



MetalsGrove
MINING LIMITED

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FOLLOW-UP EXPLORATION UNDERWAY AT BRUCE RARE EARTH PROSPECT

Highlights:

- **Follow-up grid spaced soil sampling underway at the Bruce Prospect located within the Arunta Project in the Northern Territory.**
- **Sampling aims to follow-up recent high-grade results from drilling and Phase 1 soil sampling work programmes.**
- **Maiden RC drilling programme delivered exceptional results including:**
 - **High-grade carbonatite REE grades of up to 7,000*ppm (0.70%) TREO 35% MREO/TREO, 28% NdPr/TREO and 36% Y₂O₃/TREO with multiple zones of mineralisation.**
 - **Exceptionally high-grade carbonatite of 38% MREO/TREO, 58% HREO/TREO 28% NdPr/TREO and 36% Y₂O₃/TREO.**
 - **Carbonatite outcrops extend strike east-west by 9km and remain open.**
- **Aeromagnetic and surface geochemistry work has identified a 1,000m X 600m intrusive system considered highly prospective for rare earth element (REE) mineralisation.**

Critical metals exploration and development company MetalsGrove Mining Limited (ASX: MGA), ("MetalsGrove" "MGA" or the "Company"), is pleased to advise that a follow-up grid spaced soil sampling programme has commenced at the Bruce Rare Earth ("REE") Prospect.

The Bruce Prospect is located within the Company's Arunta Project, north of Alice Springs in the Northern Territory.

As recently reported (see ASX announcement dated 14 August 2023), the Company's maiden RC drilling programme at Bruce confirmed high-grade REE carbonatite mineralisation. Highlights from this maiden drilling programme included carbonatite REE grades of up to 7,000 ppm (0.70%) TREO, 35% MREO/TREO, 28% NdPr/TREO and 36% Y₂O₃/TREO with multiple zones of mineralisation. Drilling has also highlighted exceptionally high-grade carbonatite of 38% MREO/TREO, 58% HREO/TREO 28% NdPr/TREO and 36% Y₂O₃/TREO.

In addition, previously completed aeromagnetic and surface geochemistry work has defined a 1,000m X 600m intrusive system considered highly prospective for REE mineralisation.

Commenting on the next phase of sampling at the Bruce Prospect, MetalsGrove's Managing Director, Sean Sivasamy said:

"We are delighted to have this next phase of follow-up exploration underway at the rapidly emerging Bruce REE Prospect in the Northern Territory. Both the sampling and drilling programmes completed so far have been extremely encouraging and point to a potential high-grade REE mineralised system within our tenure."

This next phase of sampling will look to build on the recent drilling success and further refine our next suite of drill targets, as we move quickly to assess and unlock the potential of our prospects within the Arunta region. I look forward to providing further updates on exploration progress in the near-term."

SYSTEMATIC GRID SPACED SOIL SAMPLING – Phase 2 (P2)

Recent RC drilling and soil of carbonatite outcrops at Bruce have confirmed high-grade REE mineralisation.

The pegmatite and carbonatite outcrops at Bruce are generally highly weathered. The P1 soil sampling was completed on the high priority geophysical anomaly and carbonatite outcrops. The P2 grid spaced soil sampling will be carried out the remaining carbonatite outcrops and geophysical anomalies along the 9km carbonatite corridor. This soil sampling programme will take 10 days to complete.

This detailed grid spaced soil sampling campaign at Bruce is to define targets for the upcoming phase two drilling programme.

Targets for drill testing will be finalised once results of the detailed soil sampling campaign are assessed. The phase two drill programme for the REE targets is scheduled to commence at the end of Q3 CY2023.

