OD6 METALS LTD

Australian Critical Rare Earth Minerals

Australian National University Rare Earth Conference – Canberra Technical Presentation

2 November 2022

ASX I OD6

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Competent Person Statement

The information contained in this presentation that relates to exploration results is based on and fairly represents information and supporting documentation prepared Mr Jeremy Peters, Director of Burnt Shirt Pty Ltd. Mr Peters is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist and Mining Engineer of that organisation. Mr Peters has sufficient experience relevant to the style of mineralisation and type of deposits under consideration, and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code. Mr Peters consents to the inclusion of the matters based on his information in the form and context in which the exploration results and supporting information are presented in this presentation.

No New Information

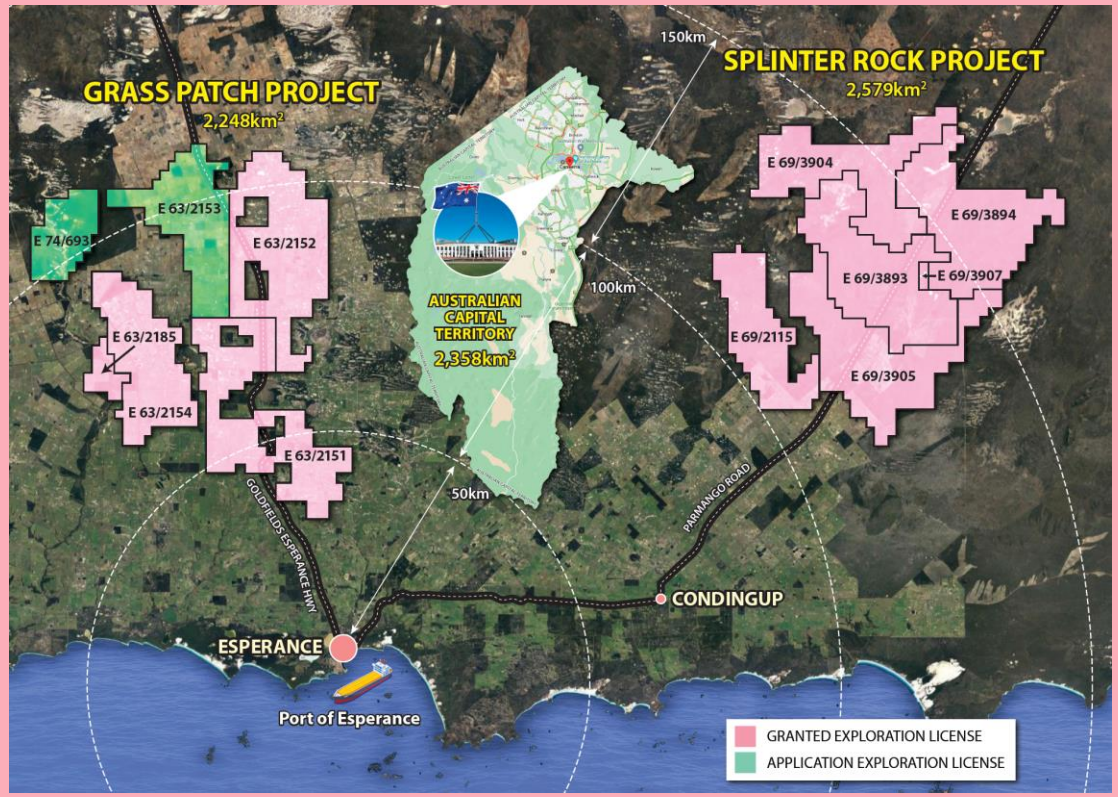
This document contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (2012 JORC Code) and available for viewing at https://www.od6metals.com.au/investors/asx-announcements/. OD6 confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcement.

Massive Landholding – Bigger than the ACT

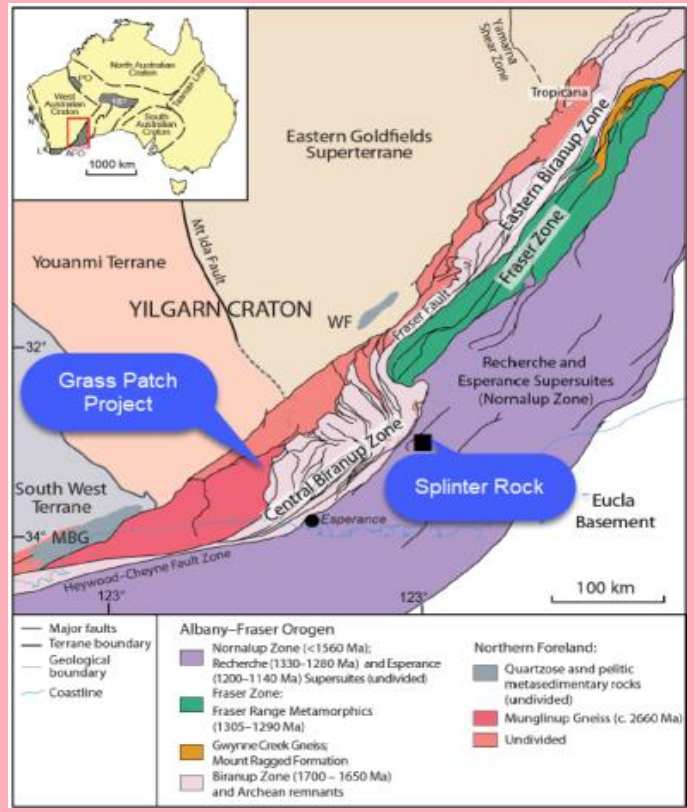
Substantial 4,828 km² tenement package of **Clay Hosted Rare Earth** Projects

Both projects are the size of the Australian Capital Territory (ACT)

Close to **existing port, sealed roads** and essential infrastructure



Regional Geology



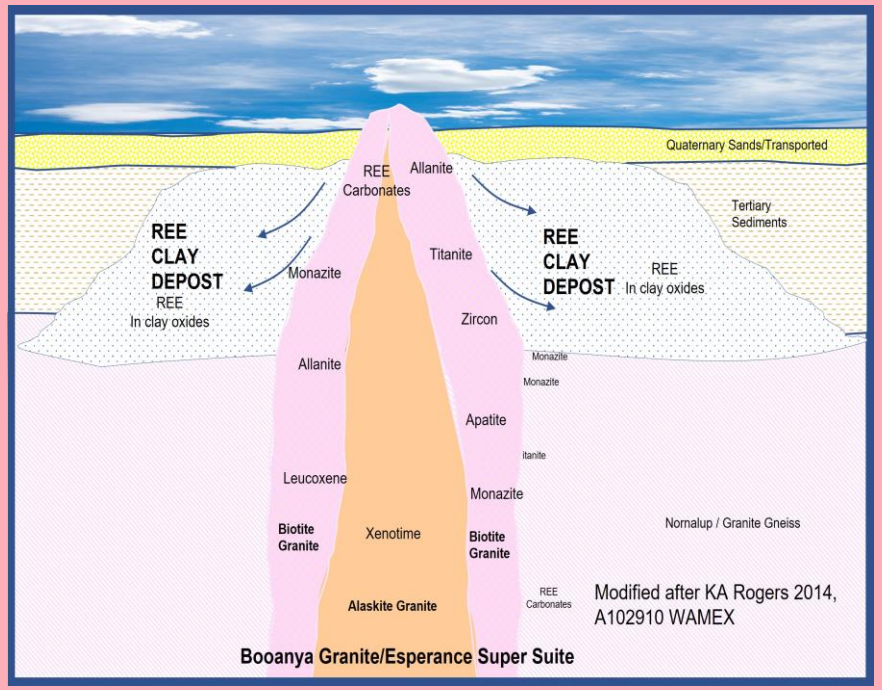
Refer to Independent Geological Report in the Company Prospectus for further information, (ASX announcement "Prospectus" 20 June 2022).

Yilgarn Tectonic plate boundary zone, intruded by granitoids ~1.2B years ago

Glaciation ~250 million years ago resulted in deep weathering

Recent highly acidic ground water and topographic differences may have mobilized REEs into the groundwater.

