

## ASX Announcement

16 October 2023

ASX:MLS

### EXTENSIVE HIGH-GRADE GRAPHITE SAMPLING RESULTS HIGHLIGHT ENORMOUS POTENTIAL FOR RESOURCE GROWTH AT LAC RAINY

- *Results highlight potential for one of the world's most significant high-grade graphite projects, ideally located to supply battery grade graphite to North American markets*
- Exceptional results including more than 50% graphitic carbon (Cg) achieved from an extensive graphite sampling program at the Lac Rainy Graphite Project in Quebec, which also produced several results of over 20% Cg and an average result of over 11% Cg (see results, Appendix 1).
- Sampling was carried out on 10 graphitic trends identified from electromagnetic (EM) imagery (Figures 1 & 2) representing a combined strike-length of high-grade graphite trends of over 36km.
- The 36km of graphitic trends represents potential for a 20-fold increase in high-grade graphite strike potential, as a multiple of the only 1.6km strike-length tested to date on the Carheil trend, which produced the current high-grade graphite Mineral Resource of 13.3Mt @ 11.5% Cg<sup>1</sup>.
- Priority new drilling programs are scheduled for the winter drilling season in Quebec (November 2023 to March 2024) to test the extensive new high-grade graphitic trends identified in the latest sampling program at Lac Rainy - once government drilling permit applications are approved.
- Pre-Feasibility Study (PFS) to commence in parallel with the new drilling, to upgrade the 2021 Scoping Study<sup>2</sup>, which highlighted high-cashflow potential for a project delivering approximately 100kt per-annum of flake graphite over 14 years from the current Mineral Resource. *The Company confirms that it is not aware of any other new information or data that materially affects the information in the Scoping Study release of 3<sup>rd</sup> February 2021<sup>2</sup>.*
- Metals Australia will also use its high-yield, premium battery grade (99.96% Cg) spherical graphite<sup>3,4</sup> results as the basis for an Options Study into down-stream lithium-ion battery anode spherical-graphite (SpG) production. This has the potential to upgrade product pricing from around US\$800-US\$900/t<sup>2</sup> for flake-graphite concentrate to over US\$3,000/t<sup>5</sup> for un-coated SpG.

Metals Australia Ltd Chairman Mike Scivolo commented:

*"These latest sampling results from the Lac Rainy Graphite Project are outstanding and indicate enormous potential for a significant expansion of the existing high-grade graphite Mineral Resources.*

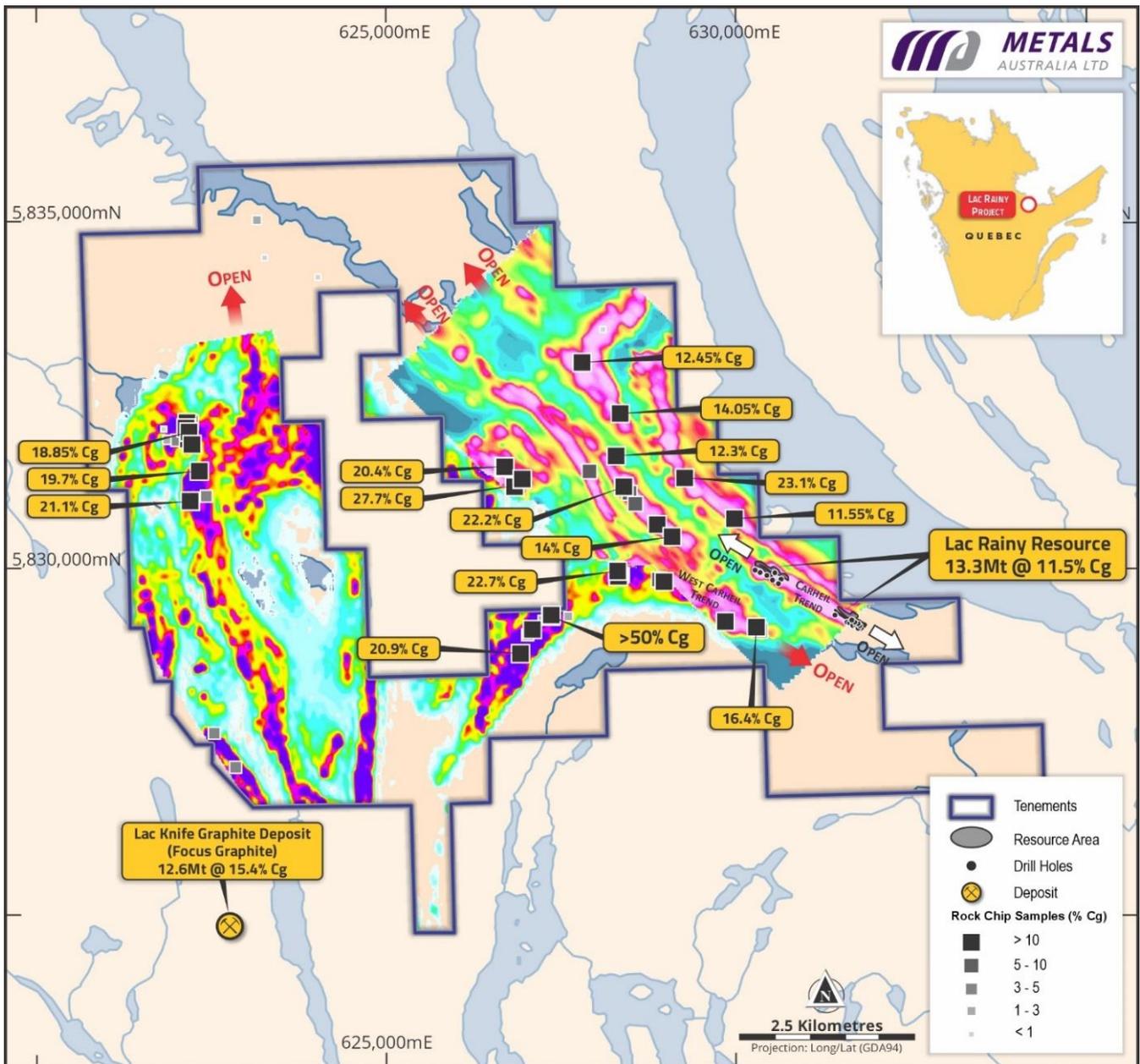
*"A priority drilling program is now planned to test the highest-grade graphite trends with the aim of expanding and upgrading the Mineral Resource we have already delineated on one of 10 graphite trends now identified at Lac Rainy, representing over 20 times the 1.6km tested strike-length tested to date.*

