MetalsGrove
MINING LIMITED

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# Exploration Update

## Highlights

***Edwards Creek Copper-Zinc Project***

- ***MetalsGrove considers that the Edwards Creek Copper-Zinc Project near Alice Springs, Northern Territory could potentially host a scalable copper-zinc mineralisation system.***
- ***A recent site visit validated existing collar locations and the extent of the surface gossan to follow the stratabound strongly altered volcanic massive sulphide high grade copper-zinc mineralisation.***
- ***All modern collar locations were confirmed and malachite staining was observed in numerous locations across the gossan outcrops.***
- ***The newly mapped gossan boundary varies slightly from the historically mapped outcrops.***
- ***Mineralised samples from gossans were strongly oxidised and contained 1-2% magnetite with trace pyrite and chalcopyrite observed.***
- ***A four-hole RC drill program for a total of 500 meters is planned to follow the historical high-grade intersection along strike to the north and down dip.***

***Zimbabwe Lithium Projects***

- ***Site visit undertaken by the Managing Director and CEO as well as discussions with local geologists and other stakeholders with a view to assessing the merits of the opportunity.***
- ***At the Arcturas Project, no lithium-bearing minerals were observed from pegmatite veins, either at the surface or from artisanal trenches.***
- ***The orientation of the pegmatite veins were inconsistent with those of the nearby Arcadia Lithium mine and newly discovered Step Aside lithium mine, suggesting different mineralisation events.***
- ***Given the disappointing geological and assay results, in the absence of any further perceived opportunity, and having regards to the weakness in the lithium market since the projects were acquired, MetalsGrove has decided to relinquish its Zimbabwean lithium projects.***

## MANAGEMENT COMMENTARY

Managing Director and CEO, Mr Lijun Yang, said: *"The Edwards Creek Project, which exhibits strongly-altered stratabound volcanic massive sulphide high-grade copper-zinc mineralisation, has the potential to host a scalable copper-zinc system.*

*"A proposed four-hole drill program has as its objective to test for the presence of mineralization along strike and down dip."*

*"After thorough investigation, MetalsGrove has determined that the prudent course is for the Company to relinquish its Zimbabwean lithium projects."*

## Edwards Creek – Copper-Zinc Project

The Edwards Creek Project, prospective for copper and zinc, comprises a single granted mineral exploration licence (EL32420) of an area of approximately 7,568ha located approximately 85 km north-northeast of Alice Springs, Northern Territory (Figure 1).

