

# Kangankunde Rare Earths Project

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A world class opportunity for Lindian and Malawi

Alwyn Vorster, Chief Executive Officer  
Africa Down Under Conference  
4-6 September 2024

ASX:LIN  
OTCQB:LINIF

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# Corporate information

Company ASX Code	<b>LIN</b>
Share Price <sup>1</sup>	<b>A\$0.115</b>
Ordinary Shares on Issue	~1.153B
Performance Rights	23.3M
Options on Issue: (Conversion value A\$20.5M)	~84M
Market Capitalisation (undiluted) <sup>1</sup>	<b>~A\$133M</b>
Cash <sup>2</sup>	~A\$13.1M

## Substantial Shareholders<sup>3</sup>

Kabunga Holdings Pty Ltd	10.90%
Bonacare Pty Ltd / Topwei Pty Ltd / Wei & Zhang	9.97%
Ven Capital Pty Ltd	9.51%
Rohan Patnaik	6.11%

Chart generated on 27/8/2024 at 1:36 pm



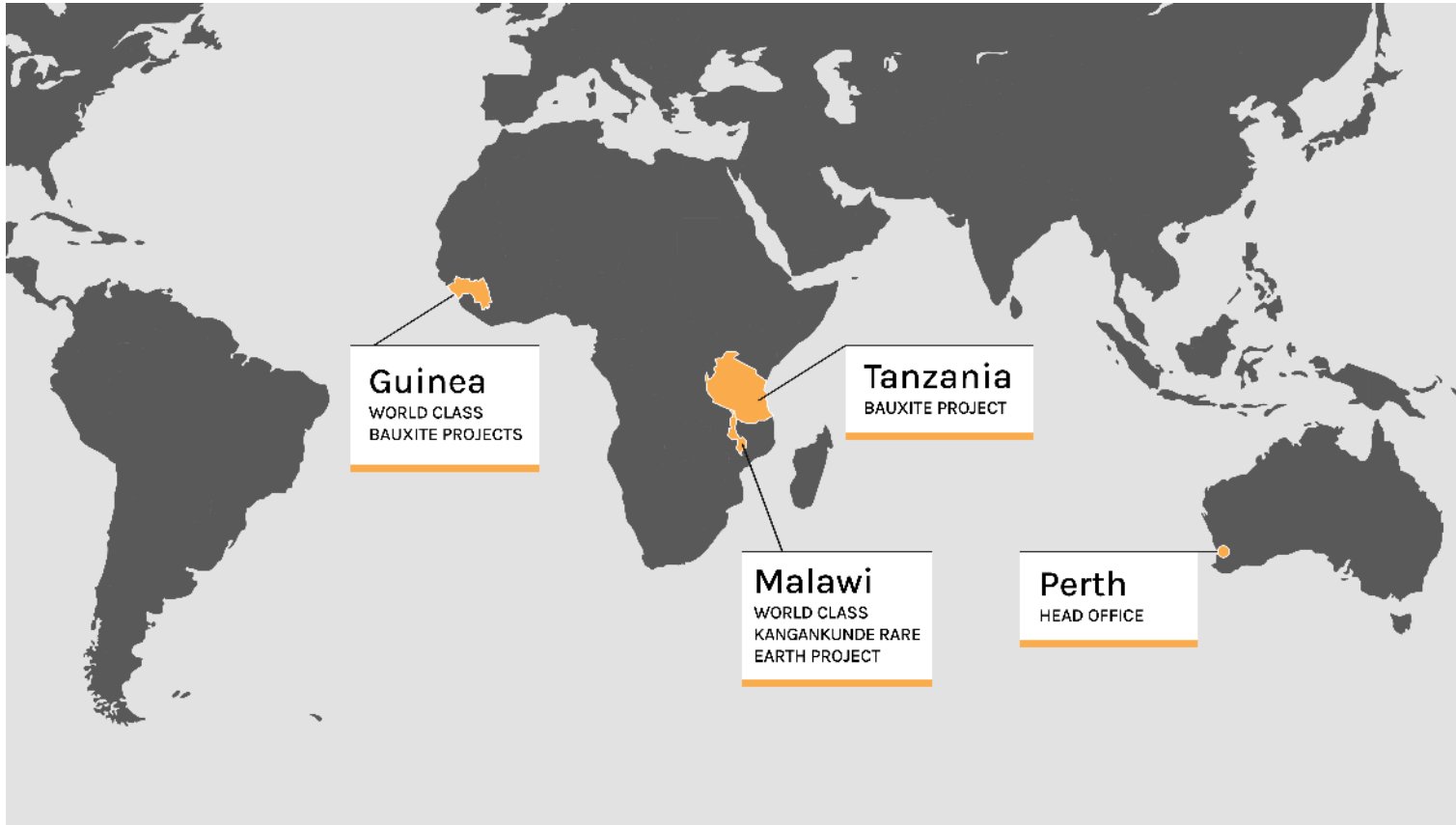
1. Based on closing share price on 26 August 2024 of \$0.115 i.e. 11.5 cents

2. Cash at 30 June 2024 per unaudited management accounts

3. As at 26 August 2024



# Lindian Projects Location



- **Rare Earths:** World class Kangankunde Project in Malawi
- **Bauxite:** Three projects in Guinea
- **Bauxite:** Exploration project in Tanzania
- **Head Office:** Perth, Western Australia

# Kangankunde Rare Earths Project

## Large; Development Ready; Expandable

1

CRUCIAL TO  
Global  
Supply



2

SUPERIOR  
Tier 1 Asset



3

LOW  
Capex &  
Opex



4

STRONG  
Return on  
Investment



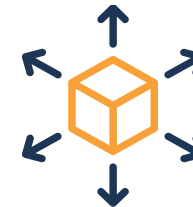
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FULLY  
Permitted