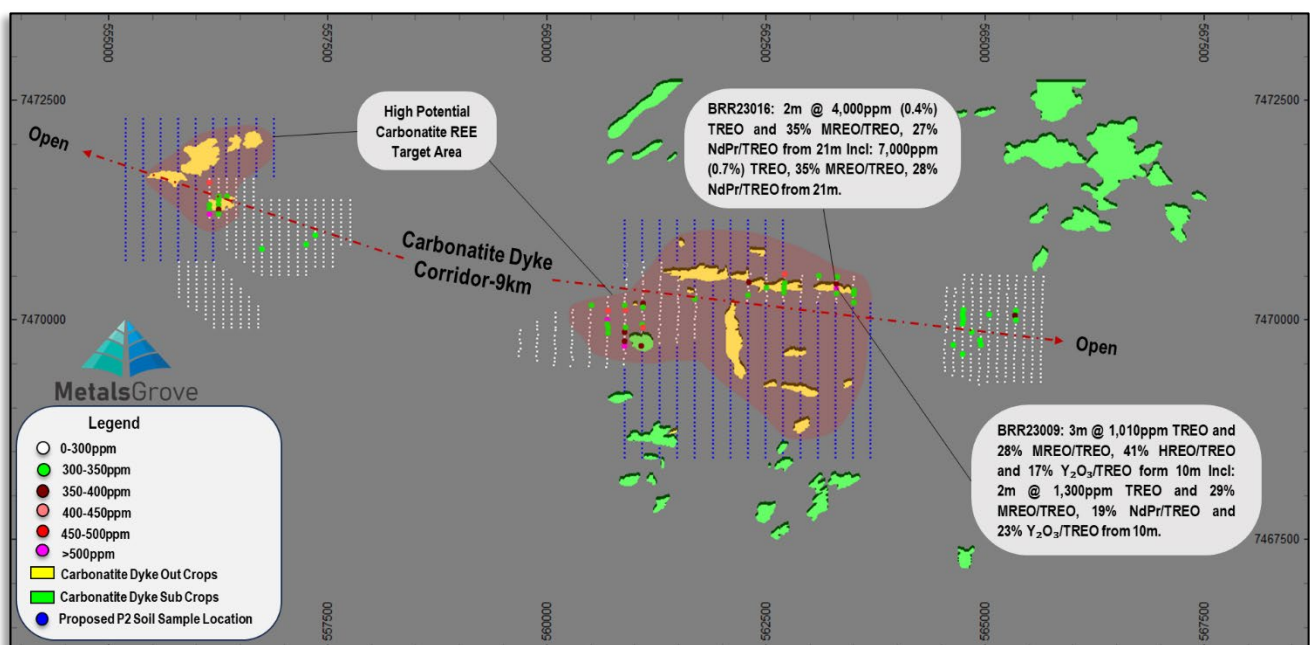


Figure 1: Systematic grid spaced soil sampling (P2) priority drilling targets at Bruce location plan.

SYSTEMATIC GRID SPACED SOIL SAMPLING – Phase 1 (P1)

A total of 1,140 soil samples were completed with a peak result of 1,800 ppm TREO, 38% HREO/TREO, 31% MREO/TREO, 23% NdPr/TREO, 23% Y₂O₃/TREO.

P1 surface sampling identified multiple high priority carbonatite and REE bearing drill targets. High percentage of valuable magnetic and heavy rare earth elements including up to 1,800 ppm TREO, 38% HREO/TREO, 31% MREO/TREO, 23% NdPr/TREO, 23% Y₂O₃/TREO.

The outcropping strike of carbonatite and high-grade REE mineralisation now extends over 9 km with multiple mineralised targets identified. Neodymium and Praseodymium is distributed in the soils, with NdPr oxide values up to 408 ppm and 23% of TREO.

These are comparable levels with those reported by other NdPr projects including Mount Weld (Lynas ASX: LYC), Ngualla (Peak ASX: PEK) and Nolan's Bore (Arafura ASX: AUR) Refer ASX release Date: 7th June 2023.

Significant copper-gold & base metals anomaly also confirmed.

