

## HIGHLIGHTS

### RARE EARTHS

#### Browns Range Heavy Rare Earths Project

- Significant drilling success at Browns Range, with 23,000m of diamond and RC drilling completed during the quarter.
- Work on the maiden Wolverine JORC resource is well advanced with geological interpretation and check assays complete. JORC resource expected before end 2012
- Diamond drilling extends high grade HRE mineralisation at depth (to 230 vertical metres) and confirms widths and grades of HRE mineralisation.
- Highest HRE grades to date in Gambit drilling with intercepts 38m at 4.15% Total Rare Earth Oxides (TREO) containing high levels of dysprosium and yttrium. The intersection includes 8m at 9.58% TREO.
- Successful preliminary hydrometallurgical testwork indicates ability to produce high purity mixed chemical concentrate from Browns Range HRE mineral concentrate – offering significant marketing advantages.
- Regional exploration identifies additional xenotime targets, with rock chips samples returning significant numbers of results >1% TREO, and up to 7.76% TREO.
- Exciting new HRE discovery at Gambit West as indicated by drill results in October

### Corporate

- Expanded regional presence, with almost 5,000km<sup>2</sup> of new tenements granted in the Northern Territory within the Browns Range Dome and Tanami region – including established HRE targets.
- Additional A\$1.2 million raised through exercise and underwriting of options.
- Agreement to end alliance with Areva facilitates divestment of non-REE assets.
- Initiated capital management alternatives including equity capital management strategies
- Commenced divestment process of non-REE assets, with the Gardiner-Tanami gold project.

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## EXECUTIVE SUMMARY

The past quarter has been another busy period for Northern Minerals, and one that has delivered further success in the development of the Browns Range Heavy Rare Earths (HRE) Project in northern Western Australia (WA). A key focus and highlight of the period has been the ongoing drilling and metallurgical work, which has continued to produce outstanding results and has advanced the project closer to production. The next major milestone for Browns Range will be the delineation of a maiden JORC resource at the Wolverine prospect, and the Company is on track to deliver this before the end of 2012. At the same time, Northern Minerals has expanded its presence in the region with the successful granting of additional tenements over the Browns Range Dome in the Northern Territory (NT). It has also completed a regional drilling program that has continued to identify exciting new prospects across the Browns Range Dome area.

Another highlight of the period was the results from initial hydrometallurgical studies. These results have indicated the suitability of processing the Browns Range mineral concentrate to a high purity mixed chemical concentrate using conventional unit hydrometallurgical processes. The low volume and high grade mineral concentrate feed to a hydrometallurgical process significantly reduces the capital and operating costs of this process, and by allowing Northern Minerals to produce a higher value product which is in high demand, offers significant marketing advantages. The Company is also in advanced discussions with a number of potential strategic partners regarding off-take agreements.

In line with its HRE strategy, the Company also commenced the formal process to divest some of its non-HRE assets, in particular, the large and prospective Gardiner Tanami land package. The project includes some exciting early stage gold prospects, but with its focus on HRE, the Board believes the best way to extract value from these is via a divestment or joint venture option.

## RARE EARTH ELEMENTS

### BROWNS RANGE PROJECT

Browns Range Project	2011	2012	2013	2014	2015
<b>Stakeholder Engagement</b>	✓				

Northern Minerals has continued its program of engagement with the various stakeholders in the Browns Range region, including community, state and local government and local businesses.

A key part of the project scope is a commitment to local employment and training, and identifying long term job and business opportunities. The Company is committed to local employment opportunities, and made a number of new appointments from the local Ringer Soak community during the past quarter. Overall, during the past twelve months, the Company has doubled the number of local employees from within its operations, from three in 2011 to six in 2012, with processes in place to increase this further in the year ahead. Northern Minerals is also working with local contractors in order to assess current service capability within the region to support Northern Minerals future work schedule.

To integrate the Company and its employees into the community, Northern Minerals is working closely with the Kimberley Language and Resource Centre to implement a cultural awareness training program specifically for employees working on the Browns Range project. This ongoing training is being delivered by the traditional owners of the land and provides an opportunity for employees to gain a better understanding of local Indigenous culture.

The Company has also continued meetings with representatives from the local community, industry and Government, which have all been very positive. Northern Minerals looks forward to continuing to work with these stakeholders as it moves the project forward.

Browns Range Project	2011	2012	2013	2014	2015
<b>Exploration</b>	✓				

During the quarter, Northern Minerals stepped up its HRE exploration program across the wider Browns Range region, which hosts a large number of potential geological anomalies and targets. The program included nearly 23,000ms of drilling at Browns Range, some of which contributes to the data used to define a maiden JORC resource estimate at the Wolverine prospect, as well as following up exciting additional regional targets. The regional exploration program across the Browns Range area has been successful in identifying and testing multiple new targets. The strategy behind the program is to develop a number of high quality prospects and ultimately build a significant HRE inventory in the Browns Range region.

The recent regional program during the period included:

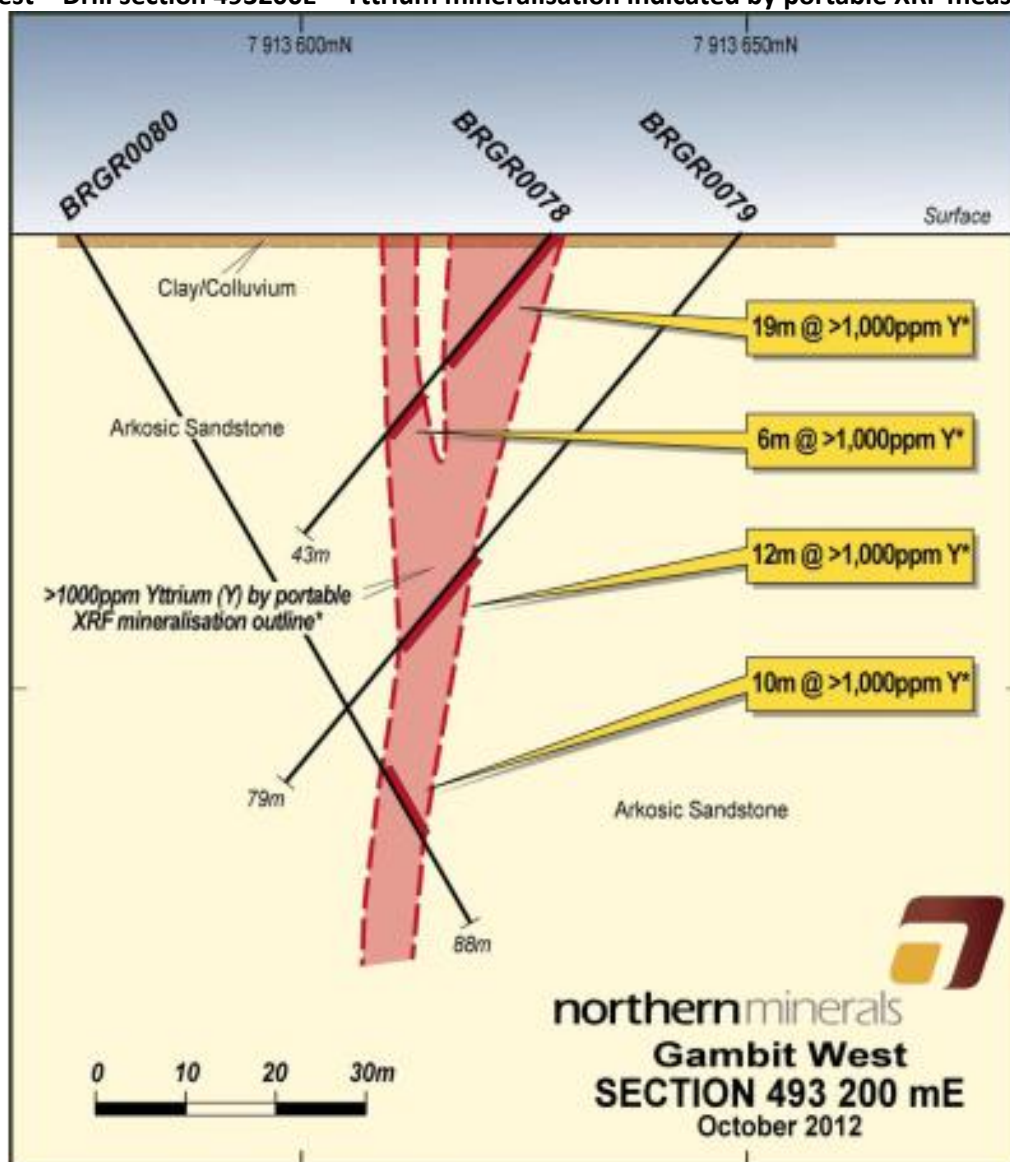
- Drill testing of two new priority prospects – Banshee and Mystique
- Mapping, rock chip and soil sampling at a number of targets where outcropping xenotime mineralisation has been identified. Targets are currently being followed up with Aircore/RC drilling.
- Airborne geophysics over newly granted tenements in the Northern Territory in the eastern portion of the Browns Range Dome (commenced in October)



