:

(a) regulate the recognition, protection and extinguishment of native title;

(b) validate past acts (including pastoral leases, mining tenements and ancillary titles) granted before 1 January 1994 which might otherwise be invalid due to native title;

(c) validate intermediate period acts granted between 1 January 1994 and 23 December 1996, which might otherwise be invalid due to native title;

(d) authorise valid acts in relation to native title lands occurring after the introduction of the NTA on 1 January 1994;

(e) provide for a negotiation process between government, native title and non-native title parties in relation to certain future uses of native title lands; and

(f) compensate for the extinguishment or impairment of native title.

In 2002 native title rights were further considered by the High Court of Australia in *Western Australia v Ward* (2002) 191 ALR 1. The High Court confirmed (in relation to the facts of that case) that:

(a) native title interests may be seen as a bundle of rights, each of which is capable of being extinguished;

(b) the rights of land users (including under a validly granted mining lease) and the rights of native title parties can co-exist, however where these rights conflict, certain rights of the native title claimants must yield to the rights conferred by the grant of the mining lease (in this case); and

(c) no native title rights to minerals or petroleum could be recognised (on the facts of this case) because there was no evidence of any traditional Aboriginal law, custom or use in relation to minerals or petroleum.

[1] We note the *Native Title Legislation Amendment Act 2021* (Cth) passed by Parliament on 3 February 2021 (and assented to on 16 February 2021) as part of a review of the NTA. Most of the measures commenced by proclamation on 25 March 2021 (with others to commence on 25 September 2021), and largely relate to changes to requirements for and scope of ILUAs (including to cover certain areas where native title has been extinguished), validity of agreements entered into pursuant to the NTA, changes to compensation arrangements and provisions, and to address in certain cases past extinguishment over Crown land (such as a national park).

Recent High Court decisions have further considered these issues. For example, in the case of *Western Australia v Brown* [2014] HCA 8 the High Court examined the issues of co-existence of mining rights and native title rights, and of whether, and to what extent, native title rights would be considered to be extinguished, having regard to any inconsistency between the rights of the tenement holder and those of the native title holders. In the case of *State of Queensland v Congoo* [2015] HCA 17 the High Court again considered issues relating to extinguishment of native title rights and co-existence where statutory rights and native title rights are not inconsistent. The recent High Court decision in the Timber Creek case (*Northern Territory of Australia v Mr A Griffiths (deceased) and Lorraine Jones on behalf of the Ngaliwurru and Nungali Peoples & Anor* [2019] HCA 7) considered the issue of compensation payable under the NTA for extinguishment of native title rights.

6.2 Extinguishment of Native Title

The common law of Australia provides that upon acquisition of sovereignty by the Crown, native title became vulnerable to extinguishment by legislative or executive actions of Government which manifested a clear and plain intention to extinguish native title. Valid alienation of land by the Crown, such as the granting of an interest which is wholly or partly inconsistent with a continuing right to enjoy native title, extinguishes native title to the extent of any inconsistency.

The NTA regulates the extinguishment of native title by the Commonwealth. In this regard, the NTA provides that 'previous exclusive possession acts' (including grants of freehold or possession on the holder) will have completely extinguished native title. 'Previous non-exclusive possession acts' (including grants of leasehold interests that conferred non-exclusive possession on the holder, such as many pastoral leases) will only have extinguished native title to the extent of any inconsistency between the native title rights and the rights conferred under the grant.

Since the NTA only provides for extinguishment of native title by the Commonwealth, State and Territory Governments enacted complementary native title legislation to regulate the extinguishment of native title in that State or Territory. The relevant South Australian and Victorian legislation is considered in paragraph 6.4.

6.3 Validity of Title

Under the NTA tenements granted prior to 1 January 1994 are deemed to be valid and native title is suspended by their grant. Mining tenements granted in the period 1 January 1994 and 23 December 1996, which may otherwise have been invalid due to non-compliance with the NTA, are deemed to be valid under the NTA so far as the tenements were granted over land the subject of a pastoral lease or other prescribed leasehold land.

The validity of titles, permits or approvals granted on or after 1 January 1994 generally depends on compliance with the NTA future act procedure.

Under the NTA the grant of a mining tenement after 1 January 1994 is generally a future act if it affects native title, that is if it extinguishes native title rights and interests or it is wholly or partly inconsistent with their continued existence, enjoyment or exercise. Where there is no previous right to have a licence granted, all future acts which create a 'right to mine' (as defined in the NTA) will only be valid if the relevant

future act procedures, including compliance with the right to negotiate (**RTN**) process, under the NTA are adhered to.

The RTN process consists of a statutory period of negotiation between the relevant Government party, the native title party and the grantee, during which time the parties must negotiate in good faith. If negotiations fail to resolve any dispute as to the grant of the relevant interest the NNTT (as the arbitral body) will make a determination as to whether the grant may proceed (and if so, on what conditions). Subject to Federal Ministerial intervention or the agreement of the parties, the decision of the NNTT will determine whether the interest is granted. Tenements which have been granted under the future act procedures of the NTA may be renewed provided there is no expansion of the rights granted and, in particular, no increase in the area, additional extension of the term or creation of new rights.

In relation to certain future acts an expedited procedure may be followed (if it is not successfully objected to) provided the grant is not likely to directly interfere with the native title holders' community or social activities, interfere with areas or sites of particular significance or involve major disturbance to land or waters or create rights whose exercise is likely to do so.

The RTN process is not required to be followed in circumstances where the expedited procedure applies or where an Indigenous Land Use Agreement (**ILUA**) is negotiated with the relevant Aboriginal people and registered with the NNTT, in which case the procedures prescribed by the ILUA must be followed to obtain the valid grant of the tenement.

6.4 **Native Title in South Australia and Victoria**

The NTA provides for the enactment by State Governments of alternative legislation for the validation of past acts and intermediate period acts which are attributable to that State. In addition, as noted above, as the NTA only provides for extinguishment and validation of native title by the Commonwealth, each State and Territory Government enacted complementary native title legislation substantially enacting the provisions of the NTA.

(a) **South Australia**

In 1996 the *Native Title (South Australia) Act 1994* (SA) amended the SA Mining Act to provide an alternate and complementary State-based system which largely replaces the operation of the RTN process under the NTA in South Australia. Part 9B of the SA Mining Act acts in conjunction with the NTA and allows the South Australian Government to validate past acts which might otherwise be invalid due to native title.

The *Native Title (South Australia) (Validation and Confirmation) Amendment Act 2000* (SA) (**SA Amending Act**), which came into operation on 22 January 2001, provided for the validation of intermediate period acts attributable to the State of South Australia and extinguished native title over land the subject of the majority of perpetual lease categories as granted on or before 23 December 1996 under the *Crown Lands Act 1929* (SA). Where native title may otherwise have applied to properties covered by the SA Amending Act, those properties will no longer be claimable.

In South Australia, tenements granted after 1 January 1994 are future acts under the NTA. Where tenements are granted after 17 June 1996 (including the South Australian Tenements) the provisions of Part 9B of the SA Mining Act must be followed in order to validate the grant of the tenements, instead of the NTA future act procedures.

Under Part 9B of the SA Mining Act, the grant of a tenement confers no right to carry out mining operations, including prospecting, exploring or mining for minerals on native title land unless:

(1) the mining operations do not affect native title (that is, they are not wholly or partly inconsistent with the continued existence, enjoyment or exercise of rights deriving from native title);

(2) a declaration is made under the law of the State or the Commonwealth that the land is not subject to native title;

(3) an ILUA is registered under the NTA; or

(4) a determination authorising the mining operations is made under Part 9B of the SA Mining Act.

The holder of an EL that would, if land were not native title land, authorise mining operations on the land may acquire the right to carry out mining operations on the land (that affect native title) from an agreement authorising the operations negotiated with the relevant native title parties, whether such parties are the registered holder of native title or registered native title claimants.

Although the Amended Provisions have extended certain notice periods under Part 9B to correspond with those in place under the NTA, the provisions of Part 9B of the SA Mining Act have not been substantially amended.

(b) **Victoria**

In Victoria, the NTA procedures continue to apply in conjunction with the *Land Titles Validation Act 1994* (Vic), in accordance with the standards set by the NTA for future dealings affecting native title.

Victoria has also introduced an alternative system for resolving native title claims under the *Traditional Owner Settlement Act 2010* (Vic) (**TOSA**), which provides for an out-of-court settlement of native title, and allows the Victorian Government to recognise traditional owners (and certain rights in Crown land). The TOSA allows government and traditional owner groups to make agreements that recognise traditional owners' relationship to the land and provide them with certain rights on Crown land, by the entering into of Land Use Activity Agreements (**LUAA**) as a simplified alternative to the future acts regime under the NTA. In return for entering into a settlement, traditional owners agree to withdraw any native title claim under the NTA, and any future native title claims.

If an application under the Vic Mineral Resources Act includes Crown land (other than Crown land where native title has been extinguished), the licence may be subject to native title and DJPR cannot grant the licence until the future act provisions have been met under the NTA or the applicant has complied with the relevant LUAA under the TOSA.

The form of tenement application under the Vic Mineral Resources Act therefore includes an option to excise all Crown land except those areas where native title has been extinguished (such as roads and road reserves), and therefore remove the obligation under the NTA or the TOSA. Alternatively, an applicant may elect to retain the Crown land and comply with the RTN provisions of the NTA or reach an ILUA under the NTA, or retain the Crown land and comply with the relevant LUAA under the TOSA.

We note in this context therefore that the application for EL 007254 was made on the basis that all Crown land would be excised from the area of the application except those areas where native title has been extinguished.

6.5 **Native Title Affecting the Tenements**

From enquiries we have made of NNTT, we are aware of certain native title claims (and determinations) which may impact on the Tenements. These are identified in Part 2 of the Schedule to this Report.

The fact that a claim has been lodged does not mean that native title exists over the area claimed, nor does the absence of a claim necessarily indicate that no native title exists over that area. In addition to native title determinations which have already been made, the existence of native title will be established as claims continue to be processed by the Federal Court of Australia.

(a) **South Australian Tenements**

We comment in relation to the South Australian portion of the Koppamurra Project area as follows. However, we have not undertaken the detailed underlying tenure investigations necessary to conclusively establish the existence of native title and our comments are of a general nature only.

(1) **EL 6509 - Naracoorte**

This tenement is situated primarily on freehold and perpetual leasehold land in respect of which native title has been extinguished (as noted below) as well as areas of Crown land such as reserves (including forest and road reserves) and parks, including the Glen Roy Conservation Park and Naracoorte Caves National Park.[2]

[2] We note the specific restrictions as set out in the licence conditions applying to exploration activities within 100 metres of these Parks, as outlined in the notes to Part 1 of the Schedule.

From enquiries we have made of NNTT, we understand that this Tenement falls within the area of Native Title Claim No SC 2017/002 (First Nations of the South East #1). This claim has been accepted for registration such that the claimants are entitled to the right to negotiate.

As noted in paragraph 6.4(a), where applicable, the grant of perpetual leasehold or freehold titles over land within South Australia prior to 1 January 1994 (or by virtue of the SA Amending Act any perpetual lease or unqualified freehold grant of land on or before 23 December 1996) would have extinguished any native title which may have existed over the land. In that regard, we note that the area covered by the above Claim specifically excludes land or waters where the native title rights and interests claimed have otherwise been extinguished.

To the extent that, and in respect of those areas of Crown land where native title over the Tenement area has not been extinguished, 'heritage' clearances for exploration may also need to be obtained as and when required (we refer to our comments in relation to heritage clearances under the *Aboriginal Heritage Act 1988* (SA) in paragraph 7.1(b)).

(2) **ELA 2020/129 - Frances**

AREL is the applicant for ELA 2020/129, similarly situated primarily on freehold and perpetual leasehold land, as well as areas of Crown land such as reserves and parks, including the Grass Tree Conservation Park.

From enquiries we have made of NNTT, we understand that this Tenement also falls within the area of Native Title Claim No SC 2017/002 (First Nations of the South East #1), and we refer to our comments in paragraph 6.5(a)(1).

(3) **ELA 2020/239 - Keith**

AREL is the applicant for ELA 2020/239, also situated primarily on freehold and perpetual leasehold land, as well as areas of Crown land such as reserves and parks, including the Mount Monster Conservation Park and Poocher Swamp Conservation Reserve.

From enquiries we have made of NNTT, we understand that this Tenement also falls within the area of Native Title Claim No SC 2017/002 (First Nations of the South East #1), and we refer to our comments in paragraph 6.5(a)(1).

(4) **ELA 2020/240 - Bordertown**

AREL is the applicant for ELA 2020/240, again situated primarily on freehold and perpetual leasehold land, as well as areas of Crown land such as reserves and parks, including the Bangham Conservation Park, Geegeela Conservation Park and Pine Hill Soak Conservation Park.

From enquiries we have made of NNTT, we understand that this Tenement also falls within the area of Native Title Claim No SC 2017/002 (First Nations of the South East #1), and we refer to our comments in paragraph 6.5(a)(1).

As noted above, however, we have not been instructed to undertake, and understand that AREL Group has not otherwise undertaken, the detailed underlying tenure investigations which would be necessary to confirm the effect of the SA Amending Act in relation to the above tenements.

(b) **Victorian Tenement**

We comment in relation the Victorian portion of the Koppamurra Project area as follows. However, as we have not undertaken the detailed underlying tenure investigations necessary to conclusively establish the existence of native title in relation to this tenement our comments are of a general nature only.