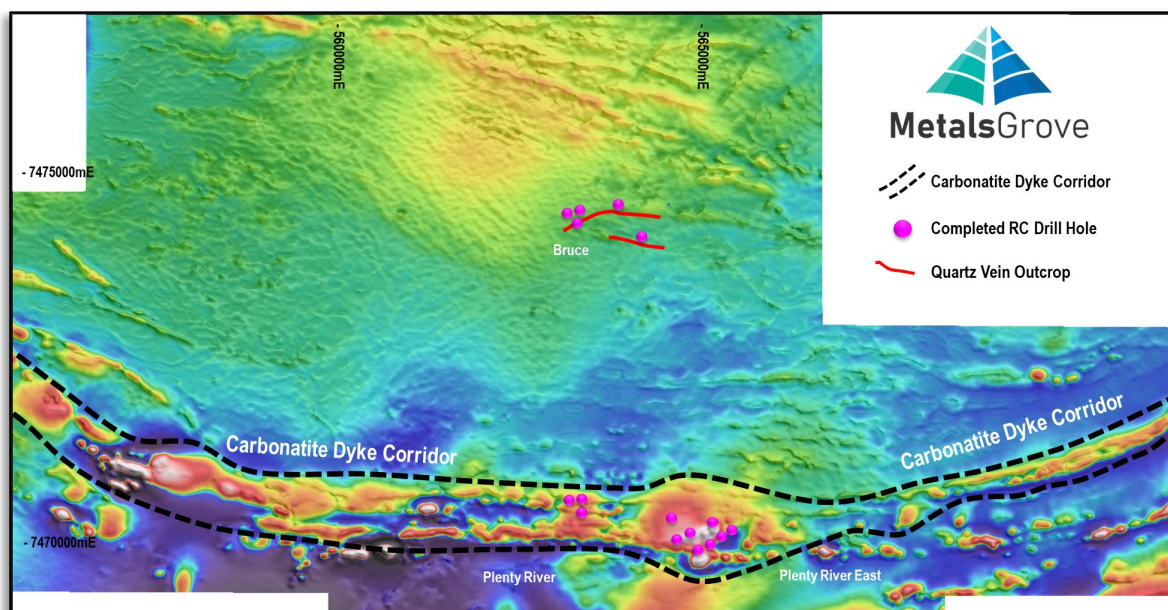


Figure 2: Outcropping strike of carbonatite and high-grade REE mineralisation extends over 9km

DRILLING SUMMARY - MAIDEN RC PROGRAMME AT BRUCE

A total of 2,343m maiden RC drilling was completed, assays from this programme have returned high-grade carbonatite REE grades of up to 7,000 ppm (0.70%) TREO, 35% MREO/TREO, 28% NdPr/TREO and 36% Y₂O₃/TREO with multiple zones of mineralisation, drilling has also highlighted exceptionally high-grade carbonatite of 38% MREO/TREO, 58% HREO/TREO 28% NdPr/TREO and 36% Y₂O₃/TREO.

The carbonatite dyke outcrops extend strike east-west by 9km and remain open. Potential for sufficient rare earth (REE) minerals resource tonnes (refer ASX release Date: 7th June 2023).

- **BRR23016: 2m* @ 4,000 ppm (0.4%) TREO and 35% MREO/TREO, 27% NdPr/TREO from 21m. Incl: 7,000 ppm (0.7%) TREO, 35% MREO/TREO, 28% NdPr/TREO from 21m.**
- **BRR23009: 3m* @ 1,010 ppm TREO and 28% MREO/TREO, 41% HREO/TREO and 17% Y₂O₃/TREO from 10m. Incl: 2m* @ 1,300 ppm TREO and 29% MREO/TREO, 19% NdPr/TREO and 23% Y₂O₃/TREO from 10m.**
- **BRR23003: 33m* @ 13% MgO from 39m and 3m* @ 535 ppm V₂O₅ from 45m.**
- **BRR23002: 26m* @ 17% MgO from 30m.**
- **BRR23013: 1m* @ 7,785 ppm CuO (0.8%* CuO) from 103m, 3m* @ 1,000 ppm PbO₂ from 63m, 2m* @ 1,170 ppm PbO₂ from 84m and 3m* @ 1,245 ppm ZnO from 63m, 2m* @ 1,710 ppm ZnO from 83m.**

* Drilling widths reported are downhole and no estimate of true width is given.

* Some numbers are rounded to the closest numbers.