For personal use only

*“The results confirm that Lac Rainy has the potential to be one of the world’s most significant high-grade graphite projects, with a number of distinct advantages over other graphite projects in terms of grade, potential size and location in the North American market. The US is currently almost entirely dependent on Chinese supply of battery grade graphite for lithium-ion batteries, and this project offers potential to supply the US market directly.”*

*“The Company will fast-track both the additional drilling and the development studies required to present the economic case for funding and development of this potentially world-class battery grade graphite project.”*

For personal use only



**Figure 1: Lac Rainy Graphite Project high-grade sample locations and EM indicated graphitic trends**

### Exceptional High-Grade Flake-Graphite Sampling Results from Lac Rainy

Metals Australia Ltd (“Metals” or “the Company”) (ASX:MLS) is pleased to announce **widespread and exceptionally high-grade graphite sampling results** from its Lac Rainy Graphite Project, located in one of the world’s premier graphite regions in Quebec, Canada (see location, Figure 1 and results, Appendix 1).

The latest results are from 80 samples on 10 graphitic trends identified from electromagnetic (EM) imagery. The **exceptional rockchip results include a sample containing over 50% graphitic carbon (Cg)** from a large EM anomaly west of the existing Mineral Resource. Significantly, this large anomaly continues for over 6km from the West Carheil trend and includes a large number of >20% Cg results (Figures 1 and 2, Images 1 to 4).

The average grade of the 80 new samples is over 11% Cg and the combined strike-length of the identified high-grade graphitic zones is over 36km. **This represents high-grade graphite potential of over 20-times the 1.6km currently drilled and trenched strike-length** at the Carheil trend, which contains the existing Mineral Resource of 13.3Mt @ 11.5% Cg (Indicated: 9.6Mt @ 13.1% Cg and Inferred: 3.7Mt @ 7.3% Cg)<sup>1</sup>.

*These extensive high-grade graphite results have confirmed the potential of Lac Rainy to be one of the world’s most significant high-grade graphite projects.*