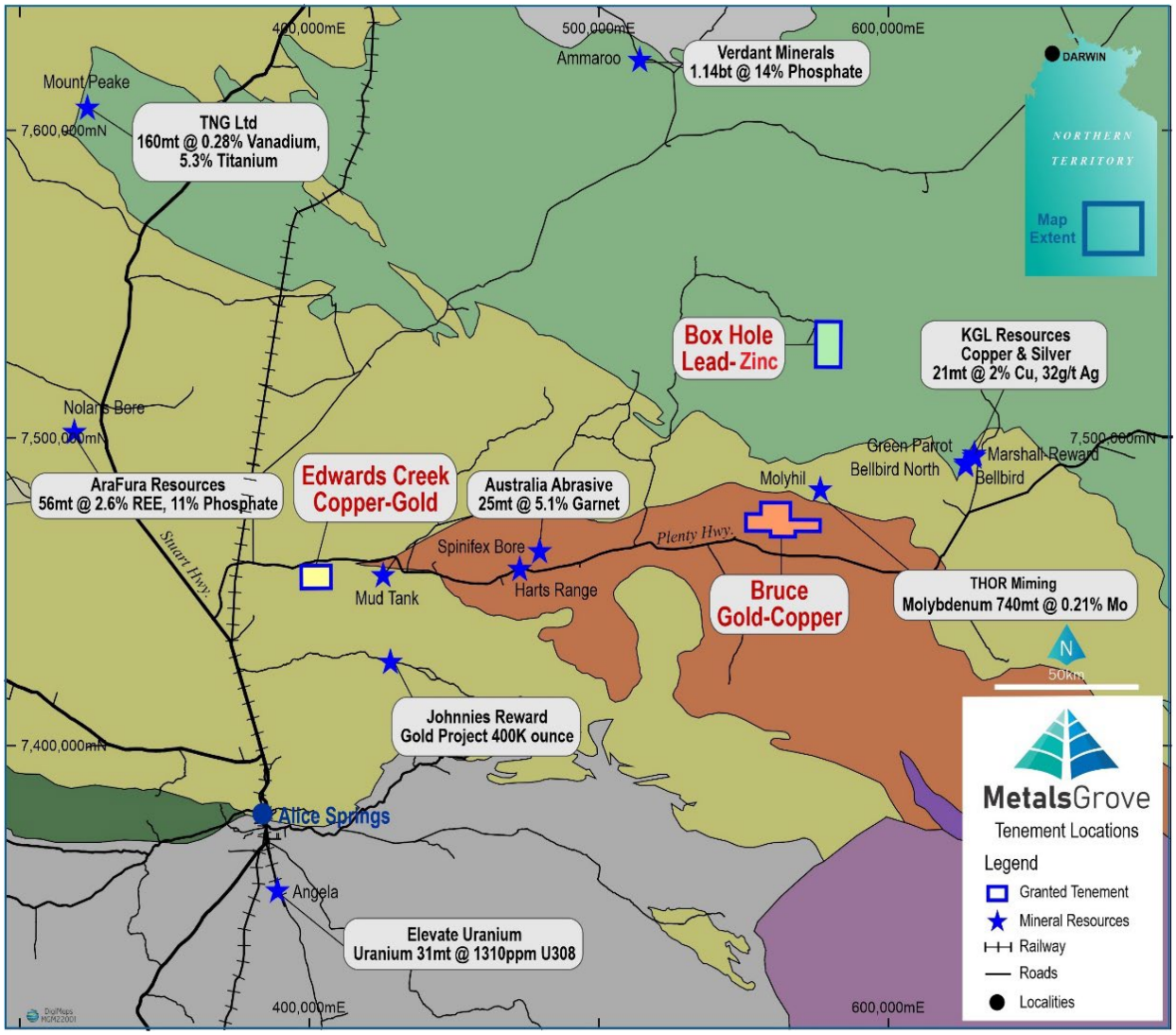


***Figure 1: Map illustrating location of Edwards Creek Project, as well as MetalsGrove's other Northern Territory projects.***

The Edwards Creek Project area includes the Edwards Creek Cu-Zn-Pb (Figure 2).

