

Quarterly Activities Report: September 2022

Highlights

- Implementing revised strategy to prioritise earlier production and cash flow
 - Commenced preparation for DFS
 - Independent review of exploration and resource data
 - 47% increase in Mineral Resource for Wolverine
- Negotiated strategic partnership with Iluka Resources
 - Commercial supply agreement, equity investment and funding support
- Post quarter, announced Board and Executive changes and new Corporate Office

Executive Chairman's Review

Activity during the September 2022 quarter primarily revolved around implementing the strategy pivot developed following a strategic review conducted during previous quarters. The review identified an opportunity for the Company to expedite production of an REO concentrate, initially from the high-grade Wolverine deposit at Browns Range.

The plan to bring forward commercial production and cash flow involved a number of work streams that were ongoing during the quarter, and which culminated in a series of announcements in recent weeks. Principal among them is the strategic partnership with Iluka Resources announced on 26 October 2022.¹

This partnership with Iluka validates our confidence in this strategy and in the potential of the Browns Range precinct. It comprises a number of agreements that underwrite the sale of all concentrate produced during the anticipated 8+ year initial life of the Browns Range mine, aggregating 30,500 tonnes. Pricing of the concentrate will include a fixed price component based on contained REO and an upside price sharing mechanism based on realised selling price.

The Company has also entered into a series of funding agreements with Iluka that will enable the Company to complete the Definitive Feasibility Study (DFS) for a mine and commercial-scale beneficiation plant at Browns Range and, subject to certain approvals, provide ongoing working capital and contributions towards the future equity component of the capex and commissioning costs associated with the Browns Range Project.

Iluka has invested \$20 million via a \$5 million share placement and a \$15 million convertible note, as well as agreeing to contribute up to \$53 million of additional funding, subject to certain conditions including approval by Northern Minerals shareholders. If all approvals are granted, Iluka has the potential to acquire up to a 19.9% shareholding in the Company.

¹ ASX announcement 26 October 2022: Strategic Partnership with Iluka Resources

Powering Technology.

Northern Minerals
Ground Floor
34 Colin Street
West Perth WA 6005

PO Box 669
West Perth WA 6872
northernminerals.com.au
info@northernminerals.com.au

ASX: NTU
T: +61 8 9481 2344
ABN: 61 119 966 353

Also during the quarter, the Company began to assemble an experienced team for an updated DFS for a commercial scale beneficiation plant. This team will leverage work undertaken in the earlier 2015 DFS. It will also assess the benefits (financial and otherwise) of alternative mining methods, and the inclusion of an ore sorter to increase mill feed grade and de-risk mining dilution following the 60% improvement in ore-sorted product grade during the operation of the pilot plant.

The Company's focus is now very firmly on undertaking the work necessary to complete a DFS and proceed to a Final Investment Decision on a commercial scale mining and beneficiation plant operation to produce a REO concentrate rich in dysprosium and terbium for supply to Iluka.

There will also be a secondary focus on advancing our understanding of other identified Wolverine-style deposits within the Browns Range system.

Strategic Partnership with Iluka

Northern Minerals has formed a strategic partnership with Iluka Resources Limited involving Iluka providing funding support to enable the Company to complete a DFS and a supply agreement for the Company to supply Iluka with rare earths concentrate from Browns Range for processing at the rare earths refinery Iluka is constructing at Eneabba.

The Company is targeting to complete the DFS within 12-15 months and, subject to the DFS, be in a position to take FID in Q1 2024. All going well, first production is expected in 2026, subject to customary approvals.

The agreement is for the supply of all available concentrate from the Browns Range project, until the delivery of contained rare earth oxide (REO) has reached 30,500 tonnes.

Iluka has initially invested \$20 million in the Company via a \$5 million share placement and a \$15 million convertible note. In addition to this initial investment, Iluka has committed to provide additional equity funding towards Browns Range post FID through a further placement, subject to certain conditions.

The companies have also agreed to the grant of put and call options over additional Northern Minerals shares, subject to certain conditions including approval from Northern Minerals shareholders.

47% increase in Wolverine Mineral Resource

During the quarter, international geological and mining consulting firm CSA Global was commissioned to conduct an independent review and assessment of the Wolverine geological database, including a full rebuild of the wireframe model and prepare an updated Mineral Resource estimate, reported in accordance with the JORC Code².

