Powering the green transformation

Jane Morgan Management

Broker Briefing - Rare Earths and Critical Minerals

27 July 2023

Peak
RARE EARTHS

ASX: PEK

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Compliance Statement

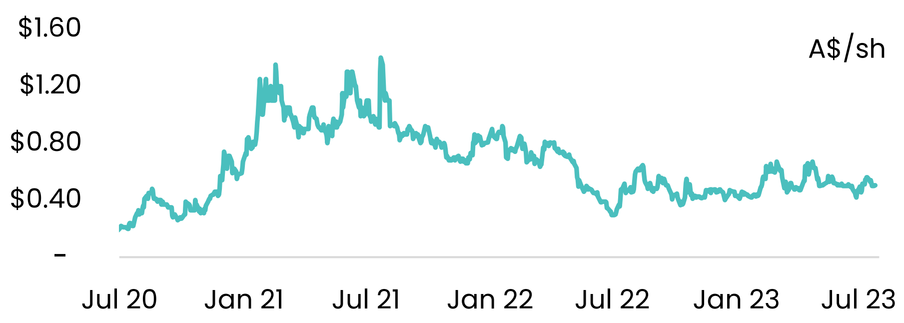
Information contained in this presentation relating to financial forecasts, production targets, infrastructure, project execution, cost estimating, metallurgical test work, exploration results, Mineral Resource estimates , Ore Reserve estimates and studies are taken from the Company's ASX announcement dated 24 October 2022 "Completion of Ngualla Project BFS Update" which is available to view on /https://www.peakrareearths.com/announcements/. Further information relating to the Mineral Resource estimates is in the ASX announcements dated 22 February 2016 and 2 March 2017 which are also available to view on /https://www.peakrareearths.com/announcements/. The Company confirms that at this time it is not aware of any new information or data that materially affects the information included in the relevant announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changed. The Company confirms that at this time the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

This presentation is authorised for release by the Company's Chief Executive Officer.

Peak Rare Earths … focused on advancing the Ngualla Project

One of the largest and highest grade undeveloped rare earth deposits in the world, with significant exploration and development upside

Share price history



Capital structure

Ordinary shares on Issue: **264.5m**	Share Price (25 July 2023): **A$0.505/sh**
Market capitalisation: **A$133.6m**	Net cash: **A$28.9m[1]**

1. Includes cash balance of A$2.8m as at 31 March 2023 and A$26.1m of net proceeds from placement completed on 20 June 2023

Peak RARE EARTHS

Peak's proposition … a compelling investment opportunity

A world class high-grade deposit with a supportive major shareholder and a de-risked sequenced strategy

1. Compelling market outlook for NdPr Oxide

- ✓ Strong nexus to global decarbonisation initiatives
- ✓ Rapid growth in EV and wind turbines to drive demand
- ✓ Near-term market tightness and strong price outlook

2. Ngualla is a world-class asset

- ✓ High grade and low radionuclides
- ✓ Multi-generational (24 years[1] based on Reserves)
- ✓ BFS confirmed a post-tax NPV_8 of US$1.5b[1]

3. De-risked, staged approach to development

- ✓ All key agreements in place - Framework Agreement executed and Special Mining Licence granted
- ✓ Sequenced approach reduces upfront capex and technical risk

4. Future development upside

- ✓ Exploration upside and resource extension
- ✓ Multi-commodity potential
- ✓ Optionality around downstream development

5. Attractive mining jurisdiction

- ✓ Rapid transformation of Tanzanian economy
- ✓ Established mining sector
- ✓ FWA grants prioritised under the current President

6. Shenghe - supportive partner and potential offtaker

- ✓ Highly experienced across the rare earth value chain
- ✓ Peak's largest shareholder (~19.8%) and offtake MOU[2] for 75-100% of Ngualla production
- ✓ Technical support and potential project investment

7. Proven leadership team

- ✓ Deep sector knowledge
- ✓ Track record in funding and delivering projects
- ✓ Tanzanian and emerging markets experience

8. Strong ESG credentials

- ✓ Committed to ESG best practices
- ✓ Strong community investment and relationships
- ✓ Significant job creation and revenue generation

