NORTHERN MINERALS

For personal use only

Becoming an Important Supplier of Dysprosium & Terbium for a Globally Sustainable Future

Diggers & Dealers Mining Forum

8 August 2023

ASX NTU

Disclaimer

This investor presentation ("Presentation") has been prepared by Northern Minerals Limited (ACN 119 966 353) ("Northern Minerals"). The information contained in this Presentation or subsequently provided to any recipient of this Presentation whether orally or in writing by or on behalf of Northern Minerals or its respective employees, agents or consultants is provided to the recipient on the terms and conditions set out in this notice. By attending an investor presentation or briefing, or accepting, accessing or reviewing this Presentation, you acknowledge and agree to the terms set out below.

Past performance

Past performance, including past share price performance of Northern Minerals and historical financial information if provided in this Presentation, is provided for illustrative purposes only and should not be relied upon as (and is not) an indication of Northern Minerals' views on its future financial performance or condition. Past performance of Northern Minerals cannot be relied upon as an indicator of (and provides no guidance as to) the future performance of Northern Minerals. Nothing contained in this Presentation, nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee, whether as to the past, present or future.

Future performance and forward-looking statements

This Presentation contains certain "forward-looking statements". The words "expect", "anticipate", "estimate", "intend", "believe", "guidance", "should", "could", "may", "will", "predict", "plan" and other similar expressions are intended to identify forward-looking statements. Any indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Forward-looking statements, opinions and estimates provided in this Presentation are based on assumptions and contingencies that are subject to change without notice and involve known and unknown risks and uncertainties and other factors that are beyond the control of Northern Minerals, its directors and management including any further impacts of COVID-19 on Northern Minerals' continued trading and operations. This includes statements about market and industry trends, which are based on interpretations of current market conditions.

You are strongly cautioned not to place undue reliance on forward-looking statements, particularly in light of the current economic climate and the associated volatility, uncertainty and disruption.

Forward-looking statements are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. Actual results, performance or achievements may differ materially from those expressed or implied in such statements and any projections and assumptions on which these statements are based. These statements may assume the success of Northern Minerals' business strategies, whether the success is realised in the period for which the forward-looking statement may have been prepared or otherwise. No representation or warranty, express or implied, is made as to the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters contained in this Presentation. The forward-looking statements are based on information available to Northern Minerals as at the date of this Presentation. Except as required by law or regulation (including the ASX Listing Rules), none of Northern Minerals, its representatives or advisers undertakes any obligation to provide any additional or updated information whether as a result of a change in expectations or assumptions, new information, future events or results or otherwise.

Effect of rounding

A number of figures, amounts, percentages, estimates, calculations of value and fractions in this Presentation are subject to the effect of rounding. Accordingly, the actual calculation of these figures may differ from the figures set out in this Presentation.

No offer of securities

Nothing in this Presentation should be construed as either an offer or a solicitation of an offer to buy or sell any securities, or a solicitation of any vote or approval, in any jurisdiction, or be treated or relied upon as a recommendation or advice by Northern Minerals. No offer of securities shall be made in the United States absent registration under the U.S. Securities Act of 1933, as amended, or pursuant to an exemption from, or in a transaction not subject to, such registration requirements.

Reliance on third party information

The views expressed in this Presentation contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. This Presentation should not be relied upon as a recommendation or forecast by Northern Minerals.

For personal use only

Disclaimer

Reporting Requirements for Mineral Resources and Ore Reserves

As an Australian public company with securities listed on the ASX, Northern Minerals is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act 2001(Cth) and the ASX Listing Rules. Investors should note that it is a requirement of the ASX Listing Rules that the reporting of Mineral Resources and Ore Reserves in Australia is in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (“JORC Code”) and that Northern Minerals’ Mineral Resource and Ore Reserve estimates and reporting comply with the JORC Code.

Compliance Statement

Competent Person Statement

The information in this document that relates to Mineral Resources and Ore Reserves has been extracted from Northern Minerals’ ASX announcement titled “Updated Wolverine Mineral Resource estimate at Browns Range” dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU" (“original release”).

Northern Minerals confirms that it is not aware of any new information or data that materially affects the information included in the original release and that all material assumptions and technical parameters underpinning the estimates in the original release continue to apply and have not materially changed.

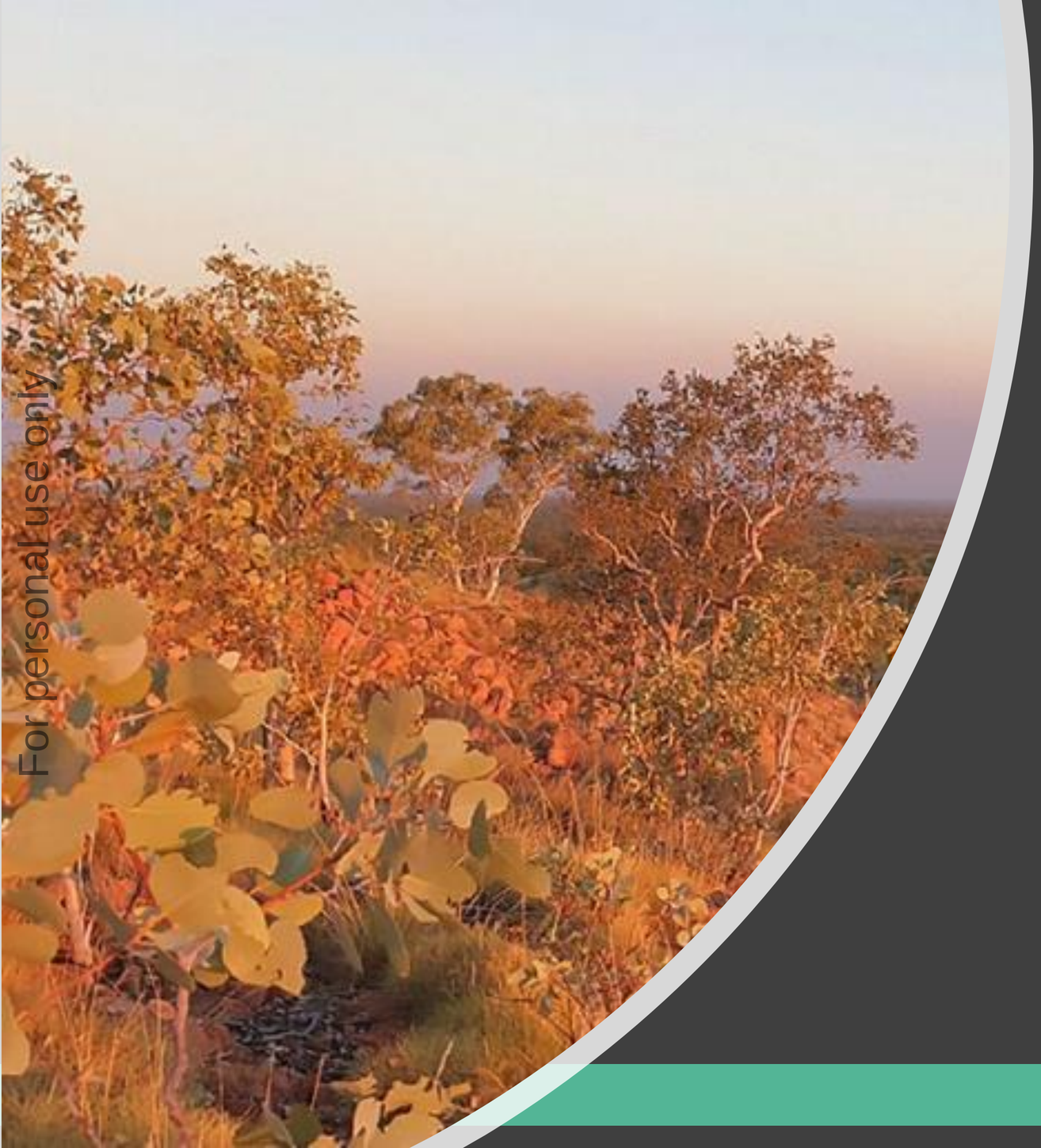
Northern Minerals confirms that the form and context in which the Competent Person findings are presented have not been materially modified from the original release.

References to “TREO” and “HREO” have the following meanings:

TREO = Total Rare Earth Oxides – La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3

HREO = Heavy Rare Earth Oxides – Total of Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3

For personal use only



For personal use only

Acknowledgement of Country

We acknowledge the Traditional Custodians of the lands upon which we operate, the Jaru, Purnululu, Tjurabalan and Malarngowem peoples. We recognise their unique cultural heritage, beliefs and connection to these lands, waters and communities.

We pay our respects to all members of these Indigenous communities, and to Elders past, present and emerging. We also recognise the importance of continued protection and preservation of cultural, spiritual and educational practices.

We recognise and respect that there are areas of special heritage and cultural significance and continue to honour our agreement with the Jaru community when managing land clearing, protecting heritage values, and environmental management and reporting.

As we value treating all people with respect, we are committed to building successful and mutually beneficial relationships with the Traditional Custodians throughout our areas of operation.

