

ASX Announcement

3 February 2021

Lac Rainy Graphite Project Scoping Study Delivers Strong Economics with Significant Economic Upside

Metals Australia Limited (**ASX: MLS**) is pleased to announce the results of a Scoping Study (**Study**) on the Company's 100% owned Lac Rainy Graphite Project (**Lac Rainy** or **Project**) located in Quebec, Canada, approximately 20 kilometres south of Fermont and 10 kilometres north east of the Lac Knife Graphite Project owned by Focus Graphite Inc. (TSX: FMS). The Project economics and technical viability are highly encouraging, highlighting its potential to become a low cost flake graphite producer.



Highlights:

The Study confirms Lac Rainy can support a Base Case scenario with graphite concentrate production of ~96,000 tonnes per annum (excl. first year and last year) over an initial mine life of 14 years:

- Life of Mine (LOM) operating cost estimate of US\$433 per tonne of concentrate (including transport costs FOB Sept-Îles port) deliver excellent operating margins – based on an average concentrate selling price of US\$885 per tonne of concentrate, Lac Rainy exhibits an operating margin in excess of 104% - exceptional operating margins in a suppressed graphite pricing environment
- Initial capital investment for the open pit mine, process plant and infrastructure estimated at US\$118 million (excluding contingency, owners' cost and indirect costs); initial capital investment (including contingency, owners' costs and indirect costs) estimated at US\$189 million with a 3.4-year payback (pre-tax)
- LOM average feed grade of 11.6% Cg and a graphite concentrate grade of 96.7% Cg with a LOM average open pit strip ratio of 5.6:1
- Pre-tax Net Present Value (NPV) of US\$123 million and internal rate of return (IRR) of 18.9%
- Excellent supply / demand outlook for Lac Rainy concentrate products supported by the ability to produce a range of high-carbon (total) and high-purity size fractions
- Concentrate flake size, high-carbon (total) and high-purity 'footprint' indicates suitability for use in a wide range of traditional and emerging end-use applications
- Significant infrastructure advantages including proximity to rail, road, clean hydro-power, labour and fresh water supplies



- Rapid growth in electric vehicle production is expected to drive a big uptick in demand and pricing over the next few years - there is 10 times more graphite than lithium in a lithium-ion battery, with each EV requiring ~55kg of flake graphite to make the battery anode
- Lac Rainy hosts a JORC (2012) Mineral Resource of 13.3Mt at 11.5% TGC in the category of Indicated (~72%) and Inferred (~28%) for 1.529Mt of contained graphite, using a 5% TGC cut-off
- In addition to the JORC (2012) Mineral Resource Lac Rainy currently has a JORC (2012) Exploration Target Estimate of 7.3Mt to 14.6Mt @ 7.5% to 12.5% Total Graphitic Carbon (TGC) for an additional 0.55Mt to 1.825Mt of contained graphite using a 5% TGC cut-off

The potential quantity and grade of the defined Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource

- Only the first 1.6km of strike of the over 4 km of strike along the Main Carheil Graphitic Trend has been drill tested. The SE and NW strike extensions and the recently discovered West Carheil Graphitic Trend are still to be drilled – extensional drilling program has been designed
- The Lac Rainy Deposit is open to the north and south along strike, as well as down-dip and plunge, indicating significant exploration upside and drill ready targets
- Further potential resource growth upside exists in the recently discovered high grade West Carheil Graphitic Trend which has the ability to further increase the tonnage of Lac Rainy

Commenting on the exceptional results of the Scoping Study for the Lac Rainy Graphite Project, Director of Metals Australia, Mr Gino D'Anna stated:

"The Scoping Study clearly demonstrates the Project's very strong commercial potential which is centred on very low operating and capital costs, and revenues derived from a premium product. Importantly, the Project is not reliant on an unrealistically large scale to reduce operating costs and/or overly optimistic graphite pricing forecasts. The very low operating cost nature of the Project provides protection even against extreme downside pricing scenarios.

