

ASX ANNOUNCEMENT
7 September 2011

Further high grade, Heavy REE results from Browns Range drilling

Highlights:

- Xenotime hosted REE mineralisation with a dominance of high value heavy REE confirmed at four prospects at Browns Range.
- Assays from Gambit prospect deliver exciting, high value HREE intersections with significant widths, including;
 - 11m @ 2.07% TREO (0.19% Dy₂O₃) from 35m
 - 18m @ 1.19% TREO (0.11% Dy₂O₃) from 51m
 - 11m @ 1.07% TREO (0.10% Dy₂O₃) from 48m
 - 9m @ 1.68% TREO (0.15% Dy₂O₃) from 86m.
- Mineralisation at Gambit intersected over an area of 600 metres in length, open in all directions
- HREO average 83% of TREO, with xenotime mineralisation and low radioactivity levels
- Early results from Wolverine prospect very positive, with several anomalous intersections over significant widths (up to 40m).
- Early drilling results from Area 5 prospect are positive, with several anomalous intersections
- Assays now completed from 72 of 134 holes, with follow-up diamond drilling program being planned for October

Figure 1 – Browns Range/John Galt HREE Projects in regional context including infrastructure



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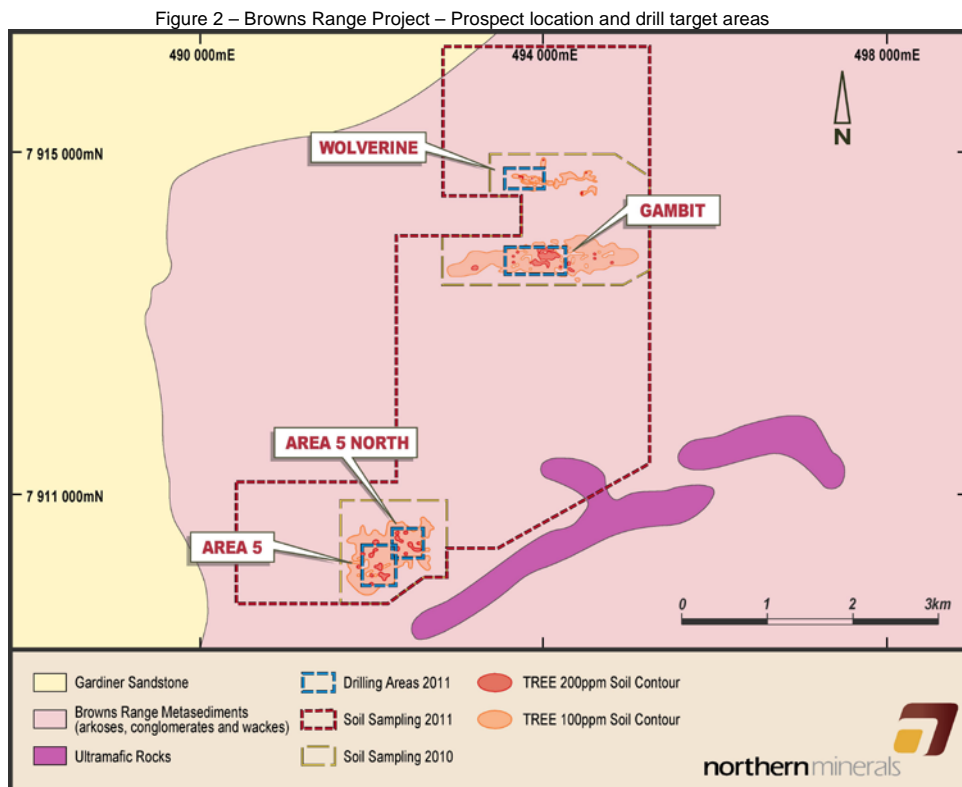
Northern Minerals (ASX: NTU) has received further exciting Heavy Rare Earth Element (HREE) results from drilling at its Browns Range project in northern WA (see Figure 1 below), which have confirmed and extended the high value HREE mineralisation.

The results feature several significant intersections with Total Rare Earth Oxide (TREO) in excess of 1%. The assays are from the first half of an 11,000m RC drilling program at Browns Range, and follow the previous results announced in July 2011.