Wolverine is a shear hosted, hydrothermal REE deposit and is the most significant within the Browns Range mineralised system. Wolverine will form the basis of the proposed mining resource for the forthcoming DFS.

² Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition, Effective December 2013, Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

CSA Global's work was completed after the end of the quarter and announced to the market on 10 October.³ The revised Mineral Resource estimate for the Wolverine deposit is now estimated at 6.44 million tonnes at 0.96% total rare earth oxides (TREO), comprising 61,492 tonnes TREO using a cut-off grade of 0.15% TREO and is a 47% increase in TREO tonnes from the previous estimate (Table 1, Figure 1).

Table 1: Wolverine Deposit – Mineral Resource Estimate (October 2022)

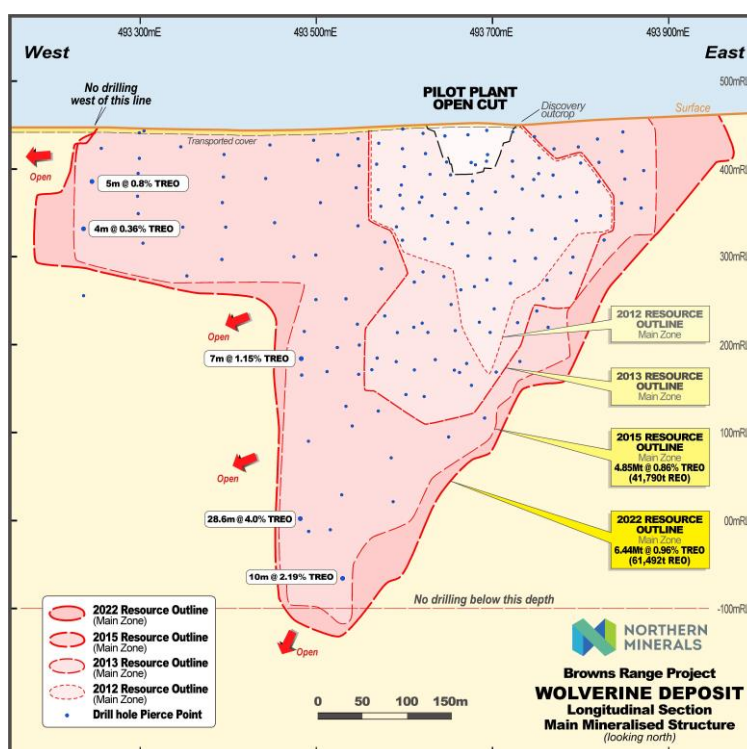
Category	Mt	TREO %	Dy ₂ O ₃ Kg/t	Y ₂ O ₃ Kg/t	Tb ₄ O ₇ Kg/t	HREO %	TREO Tonnes
Measured	0.14	0.70	0.61	3.99	0.09	88%	986
Indicated	3.24	0.95	0.83	5.53	0.12	89%	30,751
Inferred	3.05	0.98	0.84	5.68	0.13	89%	29,756
Total	6.44	0.96	0.83	5.57	0.12	89%	61,492

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

HREO = Heavy Rare Earth Oxides – Total of Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃, Y₂O₃

HREO% = HREO/TREO*100

Figure 1: Wolverine Long Section with 2022 Mineral Resource Outline



³ ASX announcement 10 October 2022: Updated Wolverine Mineral Resource Estimate at Browns Range

