

# RareX Rare Earths

RARE 

57-71

RE

Magnets



**Cummins Range Project**  
Magnet RE and Battery P

RARE  PLORATION

**Strong Internal Team**  
Exploration, Engineering, BD

**James Durrant**  
**March 2024**

**ASX: REE**  
**[rarex.com.au](http://rarex.com.au)**

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**Competent Person's Statement – Production Target and Forecast Financial Information:** The information in this presentation relating to production targets and forecast financial information (FFI) was first reported on 22 August 2023. REE confirms that the material assumptions underpinning the production target and FFI continue to apply and have not materially changed. The production target is based on a portion of inferred resource. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realized.

## Global Resource (JORC 2012)

| 2.5% P <sub>2</sub> O <sub>5</sub><br>Grade Cut | Tonnes<br>Mt | TREO<br>ppm | P <sub>2</sub> O <sub>5</sub><br>% | NdPr<br>ppm | Nb <sub>2</sub> O <sub>5</sub><br>ppm | HREO<br>ppm |
|-------------------------------------------------|--------------|-------------|------------------------------------|-------------|---------------------------------------|-------------|
| <b>Indicated</b>                                | 77.4         | 4,650       | 6.7                                | 1,020       | 780                                   | 280         |
| <b>Inferred</b>                                 | 446.9        | 2,860       | 4.2                                | 620         | 550                                   | 170         |
| <b>Total</b>                                    | 524.3        | 3,120       | 4.6                                | 670         | 580                                   | 190         |

# Drivers Behind RareX

## Fundamental Belief in the Electrification of Things and the Green Energy Revolution

### Global net-zero ambitions

- ✓ **EU Net zero by 2050** – \$3.8T by 2050<sup>1</sup>
- ✓ **US net zero by 2050** - \$30T by 2050<sup>2</sup>
- ✓ **Australian critical minerals** key to the decarbonization of supply chain<sup>3</sup>

### Electric Vehicles

- ✓ **\$1T surpassed** in EV investment by automotive manufacturers

### Rare Earths in Defence

- **Growing use** in defence applications: subs, planes, UAVs<sup>8</sup>
- **9% growth** in defence spending to a record **\$2.2T** in 2023<sup>7</sup>
- Strategic, **secure supply required**:
  - NAIF will not fund if using a Chinese value chain
  - China's labs mandated not to help foreign RE projects

### Massive EV and wind turbine investments

The **generation and use of clean energy** involve key technologies driving the critical metals boom for **RE magnets**

### Wind turbines

- ✓ **\$1.7T invested** in clean energy generation in 2023
- ✓ **\$4T required annually** – IEA<sup>5</sup>

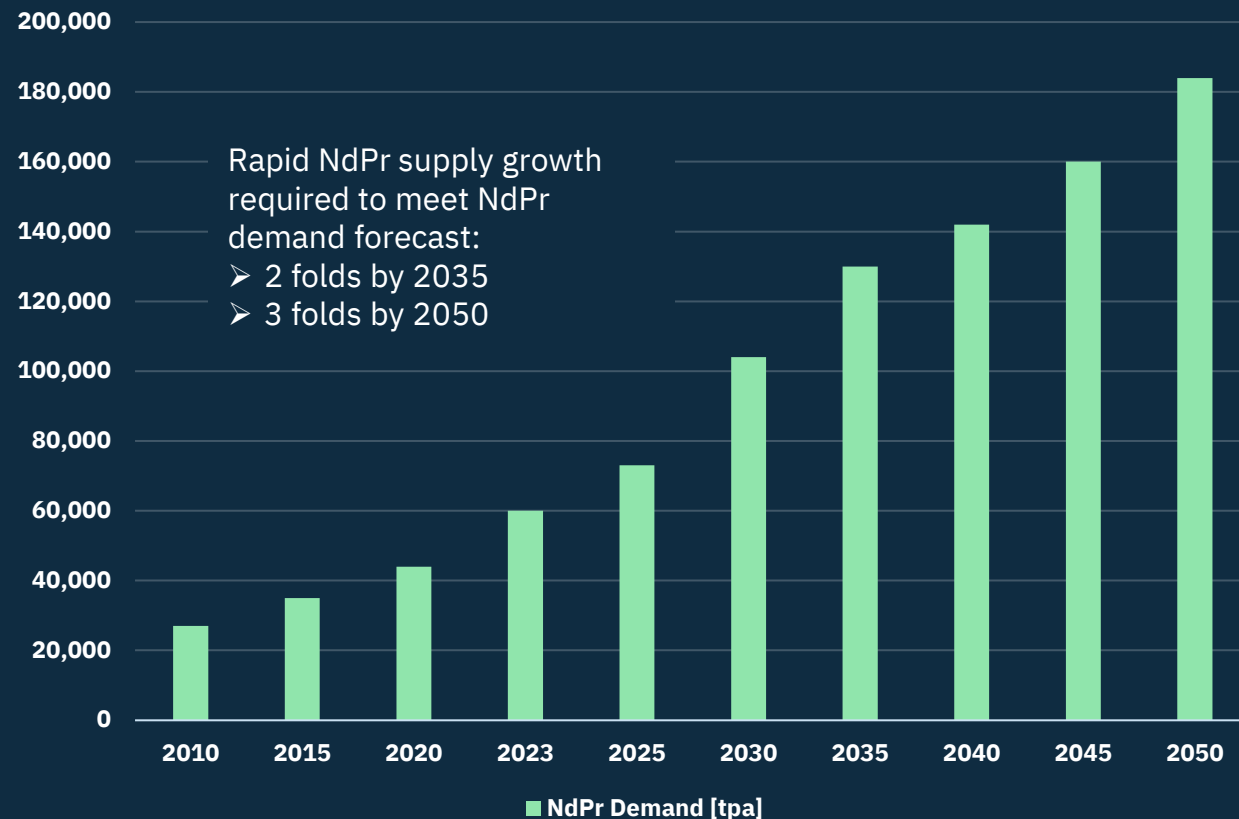
Sources:

- 1: <https://www.weforum.org/agenda/2022/04/bnef-european-energy-transition-2022/>
- 2: <https://about.bnef.com/blog/report-shows-that-inflation-reduction-act-alone-wont-set-united-states-on-track-for-net-zero/#:~:text=To%20get%20on%20track%20for,rapidly%20cut%20down%20on%20emissions.>
- 3: <https://www.globalaustralia.gov.au/industries/net-zero/critical-minerals>
- 5: <https://www.canarymedia.com/articles/clean-energy/chart-clean-energy-investment-to-hit-1-7t-widening-lead-on-fossil-fuels>
- 6: Project Blue Energy Transition Outlook to 2025, November 2023
- 7: <https://www.aljazeera.com/news>
- 8: <https://www.defense.gov/News>

RARE 

**“If you believe in an increasingly digital world using clean energy – then you have to believe in the growth of rare earths.”**

### NdPr Demand Outlook<sup>6</sup> to 2025



# Corporate Snapshot

## Leveraged to:

- ✓ Rare earth price improvement
- ✓ Increasing portfolio project definition
- ✓ Growing value of investments

## Capital Structure

|                            |                      |
|----------------------------|----------------------|
| ASX Code                   | REE                  |
| Share Price (22.03.2024)   | A\$0.017             |
| Shares on Issue            | 683M                 |
| Market Capitalisation      | A\$11.6M             |
| Cash (December Qtr)        | A\$2.9M <sup>2</sup> |
| Investments (December Qtr) | A\$5.02M             |

## Key people

|          |                 |
|----------|-----------------|
| Chairman | Jeremy Robinson |
| CEO      | James Durrant   |