Metallogenic Model



The clay rare earth mineral enrichment is considered to be formed from weathering of the granites in the area

REE bearing minerals such as monazite and xenotime have weathered to clay and phosphates such as rhabdophane (hydrous REE minerals potentially dissolvable in acid)

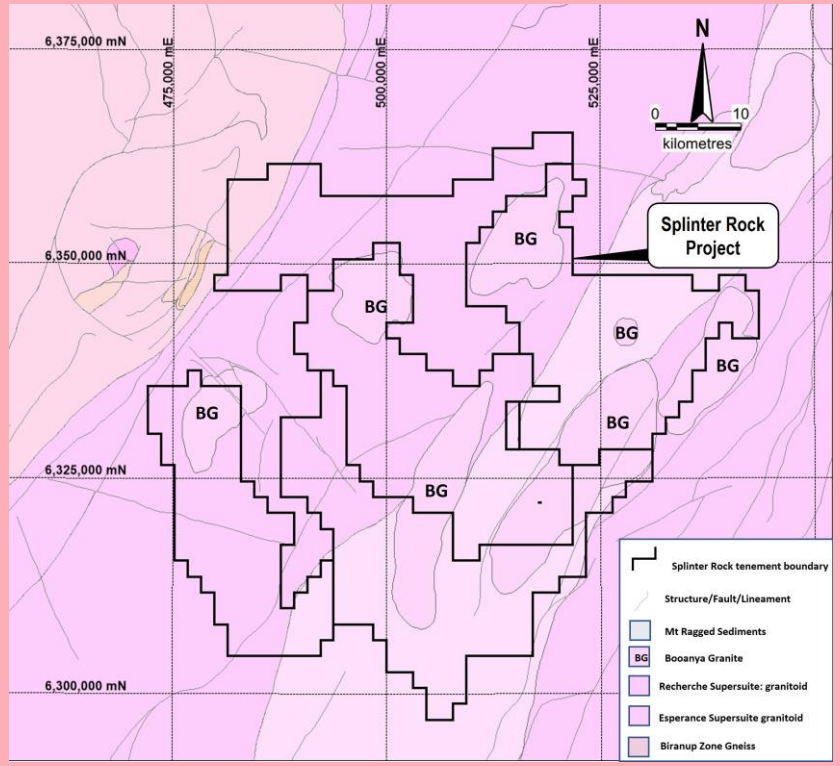
Refer to Independent Geological Report in the Company Prospectus for further information, (ASX announcement "Prospectus" 20 June 2022).

Project Geology

The Splinter Rock tenure and exploration model has targeted Booanya granites

They are described in Geoscience Australia's database as "heavily enriched in REE"

The strong enrichments in REE distinguishes granites of the Booanya Suite from all other granite groups of the Albany–Fraser Orogen



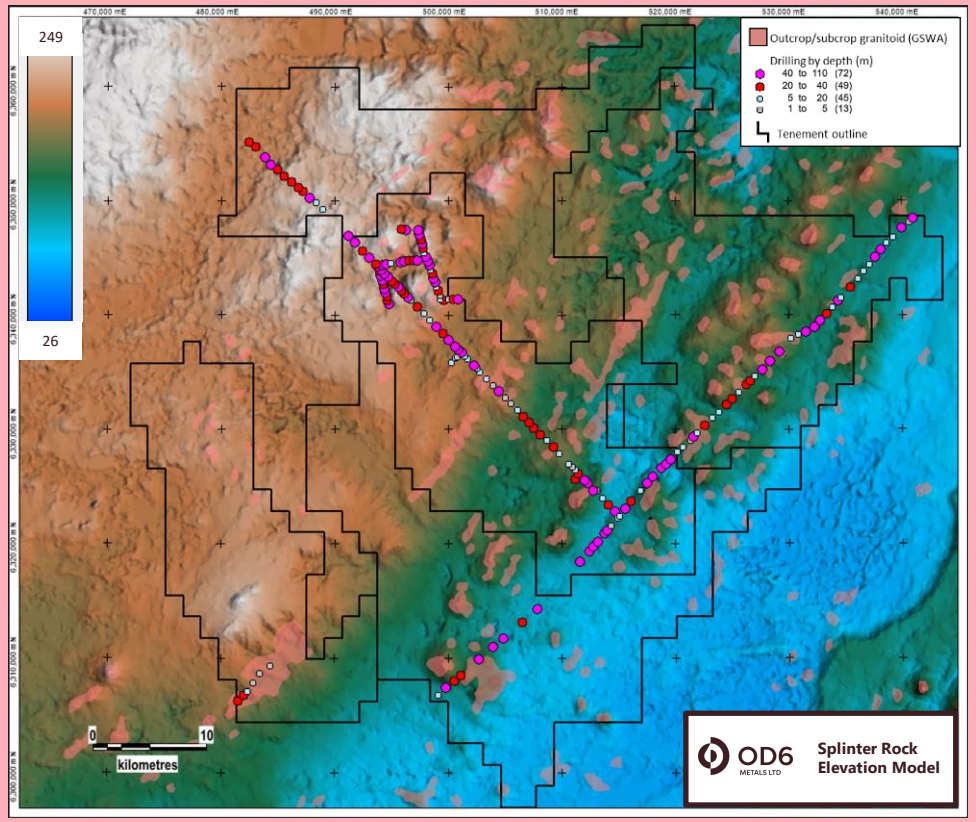
Refer to Independent Geological Report in the Company Prospectus for further information, (ASX announcement "Prospectus" 20 June 2022).
Source Smithies, R.H., Spaggiari, C.V., Kirkland, C.L. Building the crust of the Albany-Fraser Orogen: Constrains from Granite Geochemistry. Geological Survey of Western Australia. Report 150, 2015