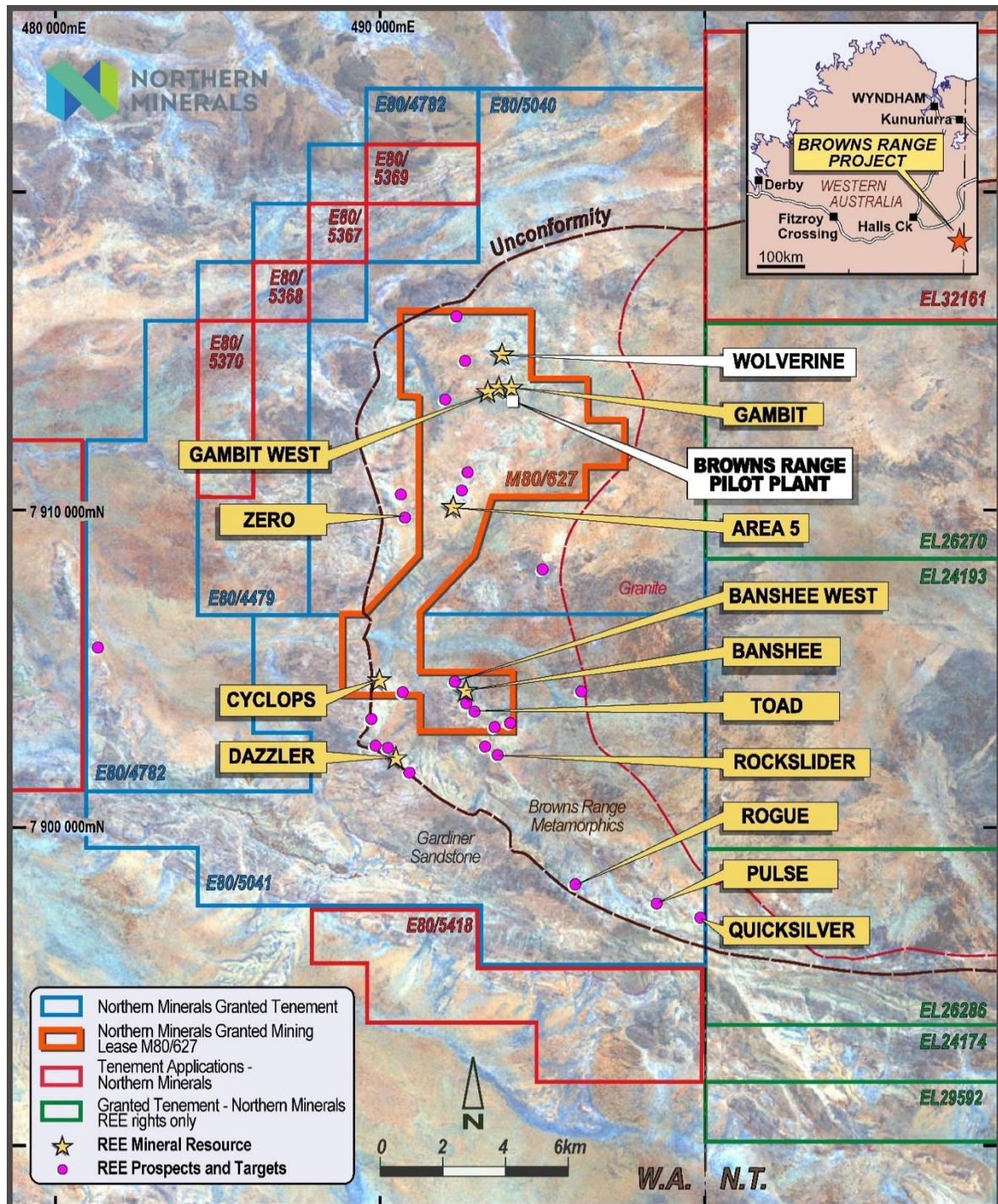
Measured and Indicated Mineral Resources increased by 18% for tonnage, 12% for TREO grade and 32% for TREO tonnage. Inferred Mineral Resources increased by 55% for tonnage, 10% for TREO grade and 69% for TREO tonnage.

Incorporating the upgrade of the Wolverine project, the total Mineral Resource identified within the Browns Range system is now estimated at 10.81Mt @ 0.76% TREO comprising 81,450 tonnes contained TREO using a cut-off grade of 0.15% TREO (Table 2). A Prospect Location Plan is presented in Figure 2.

