

ASX Announcement

28 February 2022

ASX:MLS

## **Outstanding Results up to 96.8% Flake Graphite in Concentrate for Lac Rainy**

### ***Bulk Concentrate in Preparation for Downstream Spheroidization & Li-Ion Battery Tests in Germany***

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Metals Australia Ltd (ASX:MLS) (“Metals Australia” or the “Company”) is very pleased to report **high-purity flake-graphite concentrate results of up to 96.8% Total Graphitic Carbon (Cg) from the Phase 2 metallurgical testwork and processing flow-sheet development program** on its 100% owned Lac Rainy High-Grade Graphite Project (“Lac Rainy” or the “Project”) in Quebec, Canada (see Figure 1 for location).

The results from this extensive Phase 2 testwork program follow **Phase 1 testwork<sup>1</sup> that generated excellent preliminary flotation concentrate results of up to 97% Cg**, with a significant proportion (>20%) of large flake<sup>1</sup>.

The **Scoping Study<sup>2</sup>** that followed this Phase 1 testwork **demonstrated the strong economic potential of the Lac Rainy Graphite Project to generate high-operating margins and capital payback by year 4 of a 14-year mine life** producing nearly 100kt of concentrate per annum in full production.

**Highlights from the Phase 2 metallurgical testwork and flowsheet development program are:**

- i) **Optimised tests produced combined fine/medium flake (-150 micron (µm)) and large flake (+150µm) concentrate grading 96.8% Cg, which is at the upper end of the targeted range of 95 to 97% Cg.**
- ii) **The proportion of larger flake recovered under these optimised grinding and flotation flowsheet conditions was 13.9% in the +150µm fraction, at a very high purity of 97.0% Cg (see Table 1).**
- iii) **The mass proportion of medium to fine (-150µm) flake recovered using the optimised flowsheet conditions was 86.1%, at a high-purity of 96.7% Cg (see Table 1), which is well above the >95% Cg targeted for down-stream spheroidization and purification testing.**

**The flow-sheet development program has significantly improved the open-circuit processing conditions of the rougher, primary cleaning and secondary cleaning flotation circuits, providing a stepping-stone to feasibility study level, larger scale, closed circuit and variability testing.**

The optimised processing circuit flow-sheet conditions that generated the combined concentrate grade of 96.8% Cg are currently being applied to a larger volume of composite sample, in order to produce 10 to 12kg of concentrate, including >10kg of the fine-medium (-150µm) flake fraction, at the targeted grade of >96% Cg. The -150µm flake size component of this bulk concentrate sample will be shipped to specialist battery grade graphite testing group, ProGraphite GmbH (ProGraphite), in Germany.

**ProGraphite will conduct specialist downstream testwork, including spheroidization and purification, targeting 99.9% Cg purification upgrade and battery testwork to determine the quality of the Lac Rainy graphite products for use in lithium-ion battery applications in the Electric Vehicle (EV) industry.**

Confirmation that the high-grade graphite resource at Lac Rainy of **13.3Mt @ 11.5% Cg<sup>3</sup>** can produce high-purity graphite suitable for lithium-ion battery applications will allow the Company to advance the outstanding exploration potential of the Project. The Company has only drilled 1.6km of the over 4km strike-length **Carheil trend** (see Figure 1). In addition, the parallel **West Carheil trend**, that has previously produced very high-grade rockchip results of up to **28.5% Cg<sup>4</sup>**, also remains undrilled. **Drilling of these identified graphitic trends offers potential to significantly increase the size, and potentially the grade, of the Lac Rainy Mineral Resource.**

