

Delivering critical technology metals to the EV evolution



**NORTHERN
MINERALS**

Low Emission & Technology
Minerals Conference

15 November 2017

Disclaimer



This presentation has been prepared by Northern Minerals Limited (“Northern Minerals” or the “Company”). It should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation.

This presentation contains forecasts and forward looking information. Such forecasts and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. Northern Minerals has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this presentation. Accordingly, to the maximum extent permitted by applicable laws, Northern Minerals makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and take no responsibility and assume no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission, from any information, statement or opinion contained in this presentation.

You should not act or refrain from acting in reliance on this presentation material. This overview of Northern Minerals does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company's prospects. You should conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation and making any investment decision.

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](http://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 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.

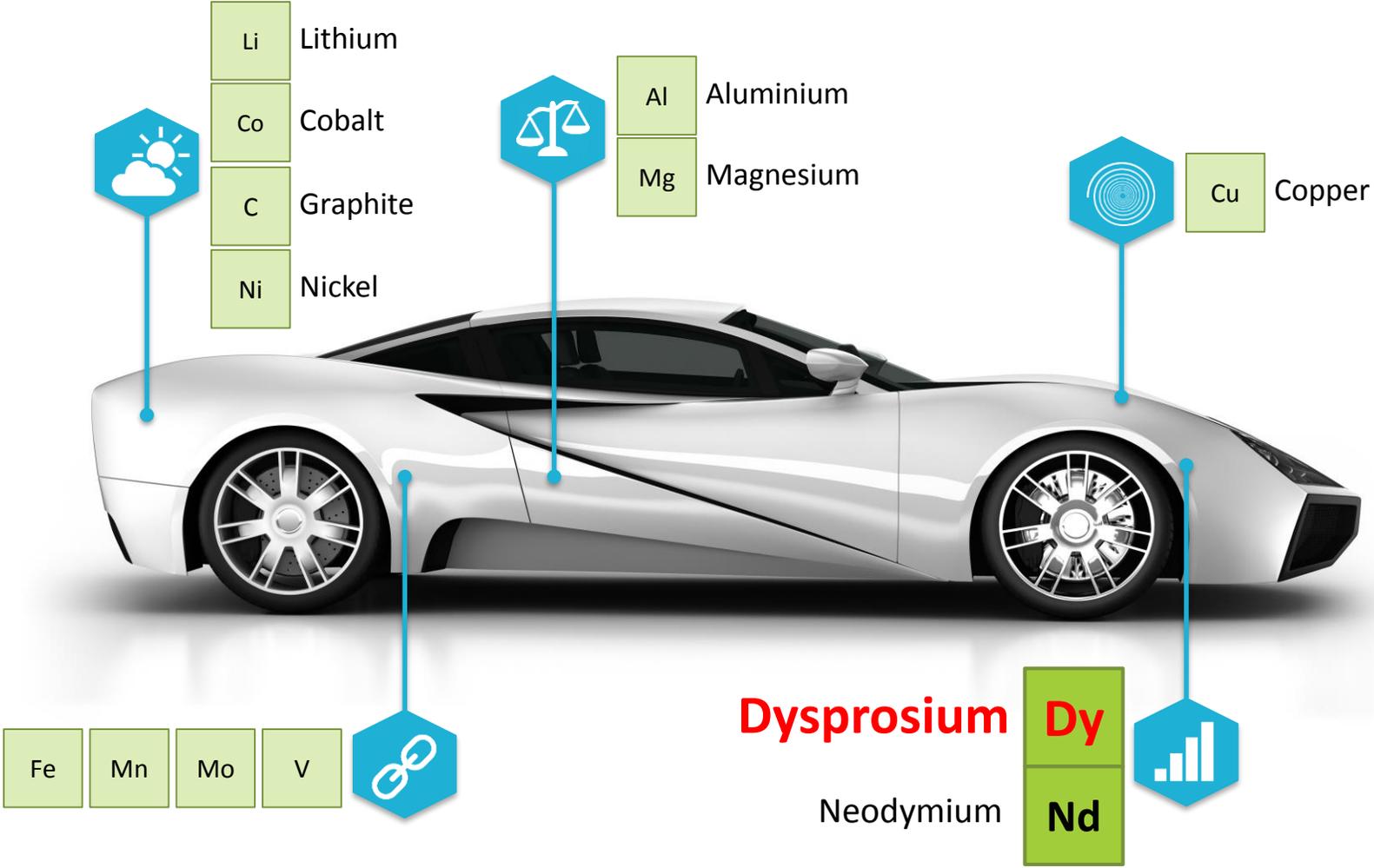
The information in the announcement that relates to production targets is extracted from the report entitled “DFS positions Browns Range Project as next dysprosium supplier” dated 2 March 2015 and is available to view on the Company's website ([northernminerals.com.au](http://www.northernminerals.com.au)). 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 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_{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



Electric Vehicles – Not just a lithium story!