The Company now has assays from the first 72 holes from the 134 holes drilled to date, covering four highly prospective areas of mineralisation (Area 5, Area 5 North, Gambit and Wolverine – see Figure 2 below). Best results from the 61 holes assayed in this recent batch include (all from Gambit prospect):

- **NMBRRC055 - 11m @ 2.07% TREO (0.19% Dy₂O₃) from 35m**
 - **NMBRRC057 - 18m @ 1.19% TREO (0.11% Dy₂O₃) from 51m**
 - **NMBRRC045 - 9m @ 1.68% TREO (0.15% Dy₂O₃) from 86m**
 - **NMBRRC046 - 11m @ 1.07% TREO (0.10% Dy₂O₃) from 48m**
 - **NMBRRC051 - 7m @ 1.61% TREO (0.15% Dy₂O₃) from 66m**
 - **NMBRRC059 - 3m @ 2.31% TREO (0.21% Dy₂O₃) from 42m**
 - **NMBRRC056 - 3m @ 1.48% TREO (0.13% Dy₂O₃) from 45m**
 - **NMBRRC048 - 3m @ 1.54% TREO (0.14% Dy₂O₃) from 30m**
- (see full table of significant results below)

NB – TREO: Total Rare Earth Oxides – Total of La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃



A key feature of the results is the xenotime hosted REE mineralisation, and the dominance of high value heavy REE. HREE accounts for an average 83% of the TREO from Gambit, with high levels of dysprosium a key feature. With limited sources of new and available global supplies, dysprosium has become of critical economic importance in the development and implementation of clean energy technology.

Managing Director George Bauk said the high levels of HREE, and the fact that the majority of other new and developing REE projects were dominated by light REE, made the Browns Range project unique.

“The high grades and the widths of these intersections at Gambit are giving us considerable confidence in the project, particularly with the exciting early indications from the completed drilling at the adjacent Wolverine which look even better,” he said.

“It means Browns Range is really shaping up as a significant new discovery, and a potential HREE project of global significance,” Mr Bauk said.

Another key advantage of the Gambit mineralisation is the relatively low levels of uranium and thorium with an average of only 37ppm uranium per 1% TREO (cut-off of 0.2% TREO). Metallurgical test work indicates that thorium is not directly associated with the xenotime mineralisation, and therefore can be readily removed.

The Company has also completed a number of holes at the nearby Wolverine prospect, with early analysis using a portable XRF unit returning outstanding HREE intersections over significant widths up to 40m. Laboratory assay results from several of these holes are pending, and the first are expected to be available within two weeks, with the remainder expected during October.

Northern Minerals has also received additional results from Area 5 North, which have revealed numerous low-grade REE (0.2% - 0.5%) intersections.

Mr Bauk said “At current REO prices the mix of high value HREE at Browns Range has an estimated in ground value of US\$4,000/t for every 1% TREO”.

“Our relatively simple processing route and high value HREE mix compared to other light REE projects gives us the confidence to develop a business model based on moving this project into concentrate production in less than five years. The ability to produce a high grade concentrate from a relatively simple flow sheet means significantly less time and capital costs than are typically associated with other light REE projects which can take 10 – 15 years to get into production and cashflow,” he said.

Gambit Prospect

At the Gambit Prospect, a total of 57 holes (NMBRRC034 – 072 & NMBRRC093 – 110) have been completed to date, with assays now received up to hole NMBRRC072. Holes were drilled 20-25m apart on north-south trending sections every 50 metres. Drill hole fences were directed alternately north and south to intersect an interpreted dominant east-west trending sub-vertical fault structure. The program was targeted at the peak of an east-west trending soil geochemical anomaly which extends over 2km (see Figure 3 below). The drilling completed to date has partly tested an area approximately 600m by 200m in extent (see Figure 4 and 5 below), with most of the drilling focused on an area 300m long.

Significant REE mineralisation (>0.2% TREO) has been intersected on all drill traverses across the 600m wide zone. Mineralisation is hosted by quartz-veined, silicified and/or hematitic arkosic sandstone, and appears to be controlled by an east-west trending fault structure(s), and northwest trending cross-cutting structures. The geometries of the mineralised zones are currently being assessed, with several possible interpretations for the orientations. One interpretation is that mineralisation is broadly sub-vertical, with higher-grade zones at fault intersections which create pipe-like plunging shoots.

Closer-spaced drilling (25m spaced sections) and core drilling is required in order to gain a better understanding of the structural controls on mineralisation. Further assay results from the remainder of the holes at Gambit (NMBRRC093 – 110) are expected next month.

Analysis of the assay results has shown the REE mineralization to be dominated by heavy rare earths with an average of 83% of TREO being heavy rare earths (above a cut-off of 0.2% TREO). Table 1 below shows a summary of some of the key points from the analysis of the assay results.