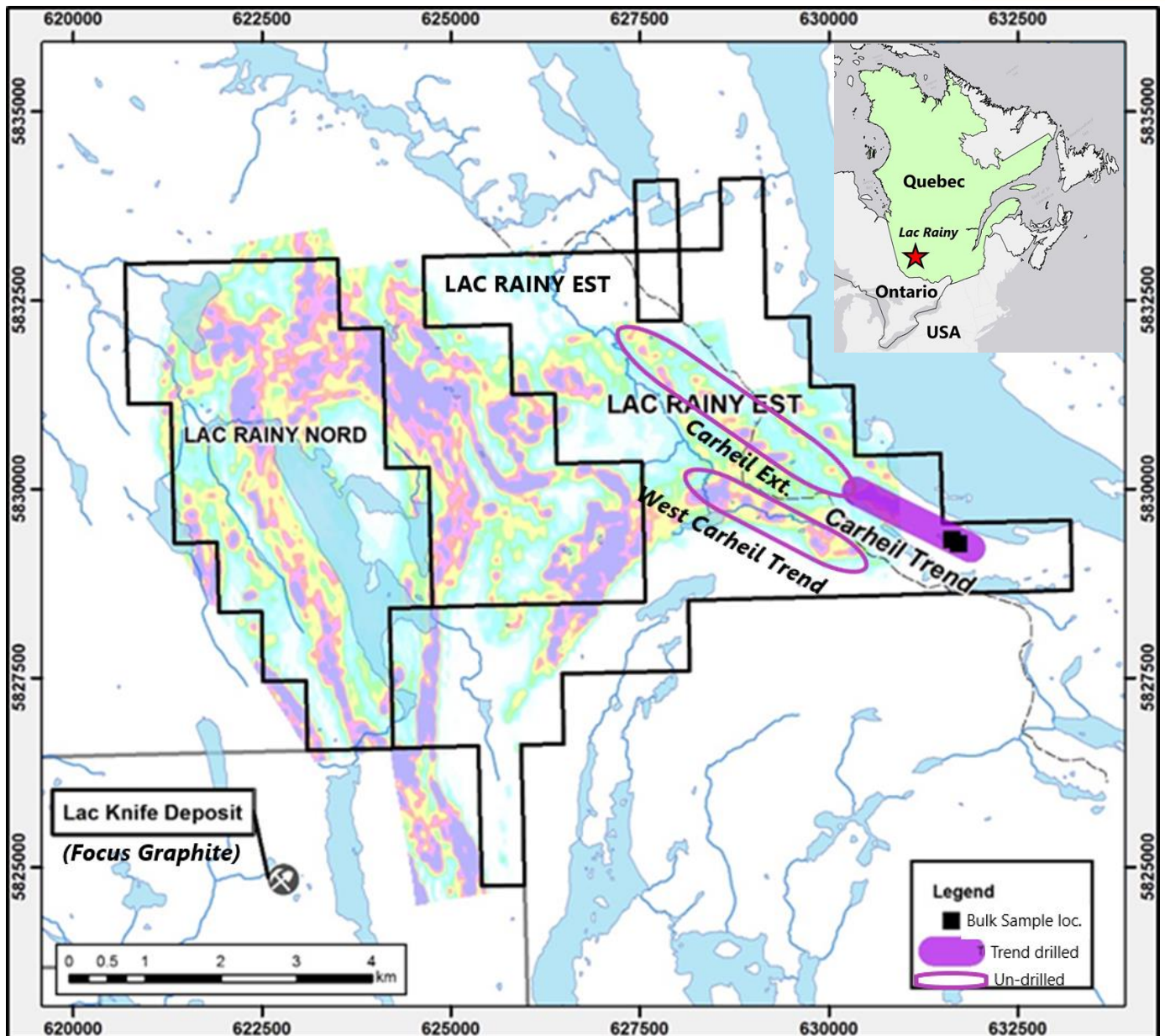


Figure 1: Location of the Lac Rainy Graphite Project with key prospect locations and airborne EM anomalies

China currently produces about 90% of the world’s spherical graphite supply for lithium-ion batteries. The lithium-ion battery manufacturing industry in North America is attempting to diversify away from dependence on this Chinese spherical graphite supply.

This diversification away from Chinese spherical graphite supply is driving the growth of spherical graphite production capacity outside of China and in the North American market in particular. The North American market urgently requires local supply of high-purity, low cost, graphite concentrate that is suitable for battery-grade spherical graphite production<sup>5</sup>.

The Lac Rainy Graphite Project is perfectly located and has the optimum graphite concentrate characteristics to take advantage of this opportunity.