For personal use only

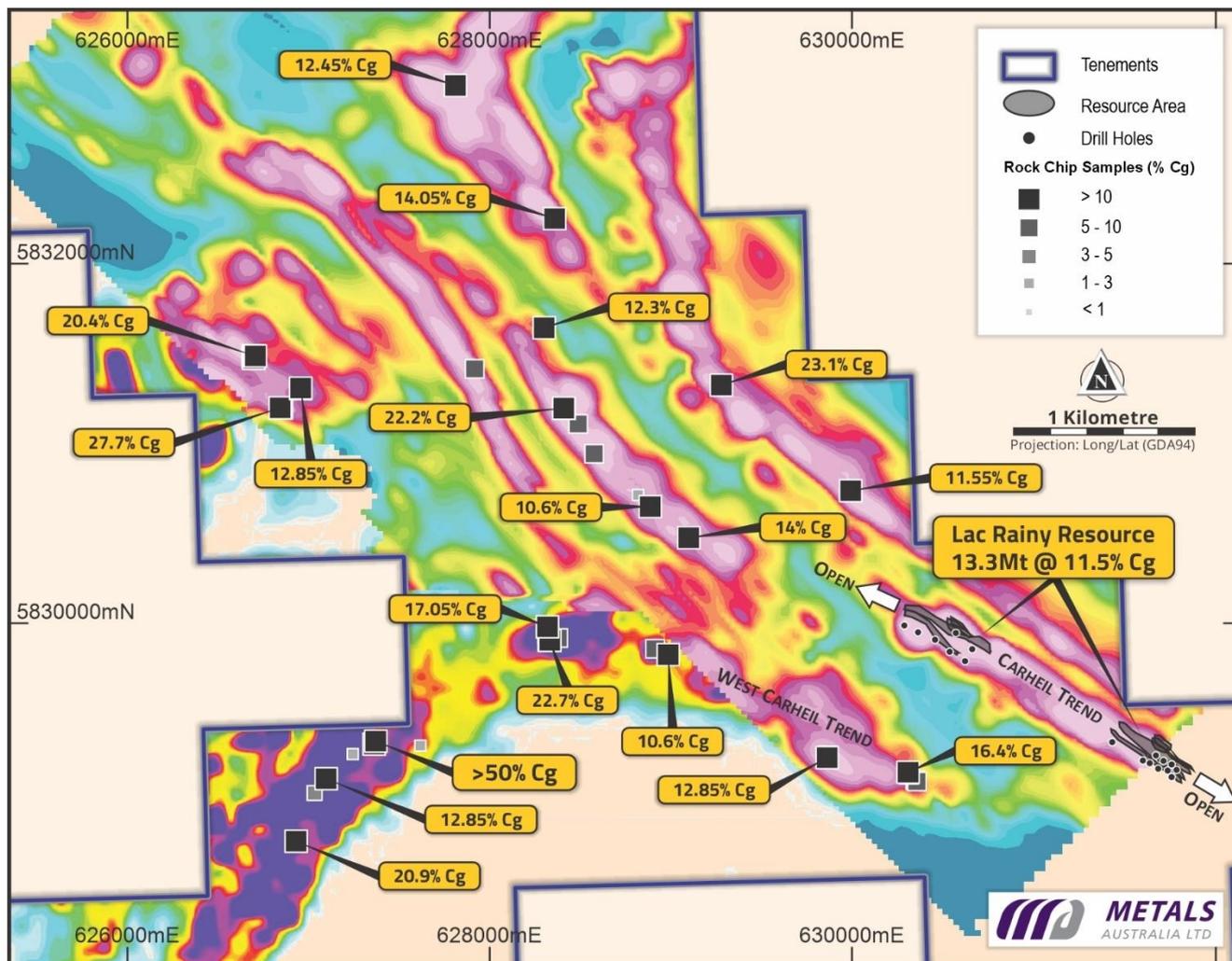


Figure 2: Lac Rainy Graphite Project high-grade sample locations and EM indicated graphitic trends



