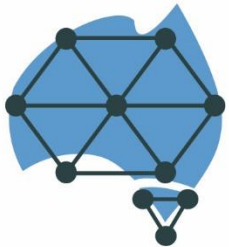


Corporate Presentation

July 2021

ASX: AR3



AUSTRALIAN
RARE EARTHS

DISCLAIMER & FORWARD LOOKING STATEMENTS

Australian Rare Earths Limited ('AREL' of the 'Company') does not purport to give financial or investment advice. No account has been taken of the objectives, financial situation or needs of any recipient of this document. The opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. This presentation does not constitute financial product advice.

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Some of the statements contained in this presentation are forward-looking statements. Forward looking statements include but are not limited to, statements concerning estimates of expected costs, statements relating to the advancement of the Company's investments and other statements which are not historical facts. Although the Company believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risk and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements include the potential that the Company's projects may experience technical, geological, metallurgical and mechanical problems, changes in product prices and other risks not anticipated by the Company or disclosed in the Company's published material.

Competent Persons Statement

The information in this report that relates to Exploration results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr Rickie Pobjoy who is the Executive Director of the Company and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Pobjoy has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities undertaken to qualify as a Competent person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Pobjoy consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Process Testwork Results is based on, and fairly represents, information compiled by Mr Bryn Jones, BAppSc (Chem), MEng (Mining) who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Jones is a holder of shares and options in, and is a Director of, AREL. Mr Jones has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jones consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement (Prospectus dated 7 May 2021) and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement (Prospectus dated 7 May 2021) continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (Prospectus dated 7 May 2021).



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INVESTMENT HIGHLIGHTS



Australia's only prospective **ionic clay hosted REE deposit** and one of two listed opportunities globally



Maiden resource identified with ability to **rapidly expand** through low cost drilling



Favourably located in Australia with access to a skilled workforce and good infrastructure



High value REE assemblage with **low radioactivity**



Globally, Ionic clay hosted REE deposits represent simple, **low cost mining and processing**



Potential to be a **strategic, independent and sustainable source** of **HREEs** essential for future economies

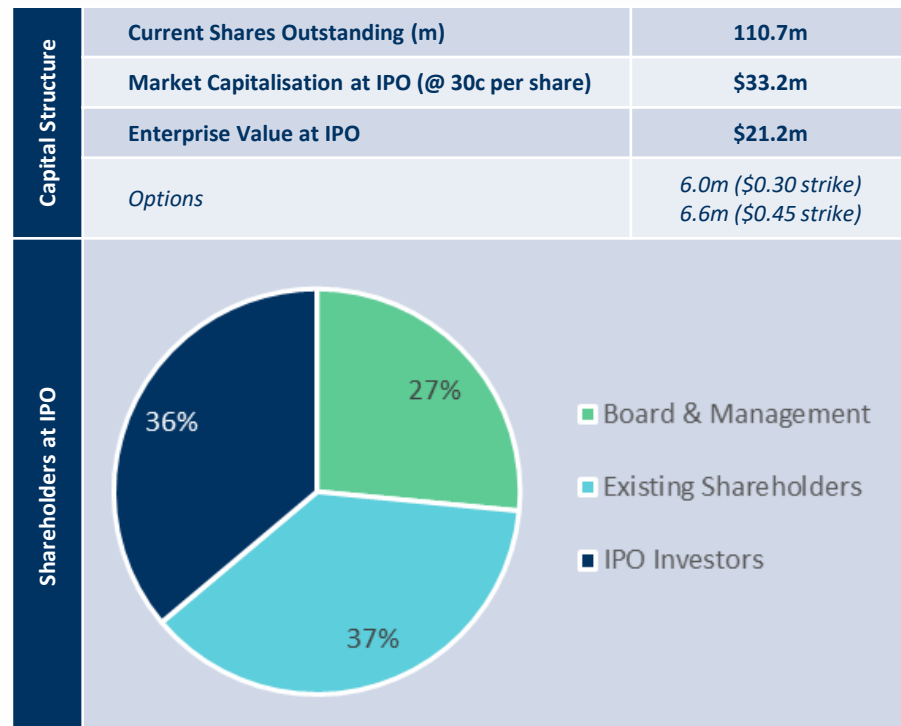


Strong pipeline of **upcoming news flow**



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CORPORATE INFORMATION



Board & Management



Kingsnorth
Non-Exec Chairman

- Metallurgist with over 50 years experience in operations, project development and marketing
- Internationally recognised expert on the rare earths industry, providing advice to producers, end users and government entities
- Former Project Manager, Mt Weld Rare Earths Project and Non-Exec Director of Boss Energy Ltd