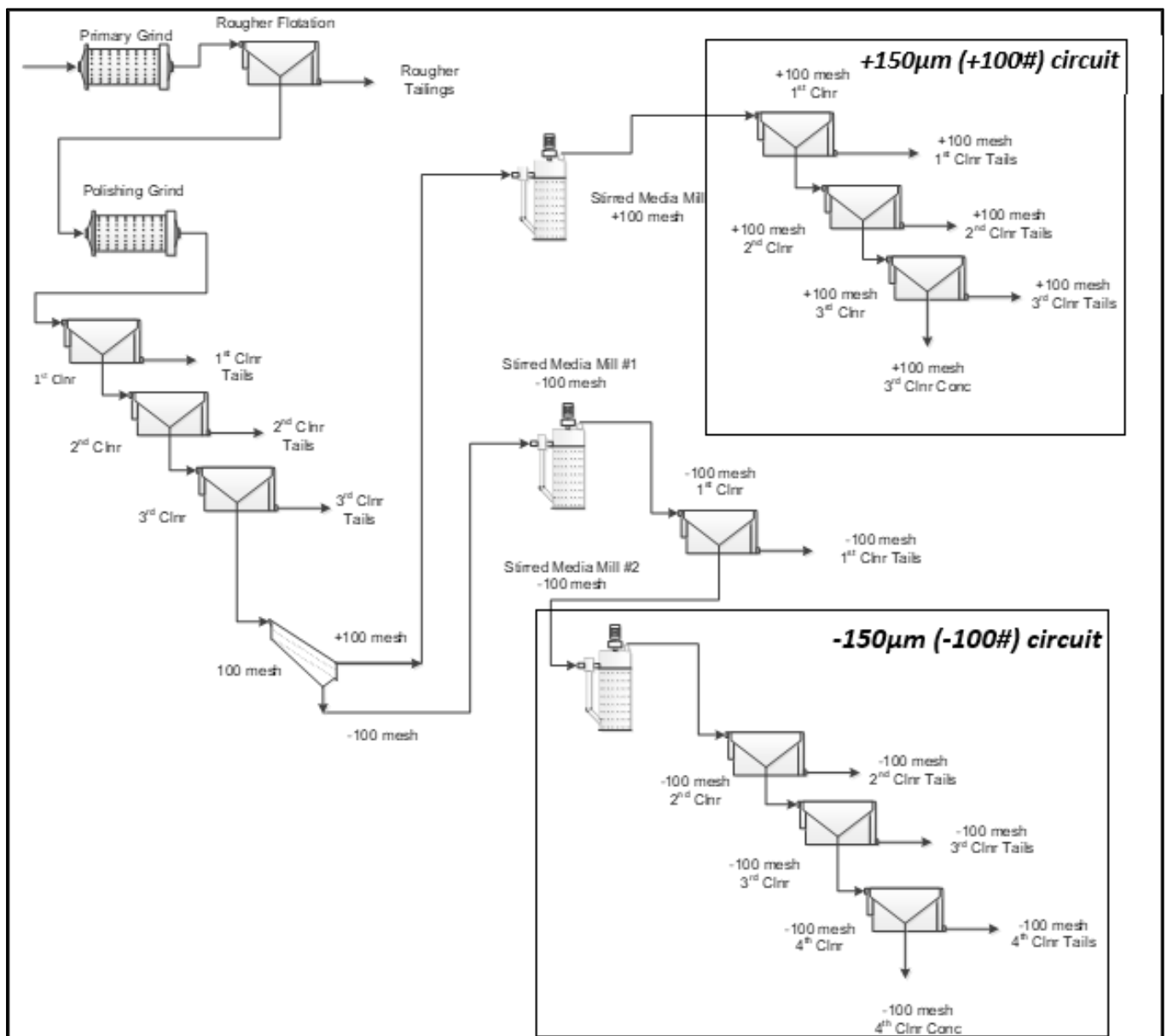
## Details of the Phase 2 Lac Rainy Graphite Testwork Results

These outstanding Phase 2 metallurgical test results follow the excellent results of the Phase 1 metallurgical testwork<sup>1</sup> and the outcomes of the **Scoping Study**<sup>2</sup> that demonstrated the strong economic potential of the **Lac Rainy Graphite Project to generate high-operating margins**.

Based on the recommendations in the Scoping Study, **SGS Canada Inc.** (“SGS”) were commissioned to carry out Phase 2 systematic processing flowsheet development testing on a bulk sample composite from the high-grade Lac Rainy Graphite Project. The composite sample has a graphitic carbon grade of **16.2% Cg** and 10.7% sulphur (S), with quartz being the most abundant gangue mineral.

The flowsheet development program was designed to match the proposed flow sheet for the similarly high-grade **Lac Knife Graphite Project** of Focus Graphite Ltd (TSXV:FMS)<sup>6</sup>, which is at the feasibility stage and located only 10km to the west of the Lac Rainy Project (see location, Figure 1).

This optimum processing flowsheet design is shown on the diagram below:



The key objective of this work was to optimise flake-graphite concentrate purity, particularly in the fine to medium flake fraction (-150µm), to enable generation of a bulk concentrate sample for downstream testwork,

including spheroidization and purification for lithium-ion battery applications. A secondary objective of the testwork was to preserve the component of larger flake size fractions for high-value downstream products such as expandable graphite for non-flammable building cladding.

A total of 12 rougher and cleaner flotation tests were carried out on the composite to establish a suitable flowsheet and conditions that can upgrade the Lac Rainy graphite concentrate to a minimum of 95% Cg.

The flowsheet development was carried out in a systematic manner, focusing on grinding conditions, prior to rougher, primary cleaner, and secondary cleaner flotation circuit optimisation. The flowsheet developed from this testwork program consists of primary grinding followed by rougher flotation. The rougher concentrate was subjected to a polishing grind and three stages of cleaner flotation. The third cleaner concentrate was screened to produce separate +150µm, larger flake oversize and -150µm undersize fractions, that were then treated in separate secondary cleaning circuits.