Figure 3 – Browns Range Project – Gambit Prospect – Drill target and soil geochemical anomaly

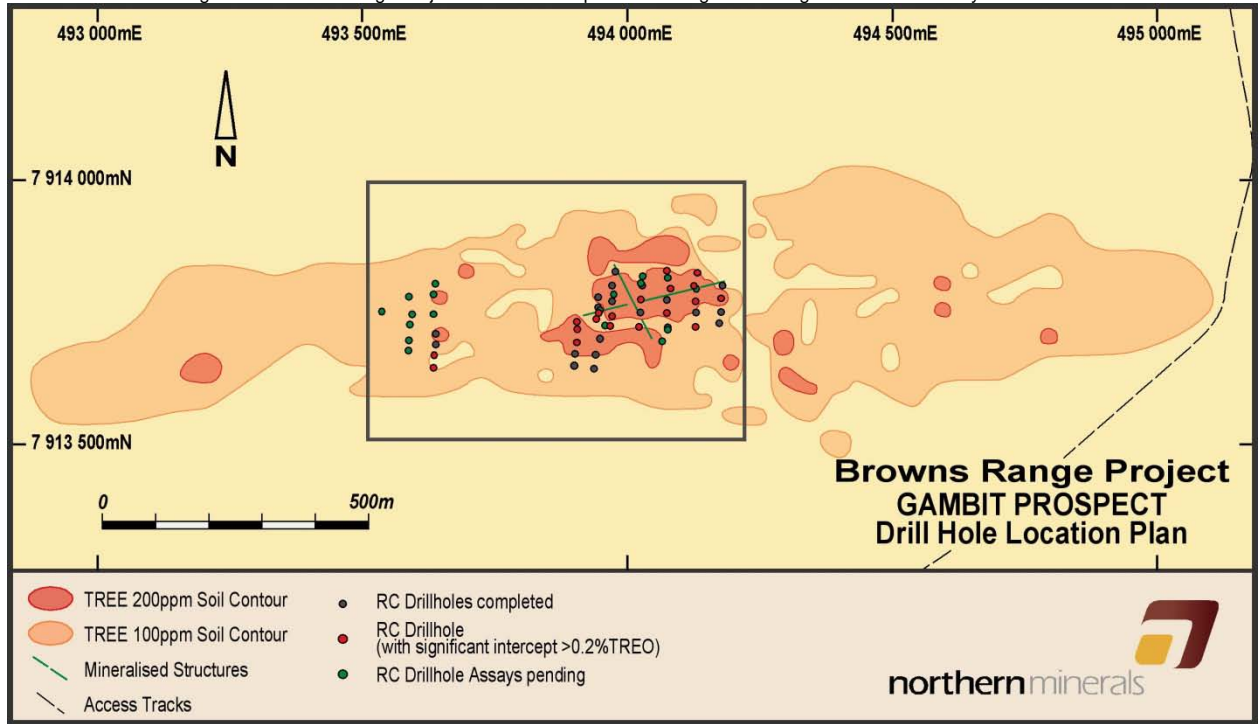


Figure 4 – Browns Range Project – Gambit Prospect – Drill hole location plan

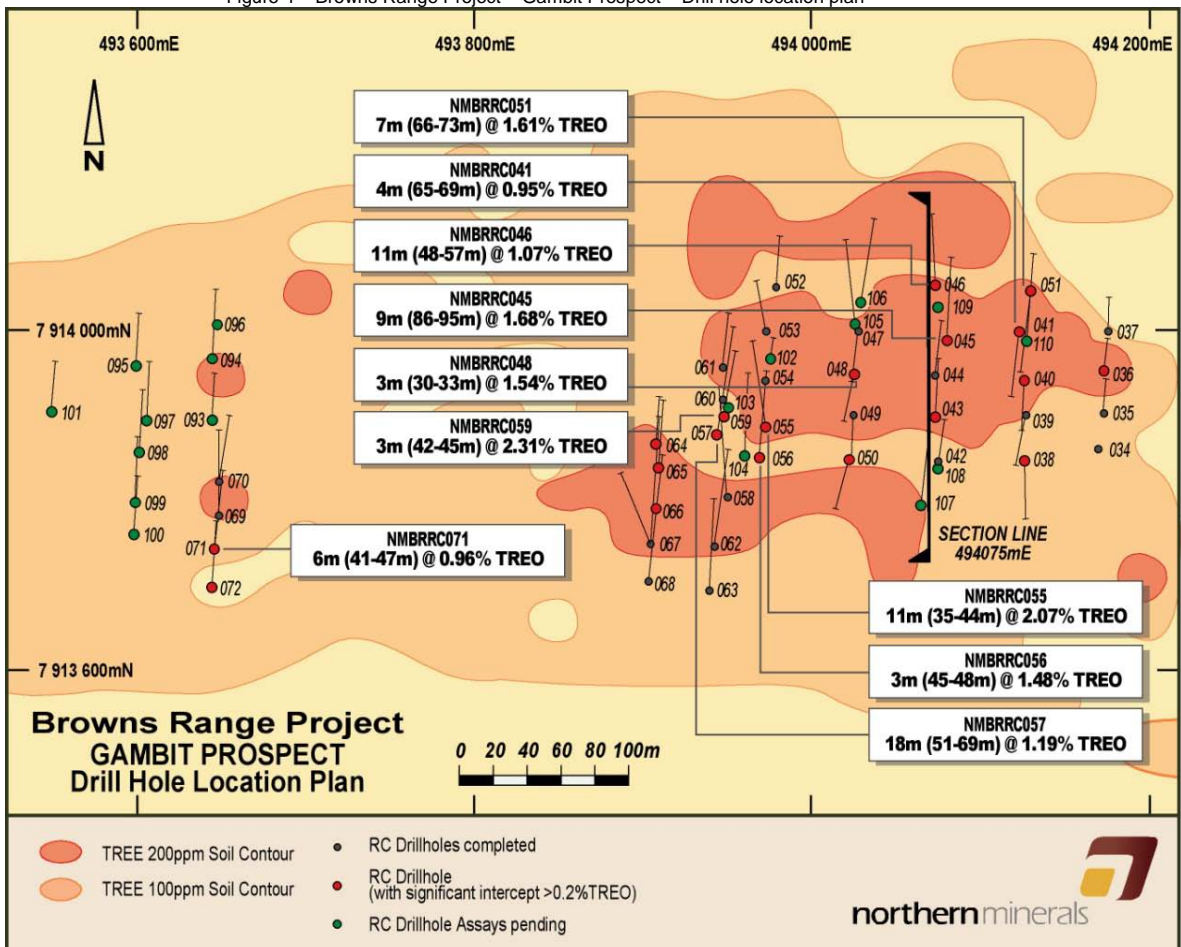


Figure 5 – Browns Range Project – Gambit Prospect – Drill hole cross section 494075E