Rick Pobjoy
Executive Director

- Geologist with over 25 years experience in the mining and minerals exploration industry
- Extensive experience in the definition, development and production from sedimentary hosted deposits across a number of commodities
- Recent experience in managing the geological evaluation of mineral deposits in the Murray Basin



Bryn Jones
Non-Exec Director

- Industrial Chemist with extensive evaluation, development and operational experience in the minerals industry across various commodities
- Specialises in development of extractive metallurgical solutions for economic development
- Technical (Exec) Director of Boss Energy Ltd, Non-Exec Director of DevEx Resources Ltd and Managing Director of PhosEnergy Ltd








Damien Connor
Company Secretary & CFO

- 20 years finance and accounting experience including as Company Secretary and CFO to a number of ASX listed companies



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KOPPAMURRA: AUSTRALIA'S ONLY PROSPECTIVE IONIC CLAY REE DEPOSIT

		Ionic Clays	Hard Rock
	Location	<ul style="list-style-type: none"> Currently mined in China and Myanmar, but resources are depleting 	<ul style="list-style-type: none"> China still dominates but mines in production and under development in USA, Australia etc
	REE Assemblage	<ul style="list-style-type: none"> Supply virtually all heavy REEs (>80%) and a significant portion of light (La-Eu) REE globally 	<ul style="list-style-type: none"> Monazite or Bastnaesite ores which are typically higher in light REE assemblage
	Scale	<ul style="list-style-type: none"> Scalable development – lower initial capex requirements 	<ul style="list-style-type: none"> Typically require significant scale for economic viability given higher capex requirements
	Exploration	<ul style="list-style-type: none"> Quick and inexpensive to define resources given shallow drilling using aircore, auger, push-tube core 	<ul style="list-style-type: none"> Similar to other hard rock base metals requiring substantial drilling, geochemistry, geophysics etc
	Mining	<ul style="list-style-type: none"> Shallow free digging material with low strip ratio Progressive rehabilitation 	<ul style="list-style-type: none"> Drill and blast with large mining fleet Deep open pits or underground mining
	Processing	<ul style="list-style-type: none"> Simple metallurgy; screen then heap or tank leach No toxic chemicals nor radioactive waste streams 	<ul style="list-style-type: none"> High temperature +/- pressure leaching Radioactive tailings
	Risk / Economics	<div>Fast to drill and develop, low capex and high value product</div>	<div>Significant time and cost to develop, complex processing, radioactivity issues, lower product value</div>



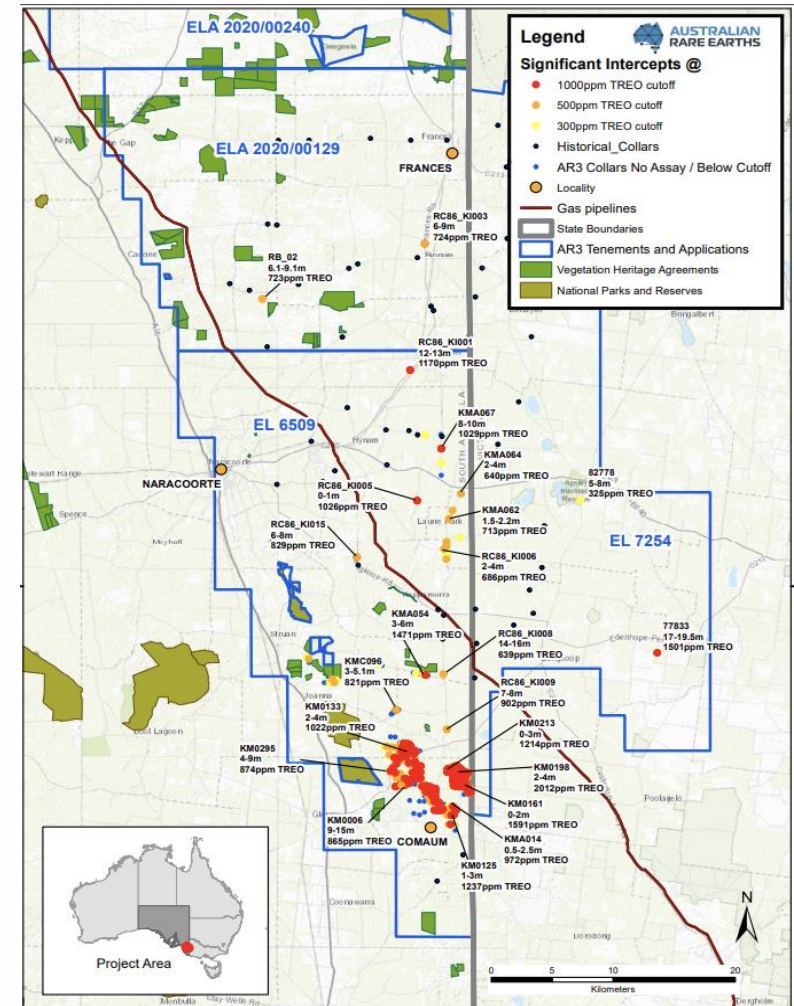
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KOPPAMURRA: LOCATION & DISCOVERY

