

ASX Announcement

02 March 2022

ASX:MLS

## Outstanding Lithium & Rubidium Rockchip Results for Manindi Project

*Drilling well underway, testing thick, high-grade, part of the Foundation Pegmatite*

- Outstanding systematic rockchip sample results of up to 2.30% Li<sub>2</sub>O and 0.70% Rb from samples collected at the recently identified Foundation, Dibbler and Quoll pegmatite prospects
- Lithium mineralisation confirmed along entire 500m strike length of the Foundation Pegmatite including consistently high-grade, >1% Li<sub>2</sub>O and >0.4% Rb, results along the central, thickest part
- The up to 3,500m RC drilling program<sup>1</sup> is well underway and currently testing this high-grade section of the Foundation Pegmatite, with a recent hole (MNRC043) intersecting 16 metres downhole of mineralised pegmatite and samples to be submitted to the lab shortly

Metals Australia Ltd (“MLS” or the “Company”) is pleased to announce high-grade lithium (Li<sub>2</sub>O) as well as Rubidium (Rb) and Tantalum (Ta<sub>2</sub>O<sub>5</sub>) assay results from the systematic rock chip sampling program testing key pegmatites at the Company’s Manindi Lithium Project (“Manindi” or, the “Project”).

The Manindi Lithium (and Zinc) Project is located approximately 20 km southwest of the Youanmi Gold Mine in the Murchison District of Western Australia (see location, Figure 1).

A systematic rock chip sampling program was undertaken over the entire 500m strike length of the recently discovered **Foundation Pegmatite** as well as over nearby pegmatites, **Foundation North** and **Dibbler** (Figure 1). Samples were also collected from extensions of the Mulgara pegmatites (Figure 1) and the recently identified Quoll and Bandicoot Pegmatites, south of Mulgara. **Over 1.2km strike length of Lithium-Caesium-Tantalum (LCT) bearing pegmatites have been sampled at an average spacing of approximately 40m.**

Highly anomalous lithium (Li), Tantalum (Ta), Caesium (Cs) and Rubidium (Rb) results were produced from all pegmatites sampled (see Table 1) and **particularly high-grade, consistent, >1% Li<sub>2</sub>O and >0.4% Rb, results were produced from the central, thickest, part of the Foundation Pegmatite (see Figure 1), including up to 2.30% Li<sub>2</sub>O and 0.70% Rb with an average of 1.29% Li<sub>2</sub>O and 0.51% Rb over the entire 500m strike length.**

The up to 3,500m Reverse Circulation (RC) drilling program is currently testing the central, high-grade, part of the Foundation Pegmatite. Initial testing has intersected up to 16 metres (m) downhole of mineralised pegmatite in RC drillhole MNRC043 (Figure 1). Drilling details will be reported upon receipt of results.

Highly anomalous rockchip sample analyses from the nearby **Dibbler Pegmatite** (Figure 1) including values of up to 0.88% Li<sub>2</sub>O and 0.63% Li<sub>2</sub>O.

The **Dibbler, Quoll** (SE of Mulgara) and **Bandicoot** (south of Mulgara) pegmatites will also be the focus of this reconnaissance RC drill testing program.

Drilling will also further test the **Mulgara** pegmatites (Figures 1 and 2), below previously reported high-grade RC drilling intersections that included:

- **MNRC030: 8m @ 1.06% Li<sub>2</sub>O from 18m incl. 3m @ 1.65% Li<sub>2</sub>O with up to 1.96% Li<sub>2</sub>O in<sup>2,3</sup>, and,**
- **MNRC033: 8m @ 1.00% Li<sub>2</sub>O, 158ppm Ta<sub>2</sub>O<sub>5</sub> from 32m & 7m @ 1.29% Li<sub>2</sub>O, 242ppm Ta<sub>2</sub>O<sub>5</sub> from 42m<sup>2,3</sup>**