The +150µm larger flake fraction was processed in a stirred media mill (SMM) and then upgraded in three stages of cleaner flotation. This +150µm, 3<sup>rd</sup> cleaner, concentrate formed part of the final combined concentrate.

The -150µm fraction was treated in two stages of stirred media milling and cleaner flotation. A second stage of stirred media milling was required to ensure that the -150µm concentrate met the minimum grade requirement of 95% Cg. The -150µm, 4<sup>th</sup> cleaner, concentrate was the second component of the combined concentrate.

**The testwork using the optimum flowsheet conditions produced a combined concentrate grade of 96.8% Cg** at a total open circuit carbon recovery of 69.4%. This recovery is expected to increase substantially in closed circuit testing conditions where tailings from the rougher flotation tests are re-cycled through the earlier cleaner cells. Projects with comparable deposit grades tend to achieve closed circuit graphite recoveries of over 90%, including the nearby Lac Knife Project of Focus Minerals which reported a significant improvement (compared to open-circuit tests) to 92.2% recovery in closed circuit tests<sup>7</sup>.

The combined concentrate, which consists of the +150µm, larger flake, 3<sup>rd</sup> cleaner concentrate and the -150µm 4<sup>th</sup> cleaner concentrate was submitted for a size fraction analysis. The results of the analysis are presented in Table 1 below. **The concentrate contained 13.9% in the larger flake, +150µm, category at a high-purity concentrate grade of 97.0% Cg** (see Table 1 below). The remaining **86.1% of the mass contained fine to medium, -150µm, graphite flakes at a grade of 96.7% Cg**, including the smallest size fraction of -75 µm (very fine flake) that still yielded a 95.8 Cg grade which indicates a low level of entrained impurities.

**Table 1: Lac Rainy Graphite Project, Concentrate Flake Size Distribution**

Size Fraction		Mass/Weight%	Total Carbon (Cg)%	Total Cg%
<i>Flake Category</i>	<i>Micron</i>			
Jumbo	>300µm	1.6	98.2	<b>97.0</b>
Very Large	>230µm	4.4	97.3	
Large	>180µm	3.1	97.1	
Medium	>150µm	4.8	96.3	
Fine - medium	>100µm	12.8	97.5	<b>96.7</b>
Fine	>75µm	16.9	99.1	
Very Fine	<75µm	56.4	95.8	
<b>Total</b>		<b>100.0</b>		

The ability to upgrade the small flake sizes to high total carbon grades is important for this type of concentrate, which will likely be marketed to the lithium-ion battery, electric-vehicle (EV) sector. Since the purification costs tend to be proportional to the amount of impurities in the flotation concentrate, obtaining high total carbon grades in the small graphite flakes is highly desirable and highlights the potential of the Lac Rainy graphite deposit to produce high-quality concentrate product.



Further process optimisation studies/testwork will be carried out to improve the mass yield into the +150µm, larger-flake, product as well as further increase the total carbon grade of the -150µm product, including:

- **Mineralogy** to determine if gangue can be liberated from the flake graphite concentrate in order to optimise concentrate grade and recovery in the closed circuit.
- **Closed circuit testwork** to maximise recovery at maintained high-purity (by re-cycling tails back through the circuit) and mimic larger scale plant conditions, and,
- **Differential rougher flotation** followed by **magnetic separation** testwork to remove sulphides from the tail (to minimise potential acid drainage).

The outcomes of these final optimisation tests will be used to drive flow-sheet processing circuit modifications prior to initiating larger scale testwork as part of a proposed Pre-Feasibility Study (PFS).

In parallel with these final optimisation tests a larger scale bulk concentrate is being generated using the optimised flow-sheet conditions to produce 10 to 12kg of concentrate at the targeted grade of >96% Cg.

The -150µm flake size component of this bulk concentrate (>10kg) will be shipped to specialist battery grade graphite testing group, ProGraphite, in Germany, to conduct specialist downstream testwork.

**This downstream testwork will include spheroidization and purification, targeting 99.9% Cg purification upgrade, prior to lithium-ion battery testwork to determine the quality of the Lac Rainy graphite products for use in lithium-ion battery applications.**

The Company also plans to carry out expandable graphite testwork on the larger flake, +150µm, material to determine the saleability of this high-value product, primarily for the non-flammable building cladding market.

### **About the Lac Rainy Graphite Project, Quebec (Canada)**

The Lac Rainy Project consists of a contiguous landholding of 92 mineral claims covering an area of approximately 45.5 km<sup>2</sup> located 22 km south-west of the historic mining town of Fermont in one of the premier graphite mining regions of Quebec. The Project is approximately 15 km east of Route 389, a paved highway that links the Project with major ports along the St. Lawrence River (Figure 1).

