



Browns Range Rare Earths

Delivering critical technology
metals to the world

Asian Metals 9th International Rare Earth Summit 11 – 12 May 2017



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Compliance Statement

The information in this presentation that relates to the Mineral Resource Estimates of the Wolverine deposit is extracted from the report entitled "Increased Mineral Resource delivers more good news" dated 23 February 2015 and is available to view on the Company's website (www.northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially 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.

The information in the announcement that relates to the Mineral Resource Estimates of the Cyclops and Banshee deposits is extracted from the report entitled "Further Increase in Brown Range Mineral Resource" dated 15 October 2014 and is available to view on the Company's website (www.northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially 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.

The information in the announcement that relates to the Mineral Resource Estimates of the Gambit, Gambit West and Area 5 deposits is extracted from the report entitled "Wolverine Total Resource Doubled in a Major Upgrade of Browns Range HRE Mineral Resource Estimate" dated 26 February 2014 and is available to view on the Company's website (www.northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially 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.

The information in the announcement that relates to Ore Reserves is extracted from the report entitled Increased Ore Reserve for Browns Range created on 2 March 2015 and is available to view on the Company's website (northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially 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.

The information in this report that relates to Exploration Results or Exploration Targets is based on information compiled by Mr Robin Wilson, a full-time employee of Northern Minerals, a Competent Person, who is a member of the Australasian Institute of Mining and Metallurgy. Robin Wilson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration completed in the areas of the Exploration Target and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The information in the announcement that relates to production targets is extracted from the report entitled "DFS positions Browns Range Project as next dysprosium supplier" dated 2 March 2015 and is available to view on the Company's website (northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the production targets in the relevant market announcement continue to apply and have not materially changed.

TREO = Total Rare Earth Oxides - La_2O_3 , CeO_2 , Pr_6O_{19} , Nd_2O_3 , Sm_2O_3 , Eu_2O_3 , Gd_2O_3 , Tb_2O_3 , 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_2O_3 , Dy_2O_3 , Ho_2O_3 , Er_2O_3 , Tm_2O_3 , Yb_2O_3 , Lu_2O_3 , Y_2O_3



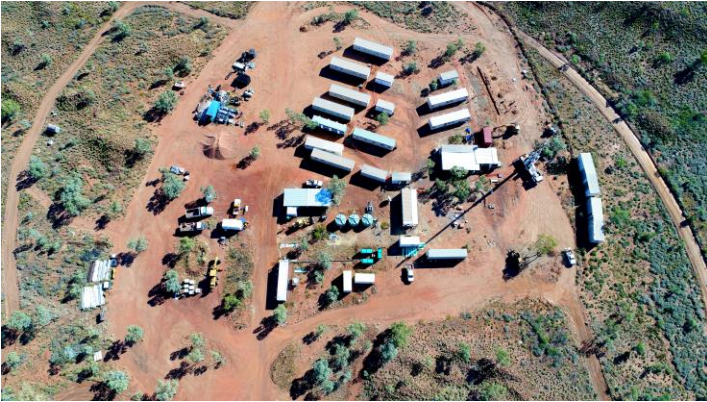
In 2017, Northern Minerals will mine
Browns Range.