## Major Assets

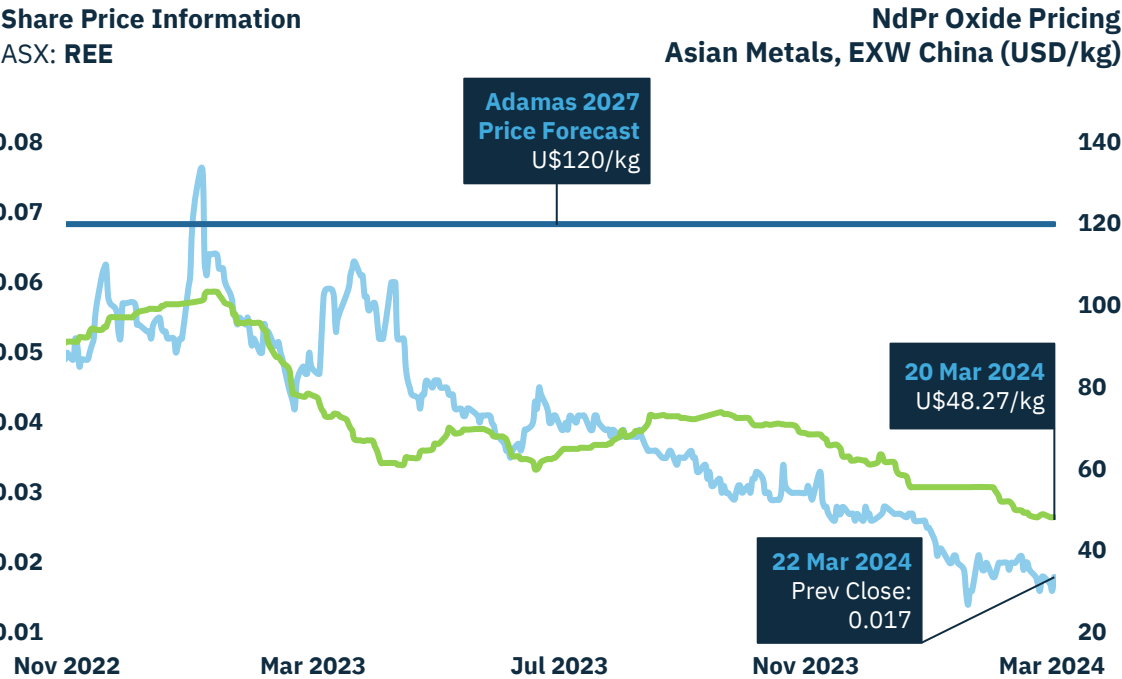
|                                         |                         |
|-----------------------------------------|-------------------------|
| Cummins Range Project                   | 100%                    |
| RareXploration tenements                | 100%                    |
| Kincora Copper                          | 45M shares <sup>1</sup> |
| Cosmos Exploration Limited              | 10M shares              |
| Canada Rare Earths Corp                 | 25M shares              |
| Various rare earth exploration projects | 100%                    |

**Note:**  
1: Plus project level royalty  
2: Includes R&D rebate of \$1.97M



## Shareholders

|                        |                                                   |
|------------------------|---------------------------------------------------|
| Top 50 Shareholders    | ~37%                                              |
| Number of Shareholders | ~5,200                                            |
| Major Shareholders     | Simon Lee AO (c.5.2%)<br>Jeremy Robinson (c.4.3%) |



# RareX Value Proposition



Maximum exposure to a return in the sentiment

1

2

3

**Cummins Range Project**  
Magnet RE and Battery P

**Australia's largest undeveloped rare earths project**

- ✓ **24Mt** – Contained  $P_2O_5$
- ✓ **1.6Mt** – Contained rare earths

**Near mine exploration targets**

- ✓ **Carbonatite cluster** theory
- ✓ All within **5km radius**
- ✓ **Drill testing** in 2024

**Strong financials with scale driven upside**

**IRR** – 39% pre-tax, 27% post-tax  
**NPV** – \$549M pre-tax, \$333M post-tax  
**Supply-chain bulk ready** - under contract

RARE  PLORATION

**Australia**

- Red Dragon
- Mt Mansbridge
- Maude Creek



**Canada**

- ✓ Proximate to domestic and **N-American end markets**
- ✓ Reliable **low-cost energy**
- ✓ Undervalued **advanced projects**



**Kingdom of Saudi Arabia**

- ✓ Proximate to domestic and **European end market**
- ✓ Reliable **low-cost energy**
- ✓ **Under explored**; first mover advantage



**Team able to discover, engineer, approve, fund and deliver**

**Action orientated board**

**Cameron Henry** – Process plant construction  
**Danny Goeman** – Marketing, sales & shipping  
**Jeremy Robinson** – Corporate finance  
**John Young** – Mine developer  
**Shaun Hardcastle** – Corporate Lawyer

**Strong internal capability & IP**

**James Durrant** – Mining ops & projects  
**Kay Hofmann** – Mining ops & approvals  
**Guy Moulang** – Exploration & Discovery  
**Greg Wynne** – Mine and exploration geology  
**Lu Zhang** – Metallurgy & Process  
**Al Harvey** – Exploration geology

**Tier 1 experience**

BHP, Rio Tinto, FMG, MinRes, Pilbara Lithium, Primero, Mets Engineering

# Cummins Range Project

**Critical Minerals  
for the Electric  
Revolution**

\* <https://www.fortunebusinessinsights.com/lithium-ion-li-ion-phosphate-batteries-market-102152>



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**“Cummins Range offers a poetic discovery beyond rare earths, in complementary phosphate for the LFP battery sector – a sector growing from \$10 billion in 2021 to \$50 billion by 2028\*”**

# 2024 JORC Resource

## 44Mt @ 1.0% TREO core + P<sub>2</sub>O<sub>5</sub>

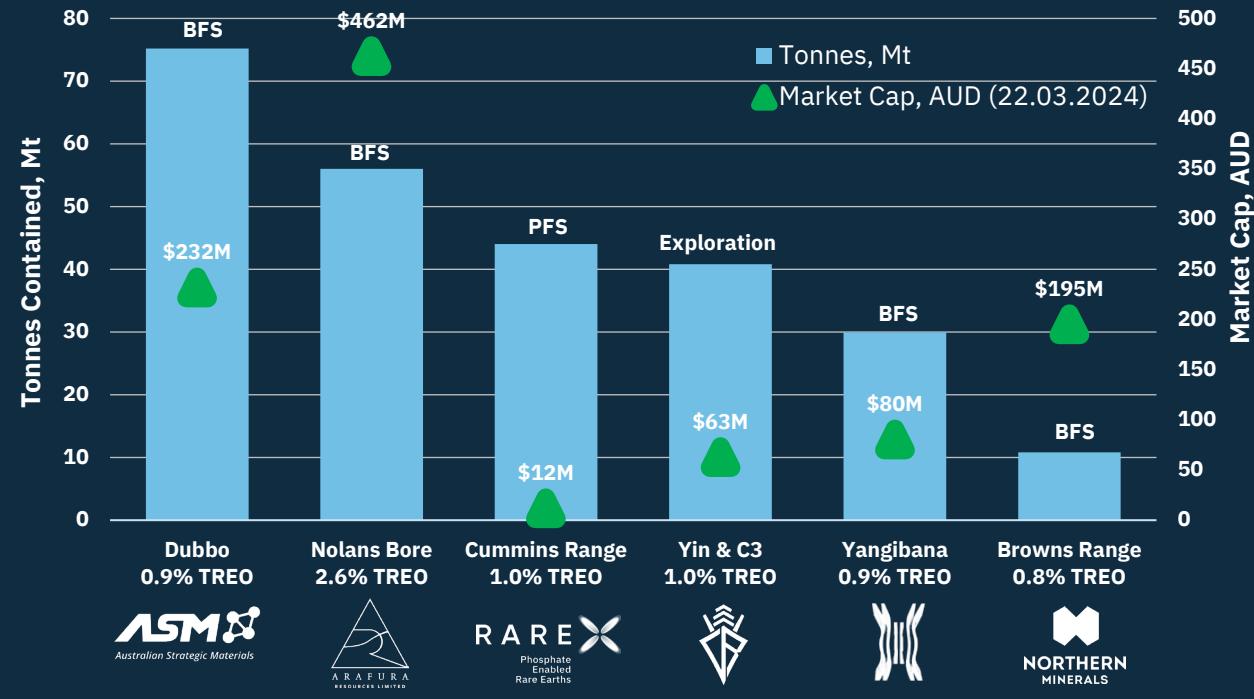
**In total: Australia's largest undeveloped rare earths project**

- ✓ Total of 524.3Mt @ 4.6% P<sub>2</sub>O<sub>5</sub>, 0.31% TREO
- ✓ 1.6M tonnes contained TREO; 24Mt contained phosphate