Dysprosium

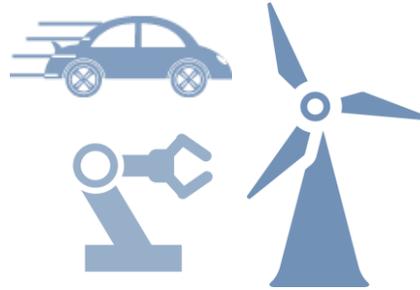
66

Dy

162.5

99%

Production from
China



**Lighter &
More Efficient**

20m

Forecast EV sales
by 2020

100g

Dysprosium per
electric vehicle

2,000tpa

EV demand for
Dy by 2020

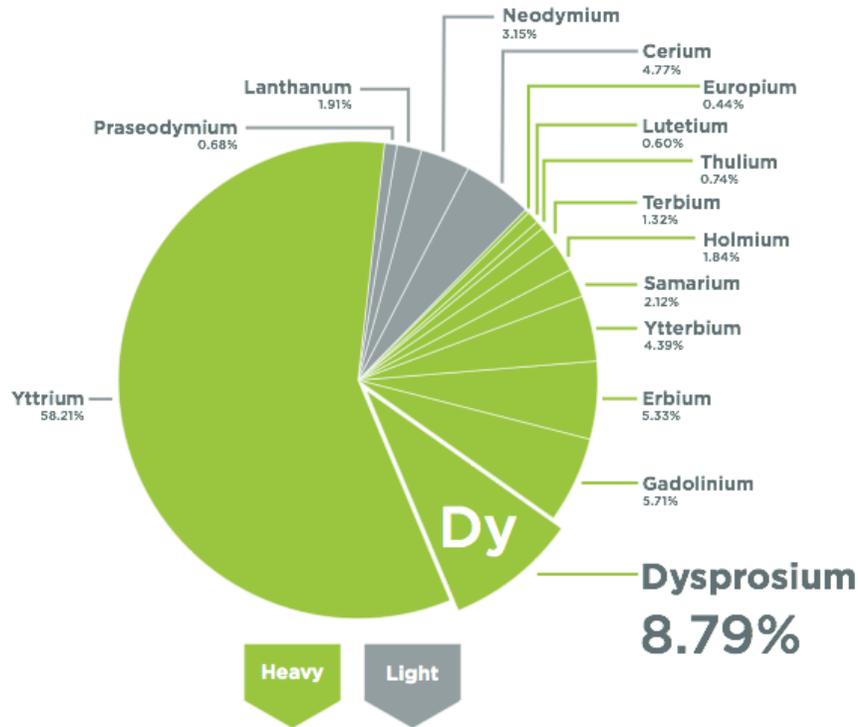


**Government
mandated change**



Northern Minerals Browns Range

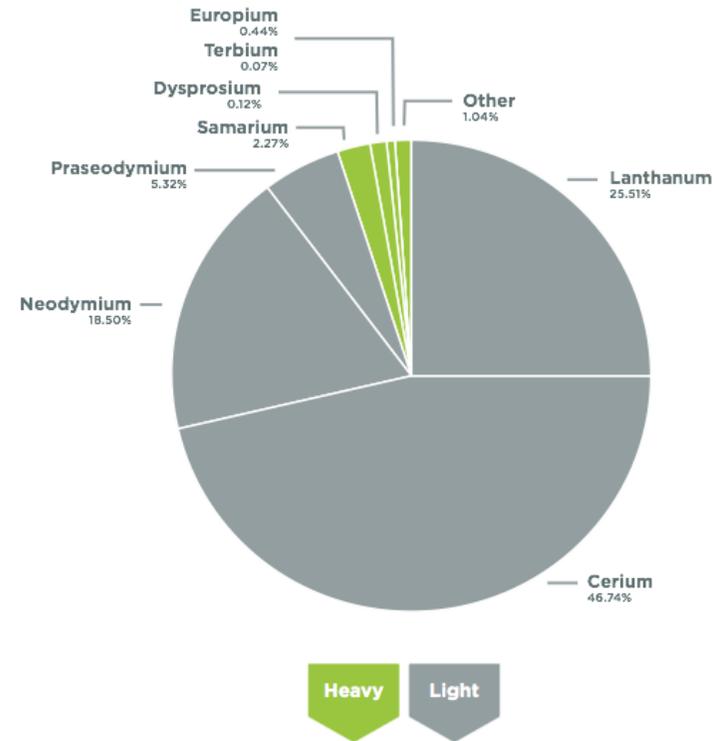
Rare earth distribution ¹



¹ Based on Wolverine Mineral Resource

Lynas Mt Weld

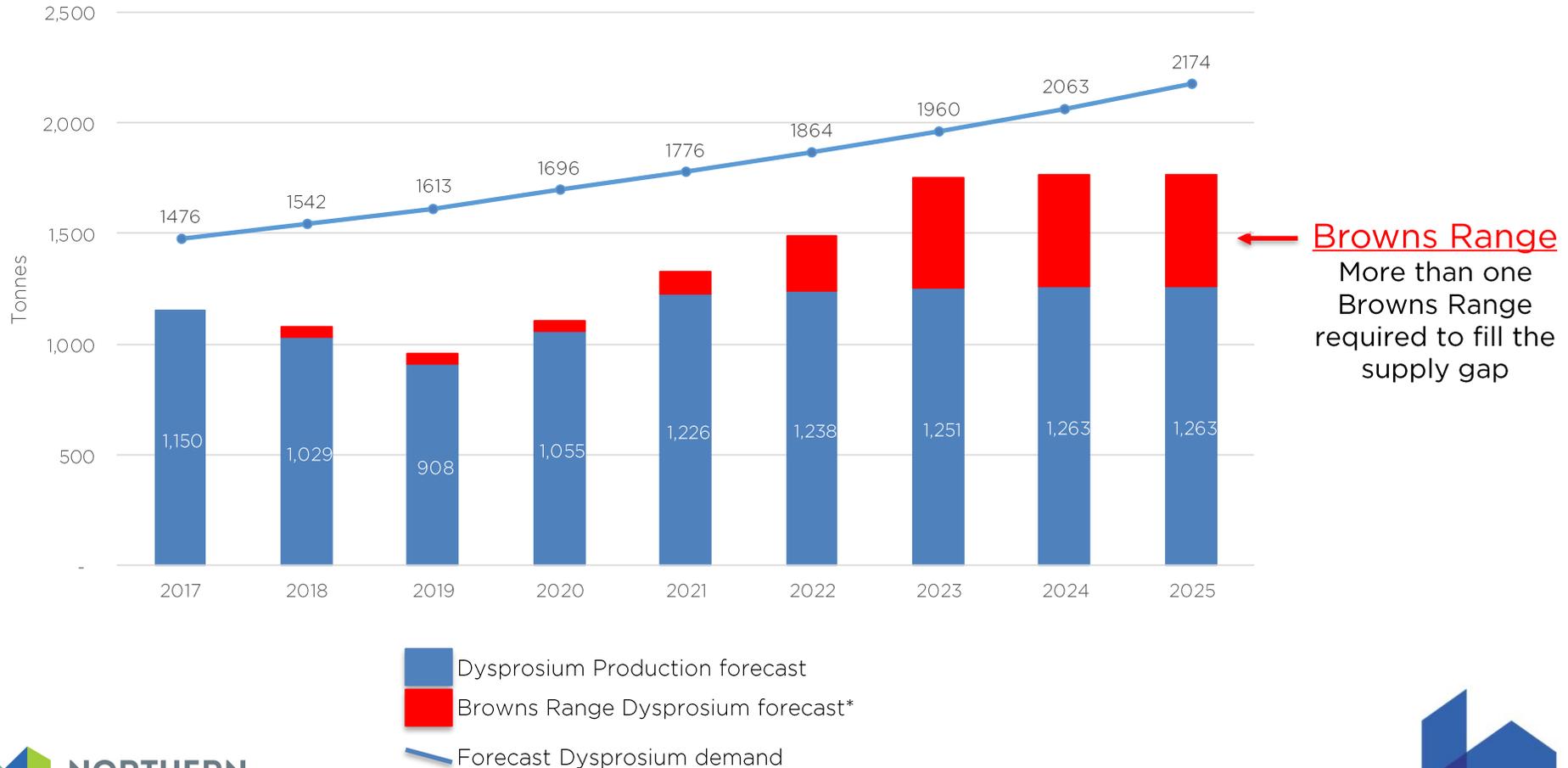
Rare earth oxide composition ²



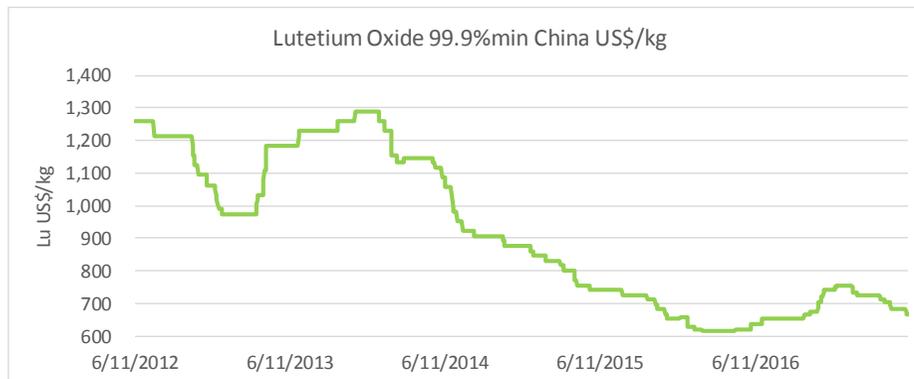
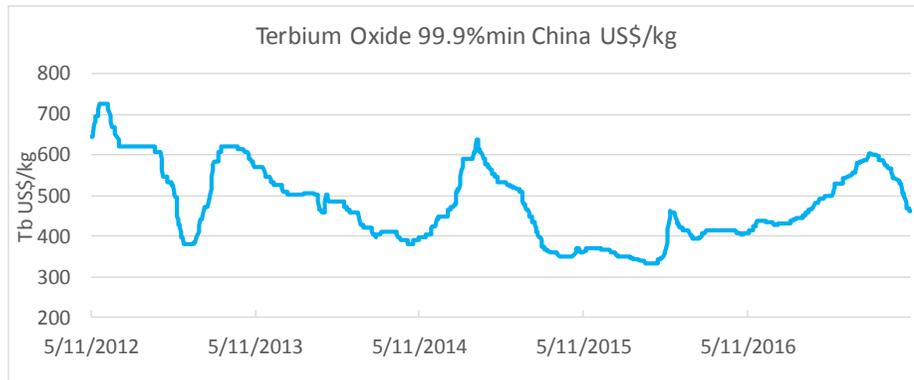
² Source: Lynas Corporation website



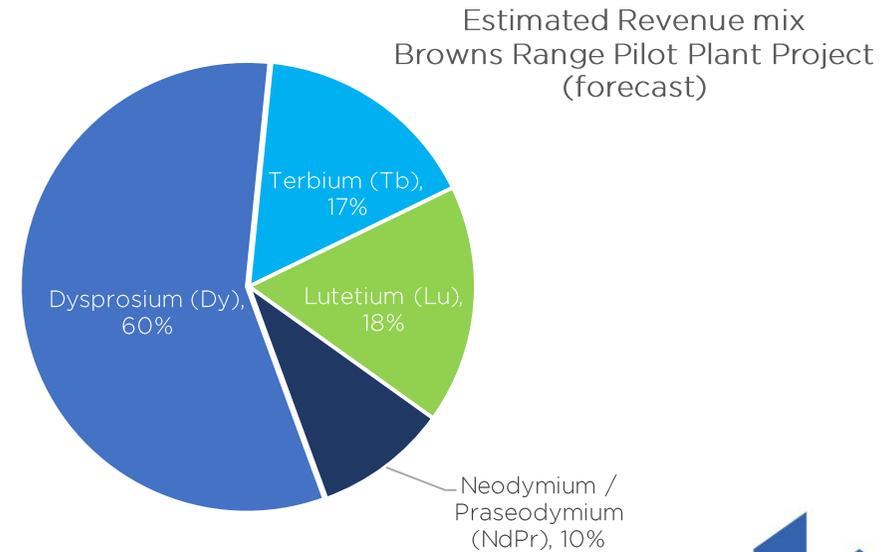
Browns Range - Filling the Dysprosium supply gap



HRE - sustainable pricing



Increased demand from new EV sales coupled with crackdown on illegal mining in China will positively impact prices



Three stage approach to full scale production

Stage 1

TEST PILOT PLANT

- 10% of full scale capacity