(1) **EL 007254 - Apsley**

This tenement is also situated in areas comprising of mainly freehold and other 'exclusive' land, in respect of which native title has been extinguished, as well as areas of Crown land such as reserves (including roads and road reserves) and parks, including the Tallageira Nature Conservation Reserve, and a number of bushland, wildlife and other designated reserves together with State forest areas.

As regards the Crown land comprised within the EL area, we note that in its EL application, AREL elected to excise from the EL all Crown land except those areas where native title has been extinguished (and we refer to our comments in paragraph 6.4(b)).

From enquiries we have made of NNTT, we understand that this EL falls partially within the area of Native Title Determination No VCD 2005/001 (Federal Court file no VID 6002/1998) Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk Peoples No 1 (2.41% overlap). By Consent Determination made by the Federal Court on 13 December 2005 pursuant to the NTA, native title rights and interests were determined to exist in parts of the determination area.

The search information as provided by NNTT also indicates that this EL partially falls within the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk ILUA (VI 2004/008) as registered on 11 November 2005, and noted in the Schedule (46.78% overlap). This ILUA was registered with the NNTT as an Area Agreement as part of the above Consent Determination, and was entered into between the State of Victoria, Barengi Gadjin Land Council Aboriginal Corporation, the Commonwealth of Australia and the Claimants, to resolve issues arising from the native title claim, as a consultation protocol, addressing issues such as extinguishment and co-management.

As noted above, however, we have not been instructed to undertake, and understand that AREL Group has not otherwise undertaken, detailed underlying tenure investigations in this regard.

7. Other Applicable Legislation

The following Commonwealth and State legislation may also apply to exploration and other operations on the Tenements.

7.1 Aboriginal Heritage and Sites of Significance

(a) Commonwealth Legislation

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) provides for the preservation of areas and objects which are of particular significance to Aboriginal people in accordance with Aboriginal tradition, and may have the potential to halt exploration activities if the Minister makes a declaration for the protection and preservation of an area of Aboriginal significance under the Act.

(b) South Australian Legislation

The *Aboriginal Heritage Act 1988* (SA) (**AHA (SA)**) provides for the protection and preservation of Aboriginal heritage in South Australia by the identification of sites of significance to Aboriginal people on the Register of Aboriginal Sites and Objects maintained pursuant to the AHA (SA). The effect of entry on the Register is that the site or object will be conclusively presumed to be an Aboriginal site or object.

All operators and holders of interests under a tenement must observe the provisions of the AHA (SA) in relation to operations on their tenements. Discovered Aboriginal sites and remains must be reported to the relevant Minister. It is an offence not to carry out the reporting procedure if Aboriginal sites, objects or remains are discovered. It is also an offence to damage any Aboriginal object, or to disturb, interfere with or remove any Aboriginal object or remains. The Minister has the power under the AHA (SA) to give directions prohibiting or restricting activities on or in relation to the site or an area surrounding the site or in relation to the object or remains. This potentially includes exploration and mining activities.

In South Australia, Aboriginal Heritage Agreements are often entered into with relevant Aboriginal groups to deal with the protection or preservation of Aboriginal sites, objects or remains on land upon which exploration or mining activities are to be undertaken. These agreements are in addition to agreements under Part 9B of the SA Mining Act.

(c) Victorian Legislation

In Victoria, the *Aboriginal Heritage Act 2006* (**AHA (Vic)**) applies to the protection of sites and objects of significance to the Aboriginal tradition in Victoria.

In addition, EL licence conditions as issued under the Vic Mineral Resources Act include requirements to ensure that Aboriginal cultural heritage is not harmed as a result of works undertaken within the licence area.

The objectives of the AHA (Vic) are to recognise, protect, conserve and promote management of Aboriginal cultural heritage, to establish an Aboriginal cultural heritage register and processes for the timely and efficient assessment of activities that have the potential to harm Aboriginal cultural heritage, to promote the use of agreements that provide for the management and protection of Aboriginal cultural heritage, to establish mechanisms that enable the resolution of disputes and to impose sanctions and penalties.

The AHA (Vic) provides for the maintenance of a register of recorded Aboriginal places and objects and a requirement to prepare a cultural heritage management plan when proposing to carry out certain high impact activities in an area of cultural heritage sensitivity. It is an offence under the AHA (Vic) to knowingly, recklessly or negligently undertake an action that harms or is likely to harm an Aboriginal place or object without a cultural heritage permit or an approved cultural heritage management plan in place.

The AHA (Vic) operates together with the *Aboriginal Heritage Regulations 2018* (Vic) to prescribe standards and set out the circumstances in which a cultural heritage management plan should be prepared. The Regulations define 'high impact activities' and 'areas of cultural heritage sensitivity', noting that where a high impact activity is proposed in an area of cultural heritage sensitivity, a cultural heritage management plan must be prepared to assess the likelihood of, and management of harm to, any Aboriginal cultural heritage in the activity area.

7.2 **Environment and Rehabilitation of Land**

(a) **Commonwealth Legislation**

Under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**) environmental assessment and approval is required for actions that are likely to have a significant impact on a matter protected by the EPBC Act. When a person proposes to take an action that they believe may need approval under the EPBC Act, they must refer the proposal to the Australian Government Minister for the Environment. The Amended Provisions also allow for public consultation where a PEPR under the SA Mining Act includes a proposed activity which triggers the operation of the EPBC Act.

(b) **South Australian Legislation**

The SA Mining Act includes obligations requiring tenements to be rehabilitated. In addition, AREL's operations on the Tenements will be subject to the provisions of the *Environment Protection Act 1993* (SA). Conditions have been imposed upon the grant of EL 6509 concerning exploration activities conducted in the vicinity of the Glen Roy Conservation Park and the Naracoorte Caves National Park, and we would expect conditions to also be imposed in respect of the various conservation parks and reserves in the vicinity of the South Australia ELAs (as referred to in the notes to Part 1 of the

Schedule). The provisions of the *National Parks and Wildlife Act 1972* (SA) will therefore apply to AREL's operations in relation to these tenements and limit rights to explore and mine on and adjacent to reserves and other areas constituted pursuant to this and other Acts, as well as restrictions relating to Heritage Agreement areas in accordance with the *Native Vegetation Act 1991* (SA), and other restricted areas as outlined in the notes to Part 1 of the Schedule.

(c) **Victorian Legislation**

The Vic Mineral Resources Act also includes obligations requiring tenements to be rehabilitated, and to ensure the protection of the environment. In addition, AREL's operations on the Victorian EL will be subject to the provisions of the *Environment Protection Act 1970* (Vic).

The provisions of the *National Parks Act 1975* (Vic) and, to the extent applicable, the *Crown Land (Reserves) Act 1978* (Vic) will apply to AREL's operations in relation to this tenement and limit rights to explore and mine on and adjacent to reserves and other restricted areas constituted pursuant to these and other applicable Acts, as referred to in the notes to Part 1 of the Schedule.

8. **Consent and Declarations**

The partners of O'Loughlins Lawyers and the staff involved in the preparation of this Report have no interest in or financial relationship with AREL. Other than a time based fee for the preparation of this Report, no pecuniary or other benefit, direct or indirect, has been received by O'Loughlins Lawyers in connection with the making of this Report.

In providing this Report we have relied on (and have not sought to verify) the accuracy of information provided to us by DEM, DJPR and the NNTT in response to searches made, or caused to be made, by us of their records and registers. In reliance upon this information, we believe this Report does not contain anything which is false in a material particular or which is materially misleading in the form and context in which it appears. We have not undertaken any additional searches of other government agencies, or of Courts or Tribunals.

We have given, and have not before the lodgement of the Prospectus withdrawn, our consent to the issue of the Prospectus with this Report in the form and context in which it is included.

Yours faithfully
O'Loughlins Lawyers

O'Loughlins Lawyers

SCHEDULE

Part 1 – Tenement Schedule

Project Area	Tenement	Name / Location	Status	Date Granted	Renewal Date*/ Expiry	Area (sq km), (unless otherwise specified)	Registered Holder / Applicant	Annual Statutory Expenditure Commitments	Material Contracts (Section)	Native Title Claims/ Determinations	Notes
Koppamurra Project	EL 6509	Naracoorte (SA)	Granted/Current	15/9/20	14/9/22*	794	AREL (100%)	$105,000	9.1, 9.2	SC 2017/002	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16
Koppamurra Project	ELA 2020/129	Frances (SA)	Application	N/A	N/A	649	AREL	N/A	9.1, 9.2	SC 2017/002	1, 3, 4, 5, 6, 7, 12, 13, 14
Koppamurra Project	ELA 2020/239	Keith (SA)	Application	N/A	N/A	977	AREL	N/A	9.2	SC 2017/002	1, 2, 4, 6, 12, 13, 17, 19
Koppamurra Project	ELA 2020/240	Bordertown (SA)	Application	N/A	N/A	934	AREL	N/A	9.2	SC 2017/002	1, 4, 6, 7, 12, 13, 18, 19
Koppamurra Project	EL 007254	Apsley (Vic)	Granted/Current	29/4/21	28/4/24*	693 GRS**	AREL	Note 22	9.1, 9.2	VCD 2005/001	13, 14, 20, 21, 22, 23

***Notes: In Victoria tenement areas are described by reference to graticular sections (GRS). A general approach of 1 GRS = 1 km² may be adopted as a guide.*

NOTES

1. Major minerals sought – rare earths.

2. Geological Monument included within the tenement area, being a site of acknowledged geological value as determined by the Geological Society of Australia.

3. Conditions imposed (or to be imposed) relating to petroleum tenements, prohibiting activities which may significantly deleteriously affect the potential for coal seam methane drainage or in situ gasification of coal within any overlapping exploration licence under the *Petroleum and Geothermal Energy Act 2000* (SA) applied for prior to the date of application of this EL, without the agreement of the relevant licensee, unless otherwise agreed by the Minister.

4. Restrictions imposed (or to be imposed) to recognise and protect a State Heritage Area and/or SA Heritage Place as registered under the *Heritage Places Act 1993* (SA).

5. Requirements imposed (or to be imposed) under the *Development Act 1993* (SA) in relation to a Mining Production Tenement Regulation Area (as noted in Schedule 20 of the *Development Regulations 2008* (SA)).

6. Conditions are imposed (or to be imposed) in relation to exploration activity within a Native Vegetation Heritage Agreement area, pursuant to the *Native Vegetation Act 1991* (SA).

7. Conditions are imposed (or to be imposed) to consult with the owner/operator of Pipeline Licence No 13 (issued under the *Petroleum Act 2000* (SA) as part of the SEAGas Pipeline System and operated by APA Group) prior to conducting activities on the pipeline easement.

8. Conditions imposed in relation to undertaking exploration activities within (or within 100 metres of) Deadmans Swamp Wetlands being wetlands of national importance and noted in the Directory of Important Wetlands in Australia.

9. Conditions imposed in relation to exploration activity within 100 metres of Glen Roy Conservation Park and Naracoorte Caves National Park (as declared under the *National Parks and Wildlife Act 1972* (SA)).

10. Condition is imposed whereby, unless the Minister otherwise determines, if the expenditure requirements under the licence terms are not met, the area of the tenement must be reduced by at least 25% by the end of the current term.

11. This tenement is in its initial two year term, and can then be renewed by a further period of up to three years as the Minister may determine (to a maximum of five years in total), subject to the Transitional Provisions, and to the Amended Provisions, as outlined in paragraphs 4.1 and 4.2.

12. AREL has instructed us that once granted the minimum expenditure commitment in relation to each ELA is expected to be:

    12.1 ELA 2020/129 (SA) - $95,000 per annum;

    12.2 ELA 2020/239 (SA) - $125,000 per annum;

    12.3 ELA 2020/240 (SA) - $125,000 per annum.

13. Tenement Transfer Deed dated 22 January 2021, not yet registered (refer Material Contracts Section 9.2 of this Prospectus).

14. Royalty Deed dated 7 January 2021 (as assigned by Deed of Assignment and Assumption dated 22 January 2021) not yet registered (refer Material Contracts Section 9.1 of this Prospectus).

15. By Memorandum of Exemption (Instrument No 43301), as part of the relief measures announced by the South Australian Government on 3 April 2020 in respect of the COVID-19 pandemic, under section 79 of the SA Mining Act AREL was exempted from:

    15.1 the expenditure commitments as set out in the table in Part 1 of this Schedule until 31 March 2021; and

    15.2 any annual licence fee due under section 31(1) of the SA Mining Act between 1 March 2020 and 1 October 2020 on the condition that payment was deferred to 31 December 2020.

16. Notification: Transfer Application Received – decision pending (See Note 13).

17. Conditions to be imposed in relation to the Mount Monster Conservation Park.

18. Conditions to be imposed in relation to the Geegeela Conservation Park.

19. Conditions to be imposed in relation to the Poocher and Mundulla Swamps.

20. This EL falls partially within the area of the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk ILUA (VI2004/008).

21. Primary Mineral - 'Mineral Sands'.

22. Minimum expenditure commitment (Year 1 - $66,975; Year 2 - $98,160; Year 3 - $98,160).

23. Includes some areas of restricted Crown land, as referred to in Schedule 3 of the Vic Mineral Resources Act (consent required to do work on the land), and areas of other Crown land.