We believe that as the world emerges from the current COVID-19 crisis, economies will start to rebuild and strengthen, resulting in significant funds being invested into alternative energy sources and electrification. We are already starting to see this in the lithium and cobalt market and believe it will not be long before graphite prices also start to increase. We see a lot of upside in the future demand for graphite and are positioning the Company to take advantage of the change in market dynamics.

The Lac Rainy project offers significant flexibility. It has projected low strip ratios, can be readily accessed through open cut mining methods and has consistently delivered exceptionally high-carbon (total) and high-purity concentrate products that exceed the industry standard benchmarks.

The Lac Rainy Graphite Project offers significant upside."

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

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Metals Australia Limited (ASX: MLS) (the Company or Metals Australia) is pleased to announce the results of the Scoping Study for the Company's 100% owned Lac Rainy Graphite Project (Lac Rainy Project or Project), located in Quebec, Canada. Preliminary economics show the Project has capital and operating costs per unit at the lower end of the graphite cost-curve, at production rates supported by existing market fundamentals.

Scoping Study Parameters - Cautionary Statements

The Scoping Study referred to in this announcement has been undertaken to determine the potential viability of an open pit mine and graphite processing plant constructed onsite at the Lac Rainy Graphite Project and to reach a decision to proceed with more definitive studies. The Scoping Study has been prepared to an accuracy level of -20% to +30% accuracy. The results should not be considered a profit forecast or production forecast.

The Scoping Study is a preliminary technical and economic study of the potential viability of the Lac Rainy Graphite Project. In accordance with the ASX Listing Rules, the Company advises it is based on low-level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further evaluation work including infill drilling and appropriate studies are required before Metals Australia will be able to estimate any ore reserves or to provide any assurance of an economic development case.

Approximately 74% of the total production target is in the Indicated resource category with 26% in the Inferred resource category. Importantly, 100% of the scheduled throughput over the first seven years of production is in the Indicated category. The Company has concluded that it has reasonable grounds for disclosing a production target which includes a modest amount of Inferred material. However, there is a lower level of geological confidence associated with Inferred mineral resources and there is no certainty that further exploration work (including infill drilling) on the Lac Rainy deposit will result in the determination of additional Indicated mineral resources or that the production target itself will be realised.

The Scoping Study is based on the material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. While Metals Australia considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, additional funding will likely be required. Investors should note that there is no certainty that Metals Australia will be able to raise funding when needed. It is also possible that such funding may only be available on terms that dilute or otherwise affect the value of the Metals Australia existing shares. It is also possible that Metals Australia could pursue other 'value realisation' strategies such as sale, partial sale, or joint venture of the Project. If it does, this could materially reduce Metals Australia's proportionate ownership of the Project.

The Company has concluded it has a reasonable basis for providing the forward looking statements included in this announcement and believes that it has a reasonable basis to expect it will be able to fund the development of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.



SCOPING STUDY FINANCIAL OUTCOMES

The Scoping Study is based on the Mineral Resource Estimate reported by the Company on 15 June 2020 which estimated an Indicated and Inferred Resource of 13.3Mt @ 11.5% Total Graphitic Carbon (TGC) for 1.529Mt of contained graphite using a 5% TGC cut-off, made up of:

- South-East Carheil Resource: High-grade Indicated Resource of 9.6Mt @ 13.1% TGC for 1.257Mt of contained graphite using a 5% TGC cut-off
- North-West Carheil Resource: Inferred Resource of 3.7Mt @ 7.3% TGC for 0.270Mt of contained graphite using a 5% TGC cut-off

Approximately 74% of the LOM Production Target is in the Indicated Mineral Resource categories and 26% is in the Inferred Mineral Resource category based on mine plan. **Importantly, 100% of the first seven years of production is scheduled from Indicated Mineral Resource category.** There is a lower level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Description	Unit	Value		
Net Sales Revenue	Million USD	1,147.6		
Initial Capital Cost				
Development Capital (Direct Costs)	Million USD	117.8		
Indirect and Contingency Costs	Million USD	72.1		
Total Initial Capital Cost	Million USD	189.8		
Total Sustainable Capital Cost	Million USD	18.0		
Closure cost	Million USD	7.6		
Total Operating Cost	Million USD	561.0		
Pre-Tax				
NPV (discount rate=6%)	Million USD	165.6		
NPV (discount rate=8%)	Million USD	123.0		
NPV (discount rate=10%)	Million USD	88.9		
IRR	%	18.9		
Payback period	Years	3.4		
After-Tax				
NPV (discount rate=6%)	Million USD	91.8		
NPV (discount rate=8%)	Million USD	61.4		
NPV (discount rate=10%)	Million USD	37.1		
IRR	%	14.2		
Payback period	Years	4.0		

A summary of the base case cash flow results is shown in Table 1.