Investment Highlights

High-grade orebody, experienced management and a clear path to production places Browns Range as one of Australia's premier rare earths projects

- **Browns Range Project has the highest-grade** dysprosium ("**Dy**") and terbium ("**Tb**") orebody globally, essential for high-performance permanent magnets used in electric vehicles, windfarms and a diverse range of essential industrial and defence applications
- Long-term **supply and funding partnership with Iluka** covering 100% of production up to a maximum of 5.5ktpa and 30.5kt in total
- **High confidence in processing and metallurgy** resulting from the three-year operation of a large-scale c.$80m pilot plant, as well as other feasibility studies completed to date
- **Highly experienced board and management** led by Nick Curtis, previous Executive Chairman of Lynas, with market-leading knowledge in developing and operating rare earths projects
- **Located in Western Australia – Tier 1 mining jurisdiction**, with access to infrastructure
- **All primary approvals secured** to progress through to Final Investment Decision ("**FID**")
- **Strong market fundamentals** driven by acceleration of global electrification and decarbonisation efforts, with price upside exposure maintained via the Iluka supply agreement
- **Decision to produce** a **c.25% TREO rare earth concentrate**, rather than a more processing-intensive carbonate, accelerates and simplifies the pathway to production
- **Longstanding relationship with the fully determined native title holders**, the Jaru Aboriginal Corporation RNTBC, where since 2007, Northern Minerals has provided surveying and exploration work, in addition to education and training initiatives
- **Clear path to production** – Completion of updated Definitive Feasibility Study ("DFS") expected during Q4 2023, FID in Q1 2024, construction through 2024/2025, commissioning from Q4 2025 and targeting first production in 2026

For personal use only

Company Snapshot

Project Overview

66 Dy Dysprosium 162.500

65 Tb Terbium 158.92535

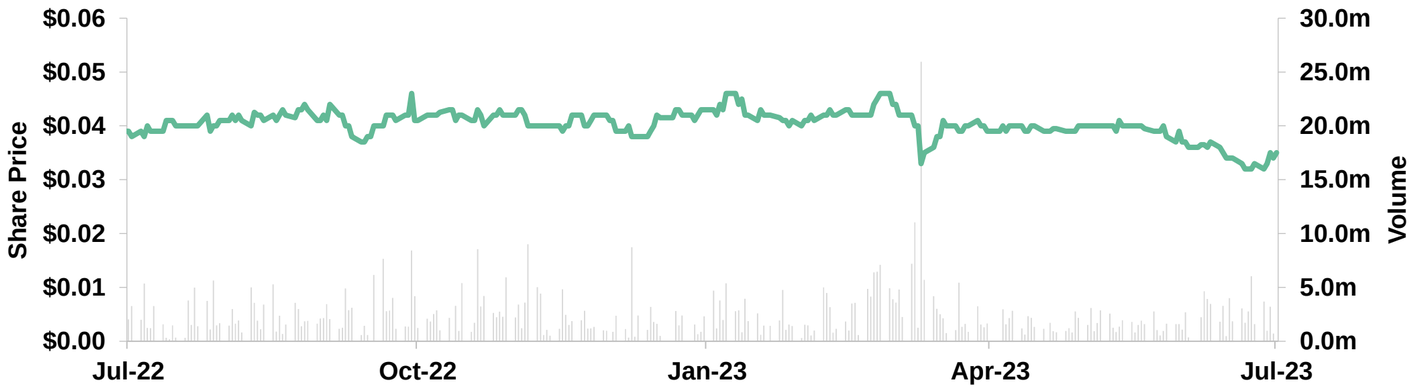
- Northern Minerals (ASX:NTU) has owned the Browns Range Rare Earths Project ("**Project**") for c.16 years, with c.$73m committed to exploration and >134,000m of drilling to date within the Project area.
- High-grade Wolverine deposit underpins the initial life of mine, with significant opportunity to develop adjacent deposits.
- Binding supply agreement with Iluka for 100% of planned production over the initial life of mine to feed the Eneabba Rare Earths Refinery.
- The elevated concentration of heavy rare earths, uniquely places the Project to complement the output of other light rare earth projects in the development of a robust new independent supply chain.
- Well-understood flowsheet significantly proven by the operation of a large-scale three-year pilot plant.

Market Capitalisation[1]	Share Price[1]	Shares on Issue[1]	Options[1]	Cash[2]
A$177.9m	A$0.035	5.08b	251m	A$11.7m

Board of Directors

Executive Chairman	Nick Curtis
Finance Director	Shane Hartwig
Executive Director	Bin Cai
Non-Executive Director	Adam Handley
Non-Executive Director	Liangbing Yu

Share Price Performance



1) Trading data as at 7 August 2023 (excludes Performance Shares and Iluka Convertible Note, Tranche B Shares and Put/Call Shares)
2) As at 30 June 2023

For personal use only

NORTHERN MINERALS

Rare Earths Global Market Opportunity

For personal use only

Image: Browns Range Pilot Plant

ASX NTU

Supplying a Sustainable Future

Dysprosium & Terbium are critical inputs across multiple applications

Electric Vehicles

59 Pr Praseodymium 140.90766 | 60 Nd Neodymium 144.242 | 62 Sm Samarium 150.36 | 65 Tb Terbium 158.92535 | 66 Dy Dysprosium 162.500

Wind Turbines

59 Pr Praseodymium 140.90766 | 60 Nd Neodymium 144.242 | 62 Dy Dysprosium 162.500

Smartphones

59 Pr Praseodymium 140.90766 | 60 Nd Neodymium 144.242 | 62 Sm Samarium 150.36 | 65 Tb Terbium 158.92535 | 66 Dy Dysprosium 162.500

Defence

59 Pr Praseodymium 140.90766 | 60 Nd Neodymium 144.242 | 62 Sm Samarium 150.36 | 65 Tb Terbium 158.92535 | 66 Dy Dysprosium 162.500

LCD Screens and Displays

59 Y Yttrium 88.906 | 60 Ce Cerium 140.116 | 62 Eu Europium 151.964 | 65 Tb Terbium 158.92535

Heavy Rare Earths

62 Sm Samarium 150.36 | 63 Eu Europium 151.964 | 64 Gd Gadolinium 157.25 | 65 Tb Terbium 158.92535 | 66 Dy Dysprosium 162.500 | 67 Ho Holmium 164.93033 | 68 Er Erbium 167.259 | 69 Tm Thulium 158.93422 | 70 Yb Ytterbium 173.045 | 71 Lu Lutetium 174.9668 | 39 Y Yttrium 88.906

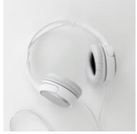
Light Rare Earths

57 La Lanthanum 138.90547 | 58 Ce Cerium 140.116 | 59 Pr Praseodymium 140.90766 | 60 Nd Neodymium 144.242

Energy Saving Light Bulbs

39 Y Yttrium 88.906 | 63 Eu Europium 151.964

Speakers & Headphones



59 Pr Praseodymium 140.90766 | 60 Nd Neodymium 144.242 | 64 Gd Gadolinium 157.25

For personal use only

Governments Globally Support REE's

Countries globally continue to implement strategies to secure rare earth elements

United States – Inflation Reduction Act

US $400b committed to reducing climate change including securing supply chains for rare earths[1]

EU – Critical Raw Minerals Act

Critical raw materials are indispensable for a wide set of strategic sectors including the net zero industry, the digital industry, aerospace, and defense sectors. [2]

Australia – Critical Minerals Strategy

A framework to grow Australia's critical minerals sector, with Iluka receiving a $1.25Bn loan to build Eneabba[3]

Canada – Critical Minerals Strategy

Increase supply of critical minerals with rare earths prioritised as 1 of 6 critical commodities for initial strategy[4]

Japan – National Security Strategy

Rare earths included in strategy to reduce Japan's dependence to secure stable supply for critical minerals[5]

1) https://www.mckinsey.com/industries/public-sector/our-insights/the-inflation-reduction-act-heres-whats-in-it
2) https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1661
3) https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030
4) https://www.canada.ca/content/dam/nrcan-rncan/documents/critical-minerals-discussion-paper-eng-2.pdf
5) https://www.cas.go.jp/jp/siryou/221216anzenhoshou/nss-e.pdf

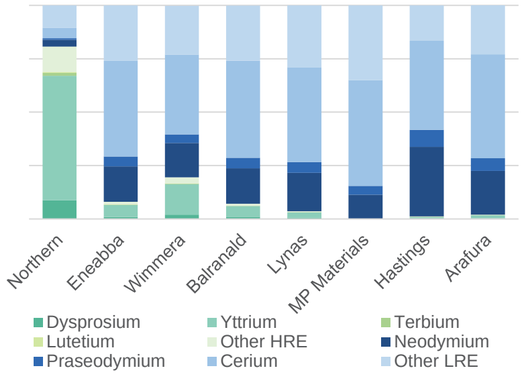
For personal use only

Rare Earth Basket & Market Opportunity

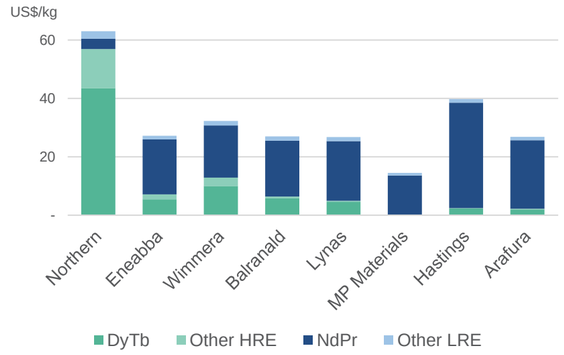
Mineralisation at Wolverine has a uniquely high share of heavy rare earths, including dysprosium and terbium, which are critical inputs to enable electrification

- **Permanent magnets are at the heart of electrification** through their ability to power high performance motors for electric vehicles, generators for windfarms, and a diverse range of essential industry and defence applications
- **A lack of supply of Dy and Tb is currently a key constraint** in demand growth ex-China for high performance permanent magnets. Significant ex-China production of Dy and Tb will itself drive additional permanent magnet demand by facilitating growth of a newly established supply chain
- **Dy and Tb are required to retain magnetic properties** at high temperature ranges, critical for operational reliability.
- **Rare earths at Browns Range mostly occur in the mineral xenotime**, which is a rich source of Dy, Tb and other heavy rare earths.
- Wolverine is understood to be the **highest grade Dy and Tb orebody in Australia**
- **China and Myanmar currently mine >90% of the world's Dy and Tb** and China provides c.95% of the world's permanent magnets (2)
- **Forecasters expect there will be insufficient Dy and Tb to supply projected demand** and expect a shortage equal to 2-3x 2021 global output by 2035 (2)