In 2018, we will commence new supply
of heavy rare earths to the market



Browns Range Underway



Browns Range Accommodation Camp



Browns Range Airstrip – topsoil cleared



Powering Technology. Wolverine – topsoil cleared



Gambit West – topsoil cleared and grade control drilling commenced



Permanent magnets explained



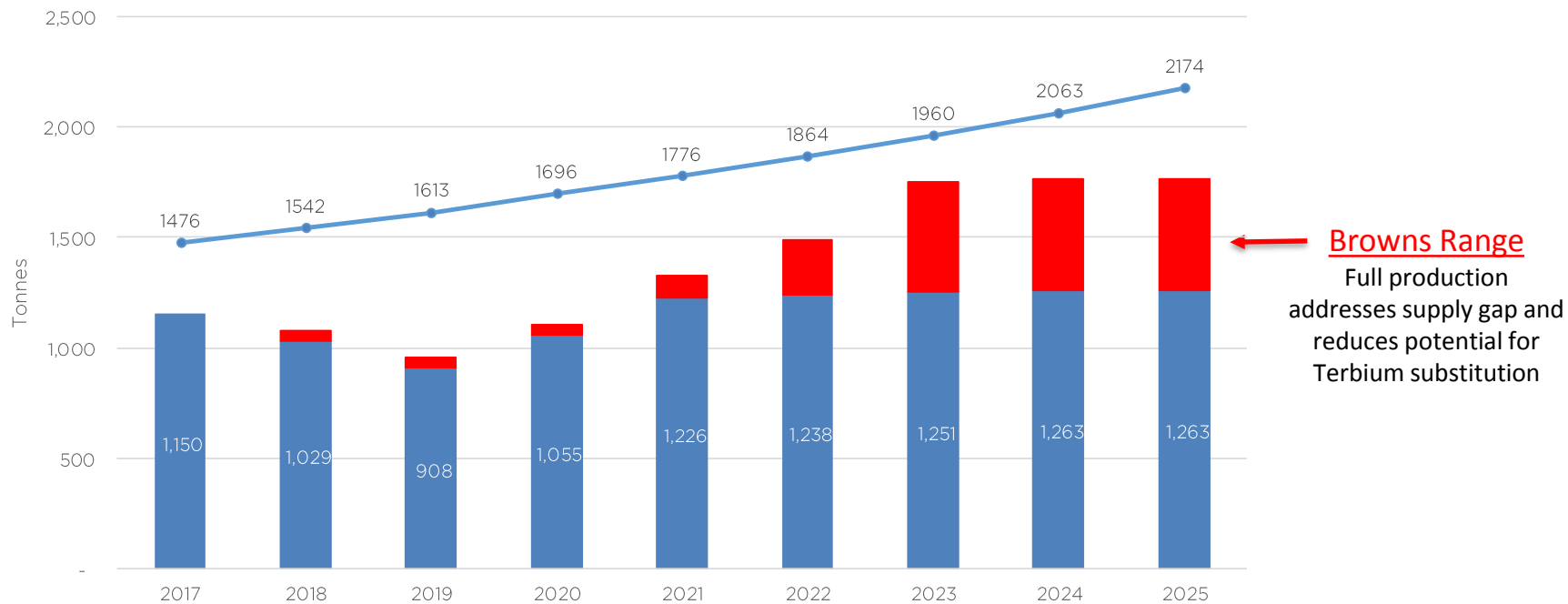
- ◆ NdDyFeB permanent magnets are used by major electric vehicle and wind turbine makers
- ◆ Dysprosium enhances magnetic properties at higher temperatures
- ◆ Permanent magnets account for 25% of rare earth demand in tonnes and 80% in value
- ◆ As a result of climate change policies, higher electric car and wind turbine take up increases permanent magnet market demand
- ◆ Electric vehicle sales expected to grow from 1.2 million in 2015 to >20 million by 2020
- ◆ Alternatives to rare earth magnets have been explored, however timeframe for commercialisation >10 years