1. Based on BFS Update for the Ngualla Project released on 24 October 2022.
2. See ASX announcement 19 October 2022.

Achieved milestones … progress and momentum

The Ngualla project is progressing rapidly towards development

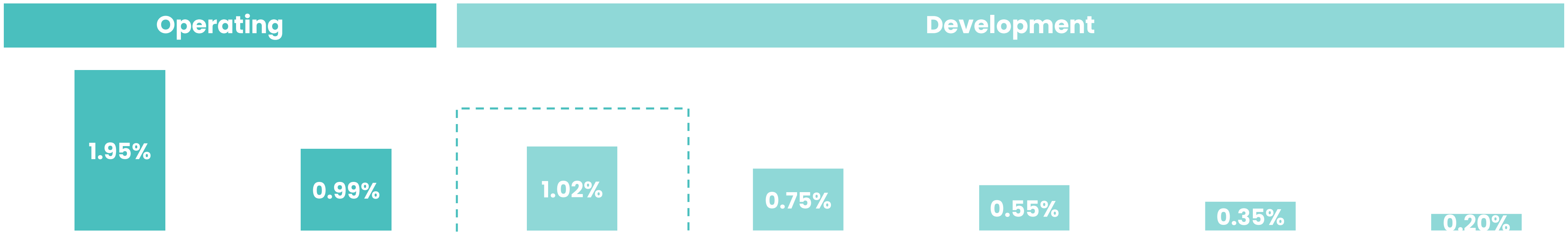
- **Aug 2022** – Appointment of Russell Scrimshaw as Executive Chairman
- **Oct 2022** – Execution of Strategic and Offtake MOU
- **Oct 2022** – Completion of BFS Update
- **Feb 2023** – Incorporation of Tanzanian entities – Mamba Minerals & Mamba Refining
- **Mar 2023** – Appointment of Ian Chambers as Non-Executive Director
- **Apr 2023** – Execution of FWA and formal grant of SML
- **May 2023** – Completion of A$27.5m equity raising
- **May 2023** – Appointment of Ray Anguelov as Head of Technical Services
- **June 2023** – Appointment of Nick Bowen as Non-Executive Director
- **June 2023** – Commencement of exploration programme
- **July 2023** – Appointment of Hannah Badenach as Non-Executive Director
- **Late 2023** – **Target Final Investment Decision**

Peak RARE EARTHS

Ore Reserves … high-grade and supporting a long mine life

The Ngualla deposit is one of the world's highest grade undeveloped NdPr deposits

%NdPr (Ore Reserve)



	1. Mt Weld	2. Mountain Pass	3. Ngualla	4. Nolans Bore	5. Longonjo	5. Yangibana	6. Songwe Hill
Owner	Lynas	MP Materials	**Peak Rare Earths**	Arafura	Pensana	Hastings	Mkango
Location	Australia	USA	**Tanzania**	Australia	Angola	Australia	Malawi
Mineral	Monazite	Bastnaesite	**Bastnaesite**	Apatite / Monazite	Monazite	Monazite	Synchysite
Status	Operating	Operating	**Development (BFS)**	Development (BFS)	Development (PFS)	Development (BFS)	Development (BFS)
Reserve	Proven – 13.7Mt Probable – 5.0Mt Total -18.6Mt	Proven – 0.3Mt Probable – 26.3Mt Total – 26.6Mt	**Proven – 17.0Mt** **Probable – 1.5Mt** **Total – 18.5Mt**	Proven – 5.0Mt Probable – 24.6Mt Total – 29.5Mt	Proven – 13.3Mt Probable – 16.8Mt Total – 30.1Mt	Proven – 4.7Mt Probable – 12.0Mt Total -16.7Mt	Proven – 8.2Mt Probable – 10.0Mt Total -18.1Mt
Market Cap (A$m)	6,285	6,225	**134**	645	159	164	32