Table 2: Global JORC compliant Mineral Resource Estimate (October 2022)

Deposit	Classification	Mt	TREO %	Dy ₂ O ₃ kg/t	Y ₂ O ₃ kg/t	Tb ₄ O ₇ kg/t	HREO %	TREO kg
Wolverine	Measured	0.14	0.7	0.61	3.99	0.09	88	986,000
	Indicated	3.24	0.95	0.83	5.53	0.12	89	30,751,000
	Inferred	3.05	0.98	0.84	5.68	0.13	89	29,756,000
	Total¹	6.44	0.96	0.83	5.57	0.12	89	61,492,000
Gambit West	Measured	-	-	-	-	-	-	-
	Indicated	0.12	1.8	1.62	10.98	0.22	94	2,107,000
	Inferred	0.13	0.51	0.4	2.67	0.05	81	674,000
	Total¹	0.25	1.11	0.97	6.56	0.13	91	2,781,000
Pilot Plant Stockpiles	Measured	-	-	-	-	-	-	-
	Indicated	0.16	0.95	0.83	5.5	0.12	89	1,489,000
	Inferred	0.03	0.26	0.2	1.35	0.03	79	89,000
	Total¹	0.19	0.82	0.71	4.71	0.1	88	1,577,000
Gambit	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	0.21	0.89	0.83	5.62	0.11	96	1,878,000
	Total¹	0.21	0.89	0.83	5.62	0.11	96	1,878,000
Area 5	Measured	-	-	-	-	-	-	-
	Indicated	1.38	0.29	0.18	1.27	0.03	69	3,953,000
	Inferred	0.14	0.27	0.17	1.17	0.03	70	394,000
	Total¹	1.52	0.29	0.18	1.26	0.03	69	4,347,000
Cyclops	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	0.33	0.27	0.18	1.24	0.03	70	891,000
	Total¹	0.33	0.27	0.18	1.24	0.03	70	891,000
Banshee	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	1.66	0.21	0.16	1.17	0.02	87	3,484,000
	Total¹	1.66	0.21	0.16	1.17	0.02	87	3,484,000
Dazzler	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	0.21	2.33	2.17	13.93	0.29	95	5,000,000
	Total¹	0.21	2.33	2.17	13.93	0.29	95	5,000,000
Total¹	Measured	0.14	0.7	0.61	3.99	0.09	89	986,000
	Indicated	4.9	0.78	0.67	4.46	0.1	87	38,300,000
	Inferred	5.76	0.73	0.62	4.22	0.09	89	42,166,000
	Total¹	10.81	0.76	0.64	4.33	0.09	88	81,450,000

Figure 2: Browns Range Prospect Location Plan



Northern Minerals has previously estimated an Ore Reserve at Wolverine. However, significant refinements have been made to the Wolverine Mineral Resource model resulting in this current re-estimation of the Mineral Resource.

As such, the previous Ore Reserve at Wolverine is no longer appropriate for the current Mineral Resource model. The technical studies required to support an Ore Reserve at Wolverine have not yet

been completed to suit the updated Mineral Resource estimate. These studies are the subject of the DFS due for completion in 2023.

Exploration Activities

Expenditure on exploration and evaluation activities during the quarter was approximately \$0.98 million.

Exploration activities principally focused on the Company's Boulder Ridge tenements located in the western Tanami region of the Northern Territory. Geological mapping and sampling have identified several parallel NNW-SSE trending quartz-heamatite breccias containing xenotime mineralisation similar to that seen at the Company's flagship Wolverine deposit. Historic rock chip sampling has recorded results of up to 4% TREO over 1.3km of strike length.

The Company proposes to drill test this area in the first half of 2023.

Board and Executive changes, new Corporate Office

Transition to a new leadership structure formulated as part of the strategic review is now underway, and a corporate office is being set up in Sydney. The Company's registered office will remain at its current location in Perth, which will also house company secretarial, operations and exploration functions.

As part of this new leadership structure, Mark Tory, who has been with the Company since December 2012 and has been Chief Executive Officer since July 2020, will leave the Company on 30 November 2022. He will remain as CEO until 30 November 2022 to assist in an orderly transfer of executive responsibilities and a smooth leadership transition. The Board wishes to thank Mark for his long and productive service to the company and wishes him well in his future endeavours.

The Company also announced its intention to appoint Shane Hartwig to the Board as Executive Director – Finance, commencing 1 December 2022.⁴ Located in the Sydney Office, he will have responsibility for the Company's financial governance and reporting and capital management and will assist in the commercial aspects of developing the Browns Range Project.

Share Purchase Plan

The Company will offer eligible existing shareholders in Australia and New Zealand an opportunity to participate in a non-underwritten share purchase plan (SPP). Eligible shareholders⁵ will have the opportunity to apply for up to \$30,000 of ordinary shares at \$0.04 per share, free of any brokerage, commission, and transaction costs.