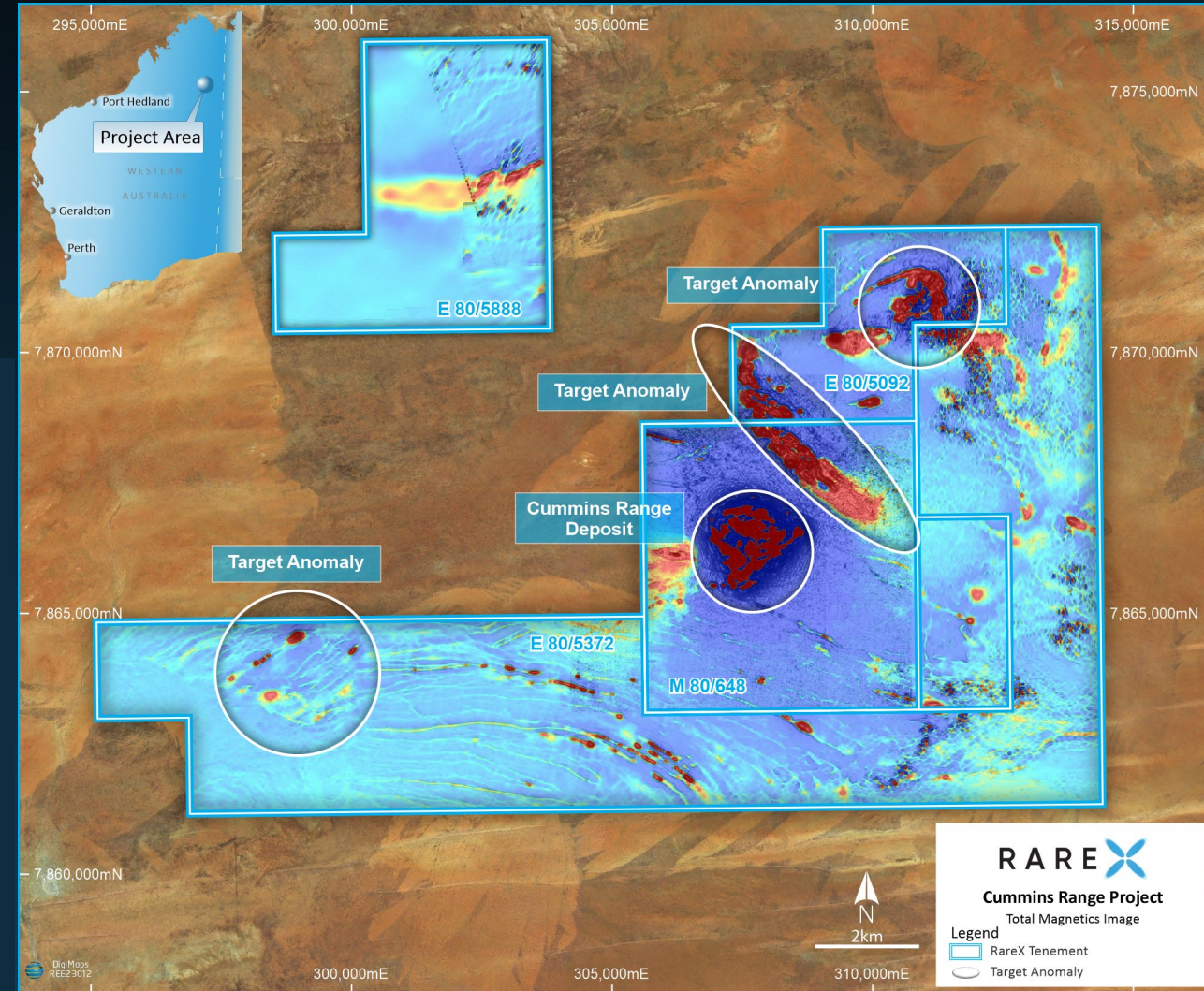
**Comparable resource to peer group and growing:**

- ✓ Australia's 3<sup>rd</sup> largest undeveloped rare earths project
- ✓ Significant upside in scale from nearby anomalies

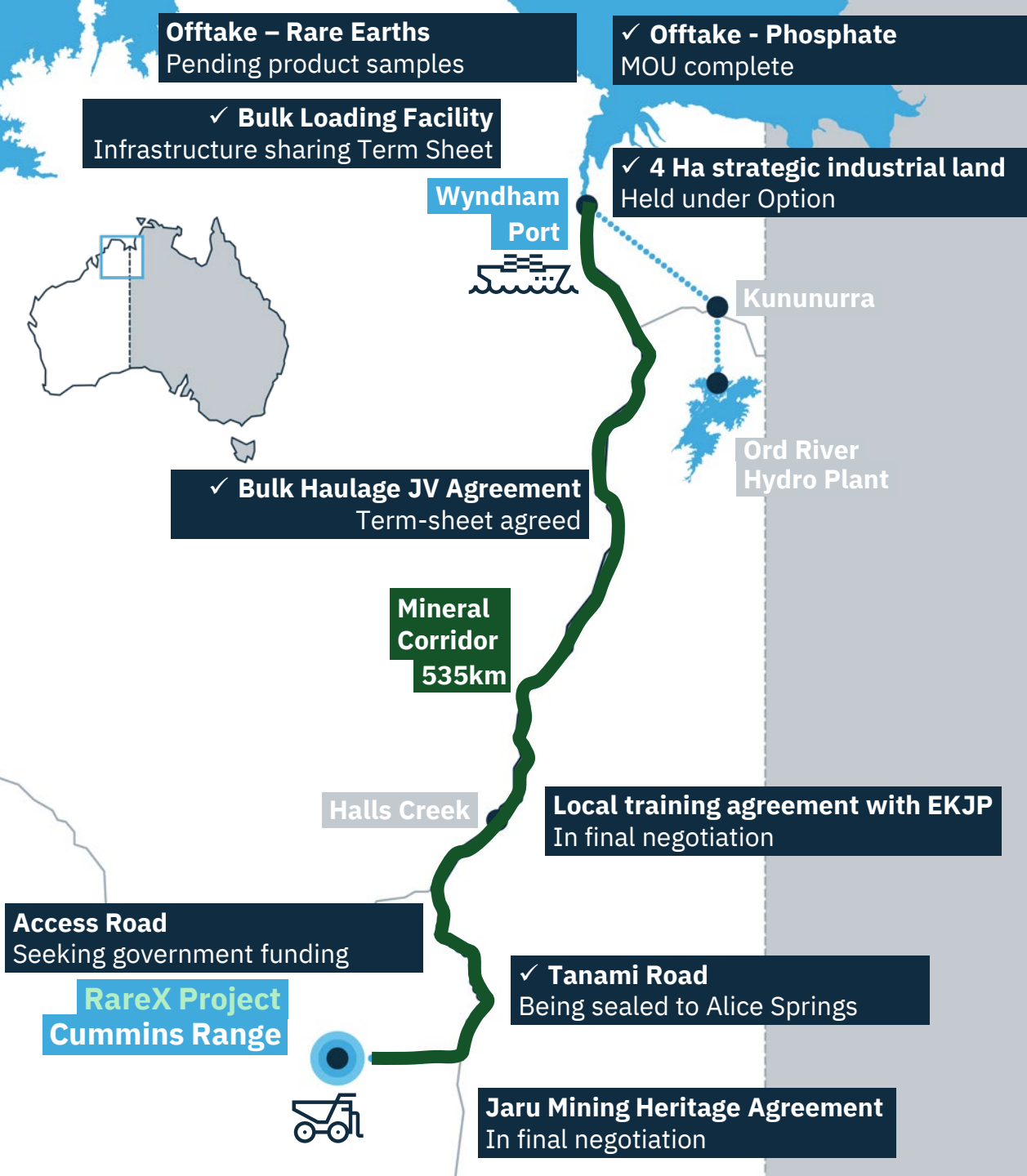
**Cummins Range High Grade Resource vs. Peers**



Sources:  
See slide: List Of Sources For Grade And Resource Graphs



**“Geophysics surveys show potential to expand the regional resource base”**



# Cummins Range Flagship Snapshot



## Financial

|                                  |           |
|----------------------------------|-----------|
| <b>NPV<sub>8</sub> post-tax:</b> | AU\$ 333M |
| <b>IRR post-tax:</b>             | 27%       |
| <b>Initial Capex:</b>            | AU\$ 45M  |
| <b>Stage 2 Capex:</b>            | AU\$ 304M |
| <b>EBITDA:</b>                   | AU\$ 1.5B |

## Conservative cost inputs

- 20% capital contingency
- 5% pa deployed capital sus-cap
- Government taxes and royalties
- Native title contributions and royalties
- Mine closure \$41M

## Pricing aligned to conservative forecasts

|                                              |
|----------------------------------------------|
| US \$110/kg NdPr oxide                       |
| US \$250/t 32% P <sub>2</sub> O <sub>5</sub> |

## Discounted for incentivisation and value chain position:

|                                              |
|----------------------------------------------|
| REO: 80% basket discount                     |
| P <sub>2</sub> O <sub>5</sub> : 10% discount |

## Asia-Pacific offtake focus

- ✓ Multiple monazite refineries
- ✓ Emerging domestic capability
- ✓ Government support for sovereign value chain

## Dual mineral concentrate

- ✓ Single bulk product offering from Wyndham port, north WA
- ✓ High NdPr, Low UTH grading monazite
- ✓ Clean apatite phosphate mineral able to be leached