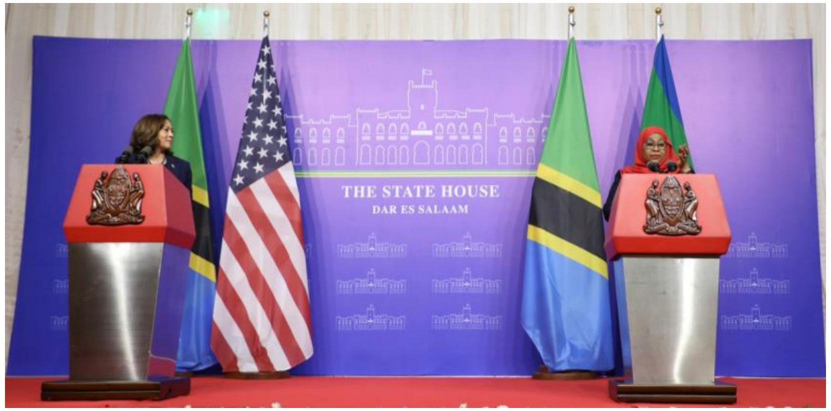
Peak RARE EARTHS

Sources: Lynas Ore Reserve – 2022 Annual Report; Lynas NdPr % - Ore Reserve Update August 2018; MP Materials Ore Reserve and NdPr % - 2022 Annual Report; Arafura Ore Reserve and NdPr % - Arafura website; Pensana Ore Reserve and NdPr % - Company Update October 2022; Hastings Ore Reserve and NdPr % - Ore Reserve Update July 2021; Mkango Ore Reserve and NdPr % - BFS (July 2022). Market capitalisation data based on share prices as at 25 July 2023.

Tanzania … open for business

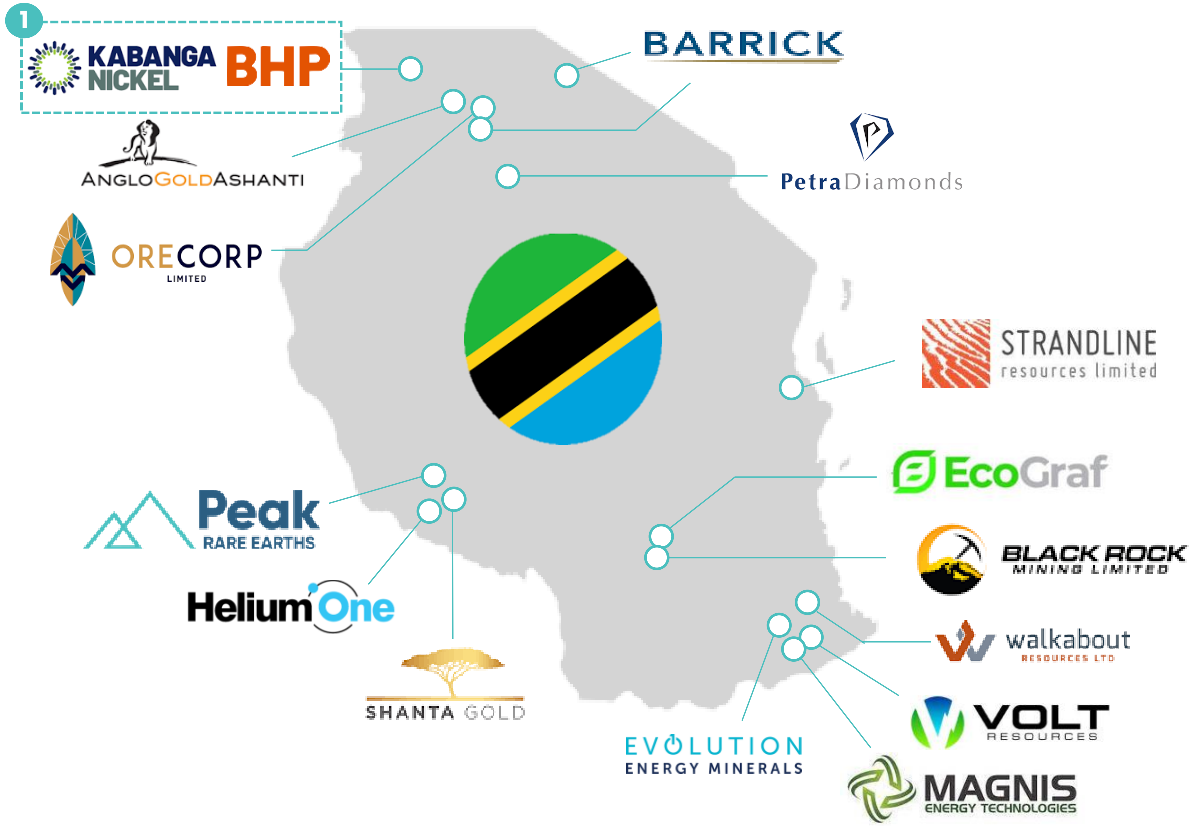
Rising international visibility and a rapidly developing mining and resources sector