A first pass RC drilling program was completed during the quarter to drill test the Banshee and Mystique prospects with 29 drill holes for 2,528m at Mystique and 29 drill holes for 2,318m at Banshee. Initial results from this program were released after the reporting period (29 October), and confirmed HRE mineralisation at the Mystique and Banshee targets, and some particularly exciting high grade intersections at a new area west of the established Gambit prospect. Results at Mystique include intersections up to 10m @ 0.73% TREO, while at Banshee intersections up to 14m @ 0.52% TREO from 95m and 10m @ 0.71% TREO from 68m were recorded. At Banshee, a broad zone of shallow low-grade mineralisation was intersected with results of 12m @ 0.25% TREO from surface.

Preliminary results from field portable XRF measurements also identified the new zone of mineralisation at the Gambit West area, and indicated an extension to the strike length of the mineralised Gambit geological structures. A total of 49 RC drill holes for 4,184m have been completed at the entire Gambit prospect during the quarter.

**Gambit West – Drill section 493200E – Yttrium mineralisation indicated by portable XRF measurements**



The mineralisation at West Gambit lies approximately 350m west of the current Gambit prospect, where a 500m long target area was identified by geochemical soil sampling. Results indicate a WSW trending subvertical HRE mineralised structure. The mineralisation is widening from 4m on drill section 493 000mE to approximately 12m on 493 200mE. Laboratory assay results are required to confirm the portable XRF measurements; however, based on previous experience at Browns Range the correlation between portable XRF yttrium measurements and final assay results has been excellent. Assay results are expected in late November 2012, and data compilation and interpretation is ongoing.

At the Area 5 Prospect, drilling was completed to follow up the 2011 program in which significant mineralisation was intersected in several holes over downhole widths of 2-19m with some shallow high grade mineralisation (NMBRRC138 - 2m @ 13.9% TREO from 4m). Results have extended the mineralisation intersected in the 2011 RC drilling program. Drilling in the current quarter has comprised one diamond drill hole (BRAD0001) drilled to 131m and 33 RC drill holes for 3,116m. New results released in late October have indicated mineralisation over downhole widths of up to 19m and include some high-grade mineralisation up to 8.5% TREO over 3m. Mineralisation occurs within quartz veined, silicified and

hematitic arkosic sandstones, and appears to be controlled by east-west and northwest-southeast oriented fault structures.

Recent reconnaissance mapping and rock chip sampling of selected targets has identified further outcropping xenotime mineralisation. A total of 15 out of 38 rock chip samples taken returned assay results with >1% TREO. At an area located southeast of Wolverine (known as Sabretooth) an east-west trending quartz breccia zone has been identified over 300m in strike length with rock chips assaying up to 2.81% TREO. Follow-up shallow RC drilling of this target has been completed with 14 holes for 639m. Results are currently pending.

**Table 1- Rock chip sample results >=1% TREO**

SAMPLE	EASTING	NORTHING	Dy <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO%
BRRK105	493779	7915044	652	4277	1.11
BRRK109	494864	7908011	2,745	16,952	2.81
BRRK110	494860	7908018	1,565	10,230	1.75
BRRK112	494910	7908007	2,117	13,867	2.37
BRRK113	494942	7908014	1,376	8,780	1.45
BRRK115	495984	7898123	1,901	12,478	2.53
BRRK116	495982	7898123	7,103	43,682	7.76
BRRK119	492924	7903850	1,612	11,017	1.78
BRRK129	489787	7904621	2,4110	15,119	2.76
BRRK130	489782	7904622	1,672	11,724	2.22
BRRK131	489785	7904625	1,488	10,023	1.70
BRRK132	489780	7904584	1,978	13,664	2.65
BRRK134	492582	7910967	2,011	14,000	2.29
BRRK135	492563	7910971	4,273	28,088	4.95
BRRK140	490490	7902070	1,631	11,913	2.37

*Coordinates based on GDA94 Zone 52*

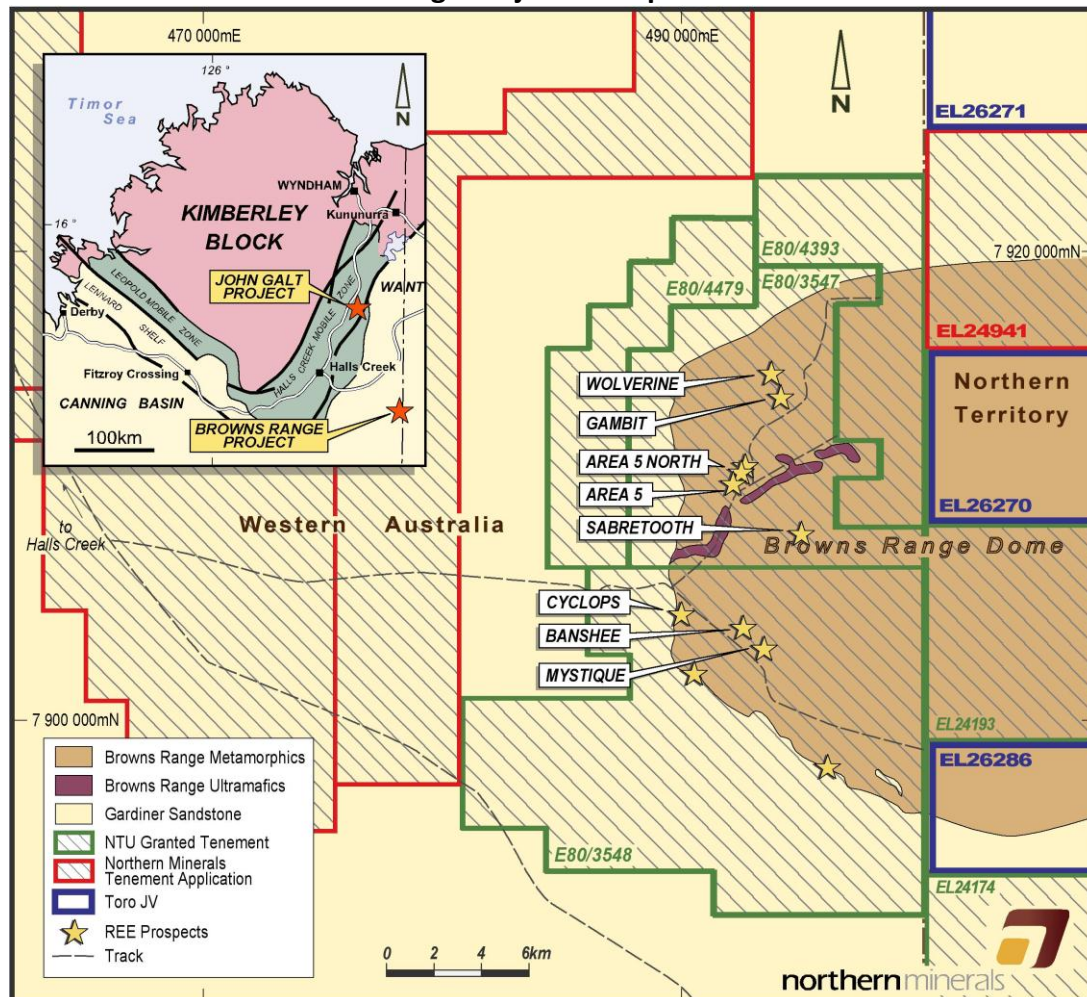
*NOTE: Samples were submitted to Genalysis Laboratory for REE analysis using a FP6/OM Sodium Peroxide Fusion Digest*