## Alternative monazite single mineral concentrate

- ✓ Feed potential for domestic refineries
- ✓ Phosphate by-product
- ✓ 20x ROM upgrade demonstrated

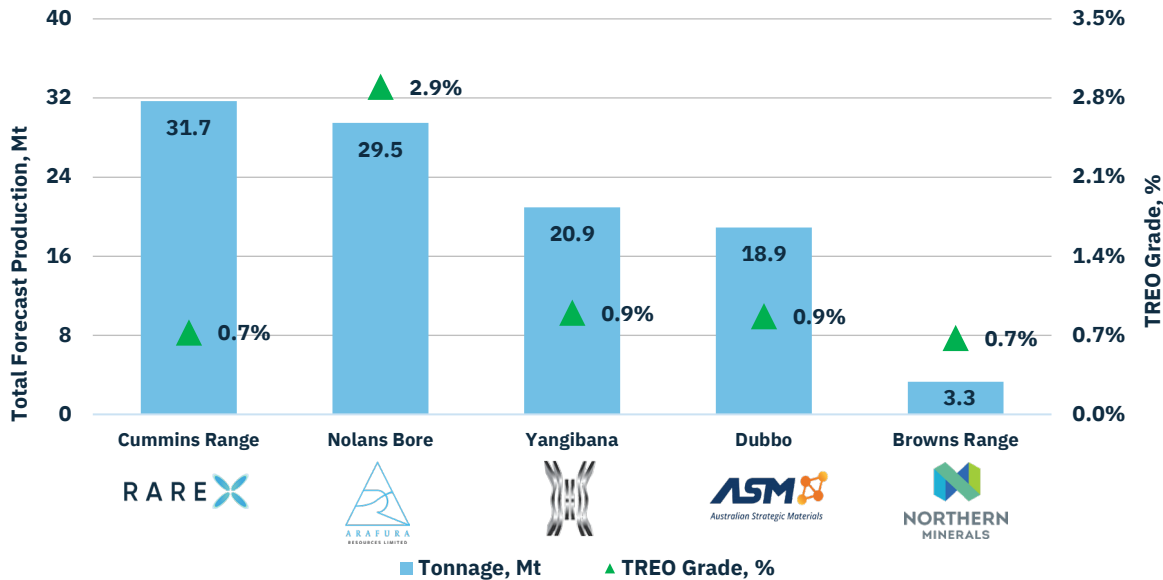
## Sources:

ASX Announcement 22 August 2023. The information in this presentation relating to production targets and forecast financial information (FFI) was first reported on 22 August 2023. RARE confirms that the material assumptions underpinning the production target and FFI continue to apply and have not materially changed. The production target is based on a portion of inferred resource. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

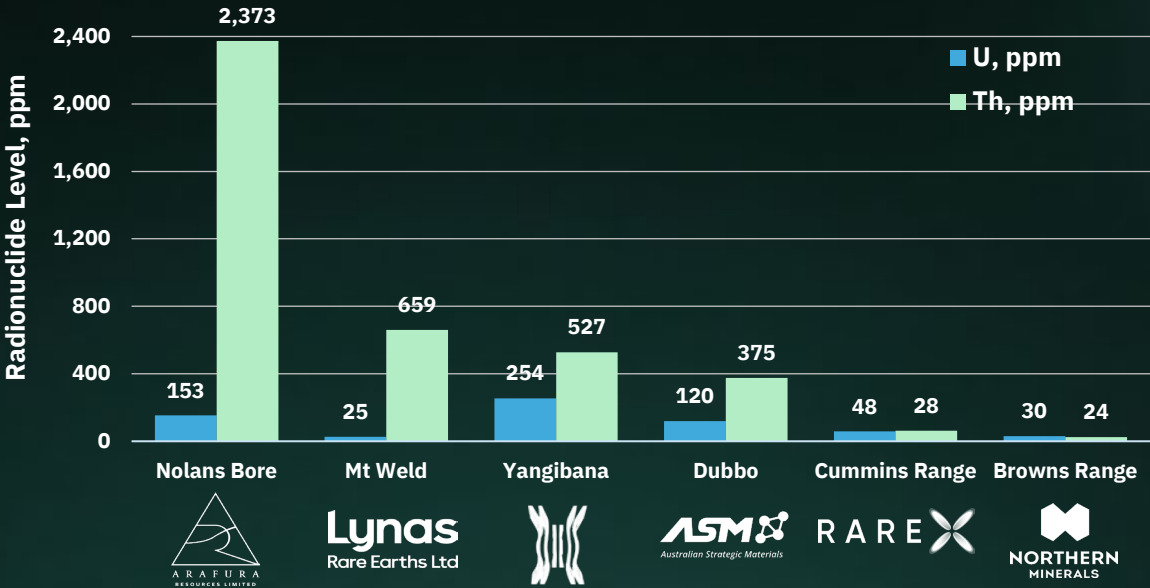
# Favourable Project Metrics



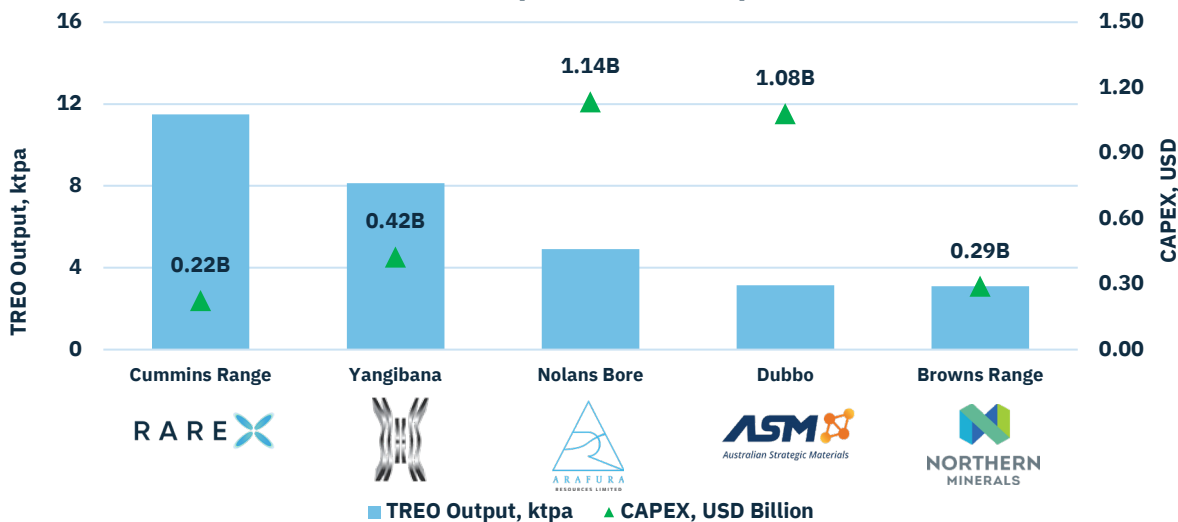
Total LOM Production Forecasts



Radionuclides Comparison



Annual TREO Output vs. Development CAPEX



## Cummins Range comparable with peers

✓ Scoping study modelled 31.7Mt @ 0.7% TREO from Cummins Range<sup>1</sup>

## Low capital intensity

✓ Efficiency of capex deployment<sup>2</sup> - AU\$ 350M capex 12 ktpa TREO and 169 ktpa of P<sub>2</sub>O<sub>5</sub><sup>1</sup>