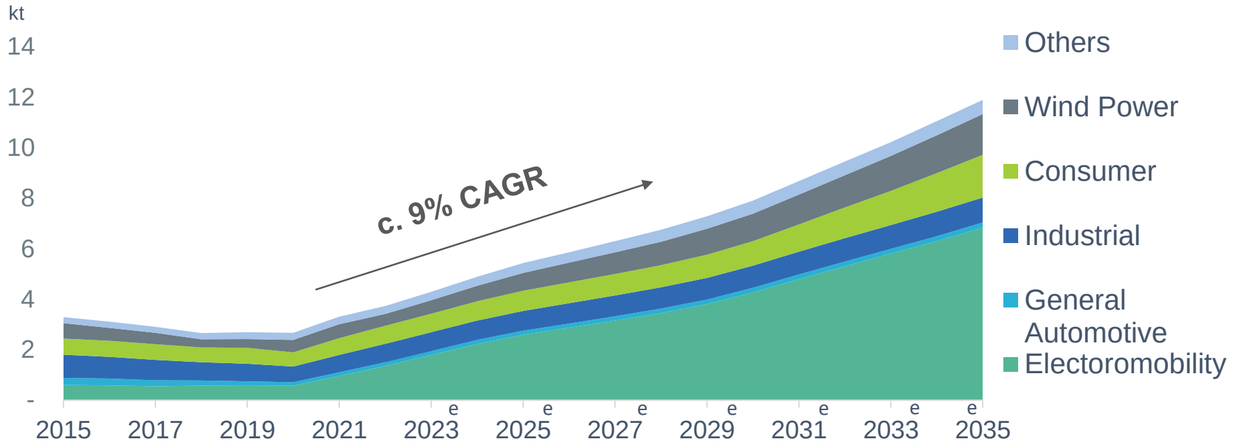
Rare earths assemblage by volume % split[1]



Rare earths assemblage relative basket value[1]



Dy and Tb oxide historical and forecast demand[2]



1 - Source data: NTU ASX announcement, Updated Wolverine Mineral Resource estimate at Browns Range, 10 October 2022; Iluka BofA Global Metals and Mining Conference Presentation, 18 May 2023; HAS ASX announcement, Yangibana Project NPV increases 84% to A$1Billion (post tax), 21 February 2022; ARU ASX announcement, Nolans Project Definitive Feasibility Study, 7 February 2019; Based on spot prices Asian Metals (15/03/23)

2 - Adamas Intelligence Rare Earth Magnet Market Outlook Q2 2022

For personal use only

NORTHERN MINERALS

Browns Range Rare Earths Project
Dysprosium & Terbium

Image: Browns Range Pilot Plant

ASX NTU

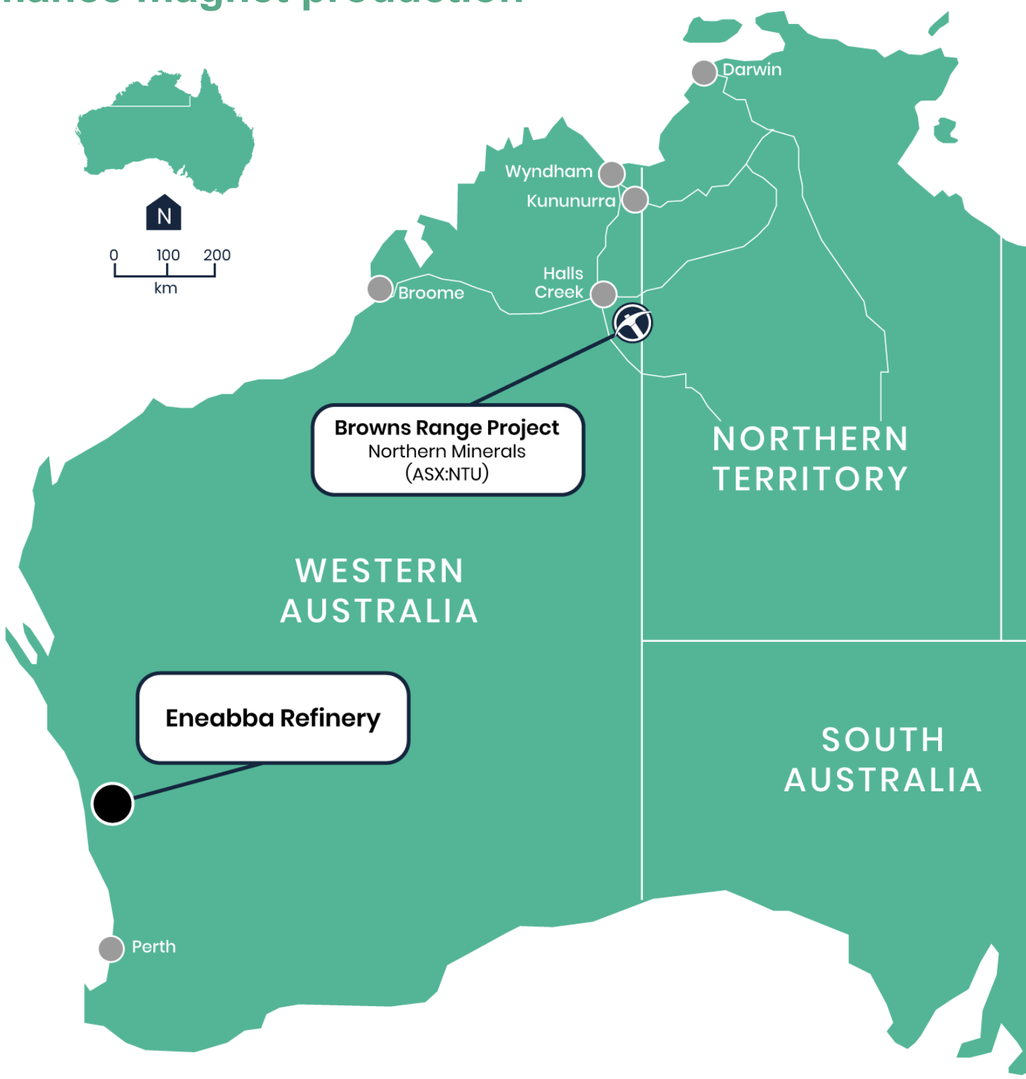
For personal use only

Browns Range Project Overview

Northern Mineral's strategic objective is to develop Browns Range and focus on being a producer of Dysprosium & Terbium, which are critical to high performance magnet production

Key Details

Location	c.160km south-east of Halls Creek on the northern edge of the Tanami Desert in Western Australia
Ownership	100% Northern Minerals Ltd
Stage	Updated DFS due Q4 2023. Previous DFS completed in Mar-15 for production of a rare earth carbonate (1)
Mining	Open pit, transitioning to underground mining beneath the Wolverine pit
Processing	Conventional beneficiation producing a c.25% TREO concentrate
LOM	8+ years
Capex	A$500m order of magnitude estimate, excluding financing costs
Power	Examining off-grid renewable power solutions
Other non-process infrastructure	Existing near mine infrastructure in place, including access to camp and roads Design underway / complete for: • On-site airstrip upgrade • Tailings storage facility • Access road / earthworks • Accom. village and associated buildings • Inbound / outbound cargo logistics • Surface water management and water supply system



1. Refer NTU ASX Announcement 2 March 2015

For personal use only

Moving Wolverine Towards Production

Strategic objective to bring the Wolverine deposit into production and focus on being a producer of Dysprosium & Terbium

Highly experienced team delivering the DFS, leveraging the work undertaken in the 2015 DFS, with a focus on:

- Assessing mining design and costs of the revised underground mining method (sub level retreat)
- Inclusion of an ore sorter to increase product grade and de-risk mining dilution – demonstrated 60% improvement in ore sorter product grade from pilot plant operation
- Construction of a commercial scale concentrate beneficiation plant

Indicative timeline:

- Update of DFS - commenced 2022
- Completion – Q4 2023
- Wolverine Project FID - targeting Q1 CY 2024
- First production - targeting 2026 (subject to receipt of customary approvals and obtaining project funding)

Browns Range Project further de-risked

- With long term supply and funding agreements with Iluka
- Avoids construction of capex intensive downstream processing plant while maintaining exposure to Rare Earth Oxides (“REO”) price upside through the terms of the Iluka Supply Agreement