**Sample G182207: 24.6% Cg**



**Sample G182208: 27.7% Cg**



**Sample G182224: 12.15% Cg**



**Sample G182225 to 230: 10.85 to 17.85% Cg**

**Images 1 to 4: Lac Rainy Graphite Project, selected high-grade graphite sample photographs (see Appendix 1)**

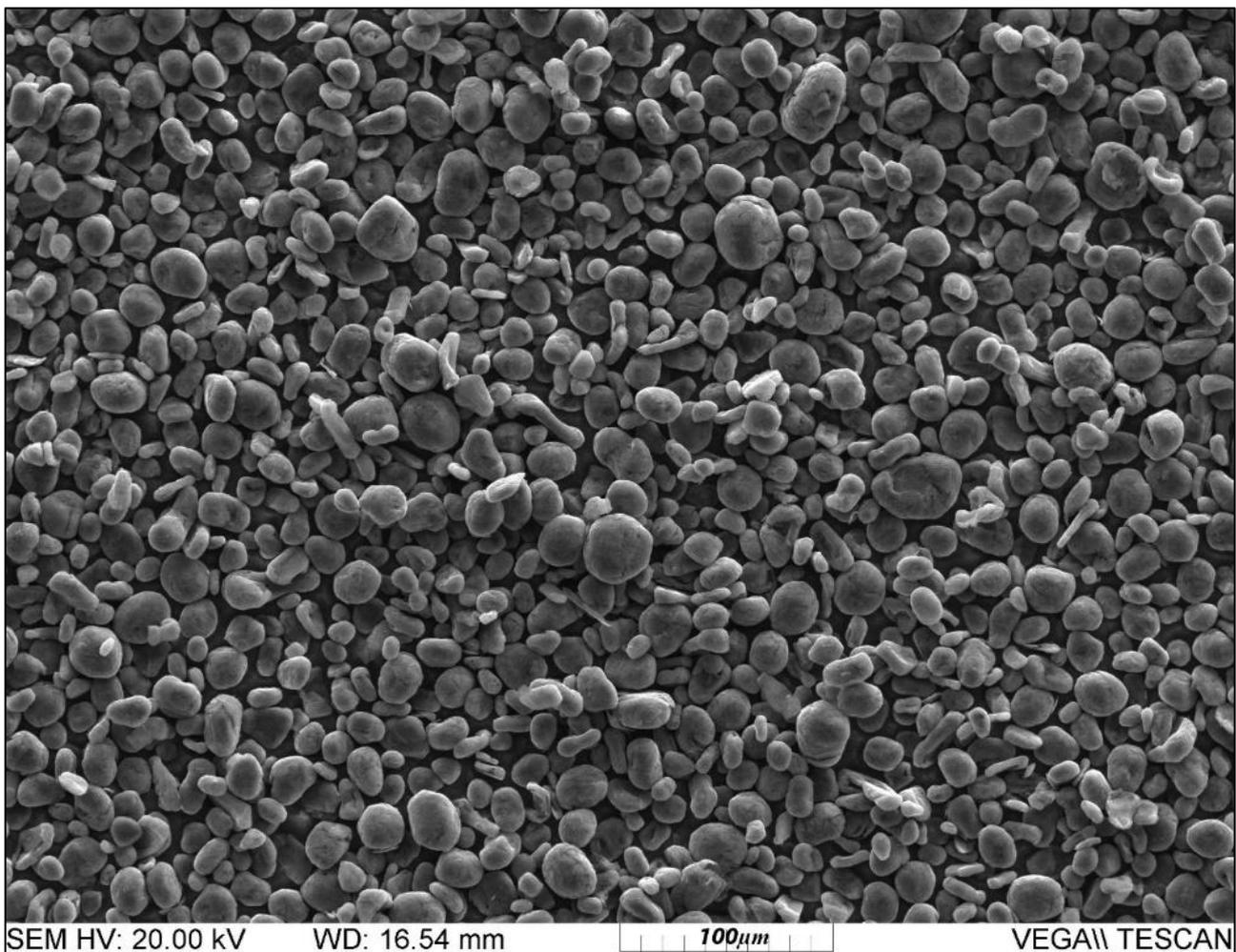
For personal use only

Priority new drilling programs are planned to test the key, high-grade, graphitic trends targeting greatly expanded resource potential as well as an increased overall grade. Permit applications are being submitted to the Quebec Government for approval of a drilling program to commence during the winter drilling season at the project – which runs from November 2023 to March 2024.

The objectives of the new drilling programs are to:

- expand Lac Rainy's Mineral Resource potential, focussing on the highest-grade graphitic trends identified, including the high-grade West Carheil Trend (see Figure 2), and,
- produce diamond core bulk-samples of high-grade graphitic material from which to generate flotation concentrate samples for further down-stream spherical graphite test work, and to provide to potential customers/offtakers for evaluation and test work.

The drilling to expand high-grade resource potential at the project will build on the outstanding spherical graphite and electrochemical testwork results which demonstrated that **very high-yields (65%) of high-purity, battery-grade (99.96% Cg) spherical graphite<sup>3</sup> can be produced from Lac Rainy 96.8% Cg flake graphite concentrate<sup>6</sup>** (see Image 5, below). Electrochemical testing of the premium battery grade spherical graphite showed **excellent battery charging and durability properties<sup>4</sup> for premium grade (99.96% Cg) uncoated spherical graphite<sup>3</sup>** which is the key component of the lithium-ion battery anode.



*Image 5: Scanning Electron Microscope (SEM) image of Lac Rainy purified spherical graphite (average 19µm)*

For personal use only

## Pre-Feasibility Study on High-Grade Flake-Graphite Production

In parallel with the new drilling programs designed to greatly expand the high-grade resource potential of the project, the Company will commence a Pre-feasibility Study (PFS) on mining and flake graphite concentrate production at Lac Rainy (Figure 1).

The PFS will build on the previously completed 2020 Scoping Study<sup>5</sup> which is based on the current Indicated and Inferred Mineral Resource of 13.3Mt @ 11.5% Cg<sup>1</sup>. The Scoping Study demonstrated strong cashflow potential at an operating cost estimate of US\$433/t and over 100% cashflow margin at an average flake graphite concentrate price of US\$885/t. This is based on production of nearly 100kt per annum of 96.7% Cg flake graphite concentrate over a 14-year period and capital payback within four years. *The Company confirms that it is not aware of any other new information or data that materially affects the information in the Scoping Study release of 3<sup>rd</sup> February 2021<sup>2</sup>.*

The PFS will incorporate additional flake-graphite concentrate testwork results which produced a flake-graphite concentrate bulk sample grading 96.8% Cg (target range 94% to 97% Cg) and demonstrated very high closed-circuit (plant conditions) recoveries into the concentrate of 95.1% Cg<sup>6</sup>.

A recently completed DFS on the Lac Knife Graphite Project of Focus Graphite Inc. (TSX.V: FMS), which is located 15km to the southwest of the Lac Rainy Project (see Figure 1), demonstrated a pre-tax NPV of C\$500M based on production of nearly 50kt tonnes per annum of high-grade (>98% Cg) flake graphite concentrate over 27 years<sup>7</sup>. This compares to the Lac Rainy Scoping Study<sup>2</sup> which is based on approximately 100kt per annum production over 14 years, with exploration potential identified to substantially increase and upgrade Mineral Resources and extend mine-life and/or production rate.

## Options Study into Production of Premium Battery Grade Spherical Graphite

The outstanding results from the downstream spherical graphite and battery testwork have demonstrated that Lac Rainy premium battery grade spherical graphite exceeds lithium-ion battery maker physical property and electrochemical specifications<sup>4</sup>.

The opportunity to produce high-grade flake-graphite concentrate and achieve a high-margin, based on potential pricing of between US\$800/t to US\$900/t, is dependent on achieving offtake agreements from downstream processors of the predominantly fine to medium flake graphite. China currently produces almost the entire worlds production of spherical graphite for lithium-ion battery anodes and currently represents the predominant off-taker for fine to medium flake graphite product.

Lac Rainy is strategically located in Quebec, Canada, close to the rapidly expanding electric vehicle (EV) and renewable energy battery markets in the United States. The US Government has declared a number of minerals 'critical', including graphite, and has passed the Inflation Reduction Act, which includes funding to source critical minerals projects outside China, primarily focussed on North America (including Canada).

Consequently, demand for down-stream production of spherical graphite in the North American market is expected to grow rapidly and government funding support is likely to be available to assist development of such production.

Production of premium battery-grade un-coated spherical graphite has the potential to upgrade product pricing from the US\$800/t to US\$900/t<sup>2</sup> range for flake-graphite concentrate to over US\$3,000/t<sup>5</sup> for uncoated spherical graphite.