- ~4,000km² of prospective tenure in south-east South Australia and western Victoria across two granted ELs and three ELAs
- Historic drilling data and samples available from State core repositories were accessed for TREO assay which demonstrated regional extent of the mineralisation
- The rare earths were found to accumulate in the shallow clay layer deposited onto a limestone base (Gambier Limestone)
- Close to skilled workforce, and extensive existing energy and transport infrastructure with nearby regional population centres of Mt Gambier and Naracoorte
- South Australia is ranked in the Top 10 global mining investment jurisdictions by the Fraser Institute

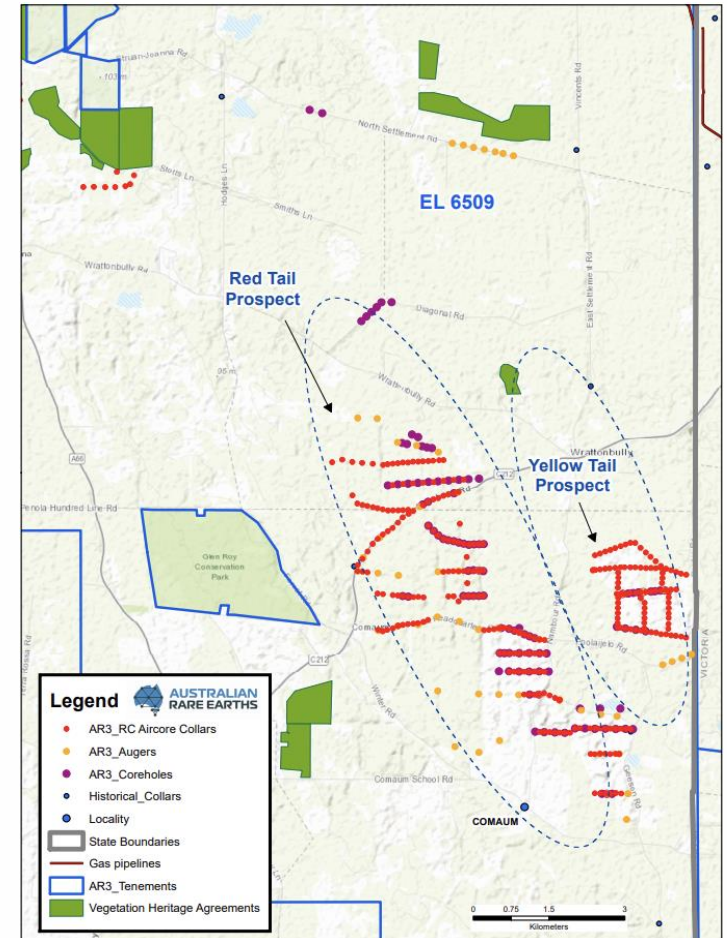


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KOPPAMURRA: ONGOING EXPLORATION PROGRAM

- Results from the historic core resampling were used to design an initial drill program seeking to rapidly define an initial resource
- Initial access to land for exploration was mainly road verges and public tracks at between 400m and 100m spacing
- 470 aircore, auger and pushtube drill holes completed in January 2021
- Drilling intersected laterally extensive REE mineralisation within a (on average) 2 to 3 metre thick clay horizon across two prospect areas, Red Tail (10km x 3km) and Yellow Tail (3km x 1.9km)
- Extensional holes (outside the initial mineral resource area) also intersected similar grades of TREO
- Recent 79-push tube core hole drill program completed at targeted areas adjacent to and extensional from the existing Red Tail and Yellow Tail Resources
- Assay results expected during Q3 2021