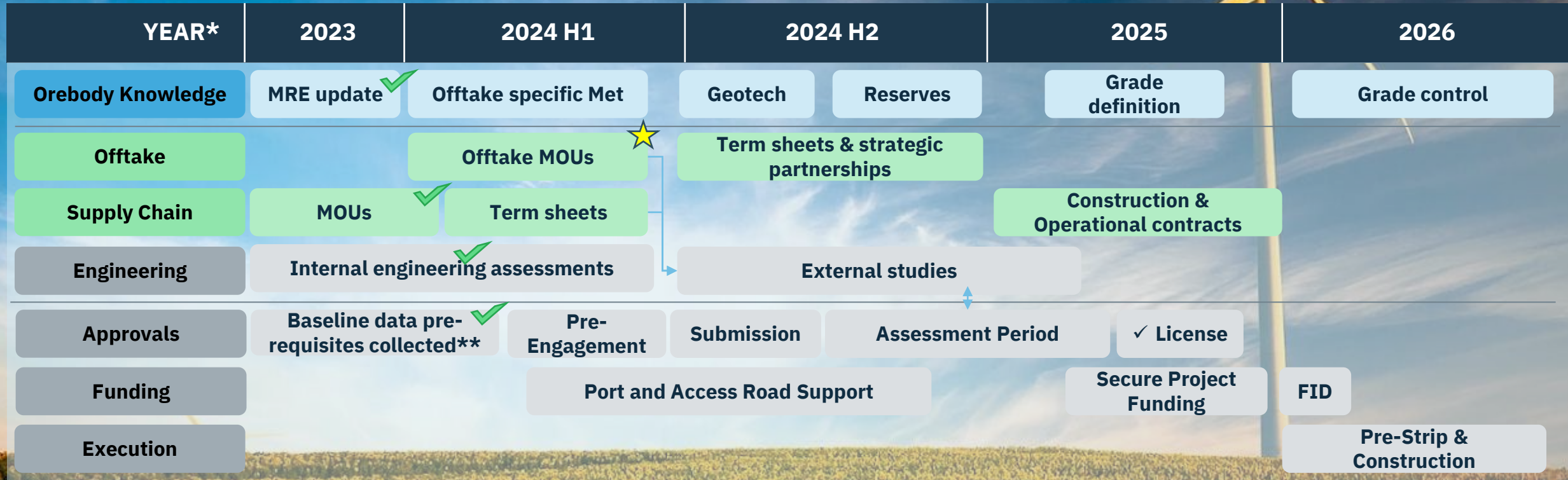
## One of the lowest radionuclide deposits

✓ Mineral concentrate well below DG limit, safer operation and product transport.

**Note:**  
1: ASX 22 August 2023: inventory estimated based on 2023 scoping study, further evaluation work and appropriate studies are required for RareX to estimate any Ore Reserves or to provide any assurance of an economic development case.  
2: Cummins Range is projected to deliver a mineral concentrate. Peer group have various value chain positions.

**Sources:**  
See slide: List Of Sources For Production Forecasts and Grade, Economics And Radionuclides

# Developing Cummins Range into a Critical Minerals Mine



\*The timetable is indicative and subject to change

\$1,450M

## Orebody Knowledge

- Prove-up **achievable product specs** across wider orebody
- Collect further **data to support detailed engineering** studies
- Pre-mining **grade definition**

## Offtake & Supply Chain Agreements

- Potential off-takers provided **product samples** for testing
- Term-sheets with **key supply chain providers** being developed to feed into detailed studies
- Preparation for **construction and ops contracts**

## Engineering, Approvals & Operations

- PFS/DFS** driven by offtake milestone
- Submit for **environmental approvals** with regulator
- Advance funding** for logical government support project aspects

★ Key milestone gate

# RARE PLO RATION



Defining the best exploration projects  
in the current portfolio: Red Dragon



Portfolio growth in known jurisdiction  
proximal to N-American supply chains



Ensuring maximum exposure to the  
emerging mining sector of Saudi

# Red Dragon, Eastern Yilgarn

## Multiple Surface Rare Earth Anomalies with Large Magmatic Intrusion To Test

### Rationale

A **massive anomaly** in an interesting area **within our control**

- ✓ Located 130km south-west of **Mt Weld** deposit
- ✓ **Known carbonatite district**
- ✓ Numerous **rare earths surface geochemical** anomalies
- ✓ **Large untested** strong magnetic/gravity target undercover
- ✓ **Poorly explored** area

### Exploration Plan

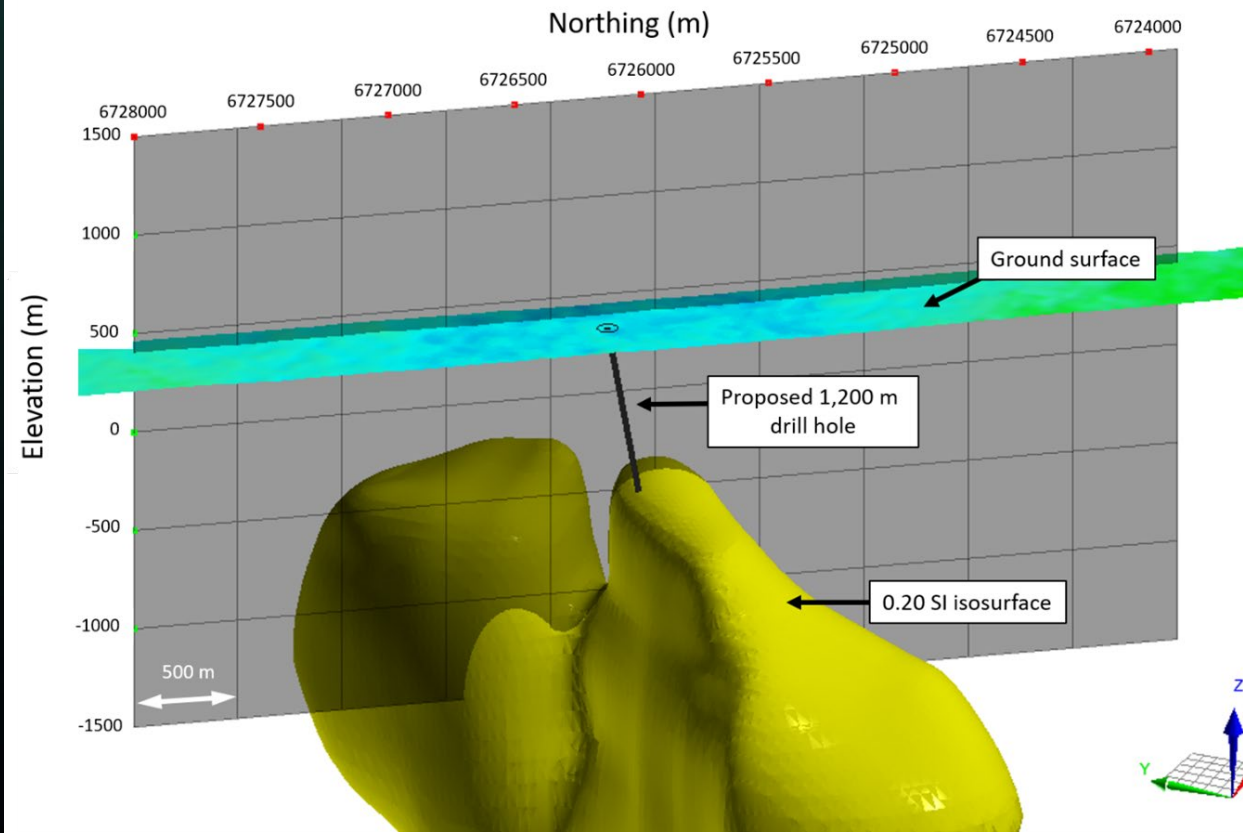
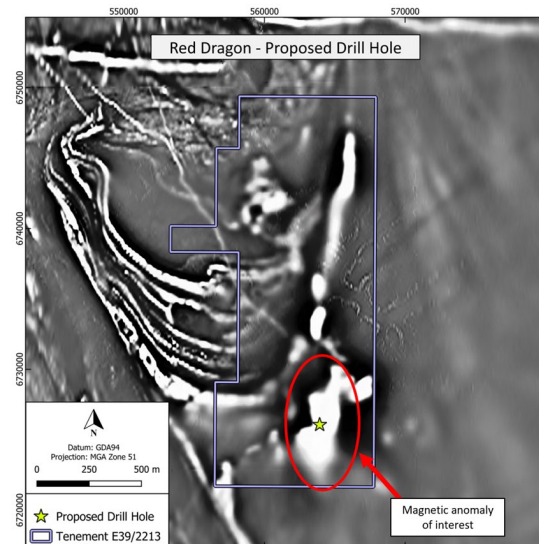
Find **another Mt Weld** in the Yilgarn or a **new Olympic Dam**