6

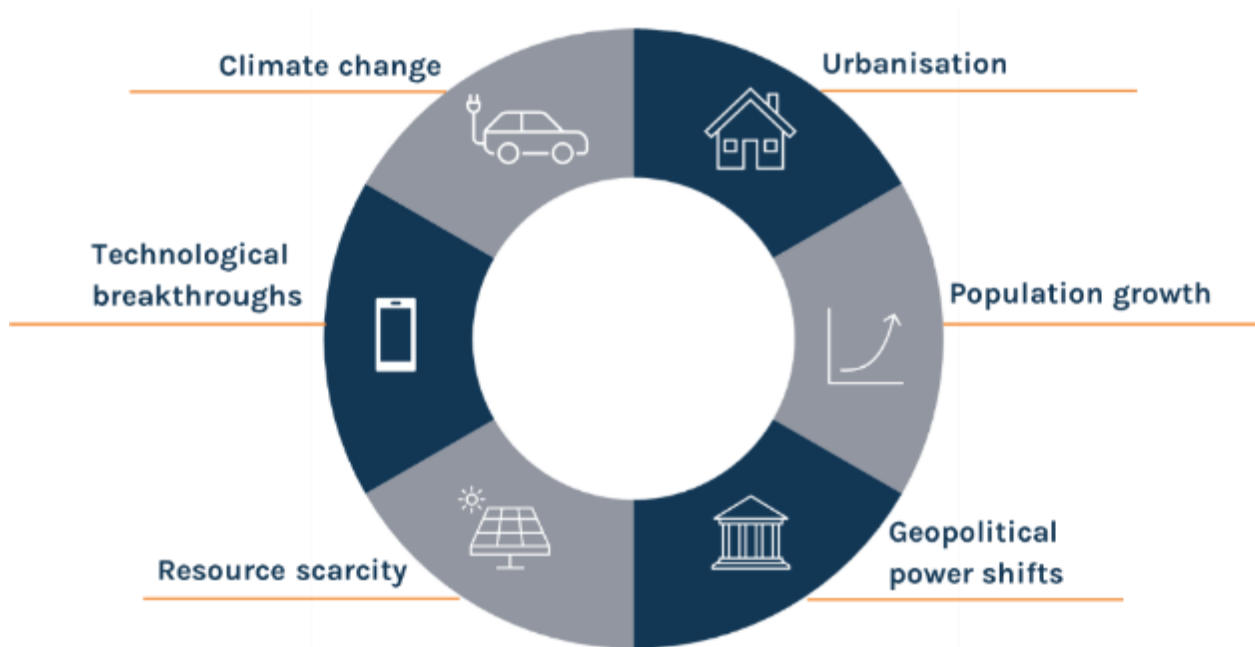
MASSIVE  
Scalable  
Asset



# What is Driving Rare Earths Demand?

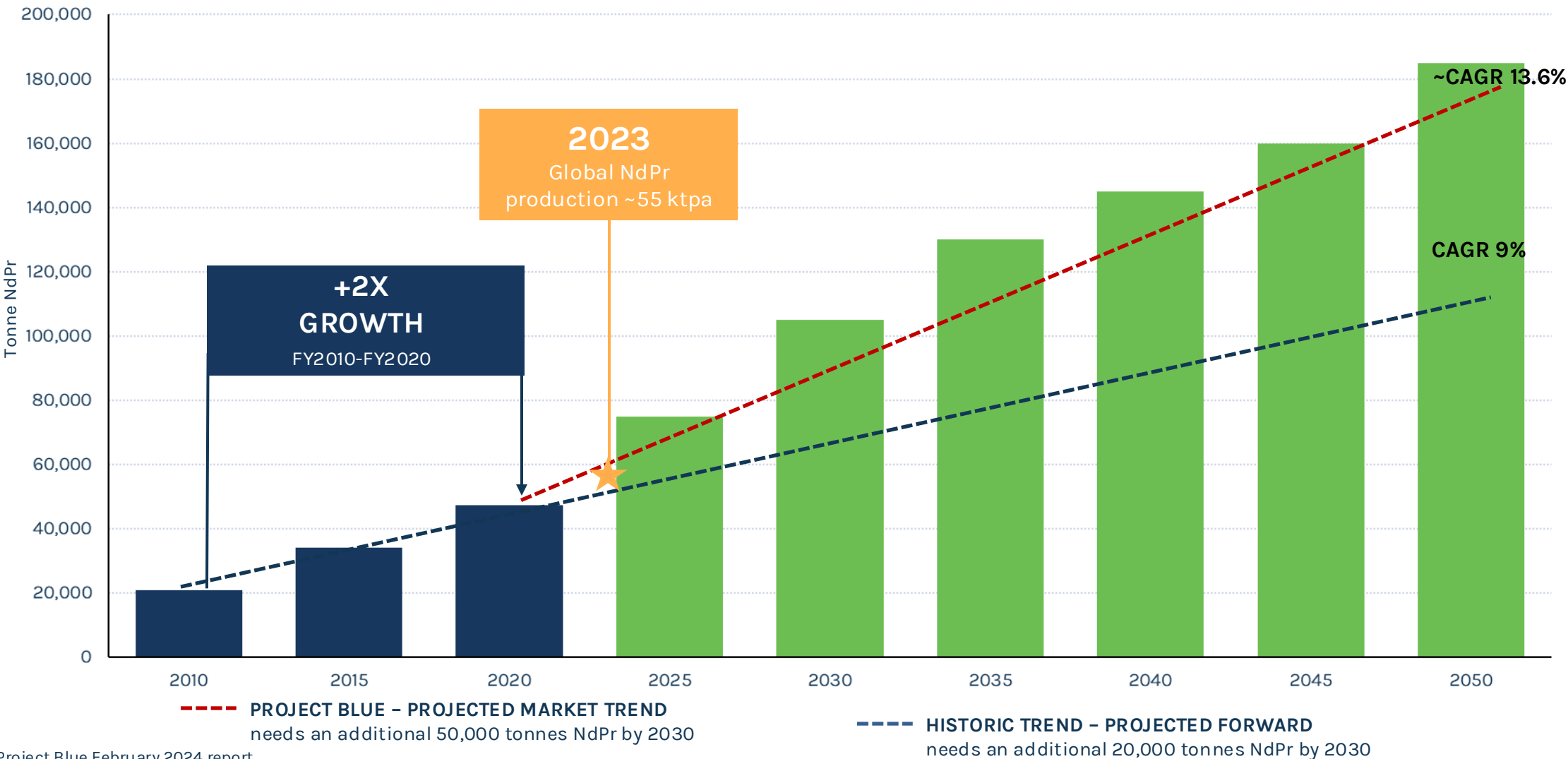
Global trends will continue to drive demand for rare earths

