Delivering critical technology metals to the EV evolution





SPP to accelerate growth plans

Disclaimer



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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 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.northerminerals.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 - La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃

HREO = Heavy Rare Earth Oxides - Total of Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃



Four stage approach to full value capture

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



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

Stage 4 DOWNSTREAM

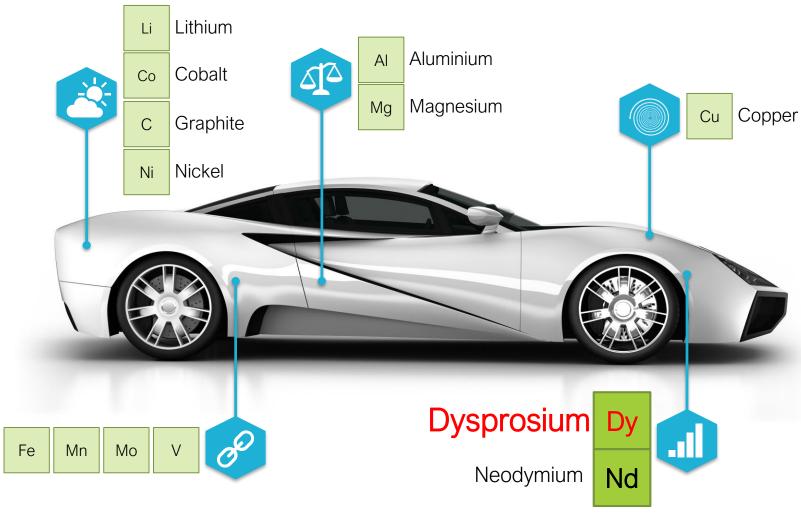
- Downstream separation of heavy rare earth elements
- Production of dysprosium oxide and terbium oxide
- Wider potential customer base
- Additional value capture

measured, sustainable, achievable





Electric Vehicles – Not just a lithium story!