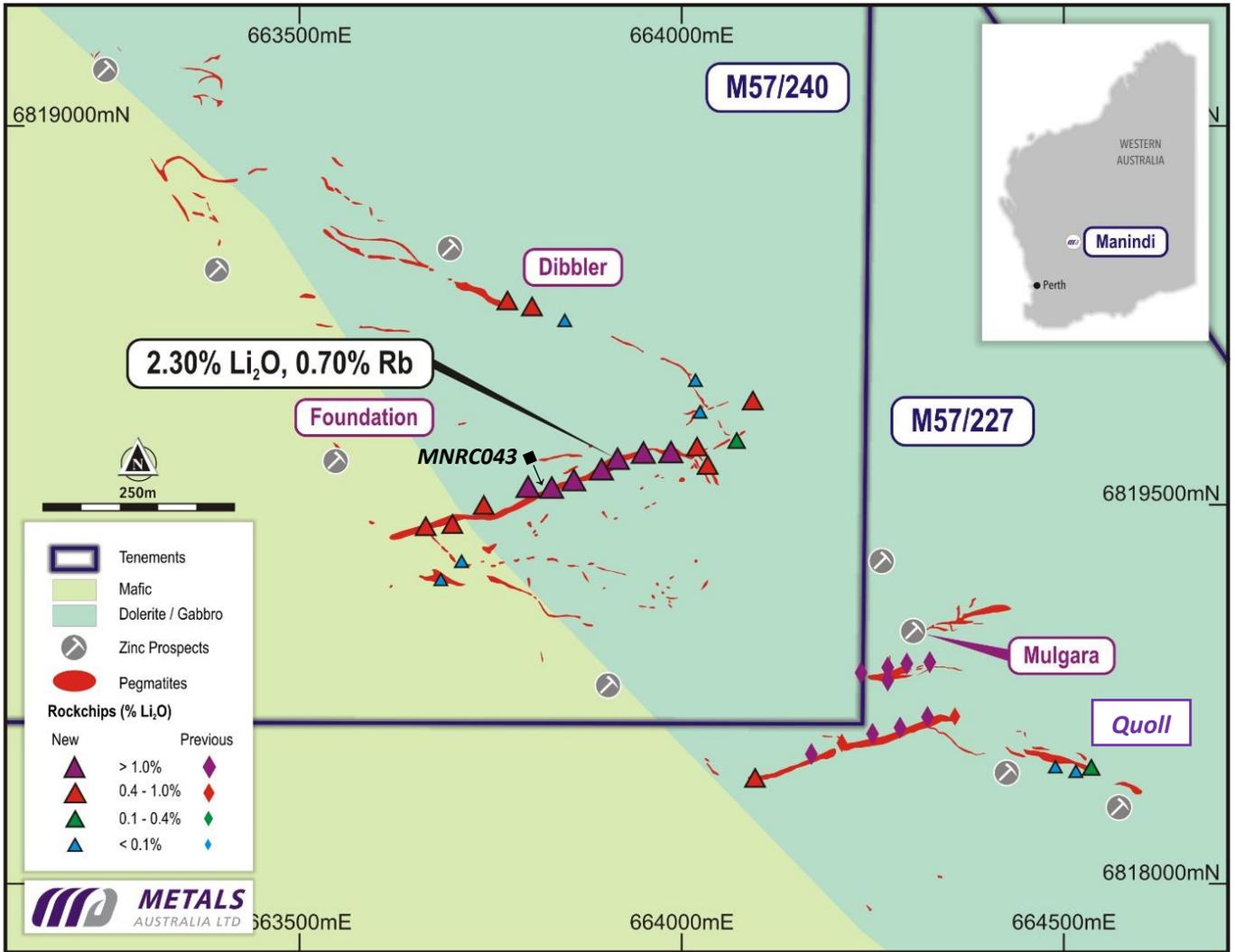


Figure 1: Manindi Lithium Project, mapped pegmatites and Rockchip sample locations



Photo 1: Foundation LCT Pegmatite outcrop



Photo 2: Foundation LCT Pegmatite, with lithium minerals

Along with the high-grade lithium identified at the Manindi Project, the identification of significant rubidium (Rb) is also highly encouraging. Rubidium is a rare metal mostly employed in high-technology industries such as biomedical research, electronics, specialty glass and pyrotechnics as well as traditional uses in electronic devices, specialised glass and catalysts. Rubidium carbonate ( $\text{Rb}_2\text{CO}_3$ ) pricing is currently reported by International Lithium Corp. (<https://internationallithium.com/rubidium/>) to be up to USD1,060/kg, a factor of more than 75 times the current price of lithium carbonate ( $\text{Li}_2\text{CO}_3$ ) at USD14/kg (USD13,970/t).

The recently discovered **Foundation Pegmatite**<sup>4</sup> is the largest pegmatite identified to date at Manindi and is over 500m long in a southwest–northeast direction and includes multiple pegmatite outcrops across a 200m zone in a northwest-southeast direction (see Figure 1).

Previously announced spot rockchip sampling of the Foundation Pegmatite produced high-grade lithium and tantalum results, including:

**MNRK0002: 1.25%  $\text{Li}_2\text{O}$ , 126.0 ppm  $\text{Ta}_2\text{O}_5$  and 154.6 ppm  $\text{Cs}_2\text{O}$  (Foundation)**<sup>5</sup>