NdPr oxide is a critical input for NdFeB magnets used in wind turbines and electric vehicles



# NdPr Demand Forecast

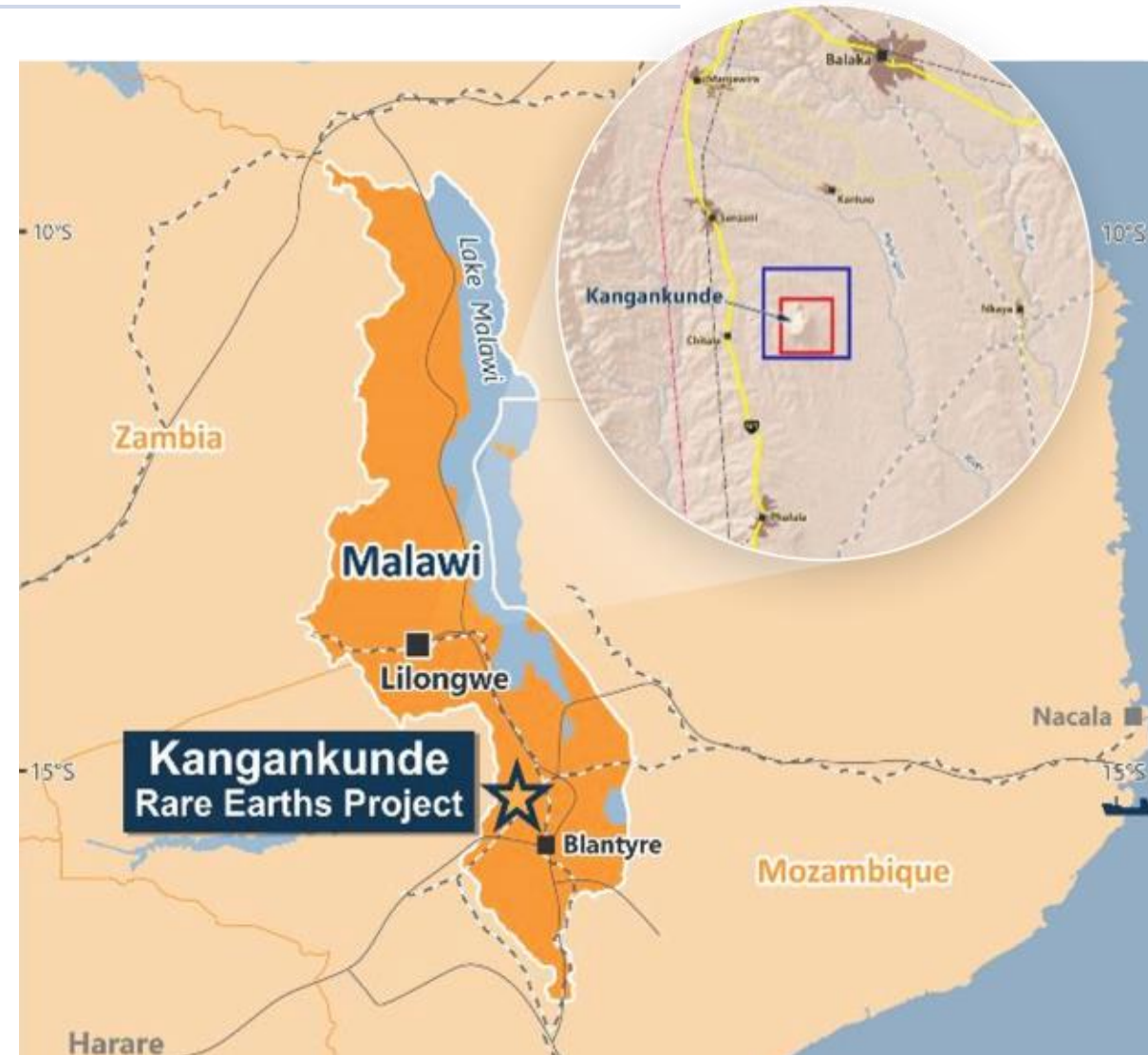
It is expected the NdPr market will triple in the period to 2050, requiring a 3x increase of 2023 supply levels