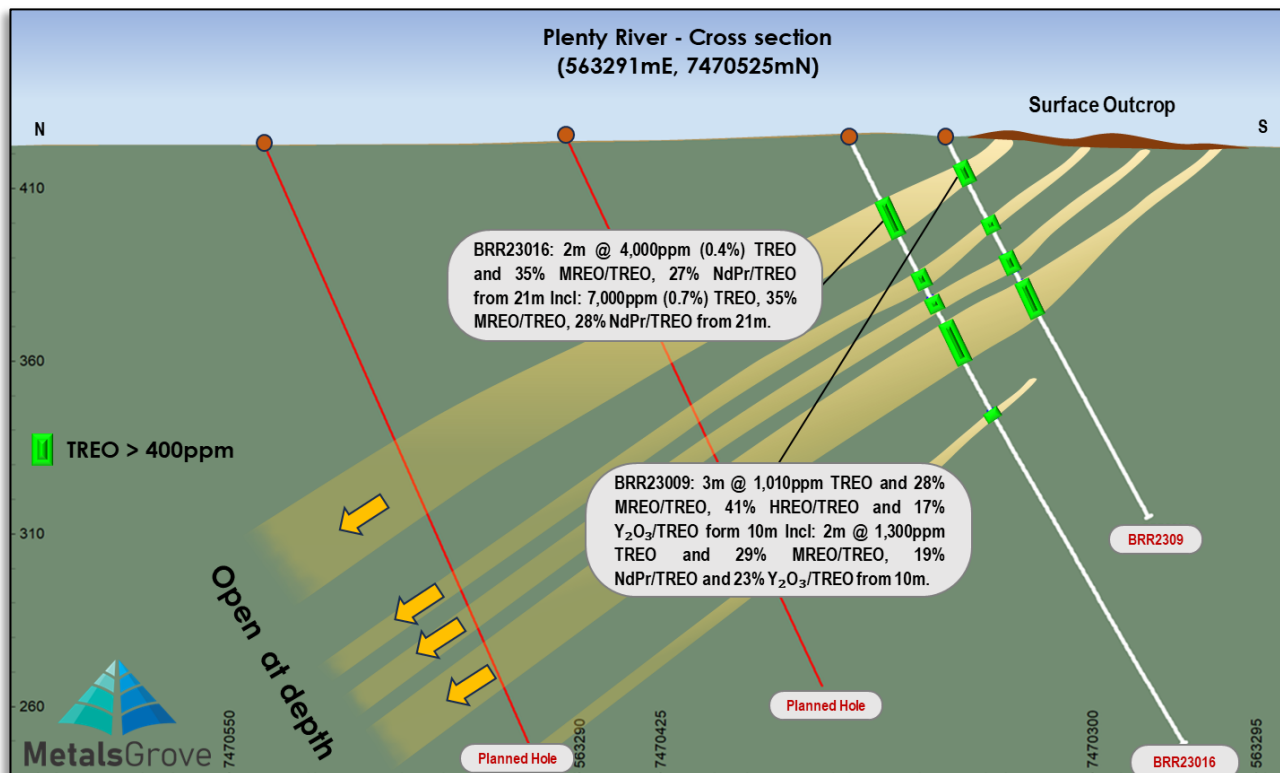


Figure 3: Plenty River Carbonatite Rare Earth Mineralisation Section View.

Next steps

- Petrology and mineralogy test work.
- Follow-up drilling programme.

Bruce Prospect Background

The Bruce rare earth prospect is located within the Central Desert Region of the Northern Territory and covers an area of approximately 17,722 ha.

MGA recently reported (see ASX announcement dated 20th July 2022) that it had identified a broad conductor along strike from the Plenty River mine which is adjacent to magnetic features interpreted to be components of the pegmatite intrusion.

Significant rare earth occurrences have been found in the Harts Range and Plenty River mica fields within the Irindina Province. Joklik (1955) and Daly and Dyson (1956) provided details of the mica mines and documented numerous minerals associated with the host pegmatites. MGA is currently exploring pegmatite, breccia, vein and alteration hosted REE mineralisation at Bruce.

The Northern Territory Geological Survey (NTGS) completed a geological study in the Arunta region and identified numerous pegmatites hosting rare earth occurrences including the Plenty River mica mine area. The NTGS survey mapping and location of mineral occurrences have been published by Northern Territory Government (The Geological Survey Record 2003-004, REE mineralisation in the eastern Arunta Region - KJ Hussey).