Dysprosium

66 Dy 162.5

99%

Production from China



Lighter & More Efficient

20m

Forecast EV sales by 2025

100g

Dysprosium per electric vehicle

2,000tpa

EV demand for Dy by 2025



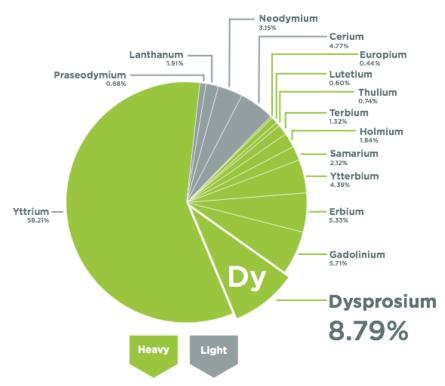
Government mandated change





Northern Minerals Browns Range

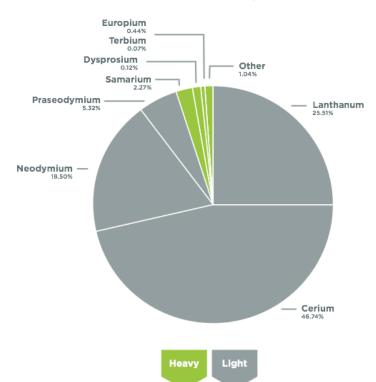
Rare earth distribution ¹



¹ Based on Wolverine Mineral Resource

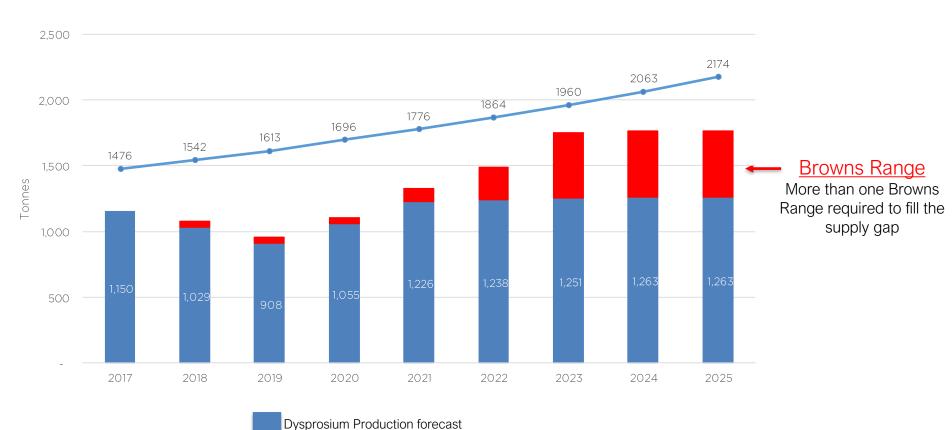
Lynas Mt Weld

Rare earth oxide composition ²



² Source: Lynas Corporation website

Browns Range - Filling the Dysprosium supply gap





7

Browns Range Dysprosium forecast*

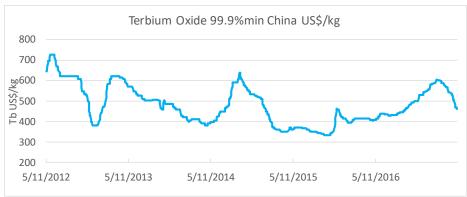
Forecast Dysprosium demand

HRE – sustainable pricing

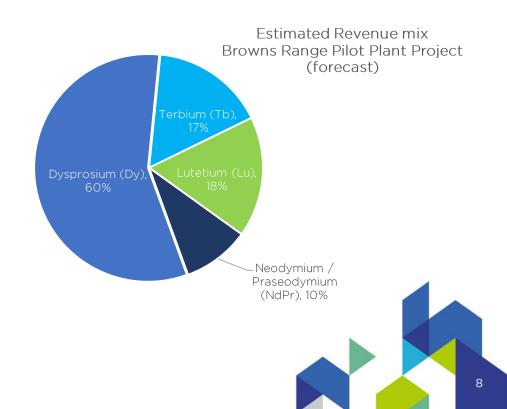












Powering Technology.

Share Purchase Plan to drive second wave

SPP Details

- Offer to existing shareholders;
- Right to subscribe for \$5,000, \$10,000 or \$15,000 worth of NTU shares;
- Issue Price \$0.078;
- Raising up to \$5 million, however management reserves rights to vary amount raised;
- Offer managed by OzFinancial +61 3 8080 5795 or admin@ozfinancial.com.au
- Offer closes 31 January 2018
- http://www.northernmineralsspp.com.au/INVE STMENT/NorthernMinerals.aspx



Four project enhancement initiatives:

- 1) Exploration increased exploration budget aimed at increasing mine life from 11 years to 20+ years.
- 2) Downstream Processing investigating the potential to produce separated rare earth oxides for direct sale to magnet makers.
- 3) Refine Project assessing areas where pilot plant learnings can be used to increase the value of the project.
- 4) New Project Opportunities investigating complementary projects to leverage experience.







Enhancement projects underway





Processing Plant

Schedule

Financing

Sales Agreement

Community



- 205,000t ore mined at Wolverine and Gambit West;
- Steeper walls employed, resulting in more ore and less waste;
- SPP funding to investigate this and other project enhancement initiatives for potential larger scale project.



Pilot Plant Flowsheet



Mining

Processing Plant

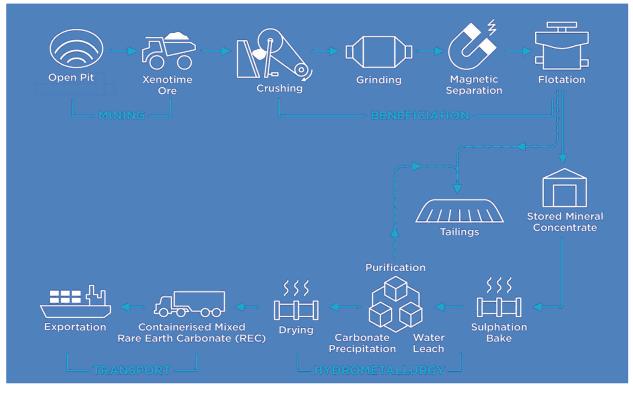
Schedule

Financing

Sales Agreement

Community

Feasibility



Project Component:

Modular processing plant

Annual Production:

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

Contractor:

Sinosteel MECC

Capital Cost:

A\$39 million

Status:

98% completed in China & delivered to site



Pilot Plant Equipment



Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community











Project development schedule

Mining

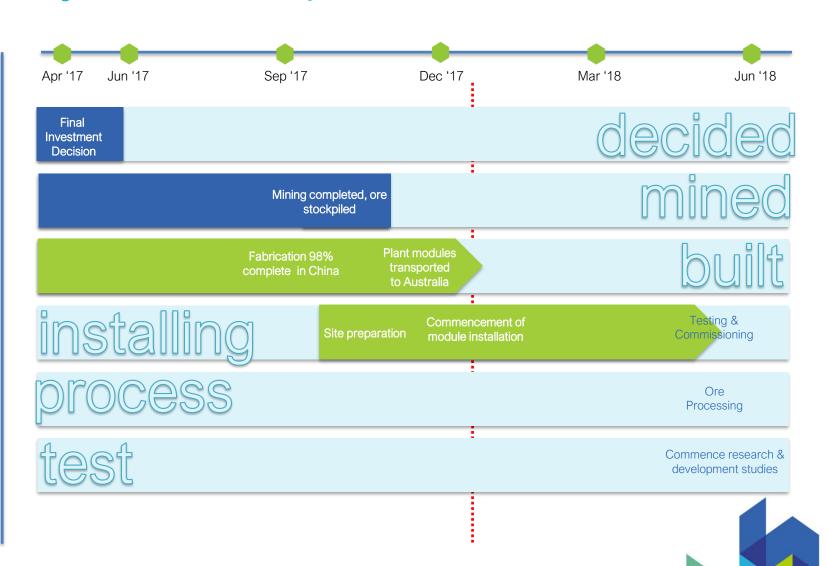
Processing Plant

Schedule

Financing

Sales Agreement

Community





Pilot Plant financing

Mining

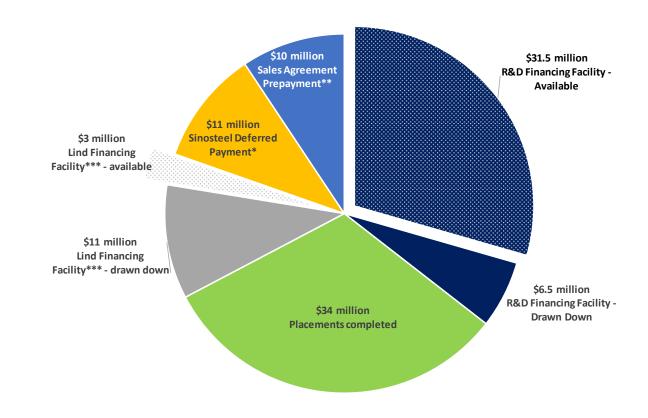
Processing Plant

Schedule

Financing

Sales Agreement

Community



^{*} 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 \$11m of a \$14m financing facility.

Secure sales agreement





Direct shipping

route from Wvndham or

Darwin to

Lianyungang, China

Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community

Feasibility

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

h pricing referenced son Asian Metals and vivable in early 2018 exercise price.

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.





Training-to-Work Facility



Mining

Processing Plant

Schedule

Financing

Sales Agreement

Community



- 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.

Full scale feasibility



Mining

Processing Plant

Schedule

Financing

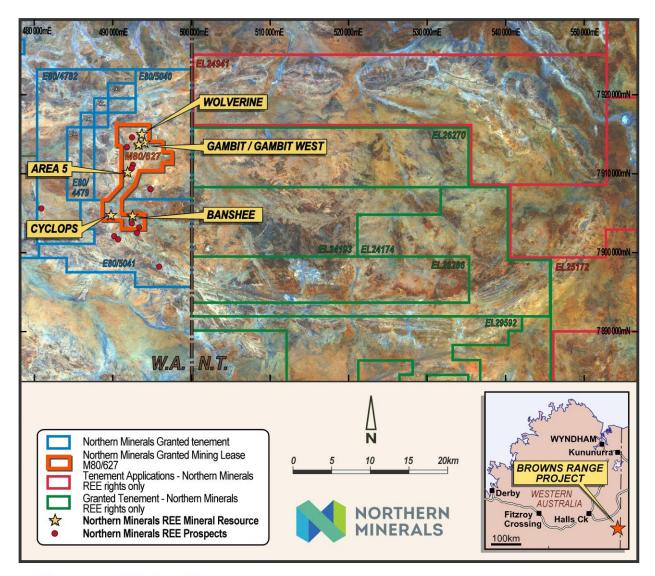
Sales Agreement

Community

- 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.
- A Share Purchase Plan (SPP) has been launched to fund development of project enhancement initiatives, including downstream processing, mining optimisation and exploration.