Up to 125.0 million shares in the Company will be issued under the SPP to raise up to \$5 million, which may be increased or subject to scale back. The SPP offer will open on 3 November 2022 and is expected to close at 2.00pm (Perth time) on 24 November 2022.

The terms and conditions of the SPP will be set out in an SPP offer booklet which is expected to be released to ASX and made available to eligible shareholders shortly.

⁴ ASX announcement 19 October 2022: Northern Minerals Executive and Board Changes

⁵ Eligible shareholders are those with a registered address in Australia or New Zealand on the Company's share register at 4.00pm (Perth time) on 25 October 2022.

Payments to related parties of the entity and their associates

Payments made during the quarter and included in 6.1 and 6.2 of Appendix 5B – Mining exploration entity quarterly cash flow report are detailed below:

Aggregate amount of payments to related parties and their associates included in cash flows from operating activities total \$311,000.

This comprises of payments to Executive and Non-executive Directors remuneration from services. There were no payments to related parties and their associates included in cash flows from investing activities.

Compliance Statement – Mineral Resources and Exploration Results

The information in this report that relates to the Wolverine Mineral Resource estimate, it is based on information compiled by Dr. Maxim Seredkin. Dr. Maxim Seredkin is a full-time employee of CSA Global Pty Ltd and is a Fellow of Australasian Institute of Metallurgy and Mining (AusIMM) and Member of Australian Institute of Geoscience (AIG). Dr Maxim Seredkin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Dr Maxim Seredkin consents to the disclosure of the information in this report in the form and context in which it appears. Dr Maxim Seredkin assumes responsibility for matters related to Sections 1, 2 and 3 of the Wolverine JORC Table 1 attached to this market release.

The information in this announcement that relates to the Mineral Resource estimates for deposits other than Wolverine was compiled by Mr Bill Rayson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Rayson is a consultant to Northern Minerals, employed by Total Earth Science Pty Ltd, and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Rayson consents to the inclusion of this information in the form and context in which it appears.

For Pilot Plant Stockpiles, Gambit, Gambit West, Cyclops, Banshee and Area 5, further information that relates to the Mineral Resource Estimates is available in the report entitled “Mineral Resource and Ore Reserve Update” dated 28 September 2018 and is available to view on the company’s website (www.northernminerals.com.au).

For Dazzler, further information that relates to the Mineral Resource Estimates is available in the report entitled “Over 50% Increase In Dazzler High-Grade Mineral Resource” dated 7 April 2020 and is available to view on the company’s website (www.northernminerals.com.au).

The information in this report relating to Exploration Results was compiled by Mr Simon Pooley who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pooley is a full time employee of Northern Minerals Limited and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Pooley consents to the inclusion of this information in the form and context in which it appears.

Authorised by The Board of Directors of Northern Minerals Limited

For further information:

Northern Minerals

Nick Curtis
Executive Chairman
+61 411 425 784

For media and broker enquiries:

Domestique Consulting

Alan Jury
+61 418 833 149
alan@domestiqueconsulting.com.au

Roger Newby
+61 401 278 906
roger@domestiqueconsulting.com.au

About Northern Minerals:

Northern Minerals Limited (ASX: NTU) (Northern Minerals or the Company) owns 100% of the Browns Range Project in northern Western Australia, tenements uniquely rich in the heavy rare earth elements dysprosium (Dy) and terbium (Tb).

Dysprosium and terbium are critical in the production of dysprosium neodymium iron-boron (DyNdFeB) magnets used in clean energy, military, and high technology solutions. Dysprosium and terbium are prized because their unique properties improve the durability of magnets by increasing their resistance to demagnetisation.

The Project's flagship deposit is Wolverine, which is thought to be the highest-grade dysprosium and terbium orebody in Australia. The Company is preparing to bring Wolverine into production with the objective of providing a reliable alternative source of dysprosium and terbium to production sourced from China. Northern Minerals is one of only a few companies outside of China to have produced these heavy rare earth elements.

To further its strategic objective, Northern Minerals is preparing to undertake a Definitive Feasibility Study for a commercial scale beneficiation plant to process Wolverine ore.