US Vice President – Tanzanian State Visit, March 2023



Execution of Framework Agreement, April 2023

Tanzanian mining operations and development projects



Peak RARE EARTHS

1. BHP has an option to earn up to 51% of the Kabanga Nickel Project. To date, BHP has invested a total of US$90m into the project in exchange for a 14% project interest.

Framework Agreement[1] … investment agreement formally executed

Milestone agreement supporting robust returns and strong alignment of interests with the Government of Tanzania

Peak RARE EARTHS — 84% interest — MAMBA Minerals Corporation Limited — 16% interest — Government of Tanzania

Framework Agreement … key principles

Long-standing tenure

- Initial SML term lower of 33 years and mine life
- Ability to further extend

Right to export concentrate

- Ability to sell concentrate to third parties
- Supports staged development approach

Downstream optionality

- Independent study on a Tanzanian MREC refinery and other downstream options

Enduring economic rights

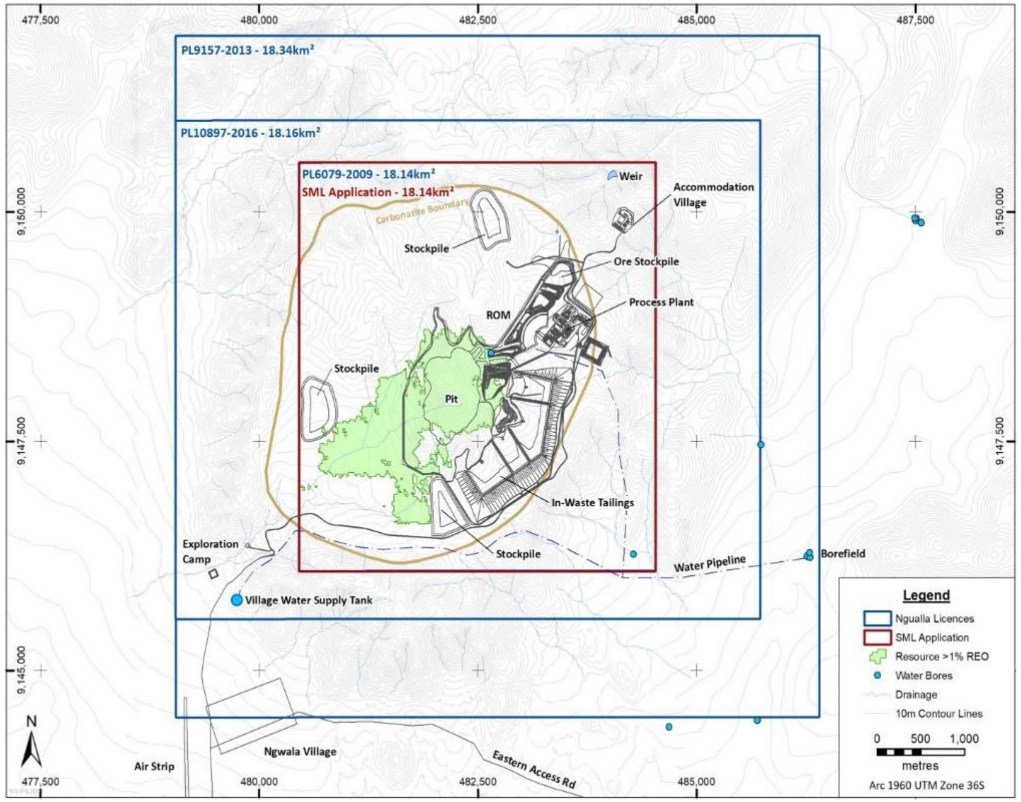
- Equity ownership of 84%
- Fiscal stability provisions

1. See ASX announcement 18 April 2023

Special Mining Licence[1] … large-scale area with a long-tenure

SML provides Peak long-standing rights to develop and operate the Ngualla Project