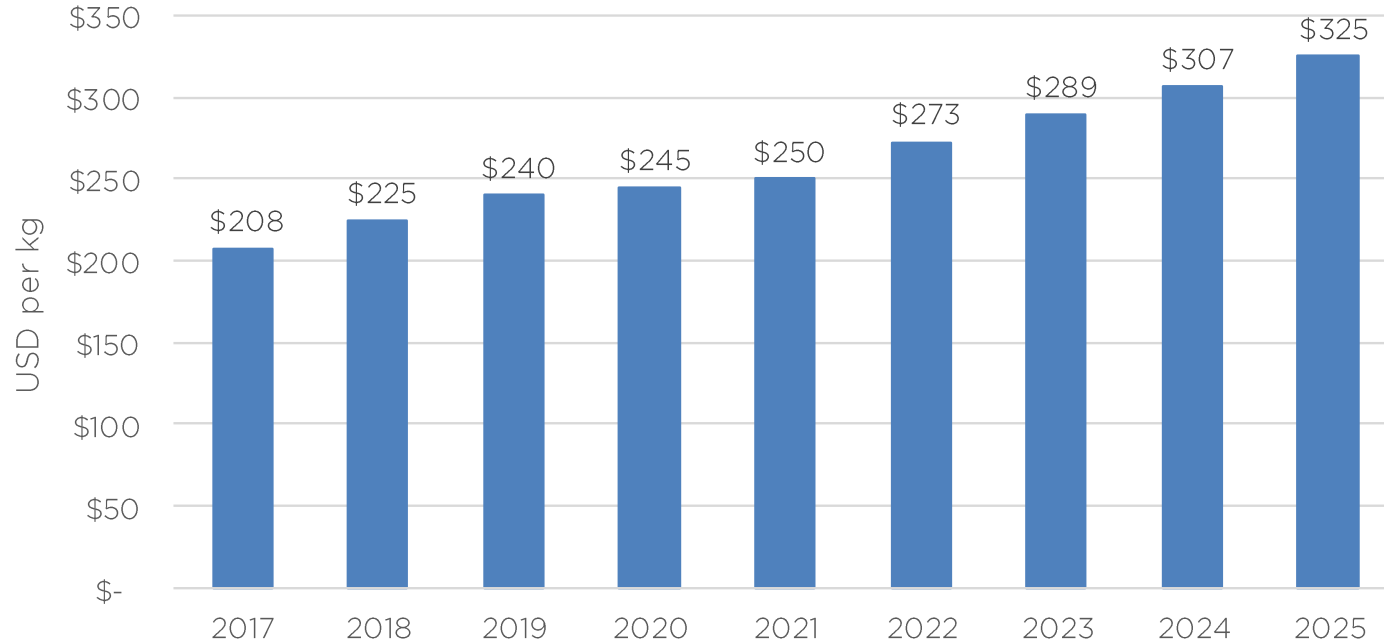
Chinese carmakers to dominate EV production



Supply and Demand Dynamics



Dysprosium – Sustainable Pricing





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positioned
for
success



Project Location



Three stage approach to full scale production

Stage 1

TEST PILOT PLANT

- 10% of full scale capacity
- Production 14 months from Final Investment Decision
- Low capital cost
- Develop mining, processing & offtake experience

APPROVED

Stage 2

REFINE PROJECT

- Reduce mining cost - modify mining method
- Boost production - increase head grade
- Develop premium product - yttrium rejection
- Increase reserve - drilling

Stage 3

BUILD FULL SCALE

- 585,000tpa operation
- 1,500,000kg TREO in a premium product
- Significant dysprosium supplier
- Initial 11 year life with significant upside

measured . sustainable . achievable





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Why a
continuous
pilot plant?

Financing

 Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

Tailings Dam

Schedule

Feasibility

- \$56 million funding for Pilot Plant Development:
 - \$29.5 million through placements
 - \$32 million via R&D Financing Facility
 - \$10 million via Sales Agreement pre-payment
 - \$11 million via Sinosteel deferred payment*

* Sinosteel MECC has agreed to defer 20% of its contract amount for 24 months, with the ability to convert into Northern Minerals' shares



Sales Agreements Secured



Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

Tailings Dam

Schedule

Feasibility

- 100% of Browns Range Pilot Plant production to be purchased by a subsidiary of Guangdong Rising Asset Management Limited.
- Agreement with Lianyugang Zeyu New Materials Sales Co Ltd (JFMAG), a 51% owned subsidiary of Guangdong Rare Earths Group.
- The Sales Agreement terms are based off CIF Incoterms 2010 with pricing referenced from a 2-month average of quoted prices on Asian Metals and Beijing Ruidow Information Technology.
- Sales Agreement includes A\$10 million pre-payment, receivable in early 2018 and 40 million unlisted options at \$0.25 exercise price.
- Upon receipt of funds, sales partner representative to join Northern Minerals' Board.