For personal use only

The Company has been presented with an outstanding opportunity to supply battery-grade graphite to the North American lithium-ion battery and EV market. **The Company will now undertake an Options Study into the production of premium battery-grade uncoated spherical graphite for lithium-ion battery anodes.**

The Options Study will examine purification options which include the low temperature alkaline purification method (which achieved premium battery grade **99.96% Cg** purity<sup>3</sup>) as well as thermal purification. Thermal purification is effectively high-temperature roasting of the flake-graphite concentrate which can achieve very high purities of >99.98% Cg at the pre-spheroidisation stage.

Thermal purification has the added benefit of purifying the graphite prior to spheroidization. This means that highly purified fines left over from the spheroidisation process can represent a premium, high-purity product for other industries e.g. nuclear. Thermal purification requires high-energy input and hence low-energy costs. The Lac Rainy Project has a distinct advantage in this respect, being located in an area of low-cost hydroelectric power in eastern Quebec.

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

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

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

Michael Muhling  
Company Secretary  
+61 (08) 9481 7833

Elizabeth Michael  
Investor Relations  
[info@metalsaustralia.com.au](mailto:info@metalsaustralia.com.au)

For personal use only

## About Metals Australia

Metals Australia Ltd (ASX: MLS) is an active exploration and mining development company with a high-quality portfolio of battery minerals projects in the well-established mining provinces of Australia and Canada.

The Company's flagship **Lac Rainy Graphite Project** is located in a major graphite province in Quebec, Canada. Lac Rainy hosts a JORC-2012 Mineral Resource of **13.3Mt @ 11.5% graphitic carbon (Cg)** (including Indicated: 9.6Mt @ 13.1% Cg and Inferred: 3.7Mt @ 7.3% Cg)<sup>1</sup>, which is one of the highest grade in the region and has potential for major resource growth through further drilling. Metallurgical test work has generated high-grade **flotation concentrate results of up to 97% graphitic carbon (Cg)**<sup>8</sup>. A bulk concentrate sample despatched to Germany has **produced premium battery grade 99.96% Cg purity spherical graphite**<sup>3</sup>. Electrochemical (battery charging and durability) tests have **confirmed Lac Rainy battery grade (99.96% Cg) spherical graphite is premium-quality lithium-ion battery anode material with exceptional battery charging capacity and outstanding discharge performance and durability**<sup>4</sup>.

The Company has also identified **outstanding lithium potential**<sup>9,10</sup> on its tenements located in the **James Bay lithium region of Quebec, Canada**. These include the 100%-owned East Pontois, Felicie and West Pontois tenements, located within Patriot Battery Metals Inc.'s (ASX:PAT) CV Lithium Trend<sup>9,10</sup>, and tenements at West and East Eade on the parallel Corvette South Trend. **Large, potentially lithium bearing pegmatites have been identified on the Metals Australia tenements** and field mapping and sampling has recently been carried out<sup>10</sup>.

In Western Australia, Metals Australia holds an 80% interest in the **Manindi Lithium/Base Metals Project**, located approximately 500km northeast of Perth. The project has an existing high-grade zinc with copper resource. The Company has also been **drilling and defining the project's high-grade lithium pegmatite potential** and has initiated a metallurgical lithium-concentrate program on bulk samples from recent diamond drilling intersections<sup>11</sup>. The Company has also **identified an intrusive related vanadium-titanium with Ni-Cu-Co sulphides discovery**<sup>12</sup>.

Metals Australia also has an 80% interest in Payne Gully Gold which includes the **Warrambie, Tennant Creek and Murchison Projects**<sup>13</sup>, giving the Company additional exposure to a suite of prospective battery metals and gold assets in known mineral provinces in Western Australia and the Northern Territory.

## References

<sup>1</sup> Metals Australia Ltd, 15 June 2020. *Metals Delivers High Grade Maiden JORC Resource at Lac Rainy Graphite.*

<sup>2</sup> Metals Australia Ltd, 6 March 2023. *Lac Rainy Graphite Study delivers strong economics with Significant upside.*

<sup>3</sup> Metals Australia Limited, 28 February 2023. *Battery Grade 99.96% Spherical Graphite for Lac Rainy.*

<sup>4</sup> Metals Australia Ltd, 23 May 2023. *Outstanding Battery Test Results for Lac Rainy Graphite.*

<sup>5</sup> [www.fastmarkets.com/insights/spherical-natural-graphite-prices](http://www.fastmarkets.com/insights/spherical-natural-graphite-prices)

<sup>6</sup> Metals Australia Limited, 27 July 2022. *Bulk Graphite Concentrate Finalised for Battery Testing.*

<sup>7</sup> Focus Graphite Ltd, 28 January 2014. *Announces Benchmark Feasibility Study Update for its Lac Knife Graphite Project.*

<sup>8</sup> Metals Australia Ltd, 30 June 2020. *Metallurgical Testing Confirms Lac Rainy Graphite High Purity and Grade.*

<sup>9</sup> Metals Australia Ltd, 27 July 2023. *Expanded Pegmatite Sampling Re-Commencing in Corvette Area.*

<sup>10</sup> Metals Australia Ltd, 02 October 2023. *63 Pegmatite Samples from Corvette River Tenements in Lab.*

<sup>11</sup> Metals Australia Ltd, 06 June 2023. *Exceptional Drilling Results up to 2.59% Li<sub>2</sub>O at Manindi.*

<sup>12</sup> Metals Australia Ltd, 30 November 2023. *Potential for Vanadium-Titanium Upgrade at Manindi West.*