- Production – July 2018
- Develop, mining, processing & offtake experience
- 573tpa contained TREO
- 72ktpa capacity beneficiation plant
- 3,840tpa capacity hydrometallurgical plant

UNDERWAY

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



Powering Technology.



In July 2017, Northern Minerals delivered first ore to the ROM Pad



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



Mining now de-risked



Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community

Feasibility

Project Component:
Open Pit Mining

Production Target:
200,000t ore (revised)

Contractor:
MACA Limited

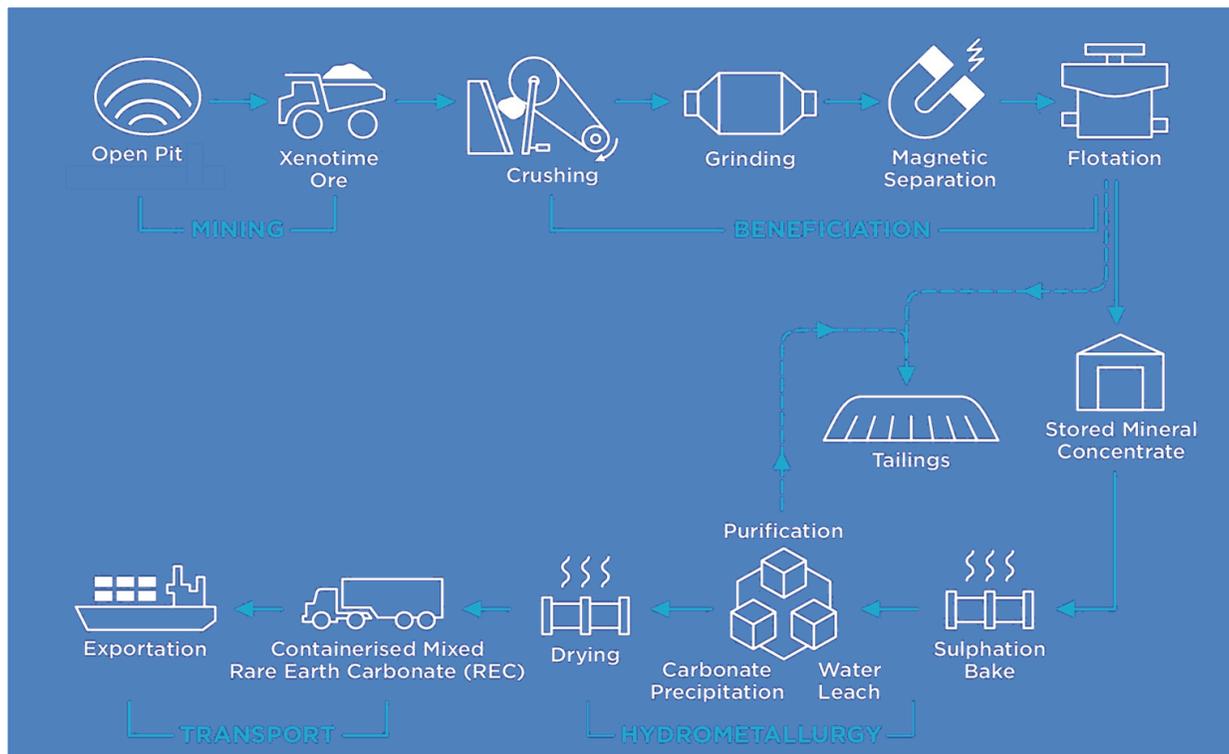
Total Cost:
A\$6 million

Status:

Mining commenced June 2017
Ore mining volumes revised from 180kt to 200kt
Entire mining project to be completed in November 2017



Pilot Plant Flowsheet



Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community

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:
Well advanced in China
Transport to site underway