The Lac Rainy project hosts a high-grade **JORC 2012 Indicated and Inferred Mineral Resource of 13.3Mt @ 11.5% Cg<sup>3</sup>** (5% Cg cut-off).

**Previous, preliminary, metallurgical testwork was able to achieve total graphitic carbon (TGC) grades of up to 97.1% Cg, with up to 22.8% of the Lac Rainy graphite concentrate categorised in the large and jumbo flake size fractions<sup>1</sup>.**

In 2020, Metals Australia completed a Phase 1 Scoping Study highlighting the significant economic attractiveness of the Lac Rainy project<sup>2</sup>. The **Scoping Study demonstrated the strong economic potential of the Lac Rainy Graphite Project to generate high-operating margins and capital payback by year 4 of a 14-year mine life** producing nearly 100kt of concentrate per annum in full production.

The Company is currently completing Phase 2 advanced metallurgical test work on the Lac Rainy Graphite Project through SGS Canada. The testwork is designed to optimise the graphitic carbon (Cg) purity and flake-size distribution for subsequent downstream product testwork.

Potential downstream products include spherical graphite – a key component of lithium-ion batteries for the Electric Vehicle (EV) market. At the same time, testwork will look to maximise the proportion of medium, large and jumbo flake sizes, where premium pricing can be achieved, without sacrificing yield in the finer fractions.

The results of the downstream testwork will allow the Company to upgrade the testing program to reach pre-feasibility study (PFS) level as well as carry out marketing of the high-quality and high-purity Lac Rainy graphite concentrate to end-users across North America and Europe.

Outstanding exploration potential exists to build the high-grade graphite resource base at Lac Rainy. This potential includes extensions of the **Carheil Graphitic Trend** (Figure 1), where only 1.6km of an identified 4km trend has been drilled, and on the **West Carheil Graphitic Trend** (Figure 1), where sampling of a number of high-grade graphitic outcrops **produced rockchip grades of up to 28.5% Cg<sup>4</sup>**.

In addition, **major, un-explored, electromagnetic (EM) anomalies occur on the western tenements area, Lac Rainy Nord (Figure 1), with limited rockchip sampling confirming that they are graphitic trends.**

## **About Metals Australia**

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

### **Manindi Project, WA**

The Manindi Project includes three granted mining leases in the fertile Youanmi Igneous geological complex, located approximately 20 km southwest of the Youanmi Gold Mine in the Murchison District of WA.

The Company has recently been exploring the lithium bearing pegmatites at Manindi, which are extensively developed within a >3km corridor at the northwestern end of the Project. Detailed surface mapping in 2018 located three lithium bearing pegmatites at the Mulgara and Warabi zinc prospects, with strike lengths of over 300m and widths of up to 25-30m.

Rockchip sampling that produced results of up to **2.84% Li<sub>2</sub>O, 296 ppm Ta<sub>2</sub>O<sub>5</sub> and up to 746ppm Cs<sub>2</sub>O<sup>8</sup>** confirmed that the Mulgara and Warabi pegmatites are of the lithium-caesium-tantalum (LCT) type. Re-sampling of previous diamond drillholes, that targeted zinc, produced intersections including **15m @ 1.20% Li<sub>2</sub>O incl. 5m @ 1.53% Li<sub>2</sub>O in MND018<sup>8</sup>**. Subsequent RC drilling at Mulgara produced significant intersections of lithium mineralisation including **MNRC030: 8m @ 1.06% Li<sub>2</sub>O incl. 3m @ 1.65% Li<sub>2</sub>O with up to 1.96% Li<sub>2</sub>O<sup>9</sup>**.

Further mapping and sampling in late 2021 identified lithium bearing minerals in the **Foundation Pegmatite<sup>10</sup>**, which is the largest pegmatite identified to date at Manindi at over 500m long strike-length in a southwest-northeast direction. Further, systematic rockchip sampling indicates that the Foundation Pegmatite is lithium-bearing for its entire strike-length and a >3,000m RC drilling program has commenced testing **the Foundation Pegmatite, as well as other lithium bearing pegmatites nearby<sup>11, 12</sup>**.

The Manindi project also includes the Kultarr and Kowari Zinc deposits that host a JORC 2012, **Measured, Indicated & Inferred resource of 1.08Mt @ 6.52% Zn for 70,102t Zn (2% Zn cut-off)<sup>13</sup>**. A number of target zones remain to be tested for both zinc and also copper mineralisation, close to the existing resource. Drilling to date has been limited to a depth of approximately 250m<sup>14</sup>.

### **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>15</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>15</sup>.

