

Board approves Browns Range Pilot Plant development

- Three-year pilot plant project approved by Northern Minerals' Board
- Capital cost of A\$56 million, funded by a combination of equity, debt, offtake pre-payments and deferred payments
- Construction to commence immediately, with 11-month build time anticipated
- During the pilot plant project, Browns Range is expected to produce 148,200kg of dysprosium in 1,719,000kg of Total Rare Earth Oxide in a Mixed Rare Earth Carbonate.

Australian heavy rare earths developer, Northern Minerals Limited (ASX: NTU) is pleased to announce that the Board has approved the development of the 100% owned Browns Range Heavy Rare Earths Pilot Plant Project in Western Australia.

The pilot plant project will be used to assess the economic feasibility of a full-scale project and forms part of a broader ongoing feasibility underpinning the Browns Range Project.

Browns Range is one step closer to becoming Australia's first heavy rare earths project with a focus on the production of dysprosium. Browns Range is globally significant as it could provide an alternative source of dysprosium supply outside of China. Dysprosium is a key component in the manufacture of permanent magnets, used extensively in electric motors, particularly those in high temperature applications like electric vehicles.



Board of Northern Minerals signs FID

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The Browns Range Pilot Plant Project has a capital cost of A\$56 million and is planned to operate for an initial period of three years.

The pilot plant processing plant is being constructed with a throughput of 60,000 tonnes per annum for 3 years, approximately 10% of the size of the proposed full-scale development to assess, refine and confirm the optimal flowsheet.

The construction period for the project is 11 months, with first mixed rare earth carbonate production in mid-2018.

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Ma y	Ju n
Final Investment Decision	█														
Mining & Bulk Earthworks			█	█	█	█	█	█	█						
Design & Fabrication		█	█	█	█	█	█	█	█						
Installation						█	█	█	█	█	█	█	█		
Commissioning													█	█	█

Sinosteel MECC will be responsible for the engineering, procurement and construction of the Pilot Plant. The Pilot Plant modules will be fully constructed in the People's Republic of China (**China**) and then transported and installed on site in Australia. Sinosteel MECC will be the lead contractor on site with other Australian groups subcontracting as required.

Over the three years, the pilot plant project is expected to produce 1,719,000kg of mixed rare earth carbonate containing 148,200kg of dysprosium.

Mr George Bauk, Northern Minerals' Managing Director, said: *"Today's decision represents a significant new chapter for the company, formed more than ten years ago.*

"The pilot plant development will help us continue to assess the economic and technical feasibility of a larger full scale development. Incidentally, it also provides an opportunity to gain production experience and surety of supply for our offtake partner, and propels Northern Minerals towards being the first dysprosium producer outside China."

Browns Range Heavy Rare Earths Pilot Plant Project

The Browns Range Heavy Rare Earths Pilot Plant Project has been designed to assess the economic viability, optimal flowsheet and product specifications for a larger scale development of ten times the size of the pilot plant.

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Mining & Bulk Earthworks

Mining and bulk earthworks will be undertaken on a contract basis during 2017. Due to the small volumes involved in the pilot plant project (180,000 tonnes of ore over three years), it has been decided to mine all this material in a single campaign in 2017, with ore stockpiled on the run-of-mine (ROM) pad.

The mining contractor will also be contracted to clear the plant site, construct the tailings storage facility (using mined waste material) and construct access roads for the project.

The Company is finalising the selection of the preferred mining contractor. It is expected that they will mobilise personnel and equipment to site in June 2017 for the six-month mining and bulk earthwork campaign.