Browns Range Pilot Plant Ore Sorter

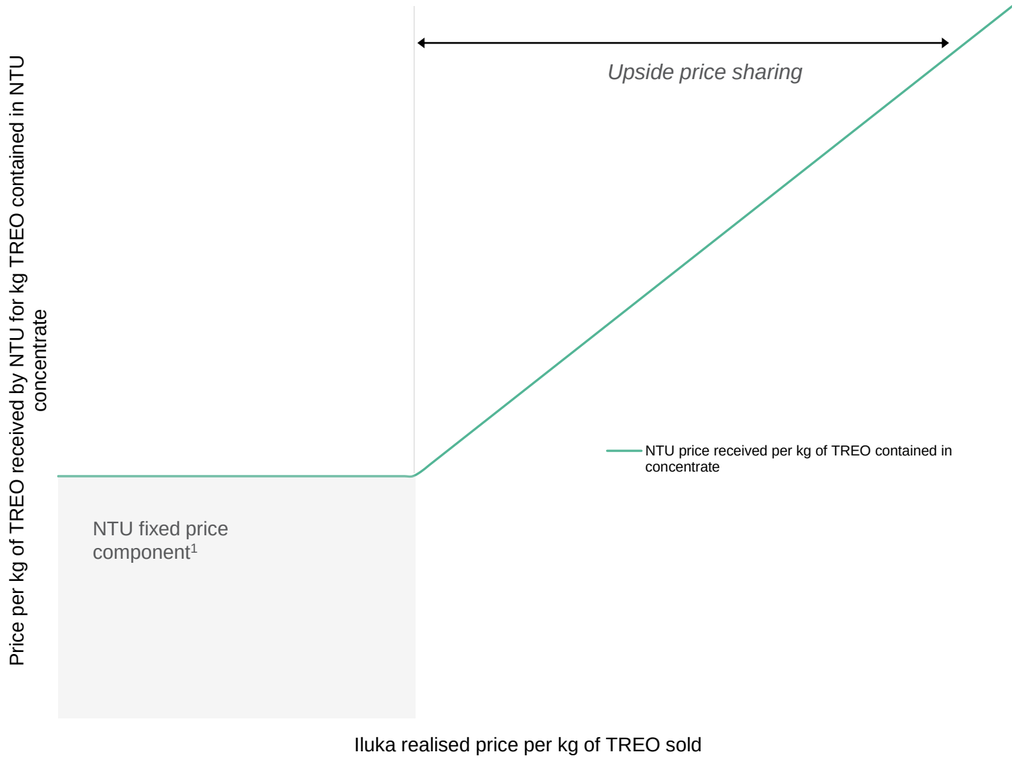
For personal use only

Iluka Supply Agreement

Binding supply agreement with Iluka for 100% of planned production over the initial life of mine to feed the Eneabba Rare Earths Refinery

Supply Agreement

- NTU to produce Xenotime concentrate from its Browns Range Project and sell to Iluka for use in its Eneabba Refinery
- Proposed annual production to be delivered to Iluka initially not greater than 5,500 tonnes of contained REO in Product and 30,500 tonnes in total
- Pricing of the concentrate includes a fixed price component based on contained REO and an upside price sharing mechanism based on Eneabba Refinery realised selling price and adjusts for impurities.
- NTU must sell and deliver to Iluka, and Iluka must purchase and take, 100% of the product that is produced from NTU in each year within the agreed bands
- The Iluka Supply Agreement provides Iluka with a right of first refusal in respect of Product from the Browns Range Project in excess of the maximum annual amount
- NTU free to sell excess production to third parties if Iluka does not purchase pursuant to its ROFR



1) Subject to turn down provisions

Indicative Pricing Mechanism Illustration

For personal use only

Geology

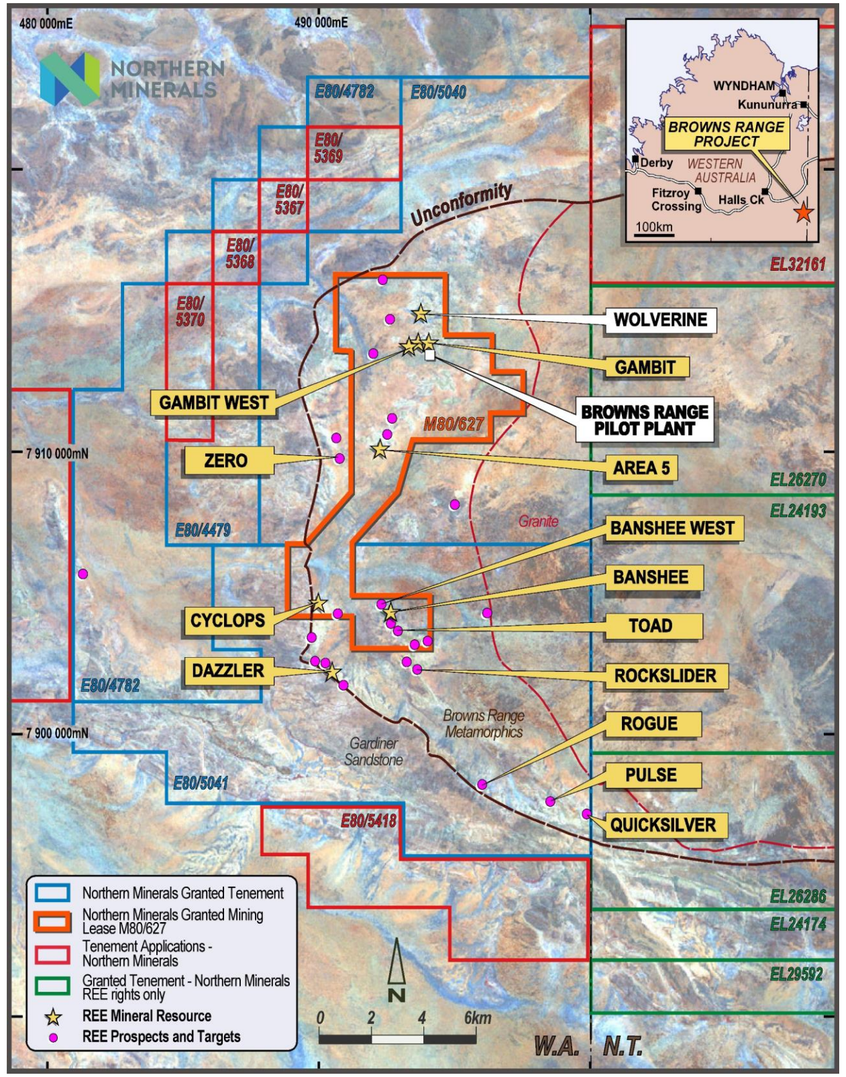
Northern Minerals assets sit within a uniquely Dy and Tb rich mineral setting in the Kimberley with its structural geology and minerology well understood

Overview

- Browns Range holds a Mineral Resource Estimate of **10.81 Mt @ 0.76% Total Rare Earth Oxides** ("**TREO**"), with the **Wolverine deposit accounting for 6.44 Mt @ 0.96% TREO**, comprising 61,492 tonnes of TREO[1]
- **The Wolverine Mineral Resource estimate will form the basis of the forthcoming DFS update**
- **The Wolverine deposit is the largest known within the Browns Range system** and the style of mineralisation is xenotime hydrothermal breccia, a rare earths hosting mineral particularly rich in heavy rare earths
- **The Wolverine, Gambit West, Gambit and Area 5 deposits are all within the Browns Range Project area**, located wholly inside the granted mining lease M80/627 in Western Australia, with the Company also owning separate tenements nearby in the Northern Territory
- Northern Minerals previously estimated an Ore Reserve at Wolverine however significant refinements to the Mineral Resource model in 2022 meant the Ore Reserve was no longer appropriate for the latest Resource model[2]. The technical studies to support a Reserve at Wolverine are the subject of the updated DFS due in Q4 2023
- The strong geological potential at Browns Range and surrounding tenements means the Company has an **ambition to grow mine life beyond 20 years**

1 - Mineral Resource based on the Company's ASX announcement titled "Updated Wolverine Mineral Resource estimate at Browns Range" dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU". See Appendix A of this Presentation for further information.

2 - For further information, see the Company's ASX announcement titled "Updated Wolverine Mineral Resource estimate at Browns Range" dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU".