Pilot Plant Equipment

Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community

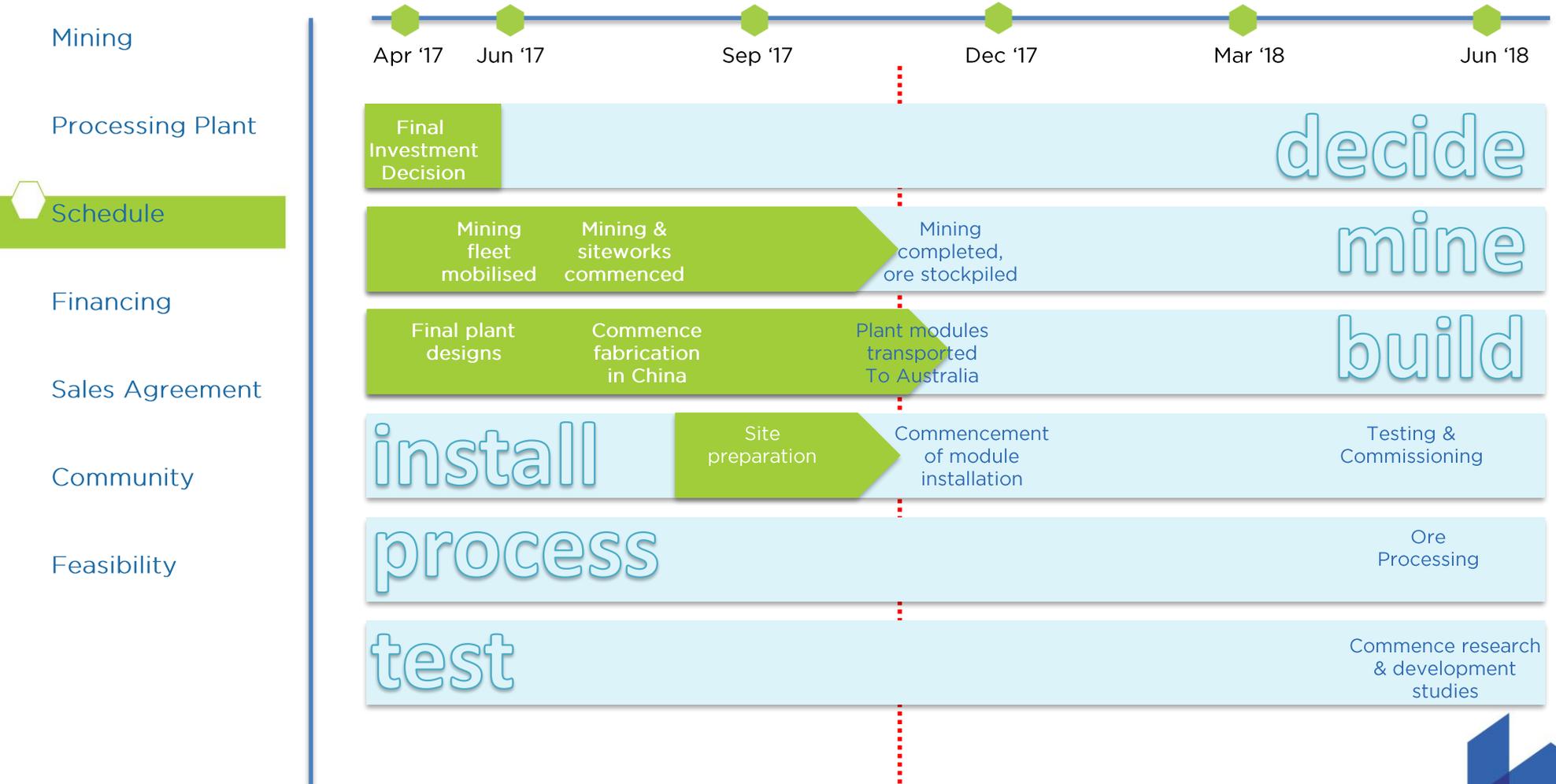
Feasibility



Fabrication works nearing completion in China



Project development schedule



Pilot Plant financing

Mining

Processing Plant

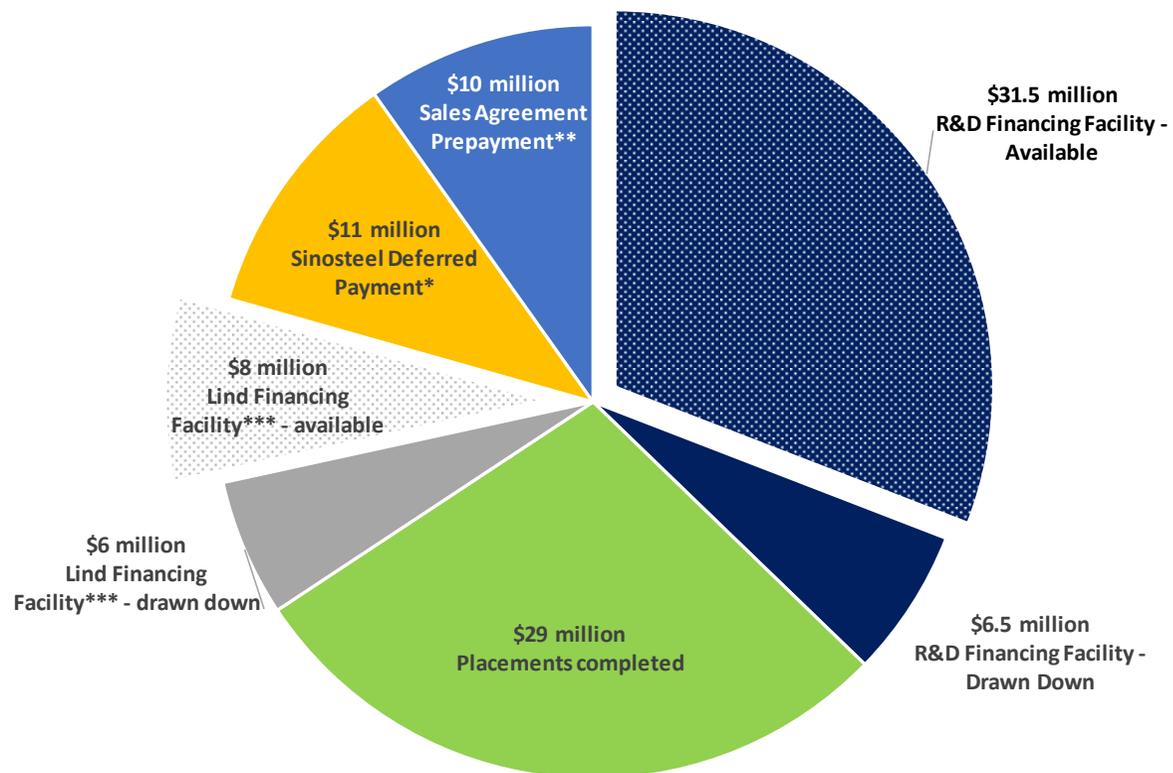
Schedule

Financing

Sales Agreement

Community

Feasibility



* Sinosteel MECC has agreed to defer 20% of its contract amount for 24 months, with the ability to convert into Northern Minerals' shares at a conversion price of the lessor of \$0.15 per share or 20 day VWAP prior to conversion notice

** JFMAG has agreed to prepay \$10m (expected payment Q1 2018). JFMAG will be issued 40m unlisted options upon receipt of the loan advance with a \$0.25 exercise price.