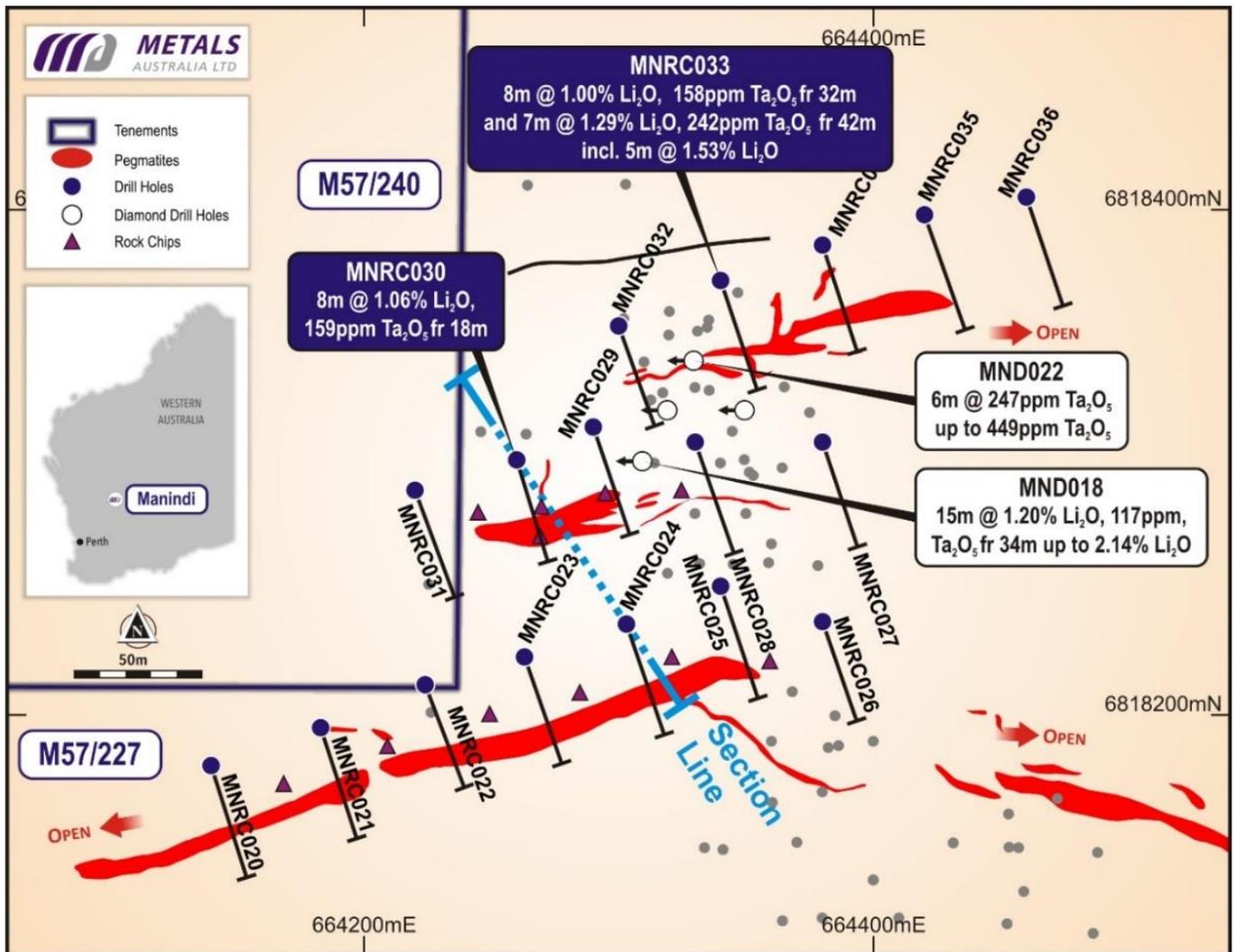
The previous and current rockchip sample results confirm that Foundation is a high-grade LCT pegmatite and compare favourably with previous results from rockchip sampling of the **Mulgara pegmatites** that produced high-grade results of up to **2.84%  $\text{Li}_2\text{O}$ , 296 ppm  $\text{Ta}_2\text{O}_5$  and up to 746ppm  $\text{Cs}_2\text{O}$** <sup>4</sup>.

Previous, shallow, RC drilling<sup>2,3</sup> tested the three initially identified pegmatites at the Mulgara Prospect on an approximate 40m spacing, but with only one hole per section. This program producing several significant intersections of lithium and tantalum mineralisation (see locations Figure 2), including:

- **8m @ 1.06%  $\text{Li}_2\text{O}$  from 18m incl. 3m @ 1.65%  $\text{Li}_2\text{O}$  with up to 1.96%  $\text{Li}_2\text{O}$  in MNRC030**<sup>2,3</sup>
- **8m @ 1.00%  $\text{Li}_2\text{O}$ , 158ppm  $\text{Ta}_2\text{O}_5$  from 32m, and 7m @ 1.29%  $\text{Li}_2\text{O}$ , 242ppm  $\text{Ta}_2\text{O}_5$  from 42 m incl. 5m @ 1.53%  $\text{Li}_2\text{O}$  in MNRC033**<sup>2,3</sup>



**Photo 3: Mulgara LCT Pegmatite, with lithium minerals including lepidolite (mauve), Manindi Project, WA**



**Figure 2: Manindi Project, Mulgara Lithium Pegmatite Prospect, drillhole locations and intersections**

The current drilling program will include up to 45 holes for 3,500m and is planned with the following objectives:

- i) Initial RC drilling of the Foundation Pegmatite at approximately 40m section spacing along the entire 500m strike length, as well as other nearby pegmatites e.g. Dibbler, Quoll and possibly Bandicoot.
- ii) Following up the previous high-grade lithium and tantalum results at Mulgara with both deeper drilling on key sections and extension drilling along strike of the three LCT pegmatites identified to date (see Figure 2).