Project and Tenement Location Map

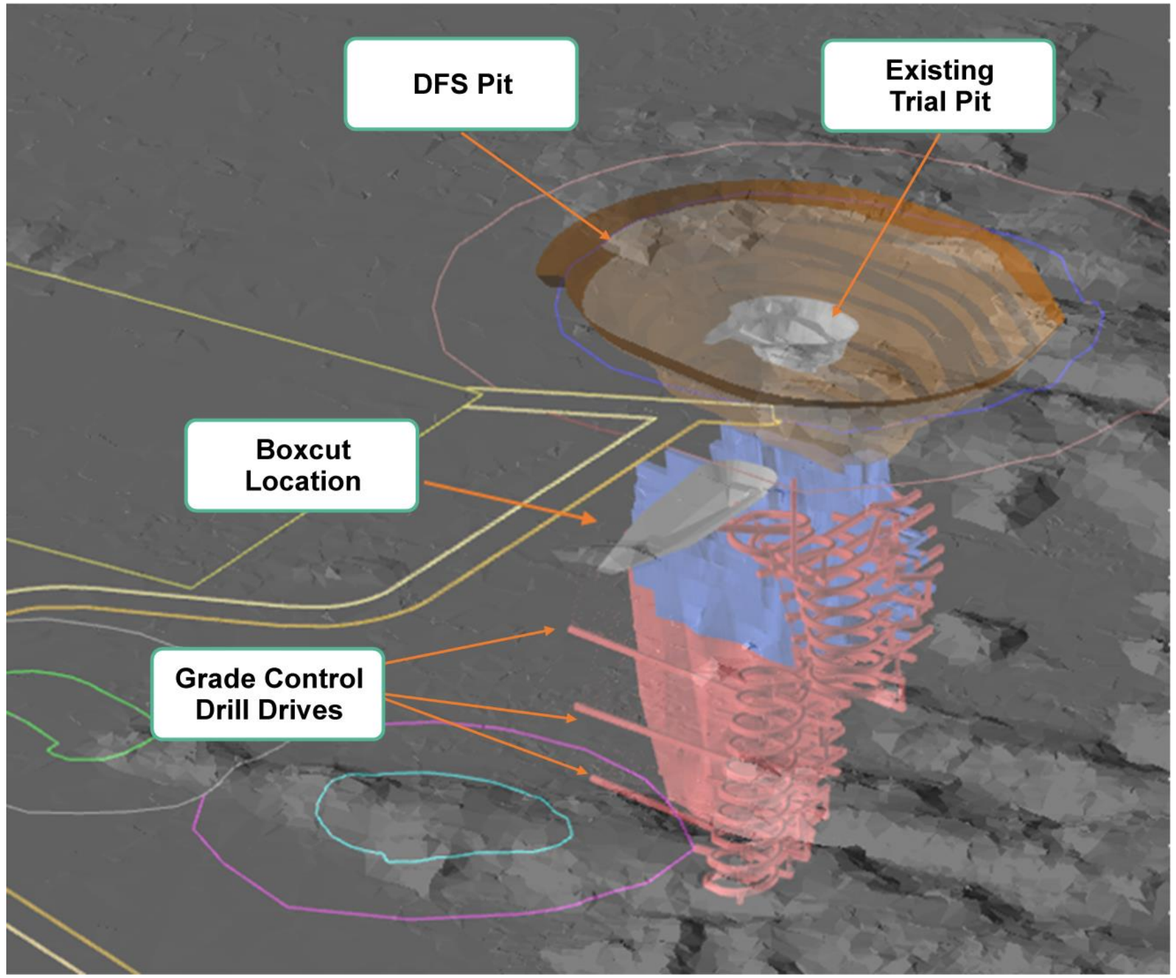
For personal use only

Mining

Commencing with open pit, transition to Sub Level Retreat (SLR)

Mining Overview

- Wolverine will be mined via both open pit and underground methods, for 8+ years
- A box-cut and decline will commence concurrently with the open pit, to ensure underground ore is ready for extraction upon completion of the pit.
- Underground mining will be via sub-level retreat ("**SLR**") caving.
- Cave flow modelling by Beck Engineering
- Extensive geotechnical testwork and coverage
- Leading Perth-based mining consultant Entech Pty Ltd, has been engaged to carry out the mining studies.



Browns Range Project Mine Design

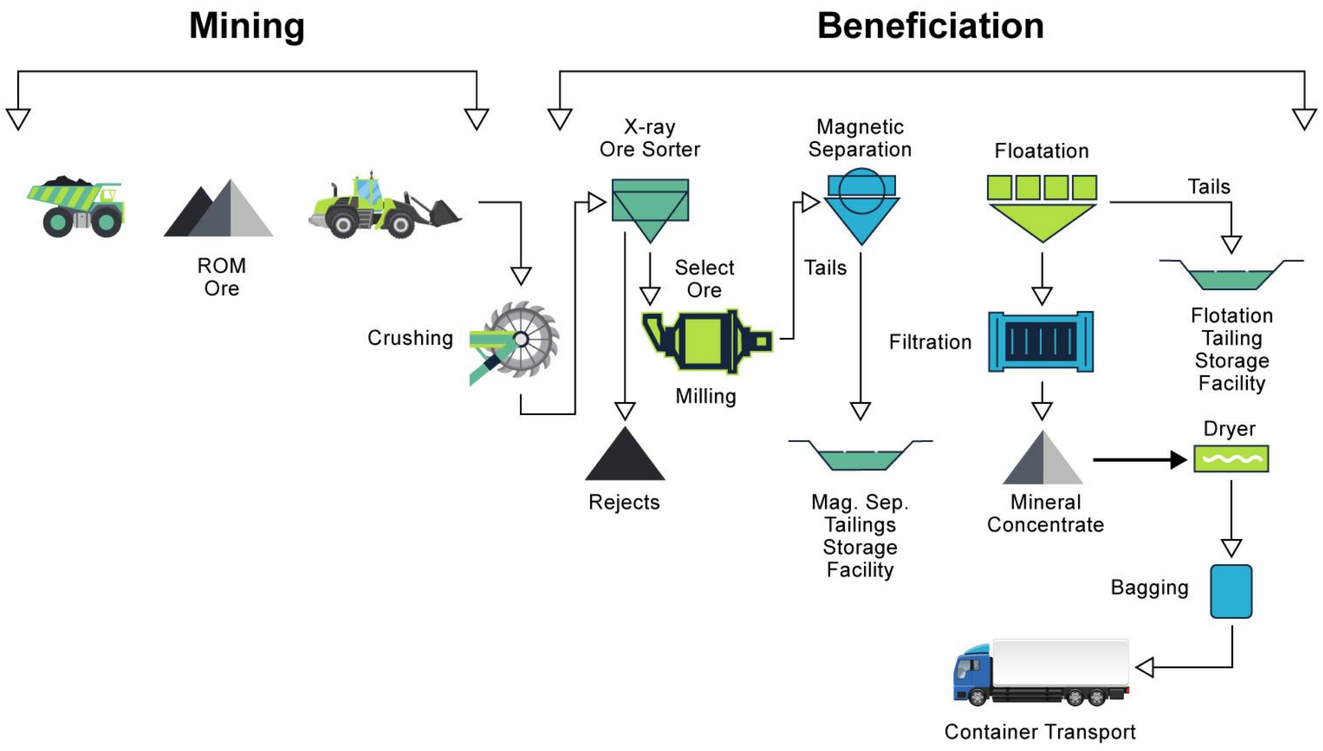
For personal use only

Processing

Beneficiation of ore from the Wolverine deposit producing a xenotime concentrate for supply to Iluka's rare earth refinery at Eneabba

Processing Overview

- Processing flowsheet is a well-understood beneficiation process that will produce a c.25% TREO xenotime concentrate rich in Dy and Tb.
- Flowsheet design informed by three years of processing ore through a large-scale pilot plant, producing 281t of rare earths carbonate from 1,140t of xenotime concentrate to date.
- Partnering with an external hydrometallurgical and separation plant for the xenotime concentrate, such as Iluka's Eneabba refinery, represents an accelerated, lower cost, and lower risk approach compared to Northern Minerals also developing a hydrometallurgical circuit to produce a more refined intermediate product, such as a carbonate or oxide.
- Northern Minerals is currently undertaking a dual-party Early Contractor Involvement process with the intention of signing an EPC contract for the delivery of the beneficiation process plant, with the preferred contractor anticipated to be selected in Q4 2023.



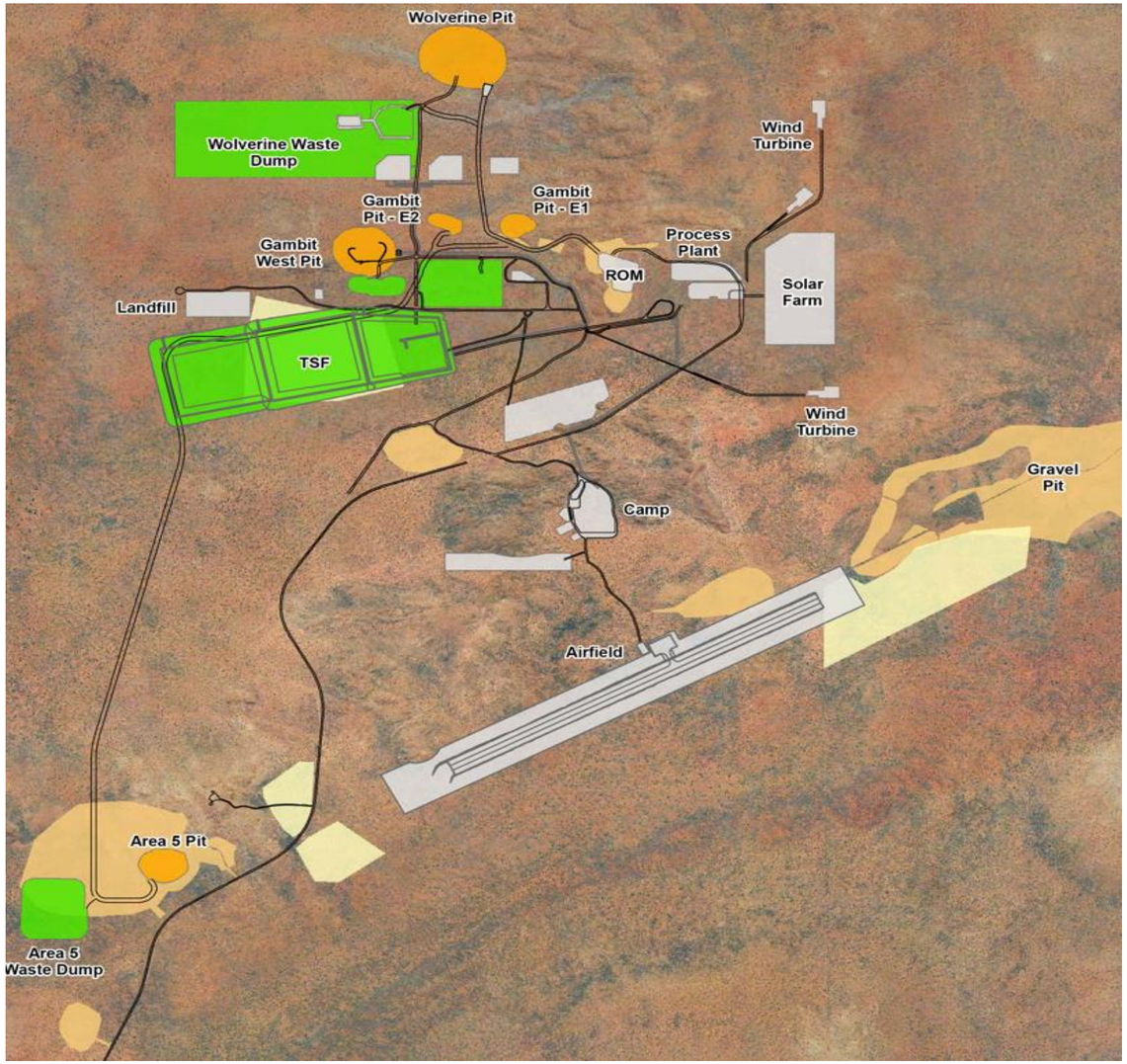
Mining & Processing Flowsheet

For personal use only

Mine Operations & Proposed Layout

Pilot Plant operations enabled establishment of key base operational requirements that will be expanded