Blue Sky potential



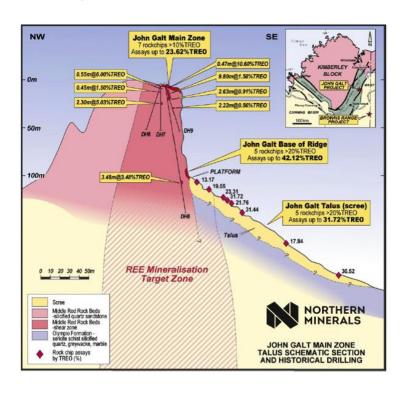


The Browns Range dome is a massive geological feature covering 1,500km² and stretching 60km x 30km most of which hasn't been effectively explored

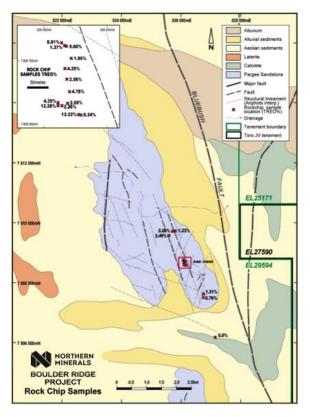
- JORC Resource supporting an 11 year full scale operation
- Exploration target to add additional 9 years of JORC Resources (under review)
- 170 defined targets yet to be drilled
- John Galt and Boulder Ridge Additional HRE projects with upside potential
- SPP funding to go towards increased exploration budget

Beyond Browns Range





- 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



- 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.

Key Personnel and Partners







Key Site Personnel: Eben Van Rooyen – Resident Manager Louis de Klerk – R&D Manager























Key Highlights



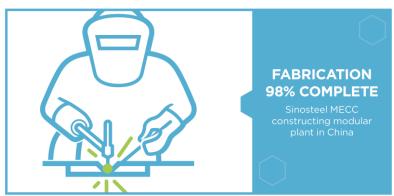












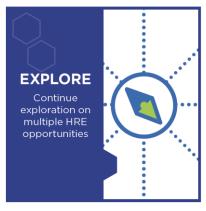


2018 – Delivering on potential













Assess the technical and economic feasibility of the larger scale operation



BONUS OPTION ISSUE Planned listed 12c options for all

Planned listed 12c options for all shareholders as at Record Date in Feb '18

1-for-5



Corporate Overview





Major shareholders	31 December 2017
ACIIG	23.6%
Huatai Mining	19.3%
Jien Mining	3.2%
Board & Management	2.2%
Remaining Top 20	23.3%
Other	28.4%

Market capitalisation \$82M

(at 9 January 2018 @ \$0.094)

Ordinary Shares	869M
Options and Performance Rights	107M
Cash (30 September 2017)	\$5.0M
12 month low - high	\$0.084 -\$0.145
Average daily volume (12 month avg)	632,000
Average daily volume (3 month avg)	937,000

Northern Minerals Share Price Performance



Share Purchase Plan to drive second wave

SPP Details

- Offer to existing shareholders;
- Right to subscribe for \$5,000, \$10,000 or \$15,000 worth of NTU shares;
- Issue Price \$0.078;
- Raising up to \$5 million, however management reserves rights to vary amount raised;
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- Offer closes 31 January 2018
- http://www.northernmineralsspp.com.au/INVESTMENT/NorthernMinerals.aspx







Delivering critical technology metals to the EV evolution



Appendices





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 2025
- Each electric vehicle contains approximately 100g of Dysprosium