Ngualla Special Mining Licence (SML) and Prospecting Licence



Corporate structure

Peak Rare Earths Limited (Au and ASX Listing)

100%

Ngualla Group UK Limited (UK)

84% (Class A Shares)

Government of Tanzania

16% (Class B Shares)

MAMBA Minerals Corporation Limited

MAMBA Refinery Corporation Limited

Ngualla SML

1. See ASX announcement 26 April 2023

Shenghe partnership … offtake, strategic and technical co-operation

The Shenghe MOU supports the accelerated development of the Ngualla Project[1]

Offtake
- 75% – 100% of production from the Ngualla Project
- Initial 7 year term

Technical support
- Potential to cover both mining and beneficiation
- Leverage Shenghe's expertise across RE value chain

Project investment
- Potential project level investment by Shenghe
    - At a mutually agreed valuation

Other
- Standstill provisions in place
- Board seat subject to 10% shareholding
- Potential collaboration beyond Ngualla Project

Shenghe overview

- ✓ Peak's **single largest shareholder** with ~19.8% shareholding
- ✓ Large Chinese rare earth group with operations **spanning value chain**
- ✓ Shanghai listed non-SOE with ~**US$3.0b** market capitalisation
- ✓ **Largest importer of rare earth concentrate** into China
- ✓ Internationally recognised expertise in mining and processing **bastnaesite mineralisation**
- ✓ Key strategic partner **and ~8% shareholding in MP Materials** (NYSE:MP; market cap ~US$4.2b)
- ✓ Other overseas interests – **90% holding in Vietnam Rare Earth Company** and a **9% holding in Energy Transition Minerals (ASX:GGG)**

1. MOU is non-binding with Peak and Shenghe having agreed to negotiate in good faith a binding offtake agreement. See ASX announcement 19 October 2022.

MP Materials … also staging development

Shenghe a key strategic partner to MP through the restart of its Mountain Pass Mine

MP Materials overview

- NYSE listed with a market capitalisation of ~US$4.2b
- Operates Mountain Pass – world's second largest rare earth mine
- Currently sells a bastnaesite mineral concentrate
    - Exporting ~40ktpa of concentrate to Shenghe
- Moving downstream into NdPr Oxide and magnet production

Shenghe's contribution to MP Materials

✓ Founding investor in restart of mine and 7.7% shareholding

✓ ~US$80m in funding support (prepayment)

✓ Technical support for restart and ramp-up

✓ 100% offtaker of bastnaesite concentrate

Staged development approach

Stage I: Concentrate production (current)
- Restart of Mountain Pass Mine
- Production of bastnaesite concentrate

Stage II: NdPr Oxide production
- Restart of Mountain Refinery
- First production 2023 (~6ktpa NdPr Oxide)

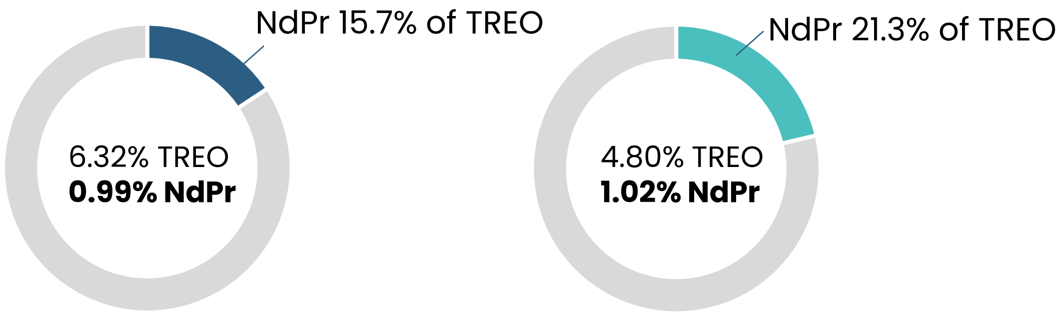
Stage III: Permanent magnet production
- Magnet facility currently under development
- Strategic development partnership with GM