*** Northern Minerals has drawn down \$6m of a \$14m financing facility.

Secure sales agreement



Mining

Processing Plant

Schedule

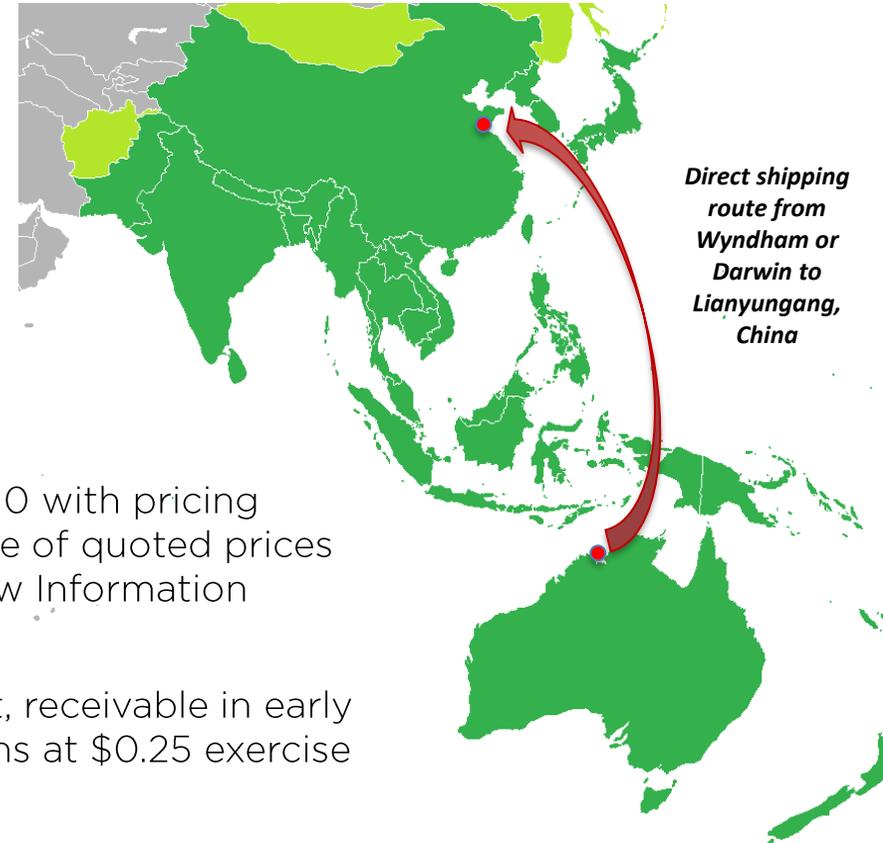
Financing

Sales Agreement

Community

Feasibility

100% of Browns Range Pilot Plant production to be purchased by Lianyungang Zeyu New Materials Sales Co Ltd (JFMAG), a 51% owned subsidiary of Guangdong Rare Earths Group.



- Terms based off CIF Incoterms 2010 with pricing referenced from a 2-month average of quoted prices on Asian Metals and Beijing Ruidow Information Technology.
- Includes A\$10 million pre-payment, receivable in early 2018 and 40 million unlisted options at \$0.25 exercise price.
- Representative to join Northern Minerals' Board upon receipt of funds.

Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community

Feasibility



- Northern Minerals has partnered with The Wunan Foundation for the establishment of an \$8.1 million indigenous training-to-work facility at Browns Range.
- The Federal Government, under the Building Better Regions Fund (BBRF) has provided funding of \$4.8 million towards the programme.
- Construction of the facility will commence soon.



Pilot Plant feasibility

Mining

Processing Plant

Schedule

Financing

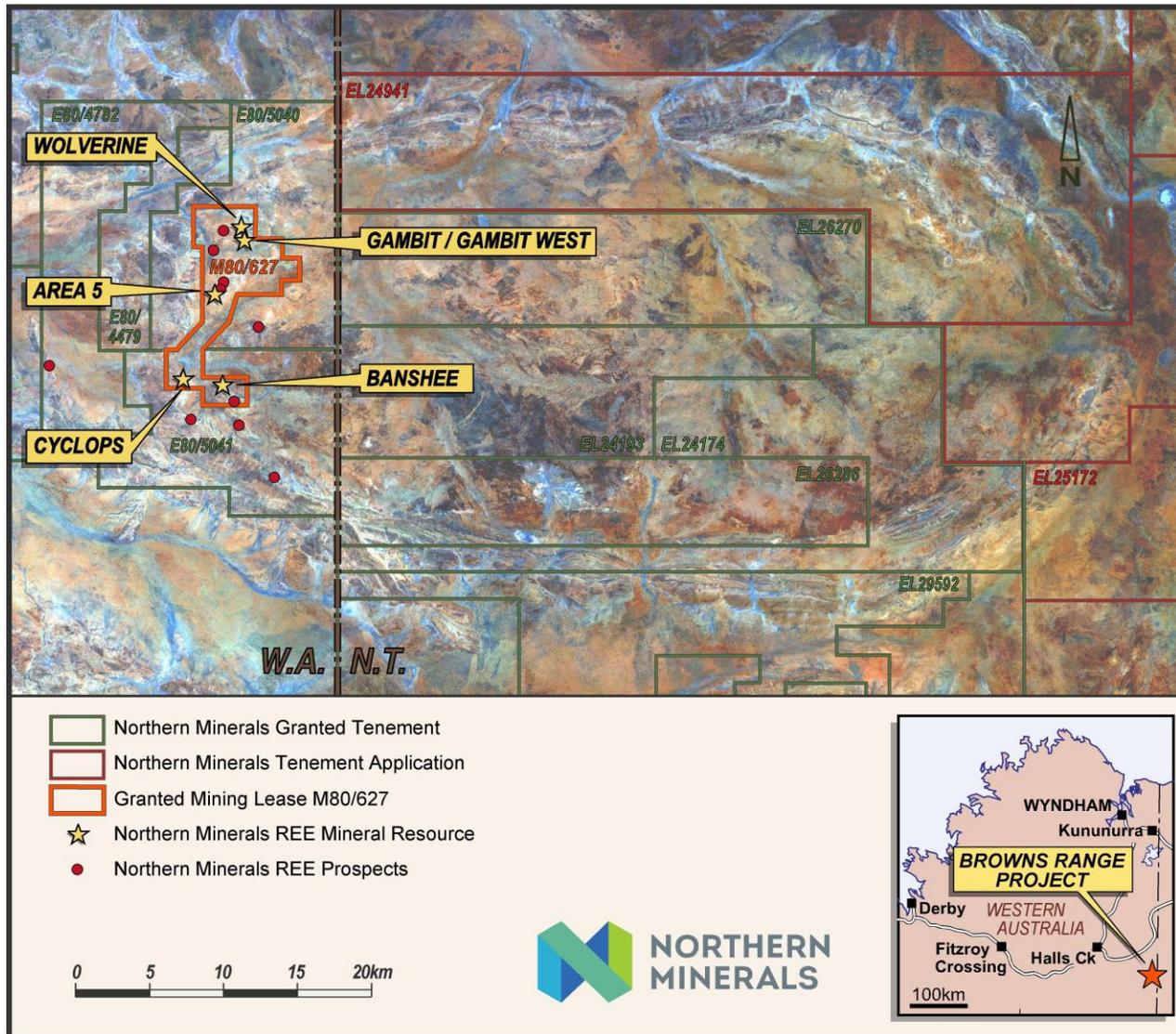
Sales Agreement

Community

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.