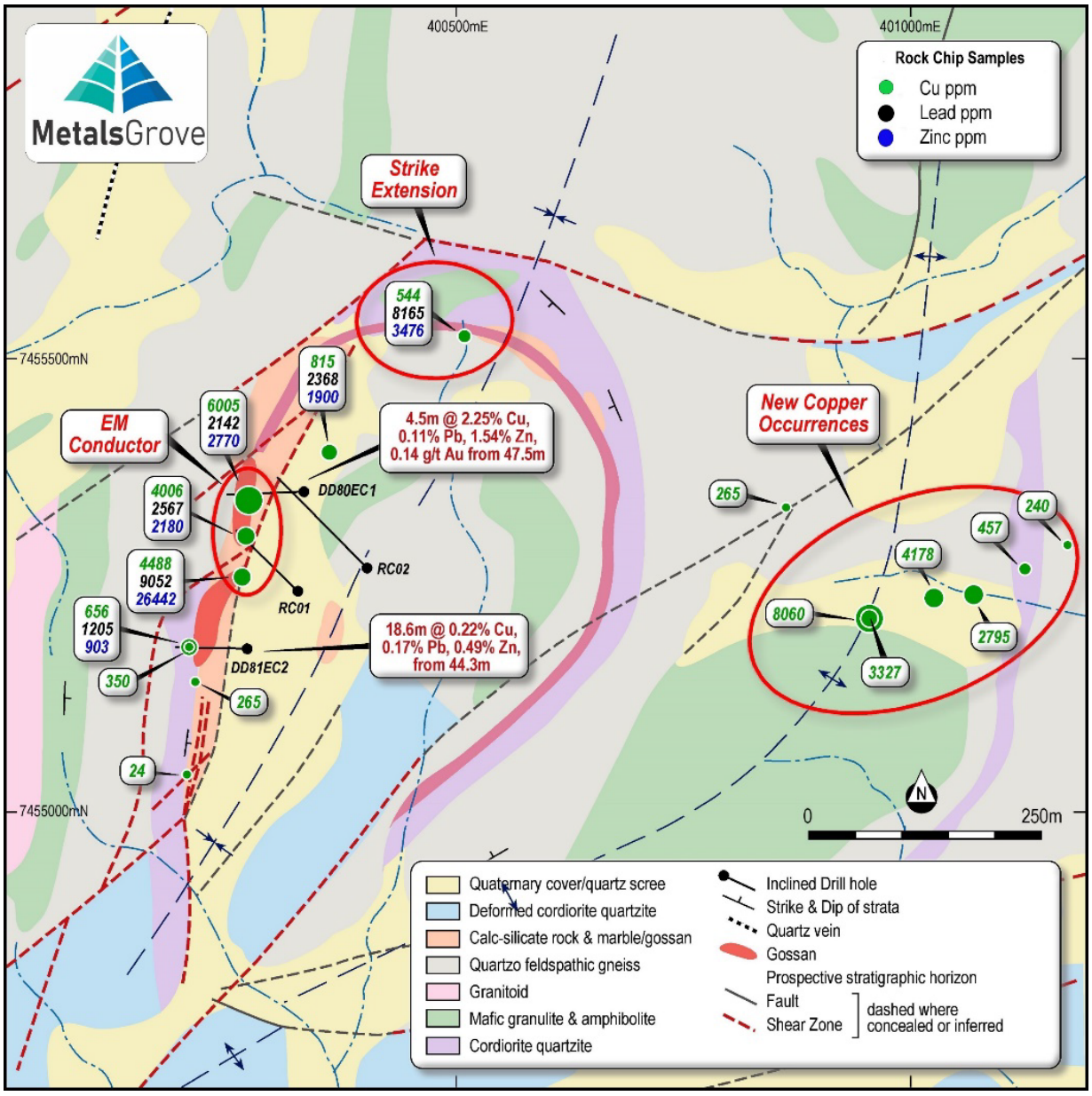


***Figure 21: Map illustrating Edwards Creek historical drilling and drill targets.***

At Edwards Creek, an historical drill program was undertaken by CRA Exploration Pty. Ltd in 1980 and 1981, with the best intercept being **4.5 m from 47.45 m at 2.25% Cu, 0.11% Pb, 1.54% Zn, 0.14 g/t Au** in hole DD80EC01**.**

More recent drilling conducted by Territory Exploration Pty Ltd in 2018 and MetalsGrove in 2023 have traced mineralisation down dip and along strike with four step outs of up to 170m away from the historical DD80EC01intersection**.**

In considering whether Edwards Creek could potentially host a scalable copper-zinc mineralisation system, a recent site visit completed by MetalsGrove's geologist validated existing collar locations and mapped the extent of known gossans at surface (Figure 3).