Drillholes will range from 60m depth in areas of initial testing, to 120m depth on sections where there are existing significant intersections or as immediate follow-up below encouraging new pegmatite intersections, including below (and possibly above) just completed MNRC043, that intersected 16 metres downhole of mineralised pegmatite from 59m.

Samples collected from initial RC drilling will shortly be submitted to Intertek laboratory in Malaga, Perth, for the lithium suite of analyses.

**Table 1: Manindi systematic rockchip sampling results this release:**

| Sample No. | Northing  | Easting | "Area"            | Li <sub>2</sub> O % | Rb %         | Ta <sub>2</sub> O <sub>5</sub> ppm | Cs <sub>2</sub> O ppm |
|------------|-----------|---------|-------------------|---------------------|--------------|------------------------------------|-----------------------|
| 22MNRK001  | 6,818,747 | 663,847 | Dibbler South     | 0.010               | 0.009        | <b>147</b>                         | 7                     |
| 22MNRK002  | 6,818,767 | 663,804 | Dibbler South     | <b>0.887</b>        | 0.330        | <b>132</b>                         | 124                   |
| 22MNRK003  | 6,817,552 | 664,628 | Bandicoot South   | 0.080               | 0.029        | 55                                 | 10                    |
| 22MNRK004  | 6,817,549 | 664,559 | Bandicoot South   | 0.009               | 0.003        | 1                                  | 1                     |
| 22MNRK005  | 6,818,775 | 663,772 | Dibbler           | 0.634               | 0.259        | <b>103</b>                         | 84                    |
| 22MNRK006  | 6,818,589 | 664,072 | <b>Foundation</b> | 0.336               | 0.232        | <b>130</b>                         | 98                    |
| 22MNRK007  | 6,818,582 | 664,020 | <b>Foundation</b> | 0.465               | 0.178        | <b>177</b>                         | 120                   |
| 22MNRK008  | 6,818,575 | 663,950 | <b>Foundation</b> | <b>1.221</b>        | <b>0.625</b> | <b>151</b>                         | <b>196</b>            |
| 22MNRK009  | 6,818,576 | 663,986 | <b>Foundation</b> | <b>1.221</b>        | <b>0.555</b> | 84                                 | <b>257</b>            |
| 22MNRK010  | 6,818,567 | 663,916 | <b>Foundation</b> | <b>2.312</b>        | <b>0.705</b> | <b>112</b>                         | <b>308</b>            |
| 22MNRK011  | 6,818,553 | 663,895 | <b>Foundation</b> | <b>1.511</b>        | <b>0.497</b> | 79                                 | <b>170</b>            |
| 22MNRK012  | 6,818,539 | 663,859 | <b>Foundation</b> | <b>1.691</b>        | <b>0.635</b> | <b>114</b>                         | <b>190</b>            |
| 22MNRK013  | 6,818,529 | 663,830 | <b>Foundation</b> | <b>1.667</b>        | <b>0.648</b> | <b>111</b>                         | <b>219</b>            |
| 22MNRK014  | 6,818,530 | 663,799 | <b>Foundation</b> | <b>1.591</b>        | <b>0.565</b> | <b>139</b>                         | <b>175</b>            |
| 22MNRK015  | 6,818,505 | 663,741 | <b>Foundation</b> | <b>0.854</b>        | <b>0.435</b> | <b>119</b>                         | 112                   |
| 22MNRK016  | 6,818,480 | 663,700 | Foundation South  | 0.532               | 0.277        | <b>109</b>                         | 59                    |
| 22MNRK017  | 6,818,477 | 663,665 | Foundation South  | 0.606               | 0.302        | <b>116</b>                         | 55                    |
| 22MNRK018  | 6,818,626 | 664,024 | Foundation North  | 0.015               | 0.005        | <b>279</b>                         | 6                     |
| 22MNRK019  | 6,818,668 | 664,018 | Foundation North  | 0.015               | 0.008        | 89                                 | 3                     |
| 22MNRK020  | 6,818,558 | 664,034 | Foundation Ext.   | <b>0.789</b>        | <b>0.424</b> | <b>235</b>                         | <b>400</b>            |
| 22MNRK021  | 6,818,643 | 664,093 | Foundation North  | <b>0.991</b>        | <b>0.573</b> | <b>155</b>                         | <b>306</b>            |
| 22MNRK022  | 6,818,405 | 663,685 | Near 84FWD0043    | 0.075               | 0.103        | 48                                 | 22                    |
| 22MNRK023  | 6,818,429 | 663,712 | Near 84FWD0043    | 0.031               | 0.096        | <b>179</b>                         | 17                    |
| 22MNRK024  | 6,818,145 | 664,096 | Mulgara West      | 0.694               | <b>0.460</b> | 66                                 | 127                   |
| 22MNRK025  | 6,818,158 | 664,489 | Quoll             | 0.009               | 0.012        | 55                                 | 3                     |
| 22MNRK026  | 6,818,152 | 664,516 | Quoll             | 0.015               | 0.102        | <b>139</b>                         | 14                    |
| 22MNRK027  | 6,818,158 | 664,536 | Quoll             | 0.142               | 0.277        | <b>179</b>                         | 65                    |