Part 2 – Summary of Native Title Claims/ Determinations

Claim/Determination	Federal Court Number	NNTT Number	Status
South Australia			
First Nations of the South East #1 (Application)	SAD 211/2017	SC2017/002	Accepted for Registration 10/11/17
Victoria			
Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk Peoples No 1 (Determination)	VID 6002/1998	VCD2005/001	Determined* 13/12/05

*Consent determination made by the Federal Court to the effect that native title exists in parts of the determination area.

Notes

Victorian EL 007254 has a 2.41% overlap with VCD 2005/001 Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk Peoples No 1 Determination and a 46.78% overlap with VI2004/008 Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk ILUA (as outlined in paragraph 6.5(b)(1))

SECTION 9:
MATERIAL CONTRACTS

Set out below are summaries of the more important provisions of contracts to which the Company is a party and which are or may be material in terms of the Offer or the operations of the Company or otherwise are or may be relevant to an investor who is contemplating the Offer.

9.1 Royalty Deed

By Royalty Deed entered into between the Company and RAB Royalties Pty Ltd (**RAB**) dated 7 January 2021 (**Royalty Deed**) the Company has agreed to pay to RAB a 0.5% net smelter return royalty (GST exclusive) in respect of the sale of minerals produced from South Australian EL 6509, Victorian EL 007254 and any EL issued pursuant to South Australian ELA 2020/129, and any tenements which may be granted in lieu of those tenements (**Royalty Tenements**), commencing on the fifth anniversary of the date of commencement of the extraction and recovery of minerals from a Royalty Tenement which are capable of being sold or otherwise disposed of.

The royalty is to be calculated and paid quarterly, and the Company must observe its obligations under the Mining Act to maintain and renew the Royalty Tenements, and must give at least 30 days prior notice to RAB of its intention to relinquish, surrender or not renew the whole or any part of the Royalty Tenements, including where required under the Mining Act.

Obligations are imposed relating to reporting on the royalty calculation and audit, and, upon demand by RAB from time to time, an independent auditor.

Any sale, assignment of or dealing with a Royalty Tenement or other assignment of an interest in those tenements to a third party, is subject to the proposed assignee undertaking to assume and be bound by the obligation to pay the royalty to the extent of the interest to be acquired.

By Deed of Assignment and Assumption dated 22 January 2021 made between the Company, its wholly owned subsidiary RDBD Developments Pty Ltd (RDBD) and RAB, RDBD has agreed to assume the obligations of the Company as owed to RAB under the Royalty Deed, in respect of the Royalty Tenements, with effect from completion under the Tenement Transfer Deed as referred to in Section 9.2 of this Prospectus.

9.2 Tenement Transfer Deed

By Tenement Transfer Deed dated 22 January 2021 (**Deed**) made between the Company and its wholly owned subsidiary RDBD Developments Pty Ltd (**RDBD**), the Company has agreed to transfer to RDBD, South Australian EL 6509, Victorian EL 007254 and South Australian ELAs 2020/129, 2020/239 and 2020/240, and any tenements which may be granted in respect of those applications (**AREL Tenements**) and related technical information, for no monetary consideration.

The Tenement Transfer Deed is subject to, as conditions precedent, any approvals or consents required under the Mining Act being obtained and the entering into of the Deed of Assignment and Assumption referred to in Section 9.1 of this Prospectus. As at the date of this Prospectus, only the condition precedent relating to the Deed of Assignment and Assumption has been satisfied, and as Minister's consent has not yet been granted, completion has not yet occurred under the Tenement Transfer Deed. Pending grant and legal transfer of the AREL Tenements as applicable, the Company agrees to hold those tenements on trust for RDBD as transferee.

9.3 Taylor Collison Mandate Letter

By a letter agreement entered into between Taylor Collison Limited (**Lead Manager**) and the Company dated 22 October 2020 (**Lead Manager Agreement**) the Lead Manager agreed to act as lead manager and bookrunner of the Offer and of the pre-IPO funding round (**Pre-IPO Offer**), and to provide ongoing corporate advisory services to the Company following completion of the Offer (**Ongoing Services**).

Pursuant to the Lead Manager Agreement, the Company has agreed to pay the Lead Manager:

- a management fee of 2% of the total funds raised under each of the Offer and the Pre-IPO Offer (**Offer Proceeds**); and
- a capital raising fee of 4% of the Offer Proceeds,

where the fees for the Pre-IPO Offer were paid in Shares and for the Offer are payable in cash.

The Company has also agreed to issue to the Lead Manager (or its nominee) Options equating to 2% of the outstanding equity capital of the Company post Completion of the Offer, on the terms set out in Section 10.5(a).

In addition to the fees payable to the Lead Manager set out above, the Company has agreed to pay a corporate advisory retainer fee of $10,000 per month commencing 1 November 2020 until Listing (up to a maximum accrued amount of $50,000) and $15,000 per quarter from the Listing Date for a period of 12 months in relation to the Ongoing Services (to then be extended for a further 12 months unless otherwise agreed by the parties). The Company will reimburse the Lead Manager for reasonable costs and expenses incurred, provided that the Lead Manager will seek the Company's approval before incurring individual out of pocket expenses greater than $2,000. The Lead Manager is also entitled to appoint its own legal advisers, whose reasonable fees and disbursements will be for the account of the Company provided that such reimbursement will be capped at $5,000, unless otherwise approved by the Company.

If the Lead Manager Agreement is terminated for any reason, the Company is responsible for payment of all costs of the Offer incurred to that date either directly by it or on its behalf by the Lead Manager. A withdrawal fee is imposed if, the Company withdraws from the Offer (except in consultation with the Lead Manager), and a 'tail fee' is payable in respect of any funds raised from a party introduced by the Lead Manager as part of a capital raising within 12 months of termination of the Agreement by the Company.

Under the Lead Manager Agreement, the Company agrees to broadly indemnify the Lead Manager against all liability and loss arising from, and all costs, charges and expenses incurred in connection with the Prospectus and the Offers (except to the extent that such liability and loss was the direct or indirect result of the Lead Manager's fraud, negligence, recklessness or wilful misconduct or breach of contract or acts or omissions of the Lead Manager or statements by the Lead Manager that are inconsistent with the Prospectus). The Lead Manager has a first right of refusal, during the 12 month period from allotment of Shares under the Offer, to act as lead manager for any subsequent capital raisings undertaken by the Company and to act as sole corporate adviser in relation to any corporate level merger, takeover, acquisitions or divestments on terms to be agreed at that time.

Either party can terminate the Lead Manager Agreement by giving seven days' written notice to the other party. Unless otherwise terminated, the Lead Manager Agreement will terminate on the later of 31 December 2021 and completion of the Ongoing Services, unless otherwise extended by agreement of the parties.

SECTION 10:
ADDITIONAL INFORMATION

10.1 Tax Status and Financial Year

The Company is taxed in Australia as a public company. The financial year of the Company ends on 30 June annually.

10.2 Corporate Governance and Restricted Securities

10.2 (a) Corporate Governance

The Board of Directors is responsible for the corporate governance of the Company including its strategic development.

The Board of Directors acknowledges the Corporate Governance Principles and Recommendations (4th Edition) set by the Australian Securities Exchange (**ASX**) Corporate Governance Council. However in view of the Company's current size and extent of nature of operations, full adoption of the recommendations is currently not practical. The Board will continue to work towards full adoption of the recommendations in line with growth and development of the Company in the years ahead. Where the Company's framework is different to the Corporate Governance Principles and Recommendations set by the ASX Corporate Governance Council (**ASX Principles**), it has been noted.

Further, copies of the following corporate governance policies and charters adopted by the Board, are available on the Company's website: www.ar3.com.au:

- Board Charter ;
- Audit and Risk Management Committee Charter;
- Code of Conduct;
- Continuous Disclosure and Communications Policy;
- Securities Trading Policy;
- Diversity Policy;
- Whistleblower Policy;
- Anti-Bribery & Corruption Policy;
- Risk Management Policy;
- Delegations of Authority Policy;
- Process for Performance Evaluations; and
- Shareholder Privacy Policy.

A summary of the corporate governance practices as currently adopted by the Board is as follows:

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
1. Lay solid foundations for management and oversight		
1.1 A listed entity should have and disclose a board charter setting out: (a) the respective roles and responsibilities of the Board and Management; and (b) those matters expressly reserved to the Board and those delegated to Management.	Yes	The Company's Board Charter sets out (amongst other things): (a) the roles and responsibilities of the Board and of management; and (b) the matters expressly reserved to the Board and those delegated to management. A copy of the Board Charter is available on the Company website: www.ar3.com.au.
1.2. A listed entity should: (a) undertake appropriate checks before appointing a Director or senior executive or putting forward someone forward for election as a Director; and (b) provide security holders with all material information in the Company's possession relevant to a decision on whether or not to elect or re-elect a Director.	Yes	Prior to the appointment of a person as a Director or senior executive, or putting forward to Shareholders a candidate for election as a Director, the Company undertakes checks which it believes are appropriate to verify a Director's (or senior executive's) character, experience, education, criminal record and bankruptcy history. The Company will ensure that all material information in its possession relevant to a Shareholder's decision whether to elect or re-elect a Director, including the information referred to in Recommendation 1.2, is provided to shareholders in any Notice of Annual or Extraordinary General Meeting.
1.3. A listed entity should have a written agreement with each Director and senior executive setting out the terms of their appointment.	Yes	Each Director and senior executive of the Company has an agreement in writing with the Company which sets out the key terms and conditions of their appointment including their duties, rights and responsibilities and (to the extent applicable) the matters referred to in the commentary to Recommendation 1.3.
1.4. The company secretary of a listed entity should be accountable directly to the Board, through the chair, on all matters to do with the proper functioning of the Board.	Yes	The responsibilities of the Company Secretary are set out in the Board Charter. The Company Secretary has a direct line of reporting to the Chairperson and is responsible for: (a) advising and supporting the Chairperson and the Board and its committees to manage the day to day governance framework of the Company; (b) assisting with Board effectiveness by monitoring whether applicable Board and committee policies, procedures and charters are followed and coordinating timely completion and despatch of Board agendas and papers; and (c) assisting with all matters to do with the proper functioning of the Board including advising on governance matters and assisting with induction and professional development of Directors.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
1.5. A listed entity should: (a) have and disclose a diversity policy; (b) through its Board or a committee of the Board set measurable objectives for achieving gender diversity in the composition of its Board, senior executives and workforce generally; and (c) disclose in relation to each reporting period: (1) the measurable objectives set for that period to achieve gender diversity; (2) the entity's progress towards achieving those objectives; and (3) either : (i) the respective proportions of men and women on the Board, in senior executive positions and across the whole workforce (including how the entity has defined "senior executive" for these purposes) or, (ii) if the Company is a relevant employer" under the Workplace Gender Equality Act 2012 (Cth), the Company's most recent "Gender Equality Indicators", as defined in and published under that Act.	No	The Company seeks to treat everyone with fairness and respect which includes valuing diversity and difference and acting without prejudice. The Company believes that decision making is enhanced through diversity and supports and encourages diversity at all levels of the organisation in accordance with the Company's Diversity Policy. A copy of the Diversity Policy is available on the Company website: www.ar3.com.au. The Company strives to provide the best possible opportunities for current and prospective employees of all backgrounds in such a manner that best adds to overall shareholders value and which reflects the values, principles and spirit of the Diversity Policy. The Directors also believe that diversity is a relevant consideration for constitution of an effective Board. The Board assesses any measurable objectives for achieving gender diversity and annually reviews any such objectives and the Company's progress towards achieving them. The Board reports at least annually on the relative proportion of women and men appointed or employed within the Company group. The Company has a Diversity Policy. However, the Diversity Policy provides that the Board may establish measurable objectives for achieving gender diversity that are appropriate for the Company. If established, the Board will assess annually both the objectives and the Company's progress towards achieving them. The Company's Diversity Policy is disclosed on the Company's website. Due to size and composition of the Company, the Board has not set measurable objectives for achieving gender diversity. The Board does not consider that it is in a position to set out meaningful objectives for achieving gender diversity given the current composition and size of the Company. Disclosure of measurable objectives, progress and respective proportions will be disclosed in the Annual Report.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
1.6. A listed entity should: (a) have and disclose a process for periodically evaluating the performance of the Board, its committees and individual Directors; and (b) disclose for each reporting period whether a performance evaluation was undertaken in accordance with that process during or in respect of that period.	Yes	The Board Charter details the Company's commitment, responsibility and process to evaluate the performance of the Board, individual Directors, the Chairperson and Committees of the Board. The Board Charter is available on the Company website: www.ar3.com.au. The Board is responsible for the evaluation of its performance and the performance of individual Directors. This evaluation shall involve evaluating the performance of each Director against appropriate measures (including if warranted by considering the use of external advisers to conduct this performance review). The Board is also responsible for evaluating the performance of the Non-Executive Directors, including the Chairperson, against the requirements of the Board Charter. The Board must also set out its future goals and objectives, and review and recommend any changes to the Board Charter deemed necessary or desirable. The performance evaluation shall be conducted in such manner as the Board deems appropriate. The review of the Board's performance also addresses the ability for Directors to access continuing education to update and enhance their skills and knowledge as they relate to the Company's strategy and objectives. Since the incorporation of the Company on 1 April 2019, the Company has not undertaken an evaluation of the performance of the Board, individual Directors and Committees of the Board. A formal and regular process of Board assessment will be considered in the future as the Company develops. Following admission to ASX, the Company will disclose if a performance evaluation has been conducted for each accounting period.
1.7. A listed entity should: (a) have and disclose a process for periodically evaluating the performance of its senior executives at least once every reporting period; and (b) disclose for each reporting period whether a performance evaluation was undertaken in accordance with that process during or in respect of that period.	Yes	The Managing Director (or equivalent) is responsible for evaluating the performance of senior executives in accordance with the process disclosed in the Company's Process for Performance Evaluations. This is conducted by informal interviews, and via ongoing contact between the Managing Director, the Chairman and the senior executives. However, the Board also recognises the need for flexibility in defining performance objectives which must reflect the current status of the Company and the development of its projects. The Board did not conduct a performance evaluation of senior executives during the last 12 months due to the change of the nature of the Company during that period. The Company believes that the small size of the executive team and the current scale of the Company's activities make the establishment of a formal performance evaluation procedure unnecessary. Performance evaluation is a discretionary matter for consideration by the entire Board. In the normal course of events the Board reviews performance of the Management, Directors and the Board as a whole. Achievement of goals and business development and compliance issues are evaluated regularly on an informal basis. As the Company develops and the executive team becomes larger, the Company will undertake a regular (at least annually) and formal evaluation of the performance of its senior executives.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
2. Structure the Board to be effective and add value		
2.1. The Board of a listed entity should: (a) have a nomination committee which: (1) has at least three members, a majority of whom are independent Directors; and (2) is chaired by an independent Director; and disclose: (3) the charter of the committee; (4) the members of the committee; and (5) as at the end of each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or (b) if it does not have a nomination committee, disclose that fact and the processes it employs to address Board succession issues and to ensure that the Board has the appropriate balance of skills, knowledge, experience, independence and diversity to enable it to discharge its duties and responsibilities effectively.	Yes	The Board does not have a formal nomination committee. Acting in its ordinary capacity from time to time as required, the Board carries out the process of determining the need for, screening and appointing new Directors. In view of the size and resources available to the Company, it is not considered that a separate nomination committee would add any substance to this process. The Board Charter sets out the processes the Company employs as regard appointments to the Board and matters regarding successions. The Board Charter is available on the Company website: www.ar3.com.au.
2.2. A listed entity should have and disclose a Board skills matrix setting out the mix of skills and diversity that the Board currently has or is looking to achieve in its membership.	No	The Board regularly evaluates the mix of skills, experience and diversity at Board level. The Board believes that a highly credentialed Board, with a diversity of background, skills and perspectives, will be effective in supporting and enabling delivery of good governance for the Company and value for the Company's shareholders. The Board comprises three Directors from diverse backgrounds with a range of business experience, skills and attributes. Biographical information on each Director will be contained in the Annual Report and on the Company website: www.ar3.com.au. Details of the current Directors, their skills, experience and qualifications are set out in this Prospectus at Section 1.15. These details, plus a record of attendance at meetings, will be included in the Directors' Report within the annual report in the future. No specific skills matrix is currently prepared and disclosed as the Company does not believe its current size and scale warrants that level of detail.
2.3. A listed entity should disclose: (a) the names of the Directors considered by the Board to be independent Directors; (b) if a Director has an interest, position or relationship that might cause doubts about the independence of a Director but the Board is of the opinion that it does not compromise the independence of the Director, the nature of the interest, position or relationship in question and an explanation of why the Board is of that opinion; and (c) the length of service of each Director.	Yes	The Board comprises the following Directors: (a) Mr Dudley Kingsnorth (independent Non-Executive Chairman) - appointed on 11 December 2020. (b) Mr Bryn Jones (Non-Executive Director) - appointed on 1 April 2019, is not considered an independent Director due to his status as a substantial shareholder. (c) Mr Rickie Pobjoy (Executive Director) - appointed on 28 February 2020, is not considered an independent Director due to his status as an executive director of the Company and substantial shareholder.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
2.4. The majority of the Board should be independent Directors.	No	At present the majority of the Board is not comprised of independent Directors (only 1 out of the 3 Directors are independent). As the business develops, changes to and/ or further appointments to the Board may be warranted and the Board will consider the need to appoint independent Directors.
2.5. The chair of the Board should be an independent Director and, in particular, should not be the same person as the CEO of the entity.	Yes	The Chairperson of the Board is an independent Director as described in Recommendation 2.3 and is not the current CEO or previous CEO of the Company.
2.6. A listed entity should have a program for inducting new Directors and for periodically reviewing whether there is a need for existing Directors to undertake professional development opportunities for Directors to develop and maintain the skills and knowledge needed to perform their role as Directors effectively.	Yes	Under the Company's Board Charter, all new Directors are given a thorough briefing by the Chairperson and/or Secretary on key Board issues and provided with appropriate background documentation, including the Company's financial, strategic, operational and risk management position, their rights, duties and responsibilities, and the role of the Board and Board committees. The Board will periodically review whether there is a need for existing Directors undertake professional development to develop and maintain the skills and knowledge needed to perform their roles as Directors effectively.
3. Instil a culture of acting lawfully, ethically and responsibly		
3.1. A listed entity should articulate and disclose its values.	Yes	The Company's Board Charter and Code of Conduct articulates and discloses its values. The Company's Board Charter and Code of Conduct is available on the Company website: www.ar3.com.au.
3.2. A listed entity should: (a) have and disclose a code of conduct for its Directors, senior executives and employees; and (b) ensure that the Board or a committee of the Board is informed of any material breaches of that code.	Yes	The Company has a Code of Conduct that sets out the standards of behaviour expected of all its employees, Directors, officers, contractors and consultants. The Code of Conduct, including practices necessary to maintain confidence in the Company's integrity, the practices necessary to take into account their legal obligations and the reasonable expectations of their stakeholders, to support and reinforce the Company's stated values, can be found on the Company website: www.ar3.com.au. Any breach of compliance with the Code of Conduct is to be reported to: (a) an officer or senior manager of the Company; (b) the Managing Director (or equivalent); (c) Chair of the Audit and Risk Management Committee; or (d) the Company Secretary Any material breaches of the Code of Conduct will be reported to the Audit & Risk Management Committee.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
3.3. A listed entity should: (a) have and disclose a Whistleblower Policy; and (b) ensure that the Board or a committee of the Board is informed of any material incidents reported under that policy.	Yes	The Company's Whistleblower Policy encourages employees to speak up about any unlawful, unethical or irresponsible behaviour. A copy of the Company's Whistleblower Policy can be found on the Company website: www.ar3.com.au. In accordance with the Whistleblower Policy, the Board will be informed of any material incidents reported under the Whistleblower Policy. For the purposes of the Whistleblower Policy, all reports are to be made to the Protected Disclosure Officer, who in respect of the Company, is the Chairman of the Board.
3.4. A listed entity should: (a) have and disclose an anti-bribery and corruption policy; and (b) ensure that the Board or a committee of the Board is informed of any material breaches of that policy	Yes	The Company has an Anti-bribery and Corruption Policy, a copy of which can be found on the Company website: www.ar3.com.au. In accordance with the Anti-bribery and Corruption Policy, the Board will be informed of any material incidents reported under the Anti-bribery and Corruption Policy. Under the Anti-bribery and Corruption Policy, all Company Personnel must report any actual or suspected improper conduct or other violation of this Policy to the relevant person identified in this Policy, being the Managing Director or the Company Secretary.
4. Safeguard the integrity of corporate reports		
4.1. The board of a listed entity should: (a) have an audit committee which: (1) has at least three members, all of whom are non-executive Directors and a majority of whom are independent Directors; and (2) is chaired by an independent director, who is not the chair of the board, and disclose: (3) the charter of the committee; (4) the relevant qualifications and experience of the members of the committee; and (5) in relation to each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or (b) if it does not have an audit committee, disclose that fact and the processes it employs that independently verify and safeguard the integrity of its corporate reporting, including the processes for the appointment and removal of the external auditor and the rotation of the audit engagement partner.	No	The Company has established an Audit and Risk Management Committee (**Committee**) which currently comprises three members, of which only two members are Non-Executive Directors. The Committee is chaired by Bryn Jones, who is not an independent Director, due to his status as a substantial shareholder. The Chairperson of the Committee is not the Chairperson of the Board. The Audit and Risk Management Committee comprises: (a) Mr Bryn Jones – Non-Executive Director (Chairperson of the Committee); (b) Mr Dudley Kingsnorth – independent, Non-Executive Director; and (c) Mr Rickie Pobjoy– Executive Director. The Audit and Risk Management Committee Charter is available on the Company website: www.ar3.com.au. The Committee's members (who are also Directors of the company) and their relevant qualifications and experience, the number of times the Committee met throughout the reporting period and the attendance of the Committee's members at those meetings will be set out in each Annual Report. As the business develops, changes to and/ or further appointments to the Board may be warranted and the Board will consider the need to appoint independent Directors to the Audit and Risk Management Committee.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
4.2. The Board of a listed entity should, before it approves the entity's financial statements for a financial period, receive from its CEO and CFO a declaration that, in their opinion, the financial records of the entity have been properly maintained and that the financial statements comply with the appropriate accounting standards and give a true and fair view of the financial position and performance of the entity and that the opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.	Yes	The Board is to receive a declaration in the form set out in Recommendation 4.2 from its Chief Executive Officer/ Managing Director and Chief Financial Officer in relation to the financial statements. The Audit and Risk Management Committee is responsible for discussing with management and the external auditor the process surrounding and the disclosures made by the Chief Executive Officer/Managing Director and Chief Financial Officer in connection with their personal certification of the half yearly and annual financial statements.
4.3. A listed entity should disclose its process to verify the integrity of any periodic corporate report it releases to the market that is not audited or reviewed by an external auditor.	Yes	The Company ensures that any periodic corporate report it releases to the market that is not audited or reviewed by an external auditor undergoes review by the Audit and Risk Management Committee. The Audit and Risk Management Committee is responsible for reviewing, assessing and recommending release to the Board for all financial statements and reports which are required to be publicly released. The review should include a discussion with management and the external auditors of accounting issues and board policies.
5. Make timely and balanced disclosure		
5.1. A listed entity should have and disclose a written policy for complying with its continuous disclosure obligations under ASX Listing Rule 3.1.	Yes	The Company has a Continuous Disclosure and Communications Policy that outlines the processes to be followed by the Company to ensure compliance with its continuous disclosure obligations and the corporate governance standards applied by the Company in its communications to the market. The Continuous Disclosure and Communications Policy is available on the Company website: www.ar3.com.au.
5.2. A listed entity should ensure that its Board receives copies of all material market announcements promptly after they have been made.	Yes	Under the Company's Board Charter, the Board is responsible for overseeing the continuous disclosure process to ensure timely and balanced disclosures and ensuring that the Company has an effective process for communicating with shareholders, other stakeholders and the public. The Company will ensure that the Board promptly receives copies of all material market announcements, promptly after they have been made.
5.3. A listed entity that gives a new and substantive investor or analyst presentation should release a copy of the presentation materials on the ASX Market Announcements Platform ahead of the presentation.	Yes	The Company will release in advance on the ASX Market Announcements Platform copies of all results, presentations and other substantive investor or analyst presentations ensuring equality of information among investors.
6. Respect the rights of security holders		
6.1. A listed entity should provide information about itself and its governance to investors via its website.	Yes	Information about the Company and its operations is available on the Company website: www.ar3.com.au. Information about the Company's corporate governance (including links to the Company's corporate governance policies and charters) can be accessed from the Company website: www.ar3.com.au.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
6.2. A listed entity should have an investor relations program that facilitates effective two-way communication with investors.	Yes	The Company has a Continuous Disclosure and Communications Policy that outlines the processes followed by the Company to ensure communication with shareholders and the investment community is effective, consistent and adheres to the principles of continuous disclosure. The Continuous Disclosure and Communications Policy is available on the Company website: www.ar3.com.au.
6.3. A listed entity should disclose how it facilitates and encourages participation at meetings of security holders.	Yes	The Continuous Disclosure and Communication Policy sets out the policies and processes the Company has in place to facilitate and encourage participation at meetings of Shareholders. The Company permits Shareholders to cast their proxies prior to a meeting of Shareholders if they are unable to attend the meeting.
6.4. A listed entity should ensure that all substantive resolutions at a meeting of security holders are decided by a poll rather than by a show of hands.	Yes	The Company will ensure that all substantive resolutions at shareholder meetings will be decided by a poll. The Company's Constitution states that a poll may be demanded, before any vote on a resolution is taken, or before the voting results on a show of hands is declared or immediately after the voting results on a show of hands are declared. The Company's Constitution also provides that the Chairperson has charge of the general conduct of a general meeting of Shareholders, and may require adoption of any procedure which is in the Chairman's opinion necessary or desirable, including the proper and orderly casting or recording of votes at the general meeting of Shareholders. The Company considers that these requirements adequately protect the interests of Shareholders.
6.5. A listed entity should give security holders the option to receive communications from, and send communications to, the entity and its security registry electronically.	Yes	The Company gives Shareholders the option to receive communications from, and send communications to, the Company and its Share Registry electronically, as provided for in the Company's Continuous Disclosure and Communication Policy.
7. Recognise and manage risk		
7.1. The Board of a listed entity should: (a) have a committee or committees to oversee risk, each of which: (1) has at least three members, a majority of whom are independent Directors; and (2) is chaired by an independent director, and disclose (3) the charter of the committee; (4) the members of the committee; and (5) as at the end of each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or (b) if it does not have a risk committee or committees that satisfy (a) above, disclose that fact and the processes it employs for overseeing the entity's risk management framework.	No	The Company has established an Audit and Risk Management Committee which comprises three members, of which the majority are not considered independent directors - see comments in respect of Recommendation 4.1 above. The Committee's members (who are also Directors of the Company), have not yet met as at the date of this Prospectus. Following admission to ASX, the Company will disclose in each Annual Report, the attendance of the Committee members at Committee meetings. As the business develops, changes to and/ or further appointments to the Board may be warranted and the Board will consider the need to appoint independent Directors to the Audit and Risk Management Committee. A copy of the Audit and Risk Management Committee Charter is available on the Company website: www.ar3.com.au.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
7.2. The Board or a committee of the Board should: (a) review the entity's risk management framework at least annually to satisfy itself that it continues to be sound and that the entity is operating with due regard to the risk appetite set by the Board; and (b) disclose, in relation to each reporting period, whether such a review has taken place.	Yes	The Company's Risk Management Policy sets the framework for risk management and review of the risk management framework annually. The Company's Risk Management Policy is available on the Company website: www.ar3.com.au. The Board as a whole addresses individual risks as required on an ongoing basis. Since incorporation, the Board has not completed a structured review of the Company's risk management framework and key corporate risk in accordance with the Audit and Risk Management Committee Charter.
7.3. A listed entity should disclose: (a) if it has an internal audit function, how the function is structured and what role it performs; or (b) if it does not have an internal audit function, that fact and the processes it employs for evaluation and continually improving the effectiveness of its governance, risk management and internal control processes.	Yes	The Company is committed to understanding and managing risk and to establishing an organisational culture that ensures risk management is included in all activities, decision making and business processes. The Company does not have a formal internal audit function due to its size and business needs. Under the Company's Audit and Risk Management Committee Charter, the Audit and Risk Management Committee is charged with the review of the Company's governance, risk management and internal control processes. A copy of the Company's Audit and Risk Management Committee Charter and the Risk Management Policy is available on the Company website: www.ar3.com.au.
7.4. A listed entity should disclose whether it has any material exposure to environmental or social risks and if it does, how it manages or intends to manage those risks.	Yes	The Company undertakes minerals and materials development activities and, as such, faces risks inherent to its business, including economic, environmental and social sustainability risks, which may materially impact the Company's ability to create or preserve value for security holders over the short, medium or long term. These risks are set out in Section 4 of this Prospectus. One of the Company's core values is safety; it prioritises safety and health to people, the environment and community. The Company views sustainable and responsible business practices as an important long-term driver of performance and shareholder value and is committed to transparency, fair dealing, responsible treatment of employees and partners and positive interaction with the community. The Company predominantly operates in Australia, which is a mature and well-regulated mining jurisdiction. As part of the Company's mining development approvals process, the Company must adhere to strict environmental and social regulations. The Company's Risk Management Policy acknowledges that it has an obligation to Shareholders, employees, contractors, and other stakeholders to oversee the establishment and implementation of a risk management strategy, and monitor, review and evaluate the risk management and internal control systems for the Company.