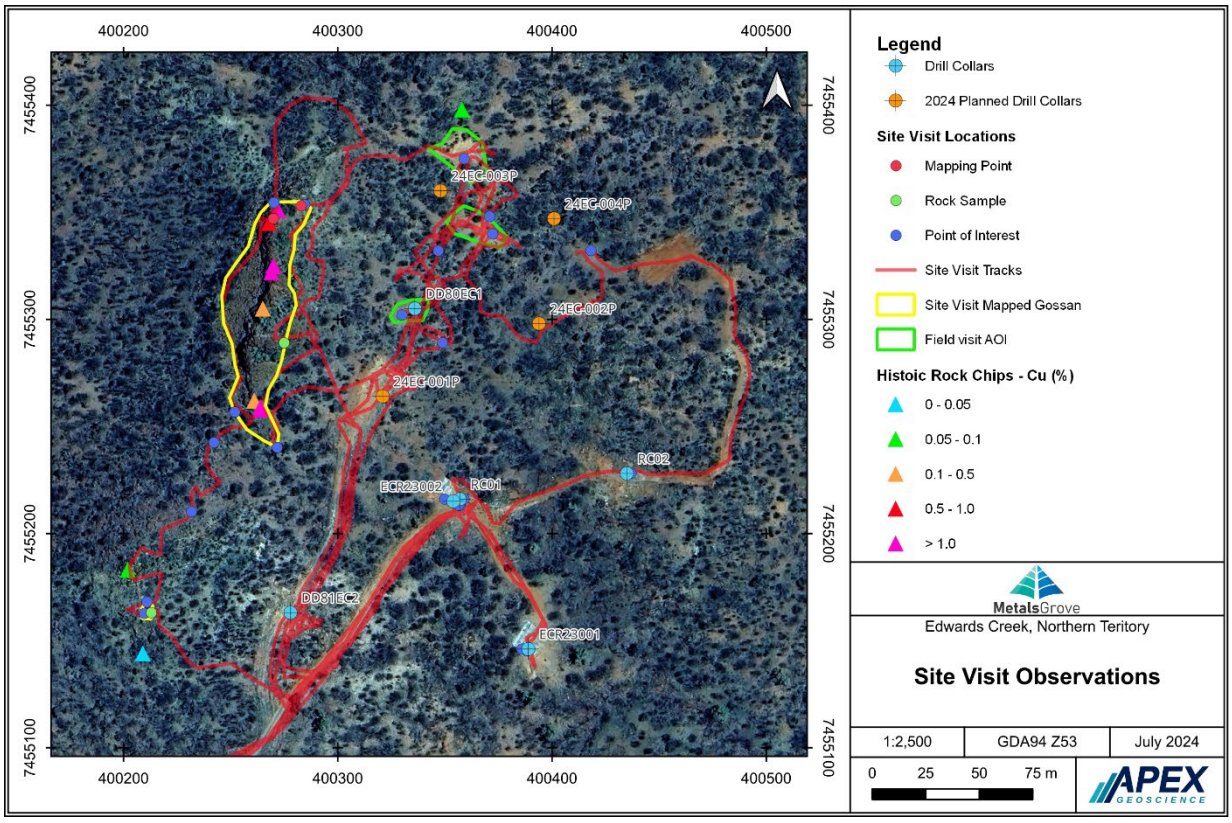


*Figure 3: Aerial photograph of Edwards Creek identifying location of drill collars and assays.*

All recent collar locations were confirmed with malachite staining observed in numerous sites across the gossan outcrops (Figure 4).

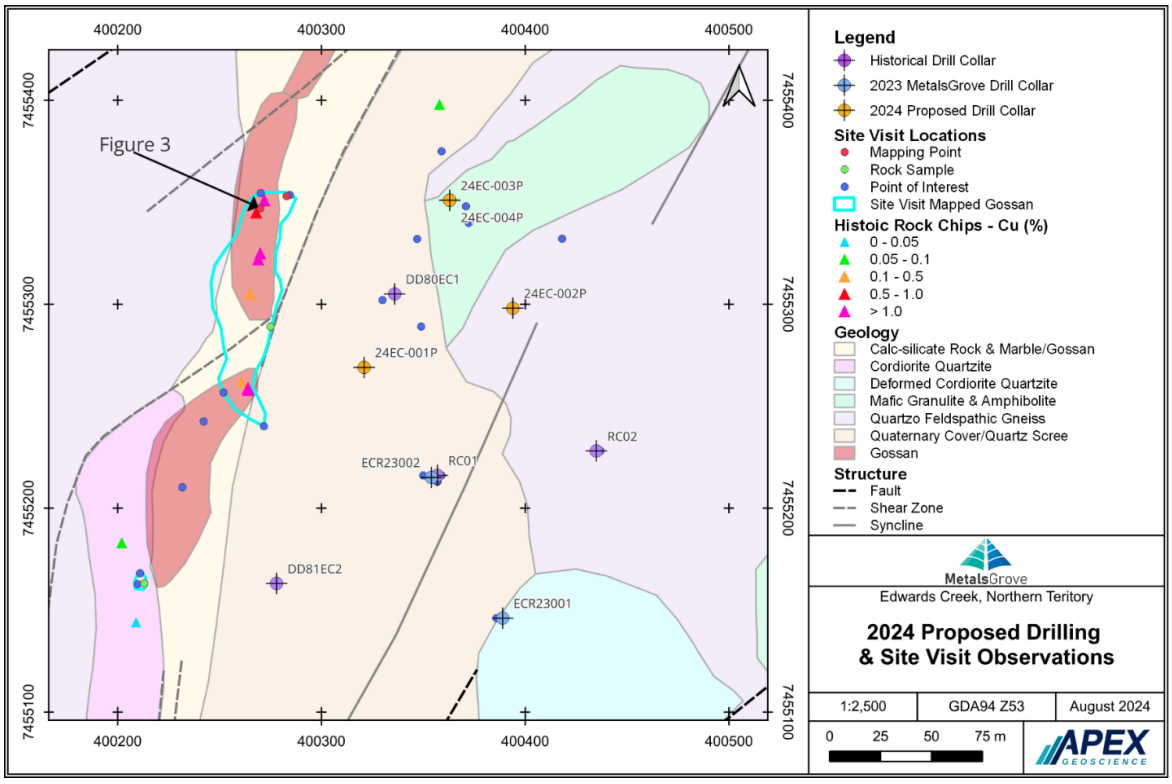


*Figure 4: Map illustrating historical drilling, planned drilling and newly mapped gossan locations.*

The newly mapped gossan boundary varies slightly from the historically mapped gossan outcrops.

Mineralised samples, which are strongly oxidised, have assayed with 1-2% magnetite, and with trace pyrite and chalcopyrite observed.