- Airstrip, offices and a worker's village
- Gravel access roads to the mine and around the mine site
- Power supply come from diesel generators, solar panels and possibly wind turbines
- Water supply from a bore-field in Gardiner Sandstone
- Tailings storage facility
- Inert and putrescible landfill facility on site
- Village Waste Water Treatment Plant and spray field
- Water management structures



Browns Range Project Proposed Layout

For personal use only

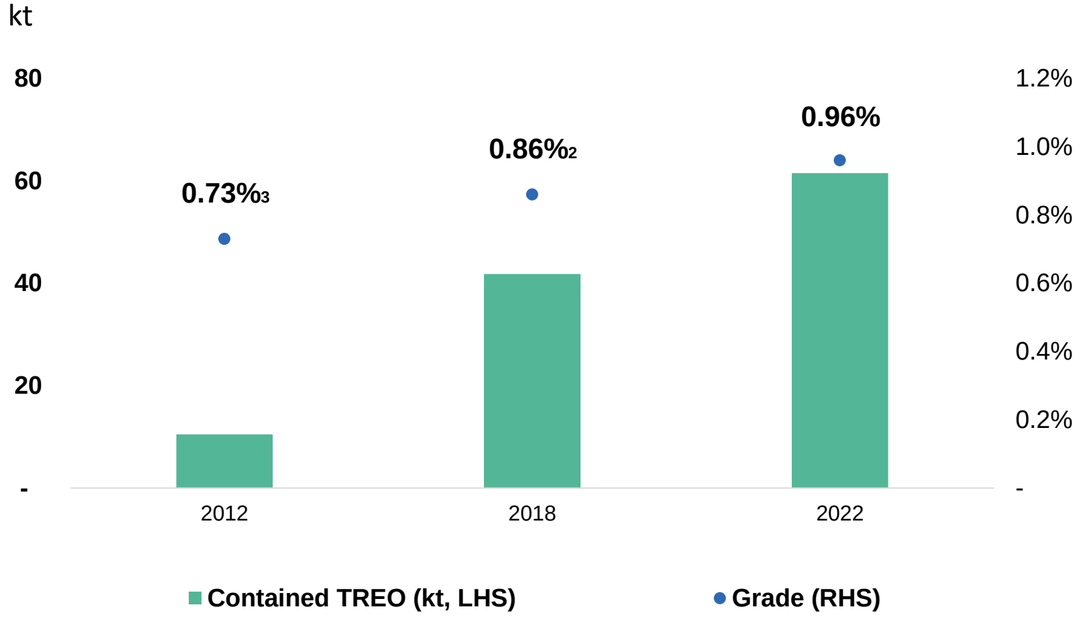
Wolverine Deposit

The high-grade Wolverine deposit underpins the initial life of mine, with considerable opportunity to develop adjacent deposits that are also abundant in heavy rare earths

Current Resource Estimate

JORC-compliant Mineral Resource[1]					
	Ore	TREO	Dy	Tb	TREO
	Mt	%	kg/t	kg/t	t
Wolverine					
M.	0.14	0.7	0.61	0.09	986
Ind.	3.24	0.95	0.83	0.12	30,751
Inf.	3.05	0.98	0.84	0.13	29,756
Total	**6.44**	**0.96**	**0.83**	**0.12**	**61,492**
Total (including adjacent Northern deposits)					
M.	0.14	0.7	0.61	0.09	986
Ind.	4.9	0.78	0.67	0.1	38,300
Inf.	5.76	0.73	0.62	0.09	42,166
Total	**10.81**	**0.76**	**0.64**	**0.09**	**81,450**

Wolverine Deposit Expansion



1 - Mineral Resource based on the Company's ASX announcement titled "Updated Wolverine Mineral Resource estimate at Browns Range" dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU". See Appendix A of this Presentation for further information.
2 – Mineral Resource update – Post trial mining operations, 28 September 2018
3 – Northern Minerals initial JORC compliant resource estimate, 21 December 2012
4 - TREO includes Yttrium. See Appendix for full Mineral Resource estimate.

For personal use only

Proposed Wolverine Resource Definition Drilling

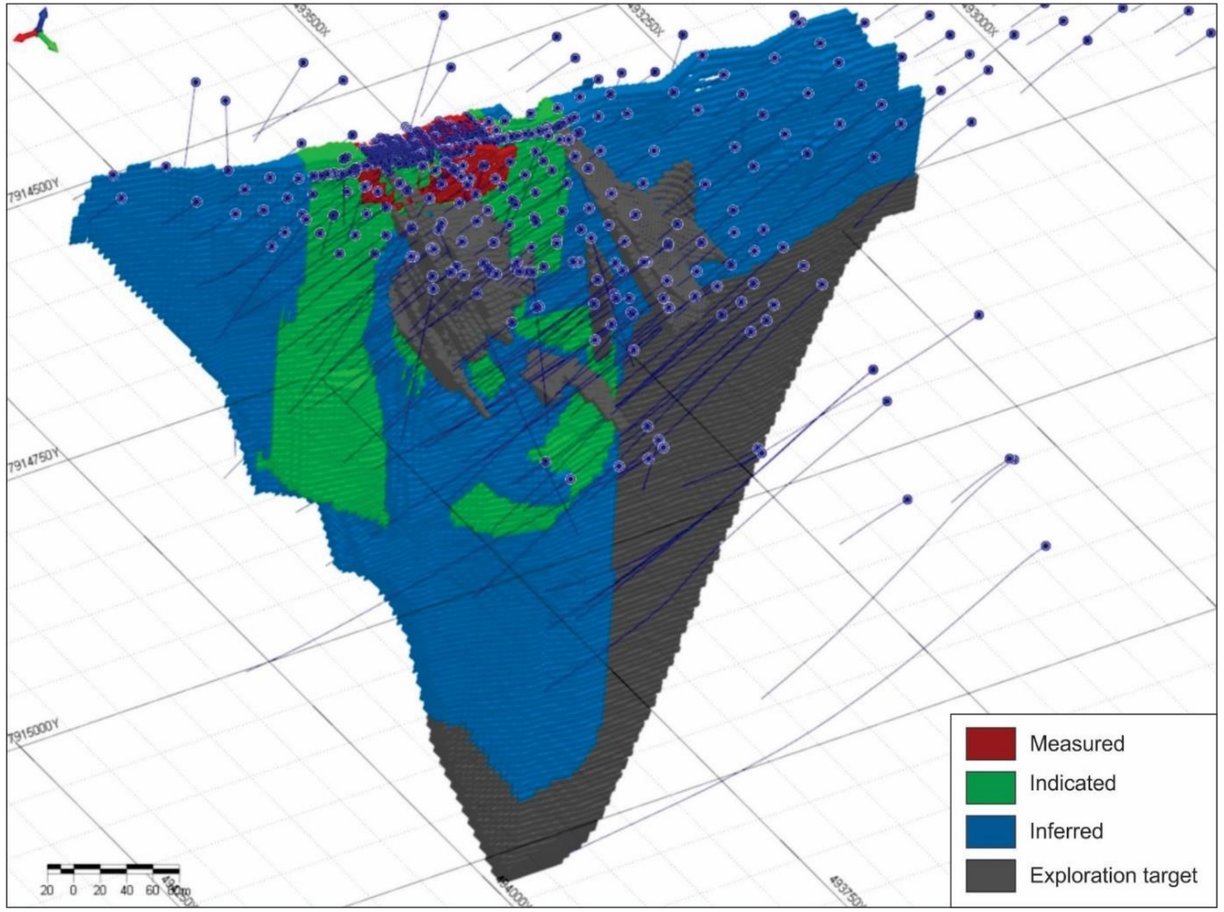
Aiming to upgrade Resource Definition from Inferred to Indicated

Proposed Program

- Seeking to convert deeper Inferred Mineral Resource to Indicated
- Seeking to convert 1.99Mt @ 1.25% TREO for 24,900 t contained TREO
- If confirmed, allows Indicated Mineral Resources to be converted to Probable Reserves
- Targeted drilling on a 25m x 25m centres
- Target depth of drill holes is between 350m and 500m below surface
- 45 ore zone pierce points required
- Diamond drilling expected to commence in late August 23

Funding

- Total estimated program costs of $8.4M
- $4.2M or 50% from Critical Minerals Development Grant funding



Wolverine Resource – Oblique view looking Northeast

For personal use only

Wolverine Extension Drilling Program

The high-grade Wolverine deposit underpins the initial life of mine, with considerable opportunity to develop adjacent deposits that are also abundant in heavy rare earths