Quality Sales Partner

Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

Tailings Dam

Schedule

Feasibility

Direct shipping route
from Wyndham or Darwin
to Lianyungang, China



Powering Technology.

Pilot Plant Processing Plant

Financing

Sales Agreement

Processing Plant

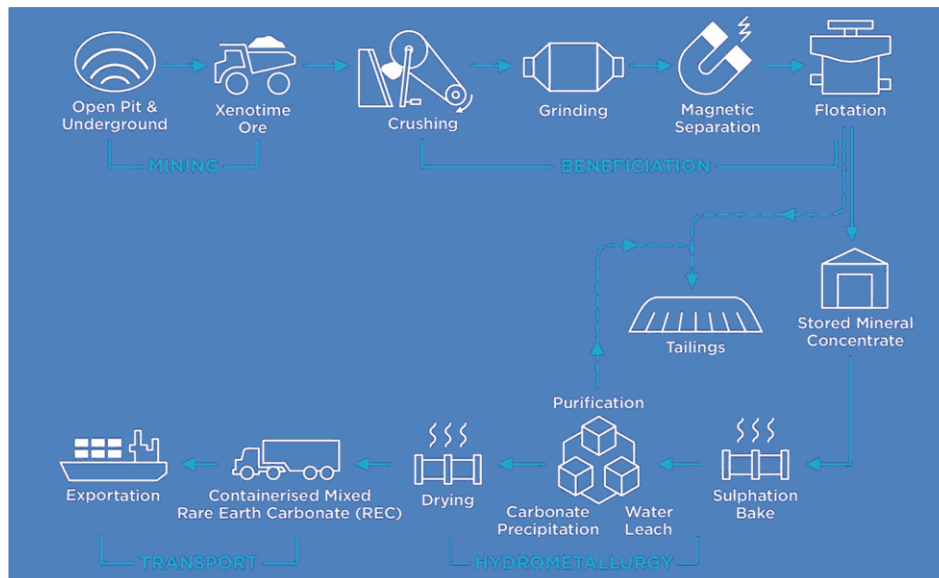
Open Pit Mining

Office & Camp

Tailings Dam

Schedule

Feasibility



Project Component:

Modular processing plant

Contractor:

Sinosteel MECC

Annual Production:

60,000tpa (based on 10 operating months per year)

Capital Cost:

A\$39 million

Status:

Under construction in China

Open Pit Mining

Financing

Sales Agreement

Processing Plant

Open Pit Mining

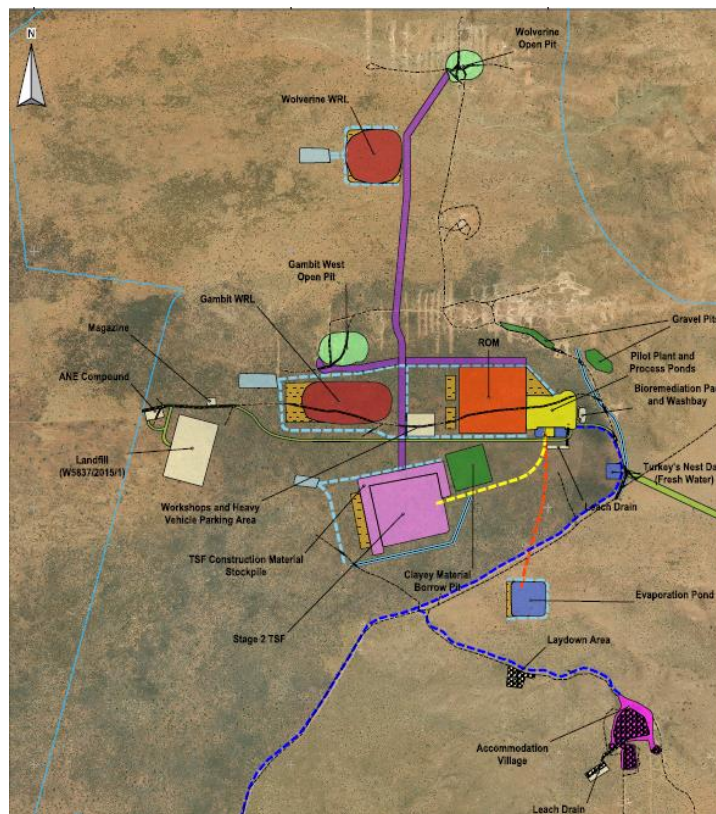
Office & Camp

Tailings Dam

Schedule

Feasibility

Powering Technology.



Project Component:

Open Pit Mining

Contractor:

MACA Limited

Scale:

180,000t ore mined

Total Cost:

A\$6 million

Status:

Fleet mobilising June 2017

Entire mining project to be completed in November 2017

Office and Camp Infrastructure

Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

Tailings Dam

Schedule

Feasibility



Project Component:

Associated infrastructure

Contractor:

ATCO

Details:

Camp increased from 21 to 49 personnel
New office and workshop facilities

Capital Cost:

A\$1 million

Status:

Units arrived on site in May 2017
Assembly commenced

Tailings Dam Construction

Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

 Tailings Dam

Schedule

Feasibility



Project Component:

Tailings Storage Facility construction

Contractor:

MACA Limited

Details:

Construction of tailings storage facility

Capital Cost:

A\$1.2 million

Status:

To be constructed using waste material from open pit mining

Schedule

Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

Tailings Dam

	2017									2018					
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Final Investment Decision	✓														
Mining & Bulk Earthworks															
Design & Fabrication		✓													
Installation															
Research & Development															

Schedule

Feasibility

Feasibility

Financing

Sales Agreement

Processing Plant

Open Pit Mining

Office & Camp

Tailings Dam

Schedule

Feasibility

- The three-year pilot project has been designed to assess the technical and economic feasibility of the proposed full-scale development.
- Key aspects of assessment during the Pilot Plant phase:
 - Mining and ore variability;
 - Flowsheet and recovery optimisation;
 - Water and environmental considerations;
 - Transport and shipping logistics;
 - End user product specifications; and
 - Long term dysprosium market dynamics.
- These determining factors will be incorporated into an updated feasibility study for the proposed full-scale operation.

Key Personnel and Partners

Key Site Personnel:

Chris Lee – Resident Manager

Eben Van Rooyen – Project Manager



George Bauk
Managing
Director/CEO



Robin Jones
Chief Operating
Officer



Bin Cai
Executive
Officer



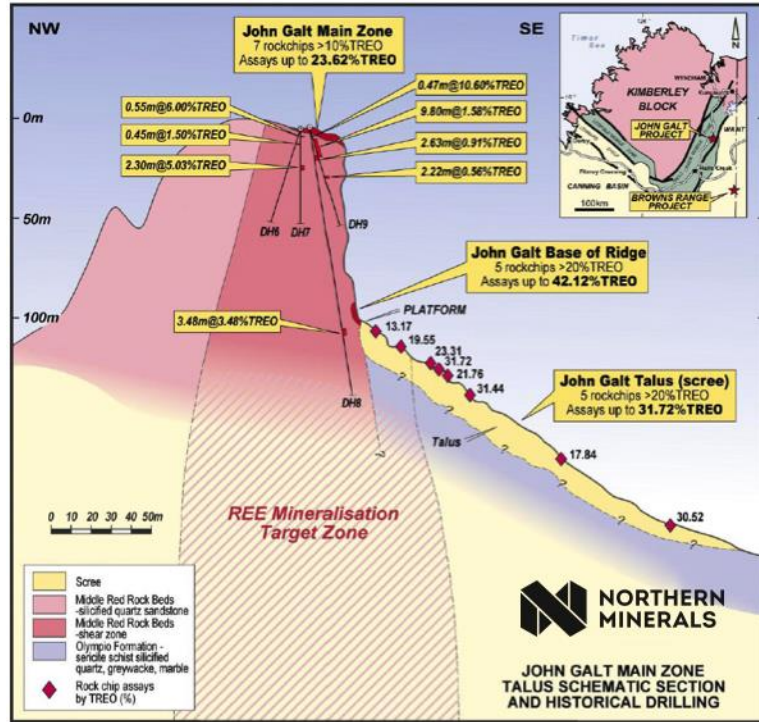
Mark Tory
Chief Financial
Officer



Robin Wilson
Exploration
Manager

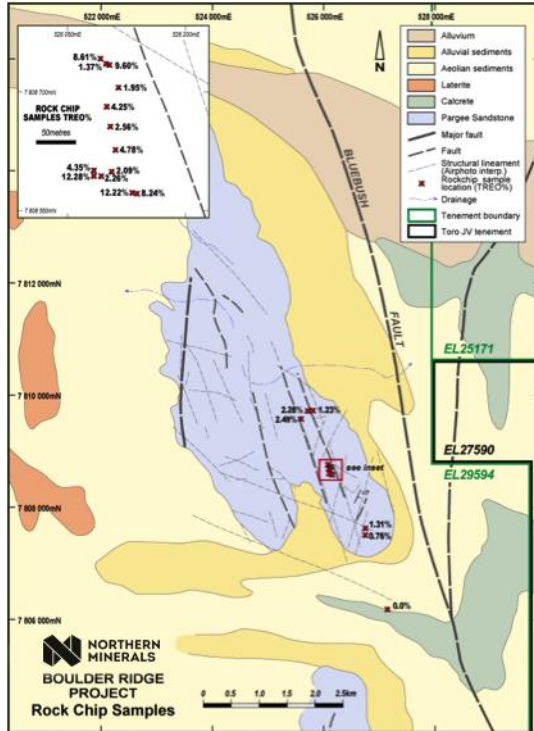


Beyond Browns Range: John Galt



- Rock chip samples up to 42% TREO with approximately 95% Heavy REO
- Preliminary metallurgical tests indicate excellent recovery rates (>90%) with potential for concentrate grades >40%
- High grade mineralisation in talus (scree) material – hard-rock source of scree is the primary target

Beyond Browns Range: Boulder Ridge



- Rock chip samples from the Boulder Ridge project confirm high-grade Heavy Rare Earths (HRE)
- Best results exceed 12% TREO, including up to 1.15% Dysprosium, with a dominance of HRE – up to 99%.
- Reinforces significant growth potential in Browns Range and Tanami regions.