A photo of an oxide ridge with malachite staining is set out in Figure 5.

*Figure 5: Photo of oxide ridge with malachite staining.*

The stratabound mineralized body is interpreted as a strongly altered volcanic massive sulphide. This lithology, which was intersected in every drill hole, has an orientation of 20° dipping at 50° to the east.

Mineralisation remains open along strike and at depth.

MetalsGrove is planning a four-hole RC drill program for a total of 500 meters to follow the existing intersection of drill hole DD80EC01 along strike to the north and down dip.

A cross section through drill hole DD80EC01 and one of the proposed drill holes to test the potential of this high-grade mineralisation shoot is set out in Figure 6.

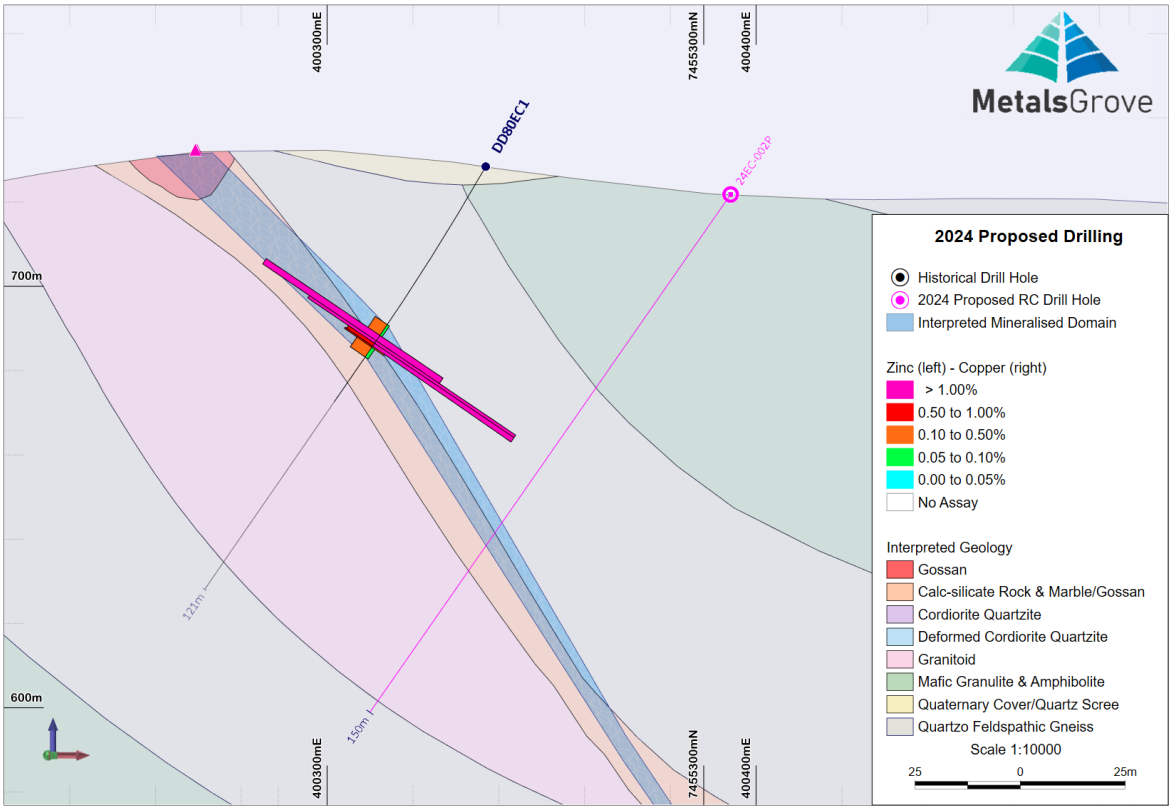


***Figure 6: Cross-section looking north-northeast showing historical intersection of DD80EC1 and 2024 planned drilling.***

Drill hole collar details are set out in Table 1.

***Table 1: Planned drill hole collar details.***

| Planned Hole Id | EAST | NORTH | RL | Max Depth | Azimuth | Dip |
|---|---|---|---|---|---|---|
| 24EC-001P | 400321 | 7455269 | 728 | 100 | 265 | -60 |
| 24EC-002P | 400394 | 7455298 | 722 | 150 | 277 | -55 |
| 24EC-003P | 400363 | 7455351 | 728 | 100 | 287 | -50 |
| 24EC-004P | 400363 | 7455351 | 728 | 150 | 280 | -84 |

## Zimbabwe Lithium Projects

MetalsGrove holds two lithium projects in Zimbabwe – the Arcturas Lithium Project **(Arcturas)** and the Beatrice Lithium Project **(Beatrice)**.