Booanya Granite Rock Sample

Example of Booanya Granite from the Buraminya area, Splinter Rock project

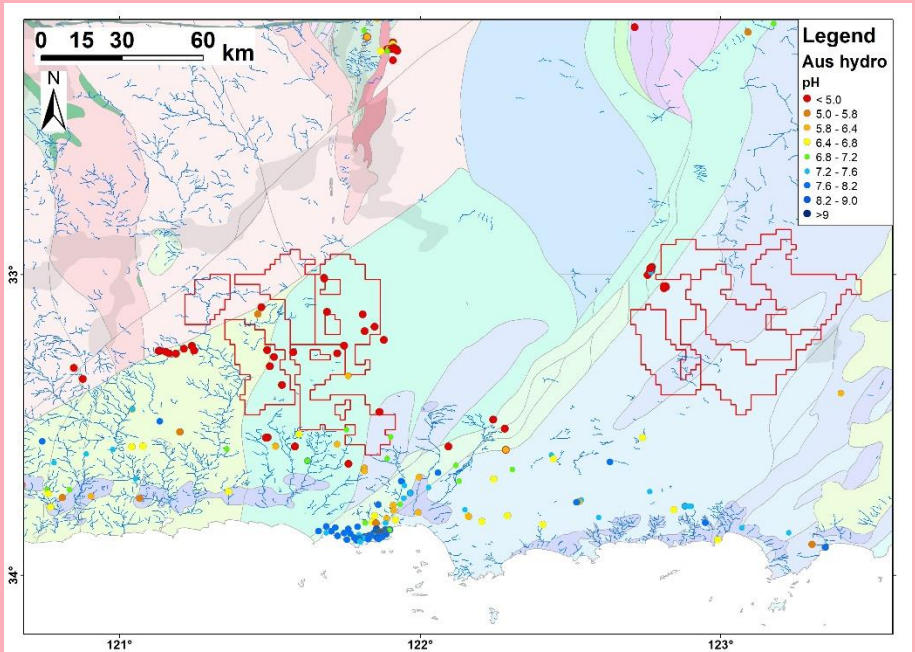
Elevation Change

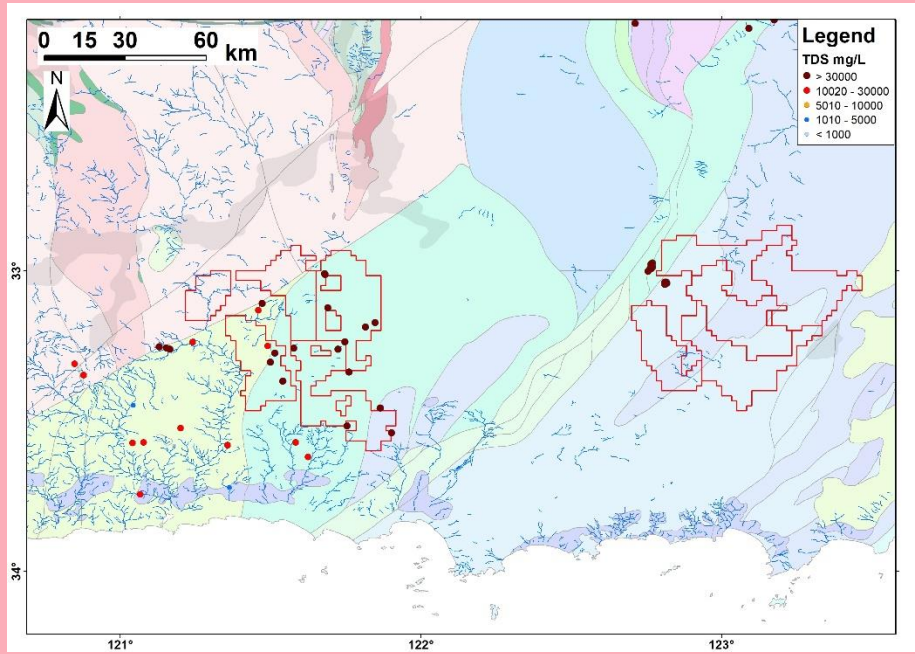
The significant elevation change called the "Ravensthorpe Ramp" may be a key exploration driver of potential clay types, deposition thickness, grade and future REE recoveries



Regional Ground Water

CSIRO ET Hydro database shows the northern Esperance regional ground waters to be acidic and hypersaline

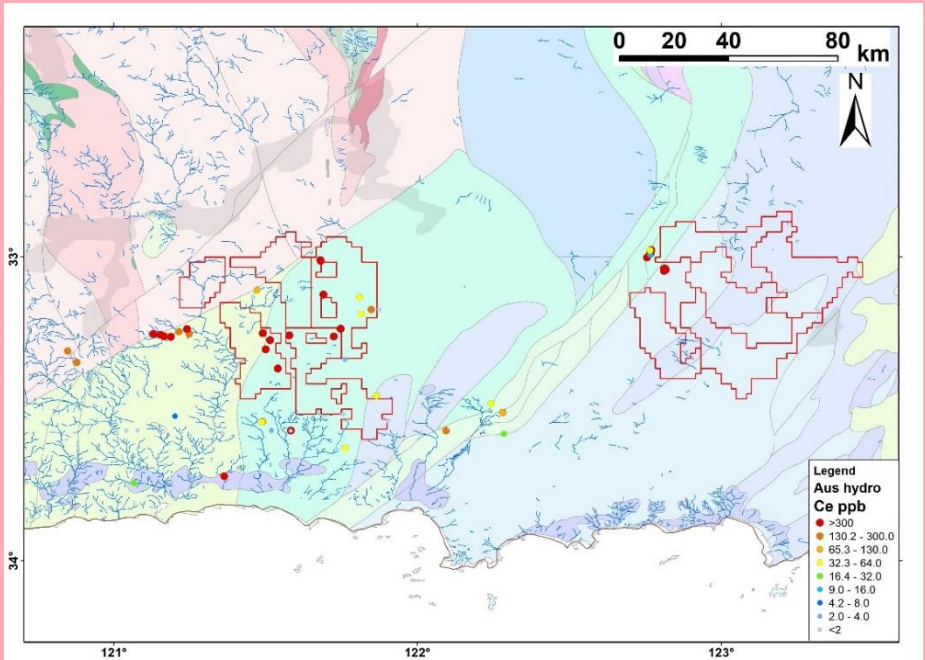


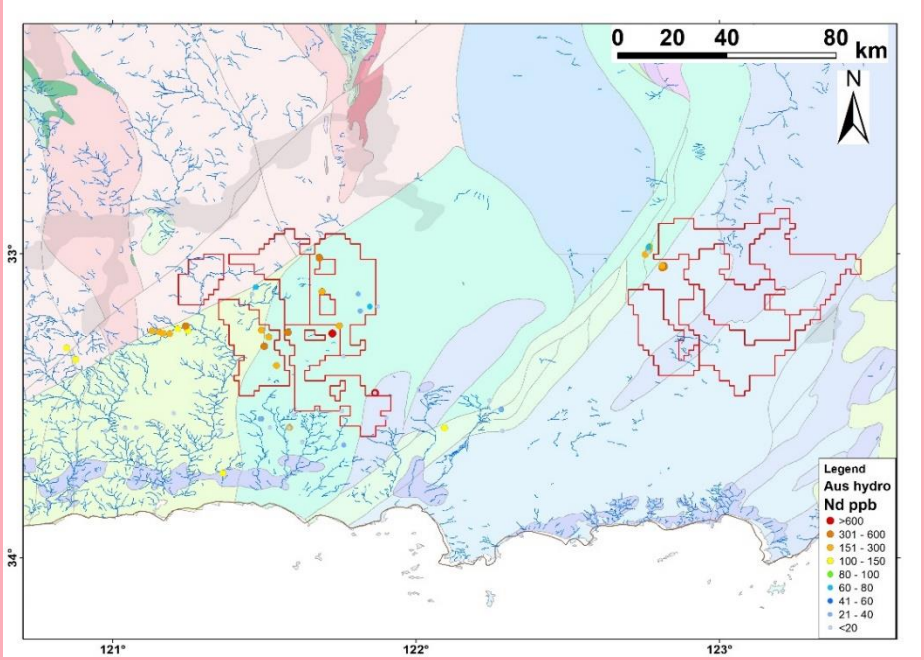


Source CSIRO ET Hydro

Ground Water has Dissolved REEs

There are high concentrations of REEs in the ground waters Potentially from a local source being acid leached





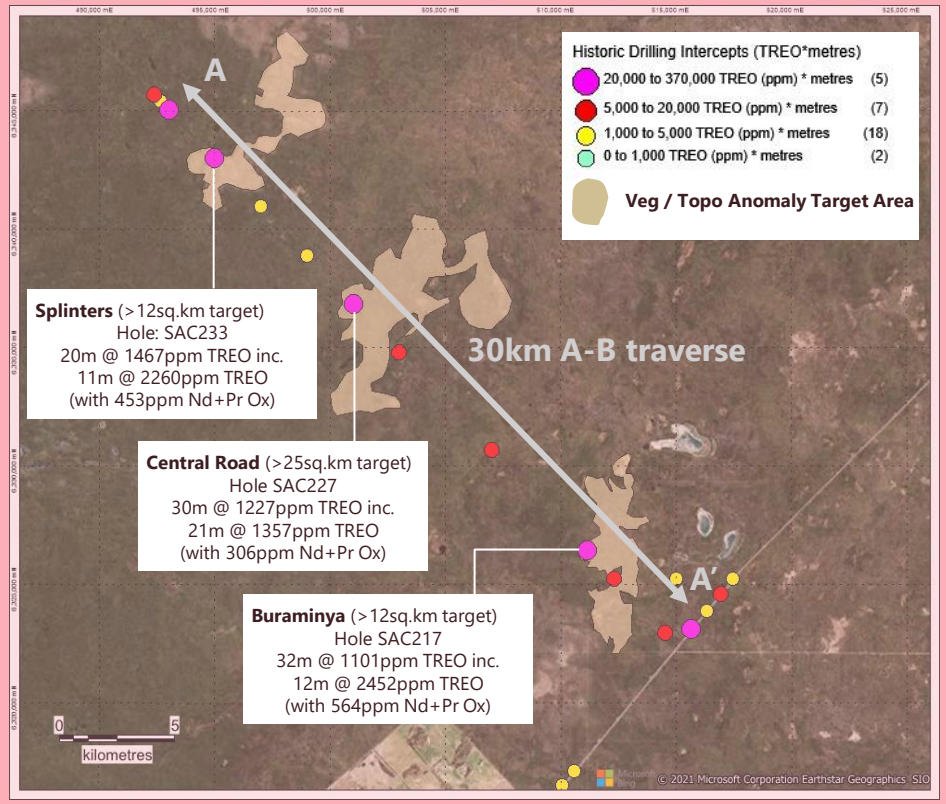
Source CSIRO ET Hydro

Splinter Rock Historic Drilling

Six granted exploration licenses spanning 2,579km^2

Historic **high grade TREO drill intercepts** across a 30km drilling traverse

The target area at Splinter Rock covers over 30 x 60km, **making this one of the largest known clay REE target areas in Australia**