**About the Manindi Lithium Project:**

The Manindi Project includes three granted mining leases in the fertile Youanmi Igneous Complex, located approximately 20 km southwest of the Youanmi Gold Mine in the Murchison District of Western Australia (see location inset Figure 1).

Detailed surface mapping carried out at Mulgara, situated approximately 1.3km SE of the Kultarr and Kowari zinc resources (Figure 2), previously identified at least three lithium bearing pegmatites outcropping at surface with strike lengths of over 300m and widths of up to 25-30m. The pegmatite intrusions cross-cut the main geological strike in a northeast-southwest orientation and appear to be moderately zoned with coarser grained crystals adjacent to the contacts fining inward toward the centre. The pegmatite dykes generally trend east-northeast and have a moderate dip to the north-northwest.

Lithium-tantalum mineralisation also appears to be more concentrated adjacent to contacts exhibiting coarser grained and more abundant lepidolite +/- spodumene crystals. The pegmatites overall strike-length

is not limited to surface outcrop as detailed airborne magnetics strongly suggests far more extensive development of pegmatite structures exist subsurface.

Re-sampling of previous diamond drillcore that targeted VHMS sulphide mineralisation at Mulgara, produced intersections including **15m @ 1.20% Li<sub>2</sub>O from 34m, including 5m @ 1.53% Li<sub>2</sub>O from 38m, in MND018 and 3m @ 1.00% Li<sub>2</sub>O from 41m in MND022<sup>4</sup>** (see location, Figure 2).

Following the positive identification of lithium bearing LCT pegmatites at Manindi, a shallow RC percussion drilling program was completed at the Mulgara Prospect to test the three outcropping pegmatite dykes (Figure 2).

A total of 17 RC percussion drill holes were completed along three traverses, for a total of 837m of drilling. Hole collars were located at approximately 40 metre intervals along the traverses. Significant intersections produced from this RC drilling program were as follows<sup>2,3</sup>:

- **MNRC030: 8m @ 1.06% Li<sub>2</sub>O from 18m incl. 3m @ 1.65% Li<sub>2</sub>O with up to 1.96% Li<sub>2</sub>O**
- **MNRC032: 7m @ 599ppm Ta<sub>2</sub>O<sub>5</sub>**
- **MNRC033: 8m @ 1.00% Li<sub>2</sub>O, 158ppm Ta<sub>2</sub>O<sub>5</sub> from 32m, and 7m @ 1.29% Li<sub>2</sub>O, 242ppm Ta<sub>2</sub>O<sub>5</sub> from 42 m incl. 5m @ 1.53% Li<sub>2</sub>O**

Preliminary metallurgical testwork and mineralogical characterisation was completed on two composite samples of lithium mineralisation from the Manindi Project<sup>6</sup>. Tests completed included semi-quantitative XRD analysis, size fraction analysis, wet screen analysis, heavy liquid separation, magnetic separation, and sighter flotation testing.

**These, preliminary, flotation tests produced concentrates with grades up to 3.05% Li<sub>2</sub>O and lithium recovery of up to 77% from a concentrated 30% of the mass feed<sup>6</sup>. Flotation tails contained significant tantalite mineralisation (Ta<sub>2</sub>O<sub>5</sub>) that could also be recovered and provide additional upside to the potential economics of the project.**

Potential for further improvements in the metallurgical results are high given that the previous tests carried out were scoping level in nature and that the flowsheet had not been optimised for the Manindi mineralization.

The current work program for the Manindi pegmatites includes the systematic rockchip sampling and up to 3,500m RC drilling program summarised in this and earlier releases. Subject to the results of the RC drilling program, diamond drilling will follow to provide accurate intersection boundaries, structural orientations and petrography, as well as metallurgical samples for Li, Cs, Ta and Rb concentrate testing.

Further metallurgical testwork will be designed to optimise lithium recovery and differentiate the tantalum mineralisation, prior to initiating scoping studies for a Manindi mining project and lithium (Rubidium) - tantalum processing-flowsheet.

## **About Metals Australia**

Metals Australia is also actively exploring a number of other highly prospective base metal, precious metal and battery metal projects within Australia and Quebec, Canada.

### **Manindi Zinc Project**

The Manindi Zinc project is located in the Murchison District of Western Australia in close proximity to the Golden Grove Mine and the Youanmi Gold Mine. The Manindi Zinc Deposit hosts a JORC 2012, **Measured, Indicated & Inferred resource of 1.08Mt @ 6.52% Zn for 70,102t Zn (2% Zn cut-off)<sup>7</sup>**. A number of target

zones remain to be tested, close to the existing resource. Drilling to date has been limited to a depth of approximately 250m.