The two projects were acquired by MetalsGrove on 11 December 2023 under the Company's previous management team.

In February 2024, Perth-based consulting firm, GeoCOM, was engaged to undertake an initial program of geological mapping and surface sampling at Arcturas and Beatrice.

Geological mapping consisted of defining several pegmatites although with less detailed geological observations. The initial site visit was primarily focussed on negotiating and acquiring the tenements.

A total of 104 rock samples were collected, prepared, and submitted to ALS South Africa for analysis, including nine samples from the Beatrice region and 95 from the Arcturas region. More than one-third of the samples collected were from areas outside MetalsGrove's tenements.

Pathfinder elements commonly associated with lithium mineralisation, such as tantalum, potassium, and rubidium, were not included in the assay suite.

A total of 95 samples were collected from the Arcturas Project area. GeoCOM reports that no lithium-bearing minerals were observed. All samples recorded lithium values at trace levels or below detection limits.

In respect of Beatrice, nine samples were collected for assay by GeoCOM. These variously recorded encouraging lithium grades, with values of up to 1.44% $Li_2O$. Unfortunately, only one of these samples, at the grade of 0.88% $Li_2O$, was collected from within MetalsGrove's granted tenements.

Towards the end of June, MetalsGrove Managing Director and CEO, Mr Lijun Yang, undertook a site visit to the two properties and also held discussions with local geologists and other stakeholders with a view to assessing whether anything had perhaps been overlooked.

Given the disappointing geological and assay results, in the absence of any further perceived opportunity, and having regards to the weakness in the lithium market since the projects were acquired, MetalsGrove announced in its June Quarterly Report that it had taken the decision to undertake a strategic review of these assets.

Having since undertaken that review, MetalsGrove has come to the decision that the prudent course for the Company to take is to relinquish its Zimbabwean lithium projects.

## Other Projects

Other exploration projects owned by the Company in Australia include the Box Hole Project targeting rare earth elements (REE) and base metals and the Bruce Gold Project targeting copper and REE, both in the Northern Territory, and, in Western Australia, the

Woodie Woodie North Project targeting manganese, the Upper Coondina Project targeting lithium, tin and tantalum, and the Dundas Project targeting lithium and REE.

The location of these projects is illustrated in Figure 7.