Blue Sky potential



The Browns Range dome is a massive geological feature covering 1,500km² and stretching 60km x 30km most of which hasn't been effectively explored

- ◆ JORC Resource supporting an 11 year full scale operation
- ◆ Exploration target to add additional 9 years of JORC Resources
- ◆ 170 defined targets yet to be drilled
- ◆ John Galt and Boulder Ridge – Additional HRE projects with upside potential



Key Personnel and Partners

Key Site Personnel:

Chris Lee - Resident Manager
Eben Van Rooyen - Project Manager
Louis de Klerk - R&D Manager



BREVET CAPITAL MANAGEMENT



Powering Technology.

Key Highlights

2017 HIGHLIGHTS

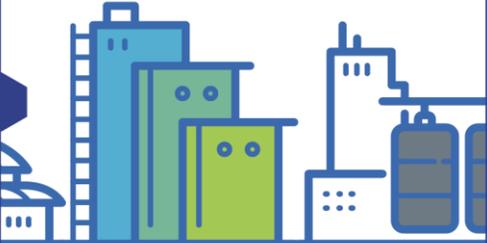


MINING
200,000t mining campaign to be completed by end 2017.

\$29M

EQUITY FINANCING
Placements completed at average price of 12.5 cents per share

PILOT PLANT DEVELOPMENT
3 year project to assess feasibility of full scale operation



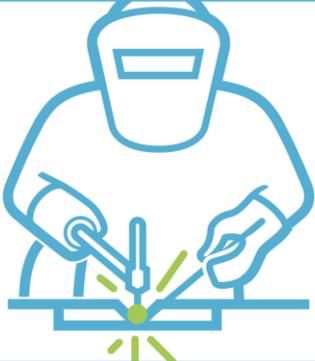
\$52M

DEBT FACILITIES
\$38m R&D Financing Facility plus \$14m Lind Facility

OFFTAKE AGREEMENT
100% of Pilot Plant production contracted to JFMAG



CHINA



FABRICATION COMMENCED
Sinosteel MECC constructing modular plant in China

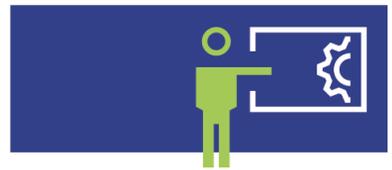


INSTALLATION
Primero mobilised and site construction underway



2018 - Delivering on potential

2018 PLANS



TRAIN & LEARN
Implementation of Training-to-Work Program

PRACTICAL COMPLETION
Commence Research & Development studies

EXPLORE
Continue exploration on multiple HRE opportunities

CASHFLOW
Commence product sales from Browns Range

FIRST PRODUCT DELIVERY
Mixed rare earth carbonates

Dy

RESEARCH & DEVELOPMENT
Assess the technical and economic feasibility of the larger scale operation



Corporate Overview

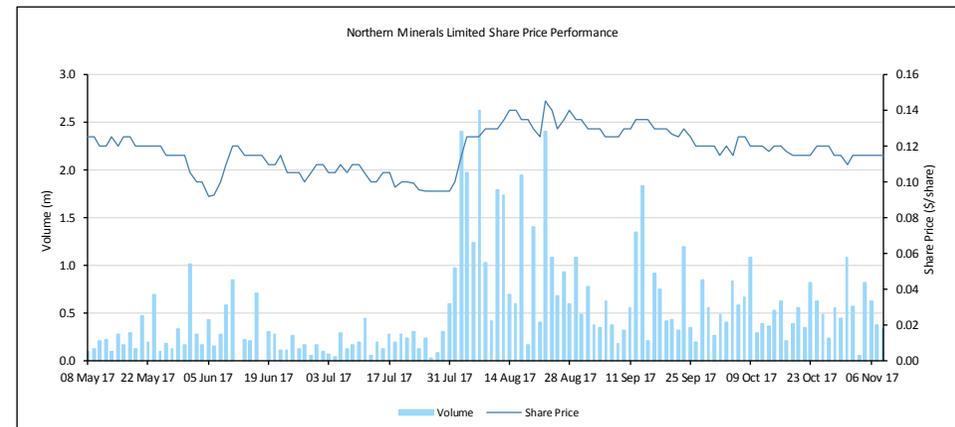


Major shareholders	31 October 2017
ACIIG	25.0%
Huatai Mining	20.4%
Jien Mining	3.4%
Board & Management	2.3%
Remaining Top 20	22.1%
Other	26.8%

Market capitalisation \$92M

(at 9 November 2017 @ \$0.115)

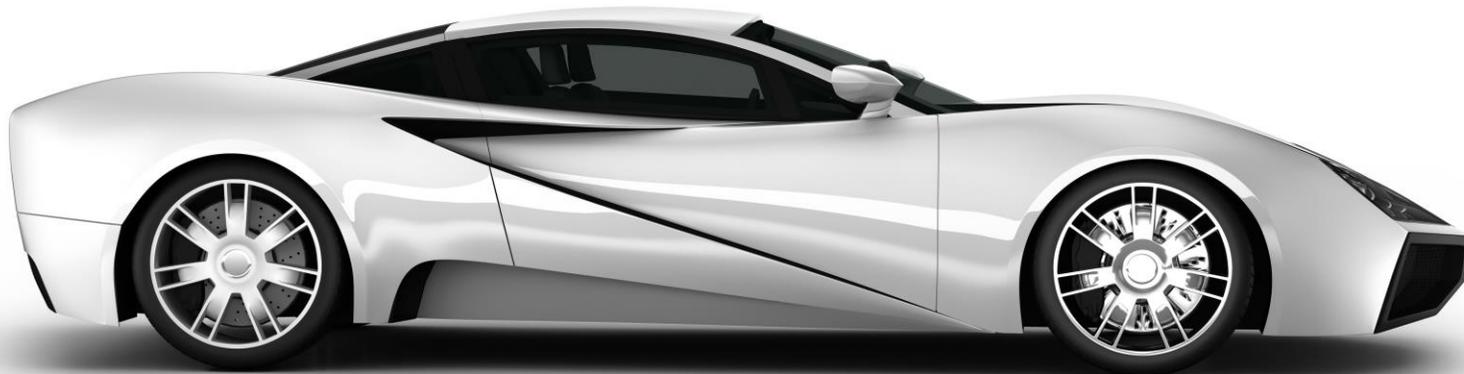
Ordinary Shares	798M
Options and Performance Rights	72M
Cash (30 September 2017)	\$5.0M
12 month low - high	\$0.092 - \$0.16
Average daily volume (12 month avg)	488,000
Average daily volume (3 month avg)	678,000





**NORTHERN
MINERALS**

Delivering critical
technology metals to the
EV evolution



Appendices



Powering Technology.