KOPPAMURRA: MAIDEN RESOURCE

- JORC 2021 Inferred Mineral Resource of **39.9Mt @ 725ppm TREO¹**
 - A feature of the Koppamurra Mineral Resource is low radioactivity
 - 429 of 470 holes were used in the April 2021 JORC 2021 Inferred Mineral Resource¹
- Significant drill intercepts² included:
 - KMA054: 3m @ 1,471ppm TREO from 3 to 6m
 - KMC096: 2.1m @ 821ppm TREO from 3 to 5.1m
 - KM0133: 2m @ 1,022ppm TREO from 2 to 4m
 - KM0295: 5m @ 874ppm TREO from 4 to 9m
 - KM0125: 2m @ 1,237ppm TREO from 1 to 3m
 - KMA014: 2m @ 972ppm TREO from 0.5 to 2.5m
 - KM0161: 2m @ 1,591ppm TREO from 0 to 2m
 - KM0198: 2m @ 2,012ppm TREO from 2 to 4m
 - KM0213: 3m @ 1,214ppm TREO from 0 to 3m

^{1,2} Australian Rare Earths Prospectus dated 7 May 2021.



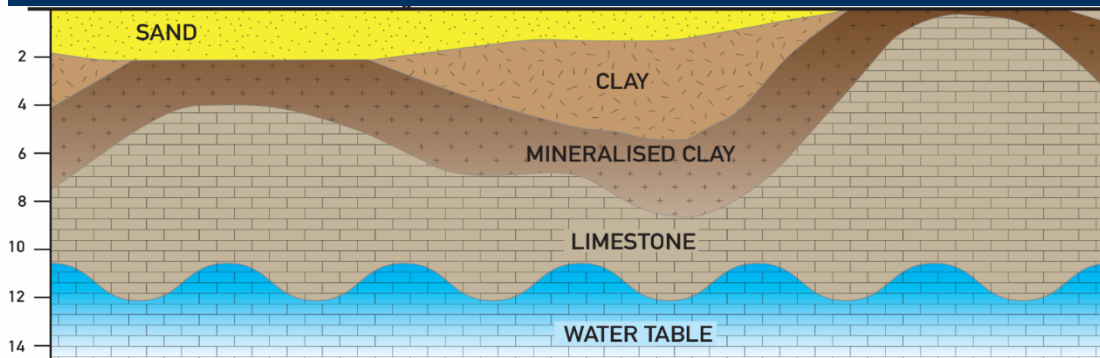
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Koppamurra April 2021 MRE¹

Prospect	Zone	Tonnes (Mt)	TREO (ppm)	TREO-CeO ₂ (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	ThO ₂ (ppm)	U ₃ O 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 Inferred		39.9	725	485	507	218	269	18.5	1.6