# Location & background

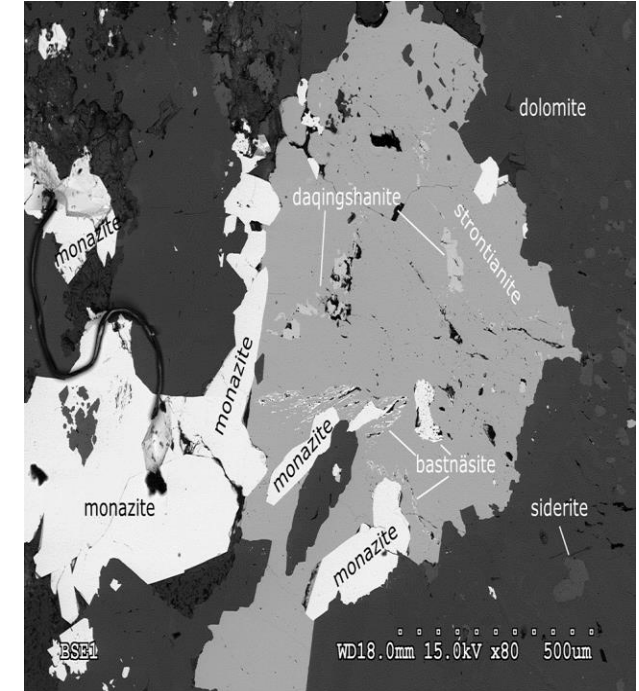
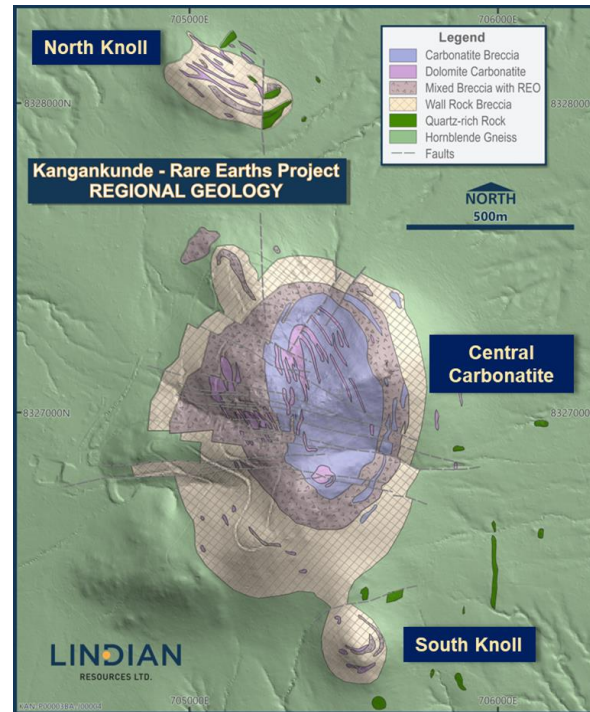
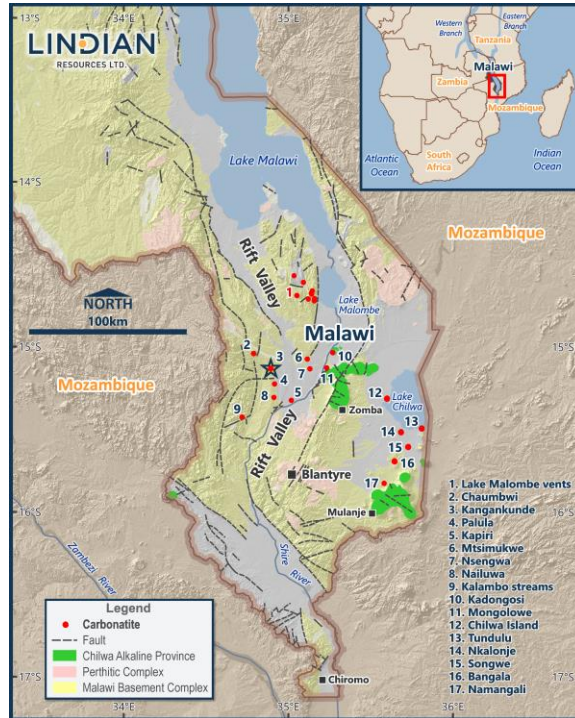
- Malawi is a stable jurisdiction with English Law and a democratically elected government.
- Kangankunde – proximity to Blantyre and Balaka.
- Timeline summary:
  - Q2 2022 - Rift Valley Resources (RVR) secures Mining Licence.<sup>1</sup>
  - Q3 2022 - Lindian shareholders agree to US\$30M acquisition of RVR in stages to reach 100%.<sup>2</sup>
  - Q3 2023 – Maiden Mineral Resource announced.<sup>3</sup>
  - Q2 2024 - Community Plan and Water Licence secured.<sup>4</sup>
  - Q2 2024 – Maiden Ore Reserves and Feasibility Study completed.<sup>5</sup>
- Current Lindian ownership of RVR is 67% with last US\$10M (for 100%) due at or before commercial production.

1. ASX announcement – 1 August 2022 “Lindian to Acquire 100% of Kangankunde Rare Earths Project”
2. ASX announcement – 27 September 2022 “Shareholders Approve Kangankunde Rare Earths Transaction”
3. ASX announcement – 3 August 2023 “Maiden Mineral Resource Estimate 261MT at 2.19% TREO average”
4. ASX announcement – 2 April 2024 “Water Permit for Kangankunde received”
5. ASX announcement – 1 July 2024 “Outstanding Kangankunde Stage 1 Feasibility Study Results”





# Kangankunde Geology

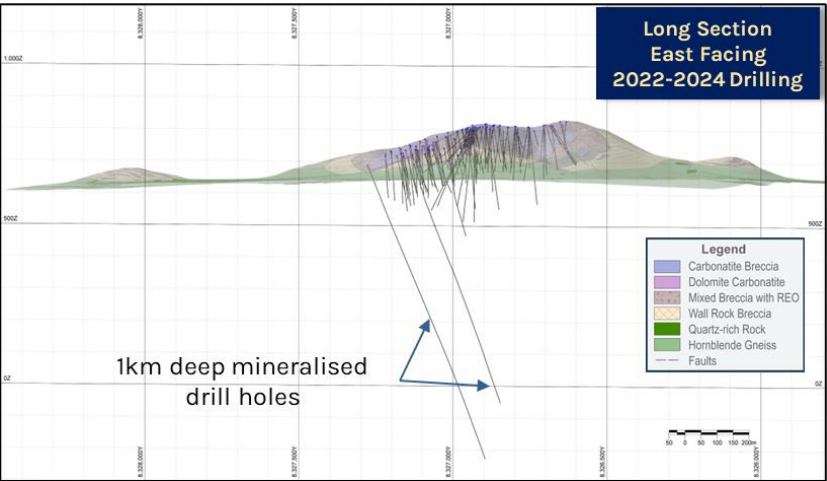
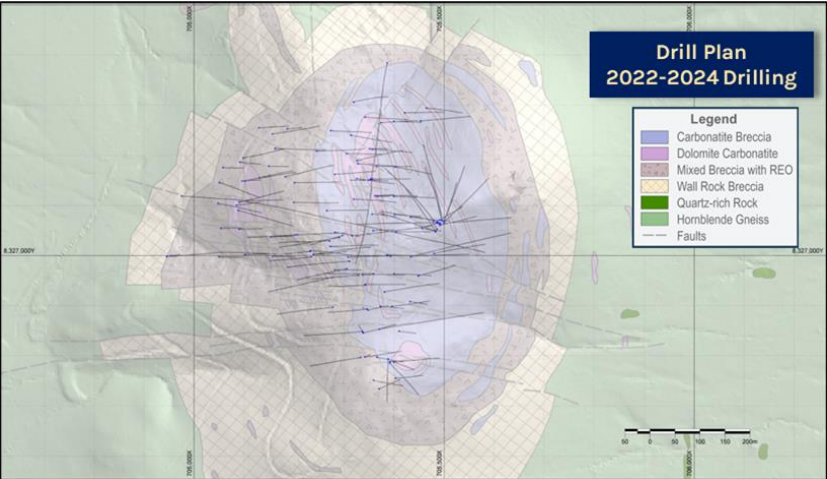