Objective

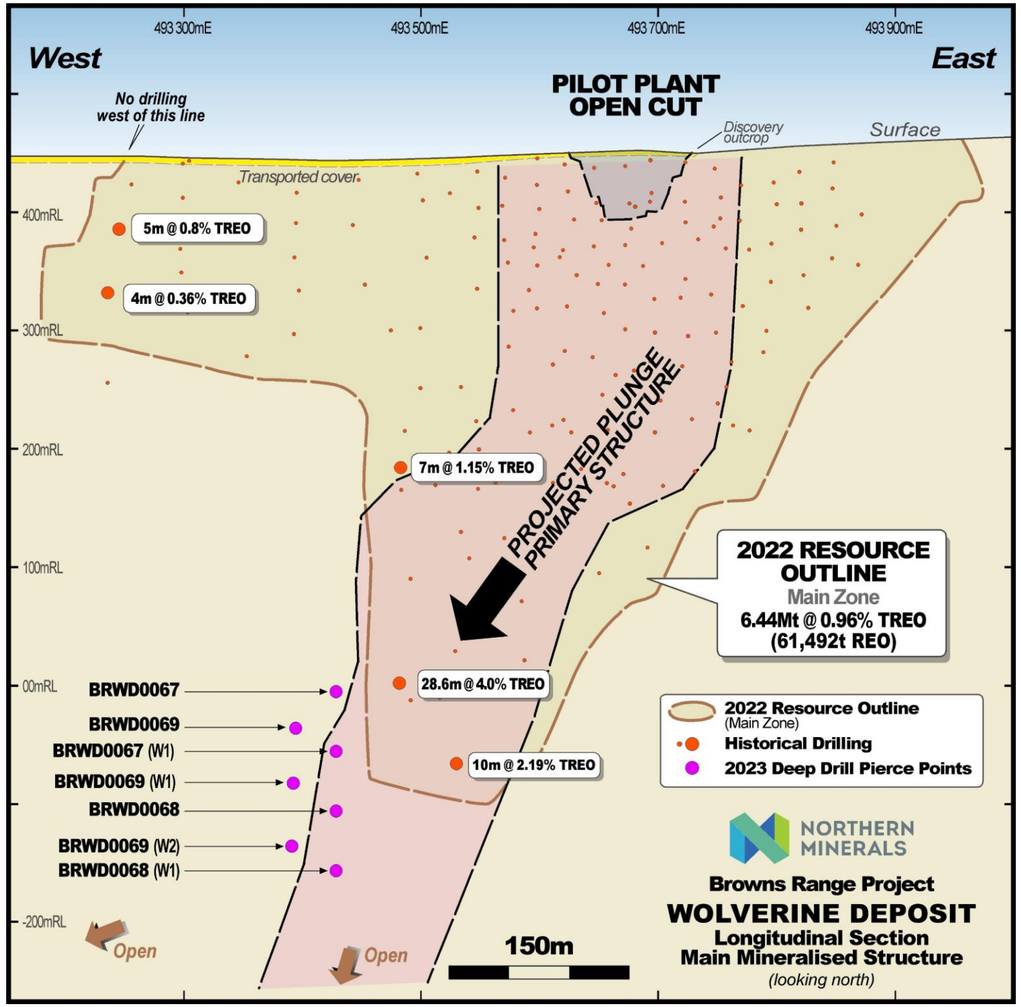
- Test direction of plunge and grade at depth
- Drilling completed in May 2023

Outcomes[1]

- Western line of holes closes off mineralisation to the west
- Plunge steeper than anticipated
- Significant mineralisation potentially remains open with depth

Hole Number	From (m)	To (m)	Interval (m)	TREO(%)	Dy_2O_3 (ppm)
BRWD0067	490	498	8.0	0.26	145
BRWD0067W1	515 547	531 549	15.8 1.9	0.51 2.29	454 2,029
BRWD0068 Incl. Incl.	589 589 591	607 599 597	17.6 9.9 5.5	1.96 3.27 5.57	1,819 3,048 5,211
BRWD0068W1 and	621 635	631 653	10.0 18.2	0.19 0.62	130 575
BRWD0069	*No significant intercepts*				
BRWD0069W1	*No significant intercepts*				
BRWD0069W2	611	616	5.0	0.63	159

1. Refer ASX announcement Quarterly Activities Report 28 July 2023



Longitudinal Section Main Mineralised Structure

For personal use only

Clear Pathway to Production

Northern Minerals has conducted a strategic review of the business led by Executive Chair, Nick Curtis, and has mapped a clear path forward to production

Company Timeline

2014

- Maiden JORC Ore Reserve
- Primary approvals
- Mining Licence
- Native Title Agreement
- PFS
- JORC Resource doubled

2015

DFS

2018

- Pilot Plant installed
- Ore sorting test work and study
- First RE carbonate production shipped

2022

Nick Curtis appointed Executive Chair

Strategic review

- Commissioned independent peer review of & Resource modelling
- Resulted in a 47% increase in the Wolverine REE Mineral Resource estimate[1]
- Refocus strategy to focus on mining and processing to produce REO concentrate-no downstream
- Secondary focus on advancing understanding of other Wolverine style deposits within Browns Range system

Iluka Strategic Partnership

2023

Moving forward toward FID

- Targeting Wolverine Project FID in Q1 2024 with first concentrate targeted for 2026.
- Currently updating the 2015 Definitive Feasibility Study (DFS) expected to be completed in Q4 2023
- Engineering & Design required for Browns Range Beneficiation Plant EPC package and NPI
- Geotechnical and limited deep hole exploration drilling complete
- Progressing secondary approvals
- Commenced project funding work stream

1 - Mineral Resource based on the Company's ASX announcement titled "Updated Wolverine Mineral Resource estimate at Browns Range" dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU". See Appendix A of this Presentation for further information.

For personal use only

Debt Financing

Northern Minerals has commenced procurement of project funding with strategic partners

Capital Expenditure Estimate

- Early estimate capex to be in the Order of Magnitude ("**OOM**") of approximately $500m (excluding financing costs), to be refined as part of the updated DFS expected in Q4 2023.

Engagement with Government Agencies

- Northern Australian Infrastructure Facility ("**NAIF**") and Export Finance Australia ("**EFA**") engaged, seeking consideration for the various funding packages available via these agencies.
- The Project has fulfilled the strategic assessment phase of NAIF's investment decision process[1]
- Awarded $5.9m of grant funding under the Australian Government's Critical Minerals Development Program in Q2 2023.
  - Funds will support resource definition drilling at Wolverine, advanced front-end engineering and design, and early work activities.

Potential Finance Partners

NAIF – Northern Australia Infrastructure Facility

export finance australia

Australian Government – Department of Industry, Science and Resources

NAIF Mandatory Investment Requirements:

- ✓ Involve the development or enhancement of infrastructure
- ✓ Be of public benefit
- ✓ Be in, or have significant benefit for, northern Australia
- ✓ For debt finance, be able to repay or refinance NAIF's debt
- ✓ Have an Indigenous engagement strategy
- ✓ For equity investments, generate a return to Government

Iluka Conditional Equity Commitment

- Iluka agreed to an initial placement of $5m in NTU shares and subscribed for a $15m convertible note in October 2022[2]
- Total additional equity funding commitment from Iluka of $53m (subject to its final due diligence and other conditions being satisfied), comprising:
  - A future placement by Northern to Iluka, to take place following the Project's FID, pursuant to which Iluka will be issued up to an additional 230m New Shares at a maximum price of $0.06/share, raising up to $13.8m
  - A put option / call option arrangement, pursuant to which Iluka may be issued up to an additional 653.3m New Shares (subject to a 19.9% cap) / up to $39.2m

1. NAIF has not made any decision to offer finance nor made any commitment to provide any financing and there is no certainty that an agreement will be reached between the parties
2. Refer NTU ASX Announcement: NTU – Strategic Partnership with Northern Minerals Limited 26 October 2022

For personal use only

Regulatory Approvals Summary

Northern Minerals has achieved all primary approvals required to progress through FID

5 May 2017
DMIRS Approval of Browns Range Rare Earths Project - Pilot Plant Trial mining Proposal- M80/627 - L80/76

Feasibility Study

2014 | **2017** | **2018** | **2022** | **2023**

20 October 2014
Ministerial Statement 986 issued for proposed full scale Beneficiation and Hydrometallurgical plant Project by DWER- EP Clearing 711 ha of vegetation within 2,590 ha.

11 July 2018
Part V EP Act Licence (L9009/20161) granted for Pilot Plant Operation by DWER

Submission of Licence Amendments and Mining Proposals for the Wolverine Project

For personal use only

Environment & Community

Northern Minerals maintains a high standard of environmental management and community engagement

Environment

- Committed to producing ethical rare earths and integrating risk-based environmental management throughout its operations.
- To support the updated DFS, the Company has restarted environmental planning work and environmental studies.
- Northern Minerals is pursuing a hybrid renewable power system for its operations, with quotes received from potential PPA partners

Participants of the Training to Work program

Community

- The fully determined Jaru Native Title Claim is registered over the Project area
- Determined Jaru Native Title recognised over the Project Area
- Significant employment opportunities and economic activity in the Kimberley region.
- Recent community engagement includes:
  - Training to Work program at Browns Range in 2021 to provide employment opportunities to local Aboriginal people and on-site training and work experience
  - Engaging with Jaru Traditional Owners to assist with controlled burns around the site
  - Donating supplies to the Ringer Soak community to help limit the spread of COVID-19
  - Organising a Working with Indigenous Employees course for all staff on site with contributions from Jaru staff members

For personal use only

Management Executing Refocused Strategy

Northern Minerals is led by Executive Chairman, Nick Curtis, with extensive experience in Rare Earths

Nick Curtis - Executive Chairman

- 35+ years experience in mining and finance, with 25+ years of RE experience.
- Previous Executive Chairman of Lynas Corporation (ASX:LYC), after taking control of the company in 2001, he refocused it as a rare earths company developing the Mt Weld deposit in WA, and a large downstream rare earth processing plant in Malaysia and assisted in growing Lynas into the market leading RE company ex-China.
- Founded Forge Resources in 2011, a junior ASX exploration company - acquired the Balla Balla Mine in the Pilbara in Western Australia.
- Founder of Sino Gold which listed on the ASX in 2001 and was taken over by Eldorado Gold.