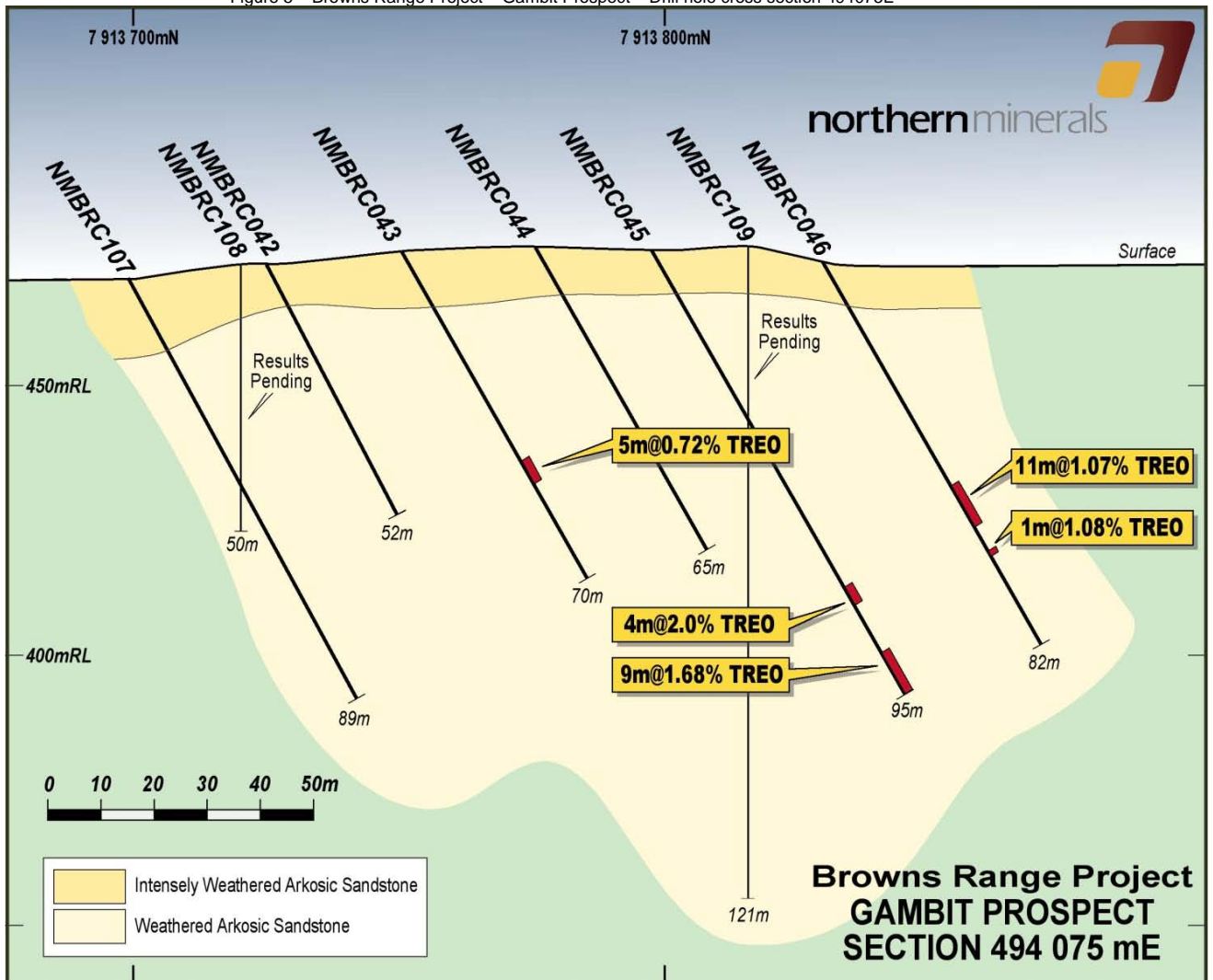


Table 1 – Gambit Prospect: Analysis of geochemical assay results from drill holes NMBRRC034 – 072

TREO % cut-off	HREO/TREO %	Dy ₂ O ₃ /TREO %	Dy ₂ O ₃ average (ppm)	Y ₂ O ₃ /TREO %	Y ₂ O ₃ average (ppm)	U ₃ O ₈ average (ppm)
0.2	83	8.5	829	59	5740	30
0.5	87.5	9	1426	62	9890	49
1.0	89	9.1	2157	65	14957	70

NB – HREO: Heavy Rare Earth Oxides – Total of Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃

Table 2 – Gambit Prospect - Significant intercepts (>0.2% TREO, with maximum of 1m internal dilution)

Prospect	Hole Id	From(m)	To(m)	Width(m)	TREO(%)	Dy ₂ O ₃ (ppm)	U ₃ O ₈ (ppm)	ThO ₂ (ppm)
Gambit	NMBRRC036	10	11	1	1.75	1555	53	31
Gambit	NMBRRC038	55	57	2	0.49	349	15	35
Gambit	NMBRRC040	0	4	4	0.33	288	13	31
		9	16	7	0.34	287	12	40
		35	40	5	0.30	252	13	30
Gambit	NMBRRC041	12	14	2	0.39	317	17	30
		28	33	5	0.46	414	18	31
		65	69	4	0.95	859	29	33
Gambit	NMBRRC043	45	50	5	0.72	649	25	35
Gambit	NMBRRC045	13	14	1	1.45	1242	51	45
		21	22	1	1.76	1556	58	28
		52	55	3	0.59	515	20	39