The sensitivity analysis shows that the NPV and IRR are most sensitive to variations in Price. If the Price increases by 20%, after-tax NPV increases to US\$132.8 million and after-tax IRR increases to 20.5%.

Table 1: Project FinancialEvaluation Summary – BaseCase



LOW CASH OPERATING COSTS

The Lac Rainy Project is projected to have an average life of mine unit operating cost of approximately US\$433 per tonne concentrate Free On Board (**FOB**) for its high quality graphite concentrates, producing an average of 96,000 tonnes per annum. Production from Lac Rainy is anticipated to have the low unit operating cost among the future graphite development pipeline, at a scale that can easily be placed into existing traditional and emerging end-use applications.

The figures below highlight the Natural Flake Graphite industry cash cost curve for both 2020 and 2025 based on the Benchmark Minerals Intelligence market report. 2025 is anticipated to be the first year of production at Lac Rainy. In both cases, the cash costs of Lac Rainy with a LOM OPEX of US\$433/t of concentrate places Metals Australia within the low cost curves.







Figure 2: Natural flake graphite industry cash cost curve: 2025 (adjusted) from Benchmark Minerals Intelligence (December 2020); Lac Rainy Graphite OPEX highlighted on cash cost curve above; 2025 is forecast to be the first year of production at the Lac Rainy mine, meaning that OPEX and cash cost curves are particularly relevant; LOM OPEX for Lac Rainy of US\$433/t of concentrate has been calculated by DRA based on assumptions and inputs of DRA; the assumptions used in the preparation of the DRA numbers may differ from those of the Benchmark Cost Curve



POTENTIAL FOR LOW-COST OPERATION OF MARKETABLE SCALE

Metals Australia is in a unique position of targeting the economic production of graphite without relying on extreme size to achieve economies of scale, or assuming very optimistic product pricing assumptions. The Company has adopted a very conservative view on future graphite pricing. However, with the recent resurgence in the lithium market and the cobalt market, the expectation amongst the industry experts is that the pricing environment for graphite is set to improve dramatically, which will further enhance the economics of the Lac Rainy project. The results of the study demonstrate the potential for high operating margins and cash flow generation given the low operating costs of the Lac Rainy Project, in both upside and downside pricing scenarios.

The combination of low OPEX and low CAPEX relative to many of the African graphite projects and the high-quality of the concentrate enables Metals Australia to focus upon initial entry into existing primary end-markets, including refractories and foundries, allowing the product to compete on price point with China, the world's largest supplier and consumer of natural flake graphite.

This Scoping Study has been designed on the basis of Metals Australia mining and producing a highquality graphite concentrate at Lac Rainy. The opportunity for Metals Australia to deliver into growing high-margin down-stream markets such as the Lithium-ion battery supply chain, spheronized graphite and expandable graphite remain open to the Company as future upside.

Figure 3 below illustrates a graphical representation of the composition of the OPEX at Lac Rainy whilst the table below illustrates the breakdown in US dollar terms:



Figure 3: Lac Rainy LOM OPEX, composition by % of total costs

Operating Cost	LOM Average USD/tonne feed	LOM Average USD/tonne concentrate	% of total costs						
Mining	15.34	148.31	34%						
Process	16.69	161.32	37%						
Concentrate Transportation	9.98	96.49	22%						
General and Administration	2.74	26.50	6%						
Total Operating Cost	44.76	432.63	100%						
The totals may not add-up due to rounding.									