- Chilwa Alkaline Province (CAP) - southern end of the East African Rift system
- Kangankunde carbonatite intrusion is one of the largest in the CAP dated at  $123 \pm 6$  Ma
- Intruded into Precambrian Malawi Basement Complex of granites and gneisses

- Three intrusive carbonatite zones
- Core of magnesium-calcium to iron-manganese carbonatites (main REO host);
- Concentric zones of feldspathic wall rock breccia (variable REO)

- Primary ore mineral is **monazite** ((RE)PO<sub>4</sub>) with grain size up to 2mm
- Very low thorium content = very low radiation
- High density (4.6 to 5.4) differentiates for gravity or DMS separation

Sufficient Resources and Reserves to support multi decade production



400 Mt-800 Mt Exploration Target<sup>1</sup>



261 Mt Mineral Resources<sup>1</sup>



23 Mt Ore Reserves<sup>1</sup>

1. Refer detail of Exploration Target, Resources and Reserves in Appendix slide

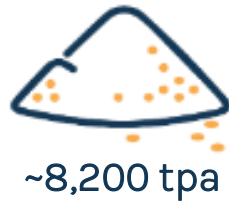
# Kangankunde Production Summary

A world-class resource to produce a high-grade concentrate containing low radionuclides (thorium & uranium) and limited acid consuming minerals



~15,300 tpa

Concentrate



~8,200 tpa

Rare Earth Oxide



~1,600 tpa

NdPr



~15 months

FID to first production



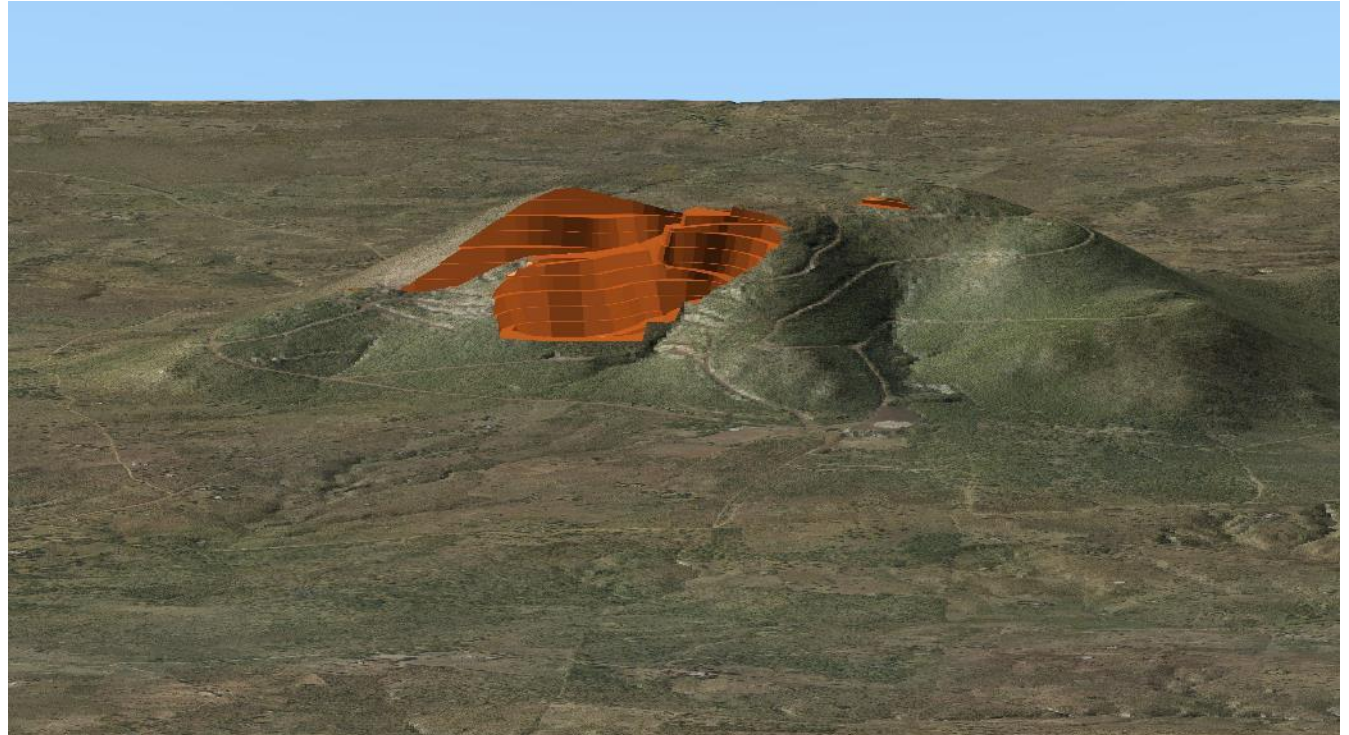
45 years

Stage 1 life of mine



Simple conventional mining operation resulting in low capex and low opex

- ~520,000 tpa ore mined
- 6 open pit mining zones
- Drill, blast, load, haul model
- Very low strip ratio (<0.2:1)
- High-grade feed at 3.1% TREO during early years
- Conventional mining equipment
- Ore hauled 2km downhill to process plant