## References

- <sup>1</sup> Metals Australia Ltd, 30 June 2020. *Metallurgical Testing Confirms Lac Rainy Graphite High Purity and Grade.*
- <sup>2</sup> Metals Australia Ltd, 3 February 2021. *Lac Rainy Graphite Study delivers strong economics with Significant upside.*
- <sup>3</sup> Metals Australia Ltd, 15 June 2020. *Metals Australia delivers High Grade Maiden JORC Resource at Lac Rainy Graphite.*
- <sup>4</sup> Metals Australia Ltd, 20 April 2020. *Prospecting Program Identifies New High-Grade Graphite Zone (Lac Rainy).*
- <sup>5</sup> Focus Graphite Ltd, 27 May 2014. *Focus Graphite Succeeds in Producing Extremely High-Performing Coated Spherical Graphite for Lithium-Ion Batteries.*
- <sup>6</sup> Focus Graphite Ltd, 28 January 2014. *Focus Graphite Reports a 92% Increase in Measured and Indicated Mineral Resources Categories at its Lac Knife Flake Graphite Project – to 9.6 million tonnes grading 14.77% Cg.*
- <sup>7</sup> Focus Graphite Ltd, 14 March 2014. *Focus Graphite Reports Phase II Locked Cycle Tests from Lac Knife Yield Graphite.*
- <sup>8</sup> Metals Australia Ltd, 21 March 2017. *High Grade Lithium Bearing Pegmatites Discovered at Manindi.*
- <sup>9</sup> Metals Australia Ltd, 24 July 2018. *Results of RC percussion drilling program at Manindi Lithium Project.*
- <sup>10</sup> Metals Australia Ltd, 10 November 2021. *High Grade Lithium-Tantalum Results from Manindi Pegmatites.*
- <sup>11</sup> Metals Australia Ltd, 7 February 2022. *Lithium Pegmatite Drilling to Commence at Manindi Project, WA.*
- <sup>12</sup> Metals Australia Ltd, 12 June 2018. *Lithium pegmatite drilling program commences at Manindi Lithium Project.*
- <sup>13</sup> Metals Australia Ltd, 17 April 2015. *Manindi Mineral Resource Upgrade (Re-release).*
- <sup>14</sup> Metals Australia Ltd, 12 January 2017. *Metals Australia commences drilling at Greenfield and Resource Extension Targets at Manindi Zinc Deposit.*
- <sup>15</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:

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## 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 Statements

*The information in this announcement that relates to Exploration Results from Canada is based on information compiled by Mr. Jean-Paul Barrette P.Geo, B.Sc. Mr Barrette is Project Geologist with Magnor Exploration Inc. and a consultant to Metals Australia Limited. Mr Barrette and is a member of the Ordre des Géologues du Québec (OGQ) with member number OGQ #619. Mr. Barrette has sufficient experience (35 years) that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Barrette consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.*

*The information in this report that relates to Resource Estimation is based on information compiled by Simon Coxhell, Principal Consultant of CoxsRocks Pty Ltd. Mr Coxhell is a consultant to the Company. Mr Coxhell is a Member of the Australian Institute of Mining and Metallurgy. Mr Coxhell has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this document 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” (“JORC Code”). Mr Coxhell consents to the inclusion in this report of the Matters based on this information in the form and context in which it appears. Mr Coxhell has not been to the Lac Rainy site but is familiar with graphite deposits around the world and has completed numerous resource estimates for this commodity.*