ASX Principles and Recommendations	Comply (Yes/No)	Explanation
8. Remunerate fairly and responsibly		
8.1. The Board of a listed entity should: (a) have a remuneration committee which: (1) has at least three members, a majority of whom are independent directors; and (2) is chaired by an independent director, and disclose: (3) the charter of the committee; (4) the members of the committee; and (5) as at the end of each reporting period, the number of times the committee met throughout the period and the individual attendances of the members at those meetings; or (b) if it does not have a remuneration committee, disclose that fact and the processes it employs for setting the level and composition of remuneration for Directors and senior executives and ensuring that such remuneration is appropriate and not excessive.	Yes	Given the current size of the Board, the Company does not have a remuneration committee. The Board considers that it is able to deal efficiently and effectively with remuneration issues and will initially comprise the remuneration committee. In doing so, the Board will be guided by the Board Charter, which is available on the Company website: www.ar3.com.au. The Board as a whole reviews remuneration levels on an individual basis. In doing so, the Board may seek external advice and market comparisons where necessary. The Board will balance a number of factors, including the Company's desire to attract and retain high quality directors and senior executives, incentive structures, and the implications for the Company's reputation and standing if it is seen to pay excessive remuneration.
8.2. A listed entity should separately disclose its policies and practices regarding the remuneration of non-executive Directors and the remuneration of executive Directors and other senior executives.	Yes	The remuneration of the Directors of the Company is set out in Section 1.16 of this Prospectus. The Company's policies and practices regarding the remuneration of Non-Executive Directors and the remuneration of executive Directors and other senior executives will be set out in the Remuneration Report contained in each Annual Report.
8.3. A listed entity which has an equity-based remuneration scheme should: (a) have a policy on whether participants are permitted to enter into transactions (whether through use of derivatives or otherwise) which limit the economic risk of participating in the scheme; and (b) disclose that policy or a summary of it.	Yes	The Company has an equity-based remuneration scheme consisting of an Employee Option Plan and a Performance Rights Plan. The Company's Securities Trading Policy provides that participants in the scheme must not enter into any transactions or arrangements which limit the economic risk of participating in unvested entitlements under any equity based remuneration schemes. The Securities Trading Policy is available on the Company website: www.ar3.com.au.

10.2(b) Restricted Securities

Subject to the Company being admitted to the Official List, certain of the Shares and Options on issue prior to the Offer and certain of the Shares issued on the exercise of the Options on issue prior to the Offer (**Escrowed Securities**), are likely to be classified by ASX as restricted securities and will be required to be held in escrow for the period imposed by ASX under the ASX Listing Rules (**Escrow Period**).

The Company will enter into escrow deeds with (or issue escrow notices in accordance with Chapter 9 of the Listing Rules to) the holders of Escrowed Securities which are subject to escrow (**Escrowed Shareholders**) in the form as required by ASX, and which will include standard terms prohibiting the Escrowed Shareholders during the Escrow Period from:

- disposing of, or agreeing to offer to dispose of, the Escrowed Securities;
- creating, or agreeing to offer to create, any security interest in the Escrowed Securities;
- doing, or omitting to do, any act if the act or omission would have the effect of transferring effective ownership or control of the Escrowed Securities; and
- participating in a return of capital made by the Company.

The imposition of the Escrow Period will:

- help to create a stable market for the Company's Shares (by reducing the number of Shares that can be traded immediately after Quotation of the Shares on ASX);
- prevent the Escrowed Shareholders from selling out of the Company on a large scale within the Escrow Period (which could diminish the value of the Company's Shares); and
- keep the Escrowed Shareholders interested in the operations and success of the Company.

The Company will announce to the ASX full details (quantity and duration) for the Shares and Options required to be held in escrow prior to the Shares commencing trading on ASX.

Shares issued under the Offer will not be subject to any escrow restrictions.

10.3 Litigation

As at the date of this Prospectus, the Company is not involved in any legal proceedings and the Directors are not aware of any legal proceedings pending or threatened against the Company.

10.4 Rights Attaching To Shares

The Shares to be issued under this Prospectus will rank equally with the issued fully paid ordinary shares in the Company. The rights attaching to Shares are set out in the Company's Constitution and, in certain circumstances, are regulated by the Corporations Act, the Listing Rules and general law.

The following is a summary of the more significant rights of the holders of Shares of the Company.

This summary is not exhaustive nor does it constitute a definitive statement of the rights and liabilities of the Company's members.

(a) **General Meeting**

Each member is entitled to receive notice of, and to attend and vote at, general meetings of the Company and to receive all notices, accounts and other documents required to be sent to members under the Company's Constitution, the Corporations Act or the Listing Rules.

(b) **Voting**

Subject to any rights or restrictions for the time being attached to any class or classes of shares whether by the terms of their issue, the Constitution, the Corporations Act or the Listing Rules, at a general meeting of the Company every holder of fully paid ordinary shares present in person or by a representative has one vote on a show of hands and every such holder present in person or by a representative, proxy or attorney has one vote per share on a poll. A person who holds an ordinary share which is not fully paid is entitled, on a poll, to a fraction of a vote equal to the proportion which the amount paid bears to the total issue price of the share. A member is not entitled to vote unless all calls presently payable by the member in respect of shares in the Company have been paid. Where there are two or more joint holders of the share and more than one of them is present at a meeting and tenders a vote in respect of the share (whether in person or by proxy or attorney), the Company will count only the vote cast by the member whose name appears before the other(s) in the Company's register of members.

(c) **Issues of Further Shares**

The Directors may, on behalf of the Company, issue, grant options over or otherwise dispose of unissued shares to any person on the terms, with the rights, and at the times that the Directors decide. However, the Directors must act in accordance with the restrictions imposed by the Company's Constitution, the Listing Rules, the Corporations Act and any rights for the time being attached to the shares in special classes of shares.

(d) **Variation of Rights**

At present, the Company has on issue one class of shares only, namely ordinary shares. The rights attached to the shares in any class may be altered only if authorised by a special resolution of the Company and a special resolution passed at a separate meeting of the holders of the issued shares of the affected class, or with the written consent of the holders of at least three quarters of the issued shares of the affected class.

(e) **Transfer of Shares**

Subject to the Company's Constitution, the Corporations Act, the ASX Settlement Operating Rules and the Listing Rules, ordinary shares are freely transferable.

Shares may be transferred by a proper transfer effected in accordance with ASX Settlement Operating Rules, by any other method of transferring or dealing introduced by ASX and as otherwise permitted by the Corporations Act or by a written instrument of transfer in any usual form or in any other form approved by the Directors that is permitted by the Corporations Act. The Company may decline to register a transfer of Shares in the circumstances described in the Company's Constitution and where permitted to do so under the Listing Rules. If the Company declines to register a transfer, the Company must, within five business days after the transfer is lodged with the Company, give the lodging party written notice of the refusal and the reasons for refusal. The Directors must decline to register a transfer of Shares when required by law, by the Listing Rules or by the ASX Settlement Operating Rules.

(f) **Partly Paid Shares**

The Directors may, subject to compliance with the Company's Constitution, the Corporations Act and the Listing Rules, issue partly paid shares upon which amounts are or may become payable at a future time(s) in satisfaction of all or part of the unpaid issue price.

(g) **Dividends**

The Directors, or the Company in general meeting following a recommendation of the Directors, may from time to time declare a dividend.

Subject to the rights of members entitled to shares with special rights as to dividend (if any), all dividends in respect of shares (including ordinary shares) are to be declared and paid proportionally to the amount paid up (not credited as paid up) on the shares.

(h) **Winding Up**

If the Company is wound up, the liquidator may, with the sanction of a special resolution of the Company, divide among the shareholders the whole or any part of the property of the Company and may determine how the division is to be carried out as between the shareholders or different classes of shareholders.

Subject to the rights of holders of shares with special rights in a winding up, if the Company is wound up, members (including holders of ordinary shares) will be entitled to participate in any surplus assets of the Company in proportion to the shares held by them respectively irrespective of the amount paid up or credited as paid up on the shares.

(i) **Dividend Plans**

The Directors or the members of the Company in general meeting, may implement a dividend plan under which (among other things) a member may elect that dividends payable by the Company be reinvested by way of subscription for shares in the Company.

(j) **Directors**

The Company's Constitution states that the minimum number of directors is three and the maximum number of directors is nine.

(k) **Powers of the Board**

The Directors have power to manage the business of the Company and may exercise that power to the exclusion of the members, except as otherwise required by the Corporations Act, any other law, the Listing Rules or the Company's Constitution.

(l) **Restricted Securities**

A holder of Restricted Securities (as defined in the Listing Rules) must comply with the requirements imposed by the Listing Rules in respect of Restricted Securities.

(m) **Listing Rules**

If the Listing Rules require the Constitution to contain a provision or not to contain a provision the Constitution is deemed to contain that provision or not to contain that provision (as the case may be). If any provision of the Constitution is or becomes inconsistent with the Listing Rules, the Constitution is deemed not to contain that provision to the extent of the inconsistency.

10.5 Terms and Conditions of Options

10.5(a) Options to Taylor Collison

If the Offer is completed, the Company will grant 2,417,200 Options to Taylor Collison (or its nominee) on the following terms and conditions:

1. Each Option entitles the holder to one ordinary share in the Company.
2. Each of the Options will be exercisable at $0.45.
3. Each Option is exercisable in whole or in part at any time during the period commencing on the date of issue and expiring on the third anniversary of the date on which the Company's Shares are admitted to official quotation on ASX (**Exercise Period**). Options not exercised before the expiry of the Exercise Period will lapse.
4. Options are exercisable by notice in writing to the Board delivered to the registered office of the Company and payment of the exercise price per option in cleared funds.
5. The Company will not apply to ASX for official quotation of the Options.

6. The Company will make application for official quotation on ASX of new shares allotted on exercise of the Options. Those shares will participate equally in all respects with existing issued ordinary shares, and in particular new shares allotted on exercise of the Options will qualify for dividends declared after the date of their allotment.

7. Options can only be transferred with Board approval, except that if at any time before expiry of the Exercise Period the Optionholder dies, the legal personal representative of the deceased Optionholder may:

   - elect to be registered as the new holder of the Options;
   - whether or not he or she becomes so registered, exercise those Options in accordance with the terms and conditions on which they were granted; and
   - if the deceased has already exercised Options, pay the exercise price in respect of those Options.

