

**ASX ANNOUNCEMENT**  
**5<sup>th</sup> January 2012**

## **Diamond Drilling Extends Wolverine HREE Mineralisation**

### **Highlights**

- **Diamond drilling at Browns Range indicates extensions to HREE mineralised zone at the Wolverine prospect to below 120m vertical depth and remains open at depth.**
- **Visual indications and portable XRF\* measurements of HREE mineralisation in all of the first four holes completed.**
- **Drilling program to be completed late January 2012, with results expected February**
- **JORC resource estimate targeted for second half of 2012**

Northern Minerals (ASX: NTU) is pleased to provide an update on diamond drilling at its Browns Range Heavy Rare Earth (HREE) project in northern Western Australia, where visual observations and portable XRF measurements indicate an extension of the HREE mineralised zone to below 120m at the Wolverine prospect.

The first four holes (approx 714m) of the 1,400 metre program have been completed at Wolverine, testing the depth extent of mineralisation (see Figure 2 and Table 1 below). The drill holes were completed just prior to the Christmas break, with drilling set to re-commence on 7<sup>th</sup> January.

Laboratory assays are expected in February, but all holes completed to date have visual indications of xenotime mineralisation and anomalous yttrium measurements recorded by a portable XRF. Xenotime, an yttrium phosphate mineral, is the dominant HREE mineral identified at Browns Range.

Managing Director, George Bauk said the results to date continued to add to the potential of Browns Range, and the Wolverine prospect in particular.

"The diamond program is targeting areas identified by our RC drilling, and the first holes from the program have intersected the target and extended our known mineralised zone," he said.

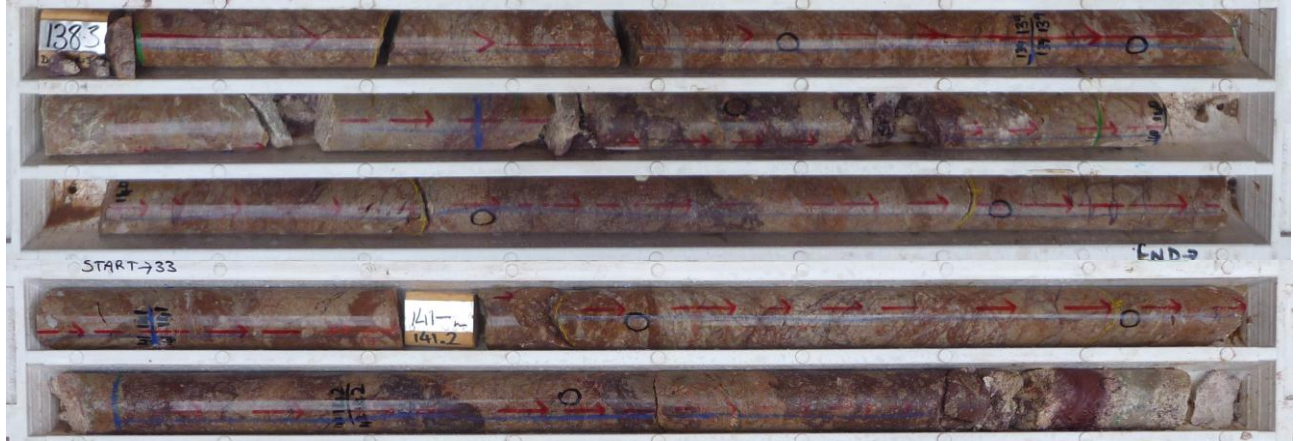
"The extended mineralisation of the Wolverine prospect, which has yet to be closed off, gives us even more confidence as we move toward definition of a JORC resource in the second half of 2012. We look forward to receiving further positive results from the program early in 2012."

The first two diamond drill holes (NMBRD001 & 2) were drilled on section 493675E where Reverse Circulation (RC) drilling had previously indicated significant HREE mineralisation. Both diamond holes intersected a wide zone of variably altered (silica, sericite and hematite alteration) and quartz veined arkose, within which are discrete breccia zones up to 3m downhole width. NMBRD002, which was drilled down-dip of mineralisation intersected in NMBRRC160, intersected this alteration zone between 100.5m and 151.7m, with breccia zones occurring at 120.6m – 124.7m and 138.3m – 142.9m (see Figure 1 below).

The breccia zones (see Figure 1 below) have visible xenotime mineralisation and elevated yttrium measurements (spot measurements of >1000ppm yttrium and up to 400,000ppm yttrium) recorded by a portable XRF unit.

The third hole drilled (NMBRD003), which is on section 493650E, has also intersected a similar zone of alteration (silica, sericite and hematite) and discrete breccia zones between 114m and 141m. NMBRD004, on section 493625E, has intersected alteration and brecciation between 108m and 133m.

**Figure 1 – NMBRD002 – Mineralised Breccia zone (138.3m – 142.95m)**



Metallurgical test work is also underway on bulk RC drill samples to confirm the previous Conceptual Flowsheet. The testwork will also produce concentrate samples to facilitate discussions with potential off-take partners.