		60	62	2	0.71	606	27	37
		72	76	4	2.0	1791	54	49
		86	95	9	1.68	1462	38	32
	Inc. 88	91	3	2.91	2566	64	32	
Gambit	NMBRRC046	48	57	11	1.07	967	27	39
		Inc. 53	56	3	1.92	1781	47	41
		63	64	1	1.08	948	31	27
Gambit	NMBRRC048	30	33	3	1.54	1368	49	59
Gambit	NMBRRC050	33	35	2	0.47	362	19	32
Gambit	NMBRRC051	29	32	3	0.30	245	12	30
		55	58	3	1.04	864	54	46
		66	73	7	1.61	1516	52	35
		Inc. 68	72	4	2.60	2458	81	33
	75	77	2	1.00	948	45	35	
Gambit	NMBRRC055	35	44	11	2.07	1943	67	35
		Inc. 35	38	3	2.84	2662	97	41
		& 40	43	3	3.12	2936	95	33
Gambit	NMBRRC056	45	48	3	1.48	1332	39	30
		Inc. 46	47	1	3.9	3525	99	43
		58	62	4	0.33	290	11	43
Gambit	NMBRRC057	9	13	4	0.25	205	8	27
		51	69	18	1.19	1130	34	33
		Inc. 62	63	1	7.1	7012	99	25
Gambit	NMBRRC059	39	40	1	1.35	1095	67	28
		42	45	3	2.31	2110	78	29
Gambit	NMBRRC064	20	22	2	0.24	206	8	25
Gambit	NMBRRC065	35	37	2	1.66	1630	45	35
Gambit	NMBRRC066	45	48	3	0.40	334	21	33
Gambit	NMBRRC071	41	47	6	0.96	942	39	39
		Inc. 41	42	1	3.85	3768	164	75
Gambit	NMBRRC072	85	89	4	0.72	615	41	37