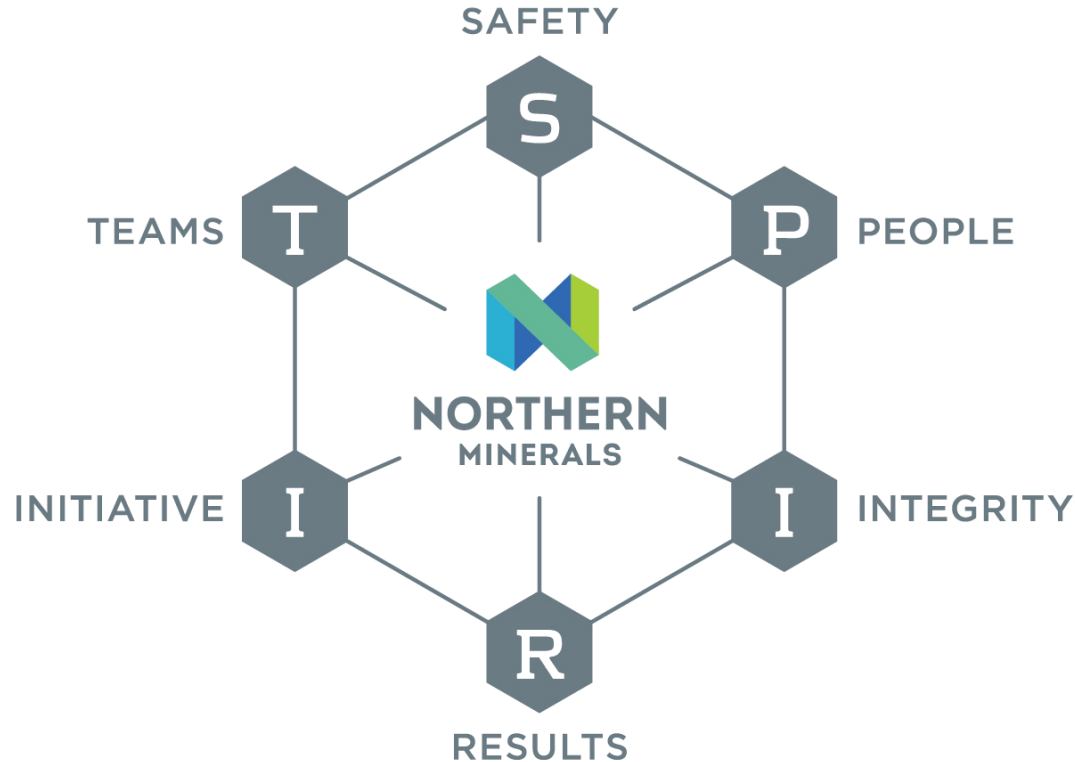


2017 to date....

- Raised \$19.5m at 91% premium
- \$10m placement at 13.5 cents
- \$11m Sinosteel MECC deferred payments
- \$10m JFMAG sales agreement prepayment
- Design completed
- Approved by Board
- Mining and bulk earthworks contract signed



The Northern Minerals SPIRIT





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Northern Minerals: Building an Australian greenfields discovery



Appendices



Dysprosium is a critical technology metal



➤ Rare Earths

- Dysprosium
- Terbium
- Neodymium
- Praseodymium

- Lithium
- Graphite
- Cobalt
- Nickel



Mineral Resources

Deposit	Category	Mt	TREO	Dy ₂ O ₃	Y ₂ O ₃	Tb ₄ O ₇	HREO	TREO
			%	Kg/t	Kg/t	Kg/t	%	Kg
Wolverine	Indicated	2.99	0.83	0.73	4.86	0.11	89	24,952,000
	Inferred	1.97	0.89	0.76	5.13	0.11	88	17,609,000
	Total¹	4.97	0.86	0.74	4.97	0.11	89	42,560,000
Gambit West	Indicated	0.27	1.26	1.07	7.06	0.14	90	3,424,000
	Inferred	0.12	0.64	0.54	3.67	0.07	85	753,000
	Total¹	0.39	1.07	0.91	6.04	0.12	89	4,177,000
Gambit	Indicated	0.05	1.06	0.92	6.62	0.12	97	533,000
	Inferred	0.06	1.2	1.01	6.8	0.15	95	671,000
	Total¹	0.11	1.13	0.97	6.72	0.13	96	1,204,000
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
	Total¹	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
	Total¹	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
	Total¹	1.66	0.21	0.16	1.17	0.02	87	3,484,000
Total¹	Indicated	4.69	0.70	0.59	3.95	0.09	87	32,862,000
	Inferred	4.28	0.56	0.46	3.15	0.07	87	23,802,000
	Total¹	8.98	0.63	0.53	3.56	0.08	87	56,663,000