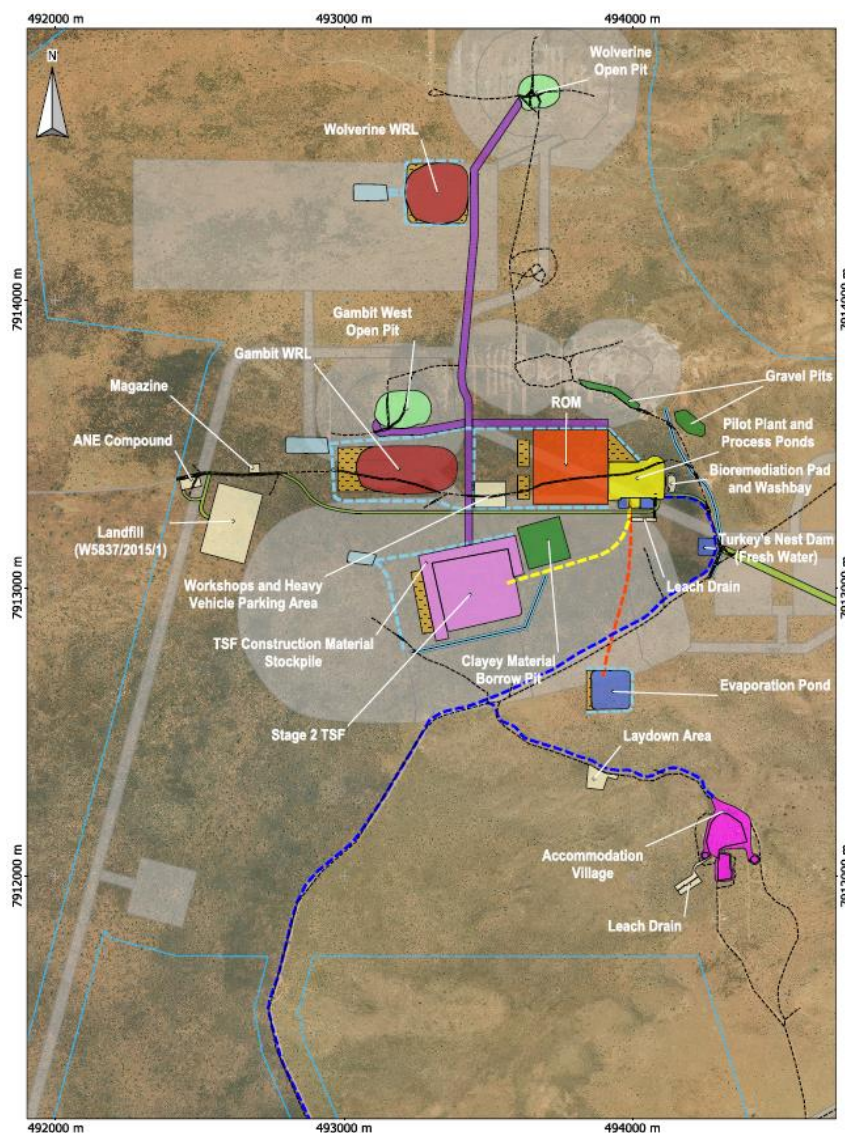


Figure 1: Site Layout

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Process Plant and Infrastructure

Sinosteel MECC will fully construct the modules for the pilot processing plant in China before transporting them and assembling them on site.