Note: Totals may not add up due to rounding

Schematic cross section through the Koppamurra Project



For illustration purposes only, not to scale

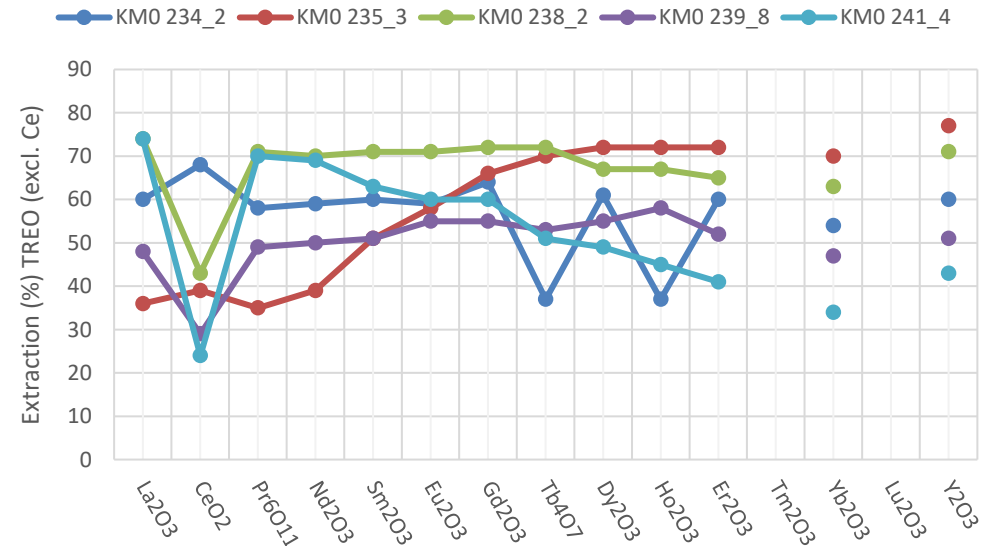
KOPPAMURRA: METALLURGICAL TESTWORK

- Initial mineralogical assessments performed by CSIRO in Adelaide were followed up by two rounds of desorption testing by ANSTO - Australia's leading hydrometallurgical research and development facility, with international recognition of rare earth capability
- Results from 5 of the 22 samples submitted to ANSTO for metallurgical testwork from the resource area have been received
- Preliminary testwork at ANSTO has demonstrated that recovery improves at lower pH levels³. AR3 intends to further investigate optimisation of metallurgical recoveries
- Results (graph opposite) demonstrated TREO (excluding Ce) recoveries of between 50% and 70% within the Red Tail prospect area through simple desorption and washing



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Initial ANSTO TREO (excl. Ce) recovery results



³ Australian Rare Earths Prospectus dated 7 May 2021.

KOPPAMURRA: HIGH VALUE REE ASSEMBLAGE

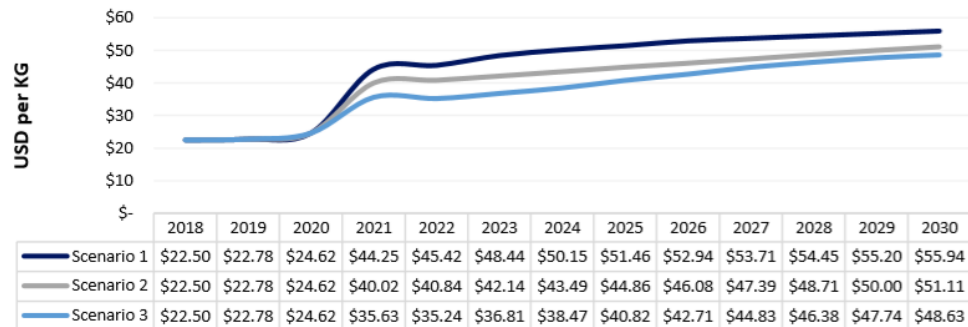
- Unlike many listed REE explorers/developers Koppamurra has a relatively high proportion of heavy rare earths, particularly Dysprosium and Terbium, along with Neodymium and Praseodymium, all of which are used in rare earth permanent magnets (REPM) which were responsible for over 90% of total global REO value traded in 2020
- Adamas Intelligence (an expert commentator on the rare earths market) expects the share of value attributed to REPM demand will continue to increase with strong demand growth for these REOs at 9.1% per annum to 2030 driven by EV traction motors and wind turbines
- Adamas Intelligence forecasts shortages of these high value REOs with persistent undersupply from 2021 and declining inventories in China
- This translates into a compelling basket price for Koppamurra ore in comparison to incumbent producers both at today's and forecast prices

*Adamas Intelligence provides independent research and advice on markets for critical metals and minerals

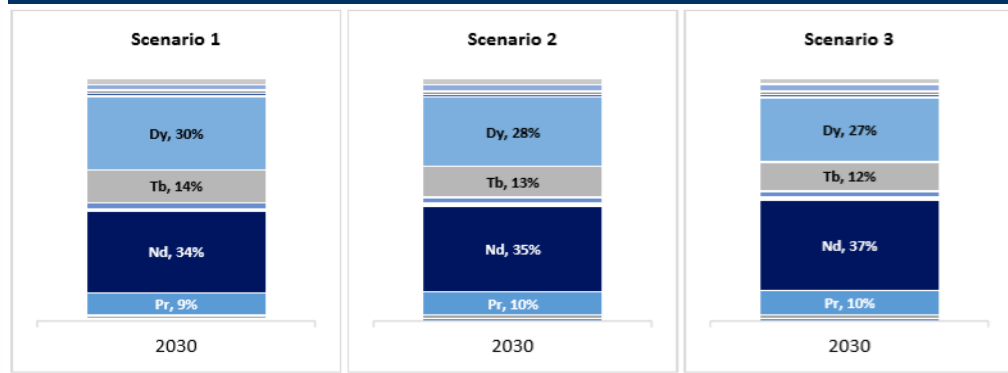


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Forecast Koppamurra basket value through to 2030