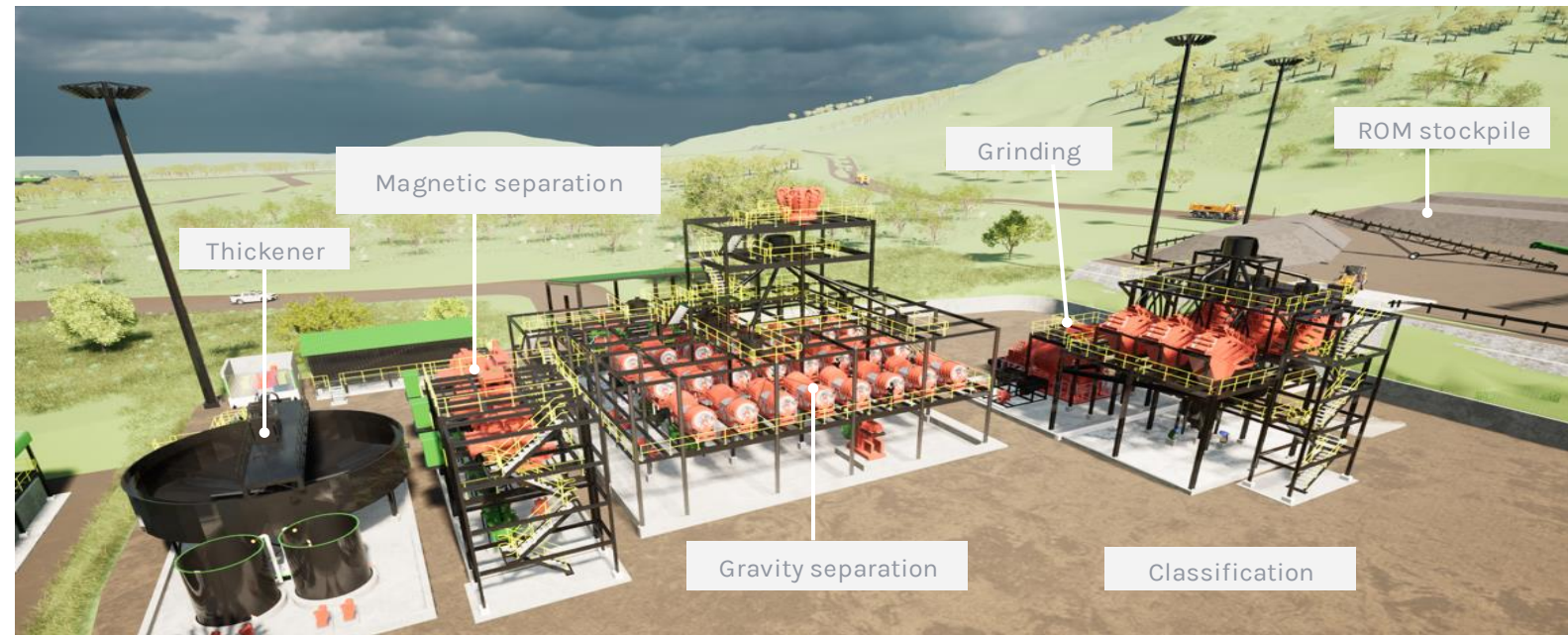




# Processing Plant

Simple conventional processing plant resulting in low capex and low opex

- ~450,000 tpa plant feed.
- Unique mineralogy allowing mainly gravity and magnetic separation.
- No (or minor) flotation circuit resulting in very low reagent consumption.
- Gravity and magnetic processes result in clean water recirculation.
- Smaller than usual tailings storage facility.
- Bagged & containerised product transported by road and rail to Nacala port or alternatives.





**~US\$40M<sup>2</sup>**

Lowest Capex among peers



**US\$2.92/kg REO<sup>2</sup> (FOB)**

Opex in lowest cost quartile



**US\$794M (A\$1,189M)<sup>1</sup>**

Pre-tax real NPV<sub>8</sub>



**99%<sup>1</sup>**

Pre-tax real IRR

## Profitable at current low prices<sup>1</sup>

	Unit	Spot Price	Years 1-5 (average)	LOM (average)
Average Price	US\$/kg NdPr	50	82	109
EBITDA	US\$M	11	57	83

<sup>1</sup> Based on Project Blue rare earth pricing forecasts. Bloomberg 26 June 2024 AUD:USD exchange rate 0.6676

<sup>2</sup> Capex and Opex based primarily on actual tender pricing, also supported by requests for proposals and industry benchmarks.



## Working with community

- Long standing relationships with local leaders and community
- Community investment – incl local school, police unit, roads
- Community Engagement Plan agreed
- Resettlement of project affected people completed – positive support from local community
- Jobs and training opportunities identified
- Small business opportunities when operational





## Fully permitted

- Environmental and Mining Licence granted
- Permitted to commence construction and operations once funding secured

## Government engagement

- Strong relationships with central and local governments
- Resettlement process strongly supported and managed by government
- Country Manager and Manager Community & Government Relations appointed