<sup>13</sup> Metals Australia Ltd, 16 June 2022. *Metals Australia Acquires Key Battery Metals Projects.*

For personal use only

## Cautionary Statement Regarding Forward Looking Information

---

*This document contains forward-looking statements concerning Metals Australia Limited. 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 Limited 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 Persons Statement

---

*The information in this report that relates to exploration results, Mineral Resources and Exploration Targets has been reviewed, compiled, and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is a Technical Advisor to Metals Australia Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 35 years' experience in exploration, resource evaluation, mine geology and finance, 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 Dugdale 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.*

*In preparing this announcement the Company has relied on the announcements previously made by the Company as listed under "References". The Company confirms that it is not aware of any new information or data that materially affects those announcements previously made, or that would materially affect the Company from relying on those announcements for the purpose of this announcement.*

For personal use only

### Appendix 1: Lac Rainy Graphite Sample Results

	Sample ID	Easting (NAD 19)	Northing (NAD 19)	Sample Type	Sample type	Outcrop Dimension	TGC%
1	G182251	627,810	5,832,996	Grab	Out-Crop	5x5m	12.45
2	G182252	628,357	5,832,257	Grab	Sub-rnidd Boulder	50x50x30cm	14.05
3	G182253	630,345	5,829,135	Grab	Sub-angular boulder	50x50x30cm	9.43
4	G182254	630,353	5,829,128	Grab	Sub-rnidd Boulder	50x100x80	5.49
5	G182255	630,305	5,829,182	Grab	Sub-rnidd Boulder	100x50x50	16.40
6	G182256	630,310	5,829,167	Grab	Sub-rnidd Boulder	50x50cm	6.08
7	G182257	629,859	5,829,263	Grab	Sub-rnidd Boulder	50x50cm	12.85
8	G182258	629,865	5,829,274	Grab	Sub-rnidd Boulder	100x50x50	6.45
9	G182259	622,553	5,827,647	Grab	Out-Crop	1x2m	3.38
10	G182260	622,859	5,827,153	Grab	Out-Crop	50x100cm	4.21
11	G182261	622,173	5,831,896	Grab	Out-Crop	10x5m	3.27
12	G182262	622,179	5,831,889	Grab	Out-Crop	10x5m	10.70
13	G182263	622,022	5,831,867	Grab	Out-Crop	5x1m	3.36
14	G182302	627,363	5,829,338	Chip	Boulder	0.5x0.5m	50.00
15	G182303	627,371	5,829,355	Grab	Boulder	1x2m	24.90
16	G182304	627,246	5,829,277	Grab	Boulder	1x1m	2.61
17	G182305	627,098	5,829,146	Grab	Boulder	2x2m	12.85
18	G182306	627,034	5,829,063	Grab	Boulder	1x1m	3.47
19	G182307	626,932	5,828,799	Grab	Boulder	2x2m	20.90
20	G182301	627,617	5,829,324	Chip	Boulder	4x2m	1.64
21	G182308	627,917	5,831,420	Chip	Boulder	20x10m	6.96
22	G182309	629,277	5,831,332	Grab	Boulder	1x2m	23.10
23	G182310	629,989	5,830,745	Grab	Out-Crop	30x10	11.55
24	G182311	622,272	5,832,051	Grab	Out-Crop	1x2m	NR
25	G182312	622,212	5,832,053	Grab	Out-Crop	1x1m	5.24
26	G182313	622,216	5,832,128	Grab	Out-Crop	1x2m	5.72
27	G182314	622,160	5,832,129	Grab	Out-Crop	1x1m	12.45
28	G182315	622,097	5,832,071	Grab	Out-Crop	1x2m	2.93
29	G182316	622,148	5,832,053	Grab	Out-Crop	1x2m	16.30
30	G182317	622,190	5,831,991	Grab	Out-Crop	1x2m	15.60
31	G182318	622,230	5,831,814	Grab	Out-Crop	1x1m	18.85
32	G182201	628,112	5,833,452	Grab	Sub-rnidd Boulder	3x3m	0.33
33	G182202	626,698	5,831,481	Grab	Out-Crop	1x0,5m	13.40
34	G182203	626,698	5,831,482	Grab	Out-Crop	1x0,5m	12.65
35	G182204	626,695	5,831,495	Grab	Out-Crop	2x2m	15.45
36	G182205	626,700	5,831,496	Grab	Out-Crop	1x1m	20.40
37	G182206	626,707	5,831,494	Grab	Sub-rnidd Boulder	0.5x0.5m	18.60