Wolverine Prospect

A total of 33 holes (NMBRRC073 – 092 & NMBRRC111 – 123) have been drilled at the Wolverine prospect. Holes have targeted a soil geochemical anomaly which extends for approximately 500m and is spatially coincident with a west northwest trending fault breccia structure. Drilling has been completed on north-south traverses approximately 25m apart over an area approximately 400m in strike length. Portable XRF measurements of samples from drill holes at the western end of the geochemical anomaly have indicated significant widths of REE mineralisation over a strike length of approximately 180m. Assay results are currently pending with results from holes NMBRRC073 – 092 expected within two weeks.

Area 5 North Prospect

A total of 37 holes (NMBRRC001 – 033, NM BRRC124 – 127) have now been completed at the Area 5 North Prospect. (see Figure 6 below) All assay results have now been received for the first 33 holes, and results for the remaining four holes are expected 4-6 weeks. Results from the first batch of samples (holes NMBRRC001-011) were reported in an ASX announcement dated 28 July 2011, which included assay results of 12m @ 1.73% TREO (inc. 5m @ 3.49% TREO) from hole NMBRRC011. Results for holes NMBRRC012 – 033 have now been received with several significant intercepts of low-grade mineralisation, including:

- **NMBRRC014 – 5m @ 0.45% TREO (including 285ppm Dy₂O₃) from 34m**
 - **NMBRRC013 – 2m @ 0.51% TREO (including 297ppm Dy₂O₃) from 38m**
 - **NMBRRC019 – 3m @ 0.36% TREO (including 223ppm Dy₂O₃) from 7m**
- (see full table of significant results below)

NB – TREO: Total Rare Earth Oxides – Total of La₂O₃, CeO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃

Four holes have recently been completed to test a re-interpretation of the geometry of the high-grade mineralisation encountered in hole NMBRRC011, which has to date not been intersected in any other holes at Area 5 North.. These four drill holes were designed to test for possible northwest or northerly-plunging high grade shoots of mineralisation. Portable XRF measurements of samples from these drill holes suggest that the high-grade REE mineralisation has not been intersected. Diamond core drilling is being planned for October, in order to obtain a better understanding of the structural controls on mineralisation, enabling more precise targeting of further RC drilling at the prospect.

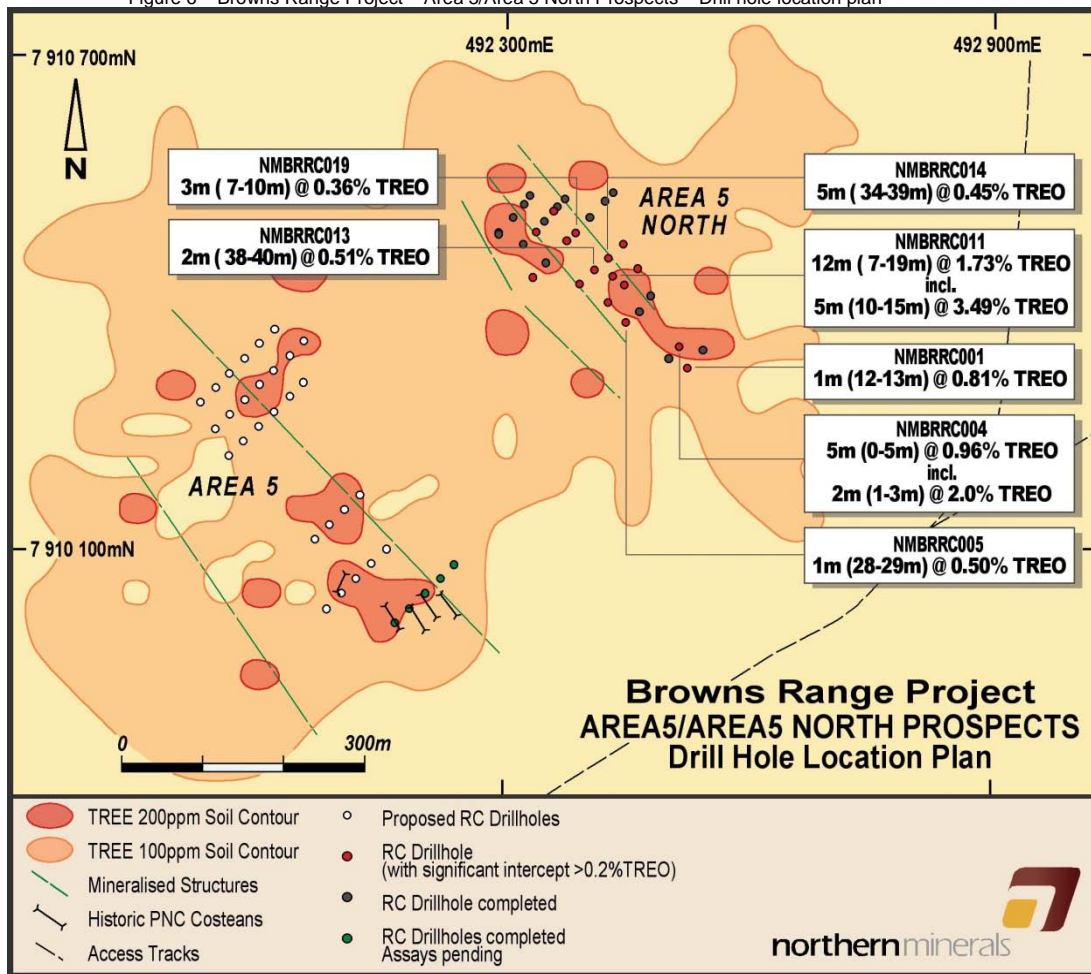
Table 3 – Area 5 North Prospect - Significant intercepts (>0.2% TREO, with maximum of 1m internal dilution)