Rio Tinto shows investment confidence in Malawi

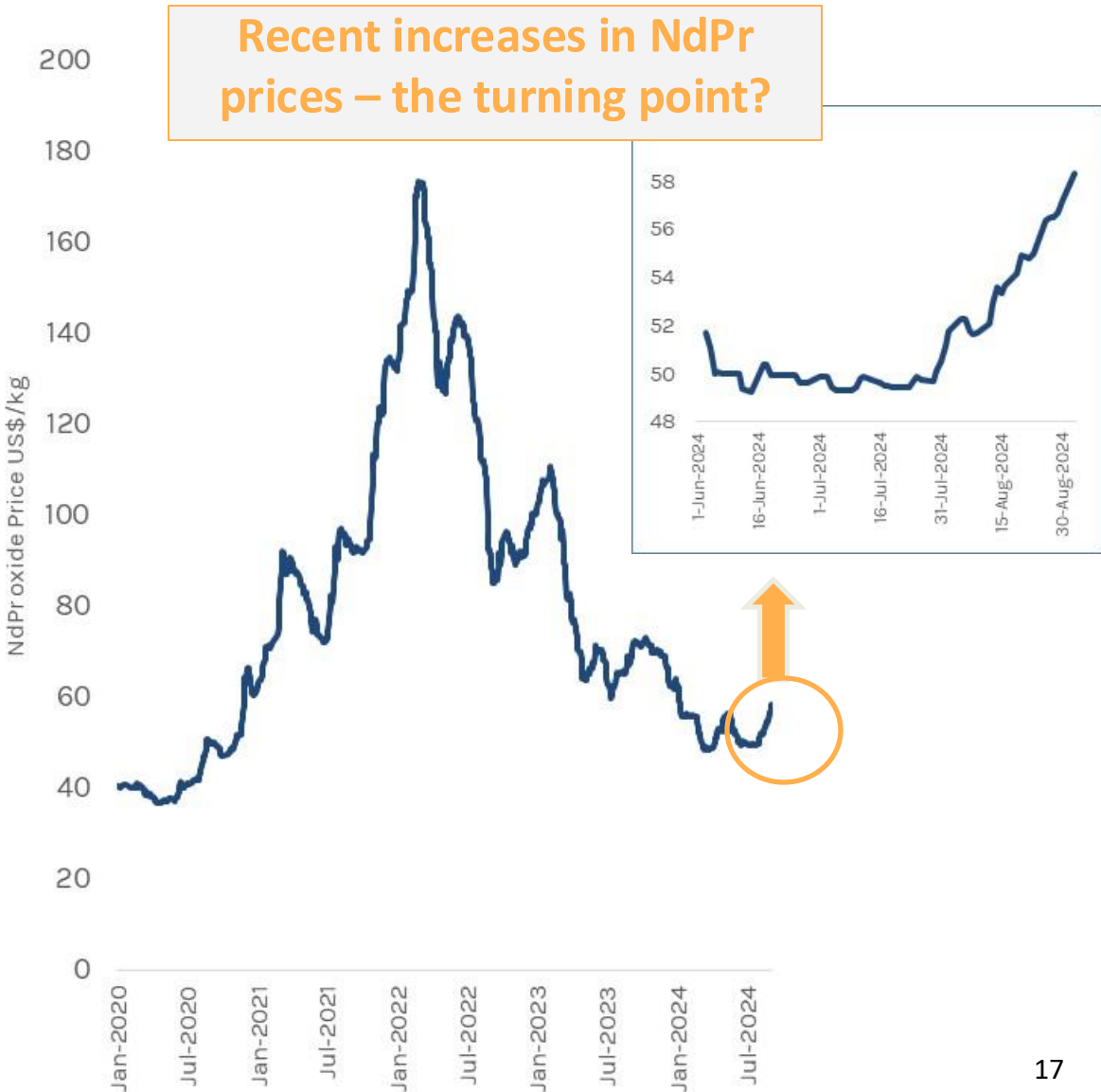
## The West Australian

Mining | Africa

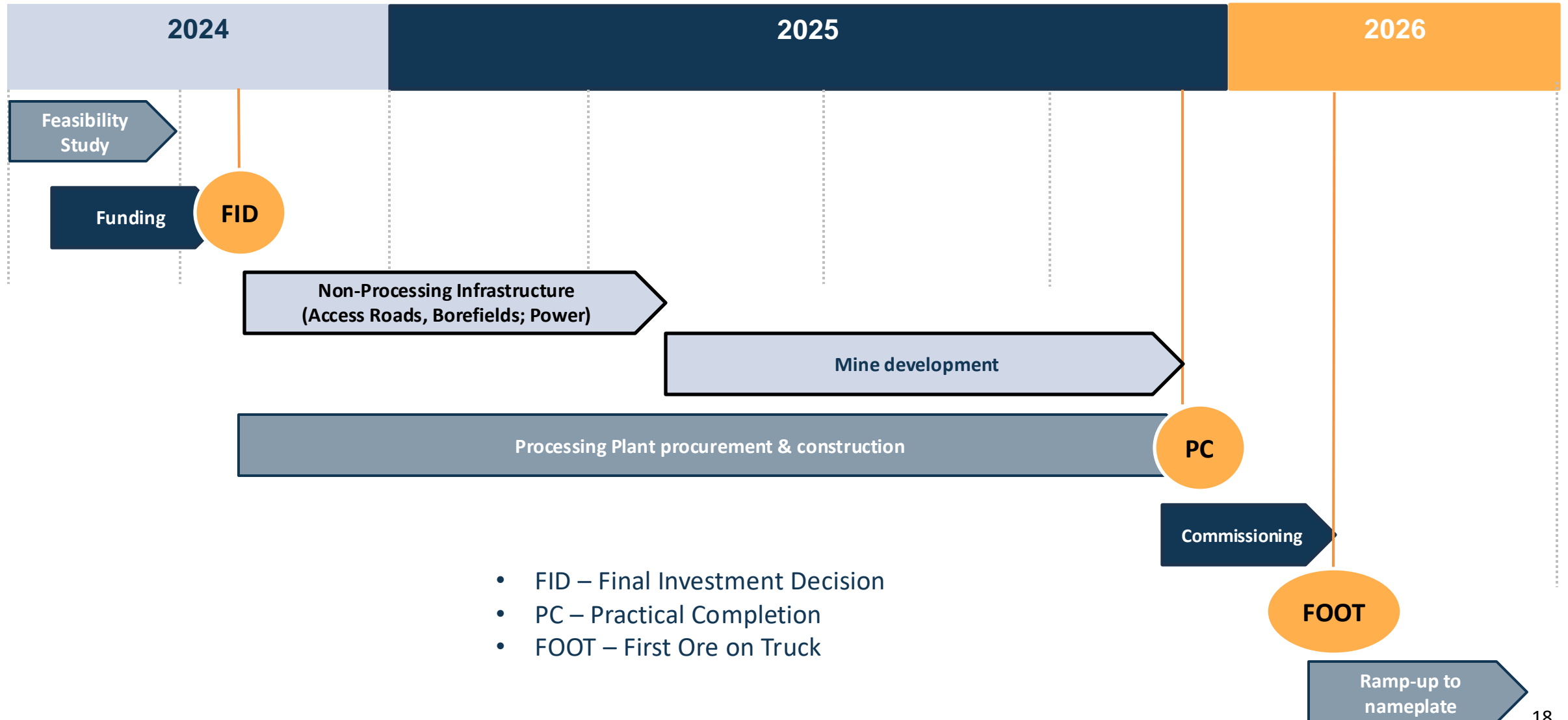
Sovereign Metals to receive \$40.4m investment from Rio Tinto with proceeds to bolster major Malawi project

Jordan Murray | The West Australian  
Mon, 17 July 2023 8:13AM

Rio Tinto will invest \$40.4 million and acquire a 15 per cent stake in Sovereign Metals, which through its Kasiya project in central Malawi controls the world's largest rutile deposit.