MP Materials … a comparison with Peak

Peak compares favourably with MP Materials

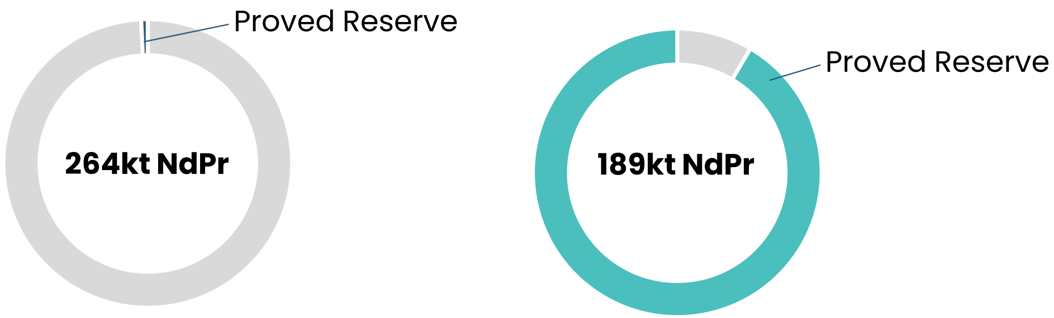
1. Ore Reserve (grade)[1,2]

Mountain Pass | **Ngualla**



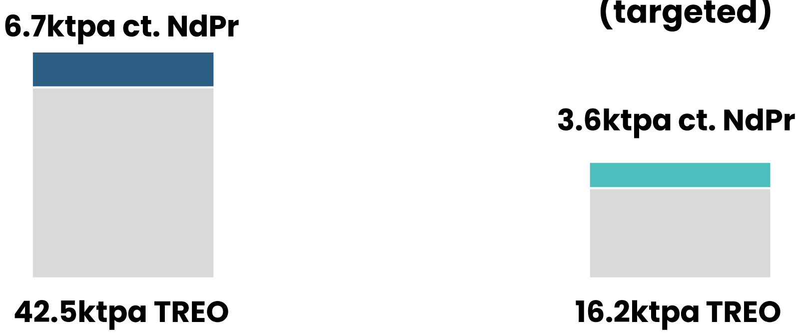
2. Ore Reserve (contained NdPr)[1,2]

Mountain Pass | **Ngualla**



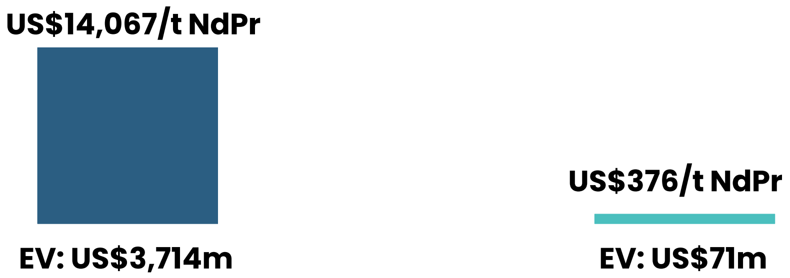
3. Bastnaesite concentrate production[2,3]

Mountain Pass | **Ngualla (targeted)**



4. Trading - Reserve (EV / Ct. NdPr) multiples[4]

MP Materials (Operating) | **Peak Rare Earths (Development)**



Operating companies will generally trade on higher multiples than development companies. MP Materials has a track-record of profitable operations, while Peak remains a development company

Peak RARE EARTHS

1. MP Materials Reserve Source – 2022 Annual Report
2. Peak Reserve and Production Target Source – BFS Update (October 2022)
3. MP Materials Production Source – 2022 Full Year Results
4. MP Materials EV based on market capitalisation (as at 25 July 2023) of US$4,218m, cash of US$1,182m and debt of US$678m (per FY2022 results), Peak EV based on market