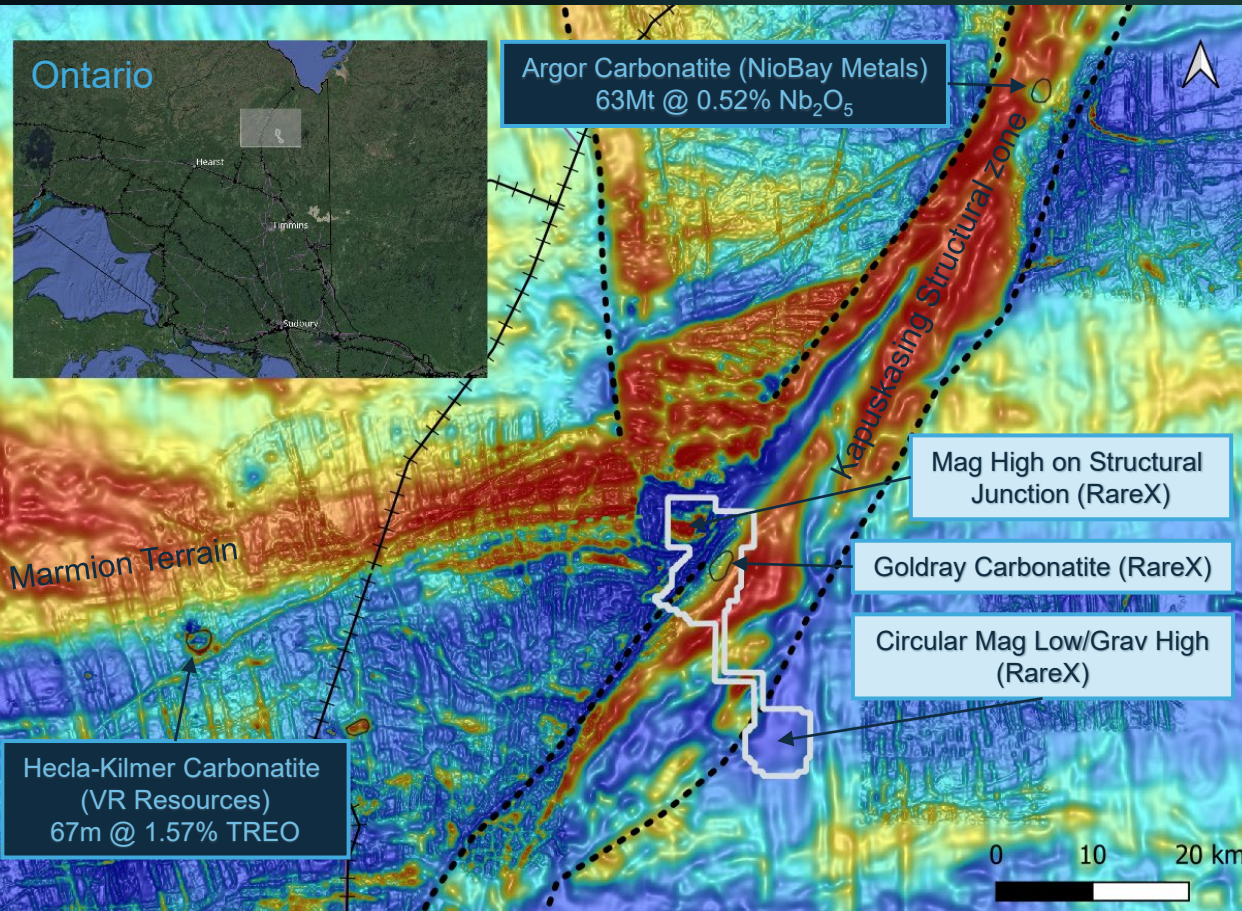
- Joint ground **gravity and passive seismic survey** over mag anomaly
- **3D inversion** with additional geophysics data
- Drill **1,200m diamond hole** to test magnetic anomaly
- Funding **supported though Exploration Incentive Scheme**
- **Potential farm-in** to define further

**“A massive anomaly in a very prospective region – we must drill into it”**

RARE  PLORATION

RARE 





# Goldray Carbonatite Project New To The Portfolio

## Ontario and Quebec – Tier 1 provinces of choice

- ✓ Multiple undervalued, advanced target projects proximal to infrastructure
- ✓ Domestic and regional support for critical minerals
- ✓ Near to massive emerging end markets in N-America

## Justification

Junction of major regional structures and terrains with carbonatites and multiple untested anomalies pegged by RareX

- ✓ **Forgotten for 50 years** with the last drilling from the 60s constrained to one anomaly
- ✓ **Niobium and rare earth district** with signatures of the Luni deposit
- ✓ **Cluster of geophysical** responses for target generation
- ✓ **Proximal to infrastructure** with train lines and utilities within 30km

## Exploration Plan

Apply modern exploration techniques to find new mineralised systems

- **Magnetic and gravity remote sensing** surveys to assess drill targets
- Integrate **new and historical data** to inform a geological model and target generation
- **Campaign drilling** on multiple anomalies for efficiency in an expensive region

**“Whilst evaluating more advanced projects, we became aware of a forgotten carbonatite in the right formations available for pegging”**



RARE



“Giga Projects are Infrastructure or Capital Project investments of such scale and ambition that they can be considered 'once in a generation’” – Deloitte



RARE



EXPLORATION

Sources:  
1: <https://www.forbes.com/sites/zengernews/2024/01/28/doubling-the-critical-mineral-potential-of-saudi-arabia/?sh=4808c4b02005>  
2: <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/metals/011124-saudi-arabia-fast-tracks-efforts-to-become-leader-of-minerals-super-region>

# KSA – Emerging Minerals and Mining Powerhouse



## Rationale for Saudi

### Geology

- ✓ **Under explored** Arabian Shield
- ✓ **Tier 1** critical mineral **potential**
- ✓ **US\$2.5T** in mineral potential<sup>1</sup>

### Local and regional markets

- ✓ Domestic **EV manufacture**
- ✓ **US\$1.1T** planned technology heavy **mega projects**
- ✓ Proximal to **Europe**

### Mature industrial base

- ✓ **Processing** capability
- ✓ **Chemical** supply
- ✓ Experienced **operators**

### Good and growing infrastructure

- ✓ Roads
- ✓ Ports
- ✓ Reliable, low-cost power

### Underpinned by Vision 2030<sup>2</sup>

- ✓ Significant **financial incentives** for exploration and development
- ✓ Specific **encouragement for junior mining ecosystems**

## Progress so far

### Geology

- ✓ Digitising, interrogating and **interpreting 60 years** of exploration reports
- ✓ Compiling regions and **areas of priority** exploration interest

### Business establishment

- ✓ Registered business in the KSA
- ✓ Registered Entity in the Auction process

### Stakeholder engagement

- ✓ Austrade
- ✓ Australian-Saudi Business Forum
- ✓ Ministry for Investment
- ✓ Invest Saudi
- ✓ Ministry of Industry and mineral resources
- ✓ Potential local partners

### Bidding preparation for next round

- Learn the process
- Increase profile
- Acquire

# In-house Team To Deliver



# A Board Of Company-Building Directors



**Jeremy Robinson**  
**Chairman**  
*Fund raising, Strategy,  
Corporate Development*

**Founder of RareX** and Managing Director for 5 years leading the Company through massive resource expansion

18 years in **corporate finance** both in investment firms and in-house

**Bachelor of Commerce** from the University of Western Australia majoring in **Corporate Finance, Investment Finance and Marketing**

**Danny Goeman**  
**Non-Executive Director**  
*Offtake, Marketing,  
Shipping*

Ex **FMG** director of sales and marketing and advisor to the CEO, following 20 years with Rio Tinto in management, sales and marketing, strategy development and high level commercial negotiations

As Head of Marketing, then CEO; responsible for the 2018, 10-year **binding take-or-pay offtake deal** for junior SOP developer Danakali (ASX: DNK)

Holds a **Masters in Business Administration** and Postgraduate Diploma in leadership & Management from **Curtin University**



**Cameron Henry**  
**Non-Executive Director**  
*Engineering,  
Construction, Operations*

**Founding managing director** of EPCM engineering firm, **Primero Group Limited**

Over 20 years' experience in development and **delivery of global minerals processing, energy and NPI projects**

Holds a **Masters in Project Management** from Curtin University and is a Member of the **Australian Institute of Company Directors (MAICD)**



**John Young**  
**Non-Executive Director**  
*Geology, Development,  
Growth*

Co-founder and executive director of successful ASX200 lithium producer Pilbara Minerals Limited (ASX: PLS)

Led the growth of Pilbara from a junior ASX-listed company to a globally significant \$2 billion lithium producer in the Pilbara region of Western Australia

Holds a **Bachelor of Geology** from **Curtin University** and is a director on a number of ASX listed companies



**Shaun Hardcastle**  
**Non-Executive Director**  
*Corporate Law, Finance  
Law, Governance*

Partner at Hamilton Locke law firm covering corporate and finance law, corporate governance, risk management and compliance

Involved in a broad range of cross-border and domestic transactions including joint ventures, corporate restructuring, project finance, resources and asset/equity sales and acquisitions

**Bachelor of Law** from UWA and currently a non-executive director of a number of ASX listed companies



# Strong In-House Capability

## Explore, Engineer, Develop



**James Durrant**  
Chief Executive Officer

Mining and Mechanical Engineer with nearly 20 years across Tier 1 operations and junior company project development in Africa and Australia