Apart from Wolverine, Northern Minerals has several other deposits and prospects within the Browns Range Project that contain dysprosium and other heavy rare earth elements, hosted in xenotime mineralisation.

For more information: northernminerals.com.au.



ASX Code:	NTU	Market Capitalisation:	A\$199.6m
Issued Shares:	4,990m	Cash (as at 30 September 2022)	A\$0.9m

Tenement Report

Project	Location	Tenement ID	State	Status	Holder Application	Interest
Browns Range WA	Browns Range	E80/4479	WA	Granted	Northern Minerals	100%
	Browns Range	E80/4782	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5040	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5041	WA	Granted	Northern Minerals	100%
	Browns Range	M80/627	WA	Granted	Northern Minerals	100%
	Browns Range	L80/76	WA	Granted	Northern Minerals	100%
	Browns Range	L80/77	WA	Granted	Northern Minerals	100%
	Browns Range	L80/78	WA	Granted	Northern Minerals	100%
	Browns Range	L80/79	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5260	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5261	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5367	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5368	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5369	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5370	WA	Granted	Northern Minerals	100%
	Browns Range	E80/5418	WA	Granted	Northern Minerals	100%
Browns Range NT	Browns Range	EL24193	NT	Granted	Northern Minerals	100%
	Browns Range	EL24174	NT	Granted	Northern Star Resources	REE rights only
	Browns Range	EL26270	NT	Granted	Northern Minerals	100%
Browns Range NT	Browns Range	EL26286	NT	Granted	Northern Minerals	100%
	Browns Range	ELA32161	NT	Application	Northern Minerals	100%
	Browns Range	ELA32162	NT	Application	Northern Minerals	100%

Project	Location	Tenement ID	State	Status	Holder Application	Interest
John Galt	John Galt	E80/4298	WA	Granted	Northern Minerals	100%
	John Galt	E80/4967	WA	Granted	Northern Minerals	100%
	John Galt	E80/5070	WA	Granted	Northern Minerals	100%
	John Galt	E80/5230	WA	Granted	Northern Minerals	100%
Boulder Ridge	Boulder Ridge	EL29594	NT	Granted	Northern Minerals	100%
	Boulder Ridge	ELA24849	NT	Application	Northern Minerals	100% (excluding gold rights)
	Boulder Ridge	ELA24935	NT	Application	Northern Minerals	100% (excluding gold rights)
Gardiner-Tanami NT	Boulder Ridge	EL24177	NT	Granted	Northern Minerals	100%
	Boulder Ridge	EL25171	NT	Granted	Northern Star Resources	REE rights only
	Tanami	EL23932	NT	Granted	Northern Star Resources	REE rights only
	Tanami	EL25009	NT	Granted	Northern Star Resources	REE rights only
	Ware Range	EL26498	NT	Granted	Northern Minerals	100%
	Ware Range	EL26541	NT	Granted	Northern Minerals	100%
	Pargee	EL27367	NT	Granted	Northern Minerals	100%
	Tanami	EL29592	NT	Granted	Northern Star Resources	REE rights only
	Tanami	EL29593	NT	Granted	Northern Star Resources	REE rights only
Gardiner-Tanami NT	Tanami	EL29595	NT	Granted	Northern Minerals	100%
	Tanami	ELA29619	NT	Application	Northern Star Resources	REE rights only
	Tanami	ELA29621	NT	Application	Northern Star Resources	REE rights only
	Tanami	EL26635	NT	Granted	Northern Star Resources	REE rights only
	Boulder Ridge	ELA28868	NT	Application	Northern Star Resources	REE rights only
	Boulder Ridge	ELA30132	NT	Application	Northern Minerals	100%

Project	Location	Tenement ID	State	Status	Holder Application	Interest
	Boulder Ridge	EL27590	NT	Granted	Northern Star Resources	REE rights only
	Tanami	ELA32163	NT	Application	Northern Star Resources	REE rights only
	Tanami	ELA32164	NT	Application	Northern Star Resources	REE rights only
Rabbit Flats	Rabbit Flats	ELA25159	NT	Application	Northern Star Resources	REE rights only
	Rabbit Flats	ELA25160	NT	Application	Northern Star Resources	REE rights only