For personal use only

	Sample ID	Easting (NAD 19)	Northing (NAD 19)	Sample Type	Sample type	Outcrop Dimension	TGC%
38	G182207	626,851	5,831,205	Grab	Sub-rnidd Boulder	0.5 x 0.5m	24.60
39	G182208	626,844	5,831,206	Grab	Sub-rnidd Boulder	1x1m	27.70
40	G182209	626,957	5,831,312	Grab	Sub-rnidd Boulder	0.4 x 0.2m	19.85
41	G182210	626,957	5,831,316	Grab	Sub-rnidd Boulder	2x2m	19.60
42	G182211	628,299	5,831,650	Grab	Sub-rnidd Boulder	2x4m	12.30
43	G182212	628,409	5,831,203	Grab	Sub-rnidd Boulder	0.75 x 0.75m	22.20
44	G182213	628,408	5,831,205	Grab	Sub-rnidd Boulder	0.5 x 0.3m	10.40
45	G182214	628,486	5,831,114	Grab	Sub-rnidd Boulder	3x1m	7.18
46	G182215	628,571	5,830,953	Grab	Sub-rnidd Boulder	0.5 x 0.5m	3.52
47	G182216	628,574	5,830,949	Grab	Out-Crop	2x20m	7.01
48	G182217	628,817	5,830,716	Grab	Sub-rnidd Boulder	n/a	2.27
49	G182218	628,884	5,830,658	Grab	Sub-rnidd Boulder	0.5 x 0.5m	10.60
50	G182219	626,953	5,831,318	Grab	Sub-rnidd Boulder	4x5m	7.33
51	G182220	629,096	5,830,484	Grab	Sub-rnidd Boulder	n/a	14.00
52	G182221	628,911	5,829,865	Grab	Out-Crop	n/a	9.95
53	G182222	628,923	5,829,857	Grab	Sub-rnidd Boulder	n/a	3.32
54	G182223	628,983	5,829,836	Grab	Out-Crop	At least 1x5m	10.50
55	G182224	628,328	5,829,916	Grab	Out-Crop	n/a	12.15
56	G182225	628,328	5,829,916	Channel	Out-Crop	0.5m	10.85
57	G182226	628,328	5,829,917	Channel	Out-Crop	0.5m	17.85
58	G182227	628,329	5,829,915	Channel	Out-Crop	0.75m	22.70
59	G182228	628,329	5,829,916	Channel	Out-Crop	0.75m	15.35
60	G182229	628,330	5,829,914	Channel	Out-Crop	0.4m	15.50
61	G182230	628,330	5,829,915	Channel	Out-Crop	0.4m	12.65
62	G182231	628,305	6,829,922	Channel	Out-Crop	0.6m	3.11
63	G182232	628,305	6,829,923	Channel	Out-Crop	0.8m	3.10
64	G182233	628,305	6,829,924	Channel	Out-Crop	0.7m	3.33
65	G182234	628,296	5,829,924	Grab	Out-Crop	1x3m	1.91
66	G182235	628,318	5,829,990	Grab	Out-Crop	5x15m	17.05
67	G182236	628,376	5,829,925	Grab	Out-Crop	1 m	6.65
68	G182237	622,337	5,831,429	Grab	Sub-rnidd Boulder	0.5m x 0.6m	19.70
69	G182238	622,317	5,831,363	Grab	Sub-rnidd Boulder	1x1m	0.93
70	G182239	622,439	5,831,059	Grab	Sub-rnidd Boulder	1x2m	4.05
71	G182240	622,209	5,830,995	Channel	Out-Crop	1m	12.20
72	G182241	622,208	5,830,995	Channel	Out-Crop	1m	8.66
73	G182242	622,207	5,830,996	Channel	Out-Crop	1m	16.20
74	G182243	622,206	5,830,996	Channel	Out-Crop	1m	21.10
75	G182244	621,867	5,831,840	Grab	Out-Crop	1 x 0.5m	0.84
76	G182245	621,880	5,831,871	Grab	Out-Crop	1 x 0.5m	1.59

For personal use only

	<b>Sample ID</b>	<b>Easting (NAD 19)</b>	<b>Northing (NAD 19)</b>	<b>Sample Type</b>	<b>Sample type</b>	<b>Outcrop Dimension</b>	<b>TGC%</b>
77	G182246	621,829	5,832,016	Grab	Out-Crop	1 x 0.5m	0.94
78	G182247	623,165	5,835,036	Grab	Sub-rndd Boulder	0.3 x 0.3m	1.36
79	G182248	623,274	5,834,487	Grab	Angular Boulder	2x3m	0.93
80	G182249	624,036	5,834,207	Grab	Sub-rndd Boulder	1 x 0.5m	0.04

For personal use only

Appendix 2: JORC Code, 2012 Edition – Table 1 <sup>2</sup>

## 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. 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 points were located through follow-up of existing electromagnetic imagery and/or "BeepMat" conductivity measurements (EM device dragged along ground by field operator).</li> <li>Outcrops with graphite content are located using hand-held GPS then described and sampled.</li> <li>Samples categorised as "grabs", representing point locations defined by a small area typically less than 0.5m<sup>2</sup>. A best effort was made to collect as much fresh material as practical and avoid or minimize the inclusion of weathered material in the sample. Hand tools were used to clear the sampling site and remove weathered material as practical before sampling.</li> <li>Samples from "Channels" were cut of the freshest material practical and are considered more representative than the grab samples for that particular location.</li> <li>Samples are considered representative of the site targeted, followed best industry practises as described above, with sufficient material collected per sample.</li> <li>Samples submitted for assay typically weigh 2-3 kg or more. Channel samples may be considered more representative than grab samples as more fresh material may be collected, they report an interval and not a point, and are larger samples. Channel samples are typically several times larger in size that grab samples, adding to their more representative nature.</li> <li>Samples using Magnor Exploration Inc sampling protocols and QAQC procedures as per industry best practice, delivered by ALS at Val-d'Or, Quebec.</li> <li>All rockchip and previous drilling samples 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 by Leco.</li> </ul>