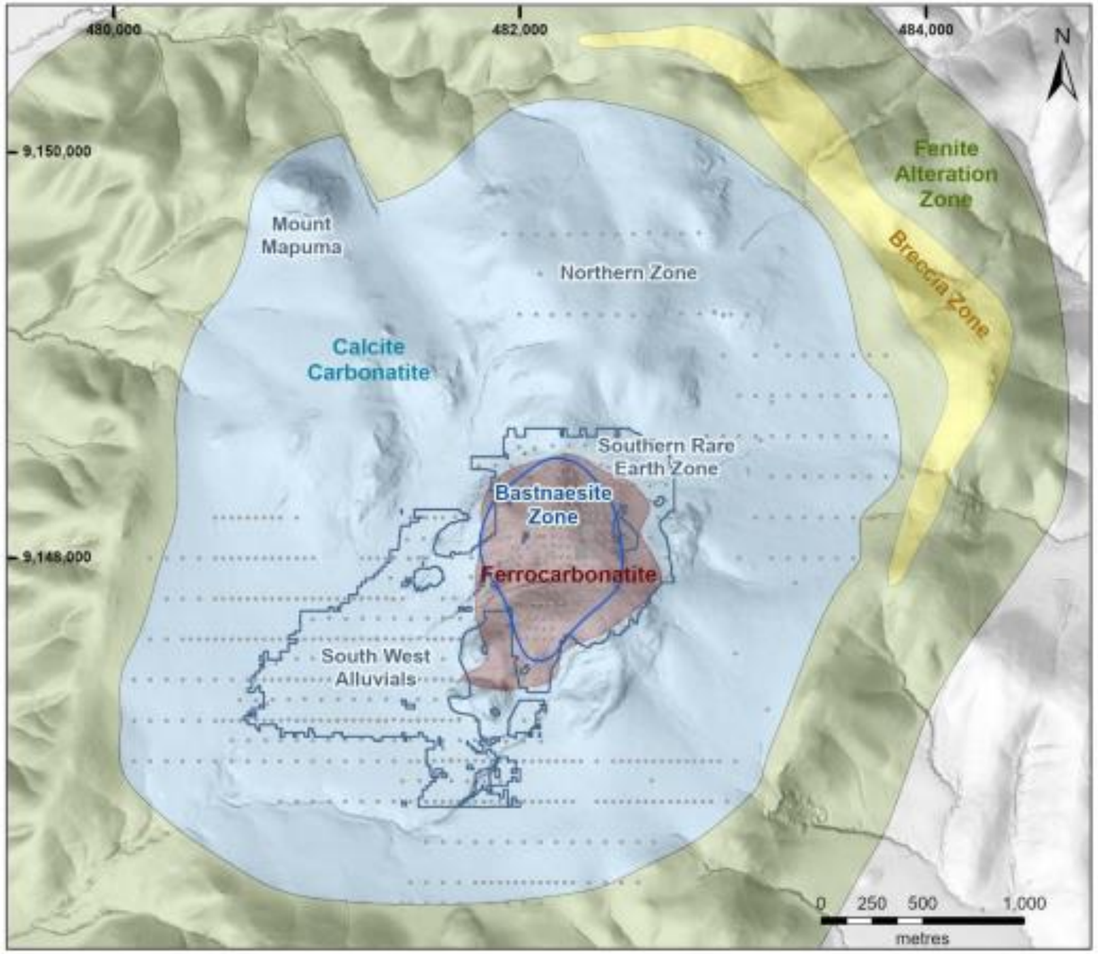
Exploration … offering additional upside

Commencement of exploration programme targeting highly prospective areas of the Ngualla deposit

Exploration overview

- No drilling undertaken at Ngualla since 2016 given focus on advancing rare earth project
- Commencement of exploration programme through H2 2023 targeting Northern Zone and Breccia Zone of Ngualla deposit
- Targeting 40 RC drill holes for ~4,000m of drilling
- SRK engaged to develop conceptual model of Northern Zone

1. Northern Zone	2. Breccia Zone
Phosphate	Fluorspar (Fluorite)
Niobium	Monazite
Monazite	Other Commodities?
Heavy Rare Earths	



Ngualla … up to and beyond FID

Targeted future milestones and potential newsflow through the next six months

Construction	Technical	Funding	Exploration	Offtake
Commencement of early works	Completion of FEED and optimisation initiatives	Appointment of Mandated Lead Arranger (MLA)	Conceptual model and Exploration Target	Binding offtake
Appointment of EPC / EPCM lead	Technical collaboration	Finalisation of term-sheets	Drilling and assay results	Partnerships targeting other commodities
Execution of construction contract	Advancement of downstream options	Strategic partners / project-level investment	Reconnaissance work around other areas of Ngualla deposit	

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