The Company has announced it has been granted 100% owned tenements in the Northern Territory, which includes ground surrounding the Toro Energy Joint Venture tenements. These tenements significantly expand Northern Minerals footprint in the prospective Browns Range Dome region.



Northern Minerals has received approval to expand and upgrade its exploration camp at Browns Range. Construction of demountable accommodation units and infrastructure to support up to 20 people has been completed, providing Northern Minerals with a semi-permanent base to support the increased on-ground activity.

### Browns Range Project - Prospect Locations



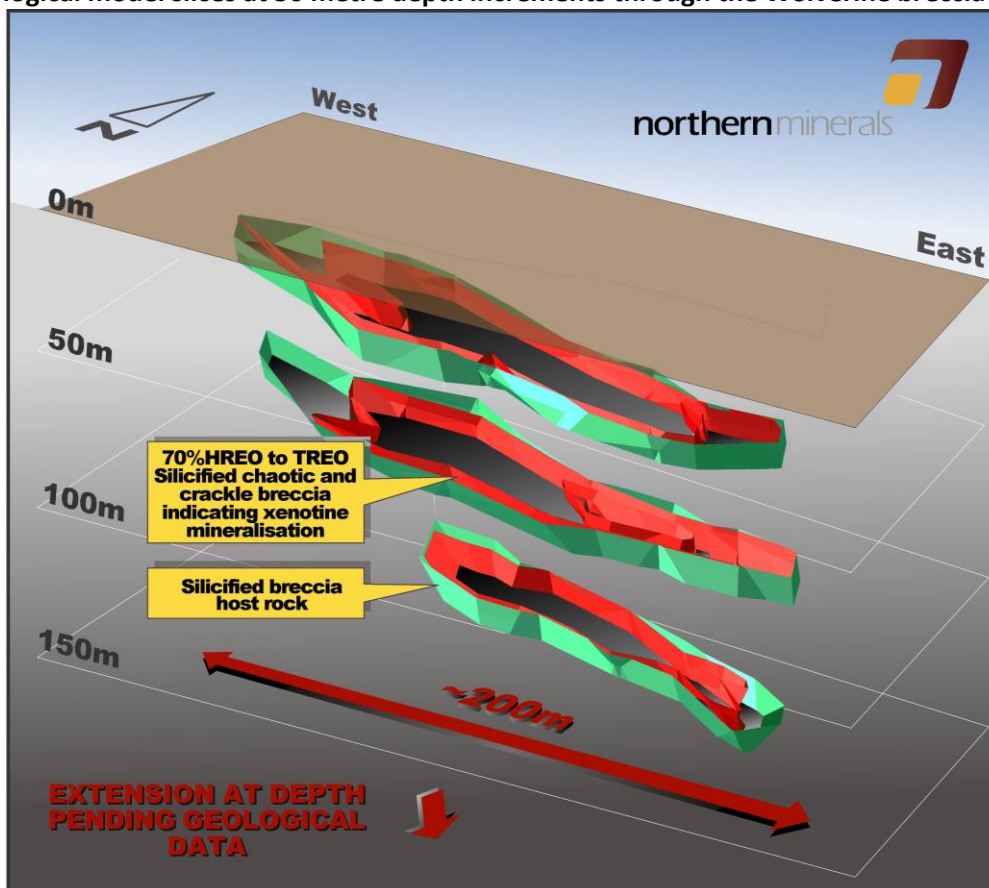
Browns Range Project	2011	2012	2013	2014	2015
JORC Resource Drilling		✓			

### Resource definition work well underway

During the quarter, Northern Minerals completed a significant program of resource definition drilling which is required to produce the maiden JORC resource estimate at Wolverine. Northern Minerals has also engaged AMC Consultants, an independent and internationally recognised mining consultancy, to complete the resource estimate for the Wolverine deposit. The maiden JORC resource estimate at Wolverine is being targeted before the end of 2012.

Work is now well underway on the geological interpretation and modelling of the mineralised envelope (see figure below) and a program of check sampling assays at a second independent laboratory to verify assay results has been completed. In addition, to help with pit design, the Company is currently in the process of drilling three metallurgical diamond drill holes which will be followed by a further three diamond drill holes for geotechnical purposes.

**Geological model slices at 50 metre depth increments through the Wolverine breccia body**



*Note: The diagram represents slices at 50m, 100m, and 150m below the surface, and are not discrete breccia bodies. The red and green outlines are part of solid shapes from the surface to 150m vertical depth.*

### Successful drilling program at Wolverine

An 8,306m drilling program was completed at Wolverine during the quarter. The program delivered high grade HRE intersections and helped further define mineralisation in preparation for JORC resource estimation. Two drill rigs were in operation at Wolverine conducting exploration, and step-out and infill resource drilling. The drilling program during the quarter has included 16 diamond drill holes (seven with RC pre-collars) and 52 reverse circulation (RC) holes.

In October, Northern Minerals announced further positive drill results from this program. The results confirmed the high grades and extended mineralisation at depth, and provided further confidence that Wolverine will be a significant contributor to a resource at Brown's Range.



The assay results to date confirm the consistency of the widths and grades at Wolverine, and emphasise the uniquely consistent quality of the xenotime mineralisation. It has defined mineralisation over a 200m strike length, and the latest results released in October from deeper diamond drilling has confirmed mineralisation to a depth of 230 vertical metres – well below the current geological modelling work which is to 150m. A feature of the results continues to be the high grade intersections of xenotime mineralisation, with a dominance of HRE.

Significant assay results from the diamond drilling are listed in Table 2 below, with significant results from the RC drilling in Table 3.