### **Lac Rainy Graphite Project**

The Lac Rainy Graphite Project is located in Quebec, Canada, in close proximity to the operating mines around Fermont and is 100% owned by Metals Australia. The Lac Rainy project hosts a **JORC 2012 Indicated and Inferred Resource of 13.3Mt @ 11.5% TGC<sup>8</sup>**. In 2020, Metals Australia completed a Phase 1 Scoping Study highlighting the significant economic attractiveness of the Lac Rainy project<sup>9</sup>.

Recently completed Phase 2 metallurgical tests produced very encouraging results based on the optimum flowsheet developed from testing of a composite sample from the high-grade Lac Rainy Graphite Project grading 16.2% Cg<sup>10</sup>. Highlights of the concentrate testing program are as follows:

- i) **Optimised tests produced a combined, -150µm and +150µm, concentrate grade of 96.8% Cg**, which is at the upper end of the targeted purity range of 95% to 97% Cg.
- ii) The proportion of larger flake recovered under these optimised grinding and flotation conditions was 13.9% in the +150µm fraction, at a very high-purity of 97.4% Cg.
- iii) The proportion of medium to fine flake recovered under these optimised grinding and flotation conditions was 86.1% -150µm flake, at a high-purity of 96.7% Cg, which is well above the >95% Cg targeted for down-stream spheroidization and purification testing.
- iv) Carbon recovery in open-circuit tests ranging from 69.4% to 85.6%. Recovery is expected to increase substantially during closed-circuit tests where tails are re-cycled through the process.
- v) The flow-sheet development program has significantly improved the open-circuit conditions of the rougher, primary cleaning and secondary cleaning flotation circuits

The last stages of the Phase 2 testwork will generate bulk concentrate sample to enable downstream testing for spheronized graphite, a critical component of lithium-ion batteries, as well as expandable graphite on larger flake sizes. This will provide impetus to discussions with key potential North American and European off-take and/or funding partners to assist driving the Lac Rainy Project towards feasibility, development and production.

### **Eade-Felicie-Pontois Copper-Gold-Polymetallic Projects, Canada**

The Eade-Felicie-Pontois Copper-Gold-Polymetallic Projects are located in northern Quebec, Canada in the Lac Grande Greenstone Belt. The Company received the results of an EM-TDEM survey that confirmed areas of identified mineralisation and identified new targets to be field tested across the extensive 15km strike<sup>11</sup>. The Company recently completed a field program over high priority target areas and, based on the results of sampling, will finalise plans for an initial drilling campaign.

### **Lac du Marcheur Copper-Cobalt Project, Canada**

The Lac du Marcheur Copper-Cobalt Project is located in central Quebec, Canada in close proximity to the Chilton Copper-Cobalt project. An initial field program was undertaken by the Company in 2017 which confirmed the historical high-grade copper and cobalt occurrences and prospects on surface. The Company has recently completed an airborne EM-TDEM survey to occur and is expected to have the processed results shortly<sup>11</sup>.

## References

- <sup>1</sup> Metals Australia Ltd, 16 February 2022. *Drilling Commenced at Manindi Lithium Pegmatite Project, WA*
- <sup>2</sup> Metals Australia Ltd, 12 June 2018. *Lithium pegmatite drilling program commences at Manindi Lithium Project*
- <sup>3</sup> Metals Australia Ltd, 24 July 2018. *Results of RC percussion drilling program at Manindi Lithium Project*
- <sup>4</sup> Metals Australia Ltd, 21 March 2017. *High Grade Lithium Bearing Pegmatites Discovered at Manindi*
- <sup>5</sup> Metals Australia Ltd, 10 November 2021. *High Grade Lithium-Tantalum Results from Manindi Pegmatites*
- <sup>6</sup> Metals Australia Ltd, 13 April 2018. *Preliminary Metallurgical Test program underway at Manindi Lithium Project*
- <sup>7</sup> Metals Australia Ltd, 12 January 2017. *Metals Australia commences drilling at Greenfield and Resource Extension Targets at Manindi Zinc Deposit*
- <sup>8</sup> Metals Australia Ltd, 15 June 2020. *Metals Australia delivers High Grade Maiden JORC Resource at Lac Rainy Graphite Project, Quebec*
- <sup>9</sup> Metals Australia Ltd, 3 February 2021. *Lac Rainy Graphite Study delivers strong economics with Significant Economic upside*
- <sup>10</sup> Metals Australia Ltd, 28 February 2022. *Outstanding 96.8% Flake Graphite Concentrate for Lac Rainy.*
- <sup>11</sup> Metals Australia Ltd, 31 January 2022. *Quarterly Activities Report for the Quarter Ended 31 December 2021.*

This announcement was authorised for release by the Board of Directors.