Contribution of REPM REOs to the Koppamurra basket value in 2030



Source: Adamas Intelligence market report Q2 2021 (for both charts)

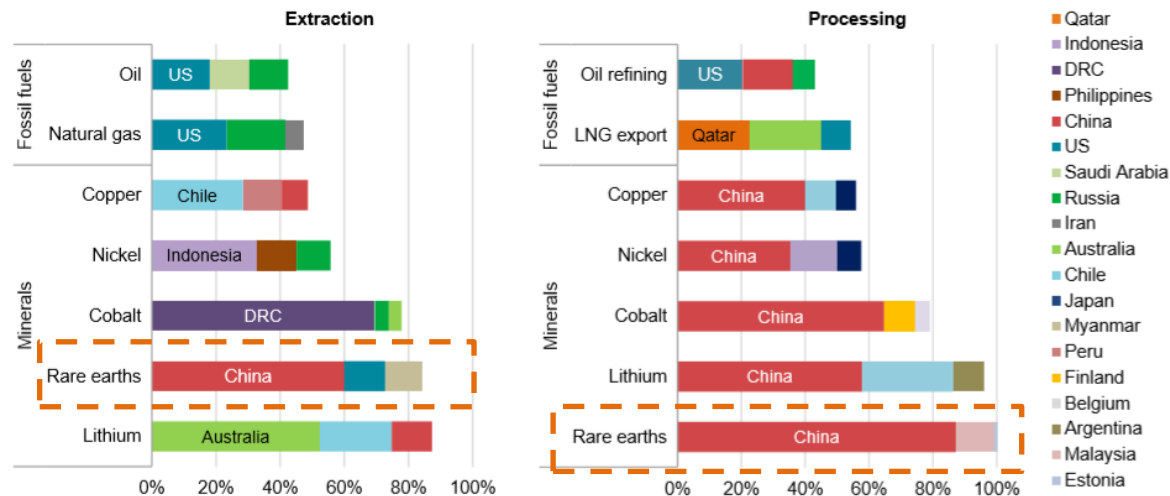
KOPPAMURRA: THE TIMING IS RIGHT

AREL considers this to be a fortuitous time to be progressing a potential district scale ionic clay REE opportunity at Koppamurra given:

- 1 Western Governments have identified rare earths as being the highest supply risk in the development of future economies; REEs have been designated critical minerals by the IEA, USGS, EU and Australia
- 2 Highly attractive supply / demand fundamentals, particularly for REPM REOs of which Koppamurra is well endowed, as confirmed by Adamas Intelligence
- 3 No known substitutes for REEs in most applications given their unique magnetic, chemical and luminescent properties
- 4 Increasing geopolitical tensions with China, the dominant supplier of REEs throughout the value chain
- 5 Increasingly ambitious targets from Governments worldwide to commit to green economies

Both upstream and downstream supply of REEs is dominated by China

Share of top three producing countries in production of selected minerals and fossil fuels, 2019



Source: IEA Report: The Role of Critical Minerals in Clean Energy Transitions, p13 (2021)

IEA: International Energy Agency,
USGS: United States Geological Survey
EU: European Union



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ADVANCING KOPPAMURRA

- \$12m IPO completed at \$0.30 per share, enterprise value of ~\$21m
- Key focus on immediately commencing key work activities at Koppamurra
- Recent 79 hole drilling program completed within and extensional to the existing resource – Assay results expected in Q3 2021
- Program focused on targeting replication of success at Koppamurra, through defining additional clay hosted rare earth mineralisation
- Potential to quickly increase resources and proceed to development studies on a low capex, high margin operation through drilling, assay, and metallurgical testwork
- Board comprises of two founders and independent Non-Executive Chairman with proven and strong REE experience
- Active Recruitment for Managing Director/CEO underway



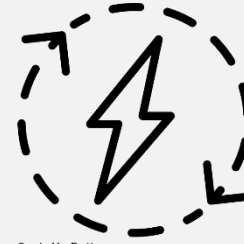
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WHY INVEST IN AUSTRALIAN RARE EARTHS



Created by Silpkan Creative
from Noun Project

Unique asset in a strategic Tier 1 mining jurisdiction



Created by Prettycorns
from Noun Project

High demand for Koppamurra's assemblage of REEs in future economies



Created by very obito
from Noun Project

Targets identified; Low cost drilling



Created by Vectorstall
from Noun Project

Fully funded program to significantly expand resources



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