Ore Reserves

Deposit	Classification	Ore Tonnes	TREO		Dy ₂ O ₃		Tb ₄ O ₇		Y ₂ O ₃	
			kg/t	kg Contained	kg/t	kg Contained	kg/t	kg Contained	kg/t	kg Contained
OPEN PIT										
Wolverine	Probable	833,000	6.15	5,124,000	0.55	460,000	0.08	66,000	3.59	2,989,000
Gambit West	Probable	219,000	10.10	2,212,000	0.83	182,000	0.11	25,000	5.52	1,209,000
Gambit	Probable	37,000	8.05	298,000	0.68	25,000	0.09	3,000	4.74	176,000
Area 5	Probable	467,000	2.24	1,048,000	0.14	65,000	0.02	10,000	0.99	463,000
UNDERGROUND										
Wolverine	Probable	2,104,000	8.00	16,833,000	0.70	1,483,000	0.10	221,000	4.71	9,908,000
Gambit West	Probable	90,000	9.54	860,000	0.88	79,000	0.11	10,000	5.78	521,000
RESERVE										
Total	Probable ¹	3,750,000	7.03	26,375,000	0.61	2,294,000	0.09	335,000	4.07	15,266,000

¹ Rounding may cause some computational discrepancies

NTU Board



Colin McCavana - Non-executive Chairman

Mr McCavana has more than 35 years of management experience worldwide in the earthworks, construction and mining industries.

George Bauk - Managing Director / CEO

George is an experienced executive, with 25 years' experience in the resources industry. Prior to Northern Minerals, George held global operational and corporate roles with WMC Resources, Arafura Resources and Western Metals.

Adrian Griffin - Non-executive Director

An Australian trained mining professional with exposure to metal mining and processing throughout the world, Mr Griffin has been involved in the development of extraction technology for platinum group metals and agricultural commodities.

Nan Yang - Non-executive Director

Mr Yang is an Australian mining engineer with more than 10 years' experience in mine planning, design, and mergers and acquisitions.

Yanchung Wang - Non-executive Director (not in photo)

Ms Wang acts as a strategic investor for a number of Chinese based companies. Ms Wang is Vice Chairman of Conglin Baoyuan International Investment Group and also a Director of Huachen. Mr Bin Cai (pictured) is an alternative director for Ms Wang.

Executive Team



George Bauk
Managing Director / CEO

George is an experienced executive, with 25 years' experience in the resources industry. Prior to Northern Minerals, George held global operational and corporate roles with WMC Resources, Arafura Resources and Western Metals.



Mark Tory
Chief Financial Officer

Mark is a Chartered Accountant with 25 years of professional experience in the mining industry and accounting professions. Prior to Northern Minerals, Mark held senior positions at Crescent Gold Limited, Anglo American Exploration and Homestake Gold (now Barrick Gold).



Robin Jones
Chief Operating Officer

Robin has more than 20 years experience in the mining industry, the majority of which has been in the assessment and development of resource projects from scoping study level through to operation. Robin has held senior management positions in PGM, nickel, copper, gold and uranium projects in Australia, South Africa and China.



Robin Wilson
Exploration Manager

Robin has held senior exploration positions in several exploration and mining companies, including Polaris Metals, Tanganyika Gold, Troy Resources and CRA Exploration. In addition, he spent 5 years working in oil and gas exploration for Woodside Energy.



Bin Cai
Executive Officer

Bin is the MD of Conglin International Investment Group Pty Ltd based in Brisbane. He has a record of successful strategic investments in emerging Australian resources companies based on his long experience in resources investment.



Corporate Overview



Market capitalisation \$86M

(at 24 April 2017 @ \$0.125)

Ordinary Shares	689M
Options and Performance Rights	48.2M
Cash (24 April 2017)	\$14.5M
Debt (24 April 2017)	nil

Major shareholders	28 April 2017
Australian Conglin International Investment Group	28.8%
Huatai Mining	22.1%
Jien Mining	3.9%
Board & Management	2.6%
Remaining Top 20	17.5%
Other	25.1%