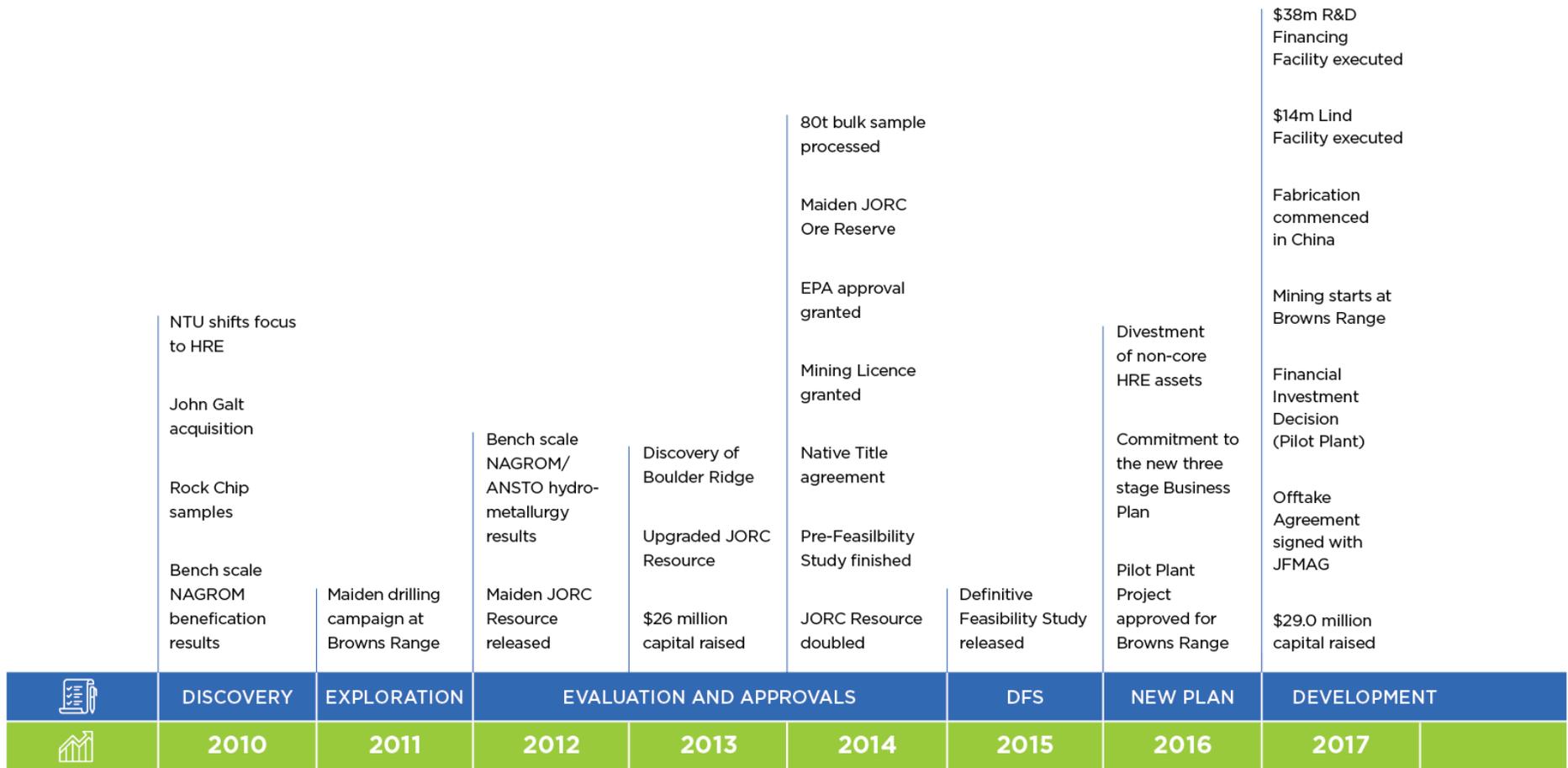
Heavy rare earths crucial to growth of electric vehicle sector



- ◆ NdDyFeB permanent magnets used by major electric vehicle (EV) manufacturers require Dysprosium and Terbium as key additives for high performance
- ◆ Changing policy settings by European governments and future development plans by global carmakers have resulted in demand for EVs reaching an inflection point
- ◆ Permanent magnets account for 25% of rare earth demand in tonnes and 80% in value and the increasing rate of market acceptance has translated into significantly higher prices for heavy rare earth elements specifically
- ◆ UBS has increased forecasts on EV production as a consequence of earlier than expected EV cost parity, with EV sales expected to grow from 1.2 million in 2015 to >20 million by 2020
- ◆ Each electric vehicle contains approximately 100g of Dysprosium



Browns Range – A Seven Year Journey



Global EV growth drivers



Battery technology eliminating range technology



Regulatory support for lower emission vehicles



Consumer demand reaches inflection point



EVs approaching price parity with combustion vehicles



EV acceptance reaches inflection point in 2017



CEFC
CLEAN ENERGY FINANCE CORP

Where we invest Case studies About us Publications **Media** Submit proposal

Media
Macquarie leasing drives electric vehicle and energy efficiency push with \$100M in CEFC finance



Chinese carmakers to dominate EV production



Powering Technology.