8. An optionholder may only participate in new issues of securities to holders of ordinary shares in the Company if the Option has been exercised and shares allotted in respect of the Option before the record date for determining entitlements to the issue. The Company must give prior notice to the Optionholder of any new issue before the record date for determining entitlements to the issue in accordance with the ASX Listing Rules.

9. If there is a bonus issue to the holders of ordinary shares in the capital of the Company, the number of ordinary shares over which the Option is exercisable will be increased by the number of ordinary shares which the holder of the Option would have received if the Option had been exercised before the record date for the bonus issue.

10. If the Company makes a rights issue (other than a bonus issue), the exercise price of Options on issue will be reduced according to the following formula:

$$A = O - \frac{E\,[P - (S + D)]}{(N + 1)}$$

Where:

A = the new exercise price of the Option;

O = the old exercise price of the Option;

E = the number of underlying ordinary shares into which one Option is exercisable;

P = the average closing sale price per ordinary share (weighted by reference to volume) recorded on the stock market of ASX during the five trading days immediately preceding the ex rights date or ex entitlements date (excluding special crossings and overnight sales and exchange traded option exercises);

S = the subscription price for a security under the pro rata issue;

D = the dividend due but not yet paid on existing underlying securities (except those to be issued under the pro rata issue); and

N = the number of securities with rights or entitlements that must be held to receive a right to one new security.

11. If, during the currency of the Options the issued capital of the Company is reorganised, those Options will be reorganised to the extent necessary to comply with ASX Listing Rules.

10.5(b) Existing Options on issue to the Directors

As at the date of this Prospectus, the Company has granted 600,000 Options to Dudley Kingsnorth, and 2,700,000 Options to each of Rickie Pobjoy and Bryn Jones on the same terms as set out in Section 10.5(a) save and except that:

1. Each of the Options has an exercise price of $0.30.

2. Each Option is exercisable in whole or in part at any time during the period commencing on the date of issue and expiring on 25 January 2025 (**Exercise Period**). Options not exercised before the expiry of the Exercise Period will lapse.

10.5(c) Existing Options on issue to the Directors, CFO and Consultant

As at the date of this Prospectus, the Company has granted 1,000,000 Options to Dudley Kingsnorth, 2,000,000 Options to Rickie Pobjoy (under the terms of his Executive Services Agreement, as set out in Section 11.7 of this Prospectus), 750,000 Options to Bryn Jones, 250,000 Options to Damien Connor (CFO) and 180,000 Options to a consultant for services rendered to the Company, on the same terms as set out in Section 10.5(a) save and except that:

1. Each of the Options has an exercise price of $0.45.

2. Each Option is exercisable in whole or in part at any time during the period commencing on the date of issue and expiring on the third anniversary of the date on which the Company's Shares are admitted to official quotation on ASX (**Exercise Period**). Options not exercised before the expiry of the Exercise Period will lapse.

10.6 Employee Incentive Plans

10.6(a) Employee Option Plan

The Company has established an Employee Option Plan (EO Plan) to assist in the attraction, retention and motivation of employees of the Company.

The summary of the EO Plan is set out below for the information of potential investors in the Company. The detailed terms and conditions of the EO Plan may be obtained free of charge by contacting the Company. In this summary, a reference to a 'share' is to be taken to include a reference to such other Eligible Product, as defined in the EO Plan Rules.

All employees (full and part-time), Directors and certain casual employees and contractors, will be eligible to participate in the EO Plan.

The allocation of Options to each employee is in the discretion of the Board.

If permitted by the Board, Options may be issued to an employee's nominee.

Each Option is to subscribe for one fully paid ordinary share (or other Eligible Product) in the Company and will expire three years from its date of issue (unless otherwise determined by the Directors) . Subject to vesting under applicable vesting condition (if any) or satisfaction of applicable performance condition (if any) an Option is exercisable at any time from its date of issue.

Options will be issued free (unless otherwise determined by the Directors). The exercise price of Options will be the amount determined by the Board. The total number of shares or other Eligible Products the subject of Options issued under the EO Plan, when aggregated with issues during the previous three years pursuant to the EO Plan and any other employee incentive plan, must not exceed 5% of the Company's issued Eligible Products in that class.

If, prior to the expiry date of Options, a Director ceases to be a Director (other than pursuant to a determination by the Directors that the relevant Director has acted fraudulently, dishonestly or in breach of their obligations to the Company and that Option is to be forfeited) the Options held by that Director (or that Director's nominee) must be exercised within 30 days after that Director ceases to be a Director (but prior to the expiry date of the Options) otherwise they will automatically lapse. Where a Director is removed from office by resolution of a general meeting of the Company, they will only be entitled to exercise a proportion of their Options.

If, prior to the expiry date of Options, an employee's employment is terminated where such termination has either been voluntary on the employee's part or otherwise has occurred without cause the Options held by that person (or that person's nominee) must be exercised within 30 days after the termination (but prior to the expiry date of the Options) otherwise they will automatically lapse.

Except with the consent of the Board, Options may not be transferred and will not be quoted on or by ASX.

Shares issued as a result of the exercise of Options will rank equally with the Company's previously issued shares.

Optionholders may only participate in new issues of securities by first exercising their Options.

If there is a bonus share issue to the holders of shares, the number of shares over which an Option is exercisable will be increased by the number of shares which the Optionholder would have received if the Option had been exercised before the record date for the bonus issue.

If there is a pro rata issue (other than a bonus share issue) to the holders of shares, the exercise price of an Option will be reduced to take account of the effect of the pro rata issue in accordance with the formula in Section 10.5 (a) of this Prospectus.

If there is a reorganisation of the issued capital of the Company, unexercised Options will be reorganised in accordance with the Listing Rules.

The Board may amend the EO Plan Rules subject to the requirements of the Listing Rules, the Corporations Act and the Company's Constitution.

The EO Plan Rules expressly state that it is a plan to which tax deferral under Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies (subject to requirements of that Act), unless specifically stated otherwise in an offer of options under the Plan.

As noted in Section 1.17, 2,000,000 Options are proposed to be issued to Mr Rickie Pobjoy, Director under the EO Plan, with an exercise price of $0.60 and expiring on the fourth anniversary of Listing, pursuant to the terms of his Executive Services Agreement, if approved by Shareholders at the first annual general meeting following Listing.

The maximum number of equity securities proposed to be issued under the EO Plan for the purposes of the ASX Listing Rules is 5,534,000 (**ASX Limit**), taking into account any equity securities issued under the Performance Rights Plan as referred to in Section 10.6(b) (together the Plans), meaning that the Company may issue up to the ASX Limit under the Plans, without seeking approval of Shareholders and without reducing its placement capacity under ASX Listing Rule 7.1

10.6(b) Performance Rights Plan

The Company has established a Performance Rights Plan (**PR Plan**) to assist in the attraction, retention and motivation of employees of the Company.

The summary of the PR Plan is set out below for the information of potential investors in the Company. The detailed terms and conditions of the PR Plan may be obtained free of charge by contacting the Company. In this summary, a reference to a 'share' is to be taken to include a reference to such other Eligible Product, as defined in the PR Plan Rules.

All employees (full and part-time), Directors and certain casual employees and contractors, will be eligible to participate in the PR Plan.

The allocation of Performance Rights to each employee is in the discretion of the Board.

If permitted by the Board, Performance Rights may be issued to an employee's nominee.

Each Performance Right is to be issued one fully paid ordinary share (or other Eligible Product) in the Company, subject to the terms and conditions attached to the Plan Rules (**Terms and Conditions**). The Board shall, for each offer of Performance Rights, specify performance conditions to be satisfied before a Performance Right can be exercised, milestone date, expiry and other similar terms. Subject to vesting under the applicable vesting period (if any), satisfaction of the applicable performance conditions and the Corporations Act, Listing Rules and other applicable laws and policies, a Performance Right is exercisable in accordance with, and at any time during the period specified in, the Terms and Conditions.

Performance Rights shall vest on satisfaction of the relevant performance conditions, and if a performance condition is not satisfied by the earlier of the relevant milestone date or the expiry date, as specified in the terms of offer, (or if a vested Performance Right is not exercised within the specified exercise period) then the Performance Right shall automatically lapse.

Unvested Performance Rights (or vested but unexercised) will also lapse where the Directors determine that the holder has acted fraudulently, dishonestly or in breach of their obligations to the Company, or where a holder ceases to be an Eligible Person for reasons other than death or total and permanent disability, bona fide redundancy or retirement, or removal from a position of managerial or executive office in the Company (provided that the holder continues to satisfy all other relevant conditions).

Performance Rights will be issued for no consideration. The total number of shares or other Eligible Products the subject of Performance Rights issued under the PR Plan, when aggregated with issues during the previous three years pursuant to the PR Plan and any other employee incentive plan, must not exceed 5% of the Company's issued Eligible Products in that class.

Except with the consent of the Board (and subject to ASIC class order), Performance Rights may not be transferred and will not be quoted on or by ASX.

Shares issued as a result of the exercise of Performance Rights will rank equally with the Company's previously issued shares.

If there is a bonus share issue to the holders of shares, the number of shares over which a Performance Right is exercisable will be increased by the number of shares which the holder would have received if the Performance Right had been exercised before the record date for the bonus issue.

If there is a pro rata issue to the holders of shares by way of a rights issue, subject to the Corporations Act and the Listing Rules, the holder shall be entitled to participate in the rights issue on the same terms, as if the holder held the number of shares issuable on an exercise of the Performance Rights prior to the record date for the rights issue.

If there is a reconstruction of the issued capital of the Company, unexercised Performance Rights will be reconstructed in accordance with the Listing Rules.

If the holders of shares are offered securities of another corporation, the Company will use reasonable endeavours to ensure that the holder of Performance Rights can participate on the same basis as if those rights had been exercised.

Performance Rights will automatically vest upon a takeover bid, court approved merger, or other acquisition by a third party of a relevant interest in each case in 50% or more of the Company Shares, or in a material project of the Company.

The Board may terminate, suspend or amend the PR Plan at any time subject to the requirements of the Listing Rules.

The PR Plan Rules expressly state that it is a plan to which tax deferral under Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) applies (subject to requirements of that Act), unless specifically stated otherwise in an offer of Performance Rights under the Plan.

The maximum number of equity securities proposed to be issued under the PR Plan for the purposes of the ASX Listing Rules is 5,534,000 (**ASX Limit**), taking into account any equity securities issued under the Employee Option Plan as referred to in Section 10.6(a) (together the Plans), meaning that the Company may issue up to the ASX Limit under the Plans, without seeking approval of Shareholders and without reducing its placement capacity under ASX Listing Rule 7.1.

10.7 Directors' Interests

Except as disclosed in this Prospectus, no Director (whether individually or in consequence of a Director's association with any company or firm or in any material contract entered into by the Company) has now, or has had, in the two year period ending on the date of this Prospectus, any interest in:

- the formation or promotion of the Company; or
- property acquired or proposed to be acquired by the Company in connection with its formation or promotion or the Offer of the Shares; or
- the Offer of the Shares.

Except as disclosed in this Prospectus, no amounts of any kind (whether in cash, Shares, Options or otherwise) have been paid or given or agreed to be paid or given to any Director or to any company or firm with which a Director is associated to induce him or her to become, or to qualify as, a Director, or otherwise for services rendered by him or her or any company or firm with which the Director is associated in connection with:

- the formation or promotion of the Company; or
- the Offer of the Shares.

10.8 Interests of Named Persons

Except as disclosed in this Prospectus, no promoter, underwriter, expert or any other person named in this Prospectus as performing a function in a professional advisory or other capacity in connection with the preparation or distribution of this Prospectus, nor any firm in which any of those persons is or was a partner nor any company in which any of those persons is or was associated with, has now, or has had, in the two year period ending on the date of this Prospectus, any interest in:

- the formation or promotion of the Company; or
- property acquired or proposed to be acquired by the Company in connection with its formation or promotion or the Offer of the Shares; or
- the Offer of the Shares.

Except as disclosed in this Prospectus, no amounts of any kind (whether in cash, Shares, Options or otherwise) have been paid or given or agreed to be paid or given to any promoter, underwriter, expert or any other person named in this Prospectus as performing a function in a professional advisory or other capacity in connection with the preparation or distribution of this Prospectus, or to any firm in which any of those persons is or was a partner or to any company in which any of those persons is or was associated with, for services rendered by that person in connection with the formation or promotion of the Company or the Offer under this Prospectus.

Grant Thornton Corporate Finance Pty Ltd has acted as the Investigating Accountant in relation to the Offer. As Investigating Accountant, Grant Thornton Corporate Finance Pty Ltd has prepared the Investigating Accountant's Report which has been included in this Prospectus. In respect of this work the Company has agreed to pay a total of $16,000 (exclusive of GST) for these services.

Grant Thornton Audit Pty Ltd has acted as auditor to the Company. The Company has incurred professional fees in the sum of $25,000 (exclusive of GST) in respect of audit services provided by Grant Thornton Audit Pty Ltd during the last 24 months.

REESearch Pty Ltd has acted as the Independent Geologist in relation to the Offer. As Independent Geologist, REESearch Pty Ltd has prepared the Independent Geologist's Report which has been included in this Prospectus . In respect of this work the Company has agreed to pay a total of $12,000 (exclusive of GST) for these services.