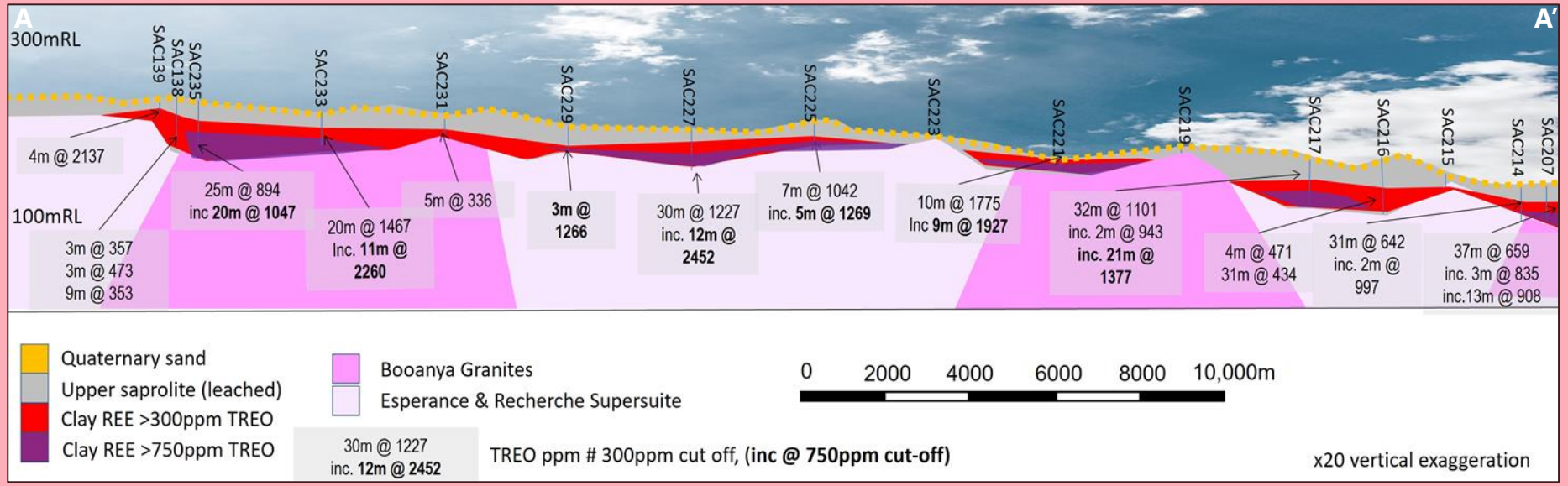
TREO (Total Rare Earth Oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

Refer to Independent Geological Report in the Company Prospectus for further information, (ASX announcement "Prospectus" 20 June 2022).

Splinter Rock Cross Section

Intersections up to **37m in thickness** over the historic drilling traverse **close to surface**

NdPr oxides make up over 20% of the total TREO basket in higher grade zones



Refer to Independent Geological Report in the Company Prospectus for further information, (ASX announcement "Prospectus" 20 June 2022).

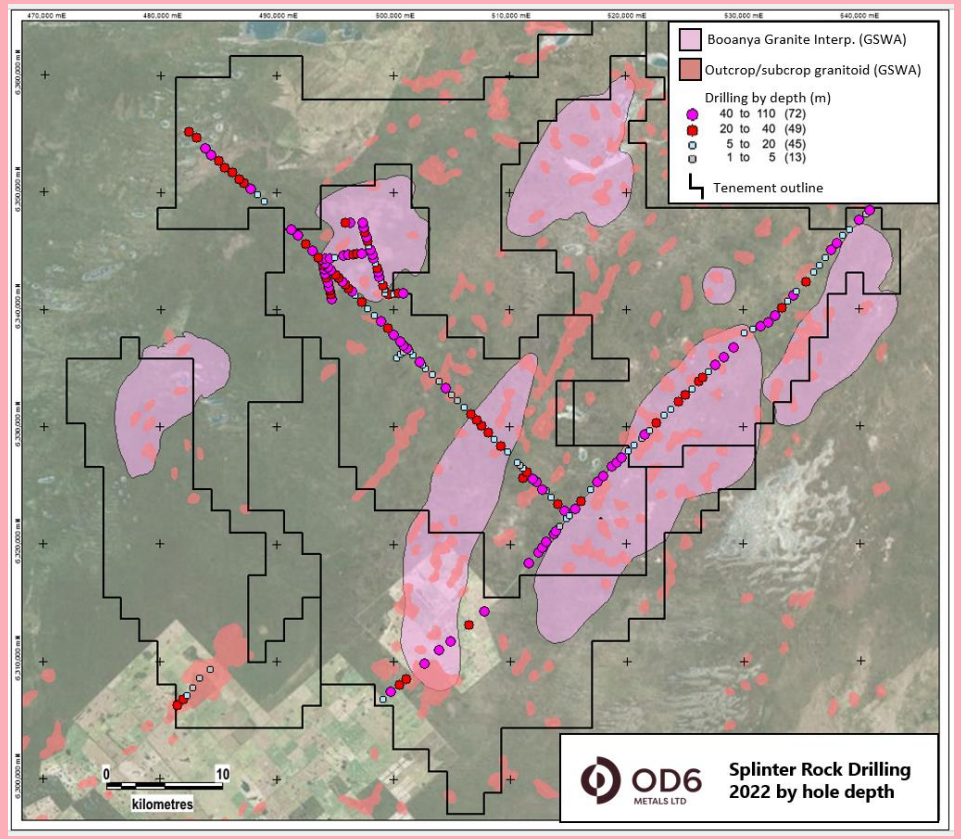
Splinter Rock Drilling Recently Completed