**Guy Moulang**  
Head of Geology

Geologist and AIG Member with 20 years experience in technology metals, base metals and gold exploration. 5 years with RareX on Cummins Range



**Kay Hofmann**  
Study & Approvals Manager

Ex Mineral Resources Limited and BHP. Lead engineering and operational teams across mine planning, production, drill & blast, A&I, hydrogeology and environmental baselines

### Competencies

- Exploration
- Resource modelling
- Mine Scheduling
- Metallurgy
- Process design
- Estimation
- Economic modelling
- Graphics & website

**Greg Wynne**  
Senior Geologist and KSA lead

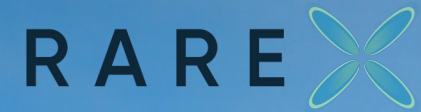
Geologist, project manager and mines rescue qualified

**Lu Zhang**  
Process & Product Engineer

Metallurgist and process engineer. Ex Mets Group

**Gavin Beer**  
Consultant Metallurgist

Rare Earth process designer and metallurgist



**“Maintaining and nurturing strong in-house competencies is especially important for specialty projects”**

# Investor Milestones 2024



Using in-house capability to efficiently run parallel, synergistic projects

## Cummins Range

**Focussing on offtake as a catalyst to final definition and development**

- ☐ Mining Heritage agreement
- ☐ Product samples
- ☐ RE Offtake
- ☐ P Offtake
- ☐ PFS
- ☐ Environmental submissions
- ☐ “Near Mine” growth

## RARE PLORATION



### Red Dragon (Priority)

- ☐ Exploration Target
- ☐ Gravity and passive seismic
- ☐ EIS Funding
- ☐ Red Dragon drilling
- ☐ Farm-in partner

### Mt Mansbridge (Heavy RE)

- ☐ Mapping
- ☐ Target generation

### Maude Creek (Heavy RE)

- ☐ Soils
- ☐ Target generation



### Goldray complex

- ☐ Remote sensing surveys
- ☐ Multi-target generation
- ☐ Flow through funding
- ☐ Efficient, campaign drilling

### Potential expansion

- ☐ Analysis
- ☐ Targeting
- ☐ Potential acquisition



### Early mover in emerging region

- ☐ Collaboration Agreement / JV partner
- ☐ Bid on projects through the formal process
- ☐ Acquire
- ☐ Farm-in partner

## Board of Directors

**Jeremy Robinson** – Non-Executive Chairman

**John Young** – Non-Executive Director

**Danny Goeman** – Non-Executive Director

**Shaun Hardcastle** – Non-Executive Director

**Cameron Henry** – Non-Executive Director

## Company Secretary

**Oonagh Malone**

## Chief Executive Officer

**James Durrant**

## RareX HQ

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Investor Hub: <https://investors.rarex.com.au/welcome>  
LinkedIn: <https://www.linkedin.com/company/rarex-limited>  
X Twitter: [https://twitter.com/rarex\\_asx](https://twitter.com/rarex_asx)

[rarex.com.au](https://rarex.com.au)

**ASX: REE**



**Thank  
you**

# References

# List Of Sources For Grade And Resource Graphs

| Resource                                        |  | Source of data                                                                                                          |  | Source of data                                                                                                          |  | Source of data                                                                                                                  |  | Source of data                                                                                                          |
|-------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Measured Resource, Mt                           | 0                                                                                 | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 5                                                                                  | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf</a> | 43                                                                                  | <a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a> | 0                                                                                   | <a href="https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf">https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf</a> |
| Indicated Resource, Mt                          | 77.4                                                                              | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 30                                                                                 | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf</a> | 0                                                                                   | <a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a> | 14                                                                                  | <a href="https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf">https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf</a> |
| Inferred Resource, Mt                           | 446.9                                                                             | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 21                                                                                 | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf</a> | 32                                                                                  | <a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a> | 38                                                                                  | <a href="https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf">https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf</a> |
| Measured TREO Grade, %                          | 0.00%                                                                             | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 3.20%                                                                              | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf</a> | 0.88%                                                                               | <a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a> | 0.00%                                                                               | <a href="https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf">https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf</a> |
| Indicated TREO Grade, %                         | 0.47%                                                                             | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 2.70%                                                                              | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf</a> | 0.00%                                                                               | <a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a> | 1.25%                                                                               | <a href="https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf">https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf</a> |
| Inferred TREO Grade, %                          | 0.29%                                                                             | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 2.30%                                                                              | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02651944.pdf</a> | 0.88%                                                                               | <a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a> | 0.94%                                                                               | <a href="https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf">https://wcsecure.weblink.com.au/pdf/REE/02660886.pdf</a> |
| Measured TREO Contained, Mt                     | 0.00                                                                              | Calculation                                                                                                             | 0.16                                                                               | Calculation                                                                                                             | 0.38                                                                                | Calculation                                                                                                                     | 0.00                                                                                | Calculation                                                                                                             |
| Indicated TREO Contained, Mt                    | 0.36                                                                              | Calculation                                                                                                             | 0.81                                                                               | Calculation                                                                                                             | 0.00                                                                                | Calculation                                                                                                                     | 0.17                                                                                | Calculation                                                                                                             |
| Inferred TREO Contained, Mt                     | 1.28                                                                              | Calculation                                                                                                             | 0.48                                                                               | Calculation                                                                                                             | 0.28                                                                                | Calculation                                                                                                                     | 0.36                                                                                | Calculation                                                                                                             |
| Market Capitalisation, AUD Billion (22.03.2024) | 0.012                                                                             | <a href="https://www2.asx.com.au/markets/company/ree">https://www2.asx.com.au/markets/company/ree</a>                   | 0.462                                                                              | <a href="https://www2.asx.com.au/markets/company/aru">https://www2.asx.com.au/markets/company/aru</a>                   | 0.232                                                                               | <a href="https://www2.asx.com.au/markets/company/asm">https://www2.asx.com.au/markets/company/asm</a>                           | 0.012                                                                               | <a href="https://www2.asx.com.au/markets/company/ree">https://www2.asx.com.au/markets/company/ree</a>                   |

| Resource                                        |  | Source of data                                                                                                                                    |  | Source of data                                                                                                                                                                                                              |  | Source of data                                                                                                          |
|-------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Measured Resource, Mt                           | 4.97                                                                              | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> | 5.17                                                                               | <a href="https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=">https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=</a> | 0.14                                                                                | <a href="https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf">https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf</a> |
| Indicated Resource, Mt                          | 20                                                                                | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> | 21.13                                                                              | <a href="https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=">https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=</a> | 5                                                                                   | <a href="https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf">https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf</a> |
| Inferred Resource, Mt                           | 5                                                                                 | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> | 14.52                                                                              | <a href="https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=">https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=</a> | 6                                                                                   | <a href="https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf">https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf</a> |
| Measured TREO Grade, %                          | 0.96%                                                                             | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> | 1.34%                                                                              | <a href="https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=">https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=</a> | 0.70%                                                                               | <a href="https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf">https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf</a> |
| Indicated TREO Grade, %                         | 0.88%                                                                             | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> | 1.02%                                                                              | <a href="https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=">https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=</a> | 0.78%                                                                               | <a href="https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf">https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf</a> |
| Inferred TREO Grade, %                          | 1.05%                                                                             | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> | 0.94%                                                                              | <a href="https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=">https://webservices.weblink.com.au/article.aspx?articleID=nKKbPP9PtUXO6BDF6bS3iUk/yZN1iwVqxc19p9XAPJU=</a> | 0.73%                                                                               | <a href="https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf">https://wcsecure.weblink.com.au/pdf/NTU/02649250.pdf</a> |
| Measured TREO Contained, Mt                     | 0.05                                                                              | Calculation                                                                                                                                       | 0.07                                                                               | Calculation                                                                                                                                                                                                                 | 0.00                                                                                | Calculation                                                                                                             |
| Indicated TREO Contained, Mt                    | 0.17                                                                              | Calculation                                                                                                                                       | 0.22                                                                               | Calculation                                                                                                                                                                                                                 | 0.04                                                                                | Calculation                                                                                                             |
| Inferred TREO Contained, Mt                     | 0.06                                                                              | Calculation                                                                                                                                       | 0.14                                                                               | Calculation                                                                                                                                                                                                                 | 0.04                                                                                | Calculation                                                                                                             |
| Market Capitalisation, AUD Billion (22.03.2024) | 0.08                                                                              | <a href="https://www2.asx.com.au/markets/company/has">https://www2.asx.com.au/markets/company/has</a>                                             | 0.063                                                                              | <a href="https://www2.asx.com.au/markets/company/dre">https://www2.asx.com.au/markets/company/dre</a>                                                                                                                       | 0.195                                                                               | <a href="https://www2.asx.com.au/markets/company/ntu">https://www2.asx.com.au/markets/company/ntu</a>                   |