**\*\*\*ENDS\*\*\***

**For further information, please refer to the Company's website or contact:**

|                          |                          |
|--------------------------|--------------------------|
| Gino D'Anna              | Michael Muhling          |
| Director                 | Company Secretary        |
| Metals Australia Limited | Metals Australia Limited |
| +61 (08) 9481 7833       | +61 (08) 9481 7833       |

## Cautionary Statement regarding Forward-Looking information

*This document contains forward-looking statements concerning Metals Australia Ltd. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.*

*Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Metals Australia Ltd as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

## Competent Person Statement

*The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr Nick Burn. Mr Burn is the Exploration Manager of Metals Australia Limited and a member of the AIG. Mr Burn has sufficient experience relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Burn consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

JORC Code, 2012 Edition – Table 1 - Section 1 Sampling Techniques and Data

| Criteria  | JORC Code explanation   | Commentary  |
|---|---|---|
| <b>Sampling techniques</b>                            | <ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g., 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <p>Reverse circulation (RC) percussion drilling was used to obtain 1 m samples, from which approximately 2-3 kg was sub-sampled and pulverised to produce a sample for assay.</p> <p>Previous diamond drilling has also been sampled at approximate 1m intervals, utilising geological contacts where necessary.</p> <p>Rockchip samples reported in this release were grab samples of pegmatite occurrences, collected in a calico bag and weighing approximately 2 to 3 kg.</p>   |
| <b>Drilling techniques</b>                            | <ul style="list-style-type: none"> <li>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>   | <p>Drilling type is reverse circulation (RC) percussion drilling, using a 4.5" face-sampling drill bit.</p>   |
| <b>Drill sample recovery</b>                          | <ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>  | <p>Sample recovery was visually assessed on basis of the volume of RC percussion chip recovery and overall is considered to be good based on the drilling records.</p> <p>Standard RC percussion drilling techniques were utilised to maximise sample recovery. The cyclone unit was routinely cleaned to limit contamination and ensure representivity of the sample.</p> <p>There is no apparent relationship between sample recovery and grade.</p>  |
| <b>Logging</b>  | <ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>  | <p>Chips from 1m RC percussion drilling intervals were logged according to industry standard practice and representative samples stored in chip trays.</p> <p>Logging was qualitative in nature and recorded using standard logging templates. The resulting data was uploaded to a Datashed database and validated.</p> <p>100% of the drilling was logged.</p>  |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all cores taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>   | <p>RC percussion samples were collected for every metre drilled using a cone splitter installed beneath the rig cyclone. Each sample had a weight of approximately 2-3 kg. Duplicate samples of the same size were collected using a second collection point from the cone splitter at a frequency of approximately one duplicate per 20 samples.</p> <p>For all samples, the nature, quality and appropriateness of the sample preparation technique is considered suitable as per industry best practice.</p> <p>All drill samples were sent to the Bureau Veritas laboratory in Perth for sample preparation (codes PR001 and PR302) using standard codes of practices. All samples were dry and presented to the lab "as is".</p> <p>Rockchip samples were processed by Intertek / Genalysis laboratories in Maddington, Perth and analysed using the 48 element "Lithium Package" (4A-Li/MS48).</p> <p>The sample preparation is considered appropriate for the sample size and grain size of the material</p> |

| Criteria   | JORC Code explanation  | Commentary   |
|--|--|--|
|  |  | being sampled and appropriate for the sample type.   |
| <b>Quality of assay data and laboratory tests</b>              | <ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</li> </ul> | <p>Drill sample assaying was completed by the Bureau Veritas (BV) laboratory based in Perth, Western Australia.</p> <p>BV undertook a standard multi-element assay procedures (codes PF100, PF101 and PF102) utilising a peroxide fusion digestion technique followed by ICP-AES and ICP-MS analysis.</p> <p>The quality of the assay and laboratory procedures is considered to be high and appropriate for the type of mineralisation. The technique used is considered to be a total digestion.</p> <p>A comprehensive QAQC program including blank, standard and duplicate samples were submitted by the Company for analysis with the drilling samples. The results of the QAQC program have been reviewed by the Company's consultant, who has not identified any material concerns. Routine internal QAQC checks were also completed by Bureau Veritas and the results are considered to be satisfactory with no material concerns.</p> |
| <b>Verification of sampling and assaying</b>                   | <ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <p>Significant intersections have been reviewed and verified by company technical and management personnel.</p> <p>Primary drilling data was documented in detailed electronic drill hole logs. Primary assay data was received electronically from the analytical laboratory. Data is uploaded to a Datashed geological database and verified. No adjustments have been made to the reported assays other than the calculation of Li<sub>2</sub>O and Ta<sub>2</sub>O<sub>5</sub> grades from assay data, as specified in the announcement.</p>   |
| <b>Location of data points</b>                                 | <ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <p>Drill hole collar and rock chip sample locations have been verified with handheld GPS with a ±5 m degree of accuracy.</p> <p>The grid system used is GDA94 datum, MGA zone 50 projection.</p> <p>Topographic control is based on a digital terrain model (DTM) with an accuracy of ±5m.</p>   |
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>  | <p>Data spacing is 1 m intervals downhole drill holes spaced at approximately 40 m intervals along 3 traverses, as discussed in the announcement.</p> <p>Insufficient data is available to establish the degree of geological and grade continuity required for estimation of a resource.</p> <p>No sample compositing has been applied.</p>   |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>   | <p>The drilling and sampling orientation is considered to have resulted in a true width intersection of the mineralised pegmatite dykes.</p> <p>Given the nature of the deposit type, the drilling and the sampling is therefore considered to achieve unbiased sampling.</p>  |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>  | <p>Industry standard chain of custody followed, with samples collected, transported and delivered to a secure freight depot by Company geologist. Samples were shipped directly to the analytical lab.</p>   |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>  | <p>The Company's consultant has reviewed the sampling and assay data for completeness and quality control and has not identified any material concerns.</p>  |