Initial 179-hole AC drilling program completed

Extensive clays encountered across 100km of drill lines

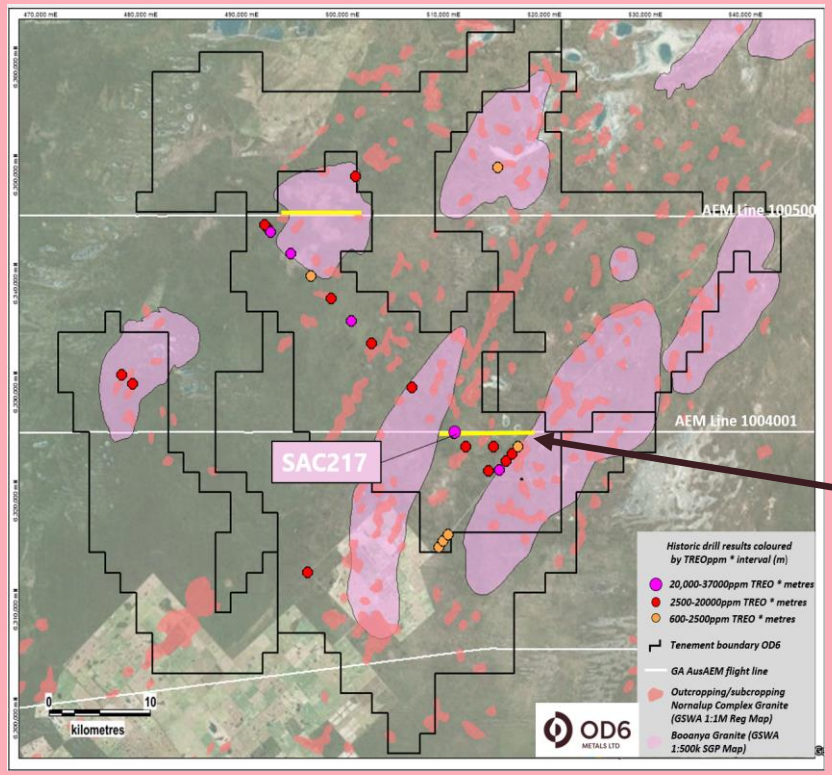
Drill depths up to 110m

Assay results to be received through Q4 2022



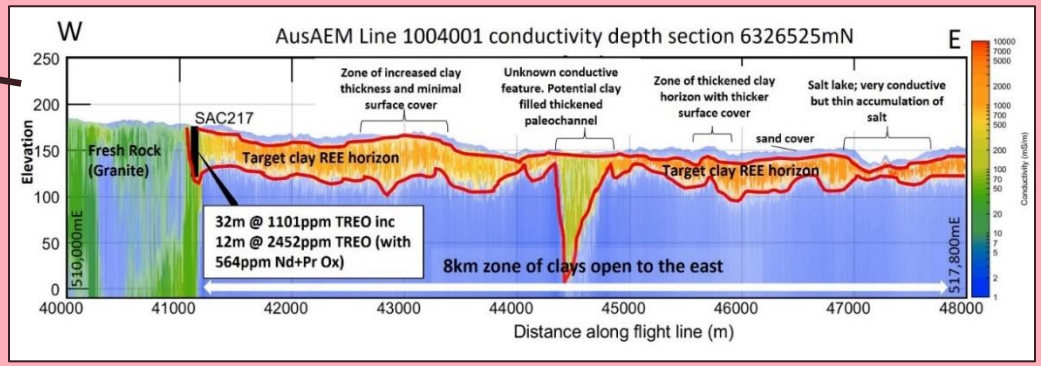
Refer to Drilling Complete at Splinter Rock REE Project, (ASX announcement 3 October 2022).

Initial Clay Mapping Success at Splinter Rock



CSIRO and OD6 Metals are collaborating on techniques to improve rare earth exploration

- Identified clays of 10-50m in thickness
- Clays zones of multiple kms in length
- Enables future targeted drilling of shallow, thick clay horizons



Refer to OD6 Engages CSIRO on Splinter Rock REE Project, (ASX announcement 5 October 2022).

Airborne Electromagnetics – Clay Mapping

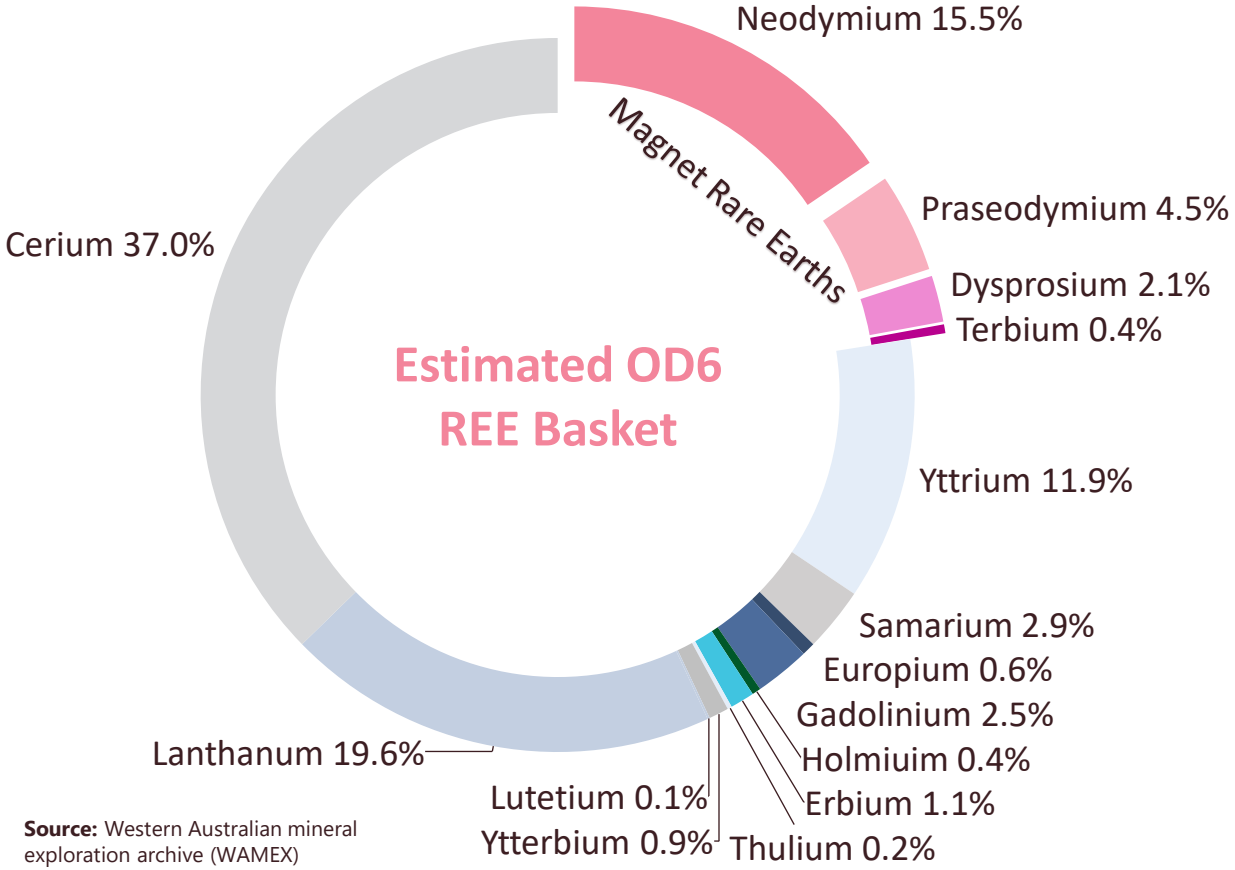
Airborne geophysics survey across Splinter Rock and Grass Patch to be completed during October 2022

Aiming to identify and map clay locations, expanse, depth and thickness across all granted OD6 Tenements

Analysis of data to be completed during Q4 2022

Refer to Airborne Electromagnetics Survey Commences, (ASX announcement 17 October 2022).

REE Basket



Source: Western Australian mineral exploration archive (WAMEX)

Historic assays show a variety of REEs present

Importantly, Magnetic Rare Earth Oxides make up >20% of the REE Basket

Clay based REEs have a bias towards Heavy Rare Earths when compared to hard rock deposits

Mag REO (Magnetic Rare Earth Oxide)
= Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3
HREO (Heavy Rare Earth Oxide) = 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

Geo-Metallurgical Program

Preliminary metallurgical testwork by other companies with similar styles of clay REE in the region have demonstrated that REE can be extracted by potentially low-cost acid extraction methods similar to those used in China[1&2]

OD6 geo-metallurgical testwork to Commence in Q4 2022

- **ANSTO leaching trials and recovery optimization**
- **CSIRO Hylogging and XRD**
- **Mineralogy**
- **Investigate upgrade opportunities eg size by assay**

Refer to Independent Geological Report in the Company Prospectus for further information, (ASX announcement "Prospectus" 20 June 2022)

1. There has been no metallurgical test work on the drillholes within the OD6 tenements directly, but there has been test work by projects in the region by Salazar and Mt Ridley Mines Ltd. Refer to reference list in Independent Geological Report in the Company Prospectus
2. Wang, D-H *et al,* 2018. Exploration and research progress on ion-adsorption type REE deposit in Southern China. *China Geology*, 3, 415-424