**Table 2: Wolverine Prospect Diamond drilling (resource definition) - Summary of significant HRE intersections (>2m @ 0.15% TREO)**  
*(mineralised intervals are downhole widths, not true widths)*

Hole Number	From(m)	To(m)	Interval (m)	TREO (%)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	Y <sub>2</sub> O <sub>3</sub> (ppm)
<b>BRWD0010</b>	<b>80</b>	<b>84</b>	<b>4</b>	<b>1.03</b>	938	6,142
	117	119	2	0.53	414	2,909
<b>BRWD0011</b>	<b>121</b>	<b>129</b>	<b>8</b>	<b>0.56</b>	485	3,274
	142	144	2	0.74	676	4,723
BRWD0012	141	146	5	0.37	295	2,053
	154	155	1	0.45	379	2,658
	158	164	6	0.39	316	2,167
	168	170	2	0.24	149	1,040
<b>BRWD0013</b>	<b>132</b>	<b>152</b>	<b>20</b>	<b>1.40</b>	<b>1,248</b>	<b>8,803</b>
	inc. 146	148	2	3.84	3,355	24,445
	and 150	152	2	3.23	2,868	20,878
<b>BRWD0014</b>	61	68	7	0.67	433	3,094
	73	79	6	0.57	334	2,455
	<b>97</b>	<b>106</b>	<b>9</b>	<b>0.82</b>	<b>627</b>	<b>4,511</b>
	109	110	1	1.40	1,121	7,961
	128	129	1	0.41	320	2,250
BRWD0015	80	84	4	0.37	120	847
	102	103	1	0.36	209	1,530
	106	109	3	0.55	415	3,055
<b>BRWD0018</b>	138	141	3	0.49	425	2,639
	<b>146</b>	<b>152.3</b>	<b>6.3</b>	<b>1.07</b>	<b>1,022</b>	<b>6,356</b>
	<b>156</b>	<b>162</b>	<b>6</b>	<b>2.18</b>	<b>2,117</b>	<b>12,863</b>
	Inc. 158	160	2	5.49	5,490	33,193
	164	165.3	1.3	0.86	735	4,570
<b>BRWT0168</b>	195	199	4	1.10	1,064	6,507
	<b>202</b>	<b>207</b>	<b>5</b>	<b>1.74</b>	<b>1,754</b>	<b>10,664</b>
	Inc. 203	204	1	4.39	4,531	26,744
	212	214	2	0.40	380	2,405
	217	222	5	1.21	1,175	7,183
	Inc. 221	222	1	3.99	3,913	2,3830
BRWT0173	87	89	2	0.36	249	1,615
	111	112	1	0.36	304	2,063
<b>BRWT0175</b>	<b>171</b>	<b>177</b>	<b>6</b>	<b>0.80</b>	<b>768</b>	<b>4,672</b>
	186	187	1	0.51	430	2,784
	192	194	2	0.53	439	2,834



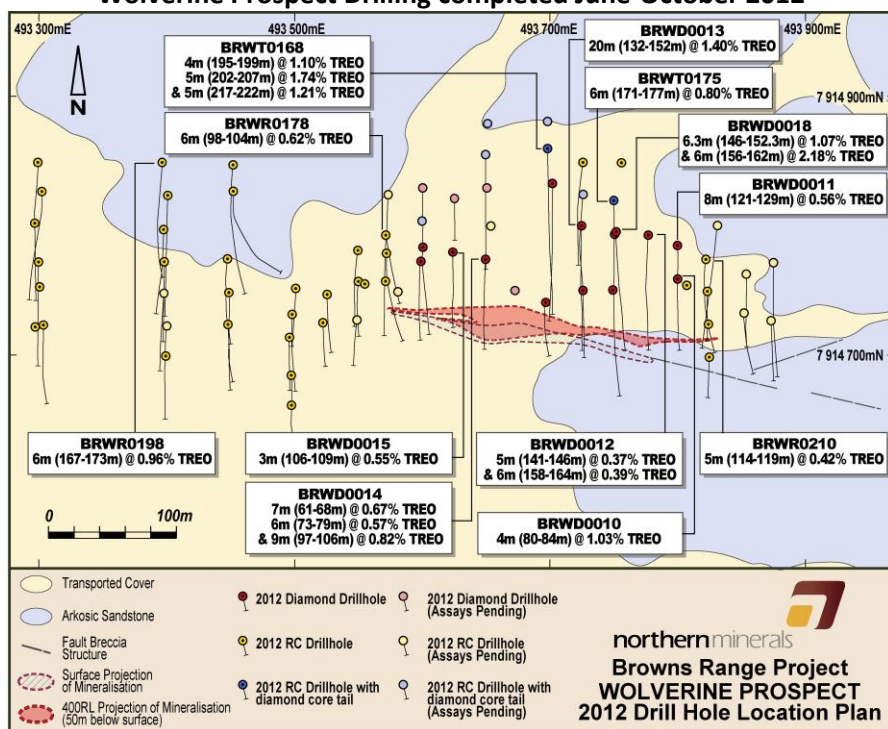
**Table 3: Wolverine Prospect RC drilling (exploration)**  
**Summary of significant HRE intersections (>2m @ 0.15% TREO)**  
*(mineralised intervals are downhole widths, not true widths)*

Hole Number	From(m)	To(m)	Interval (m)	TREO (%)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	Y <sub>2</sub> O <sub>3</sub> (ppm)
BRWR0177	74	76	2	0.44	237	1,591
<b>BRWR0178</b>	<b>98</b>	<b>104</b>	<b>6</b>	<b>0.62</b>	<b>367</b>	<b>2,371</b>
BRWR0182	75	76	1	0.37	201	1,529
	78	79	1	0.52	174	1,263
BRWR0191	35	36	1	0.79	676	4,786
BRWR0192	55	58	3	0.17	105	763
BRWR0193	85	88	3	0.23	119	817
BRWR0198	<b>167</b>	<b>173</b>	<b>6</b>	<b>0.96</b>	<b>714</b>	<b>4,698</b>
	Inc.169	170	1	3.79	3,119	20,583
BRWR0200	129	131	2	0.28	216	1,514
BRWR0204	37	39	2	0.62	370	2,507
BRWR0210	<b>114</b>	<b>119</b>	<b>5</b>	<b>0.42</b>	<b>360</b>	<b>2,415</b>
	Inc. 116	117	1	1.11	1,003	6,651
	133	137	4	0.23	175	1,187
	140	142	2	0.21	181	1,244
BRWR0215	46	47	1	0.52	473	3,246

**NB** – Intersections calculated using a 0.15% TREO cut-off and a maximum of 2m internal dilution. No top cut has been applied  
Samples were submitted to Genalysis Laboratory for REE analysis using a FP6/OM Sodium Peroxide Fusion Digest  
**TREO: Total Rare Earth Oxides** – Total of La<sub>2</sub>O<sub>3</sub>, CeO<sub>2</sub>, Pr<sub>6</sub>O<sub>11</sub>, Nd<sub>2</sub>O<sub>3</sub>, Sm<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Tb<sub>4</sub>O<sub>7</sub>, Dy<sub>2</sub>O<sub>3</sub>, Ho<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>

The recent diamond drilling program also included “twinned” holes, which have visually confirmed the previous RC results, with assay results pending. Other drilling work has included targeted drill holes for environmental and hydrogeological studies.

**Wolverine Prospect Drilling completed June-October 2012**



## Gambit Prospect

The diamond drilling at Gambit was designed to intersect the areas of known mineralisation defined by RC drilling in 2011, and obtain geological and structural data to aid in the understanding of mineralisation.