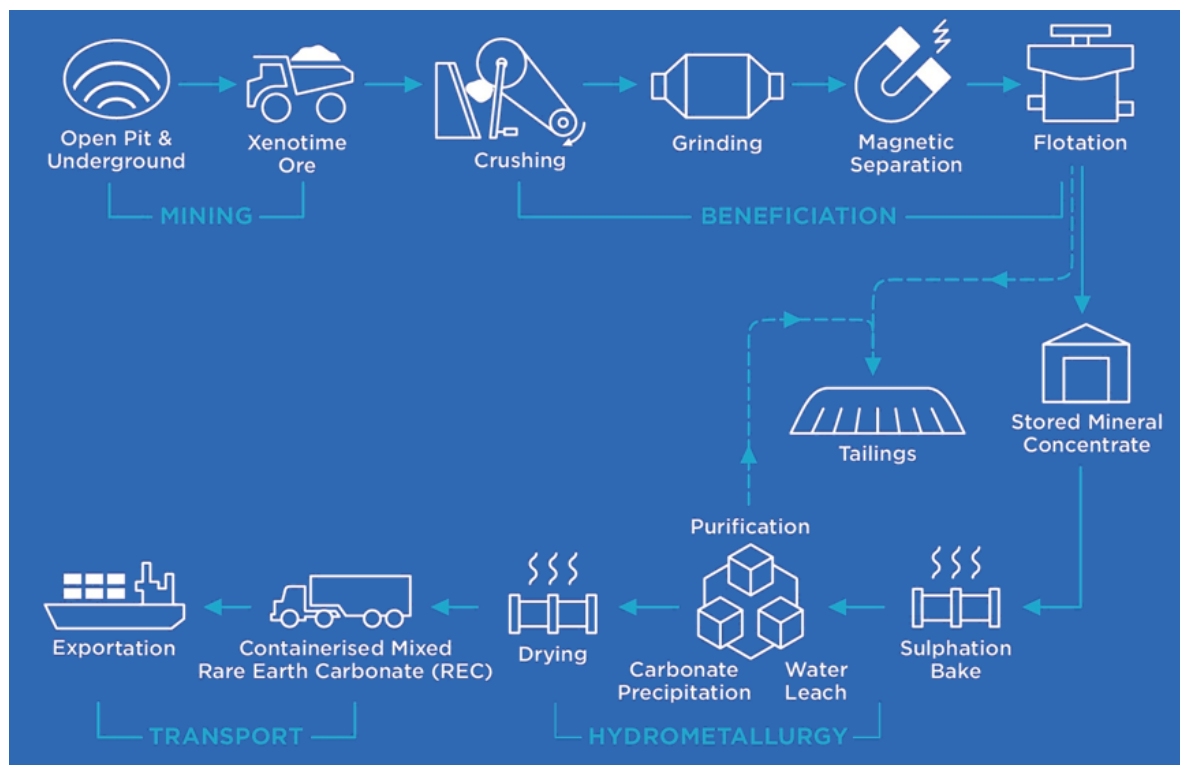


Figure 2: Process Flowsheet

Construction in China will commence immediately with anticipated transport to site commencing September 2017.

Installation of the components will be undertaken by an Australian contractor.

Environment

All the environmental approvals are in place for the Browns Range Pilot Plant development. As this is a research and development project, detailed monitoring will be undertaken during the three-year pilot to determine the optimal environmental management plan for the proposed full-scale development.

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Production

The three-year pilot plant development envisages the processing of 180,000 tonnes of ore from two separate open pits being Wolverine and Gambit West of varying depths and mineral concentrations to determine the optimal flowsheet for the proposed full-scale development.

During the three-year pilot, it is expected that 1,719,000kg of TREO in a Mixed Rare Earth Carbonate will be produced, containing 148,200kg of dysprosium.

Sales Agreement

Northern Minerals has executed a Sales Agreement covering 100% of the production from Browns Range Pilot Project to Lianyugang Zeyu New Materials Sales Co Ltd (**JFMAG**), a 51% owned subsidiary of Guangdong Rare Earths. Guangdong Rare Earths is a 100% subsidiary of Guangdong Raising Asset Management (**GRAM**).

The Sales Agreement covers all planned production from the Browns Range Pilot Plant. 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 Ruidlow, with an adjustment for the Australian dollar/Chinese Renminbi exchange rate movements.

The Sales Agreement allows Northern Minerals to produce and demonstrate reliability of supply to our customers. Consistent, reliable supply will be critical in the feasibility of the proposed full-scale development.

Financing

The R&D development has been financed by a combination of equity, debt, sales prepayments as well as deferred payment terms from Sinosteel MECC.

The capital cost for the Browns Range Pilot Plant is A\$56 million, including the following:

- Pilot plant process facilities (beneficiation and hydrometallurgical process plants);
- Associated infrastructure (including tailings storage facility, camp, water supply, airstrip);
- Mining costs incurred before completion of the Pilot Plant.

As the Browns Range Pilot Plant Project is being undertaken primarily to assess the feasibility and economic viability of the larger scale project, the Company will utilise R&D tax incentives to recover a portion of the capital costs of the pilot scale project.

The Company is intending to enter an R&D financing facility with regards to Browns Range. A selection on the preferred party will be made shortly.

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Schedule

Initially, the project will have twin focus areas. In China, Sinosteel MECC will commence construction of the processing plant modules before transporting them to site.

At site, the mining contractor will commence open pit mining, site clearing works and development of surface infrastructure.

Over the course of the next twelve months, we anticipate the following work schedule:

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Ma y	Ju n
Final Investment Decision	█														
Mining & Bulk Earthworks			█	█	█	█	█	█	█						
Design & Fabrication		█	█	█	█	█	█	█	█						
Installation						█	█	█	█	█	█	█	█		
Commissioning														█	█

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About Northern Minerals:

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) has commenced development 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.

The three-year pilot plant project will commence first production of heavy rare earth carbonate in H1 2018. The pilot plant development provides the opportunity to gain production experience, surety of supply for our offtake partner and assess the feasibility of the larger full scale development.

For more information: northernminerals.com.au.



ASX Code:	NTU	Market Capitalisation:	A\$85m
Issued Shares:	680m	Cash (as at 31 March 2017):	A\$14m