O'Loughlins Lawyers have acted as the solicitors to the Company in relation to the Offer, and in that capacity and otherwise assisting the Company with the preparation of this Prospectus, O'Loughlins Lawyers have been involved in undertaking certain due diligence enquiries in relation to legal matters and providing legal advice to the Company in relation to the Offer and related matters, and have also prepared the Solicitors' Report on Tenements which has been included in Section 8 of this Prospectus. In respect of this work, the Company has agreed to pay O'Loughlins Lawyers $100,000 (exclusive of GST) for these services up to the date of lodgement of this Prospectus.

Computershare Investor Services Pty Limited has agreed to provide share registry services to the Company in accordance with a proposal dated 18 December 2020 for share registry services for the capital raising.

Taylor Collison Limited will receive the remuneration outlined in Section 9.3 of this Prospectus in respect of its services as Lead Manager to the Offer.

10.9 Consents

Chapter 6D of the Corporations Act imposes a liability regime on the Company (as offeror of the Shares), the directors of the Company, persons named in the Prospectus with their consent as proposed directors of the Company, any underwriters, persons named in this Prospectus with their consent as having made a statement in this Prospectus and persons involved in a contravention in relation to this Prospectus, with regard to misleading or deceptive statements made in this Prospectus. Although the Company bears primary responsibility for this Prospectus, other parties involved in the preparation of this Prospectus can also be responsible for certain statements made in it.

In light of the above, each of the parties referred to below, to the maximum extent permitted by law, expressly disclaims all liabilities in respect of, makes no representations regarding and takes no responsibility for any statements in or omissions from this Prospectus, other than the reference to its name in the form and context in which it is named and a statement or report included in this Prospectus with its consent as specified below.

Grant Thornton Corporate Finance Pty Ltd has given its written consent to the inclusion in Section 6 of this Prospectus of its Investigating Accountant's Report and to all statements referring to that report in the form and context in which they appear, and to being named as Investigating Accountant, and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

Grant Thornton Audit Pty Ltd has given its written consent to being named as Auditor, and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

REESearch Pty Ltd has given its written consent to being named as Independent Geologist in this Prospectus and the inclusion of the Independent Geologist's Report in Section 7 of this Prospectus in the form and context in which the report is included. REESearch Pty Ltd has not withdrawn this consent prior to lodgement of the Prospectus with ASIC.

O'Loughlins Lawyers have given their written consent to the inclusion in Section 8 of this Prospectus of their Solicitors' Report on Tenements and to all statements referring to that report in the form and context in which they appear, and to being named as Solicitors to the Company, and have not withdrawn such consent before lodgement of this Prospectus with ASIC.

Taylor Collison Limited has given its written consent to being named as Lead Manager to the Offer and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

Computershare Investor Services Pty Limited has given and, as at the date hereof, has not withdrawn its written consent to be named as Share Registrar in the form and context in which it is named. Computershare Investor Services Pty Limited has had no involvement in the preparation of any part of this Prospectus other than being named as Share Registrar to the Company. Computershare Investor Services Pty Limited has not authorised or caused the issue of, and expressly disclaims and takes no responsibility for, any part of this Prospectus.

There are a number of other persons referred to in this Prospectus who are not experts and who have not made statements included in this Prospectus nor are there any statements made in this Prospectus on the basis of any statements made by those persons. These persons did not consent to being named in this Prospectus and did not authorise or cause this issue of the Prospectus.

10.10 Electronic Prospectus

If you have received this Prospectus as an electronic prospectus or in paper form please ensure that you have received the entire Prospectus accompanied by the Application Form. If you have not, please email the Company at hello@ar3.com.au and the Company will send to you, for free, either a hard copy or a further electronic copy of this Prospectus or both.

The Company reserves the right not to accept an Application Form from a person if it has reason to believe that when that person was given access to the electronic Application Form, it was not provided together with this Prospectus and any relevant supplementary or replacement prospectus or any of those documents were incomplete or altered. In such case, the Application Monies received will be dealt with in accordance with section 722 of the Corporations Act.

10.11 Documents Available for Inspection

Copies of the following documents may be inspected free of charge at the registered office of the Company during normal business hours:

- the Constitution of the Company; and
- the consents referred to in Section 10.9 of this Prospectus.

SECTION 11:
DIRECTORS' CONSENTS

Each of the Directors has consented in writing to the lodgement of this Prospectus with ASIC and has not withdrawn that consent.

Dated: 7 May 2021
Signed for and on behalf of the Company

Professor Dudley J. Kingsnorth
Non-Executive Chairman

SECTION 12: DEFINITIONS

In this Prospectus unless the context otherwise requires:

General Definitions

$** or **A$ means the lawful currency of Australia.

Adelaide Time means legal time in Adelaide, South Australia.

Applicant means a person who submits an Application Form under this Prospectus.

Application means a valid application to subscribe for Shares.

Application Form means the Application Form contained in this Prospectus or a copy of the application form contained in this Prospectus or a direct derivative of the application form which is contained in this Prospectus.

Application Money means 30 cents being the amount payable in respect of each Share under the Offer.

ASIC means the Australian Securities and Investments Commission.

ASX means ASX Limited (ACN 008 624 691) or, as the context requires, the financial market conducted by it.

ASX Listing Rules or **Listing Rules** means the official listing rules of ASX.

ASX Settlement means ASX Settlement Pty Ltd (ACN 008 504 532).

ASX Settlement Operating Rules mean the operating rules of ASX Settlement.

Board of Directors and **Board** means the Board of Directors of the Company as constituted from time to time.

Business Day means a business day as defined in the ASX Listing Rules.

Capital Raising means the capital raising to be completed by the Company of A$12,000,000 at an issue price of no less than 30 cents per Company Share.

CFO means Chief Financial Officer.

CHESS means the Clearing House Electronic Subregister System operated by ASX Settlement.

Closing Date means the date on which the Offer closes (refer to expected closing date in Section 1.9 of this Prospectus).

Company means Australian Rare Earths Limited ACN 632 645 302.

Completion of the Offer means the allotment of 40,000,000 Shares offered under this Prospectus.

Constitution means the constitution of the Company.

Corporations Act means the *Corporations Act 2001 (Cth)*.

Corporations Regulations means *Corporations Regulations 2001 (Cth)*.

Directors means the directors of the Company.

EL and **Exploration Licence** means an area granted in respect to mineral exploration.

ELA means an application for an EL.

EO Plan means the Australian Rare Earths Limited Employee Option Plan.

Exposure Period means the period of seven days (or longer as ASIC may direct) from the date of lodgement of this Prospectus with ASIC.

HIN means holder identification number.

Holding Lock means holding lock as defined in Section 2 of the ASX Settlement Operating Rules.

Issue means the issue of Shares pursuant to this Prospectus.

Issuer Sponsored means securities issued by an issuer that are held in uncertificated form without the holder entering into a sponsorship agreement with a broker or without the holder being admitted as an institutional participant in CHESS.

Listing means the Company's admission to the Official List and Listing Date has a corresponding meaning.

Minimum Subscription means $12,000,000 or 40,000,000 Shares.

Mining Act means the SA Mining Act or the Vic Mineral Resources Act as the case may require.

Offer means the invitation to apply for Shares pursuant to this Prospectus.

Offer Period means the period commencing on the Opening Date and ending on the Closing Date.

Offer Price means 30 cents being the amount payable in respect of each Share under the Offer.

Official List means the Official List of ASX.

Opening Date means the date immediately following the expiry of the Exposure Period.

Option means a right to subscribe for a Share.

Optionholder means a holder of an Option.

PR Plan means the Australian Rare Earths Limited Performance Rights Plan.

Prospectus means this disclosure document.

Quotation means quotation of the Shares on the Official List.

SA Mining Act means the *Mining Act 1971 (SA)*.

Share means a fully paid ordinary share in the capital of the Company.

Shareholder means a holder of a Share.

Share Registrar means Computershare Investor Services Pty Limited.

Vic Mineral Resources Act means the *Mineral Resources (Sustainable Development) Act 1990 (Vic)*.

Technical Definitions

Advanced Exploration Projects Tenure holdings where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A Mineral Resource estimate may or may not have been made, but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the Mineral Resources category.

Anomalous Having statistically significantly higher or lower values than the norm.

Anomaly A portion of an area surveyed that is different in appearance from the area surveyed in general or containing higher or lower values than considered normal.

Assay An examination of a sample to determine by measurement certain of its ingredients.

Auger a rotary drill that uses a screw device to penetrate, break, and then transport the drilled material.

Basin a topographic depression containing or capable of receiving sediment.

Beneficiation the treatment of mined material, making it more concentrated or richer. Crushing and separating ore into valuable substances or waste by any of a variety of techniques.

Clay A fine-grained material composed of hydrous aluminum silicates.

CREO (Critical Rare Earth Oxides) = Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3.

Cut-off Grade the unit metal content at which ore is separated from waste. This is an economic distinction.

Deposit a natural layer or accumulation of sand, rock, minerals, etc

Deposition The precipitation of mineral matter from solution.

Development Projects Tenure holdings for which a decision has been made to proceed with construction or production or both, but which are not yet commissioned or operating at design levels. Economic viability of Development Projects will be proven by at least a pre-feasibility study (PFS).

DI de-ionised

Early Stage Exploration Projects Tenure holdings where mineralisation may or may not have been identified, but where Mineral Resources have not been identified.

Exploration Projecting, sampling, mapping, drilling and other work involved in the search for mineral deposits

Exploration Target An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource.

Formation A body of rock identified by lithic characteristics and stratigraphic position and is mappable at the earth's surface or traceable in the subsurface.

Grade Any physical or chemical measurement of the characteristics of the material of interest in samples or product. Note that the term quality has special meaning for diamonds and other gemstones. The units of measurement should be stated when figures are reported.

Heap Leach A process whereby valuable metals, usually gold and silver, are leached from a heap, or pad, of crushed ore by leaching solutions percolating down through the heap and collected from a sloping, impermeable liner below the pad.

HREO (Heavy Rare Earth Oxides) = Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3.

In situ in the natural or original position. Applied to a rock, soil, or fossil when occurring in the location in which it was originally formed or deposited. In situ is a Latin phrase meaning in the place.

JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia.

Kaolin A 1:1 layer clay mineral composed essentially of aluminium and silicon oxides in equal amounts.

Kaolinite a clay mineral, with the chemical composition $Al_2Si_2O_5(OH)_4$.

Karst Near-surface solution features formed by dissolution of limestone by groundwater.

LREO (Light Rare Earth Oxides) = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3.

Micron Particle size where 1 micron is one thousandth of a millimetre (0.001 mm).

Mineral Resource a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories

Mineralisation Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest. The term is intended to cover all forms in which mineralisation might occur, whether by class of deposit, mode of occurrence, genesis or composition.

Mining All activities related to extraction of metals, minerals and gemstones from the earth whether surface or underground, and by any method (eg quarries, open cast, open cut, solution mining, dredging, etc).

Monazite is a primarily reddish-brown phosphate mineral that contains rare-earth elements.

Mt Million tonnes (see t tonne)

Open Pit A mine that is entirely on surface. Also referred to as open-cut or open-cast mine.

Ore rock containing minerals that have economic value.

Orebody a solid, naturally occurring mineral aggregate of economic importance, from which one or more valuable constituents may be recovered by treatment

Outcrop An exposure of bedrock at the surface, projecting through the overlying soil cover.

pH pH is a measure of how acidic/basic water is. The range goes from 0 to 14, with 7 being neutral. pHs of less than 7 indicate acidity, whereas a pH of greater than 7 indicates a base.

Placer A concentration of detrital minerals with high specific gravity formed by the action of water or wind that selectively removes the lighter detrital particles.

ppm Parts per million

Pre-Development Projects Tenure holdings where Mineral Resources have been identified and their extent estimated (possibly incompletely), but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral Resources have been identified, even if no further work is being undertaken.

Production Projects Tenure holdings – particularly mines, wellfields and processing plants that have been commissioned and are in production.

Project An area including a group of tenements that constitute a logical working unit.

Rare earth element or **REE** a group of 17 elements in the third group of the periodic table which includes yttrium (Y, 39) and the lanthanides, which are lanthanum (La, 57), cerium (Ce, 58), praseodymium (Pr, 59), neodymium (Nd, 60), promethium (Pm, 61), samarium (Sm, 62), europium (Eu, 63), gadolinium (Gd, 64), terbium (Tb,65), dysprosium (Dy, 66), holmium (Ho, 67), erbium (Er, 68), thulium (Tm, 69), ytterbium (Yb, 70) and lutetium (Lu, 71).

REO means rare earth oxide a term used by the global rare earths industry in the quantification of the grade/concentration of rare earths contained in minerals, concentrates, metals and chemical compounds.

Recovery The percentage of material of interest that is extracted during mining and/or processing. A measure of mining or processing efficiency.

Refractory elements Refers to metal elements that have exceptionally high melting point.

REPM means rare earth permanent magnets.

Royalty An amount of money paid at regular intervals by the lessee or operator of an exploration or mining property to the owner of the ground. Generally based on a certain amount per tonne or a percentage of the total production or profits. Also, the fee paid for the right to use a patented process.

Scoping Study is an order of magnitude technical and economic study of the potential viability of Mineral Resources.

Sediment Formed by the deposition of solid fragmental or chemical material that originates from the weathering of rocks.

Sedimentary Containing sediments.

