

## Browns Range Heavy Rare Earths Project officially opens

- Project will be officially opened today by the Hon. Alannah MacTiernan MLC, Minister for Regional Development
- Opening is one year to the day since WA Premier, the Hon. Mark McGowan MLA turned first sod at site
- Browns Range becomes the only dysprosium and terbium producing operation outside China
- Dysprosium is a key ingredient in permanent magnets used in electric motors such as those in electric vehicles and wind turbines
- Three-year Pilot Plant Project aims to assess the technical and economic feasibility of the proposed larger scale project

Australian heavy rare earths producer Northern Minerals Limited (ASX: NTU) (the Company) is pleased to announce the official opening of the Browns Range Heavy Rare Earths Pilot Plant Project in the East Kimberley region of WA.

The Project will be opened on Friday 27th July 2018 by the Hon. Alannah MacTiernan MLC, Minister for Regional Development; Agriculture and Food; Minister assisting the Minister for State Development, Jobs and Trade and comes exactly a year to the day since WA Premier, the Hon. Mark McGowan MLA turned the first sod to commence construction.

The Project is now officially the first producer of heavy rare earths (HREs) outside of China. The main products are dysprosium and terbium.

Dysprosium is an essential component in the success of the electric vehicle (EV) evolution. Permanent magnet electric motors are the key drivers of EVs and dysprosium is a vital ingredient as it reduces the weight requirement and allows operation at very high temperatures. Nearly all EV permanent magnets contain dysprosium. With EV demand expected to grow to in excess of 20 million vehicles per annum by 2025, it is a critical material in order for this momentum to continue.

As the only dysprosium producer outside China, Northern Minerals is well placed to become a significant, stable supplier of this important element.

Dysprosium and terbium are also used in wind turbines, industrial robots, air conditioning and many other new technologies which are in development.

The first stage - a three-year pilot plant project - will be used to assess the economic and technical feasibility of a full-scale project.

Browns Range is globally significant as it will provide an alternative source of heavy rare earths supply outside of China. With increasing momentum in the electric vehicle revolution, many offtake partners and downstream processors are keen to secure reliable supply outside of China.

Managing Director and CEO George Bauk commented, *"The opening of the Browns Range Heavy Rare Earths Project is nearly eight years in the making, since the initial discovery in 2010.*

*"There are not too many times when a Managing Director can stand up and launch a new industry in Australia and this is what we are doing today.*

*"Australia is now a heavy rare earths producer.*

*"I am extremely proud of the entire Northern Minerals team as well as our construction partners that have helped make this project a reality.*

*"We are also particularly grateful for the support that we have received for the project from the WA State Government and the Federal Government. Projects such as Browns Range highlight the success of the Federal Government's R&D Tax Incentive Scheme for stimulating the emergence of new industries. I note that the Government's proposed changes to the R&D rebates would make it*

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*very hard to build this project had we been starting this financial year and ask the Government to preserve the current R&D rebate arrangements.”*



- ENDS -

### For further information:

George Bauk  
Managing Director/CEO  
Mark Tory  
CFO/Company Secretary  
Northern Minerals  
+61 8 9481 2344

### For media and broker enquiries

Andrew Rowell / Michael Cairnduff  
Cannings Purple  
+61 8 6314 6314

### About Northern Minerals:

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) has commenced commissioning of the Browns Range Heavy Rare Earth Pilot Plant Project in northern Western Australia.

Through the development of its flagship project, the Browns Range Project (the Project), Northern Minerals aims to be the first significant world producer of dysprosium outside of China.

The Project is 100% owned by Northern Minerals and has several deposits and prospects containing high value dysprosium and other HREs, hosted in xenotime mineralisation.

Dysprosium is an essential ingredient in the production of DyNdFeB (dysprosium neodymium iron-boron) magnets used in clean energy and high technology solutions.

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The three-year R&D pilot plant project will commence first production of heavy rare earth carbonate in Q3 2018. The pilot plant development provides the opportunity to gain production experience, surety of supply for our offtake partner and assess the economic and technical feasibility of the larger full-scale development.

For more information: [northernminerals.com.au](http://northernminerals.com.au).

### Key Project Information:

Location: 160 kms south-east of Halls Creek and 50 kms south east of the Yaruman Community at Ringer Soak in the East Kimberley, Western Australia

Commodity: First commercial-scale heavy rare earths project outside of China – main products Dysprosium and Terbium

What: Dysprosium and Terbium are a key component of highly energy efficient Rare Earth Permanent Magnet Motors and generators used in:

- electric vehicles;
- wind turbines;
- air conditioning; and
- industrial robots.

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