JORC Code, 2012 Edition – Table 1 - Section 2 Reporting of Exploration Results

| Criteria                                       | JORC Code explanation   | Commentary   |
|--|---|--|
| <b>Mineral tenement and land tenure status</b> | <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>  | <p>The Company controls an 80% Interest in three granted Mining Licences in Western Australia covering the known mineralisation and surrounding area.</p> <p>The licences are M57/227, M57/240 and M57/533. The licence reports and expenditure are all in good standing at the time of reporting.</p> <p>There are no known impediments with respect to operating in the area.</p>  |
| <b>Exploration done by other parties</b>       | <ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>   | <p>The Manindi zinc deposits were identified by WMC in the early 1970s and have been extensively explored using surface and geophysical techniques prior to drilling. Mapping and soil geochemistry preceded airborne, and surface geophysical techniques being applied to the project.</p> <p>The Project has been drilled in 8 separate drill programs since 1971, with a total of 393 holes having been completed. These include 109 diamond drillholes, 109 RC drillholes, 169 RAB drillholes and 8 percussion holes.</p> <p>The zinc deposits have never been mined.</p> <p>The Project has not previously been explored for lithium.</p>   |
| <b>Geology</b>                                 | <ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>   | <p>The mineralisation at Manindi is hosted within an Archaean felsic and mafic volcanic sequence. The sequence has been extensively deformed by regional metamorphism and structural event related to the Youanmi Fault and emplacement of the Youanmi gabbro intrusion and other later granitic phases.</p> <p>The Manindi zinc-copper mineralisation is considered to be a volcanogenic massive sulphide (VMS) deposit, comprising a series of lenses of zinc-dominated mineralisation that have been folded, sheared, faulted, and possibly intruded by later dolerite and gabbro.</p> <p>Pegmatite dykes crosscut the felsic and mafic rock sequences at a high angle and are interpreted to have intruded along structures that transect the area. The dykes that occur in the area are considered to be of the lithium-caesium-tantalum type (LCT) and some contain visible lepidolite mineralisation.</p> |
| <b>Drill hole Information</b>                  | <ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul> | <p>A summary of all information material to the understanding of the exploration results is included in the announcement, see Appendix 1 of the announcement by Metals Australia Ltd, 24 July 2018. “Results of RC percussion drilling program at Manindi Lithium Project”.</p>  |

| Criteria  | JORC Code explanation   | Commentary  |
|---|---|---|
| <b>Data aggregation methods</b>   | <ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul> | <p>Exploration results are reported as a length weighted average grade. This ensures that short lengths of high-grade material receive less weighting than longer lengths of low-grade material.</p> <p>Where aggregate intercepts incorporate short lengths of high-grade results within longer lengths of lower grade results, these zones have been reported separately.</p> <p>No maximum or minimum grade truncations have been applied.</p> <p>No metal equivalents are reported.</p> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</i></li> </ul>   | <p>The orientation and dip of the reported drill holes were designed to intersect the pegmatite dykes that host lithium mineralisation as close as possible to perpendicular to their strike and dip. Reported mineralised intersections are therefore considered to be close to true width.</p>  |
| <b>Diagrams</b>   | <ul style="list-style-type: none"> <li><i>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.</i></li> </ul>  | <p>Appropriate maps are included in body of the announcement.</p>   |
| <b>Balanced reporting</b>   | <ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i></li> </ul>  | <p>Full and representative reporting of relevant results in announcement by Metals Australia Ltd, 24 July 2018. "Results of RC percussion drilling program at Manindi Lithium Project".</p>   |
| <b>Other substantive exploration data</b>                               | <ul style="list-style-type: none"> <li><i>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, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>  | <p>There are no other substantive exploration data.</p>   |
| <b>Further work</b>   | <ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>  | <p>Systematic rockchip sampling then further drilling is underway to test the grade, thickness and continuity of lithium mineralisation at the Manindi Project, as discussed in the announcement.</p>   |