Prospect	Hole Id	From(m)	To(m)	Width(m)	TREO(%)	Dy ₂ O ₃ (ppm)	U ₃ O ₈ (ppm)	ThO ₂ (ppm)
Area 5 North	NMBRRC012	48	50	2	0.23	157	10	30
Area 5 North	NMBRRC013	38	40	2	0.51	297	9	62
Area 5 North	NMBRRC014	34 70	39 72	5 2	0.45 0.30	285 272	13 18	42 35
Area 5 North	NMBRRC015	31 101	33 103	2 2	0.34 0.35	195 156	4 17	36 59
Area 5 North	NMBRRC018	31	35	4	0.23	129	10	35
Area 5 North	NMBRRC019	7	10	3	0.36	223	18	37

Area 5 Prospect

Drilling has commenced at the Area 5 Prospect with 7 holes completed. Portable XRF analysis of drill samples has indicated anomalous yttrium readings from three of the first seven holes (see Figure 6 below).

Figure 6 – Browns Range Project – Area 5/Area 5 North Prospects – Drill hole location plan



Market and Prices

The current HREE prices of particular relevance to Northern Minerals, based on drill results above, are:

- dysprosium US\$ 2,290/kg
- yttrium US\$ 175/kg
- terbium US\$ 4,100/kg
- erbium US\$ 100/kg
- gadolinium US\$ 192/kg

Dysprosium is an important additive in neodymium-iron-boron magnets, which are increasingly used in clean energy applications. Demand for dysprosium is expected to increase significantly with only negligible forecast increases in ROW supply. Similarly yttrium is found in minimal quantities outside China, and is used to make phosphors for use in fluorescent lighting, television displays and computer monitors as well as in yttria stabilized zirconia, (an important wear resistant ceramic).

The development of alternative sources of rare earths supply to China remains the focus of the Rest of World (ROW) consumers. While, on present indications, the ROW should be able to meet in excess of 80% of its light rare earths needs in 2015, it will remain seriously deficient in the supply of heavy rare earths. Given the time required to bring a new rare earths project on line, the Industrial Minerals Company of Australia (IMCOA) believes that ROW will be able to meet only 15% (at best) of its heavy rare earths needs in 2015.

For more information:

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About Northern Minerals

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

The Company has identified high value, heavy rare earth elements (HREE) at its Browns Range project. The discovery is particularly significant due to the nature of the mineralisation (xenotime), and the strong global demand and price for the HREE it contains. Northern Minerals currently has fully funded HREE exploration programs underway at Browns Range and the geologically similar John Galt project.

Northern Mineral's uranium program is focussed on the Gardiner-Tanami project and Gardner Range JV, which comprise 10,500km² on the WA-NT border. Exploration is focused on high grade unconformity-related uranium targets. The area is compared favourably 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

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.