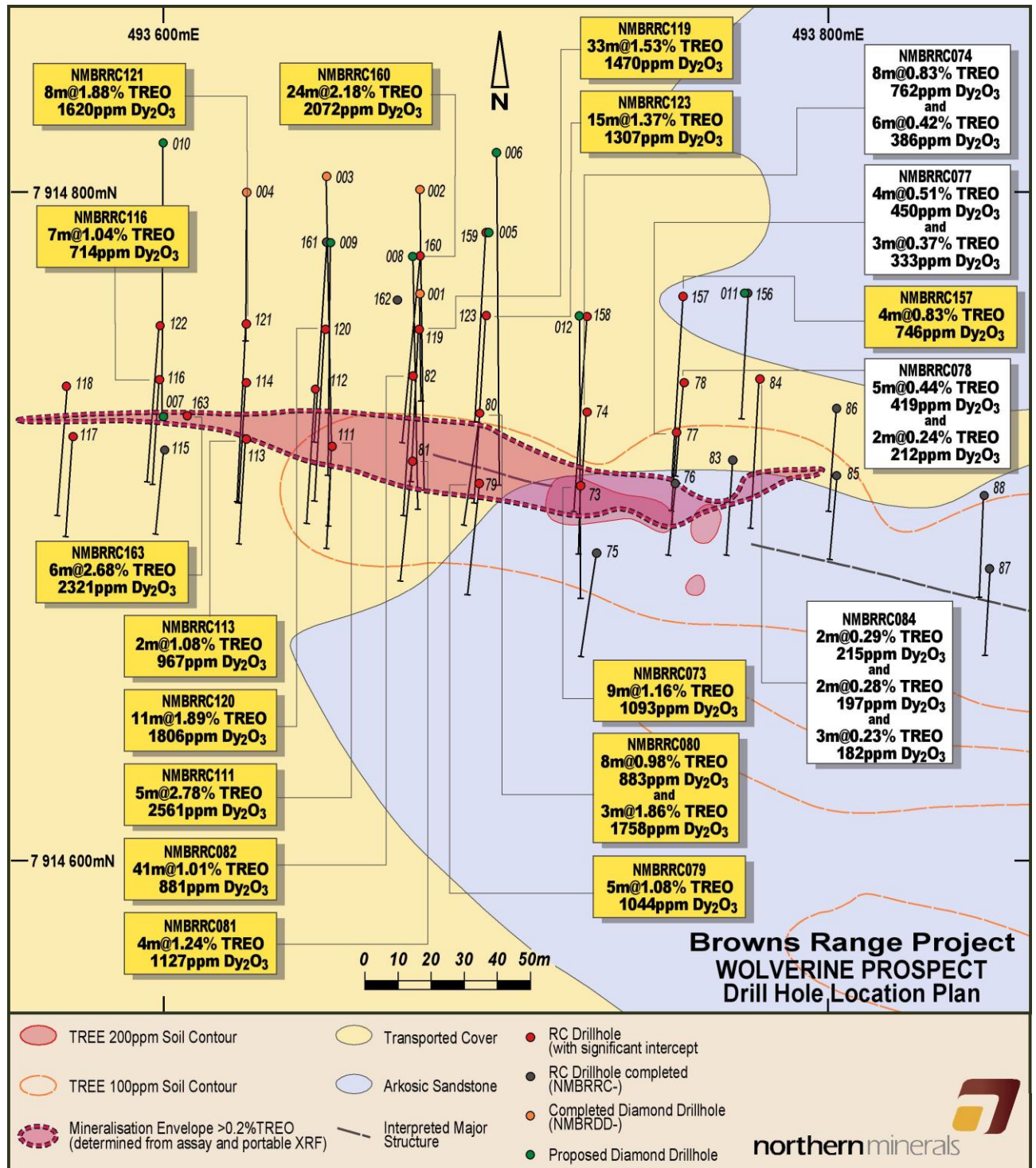
\* - A Niton XL3t 950 Gold D+ Mining Analyser portable XRF unit was used for yttrium measurements. Previous analysis of XRF results and laboratory assay results for yttrium on Browns Range RC drill samples has shown a reliable correlation between the two sets of results.

**Table 1 – Wolverine Prospect – Completed diamond drill hole collar details**

HOLE ID	EAST	NORTH	RL	DEPTH(m)	MAG AZIMUTH	DIP
NMBRD001	493677	7914770	455	153.1	176.5	-60
NMBRD002	493677	7914801	455	195.5	176.5	-60
NMBRD003	493649	7914805	455	176.3	176.5	-60
NMBRD004	493625	7914800	455	189.2	176.5	-60

(Coordinates in GDA94 Zone 52)

**Figure 2 – Wolverine Prospect – Drill hole location plan**



## Competent Person Declaration

The information in this report accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Mineral Resources and Ore Reserves). It is compiled by Mr R Wilson, an employee of the Company who is a Member of The Australasian Institute of Mining and Metallurgy with the requisite experience in the field of activity in which he is reporting. Mr Wilson has sufficient experience which is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent person as defined in the 2004 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.

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### About Northern Minerals

Northern Minerals Limited (ASX: NTU) is focussed on development of rare earth elements (REE), with a large and prospective landholding in Western Australia and the Northern Territory.

The Company's flagship project is Browns Range, where it has a number of prospects with high value, heavy rare earth elements (HREE), in xenotime mineralisation. In particular, the mineralisation includes high levels of dysprosium and yttrium, which are in short supply globally. Following outstanding drill results in 2011, the Company is focussed on advancing Browns Range toward production, using a relatively simple and low cost processing flow sheet to produce a high grade concentrate. The Company is aiming to produce and deliver HREO in concentrate by 2015. Northern Minerals also has a HREE exploration program underway at the geologically similar John Galt project.

Northern Mineral's uranium and gold program is focused on the Gardiner-Tanami project and Gardner Range JV, which comprise 10,500km<sup>2</sup> on the WA-NT border. The projects are located within the Tanami-Arunta region which is a world-class gold province, with several plus million ounce gold deposits. Uranium exploration is focused on high grade unconformity-related uranium targets. The area is compared favorably to the Alligator Rivers region in the NT which hosts the Ranger mine (Australia's largest operating uranium mine), and the Athabasca Basin in Canada, host to the world's highest-grade unconformity-related uranium deposits.

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