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

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



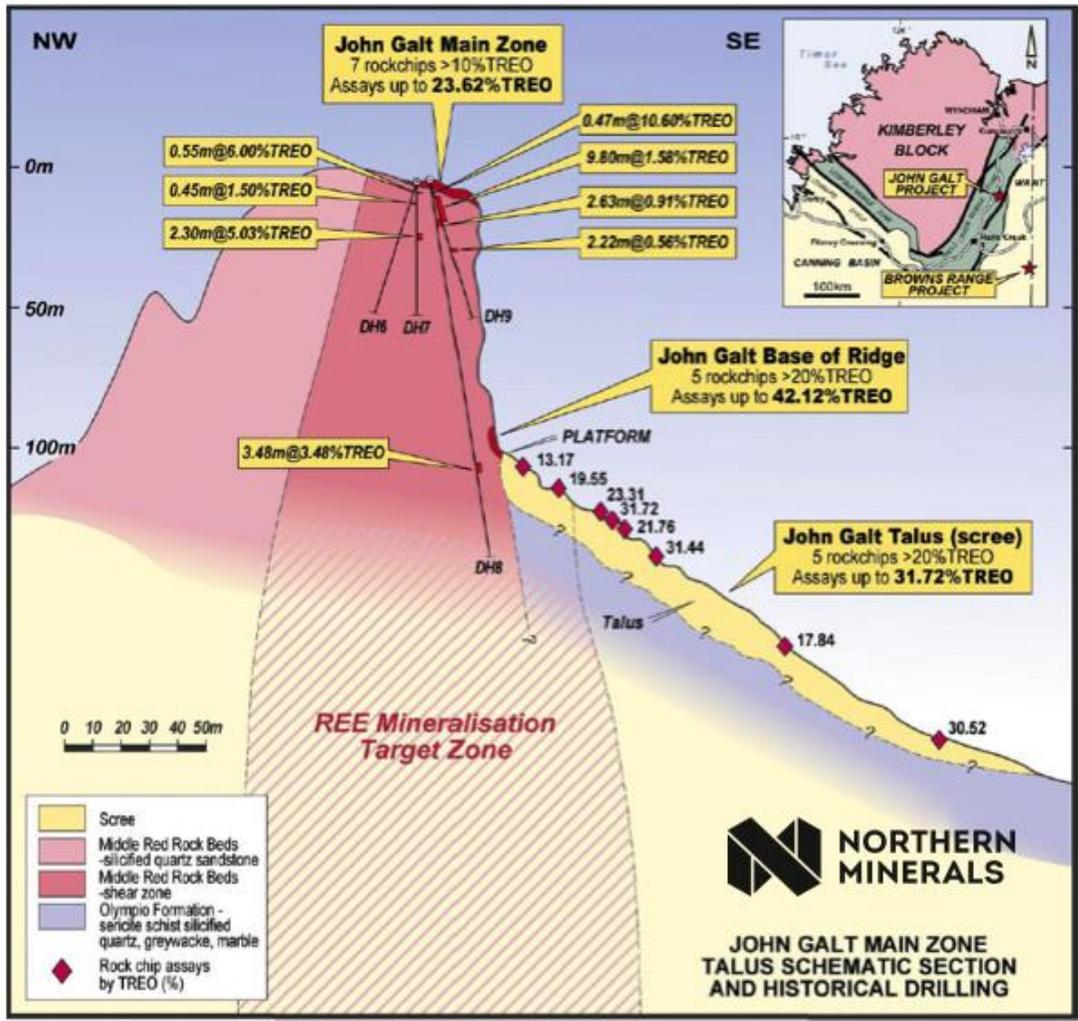
Ore Reserves

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	Probable¹	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



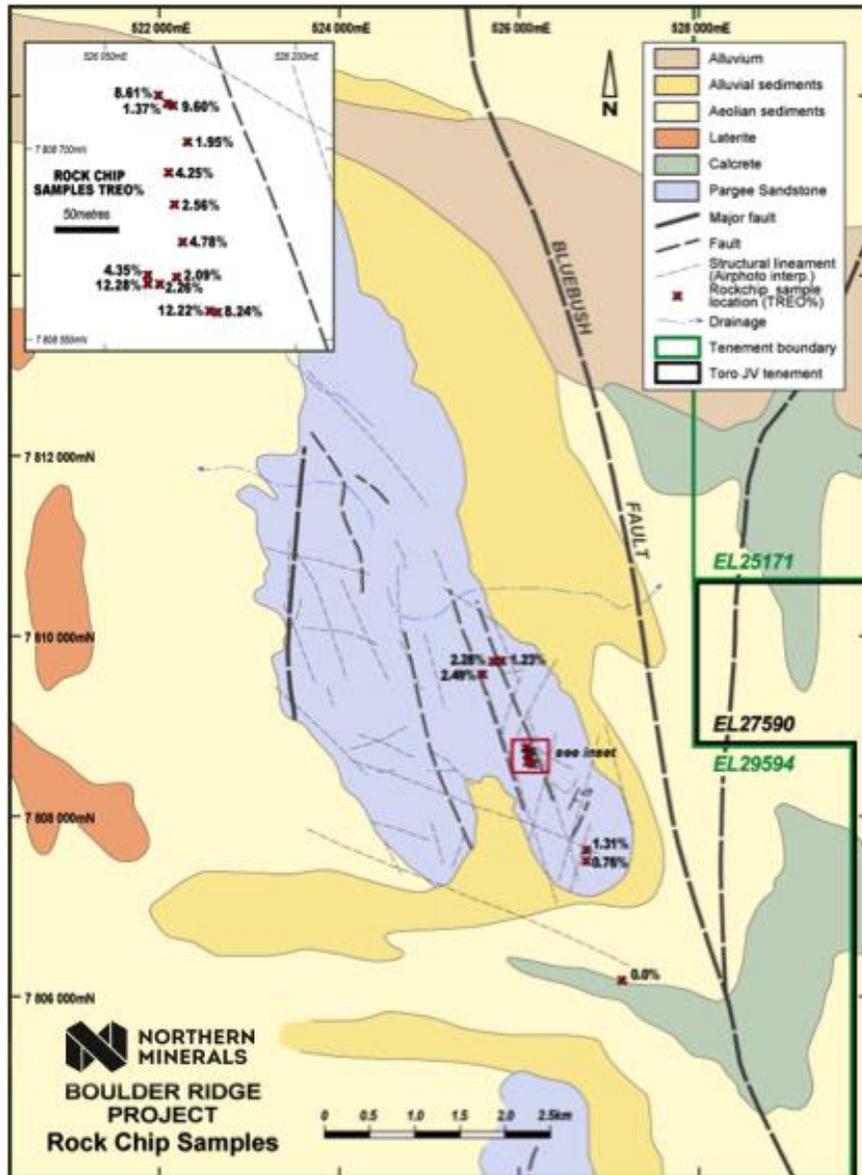
Beyond Browns Range: John Galt



- Rock chip samples up to 42% TREO with approximately 95% Heavy REO
- Preliminary metallurgical tests indicate excellent recovery rates (>90%)
- 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.



Powering Technology.



Pilot plant: targeted production

- ◆ Mixed RE carbonate (REC) produced
- ◆ Product specification available for REC
- ◆ REC samples validated by several downstream separators
- ◆ REC suitable for solvent extraction separation
- ◆ Low thorium and uranium levels

REO contained in mixed RE carbonate	Annual production (000s kg)
Lanthanum	5.8
Cerium	15.2
Praseodymium	2.8
Neodymium	10.6
Samarium	11.4
Europium	2.4
Gadolinium	34.8
Terbium	6.7
Dysprosium	49.4
Holmium	13.5
Erbium	39.3
Thulium	5.6
Ytterbium	33.1
Lutetium	4.5
Yttrium	337.6
Total TREO produced	573
Total carbonate produced	1,100

Figures may not add due to rounding
 TREO = Total Rare Earth Oxides- Total of Dy₂O₃, La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃



NTU Board



Nan
Yang

Colin
McCavana

Adrian
Griffin

George
Bauk

Bin
Cai

Colin McCavana - Non-executive Chairman (appointed 2006)

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

George Bauk - Managing Director / CEO (appointed 2010)

George is an experienced executive, with over 25 years' experience in the resources industry. Prior to Northern Minerals, George held global operational and corporate roles with WMC Resources, Arafura Resources and Indago Resources. Mr Bauk is Vice President of the Chamber of Minerals and Energy, WA.

Adrian Griffin - Non-executive Director (appointed 2006)

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 (appointed 2017)

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) (appointed 2013)

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.

Bin Cai - Non-executive Director (alternate) (appointed 2013)

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.



Executive Team



5 years

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).



5 years

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, RSA and China.



11 years

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.

Robin was instrumental in the discovery of the Browns Range Project, including Wolverine and Gambit West.



9 mths

Christopher Lee
Resident Manager

Chris is a degree qualified mining engineer with almost 30 years' experience predominately in open cut gold and iron ore mining operations through Western Australia. He has extensive mine design, planning, scheduling and management capabilities and is a key addition to our management team.



8 mths

Eben Van Rooyen
Project Manager

Mr Van Rooyen is a Project Manager with an electrical and mechanical engineering background with more than 35 years experience in the mining industry. Eben has significant gold industry experience in brownfields projects from concept and feasibility through to commissioning.



The Northern Minerals SPIRIT