Table 4 – Browns Range Project - Drill hole collar details

HOLE ID	EAST	NORTH	RL	DEPTH	MAG_AZIMUTH	PROSPECT
NMBRRC001	492520	7910319	461	40	32	A5N
NMBRRC002	492539	7910341	460	40	45	A5N
NMBRRC003	492494	7910327	461	43	43	A5N
NMBRRC004	492507	7910346	461	40	43	A5N
NMBRRC005	492444	7910373	471	43	45	A5N
NMBRRC006	492461	7910388	466	40	26	A5N
NMBRRC007	492475	7910407	466	40	40	A5N
NMBRRC008	492421	7910399	470	58	43	A5N
NMBRRC009	492442	7910421	468	40	225	A5N
NMBRRC010	492459	7910440	469	40	225	A5N
NMBRRC011	492428	7910431	469	79	360	A5N
NMBRRC012	492388	7910421	471	73	52	A5N
NMBRRC013	492406	7910438	470	90	360	A5N
NMBRRC014	492423	7910452	469	82	225	A5N
NMBRRC015	492441	7910470	467	129	231	A5N
NMBRRC016	492330	7910429	465	115	44	A5N
NMBRRC017	492346	7910447	467	49	40	A5N
NMBRRC018	492372	7910474	470	50	50	A5N
NMBRRC019	492383	7910483	471	49	43	A5N
NMBRRC020	492400	7910502	469	55	42	A5N
NMBRRC021	492419	7910522	465	130	223	A5N
NMBRRC022	492429	7910533	464	62	225	A5N
NMBRRC023	492318	7910470	461	49	222	A5N
NMBRRC024	492333	7910483	461	82	220	A5N
NMBRRC025	492344	7910496	462	79	221	A5N
NMBRRC026	492356	7910509	462	67	42	A5N
NMBRRC027	492369	7910524	466	51	228	A5N
NMBRRC028	492359	7910515	463	64	223	A5N
NMBRRC029	492287	7910483	459	58	48	A5N
NMBRRC030	492306	7910503	460	61	39	A5N
NMBRRC031	492318	7910519	461	49	42	A5N
NMBRRC032	492326	7910528	461	40	42	A5N
NMBRRC033	492289	7910483	459	64	225	A5N
NMBRRC034	494170	7913731	475	40	360	GB
NMBRRC035	494173	7913752	479	40	1	GB
NMBRRC036	494173	7913776	480	40	4	GB
NMBRRC037	494176	7913800	481	40	357	GB
NMBRRC038	494126	7913725	476	70	175	GB
NMBRRC039	494127	7913751	478	60	188	GB
NMBRRC040	494126	7913772	480	60	180	GB
NMBRRC041	494123	7913801	478	79	183	GB
NMBRRC042	494075	7913724	472	52	6	GB
NMBRRC043	494073	7913749	475	70	360	GB
NMBRRC044	494073	7913774	476	60	3	GB
NMBRRC045	494080	7913796	475	95	360	GB
NMBRRC046	494073	7913828	473	82	354	GB
NMBRRC047	494028	7913800	469	60	185	GB
NMBRRC048	494025	7913777	472	60	188	GB
NMBRRC049	494025	7913751	472	60	180	GB
NMBRRC050	494022	7913725	471	60	192	GB



HOLE ID	EAST	NORTH	RL	DEPTH	MAG_AZIMUTH	PROSPECT
NMBRRC051	494130	7913825	473	97	184	GB
NMBRRC052	493979	7913826	465	60	1	GB
NMBRRC053	493973	7913800	467	61	345	GB
NMBRRC054	493972	7913771	472	52	8	GB
NMBRRC055	493973	7913745	471	100	347	GB
NMBRRC056	493968	7913727	470	100	3	GB
NMBRRC057	493943	7913740	467	100	10	GB
NMBRRC058	493950	7913703	461	130	352	GB
NMBRRC059	493947	7913751	468	82	26	GB
NMBRRC060	493947	7913760	470	86	5	GB
NMBRRC061	493947	7913779	469	64	3	GB
NMBRRC062	493942	7913674	461	114	5	GB
NMBRRC063	493939	7913648	459	107	360	GB
NMBRRC064	493907	7913734	462	55	2	GB
NMBRRC065	493909	7913720	460	79	1	GB
NMBRRC066	493906	7913697	457	106	360	GB
NMBRRC067	493904	7913675	455	106	5	GB
NMBRRC068	493903	7913653	454	85	5	GB
NMBRRC069	493648	7913692	458	100	357	GB
NMBRRC070	493648	7913712	459	78	6	GB
NMBRRC071	493645	7913672	457	94	3	GB
NMBRRC072	493644	7913650	457	130	2	GB

(Coordinates in GDA94 Zone 52)

For persons