# Indicative project timeline



## Rare Earths: Kangankunde - Malawi

- Global tier one rare earths asset.
- Mining-friendly jurisdiction.
- Low-cost Stage 1 project.
- Robust Stage 1 project economics.
- Significant Stage 2 expansion potential.
- Short term path to production.

## Bauxite: Guinea

- Growing bauxite market.
- High-grade & high-quality assets.





# Appendices

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# Experienced leadership team

## Board



**Asimwe Kabunga**  
Executive Chairman

- Tanzanian born Australian entrepreneur
- The visionary behind the company's strategy
- Major shareholder of Lindian
- Chairman of VRC and RMI



**Yves Ocello**  
Non-Executive Director

- 45-year veteran of the bauxite and alumina industry
- Previously Technical Director at Alcan & Rio Tinto Alcan
- Previous board member of "CBG" Guinea's largest bauxite producer



**Park Wei**  
Non-Executive Director

- Investment specialist in mining, property and finance
- Chairman Pan Australia Management Pty Ltd
- China industry specialist



**Trevor Matthews**  
Executive Director - Finance

- 35-year resources industry from greenfield to mining production experience in graphite, minerals sands, iron ore
- Ex MD/CEO of Volt Resources, Murchison Metals, MZI



**Kellie Davis**  
Company Secretary

- Chartered Accountant
- Bachelor of Commerce (accounting and finance)
- Over 20 years' experience in accounting & ASX compliance

## Executive Team



**Alwyn Vorster**  
Chief Executive Officer

- 30-years mining experience from exploration, feasibility, mine development & minerals marketing
- Ex-CEO of Hastings, BCI Minerals, Iron Ore Holdings



**Jack Fazio**  
Project Director

- 30-years experience project construction globally
- Previous roles with Primero Group Limited, Laing O'Rourke and Forge Group Ltd



**Trevor Hiwa**  
Country Manager (Malawi)

- Accountable for managing in-country activities across site & corporate including compliance, government, communities & safety.
- A registered Civil Engineer with significant experience with construction and engineering companies within Africa.



**Rajesh Agrawal**  
Financial Controller

- Chartered Accountant with extensive experience in annual planning, forecasting, business analysis & statutory reporting.
- Previous roles with Sterling Wilson and Rio Tinto

# Kangankunde - Resources & Reserves

## Mineral Resource Inclusive of Reserves @ 0.5% TREO Cut-off Grade

Resource Classification	Tonnes (millions)	TREO (%)	NdPr% of TREO** (%)	Tonnes Contained NdPr* (millions)
Indicated	61	2.43	20.1	0.3
Inferred	200	2.05	20.4	0.8
<b>Total Resource</b>	<b>261</b>	<b>2.14</b>	<b>20.3</b>	<b>1.1</b>

- Rounding has been applied to 1.0Mt for tonnes and 0.1% NdPr% of TREO which may influence total calculation.
- \*NdPr =  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ , \*\* NdPr% / TREO% x 100.
- Updated Mineral Resource Estimate for Kangankunde refer ASX Announcement: 2 May 2024.

## Ore Reserve @ 1% TREO Cut-off Grade

Classification	Ore Tonnes (Mt)	TREO grade (%)	NdPr % of TREO	Contained TREO (kt)
Proved	-	-	-	-
Probable	23.7	2.9	20	676
<b>Total</b>	<b>23.7</b>	<b>2.9</b>	<b>20</b>	<b>676</b>

- Figures have been rounded to the appropriate level of precision for the reporting of Ore Reserves.
- Due to rounding, some columns or rows might not compute exactly as shown.
- Ore Reserves are stated as in-situ dry tonnes, figures are reported in metric tonnes.
- The Reserve is derived from Indicated Mineral Resources.
- The Ore Reserves are defined on the basis that inventory above a defined cut-off.
- Modifying factors applied are described in ASX release dated 1 July 2024.
- Refer ASX Announcement 5 October 2023 – Exploration Target Defined at Kangankunde.



Coarse monazite and strontianite

The information in this presentation that relates to Exploration Results, Metallurgy Results, and Mineral Resources of the Kangankunde Rare Earths Project is extracted from reports released to the Australian Securities Exchange (ASX) and which are available to view at [www.lindianresources.com.au](http://www.lindianresources.com.au) and for which Competent Persons' consents were obtained.

The Competent Persons' consents remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. Unless otherwise stated, where reference is made to previous releases of Exploration Results, Metallurgy Results and Mineral Resources in this presentation, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the Exploration Results, Metallurgy Results, and Mineral Resources included in those announcements continue to apply and have not materially changed.

The Competent Persons' consents for the Mineral Resource Estimate for Kangankunde remain in place for subsequent releases by the Company of the same information in the same form and context as originally announced, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that is not aware of any new information or data that materially affects the Mineral Resource Estimate of the Kangankunde Projects, and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed<sup>1</sup>.

The information in this presentation that relates to the Ore Reserve for the Kangankunde project is based on and fairly represents information and supporting documentation compiled by Mr David Clark, a Competent Person who is a full time employee of Minero Consulting, a company engaged by Lindian Resources. Mr Clark is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Clark has sufficient experience which is relevant to the style and mineralisation of the deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Ore Reserves (2012 JORC Code). Mr Clark does not hold any securities in Lindian and consents to the inclusion in this presentation of all technical statements based on his information in the form and context in which they appear<sup>2</sup>.

<sup>1</sup> Refer ASX announcement dated 2 May 2024 "Updated Mineral Resource Estimate for Kangankunde".

<sup>2</sup> Refer ASX Announcement dated 1 July 2024 - "Outstanding Kangankunde Stage 1 Feasibility Study Results".

The information in this presentation that relates to Mineral Resources for the Lelouma, Woula, and Gaoual Bauxite Projects in Guinea are extracted from announcements published on ASX on 6 October 2020, 22 October 2020 and 4 February 2021 respectively and are available for viewing on the Company website [www.lindianresources.com.au](http://www.lindianresources.com.au). The Company confirms it is not aware of any new information or data that materially affects the information in those original announcements and in the case of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not markedly 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.

Critical minerals for  
multi-generations



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