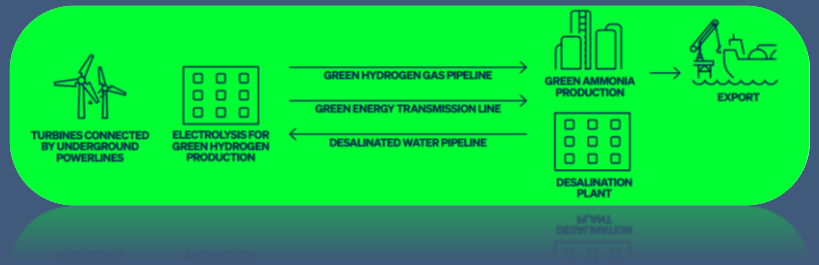
Low Carbon Rare Earth Production Potential

The urgency to lower global emissions is driving a rapid ramp up in demand for green energy globally

Esperance earmarked as a potential location for a major renewable energy and hydrogen hub

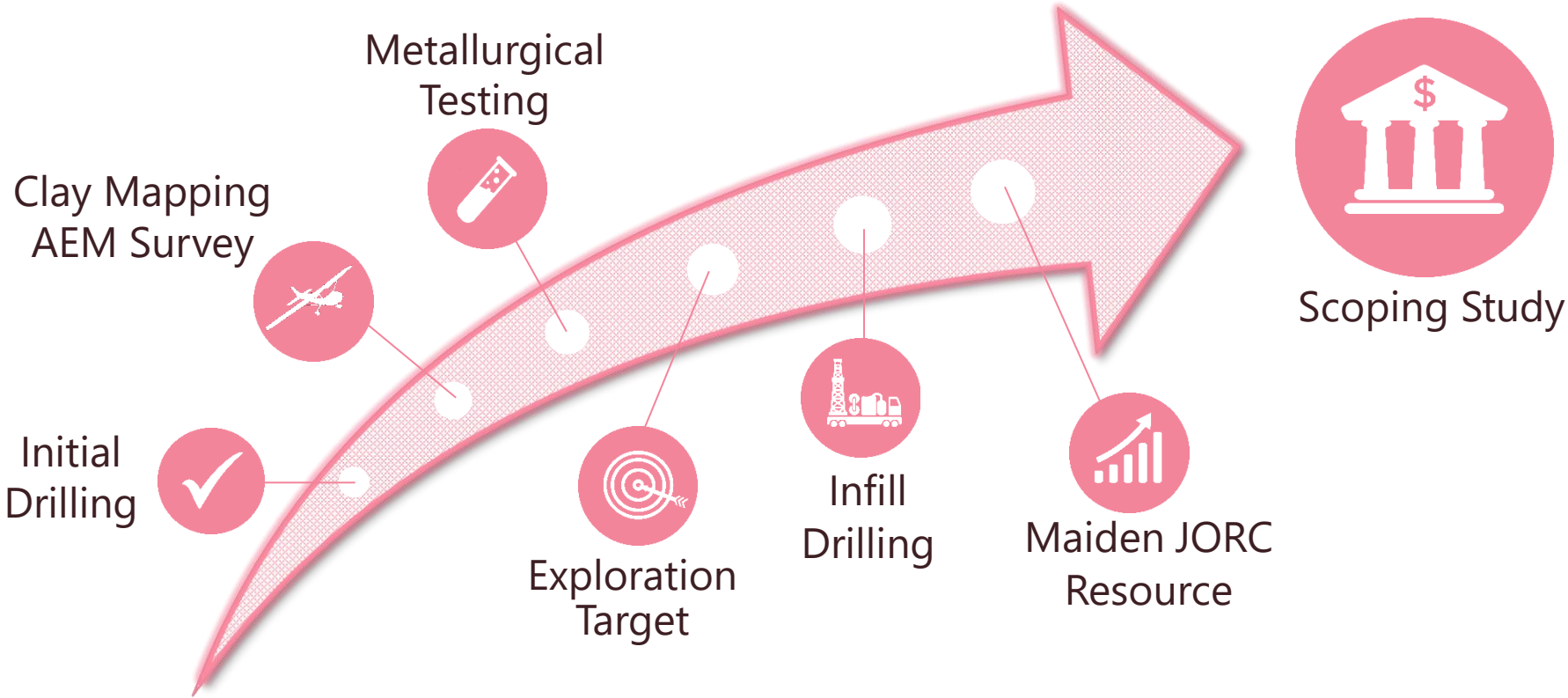
Using wind, solar + green hydrogen = Potential Green Rare Earth

Fortescue Future Industries assessing South East Western Australia (Esperance Region) as a priority location for development of a green hydrogen hub[1]