Sedimentary Basin A low area in the earth's crust, of tectonic origin, in which sediments have accumulated. These may include volcaniclastic sediments.

Smectite A 2:1 layer clay mineral typically composed of silica and aluminium in the tetrahedral layer and iron and magnesium in the octahedral layer.

Soil a mixture of organic matter, minerals, gases, liquids, and organisms that together support life. Soil is also commonly referred to as earth or dirt.

Stratigraphic Pertaining to the composition, sequence and correlation of stratified rocks.

Stratigraphy The study of stratified rocks, especially their age, correlation and character.

t tonne, a tonne is the mass of one cubic metre of pure water: at 4 °C one thousand litres of pure water has an absolute mass of one tonne.

Tenement Area of land defined by a government authority over which an applicant may conduct exploration or mining activity, aka 'Mineral Property'. eg Mining Lease or Prospecting Licence.

Tonnage An expression of the amount of material of interest irrespective of the units of measurement (which should be stated when figures are reported).

Topsoil is the upper, outermost layer of soil, usually the top 5–10 inches (13–25 cm). It has the highest concentration of organic matter and microorganisms and is where most of the Earth's biological soil activity occurs. Topsoil is composed of mineral particles, organic matter, water, and air.

TREO (Total Rare Earth Oxides) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3.

Waste Unmineralized, or sometimes mineralized, rock that is not minable at a profit.

Weathering The set of all processes that decay and break up bedrock by physical fracturing

wt weight

Xenotime a rare-earth phosphate mineral, the major component of which is yttrium orthophosphate (YPO4).

XRF X-Ray Fluorescence – elemental analysis technique

AUSTRALIAN RARE EARTHS LIMITED

ACN 632 645 302

APPLICATION FORM

This Application Form is important. If you are in doubt as to how to deal with it, please contact your stockbroker or professional advisor without delay.
You should read the Prospectus dated 7 May 2021 carefully before completing this Application Form. The Corporations Act prohibits any person from passing on this Application Form (whether in paper or electronic form) unless it is attached to or accompanies a complete and unaltered copy of the Prospectus.

A **I/we apply for**

Number of Shares in Australian Rare Earths Limited at A$0.30 per Share or such lesser number of Shares which may be allocated to me/us.

B **I/we lodge the full Application Money**

A$.

C **Individual/Joint applications - refer to naming standards overleaf for correct forms of registrable title(s)**

Title or Company Name Given Name(s) Surname

Joint Applicant 2 or Account Designation

Joint Applicant 3 or Account Designation

D **Enter the postal address - include State and Postcode**

Unit Street Number Street Name or PO Box/Other information

City/Suburb/Town State Postcode

E **Enter your contact details**

Contact Name Telephone Number - Business Hours

( )

F **CHESS Participant**

Holder Identification Number (HIN)

X

Please note that if you supply a CHESS HIN but the name and address details on your form do not correspond exactly with the registration details held at CHESS, your application will be deemed to be made without the CHESS HIN, and any Shares issued as a result of the Offer will be held on the Issuer Sponsored subregister.

G **Payment details - Please note that funds are unable to be directly debited from your bank account**

Drawer	Cheque Number	BSB Number	Account Number	Amount of cheque
				A$

Make your cheque, money order or bank draft payable to 'Australian Rare Earths Limited' and crossed 'Not Negotiable'.

By submitting this Application Form:

- I/we declare that this application is complete and lodged according to the Prospectus and the declarations/statements on the reverse of this Application Form,
- I/we declare that all details and statements made by me/us (including the declaration on the reverse of this Application Form) are complete and accurate, and
- I/we agree to be bound by the Constitution of Australian Rare Earths Limited.

See overleaf for completion guidelines ➔

How to complete this form

A **Shares applied for**
Enter the number of Shares you wish to apply for. The application must be for a minimum of 6,667 Shares ($2,000.10). Applications for greater than 6,667 Shares must be in multiples of 1,000 Shares ($300).

B **Application Monies**
Enter the amount of Application Monies. To calculate the amount, multiply the number of Shares by the issue price per Share.

C **Applicant Name(s)**
Enter the full name you wish to appear on the statement of shareholding. This must be either your own name or the name of a company. Up to 3 joint Applicants may register. You should refer to the table below for the correct forms of registrable title. Applications using the wrong form of names may be rejected. Clearing House Electronic Subregister System (CHESS) particpants should complete their name identically to that presently registered in the CHESS system.

D **Postal Address**
Enter your postal address for all correspondence. All communications to you from the Registry will be mailed to the person(s) and address as shown. For joint Applicants, only one address can be entered.

E **Contact Details**
Enter your contact details. These are not compulsory but will assist us if we need to contact you regarding this application.

F **CHESS**
The Company participates in CHESS. If you are a CHESS participant (or are sponsored by a CHESS participant) and you wish to hold Shares allotted to you under this Application on the CHESS Subregister, enter your CHESS HIN. Otherwise, leave this section blank and on allotment, you will be sponsored by the Company and allocated a Securityholder Reference Number (SRN).

G **Payment**
Make your cheque, money order or bank draft payble to **'Australian Rare Earths Limited'** in Australian currency and cross it **'Not Negotiable'**. Your cheque, money order or bank draft must be drawn on an Australian Bank. Complete the cheque details in the boxes provided. The total amount must agree with the amount shown in box B. **Please note that funds are unable to be directly debited from your bank account.**
Cheques will be processed on the day of receipt and as such, sufficient cleared funds must be held in your account as cheques returned unpaid may not be re-presented any may result in your Application being rejected. Paperclip (do not staple) your cheque(s) to the Application Form. Cash will not be accepted. Receipt for payment will not be forwarded.

Before completing the Application Form the applicant(s) should read this Prospectus to which this application relates. By lodging the Application Form, the applicant agrees that this application for Shares in Australian Rare Earths Limited is upon and subject to the terms of the Prospectus and the Constitution of Australian Rare Earths Limited, agrees to take any number of Shares that may be allotted to the Applicant(s) pursuant to the Prospectus and declares that all details and statements made are complete and accurate. It is not necessary to sign the Application Form.

Lodgement of Application

Application Forms must be received by Computershare Investor Services Pty Limited (CIS) by no later than 5.00pm (Adelaide time) on 4 June 2021. You should allow sufficient time for this to occur. Return the Application Form with cheque(s) attached to:

Australian Rare Earths Limited
C/- Computershare Investor Services Pty Limited
GPO Box 52
MELBOURNE VIC 3001

Neither CIS nor Australian Rare Earths Limited accepts any responsibility if you lodge the Application Form at any other address or by any other means. If you have any enquiries concerning your application, please contact the Offer Information Line on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia).

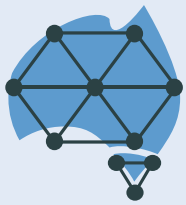
Privacy Statement

The personal information you provide on this form is collected by Computershare Investor Services Pty Limited, as registrar for the securities issuers (the issuer), for the purpose of maintaining registers of securityholders, facilitating distribution payments and other corporate actions and communications. In addition, the issuer may authorise us on their behalf to send you marketing material or include such material in a corporate communication. You may elect not to receive marketing material by contacting CIS using the details provided above or emailing privacy@computershare.com.au. We may be required to collect your personal information under the Corporations Act 2001 (Cth) and ASX Settlement Operating Rules. We may disclose your personal information to our related bodies corporate and to other individuals or companies who assist us in supplying our services or who perform functions on our behalf, to the issuer for whom we maintain securities registers or to third parties upon direction by the issuer where related to the issuer's administration of your securityholding, or as otherwise required or authorised by law. Some of these recipients may be located outside Australia, including in the following countries: Canada, India, New Zealand, the Philippines, the United Kingdom and the United States of America. For further details, including how to access and correct your personal information, and information on our privacy complaints handling procedure, please contact our Privacy Officer at privacy@computershare.com.au or see our Privacy Policy at http://www.computershare.com/au.

Correct forms of registrable title(s)

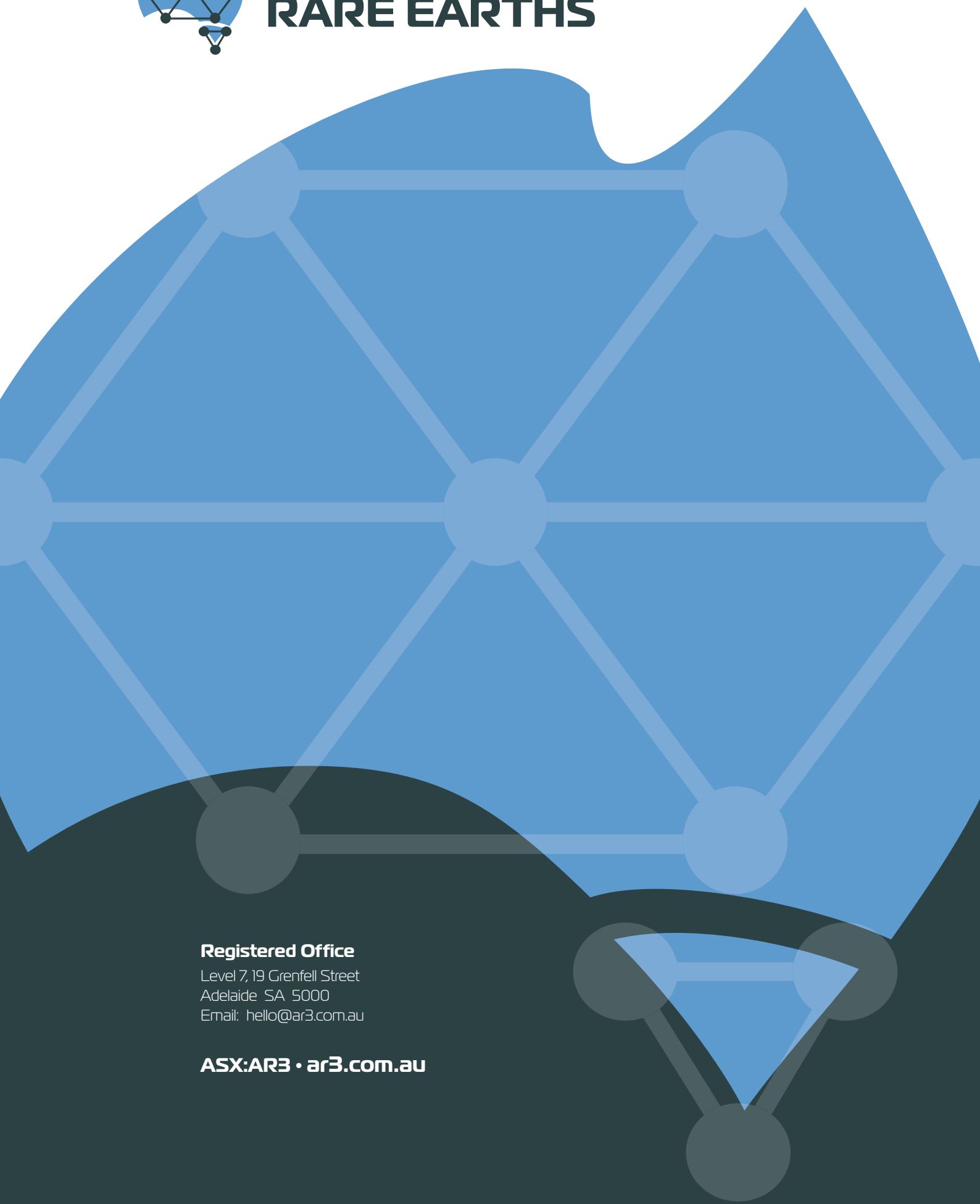
Note that ONLY legal entities are allowed to hold securities. Applications must be in the name(s) of a natural person(s), companies or other legal entities acceptable to the Company. At least one full given name and the surname is required for each natural person. Application Forms cannot be completed by persons less than 18 years of age. Examples of the correct form of registrable title are set out below.

Type of Investor	Correct Form of Registration	Incorrect Form of Registration
Individual: Use given names in full, not initials	Mr John Alfred Smith	JA Smith
Company: use the company's full title, not abbreviations	ABC Pty Ltd	ABC P/L or ABC Co
Joint Holdings: use full and complete names	Mr Peter Robert Williams & Ms Louise Susan Williams	Peter Robert & Louise S Williams
Trusts: use the trustee(s) personal name(s)	Mrs Susan Jane Smith <Sue Smith Family A/C>	Sue Smith Family Trust
Deceased Estates: use the executor(s) personal name(s)	Ms Jane Mary Smith & Mr Frank William Smith <Est John Smith A/C>	Estate of late John Smith or John Smith Deceased
Minor (a person under the age of 18): use the name of a responsible adult with an appropriate designation	Mr John Alfred Smith <Peter Smith A/C>	Master Peter Smith
Partnerships: use the partners personal names	Mr John Robert Smith & Mr Michael John Smith <John Smith and Son A/C>	John Smith and Son
Long Names	Mr John William Alexander Robertson-Smith	Mr John W A Robertson-Smith
Clubs/Unincorporated Bodies/Business Names: use office bearer(s) personal name(s)	Mr Michael Peter Smith <ABC Tennis Association A/C>	ABC Tennis Association
Superannuation Funds: use the name of the trustee of the fund	Jane Smith Pty Ltd <Super Fund A/C>	Jane Smith Pty Ltd Superannuation Fund



AUSTRALIAN
RARE EARTHS

AUSTRALIAN
RARE EARTHS



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