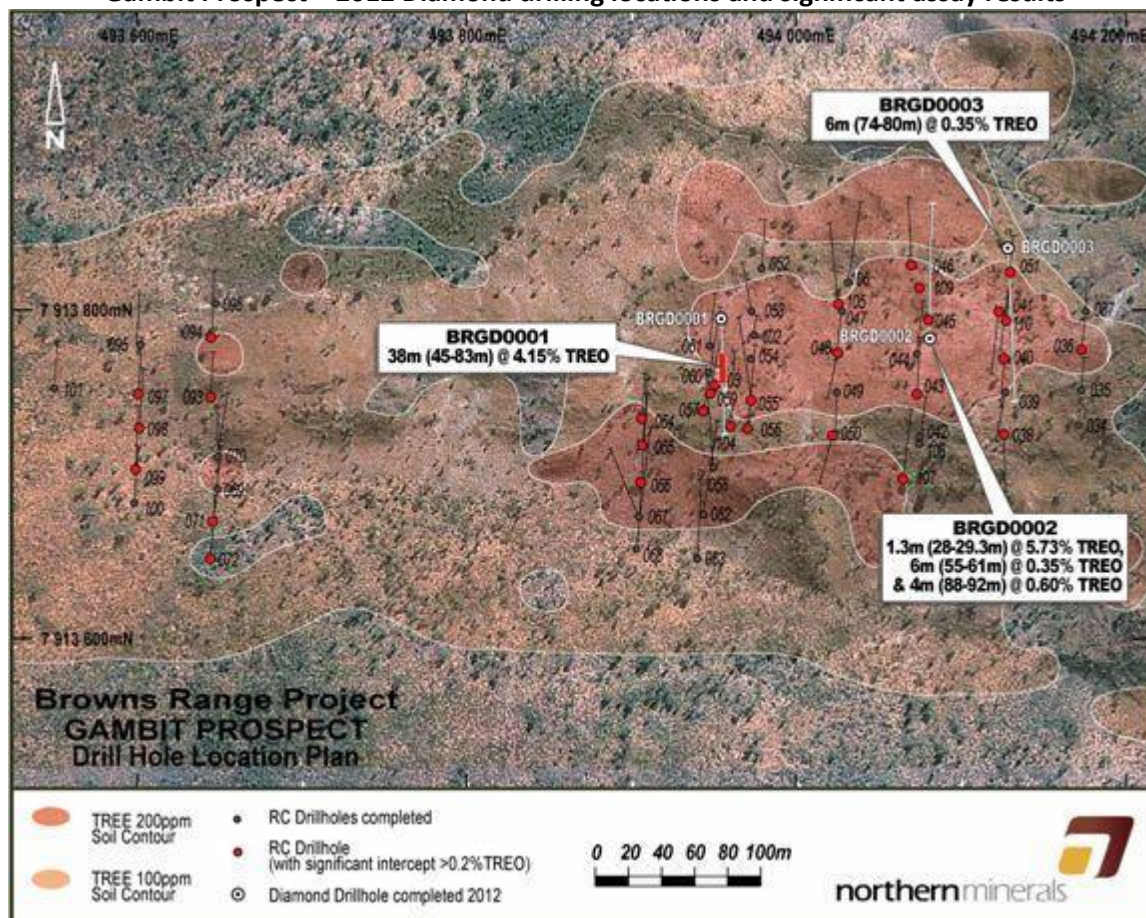
Assays received during the reporting period featured the highest grade intersections received to date at Browns Range. The first diamond drill hole completed at Gambit (BRGD0001) intersected a mineralised zone with **38m (45m – 83m) at 4.15% TREO** (no top cut applied). The 2012 diamond drilling at Gambit has

focused on gaining information on the geological structural controls, and has targeted the zones of mineralisation identified in the 2011 drilling program.

The high grade mineralisation occurs within a siliceous brecciated arkosic sandstone, located on the western edge of the RC drilling area completed in 2011 (*see Figure below*). The geometry and dimensions of the mineralised zone in BRGD0001 are unclear, but is likely to be part of a high grade, steeply plunging shoot.

Further drilling is required to confirm this interpretation, and an RC drill program recommenced at Gambit in September. A total of 49 RC drill holes for 4,184m were completed at Gambit during the quarter.

**Gambit Prospect – 2012 Diamond drilling locations and significant assay results**





Browns Range Project	2011	2012	2013	2014	2015
Scoping Study		✓			

Project development and approval activities continue to advance concurrently with metallurgical test work, resource definition work and environmental baseline studies. Completion of the scoping study will require the definition of a maiden JORC resource (expected before the end of 2012), to allow for detailed mine planning studies to be done.

The Company is continuing to work on a range of activities which to support the scoping study. These include:

- Infrastructure scoping studies to investigate access road, airstrip, mining infrastructure and port options,
- Scoping studies in relation to tailings storage facilities, and
- Hydro-geological and hydrological studies to consider water supply options, including ground and surface water management.

The data from these studies together with the scoping level ( $\pm 35\%$ ) capital and mill operating cost estimates completed by Bateman Engineering earlier in 2012 and the mining costs to be completed when the JORC Resource estimate has been produced, will be used to complete the scoping study.

While the capital and mill operating cost estimates are order of magnitude, the results to date indicate the potential for positive economics for the Browns Range project, in particular at the higher feed grades.

*NOTE: The desktop capital study and operating cost study was conducted by Bateman Engineering based on the metallurgical test work and development of beneficiation flow sheets conducted by Nagrom following ongoing JORC resource drilling and metallurgical studies, to produce a conceptual flowsheet. At this stage the company has not yet estimated a JORC resource. Accordingly inferences to production should not be used as a basis for investment decisions about shares in the company.*

Browns Range Project	2011	2012	2013	2014	2015
Metallurgy Testwork	✓				

A highlight of the reporting period was the initial and encouraging results from the preliminary hydrometallurgical studies, which explored the option of value adding downstream processing of the Browns Range mineral concentrate.

Following earlier test work which confirmed a simple, low cost beneficiation process to produce a high grade mineral concentrate containing  $>30\%$  Total Rare Earth Oxides (TREO), Northern Minerals was pleased to report positive results from the preliminary hydrometallurgical test work which indicated the suitability of Browns Range mineral concentrates for processing to a high purity mixed chemical concentrate.

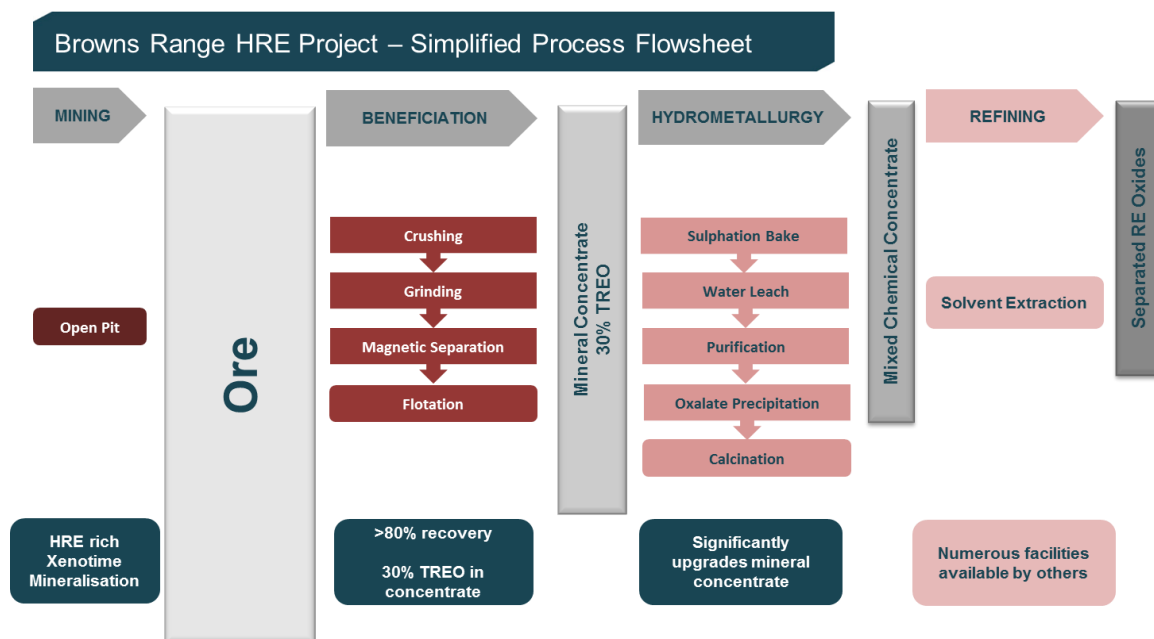


The preliminary test work was completed by specialists ANSTO and NAGROM. Tenova Bateman developed a conceptual flowsheet based on the results, indicating that the mineral concentrate can be further processed to produce a high purity mixed chemical concentrate.

The process includes conventional unit processors of sulphation bake, water leaching, impurity removal, oxalate precipitation and calcination to produce the high purity chemical concentrate.