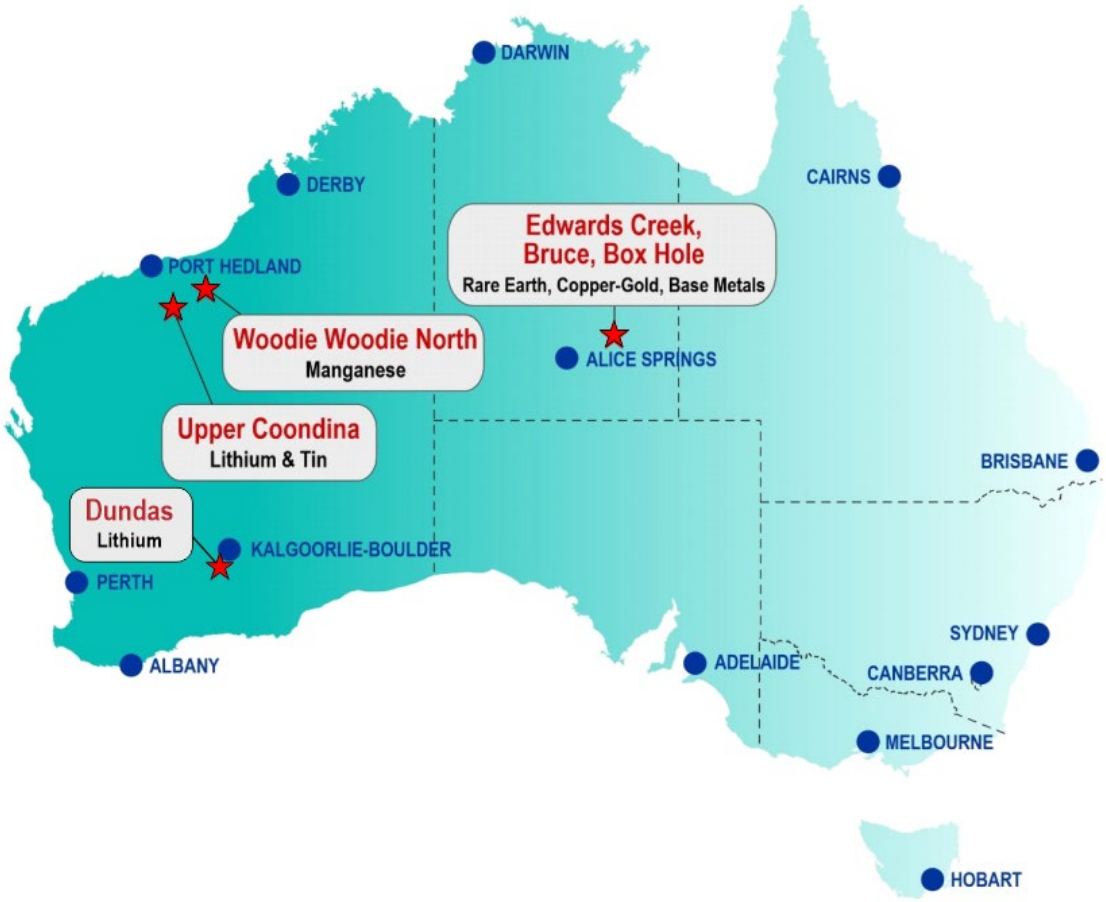


***Figure 7: Map identifying location of MetalsGrove's Australian projects.***

The company is reviewing the exploration potential of each of these projects and will advise once this work is concluded.

**This announcement was authorised for release by the MetalsGrove Mining Ltd Board of Directors.**

| SHAREHOLDER ENQUIRIES |
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## About MetalsGrove

MetalsGrove Mining Ltd (ASX: MGA) is a multi-metal resource exploration company focused on the exploration of its portfolio of multi-metals projects including copper-gold, lithium, rare earth, manganese and base metal projects in Western Australia of Australia.

### Competent Person Statement – Exploration Strategy

The information in this announcement that relates to exploration strategy and results is based on information provided to and compiled by Mr Lijun Yang who is currently a member of the Australian Association of Geologists (MAIG). Mr Lijun Yang is Managing Director and CEO of MetalsGrove Mining Limited.

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

This announcement includes information that relates to Exploration Results prepared and first disclosed under the JORC Code (2012) and extracted from the Company's initial public offering Prospectus as well as all previous ASX announcements. A copy of this prospectus and all these announcements are available from the ASX Announcements page of the Company's website: https://metalsgrove.com.au/

### 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.

# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | • Edwards Creek historical drilling was conducted in 1980 and 1981 by CRA Exploration Pty. Ltd.<br>• The final 1981 CRA report is a confidential document but the drill logs are available through GEMIS. Information regarding this historical drilling was compiled from three sources: CRAE, 1983. Drill hole Logs – Edwards Creek; Warren, R.G., and Shaw, R.D. (1985). Volcanogenic Cu-Pb-Zn bodies in granulites of the central Arunta Block, central Australia. J. Metamorphic Geol., 3, pp. 481-499.; and Curran C.A. and Down C.G. (1994) Exploration licence 7858 "Strangways Range" Final Report on Exploration.<br>• Drill holes on the project are considered first pass exploration drilling with 2 core holes (CRA), 2 RC holes (Territory Exploration-2018) and 2 RC holes (MetalsGrove 2023) drilled to date.<br>• Historic CRA samples were taken in areas with hematite magnetite gossan. |
| ***Drilling techniques*** | • *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond* | • Two core holes were drilled by CRA Exploration Pty. Ltd. in 1980 and 1981. The core diameter is unknown. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | |
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • Methods of core recovery are unknown. Examples from the core logs include: Core recovery 30-40% and core recovery in lode 43.5%.<br>• Measures taken to maximise recovery are unknown.<br>• Areas with and without grade have low recoveries, no relationship to grade and recoveries is observed. |
| ***Logging*** | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Logs were completed in 2m intervals and contain rock type, alteration, mineralogy, recovery and weathering. The level of detail is considered appropriate for mineral resource estimation or other studies.<br>• Logging is both qualitative and quantitative. No known photographs exist.<br>• The entire holes were logged. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | • It is unknown how the core was sampled but it is assumed it was halved. Sample intervals ranged from 0.33 to 3.13m in size.<br>• Sample preparation technique is unknown but it is assumed standard practices for the generation of drilling were completed.<br>• Quality control procedures are unknown. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • No duplicate samples were taken.<br>• Sample sizes were appropriate for the recovery and grain size. |
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*<br>• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.* | • The laboratory and procedures are unknown. Elements analysed for include: Cu, Pb, Zn, Ag, Au, As, Mo, Ni, Cr, Co, Mn, Sn, W, and U.<br>• It is assumed no geophysical tools were used.<br>• 6 samples were taken in 1980 and 15 samples in 1981. No gaps in the sample IDs are observed indicating no standards or blanks were used. Only visibly mineralised intervals were sampled. |
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • No verification of significant intersections have been completed.<br>• No twin holes have been completed.<br>• Drill logs were scanned in 1995 however the final CRA report is labeled as confidential in the Warren and Shaw (1985).<br>• No adjustment to the assay data was made. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Drill hole locations were taken from rectifying a historical map by Warren and Shaw (1985). Some uncertainty remains in the exact location of the 1980s holes.<br>• A local grid system was used for the 1980s drilling, coordinates are now recorded in MGA Zone 53 datum GDA94.<br>• Topographic control is provided by a Digital Terrain Model based on the 30 m Shuttle Radar Topographic Mission data. |
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*<br>• *Whether sample compositing has been applied.* | • The 1980s historical holes are ~150m apart.<br>• The completed drill spacing is first pass in nature and is thought to be insufficient at this stage to confirm continuity of mineralisation that would be sufficient to support the definition of a mineral resource, and the classifications applied under the 2012 JORC code.<br>• No sample compositing has been applied. |
| ***Orientation of data in relation to geological structure*** | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | • Sampling specifically targeted sulphide and hematite magnetite gossan, shoulder samples contained low level mineralisation specifically in zinc.<br>• Drilling orientation is appropriate for the geology and mineralised structures. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Sample security measures are unknown. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • Any reviews or audits of the sampling techniques and data are unknown. |