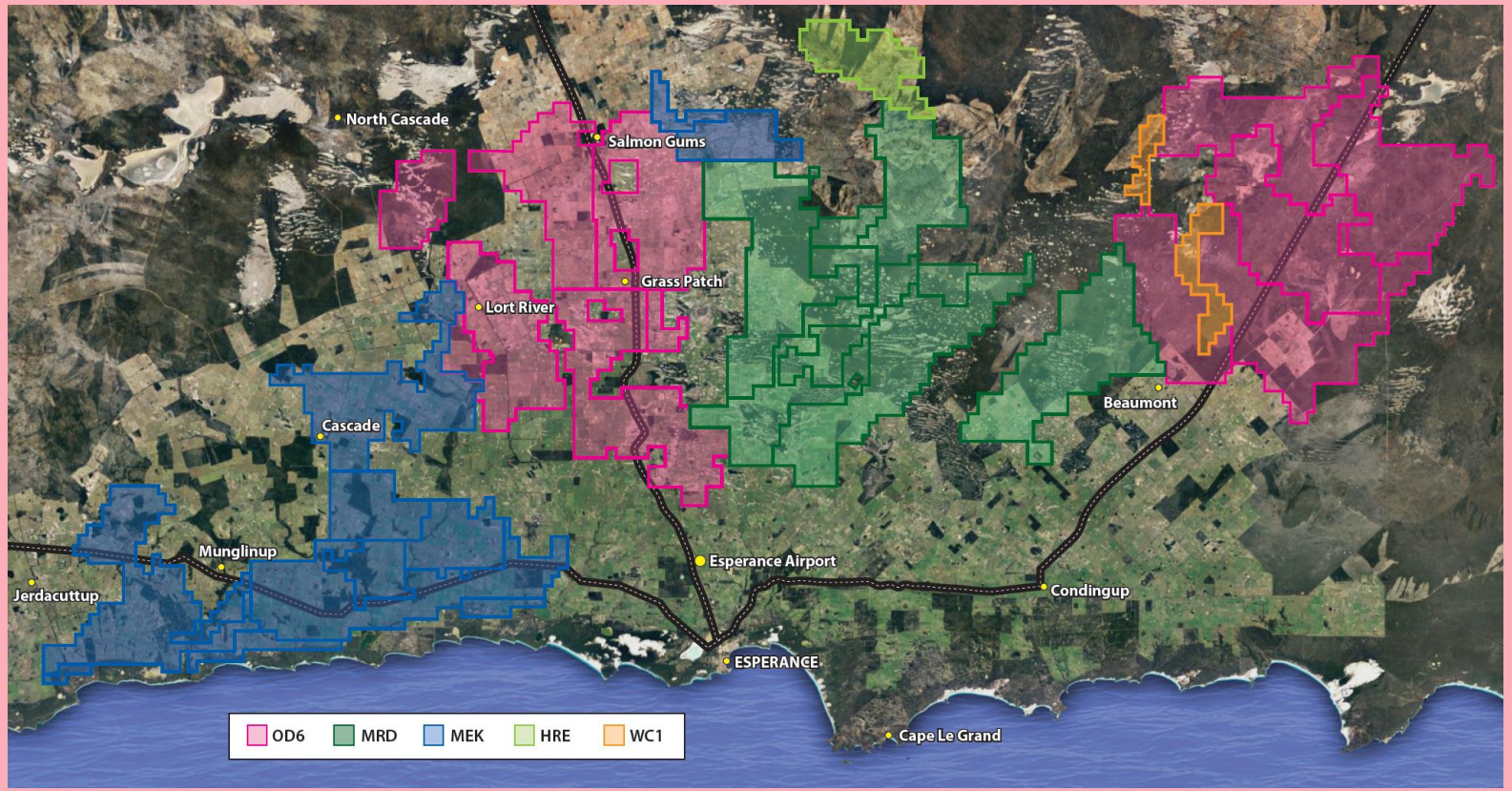


Source: 1. Refer https://ffi.com.au/project/sewa/

Splinter Rock Work Program



Emerging Clay Hosted Rare Earth Province



Source: DMP WA Government Tengraph

Key Highlights

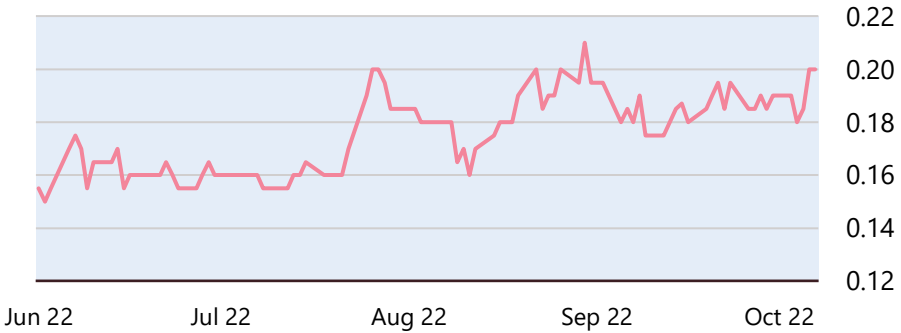
- ✓ Explosion in demand for critical rare earth minerals
- ✓ Drilling has confirmed thick, near surface, clay hosted rare earth elements
- ✓ Airborne geophysics aiming to map clay locations, expanse, depth and thickness across all granted OD6 Tenements
- ✓ Strong potential for globally-significant REE resource definition across a 30 x 60km target area
- ✓ Close proximity to Esperance port, town and roads
- ✓ Low carbon “Green Rare Earth” potential

ADDITIONAL INFORMATION

Corporate Snapshot

Capital Structure	ASX: OD6
Price per share [1]	A$0.20
Total number of shares on issue [2]	102.45M
Performance rights and options [2]	32.70M
Market capitalisation (undiluted) [1]	A$20.49M
Cash [2]	A$7.08M
Debt [2]	A$0.00M
Enterprise value[1]	A$13.41M

Share Price History



Notes: 1. As at 28 October 2022, 2. As at 30 September 2022

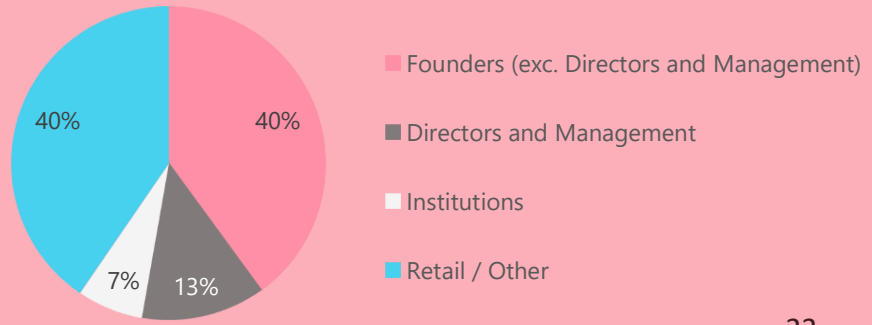
Dr Darren Holden
NON-EXECUTIVE CHAIR

Mr Brett Hazelden
MANAGING DIRECTOR

Mr Piers Lewis
NON-EXECUTIVE DIRECTOR

Dr Mitch Loan
NON-EXECUTIVE DIRECTOR

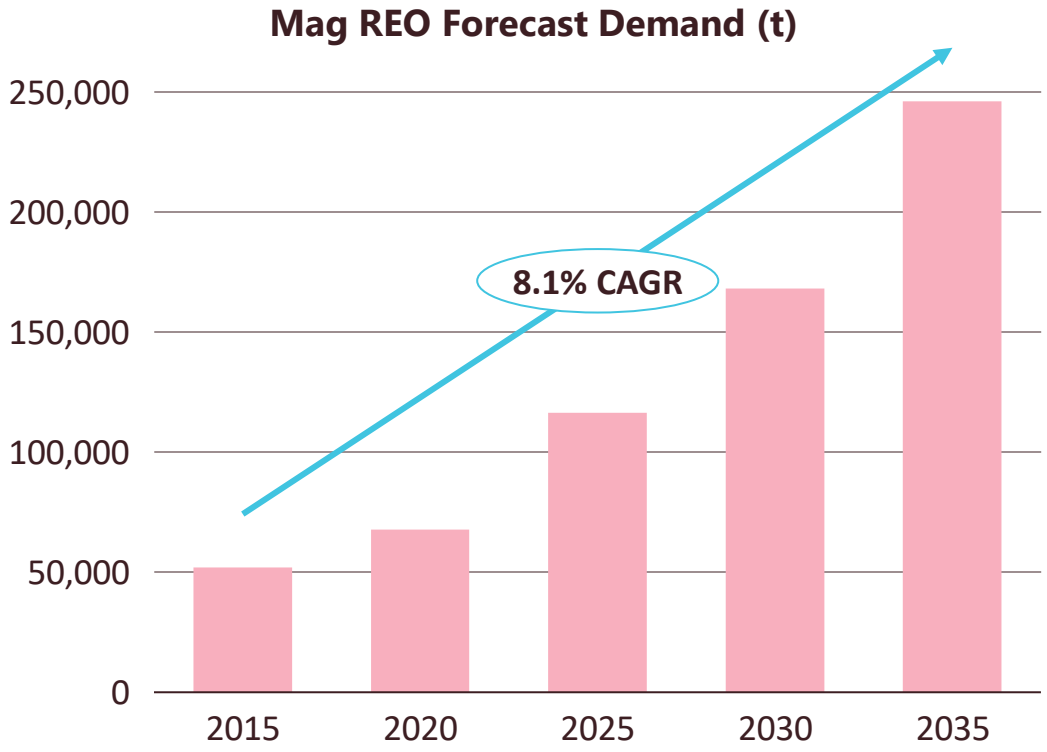
Register Detail



Insatiable Demand for Rare Earth Magnets

Transition from carbon to renewable economy is creating a forecast **explosion in demand for critical rare earth magnet metal oxides**

Compound annual growth rate of 8.1% for Mag REO



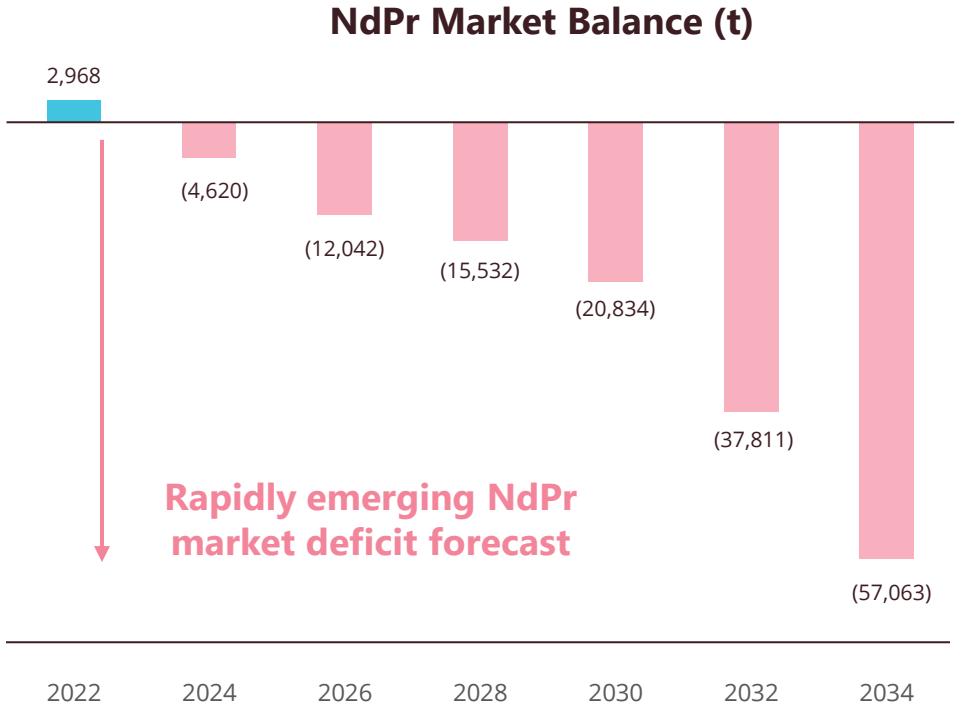
Mag REO (Magnetic Rare Earth Oxide) = Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3