While further work is required to refine this, these hydrometallurgical results indicate that the Browns Range mineral concentrate can deliver very marketable rare earth products. Having a high-grade mineral concentrate (>30% TREO) significantly reduces the mass of material at the hydrometallurgy processing stage which greatly reduces both capital and operating costs of the process in producing high purity chemical concentrate.

The results increase Northern Minerals marketing and off-take options, and highlight the value of being able to produce such a high-grade mineral concentrate from the xenotime mineralisation. The next phase of metallurgical flowsheet development will be focussed on optimisation of the beneficiation circuit and continued confirmatory work on the downstream hydrometallurgical process. A graphic representation of the study work done on the process flowsheet is as follows:



**NOTE :** The conceptual simplified process flowsheet has been developed by Tenova Bateman following ongoing metallurgical test work and studies. At this stage the company has not yet estimated a JORC resource. Accordingly inferences to production should not be used as a basis for investment decisions about shares in the company.

Browns Range Project	2011	2012	2013	2014	2015
Environmental Studies and EIS		✓			

Project environmental studies continue to progress concurrently with metallurgical and scoping study work. A number of environmental surveys have already been completed, with others planned for the next quarter and 2013. Outback Ecology has been engaged to undertake the environmental baseline studies for the Browns Range Project and to prepare the Environmental Impact Assessment (EIA) documentation for the Project. Baseline surveys have included the following work:

**Terrestrial fauna** - A total of 122 vertebrate species have been recorded during baseline field surveys. This number is indicative of a good “capture” of the assemblage of animals occurring in the area.

**Subterranean fauna** - Preliminary sampling of subsurface invertebrate fauna (“stygo fauna” and “troglo fauna”) has found evidence that some subterranean organisms exist in groundwater in the project area. Further studies are planned to evaluate the occurrence and significance of these animals.

**Flora and vegetation** – The Company has completed a comprehensive census of flora and vegetation. However, the large number of species collected has resulted in a longer than expected time to complete sample identification. The project area has a rich and diverse flora, although no Declared Rare Flora listed on Department of Environment and Conservation (DEC) databases have been observed.

**Baseline Soil Assessment** - A baseline soil survey was completed in the Project area during August 2012. The results of this work are pending and will feed into the mine closure plan and will complement planned geochemical testing of waste rock.

**Geochemical Characterisation** - A study to characterise the geochemical properties of mined waste rock and also process tailings has commenced. Samples of tailings and rock samples representing the expected dominant waste rock lithologies have been identified and are being collected for submission to appropriate laboratories for testing.

**Air Quality, Noise and Light** - A baseline air quality (dust) and meteorological characterization program is planned to commence in October 2012 with the installation of field monitoring equipment.

**Hydrogeology & Hydrology** – Preliminary groundwater and surface water studies have been completed. As the definition of the Project advances further studies will be undertaken to determine what impacts, if any, the project may have on surface and groundwater environments.

Browns Range Project	2011	2012	2013	2014	2015
Strategic Alliance Partner Engagement	✓				

The Browns Range Project and HRE product continues to attract global market interest. Northern Minerals is working with potential strategic partners towards securing an off-take agreement. During the third quarter, representatives from the Company travelled to several countries in the Asia Pacific region to progress discussions with a number of these parties, with the aim of finalising a Memorandum of Understanding (MOU) for off-take.

Encouragingly, discussions are now more specific as potential strategic off-take partners monitor the significant progress being made in establishing the maiden resource estimate at Wolverine and hydrometallurgical test work in producing an HRE product suitable for their specific needs.

Samples of mineral concentrate from the Browns Range Project have previously been produced and provided to a number of the potential partner groups, to allow them to test and evaluate the concentrate in downstream processing.

## JOHN GALT PROJECT

John Galt remains an exciting HRE project for Northern Minerals, with exploration and metallurgical work to date delivering highly encouraging results.

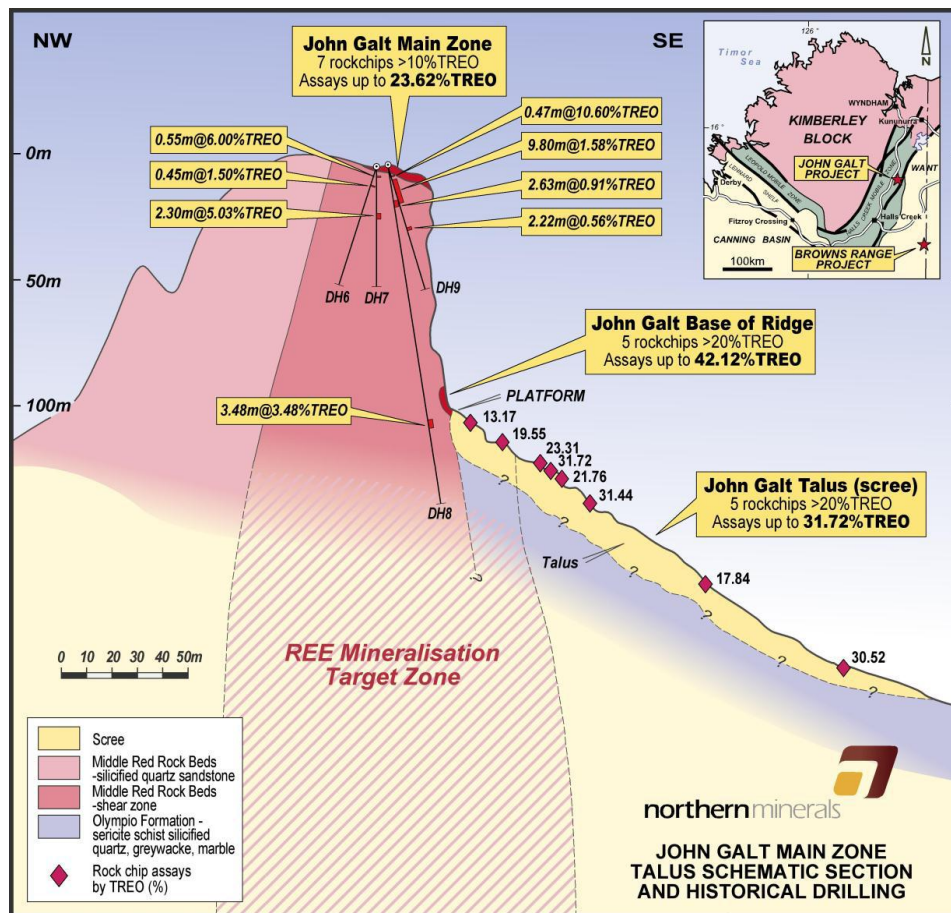
The Company has commenced approvals for a diamond drilling program at John Galt in 2013, following the northern wet season. The drilling program was postponed from the current quarter in order to focus on the Browns Range drilling and JORC compliant resource definition work. Heritage surveys have already been completed for the proposed drilling program, and the Company has also applied for funding from the Government's Exploration Incentive Scheme (EIS) for the John Galt program.

The John Galt program will target mineralisation (see figure below) identified by soil and rock chip sampling program conducted late last year and historical drilling. Results from the rock chip sampling included exceptional grades of up to 42% TREO including 36,791ppm (3.68%) dysprosium ( $Dy_2O_3$ ), with the majority of samples returning high grades above 1% TREO. The TREO distribution is dominated by high value Heavy Rare Earth Oxides (HREO), with approximately 95% of REO's being HREO.

In 2012 the Company has also completed characterisation testing on two 30kg samples of mineralisation which have provided highly encouraging early metallurgical results. Preliminary tests verify excellent metallurgical recoveries in excess of 90%, with potential concentrate grades of greater than 40% TREO. Based on this preliminary testwork, the mineralised material at the Company's Browns Range and John Galt projects exhibit similar characteristics and are therefore likely to provide similar process outcomes within the current beneficiation flowsheet.