Shane Hartwig - Finance Director

- Over 30 years' experience in the finance sector including across various resource companies.
- Senior finance executive with a proven track record working as a trusted strategic corporate and commercial advisor to small and mid-cap ASX listed companies.
- Recently CFO and commercial lead for a proposed greenfield integrated infrastructure and mining project.
- Worked with Nick Curtis over several years as a key commercial adviser and CFO and is an experienced ASX listed Director/Co-Sec.

Simon Pooley - Head of Geology

- 30 years international experience including with Rio Tinto, Ashton Mining, Dominion Mining.
- Experienced in delivering definitive/bankable feasibility studies and converting them into mining operations.

Robin Jones - Head of Projects

- Over 30 years' experience in the mining industry and has held senior positions globally across various mining companies.
- COO of Northern Minerals for ~10 years and was the Project Director for the 2015 DFS, with over 10 years' experience in rare earths.

Angela Glover - Head of External Relations

- Over 20 years experience in resources and industry in WA, NT and Queensland, including with BCI Minerals, BBI, Atlas Iron, WMC Resources and Alcan Gove.
- Experienced in heritage and native title management, social and external affairs management.

Hayley Patton - Head of People & Culture

- Over 15 years' experience in senior leadership and management roles within the mining and resource sector and other industries.
- Experienced in strategic and value driven HR practices.
- Member of the Australian HR Institute.

For personal use only

Board of Directors

Nick Curtis - Executive Chairman

- 35+ years experience in mining and finance, with 25+ years of RE experience.
- Previous Executive Chairman of Lynas Corporation (ASX:LYC), after taking control of the company in 2001, he refocused it as a rare earths company developing the Mt Weld deposit in WA, and a large downstream rare earth processing plant in Malaysia and assisted in growing Lynas into the market leading RE company ex-China.
- Founded Forge Resources in 2011, a junior ASX exploration company - acquired the Balla Balla Mine in the Pilbara in Western Australia.
- Founder of Sino Gold which listed on the ASX in 2001 and was taken over by Eldorado Gold.

Shane Hartwig - Finance Director

- Over 30 years' experience in the finance sector including across various resource companies.
- Senior finance executive with a proven track record working as a trusted strategic corporate and commercial advisor to small and mid-cap ASX listed companies.
- Recently CFO and commercial lead for a proposed greenfield integrated infrastructure and mining project.
- Worked with Nick Curtis over several years as a key commercial adviser and CFO and is an experienced ASX listed Director/Co-Sec.

Bin Cai - Executive Director

- Managing Director of Conglin International Investment Group Pty Ltd based in Brisbane.
- Record of successful strategic investments in emerging Australian resources companies based on his long experience in resources investment.
- Prior to joining the Conglin Group he had 8 years' experience with the China Investment Bank.

Adam Handley - Non-Executive Director

- Partner and China Markets Leader for MinterEllison, the largest law firm in Australia.
- Current National Vice President & Director of the Australia China Business Council (ACBC), a member of the Murdoch University Vice Chancellor's Advisory Board and a Board member of the World Services Group.

Liangbing Yu Non-Executive Director

- Current National Vice President & Director of the Australia China Business Council (ACBC), a member of the Murdoch University Vice Chancellor's Advisory Board and a Board member of the World Services Group.
- Over 20 years' experience in business operations and management, including investment analysis and strategy setting and implementation.
- Liangbing is based in Beijing China and has a dual bachelor degree in Investment Economics and Economic Law from Huazhong University of Science and Technology.

For personal use only

The Northern Minerals Proposition

NORTHERN MINERALS

Northern Minerals' assets sit within a uniquely Dy and Tb rich mineral setting in the Kimberley (Browns Range), with significant resource growth prospectivity

Strategic partnership with Iluka

- De-risks and accelerates the project development via a supply agreement
- Reduces project complexity

Structural Geology and Minerology Well Understood

- Owned project for ~16 years
- ~$73m of exploration
- 134,500 meters of drilling

High Confidence in Metallurgy and Processing Ability

- 3 years pilot plant processing
- Effective concentration through ore sorting, magnetic separation and flotation

Highest Grade Dy & Tb Orebody in the World

- Wolverine is understood to be the highest grade Dy/Tb hard rock deposit in the world

Existing Near Mine Infrastructure

- Pilot plant operations established camp, roads, airstrip and power, etc (expansion will be required for full scale operations)

MRE of 61,492 tonnes of TREO in 6.44 million tonnes @ 0.96% $TREO_1$

- Over 1000 tonnes of concentrate produced and sold from the Wolverine deposit trial open pit.

Significant Potential for Further Mineralised Shear Zones

- Structural controls are well understood. Mostly shear zone and strata bound intrusive.

Native Title Agreement and Ministerial Statements

- In place with the Jaru Aboriginal Corporation
- All Primary Approvals in place

1 - Mineral Resource based on the Company's ASX announcement titled "Updated Wolverine Mineral Resource estimate at Browns Range" dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU". See Appendix A of this Presentation for further information.

For personal use only

NORTHERN MINERALS

Appendices

For personal use only

Image: Browns Range Pilot Plant

ASX NTU

Appendix A: Mineral Resource

NORTHERN MINERALS

For personal use only

Global Mineral Resource Estimate (October 2022)[1,2]

Deposit	Classification	Mt	TREO %	Dy_2O_3 kg/t	Y_2O_3 kg/t	Tb_4O_7 kg/t	HREO %	TREO kg
Wolverine	Measured	0.14	0.7	0.61	3.99	0.09	88%	986,000
	Indicated	3.24	0.95	0.83	5.53	0.12	89%	30,751,000
	Inferred	3.05	0.98	0.84	5.68	0.13	89%	29,756,000
	Total[1]	**6.44**	**0.96**	**0.83**	**5.57**	**0.12**	**89%**	**61,492,000**
Gambit West	Indicated	0.12	1.8	1.62	10.98	0.22	94	2,107,000
	Inferred	0.13	0.51	0.4	2.67	0.05	81	674,000
	Total[1]	**0.25**	**1.11**	**0.97**	**6.56**	**0.13**	**91**	**2,781,000**
Pilot Plant Stockpiles	Indicated	0.17	0.95	0.83	5.5	0.12	89	1,489,000
	Inferred	0.03	0.26	0.2	1.35	0.03	79	89,000
	Total[1]	**0.2**	**0.83**	**0.72**	**4.8**	**0.1**	**88**	**1,577,000**
Gambit	Indicated							
	Inferred	0.21	0.89	0.83	5.62	0.11	96	1,878,000
	Total[1]	**0.21**	**0.89**	**0.83**	**5.62**	**0.11**	**96**	**1,878,000**
Area 5	Indicated	1.38	0.29	0.18	1.27	0.03	69	3,953,000
	Inferred	0.14	0.27	0.17	1.17	0.03	70	394,000
	Total[1]	**1.52**	**0.29**	**0.18**	**1.26**	**0.03**	**69**	**4,347,000**
Cyclops	Indicated							
	Inferred	0.33	0.27	0.18	1.24	0.03	70	891,000
	Total[1]	**0.33**	**0.27**	**0.18**	**1.24**	**0.03**	**70**	**891,000**
Banshee	Indicated							
	Inferred	1.66	0.21	0.16	1.17	0.02	87	3,484,000
	Total[1]	**1.66**	**0.21**	**0.16**	**1.17**	**0.02**	**87**	**3,484,000**
Dazzler	Indicated							
	Inferred	0.21	2.33	2.17	13.93	0.29	95	5,000,000
	Total[1]	**0.21**	**2.33**	**2.17**	**13.93**	**0.29**	**95**	**5,000,000**
	Measured	0.14	0.7	0.61	3.99	0.09	88%	986,000
Total[1]	Indicated	4.91	0.78	0.6	3.98	0.09	87	38,300,000
	Inferred	5.76	0.73	0.54	3.67	0.08	88	42,166,000
	Total[1]	**10.82**	**0.76**	**0.57**	**3.81**	**0.08**	**87**	**81,450,000**

Browns Range Project Overview

- The Project is located in the East Kimberley region of Western Australia, approximately 160km southeast of the town of Halls Creek near the Northern Territory border
- The Wolverine, Gambit West, Gambit and Area 5 deposits are all within the Browns Range Project area and are all located wholly within the granted mining lease M80/627
- The Project is located on the western side of the Browns Range Dome, a Paleoproterozoic dome formed by a granitic core intruding the Paleoproterozoic Browns Range Metamorphics (meta-arkoses, feldspathic metasandstones and schists) and an Archaean orthogneiss and schist unit to the south
- The dome and its aureole of metamorphics are surrounded by the Mesoproterozoic Gardiner Sandstone (Birrindudu Group)
- The Jaru Native Title Claim is registered over the project area and Northern Minerals entered into a Co-existence Agreement with the Jaru Traditional Owners in June 2014

1. Rounding may cause some computational discrepancies (TREO (metal) tonnes estimated from Mt x TREO%)

TREO = Total Rare Earth Oxides – La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3;

HREO = Heavy Rare Earth Oxides – Total of Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3

HREO% = HREO/TREO*100

2. Mineral Resource based on the Company's ASX announcement titled "Updated Wolverine Mineral Resource estimate at Browns Range" dated 10 October 2022, which is available to view at www.asx.com.au under the code "NTU".

Contact

Northern Minerals
Nicholas Curtis AM
Executive Chairman
+61 411 425 784

Jane Morgan Management
Jane Morgan
Investor Relations Manager
+61 405 555 618

For personal use only

ASX
NTU