## Section 2 Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • The RC Drilling was collected from tenement EL32420.<br>• There are no third-party arrangements or royalties etc. to impede exploration on the tenure.<br>• There are no reserves or national parks to impede exploration on the tenure.<br>• Ownership – 100% MetalsGrove Mining Ltd.<br>• The tenement is in good standing. |
| ***Exploration done by other parties*** | • *Acknowledgment and appraisal of exploration by other parties.* | • All historical work referenced in this report has been undertaken by previous project explorers. Whilst it could be expected that work and reporting practices were of an adequate standard, this cannot be confirmed. |
| ***Geology*** | • *Deposit type, geological setting and style of mineralisation.* | • The local geology of the Edwards Creek Project consists of outcropping basement rocks of the Strangways Range and their contact with the overlying Wallaby Knob Schist Zone which represents a major structural break in the local area. The basement rocks consist largely of felsic and mafic granulites with associated mafic amphibolites and highly deformed rocks. Rock units found in the area are felsic and mafic granulites, |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | quartzbiotite-feldspar gneiss, garnetbiotite-quartz-feldspar gneiss, and amphibolites. |
| ***Drill hole Information*** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>  ○ *easting and northing of the drill hole collar*<br>  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>  ○ *dip and azimuth of the hole*<br>  ○ *down hole length and interception depth*<br>  ○ *hole length.*<br>• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | • A summary of the proposed drill hole collar location of the RC drill has been included in this press release.<br>• DD80EC1: 400336mE 7455305mN (MGA94z53), RL 728m, Azimuth 288, dip -65, interception length 47.45m, hole length 121m. |
| ***Data aggregation methods*** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* | • Data is reported as weighted average grades considering variable sampling lengths. With no cut-off grades.<br>• Weighted averages are calculated (grade*length)+(grade*length)+… /total interval length.<br>• No metal equivalent values are reported. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | |
| ***Relationship between mineralisation widths and intercept lengths*** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | • Drill holes at the project were angled between 60-80° and to the west, corresponding to roughly perpendicular to the orientation of the mapped gossan structure.<br>• Sections show identified mineralisation downhole. Some holes drilled in a deliberate orientation to gain perspective of structural or stratigraphic orientation and as such will not be a direct reflection of true thickness. All reported lengths are to be considered downhole lengths unless stated as calculated true thickness. |
| ***Diagrams*** | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • See maps in the body of the report. |
| ***Balanced reporting*** | • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • All relevant information is reported within the document or included if not reported previously. |
| ***Other substantive exploration data*** | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater,* | • All meaningful data and relevant information have been included in the body of the report. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *geotechnical and rock characteristics; potential deleterious or contaminating substances.* | |
| ***Further work*** | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Future work entails follow up drilling to test any anomalous mineralised zones intersected in this drilling program.<br>• Diagrams show possible extensions to the north and the potential for a high-grade shoot. |