### John Galt Main Zone - Talus Schematic Section



## THE REE MARKET

A key feature of the Rare Earth market is that heavy rare earths remain in demand, reflected in the resilience of the pricing for all HRE, but in particular for dysprosium and yttrium. With these two elements making up almost 60% of Northern Minerals HREE distribution, the “basket price” of the Browns Range HRE product has remained firm at \$158/kg.

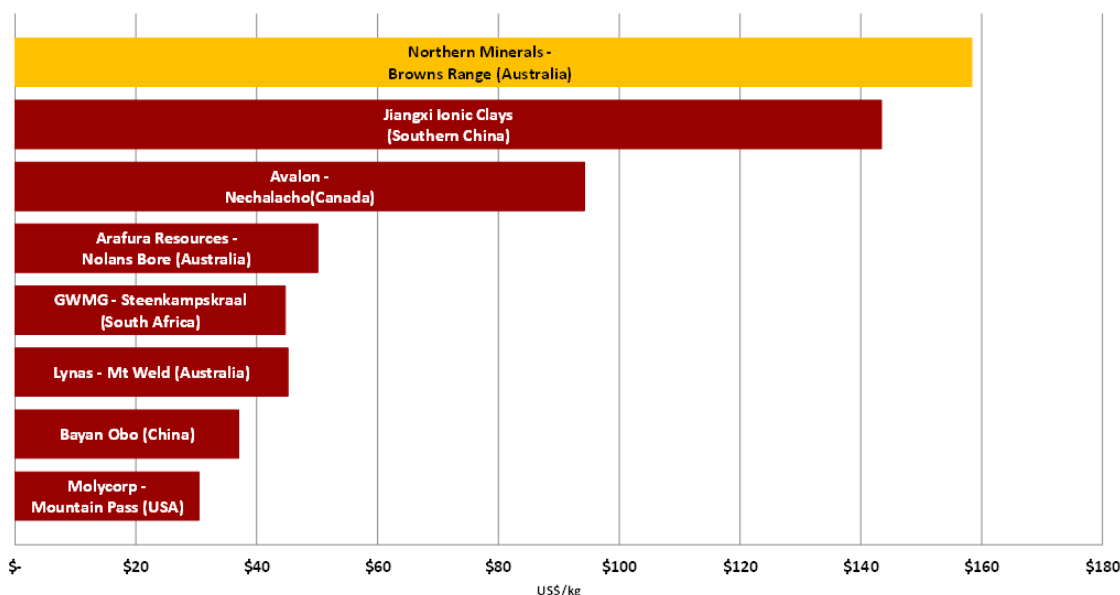
Chinese activity continues to remain a focus of the market, given it accounts for more than 95% of current global supply. Despite holding the title of the major global RE producer, Chinese producers are acutely aware of the impending supply shortage of heavy rare earths and are formulating mitigation strategies, are exacerbating the global supply concerns. This includes the move by Chinese environmental authorities to reduce inefficient and “dirty” processors, which is expected to result in a reduction of approximately 20% of the entire domestic capacity of rare earths production.

The recent Boatou International Rare Earths Conference held in July highlighted the challenges currently facing the industry such as export quotas, supply/demand dynamics and the Baotou RE trading platform. Key industry figures from China acknowledged that China will ultimately be a net importer of rare earths especially for the importation of heavy rare earths. A close examination of the recently published China rare earths export quotas reveals that, although on face value the quota volume has increased, the percentage of heavy rare earths has been dramatically reduced. This follows the tiered system introduced in 2012 in which the export quotas for light rare earths and heavy rare earths are broadly divided into percentages of 85%:15% respectively. Following the conference, China's Ministry of Commerce allocated 2012's second batch of rare earth export quotas, of 9,770 tonnes for the second batch, giving an annual total of 30,996 tonnes, up by 2.7% from 30,184 tonnes in 2011. However it should be noted that the volume of heavy rare earths was actually reduced from 1H 2012 at 3,823 tonnes to 2H 2012 at 1,233 tonnes – a reduction of 68%.

Additionally, during the quarter China commenced its rare earths strategic stockpile. This is under the direction of the China central government and to be jointly administered by Chalco, China Minmetal and Baotou Steel Rare Earth. The stockpile will focus primarily on dysprosium, europium, terbium and yttrium with sales already reported of dysprosium into the stockpile. This continues to fuel global supply concerns and support the stable price environment for HRE such as dysprosium and yttrium.

Japan, as the second largest consuming nation of rare earths, is experiencing further stress on rare earths supplies from China due to territorial disputes in the South China Sea. It is clear that Japan must identify and secure non-China sources of rare earths to avoid the politicising of RE supply. Conversely South Korea's rare earth imports from China jumped 22.4% in July owing to a fall in import prices, according to a report in the China Daily newspaper. This strengthens the logic in being active in the Korea market as Northern Minerals continues to engage prospective strategic partners in the development of Browns Range.

Global REE Projects, In-situ Value (October 2012)



NOTE: These values have been calculated on Metal Pages China FOB fully separated oxide prices and published in-situ rare earths distribution values. The chart does not imply fully rare earths recovery and its purpose is primarily for comparison between rare earths projects.

## GOLD

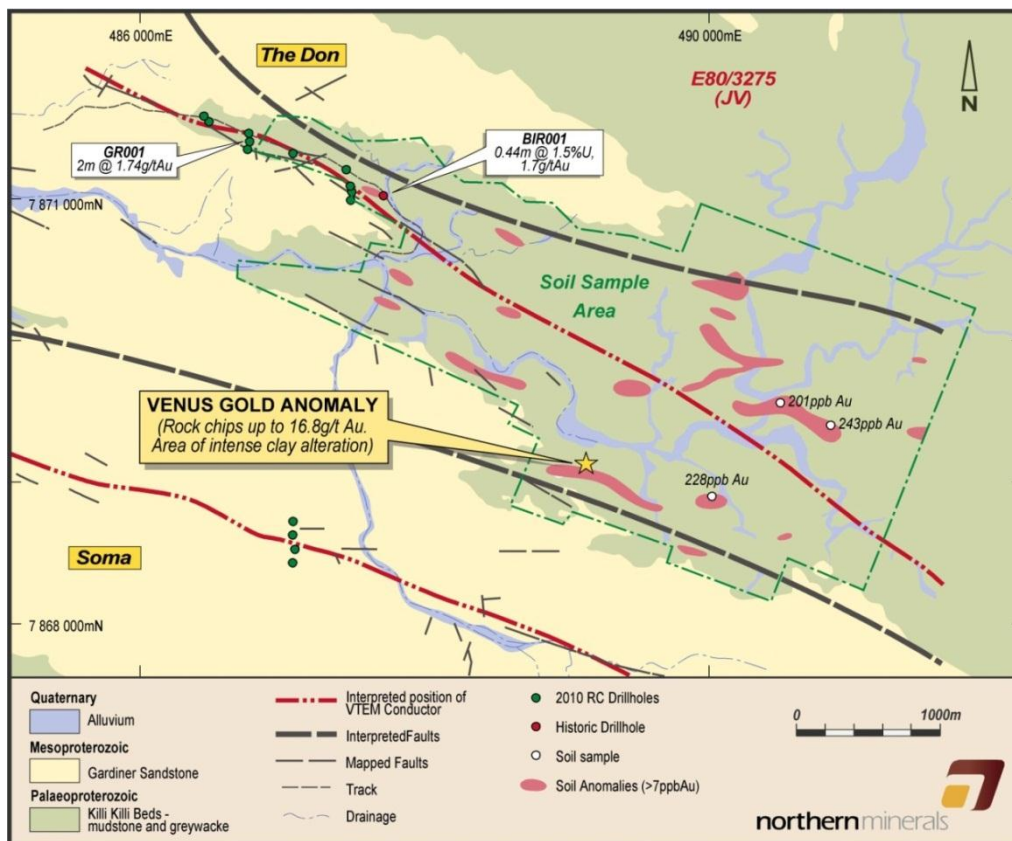
### Gardiner-Tanami/Gardiner Range JV

During the reporting period, Northern Minerals formally commenced the divestment process for a package of its non-Rare Earth Element assets (including gold) at the Gardiner-Tanami Project in northern Australia.