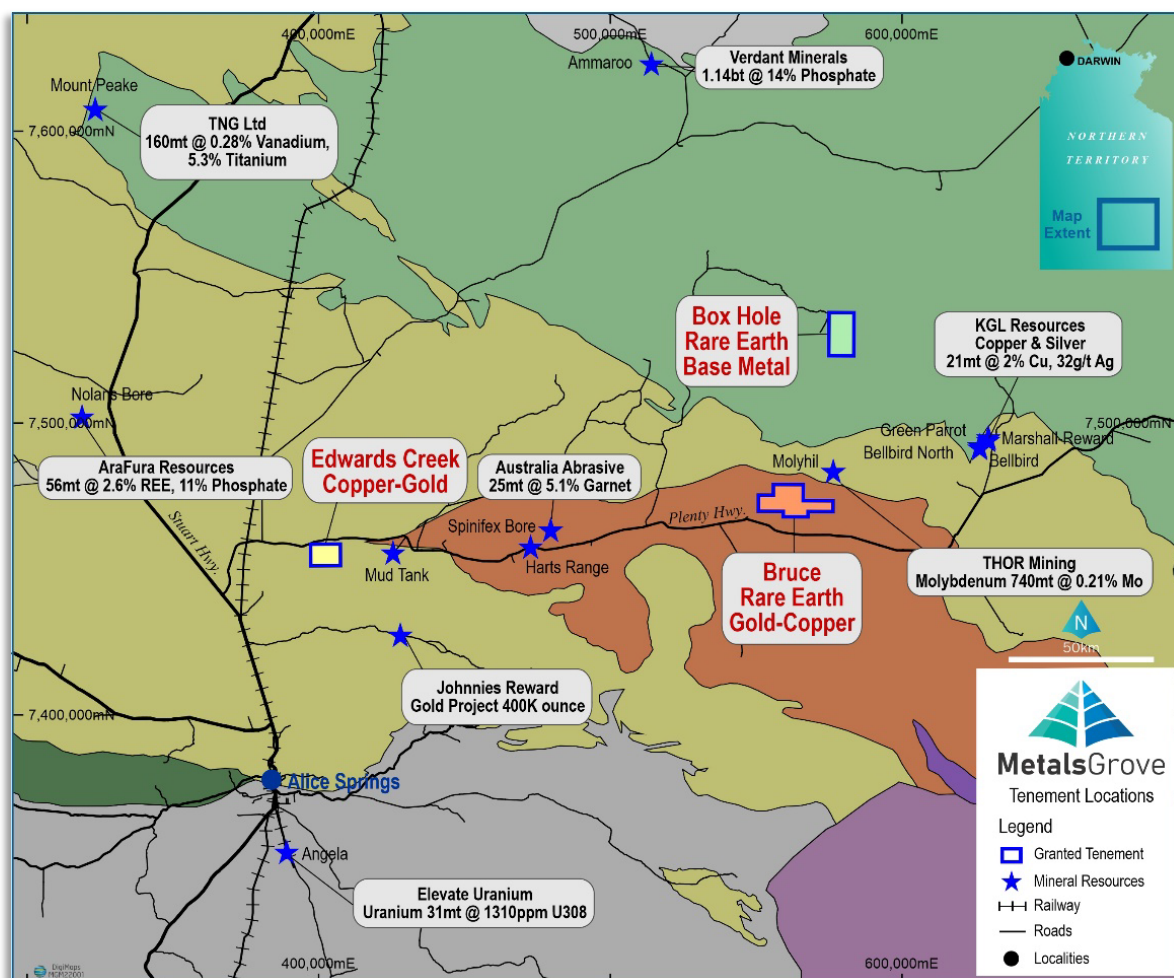


Figure 4: Arunta Project Location Map

About MetalsGrove

MetalsGrove Mining Limited (ASX: MGA) is an Australian-based exploration and development company, focused on the exploration and development of its portfolio of high-quality lithium, rare earth, copper-gold, manganese and base metal projects in Western Australia and the Northern Territory.

MGA is committed to green metal exploration and development to meet the growing demand from the battery storage and renewable energy markets in the transition to a de-carbonised world.

Competent Person Statement – Exploration Strategy

The information in this announcement that relates to exploration strategy has been developed by Sean Sivasamy. All assay results have been compiled by Mr Sivasamy who is a member of Australasian Institute of Mining and Metallurgy. Mr Sivasamy is Managing Director and CEO of MetalsGrove Mining Limited.

Mr Sivasamy has sufficient experience which is relevant to the style of mineralisation and exploration processes as reported herein 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'.

Mr Sivasamy consents to the inclusion in this announcement of the information contained herein, in the form and context in which it appears.

Forward looking statements

This announcement may contain certain “forward looking statements” which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis.

However, forward looking statements are subject to risks, uncertainties, assumptions, and other factors which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include, but are not limited to exploration risk, mineral resource risk, metal price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries and states in which we sell our product to, and government regulation and judicial outcomes.

For more detailed discussion of such risks and other factors, see the Company's Prospectus, as well as the Company's other filings. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publicly any revisions to any “forward looking statement” to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

Authorised for release by the MetalsGrove Mining Limited Board of Directors.

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