For personal use only

Criteria	JORC Code Explanation	Commentary
<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>No drilling reported in this release.</li> <li>Previous and planned drilling will be conducted by Magnor Exploration utilising a 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> <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>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>Previous diamond core recoveries are during drilling and reconciled during the core processing and geological logging. The core length recovered is measured for each run and recorded which is used to calculate core recovery as a percentage.</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 rock and channel samples were described to industry standard levels with rock type, modal mineralogy, grain size, and other pertinent observations noted. Descriptions are qualitative in nature.</li> <li>Geological logging is carried out on all drill holes with lithology, alteration, mineralisation, structure, and veining recorded.</li> </ul>
<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 core 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,</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> </ul>

Criteria	JORC Code Explanation	Commentary
	<p><i>including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <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>Sampling techniques utilized, as described above, ensure adequate representativeness and sample size. As is early exploration, industry standard sampling techniques were followed with fresh material targeted for collection as practical.</li> <li>No blanks or standards were submitted by the company with laboratory blanks, standards, and duplicates relied upon, with results reviewed by the companies' consultants and found to be satisfactory with no material concerns.</li> <li>Sample size (2-3 kg) accepted as general industry standard for grab samples and is sufficient to provide a representative sample size for the location being sampled. The sample sizes are considered appropriate for the type of mineralisation under consideration.</li> <li>Maxwells Data management systems for appraisal of the QA/QC indicated no issues.</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>Internal laboratory QAQC relied upon with laboratory blanks, standards, and duplicates relied upon, with results reviewed by the companies' consultants and found to be satisfactory with no material concern.</li> <li>No new metallurgical test work is reported in this release. Refer to ASX announcement by Metals Australia Limited, 28 February 2023. "Battery Grade 99.96% Spherical Graphite for Lac Rainy" and Metals Australia Ltd, 23 May 2023. "Outstanding Battery Test Results for Lac Rainy Graphite" for details of the spherical graphite and battery testwork results.</li> <li>No additional geophysical data is reported. "BeepMat" conductivity measurements were used locally to locate graphitic zones.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<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>	<ul style="list-style-type: none"> <li>Assay data is reported as received with no data adjustment. Data is verified by the Company's consultants prior to disclosure.</li> </ul>
<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>	<ul style="list-style-type: none"> <li>Handheld GPS used for location of sample points using local UTM grid, Zone 19. Such methods have a typically accuracy of 1-3 m.</li> </ul>
<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>	<ul style="list-style-type: none"> <li>Only individual sample data reported as received by laboratory for grab samples, with channel samples reported individually via Appendix A, as well as composites in the highlight section of the NR.</li> <li>Insufficient data from rockchip grab and channel sampling to establish Mineral Resources. Drilling is planned to test the identified zones, to initially establish Exploration Potential, with further drilling at sufficient spacing density to generate Mineral Resources beyond those currently established at Lac Rainy.</li> </ul>
<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>Grab samples reflective of point locations with sufficient samples collected along strike to assist with interpretation of area and potential. Channel samples attempt to give an indication of grade over width.</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>Industry standard chain of custody followed, with samples dropped off at shipping company by field manager, shipping with tracking number, and received direct by the lab, with notification of receipt the day samples received.</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>None completed by third parties. The Company's consultants vetted the database internally.</li> </ul>

For personal use only

## 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 license 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> </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</li> </ul>

For personal use only

Criteria	JORC Code explanation	Commentary
		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 and the sub-vertical orientations present today..
<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>No additional drilling information in this report.</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>No data aggregation with grab samples reported as point location data. Weighted compositing methods applied to channels.</li> <li>No metal equivalents reported</li> <li>No intercepts reported.</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>Not Applicable with grab samples representing surface point locations. Channels samples by nature report grade over width with best efforts to cross strike of unit. True widths not known.</li> <li>The geometry of the graphite mineralisation in the area drilled at the Lac Rainy Project on the Carheil trend 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>Drilling is required in the newly identified areas to confirm the dip of the units.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and</li> </ul>	<ul style="list-style-type: none"> <li>Figure 1 shows the location of the new</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>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></p>	<p>rockchip samples across the tenements as well as the electromagnetic anomalies that show extensions in areas of cover.</p> <ul style="list-style-type: none"> <li>Figure 2 is an enlargement of the eastern part of the tenements at Lac Rainy and also includes the Mineral Resource and previous drillhole locations.</li> <li>Appendix 1 is a tabulation of all new rockchip sample results with locations and geological descriptions.</li> <li>Appropriate maps and cross-sections of the Mineral Resource zone have been included in the text of previous announcements.</li> </ul>
<b>Balanced Reporting</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>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Results for all sampling submitted for assay are listed in Appendix 1 attached to the body of this report.</li> <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><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>	<ul style="list-style-type: none"> <li>All meaningful and material data is reported.</li> <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 which is reported in previous ASX release by the Company.</li> </ul>
<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>Further work to include drill-testing of high-grade graphite rockchip sampling locations in order to define additional Exploration Potential.</li> <li>Further drilling is also planned to expand the existing Mineral Resource which is open in all directions.</li> <li>The Company will commence a Pre-feasibility Study (PFS) on mining and flake graphite concentrate production at Lac Rainy.</li> <li>The Company will also undertake an initial Options Study into the production of premium battery-grade uncoated spherical graphite for lithium-ion battery anodes.</li> <li>Further metallurgical testwork on diamond core graphite samples will be used to generate flotation concentrate samples for further down-stream spherical graphite test work, and to provide to potential customers/offtakers for evaluation and test work.</li> </ul>

For personal use only