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves specific to the Manindi Lithium Project is based on information compiled by 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 information in this document that relates to metallurgical test work is based on, and fairly represents, information and supporting documentation reviewed by Mr Peter Adamini, BSc (Mineral Science and Chemistry), who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Adamini is a full-time employee of Independent Metallurgical Operations Pty Ltd, who has been engaged by Metals Australia Ltd to provide metallurgical consulting services. Mr Adamini has approved and consented to the inclusion in this document of the matters based on his 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 downhole 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. 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>	<ul style="list-style-type: none"> <li>Sampling method is half-coresampling of HQ diamond drill core (HQ:63.5mm). Quarter-core sampling utilised where a duplicate sample has been taken.</li> <li>Sampling was carried out using Magnor Exploration Inc sampling protocols and QAQC procedures as per industry best practice, delivered by ALS.</li> <li>Diamond drilling completed using WL66 coring equipment. Drillholes have been sampled on geological intervals or nominal 1.5 m intervals where appropriate (approx. 3kg/sample). All samples have been crushed, dried and pulverised (total prep) to produce a sub sample for multi-element analysis by four acid digest with ICPMS, total graphitic carbon and sulphur by Leco.</li> </ul>
<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>	<ul style="list-style-type: none"> <li>Diamond drilling completed by Magnor Exploration</li> <li>WL66 (HQ) conventional diamond drilling with core diameter of 63.5mm.</li> <li>All drillholes have been orientated.</li> <li>Downhole surveying completed using a Devico Deviflex downhole survey instrument.</li> </ul>
<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>	<ul style="list-style-type: none"> <li>Core recoveries are measured by the drillers for every drill run. The core length recovered is physically measured for each run, recorded and used to calculate the core recovery as a percentage of core recovered. Any core loss is recorded on a core block by the drillers.</li> <li>Careful drilling techniques in areas of broken ground are employed with communication between the geologist and drillers to maximise core recovery.</li> <li>A sampling bias has not been determined.</li> </ul>
<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>	<ul style="list-style-type: none"> <li>All drillcore has been transported from the drill sites to the laboratory by company representatives for cleaning, reconnection of core lengths and measurement of metre marks where required, over the entire hole.</li> <li>Geological logging has been completed on the entire length of all holes by Magnor exploration who has significant experience in this style of exploration and mineralisation.</li> <li>The lithological, mineralogical, alteration and structural characteristic of the core has been logged in digital format and following established procedures.</li> <li>All drillholes have been photographed in both wet and dry states.</li> </ul>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<p><b>Sub-sampling techniques and sample preparation</b></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories - ALS Laboratories Ltd in Val d'Or, Quebec. Code RX1-graphite was completed as preparation. Samples are crushed to 80% passing 10 mesh, riffle split (250 g), and pulverized to 95% passing 105 micron.</li> <li>• Analysis used ALS packages Code 4F-C,S, and 4F-C-Graphite using a graphite specific preparation (RX1-Graphite). Total carbon as well as graphitic carbon are the primary deliverables.</li> <li>• Sampling techniques utilized, as described above, ensure adequate representativeness and sample size. During the drilling, industry standard sampling techniques were followed with fresh material sampled.</li> <li>• No blanks or standards were submitted by the company with laboratory blanks, standards, and duplicates relied upon, with results reviewed by the company's consultants and found to be satisfactory with no material concerns. Maxwells Data management systems for appraisal of the QA/QC indicated no issues</li> <li>• The sample sizes are considered appropriate for the type of mineralisation under consideration.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Selected samples are assayed for total graphitic carbon and sulphur via Leco furnace. Graphitic carbon is determined by digesting the sample in 50% HCl to evolve carbonate as CO<sub>2</sub>. Residue is filtered, washed, dried and then roasted at 425°C. The roasted residue is analysed for C and S by high temperature Leco furnace with infrared detection.</li> <li>• The analytical methods are considered appropriate for this style of mineralisation.</li> <li>• No geophysical tools or handheld instruments were utilised in the preparation of this announcement.</li> <li>• Duplicate sampling has been completed at a rate of 1:40 where practicable; duplicate results for all holes are satisfactory.</li> <li>• Certified reference material standards and blanks have been inserted at a rate of approximately 1:20; standard and blank results for all holes are within accepted limits.</li> <li>• Laboratory QAQC methods include the insertion of certified reference material standards, blanks, and duplicates.</li> </ul>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Determination of the reported downhole intervals of mineralisation have been verified by alternative company personnel both in person and via electronic photographic data.</li> <li>No twin-hole drilling completed to date although several neighboring holes have been completed and showed excellent correlation.</li> <li>All geological and location data is stored in Excel spreadsheets prior to being uploaded to the Company's database. Data entry has been by manual input and validation of the data has been done by checking input on-screen prior to saving.</li> <li>No adjustments or calibrations were made to any assay data used in this report.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drillhole locations were planned using a combination of GIS software packages.</li> <li>Drillhole locations were determined originally using a Garmin handheld GPS unit with an accuracy of +/- 1m. Drill collar azimuths were determined with a handheld Sunto compass that has a precision of +/- 0.5 degrees.</li> <li>Subsequent DGPS survey methods established drill collars to a 0.25 m level of accuracy.</li> <li>Downhole surveys were completed using a Devico Deviflex downhole survey instrument at regular intervals.</li> <li>Original Grid system is UTM NAD 84 Z 19</li> <li>Topographic control has been established by handheld GPS and cross- correlation with digital laser topographic imagery.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole profile spacing varies from 25-40, to 120 metres on the margins is at 50m, 25m or 12.5m. See attached location plans, cross sections and tables.</li> <li>Previous work including mapping, trenching, rock chip sampling of outcropping ore and detailed electromagnetic (EM) geophysical data show and confirm excellent continuity of the stratigraphic graphite unit. The current drillhole spacing at the East and West deposit is considered appropriate to allow for the JORC-compliant Mineral Resource Estimate (MRE) to be completed at the Indicated and Inferred resource categories.</li> <li>Through the main graphite zones, nominal 2m sampling has been applied where appropriate and sampled to geological boundaries elsewhere.</li> </ul>