The proposed divestment involves 9,700 km<sup>2</sup> in the Tanami-Arunta region, which is considered to be one of the few significant areas of under-explored gold terrain remaining in Australia. The successful bidder will hold the rights for the exploration and development of all minerals other than rare earth elements (REE), which will be retained by Northern Minerals. A detailed Information Memorandum is available and Indicative Offers are being sought by 29 October 2012.

The Gardiner-Tanami Project represents a significant exploration opportunity in a prospective and under-explored region. The primary target for the region is gold mineralisation similar to the large deposits found at nearby projects such as Callie, Groundrush, Buccaneer and Tanami, which range from 2 – 10 million ounces. Previous exploration has identified drill ready gold targets, with recently defined soil anomalies which are also untested. The Gardiner-Tanami Project is located approximately 200km south east of Halls Creek on the Western Australia/Northern Territory border. The Project consists of a mostly contiguous area covered by 29 granted Exploration Licences, six applications for Exploration Licences near to grant and 13 applications for Exploration Licences held in moratorium. All are owned 100% by NTU except three licences held 60% by NTU in Joint Venture with Manhattan Corporation, where NTU has the ability to earn up to 90%. Neighbouring landholdings are held by Tanami Gold, ABM Resources and Newmont all of whom are exploring or producing gold in the region.

#### Don-Venus Prospect Area – Soil geochemical Au anomalies





## CORPORATE

### Areva alliance ends - increases divestment options

During the reporting period, Northern Minerals announced that the Strategic Alliance with French group Areva NC (Areva) had been terminated by mutual agreement. The termination of the Alliance forms part of the Company's focus on the development of its Heavy Rare Earth (HRE) Projects in northern Australia.

The termination of the Alliance means Northern Minerals now holds 100% ownership of the Gardiner-Tanami Project which allows it to pursue the divestment of its non-REE assets (including gold and uranium) in the region and to deliver additional value to shareholders. Under the termination Agreement with Areva, a cash consideration of \$200,000 has been paid to Areva.

Northern Minerals first formed the Strategic Alliance with Areva in 2007, to jointly pursue uranium exploration opportunities across the 10,500km<sup>2</sup> Gardiner-Tanami Project. With Northern Minerals now firmly focussed on advancing its high grade HREE projects in the region, the Board had been actively reviewing opportunities for the divestment of the non-REE assets, and believed it was the right time to end the alliance and advance the divestment process.

Drilling across the Gardiner-Tanami Project has returned some encouraging gold intersections, which are particularly relevant given the strong gold production credentials of the Tanami region

### Grant of NT tenements

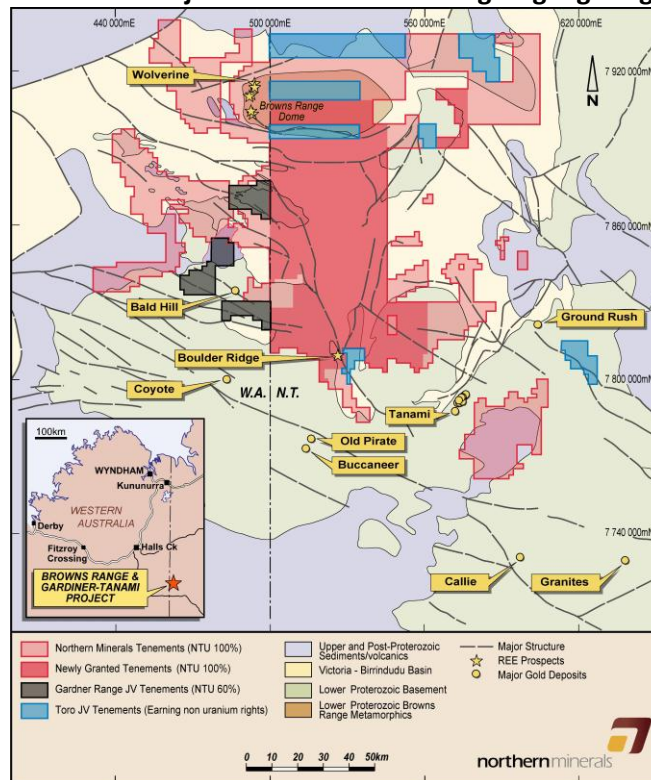
In August, Northern Minerals announced 13 additional tenements had been granted in the NT, which significantly expanded its Heavy Rare Earth Element (HREE) target area around the highly prospective Browns Range Dome.

The tenements cover a combined area of 4,842km<sup>2</sup> on the NT side of the Company's Gardiner Tanami and Browns Range Project areas (*see figure overpage*). They include the eastern section of the Browns Range Dome geological structure, and extend southward toward the Tanami Gold mine. The tenements are also contiguous with the ground where Northern Minerals has already identified and is developing a number of high value HREE prospects. The acquisition of these additional tenements means that Northern Minerals now holds tenure over virtually the whole of the highly heavy rare earths prospective Brown Range Dome. The area within the latest acquisition has only been lightly explored in the past, but there are historical reports of xenotime mineralisation similar to what we have identified at Browns Range.

The granted area features an established HREE target from historical exploration activity. This historical prospect is known as Boulder Ridge, and was explored by several companies including PNC Exploration, in the 1970s and 1980s. Rock chip samples with up to **21.7% TREO** were reported, and xenotime mineralisation within quartz veins hosted by silicified and brecciated sandstone were noted in historical exploration reports.

Northern Minerals will commence an on-ground work program on the tenements once the necessary aboriginal heritage surveys have been completed. This will include the first HREE exploration on the tenements within the Toro Energy Joint Venture area.

## Browns Range and Gardiner-Tanami Projects – Tenement holdings highlighting newly granted tenements



## Underwriting of Options secures \$1.2m and Capital Management

In September, Northern Minerals announced the exercise and underwriting of the unexercised NTUOA Options, which raised an additional A\$1.2 million to the existing cash balance and provided support to the ongoing development of the Browns Range project. The Northern Minerals Board exercised all of the NTUOA Options they held, prior to the expiry date of 30th September 2012. The Company entered into an agreement with GMP Securities Australia Pty Limited (GMP) to underwrite the exercise of 5,795,817 listed NTUOA.

The Underwriting Agreement was on standard terms and conditions, and included typical indemnification and termination provisions and commission payable of 4.5%. Allotment of shares issued pursuant to the exercise of the NTUOA options was made in October.

The board is considering a range of capital management alternatives including the divestment of the company's gold tenement package (as announced to the ASX on 2 October 2012) and equity capital management strategies.

## Competent Persons 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.*

**For more information:**

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## About Northern Minerals

### About Northern Minerals

Northern Minerals Limited (ASX: NTU) is focused 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 results from its drilling and metallurgical programs, the Company is aiming to deliver its maiden JORC resource by the end of 2012, and advance Browns Range toward production, using a relatively simple and low cost processing flow sheet to produce a high grade concentrate. Northern Minerals also has a HREE exploration program underway at the geologically similar John Galt project.

Northern Minerals also holds a number of non-REE assets, including the large and prospective Gardiner-Tanami project and Gardner Range JV project on the WA-NT border. The projects are located within the world-class Tanami-Arunta gold region and have a number of early stage gold targets. Northern Minerals is currently pursuing divestment options for these assets. For more information, visit [www.northernminerals.com.au](http://www.northernminerals.com.au)