Browns Range – An Eight Year Journey

2010	2011	2012	2013	2014	2015	2016	2017	2018
DISCOVERY	EXPLORATION	EVALU	ATION AND APPE	ROVALS	DFS	NEW PLAN	DEVELOPMEN	IT
NAGROM benefication results	Maiden drilling campaign at Browns Range	Maiden JORC Resource released	\$26 million capital raised	JORC Resource doubled	Definitive Feasibility Study released	Project approved for Browns Range	\$5 million SPP launched	
Bench scale		results	Upgraded JORC Resource	Pre-Feasilbility Study finished		Pilot Plant	\$34.0 million capital raised	
Rock Chip samples		NAGROM/ ANSTO hydro- metallurgy	Discovery of Boulder Ridge	Native Title agreement		the new three stage Business Plan	signed with JFMAG	
John Galt acquisition		Bench scale		granted		HRE assets Commitment to	Offtake Agreement	
NTU shifts focus to HRE				granted Mining Licence		Divestment of non-core	Investment Decision (Pilot Plant)	
				EPA approval			Financial	
				Maiden JORC Ore Reserve			Mining campaign	
				80t bulk sample processed			Fabrication 98% completed in China	
							\$14m Lind Facility executed	
							Financing Facility executed	

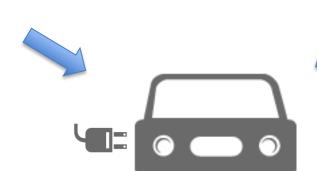


\$38m R&D

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



FINANCIAL REVIEW France to end petrol car sales by 2040 as it embraces electric vehicles July 7 2017

The Mashington The Manual Manu Trump: Break Chinese, Russian stranglehold over mineral supplies by John Siciliano | Dec 20, 2017, 9:13 PM











Shift to Electric Vehicle Demand Accelerates

July 14 2017





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

Chinese carmakers to dominate EV production

















































Mineral Resources



Deposit	Category	Mt	TREO	Dy ₂ O ₃	Y_2O_3	Tb₄O ₇	HREO	TREO	
			%	Kg/t	Kg/t	Kg/t	%	Kg	
Wolverine	Indicated	2.99	0.83	0.73	4.86	O.11	89	24,952,000	
	Inferred	1.97	0.89	0.76	5.13	O.11	88	17,609,000	
	Total ¹	4.97	0.86	0.74	4.97	O.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	
	Total ¹	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	
	Total ¹	O.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	
	Total ¹	1.52	0.29	0.18	1.26	0.03	69	4,347,000	
Cyclops	Indicated	12	-	<u> </u>		(4)	-	840	
	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	-	-	-	i e	-	i e	-	
	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	
Total ¹	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	
	Total ¹	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



			TREO		Dy ₂ O ₃		Tb₄O ₇		Y_2O_3	
Deposit	Classification	Ore Tonnes	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	O.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
UNDERGROUN	D									
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	O.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

Pilot plant: targeted production

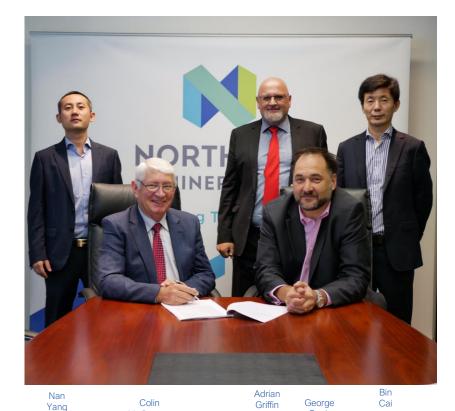
- Mixed RE carbonate (REC) produced
- Product specification available for REC
- REC samples validated by several downstream separators
- REC suitable for solvent extraction separation
- Low thorium and uranium levels
- First shipment planned for September quarter

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 Dy_2O_3 , La_2O_3 , CeO_2 , Pr_6O_1 , Nd_2O_3 , Sm_2O_3 , Eu_2O_3 , Gd_2O_3 , Tb_4O_7 , Ho_2O_3 , Er_2O_3 , Tm_2O_3 , Tb_2O_3 ,

NTU Board





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 and Chairman of Lithium Australia.

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.

McCavana

Executive Team





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, RSA 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.

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



Eben Van Rooyen
Resident 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