<b>CRITERIA</b>	<b>JORC CODE EXPLANATION</b>	<b>COMMENTARY</b>
<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>	<ul style="list-style-type: none"> <li>The drillhole orientation is considered appropriate with the drill holes being drilled perpendicular to the interpreted strike of the geological units and graphite mineralisation. The graphite units across the Project dip steeply (80- 90°) to the west and drilling to date has been completed drilling across-dip.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All drill core was transported by courier transport from the project to the ALS laboratory in Quebec</li> </ul>
<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>	<ul style="list-style-type: none"> <li>No external audits or reviews of the sampling techniques and data have been completed to date. Results have been reviewed internally by the company's geologists, with independent assessment of the QA/QC by Mawells. With no issues have been identified.</li> </ul>



## 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>	<ul style="list-style-type: none"> <li>Metals Australia Limited is the 100% owner of the Lac Rainy Graphite Project, pursuant to the binding acquisition agreement.</li> <li>There are no other known material issues affecting the tenements.</li> <li>Quebec Lithium Limited, a wholly owned subsidiary of Metals Australia, is the owner of 100% of the graphite project, and ownership of the individual CDC claims is held by Quebec Lithium Limited.</li> <li>All tenements are in good standing and have been legally verified by a Quebec lawyer specializing in the field.</li> <li>The licence is in good standing with no known impediments.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No modern exploration has been conducted by other parties.</li> <li>Government mapping records multiple graphitic carbon bearing zones within the project area, but no data is available..</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Lac rainy graphite project is located in close proximity to Focus Graphites Lac Knife Project, which is hosted in a similar geological environment.</li> <li>The projects were first discovered in 1989, and has been subject to basic geological review since then.</li> <li>The project area geology (hosting the Lac Rainy graphite deposits) is situated within the Gagnon Group, which is the metamorphosed equivalent of the Ferriman Group in the Labrador Trough. The formations within the Ferriman Group consist of Wishart (arenitic quartzite with variable mica and calcite), Ruth (ferruginous mudstone chert), Sokoman (iron formation), and Menihek (mudstone/mica schist), as well as intrusive basalt. The Nault Formation of the Gagnon Group, comprised of graphite-bearing quartz biotite garnet paragneiss (metamorphized equivalent of the Menihek Formation), underlies the majority of the Lac Rainy Property and is the primary target rock unit.</li> <li>The host lithology consists of a sub-vertical, lithologically continuous unit of very fine-grained dark grey to black graphite rocks containing between 1-28% graphitic carbon and appreciable quantities of sulphides ranging in grade from 0.01-18.8% sulphur. A number of parallel units have been identified from the mapping, channel sample and drilling.</li> <li>The lithological units are variably folded and faulted, with true widths up to 70m and have local continuity over hundreds of metres and regionally extend over many kilometres. Pyrite, pyrrhotite and trace chalcopyrite accompany the graphite mineralisation. the sub-vertical orientations present today.</li> </ul>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<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>	<ul style="list-style-type: none"> <li>Drillhole information pertaining to the drilling at Lac Rainy is summarised in the figures and tables in the text of previous ASX releases related to the drilling results at Lac Rainy.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>A nominal cut off of 5% graphite has been used in any reporting previously conducted.</li> <li>No high-grade cut-off has been used.</li> <li>Length-weighted averaging has been used to calculate all intercepts in this announcement. Length-weighted averaging has been used given that sampling intervals were determined geologically and not always nominally.</li> <li>No metal equivalents have been used.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>The geometry of the graphite mineralisation at the Lac Rainy Project is quite well understood and all drilling has been completed perpendicular to the strike of the mineralisation. The main hangingwall graphite unit is sub-vertical and appears to have a variable dip (~80- 90°). Several close spaced drillholes at Lac Rainy have highlighted the dip and azimuth of the mineralised zones</li> <li>Tighter spaced drilling is required to determine the exact dip of the graphite unit but the drillhole information received to date confirms any previous interpretation. as modelled.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps and cross-sections have been included in the text of previous announcements.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All significant intercepts above the nominal cut-off grade of 5% Cg have been reported in the text of previous ASX releases related to the drilling results at Lac Rainy.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>A substantial amount of work has been completed at the Lac Rainy Project by Metals Australia. Work has included geophysical surveys, rock chip sampling, MMI soil sampling, trenching, diamond drilling and metallurgical testwork.</li> </ul>

CRITERIA	• JORC CODE EXPLANATION	• COMMENTARY
<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>	<ul style="list-style-type: none"> <li>• Additional Phase 2 metallurgical and process testwork on drillcore from Lac Rainy is continuing.</li> <li>• Downstream metallurgical testwork planned prior to upgrade studies to PFS level.</li> <li>• Further exploration targeting high-grade extensions to be planned.</li> </ul>