Source: Adamas Intelligence, June 2022

Growing NdPr Rare Earth Supply Deficit

Analysts expect significant NdPr supply deficits as demand grows

Demand underpinned by growth from EVs, wind power and consumer electronics



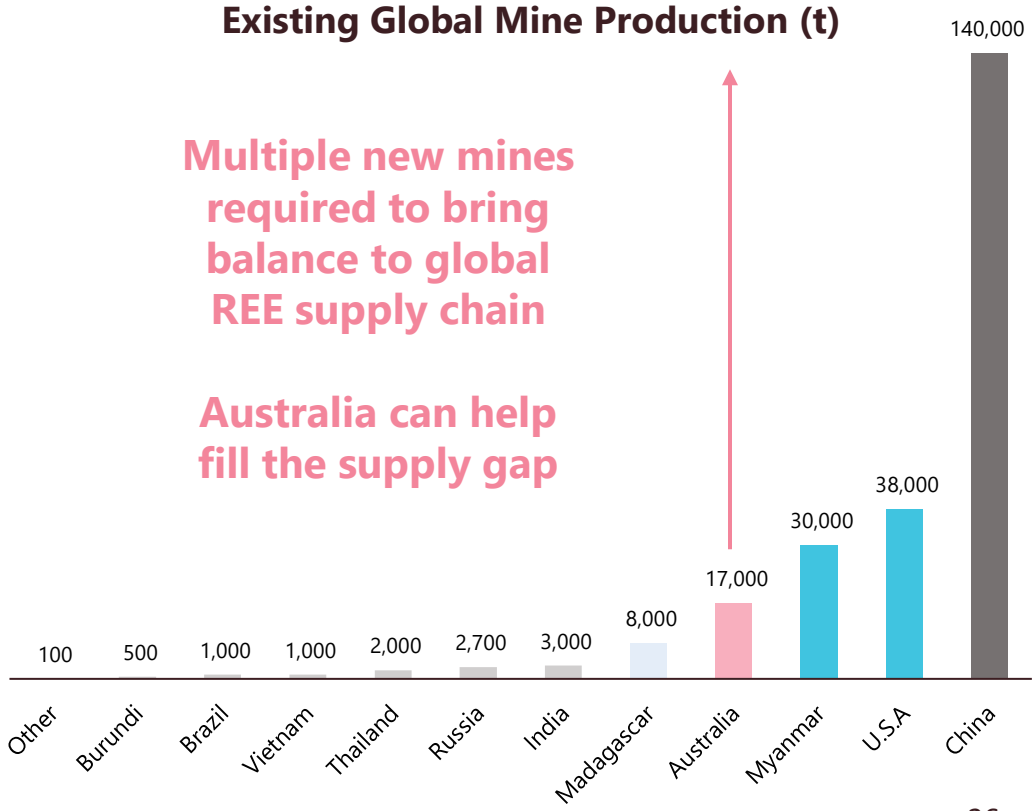
NdPr = Two of the critical rare earth elements Neodymium (Nd) and Praseodymium (Pr), which are used to make permanent magnets in electric vehicles, electricity generators (wind turbines) and consumer electronics. They represent the major value and revenue sources from Rare Earth Element production.

Source: Adamas Intelligence, June 2022

New Australian Supply Needed

Mine concentration is a significant risk to the global supply chain

Diversity of supply now a priority for governments and corporations with Australia well placed to provide additional capacity



Source: USGS Mineral Commodity Summaries, Rare Earths: https://pubs.usgs.gov/periodicals/mcs2021/mcs2021.pdf

Planned Work Program

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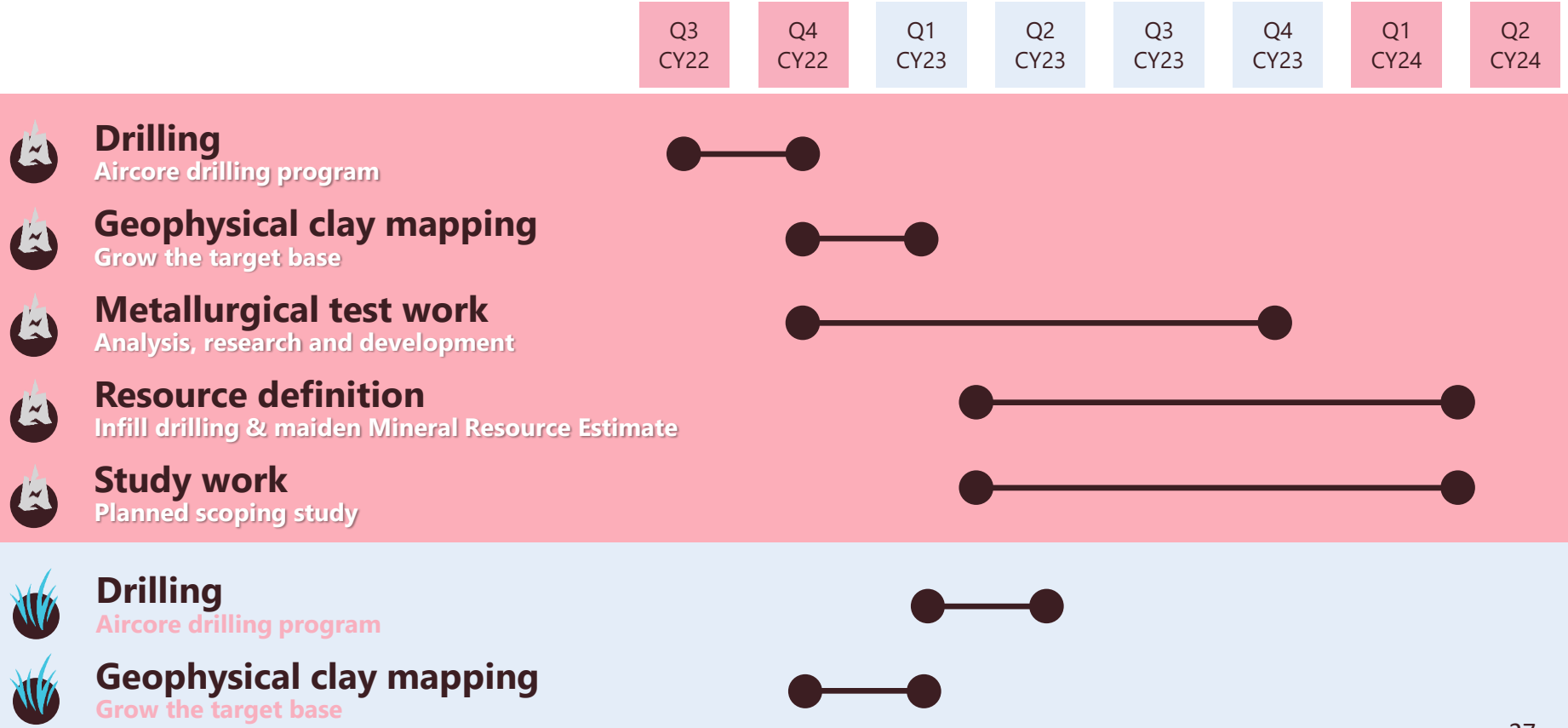

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