# List Of Sources For Production Forecasts And Grade, Economics And Radionuclides

| Parameter                            |  RARE | Source of data                                                                                                          |  ARAFURA | Source of data                                                                                                                                                                                            |  Investi | Source of data                                                                                                                                    |
|--------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Total LOM Production Forecast</b> |                                                                                        |                                                                                                                         |                                                                                             |                                                                                                                                                                                                           |                                                                                             |                                                                                                                                                   |
| Tonnage, Mt                          | 31.7                                                                                   | <a href="https://investors.rarex.com.au/announcements/4396391">https://investors.rarex.com.au/announcements/4396391</a> | 29.5                                                                                        | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02712231.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02712231.pdf</a>                                                                                   | 20.9                                                                                        | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> |
| TREO Grade, %                        | 0.7%                                                                                   | <a href="https://investors.rarex.com.au/announcements/4396391">https://investors.rarex.com.au/announcements/4396391</a> | 2.9%                                                                                        | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02712231.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02712231.pdf</a>                                                                                   | 0.9%                                                                                        | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> |
| <b>Project Economies</b>             |                                                                                        |                                                                                                                         |                                                                                             |                                                                                                                                                                                                           |                                                                                             |                                                                                                                                                   |
| TREO Output, ktpa                    | 11.5                                                                                   | <a href="https://investors.rarex.com.au/announcements/4396391">https://investors.rarex.com.au/announcements/4396391</a> | 4.9                                                                                         | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02597137.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02597137.pdf</a>                                                                                   | 8.1                                                                                         | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> |
| CAPEX, USD Billion                   | 0.22                                                                                   | <a href="https://investors.rarex.com.au/announcements/4396391">https://investors.rarex.com.au/announcements/4396391</a> | 1.14                                                                                        | <a href="https://wcsecure.weblink.com.au/pdf/ARU/02597137.pdf">https://wcsecure.weblink.com.au/pdf/ARU/02597137.pdf</a>                                                                                   | 0.42                                                                                        | <a href="https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf">https://www.investi.com.au/api/announcements/has/befee282-f7d.pdf</a> |
| <b>Radionuclides</b>                 |                                                                                        |                                                                                                                         |                                                                                             |                                                                                                                                                                                                           |                                                                                             |                                                                                                                                                   |
| U, ppm                               | 48                                                                                     | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 153                                                                                         | <a href="https://www.arultd.com/wp-content/uploads/2022/11/202211_Fact_Sheet_-_RADIATION-Optimised.pdf">https://www.arultd.com/wp-content/uploads/2022/11/202211_Fact_Sheet_-_RADIATION-Optimised.pdf</a> | 254                                                                                         | <a href="https://www.investi.com.au/api/announcements/has/cd45de38-d0f.pdf">https://www.investi.com.au/api/announcements/has/cd45de38-d0f.pdf</a> |
| Th, ppm                              | 28                                                                                     | <a href="https://investors.rarex.com.au/announcements/6173995">https://investors.rarex.com.au/announcements/6173995</a> | 2,373                                                                                       | <a href="https://www.arultd.com/wp-content/uploads/2022/11/202211_Fact_Sheet_-_RADIATION-Optimised.pdf">https://www.arultd.com/wp-content/uploads/2022/11/202211_Fact_Sheet_-_RADIATION-Optimised.pdf</a> | 527                                                                                         | <a href="https://www.investi.com.au/api/announcements/has/cd45de38-d0f.pdf">https://www.investi.com.au/api/announcements/has/cd45de38-d0f.pdf</a> |

| Parameter                            |  Source of data                                                                                                                                                                                             |  Source of data                                                                                                                                                                                                                                                                    |  Source of data                                                                                                                                             |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Total LOM Production Forecast</b> |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
| Tonnage, Mt                          | 18.9<br><a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a>                                                                                                                                                      | 3.3<br><a href="https://northernminerals.com.au/browns-range/resource-and-exploration/#:-:text=Northern%20Minerals%20has%20100%25%20ownership,held%20100%25%20by%20Northern%20Minerals.">https://northernminerals.com.au/browns-range/resource-and-exploration/#:-:text=Northern%20Minerals%20has%20100%25%20ownership,held%20100%25%20by%20Northern%20Minerals.</a>  | -                                                                                                                                                                                                                                              |
| TREO Grade, %                        | 0.9%<br><a href="https://asm-au.com/dubbo-project/resources-and-reserves/">https://asm-au.com/dubbo-project/resources-and-reserves/</a>                                                                                                                                                      | 0.7%<br><a href="https://northernminerals.com.au/browns-range/resource-and-exploration/#:-:text=Northern%20Minerals%20has%20100%25%20ownership,held%20100%25%20by%20Northern%20Minerals.">https://northernminerals.com.au/browns-range/resource-and-exploration/#:-:text=Northern%20Minerals%20has%20100%25%20ownership,held%20100%25%20by%20Northern%20Minerals.</a> | -                                                                                                                                                                                                                                              |
| <b>Project Economies</b>             |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
| TREO Output, ktpa                    | 3.1<br><a href="https://asmd.irmau.com/site/PDF/ad9dcf23-41ca-4ebb-a779-b2cbc200217e/DubboProjectOptimisationDeliversStrongFinancials">https://asmd.irmau.com/site/PDF/ad9dcf23-41ca-4ebb-a779-b2cbc200217e/DubboProjectOptimisationDeliversStrongFinancials</a>                             | 3.1<br><a href="https://announcements.asx.com.au/asxpdf/20150302/pdf/42wzybv98yqr8n.pdf">https://announcements.asx.com.au/asxpdf/20150302/pdf/42wzybv98yqr8n.pdf</a>                                                                                                                                                                                                  | -                                                                                                                                                                                                                                              |
| CAPEX, USD Billion                   | 1.08<br><a href="https://asmd.irmau.com/site/PDF/ad9dcf23-41ca-4ebb-a779-b2cbc200217e/DubboProjectOptimisationDeliversStrongFinancials">https://asmd.irmau.com/site/PDF/ad9dcf23-41ca-4ebb-a779-b2cbc200217e/DubboProjectOptimisationDeliversStrongFinancials</a>                            | 0.29<br><a href="https://wcsecure.weblink.com.au/pdf/NTU/01708988.pdf">https://wcsecure.weblink.com.au/pdf/NTU/01708988.pdf</a>                                                                                                                                                                                                                                       | -                                                                                                                                                                                                                                              |
| <b>Radionuclides</b>                 |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                |
| U, ppm                               | 120<br><a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-5251%2120190227T000941.536%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-5251%2120190227T000941.536%20GMT</a> | 30<br><a href="https://announcements.asx.com.au/asxpdf/20150302/pdf/42wzybv98yqr8n.pdf">https://announcements.asx.com.au/asxpdf/20150302/pdf/42wzybv98yqr8n.pdf</a>                                                                                                                                                                                                   | 25<br><a href="https://www.rainbowrareearths.com/wp-content/uploads/2023/01/Rainbow-Investor-Presentation_February-2023.pdf">https://www.rainbowrareearths.com/wp-content/uploads/2023/01/Rainbow-Investor-Presentation_February-2023.pdf</a>  |
| Th, ppm                              | 375<br><a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-5251%2120190227T000941.536%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-5251%2120190227T000941.536%20GMT</a> | 24<br><a href="https://announcements.asx.com.au/asxpdf/20150302/pdf/42wzybv98yqr8n.pdf">https://announcements.asx.com.au/asxpdf/20150302/pdf/42wzybv98yqr8n.pdf</a>                                                                                                                                                                                                   | 659<br><a href="https://www.rainbowrareearths.com/wp-content/uploads/2023/01/Rainbow-Investor-Presentation_February-2023.pdf">https://www.rainbowrareearths.com/wp-content/uploads/2023/01/Rainbow-Investor-Presentation_February-2023.pdf</a> |

Note:

1: Radionuclide levels are for element U and Th. Oxide to element conversion factors of 1.1792 (U to  $U_3O_8$ ) and 1.1379 (Th to  $ThO_2$ ) were used to convert to element levels where oxides were reported.

2. ASM U & Th levels is calculated as average of the reported range.

3, Northern Minerals TREC output and CAPEX based on 2015 DFS, 2016 business plan and 2018 annual report.

4. RareX uranium and thorium level is for TREO cut-off grade of 0.65% TREO of the new resource, ASX Announcement 25 January 2024.