Table 2:Lac Rainy LOMOPEX, composition in USdollar terms and % of totalcosts



SCOPING STUDY RESULTS

Metals Australia is pleased to report the results of the Scoping Study (**Study**) for the Lac Rainy Graphite Project located in located in Quebec, Canada, approximately 20 kilometres south of Fermont and 10 kilometres north east of the Lac Knife Graphite Project owned by Focus Graphite Inc. (TSX: FMS). The Scoping Study was managed by DRA Americas Inc., a global expert in mining and minerals processing, with input from other specialist consultants and local experts.

The Study is based on the maiden Mineral Resource Estimate (MRE) for the Lac Rainy deposit reported on 15 June 2020, which comprises 13.3Mt at 11.5% TGC in the category of Indicated and Inferred for 1.529Mt of contained graphite, using a 5% TGC cut-off.

The production target generated by the Study is approximately 12.5Mt @ 11.6% TGC over a 14 year mine life.

Item	Units	Value	
TECHNICAL			
LOM Average Annual Concentrate Production	kt/y	96	
LOM Average Annual Plant Throughput	kt/y	932	
LOM Average Feed Grade	% Cg	11.6	
LOM Average Graphite Concentrate Grade	%Cg	96.7	
LOM Average Graphite Recovery	%	86.3	
Mine Life	Year	14	
LOM Average Stripping Ratio	w:o	5.6	
Total Material Mined over LOM	M tonnes	83.2	
Total Material Milled over LOM	M tonnes	12.5	
ECONOMIC			
Average Mining Operating Costs	USD/tonne concentrate	148	
Average Process Operating Costs	USD/tonne concentrate	161	
Average Concentrate Transport Costs	USD/tonne concentrate	96	
Average General & Administration Costs	USD/tonne concentrate	27	
Average Total Operating Costs	USD/tonne concentrate	433	
Development Capital (Direct Costs)	US\$m	117.8	
Indirect and Contingency Costs	US\$m	72.1	
Total Development Capital	US\$m	189.8	
Sustaining and Closure Cost	US\$m	25.6	
LOM Average Graphite Concentrate Price	US\$/t	885	

Table 3: Key technical and economic results of the Lac Rainy Scoping Study



BACKGROUND

The Lac Rainy Graphite Project is located in northern Québec approximately 20 kilometres due south of Fermont and 10 kilometres north east of another graphite project (Lac Knife) owned by Focus Graphite Inc. (TSX: FMS) and comprising a mineral resource of 12.1Mt @ 14.6% Cg.

The Lac Rainy Graphite Project is located in a similar geological environment to Lac Knife comprising a complex series of principally sedimentary rocks of the Ferriman Group and described as slate and turbiditic sediments which are now metamorphosed into quartz-biotite-garnet ± graphite gneiss, and pelitic-mica-graphite rich schists of the Nault Formation which also hosts the Lac Knife deposit.

The Carheil Prospect is located in the south eastern corner of the Lac Rainy project area, within the Carheil trend extending from the southeast to northwest across portions of the Lac Rainy Project tenement package where graphite mineralisation has been mapped for approximately 4.0 kilometres. A number of high-grade graphitic carbon rock chip results at nearby occurrences highlight the strong potential for further graphite mineralisation to be identified at the Lac Rainy Graphite Project. The current resource area which has been drill tested covers approximately 1,600 metres of the known four kilometres of potential strike.

Within the Lac Rainy Graphite Project, the graphite is hosted in biotite-quartz-feldspar paragneiss and schist of the Nault Formation. High-grade metamorphism and folding has resulted in the formation of concentrations of graphite mineralization of various sizes and form.

The Carheil Graphite Prospect is located at the south eastern corner of the Lac Rainy project area. The Carheil Trend extends from south east to north west across the Lac Rainy Project tenement package. Graphite mineralisation has been mapped for approximately 4 km in a north west direction.

A number of high grade rock chips have also been identified over 900 metres of strike length located to the west of the higher grade South-East Carheil Graphite Deposit (known as the West Carheil Graphitic Trend) and additional graphite resources are likely to be defined with additional drilling.



Figure 4: Lac Rainy Graphite Project location map, relative to Lac Knife Project; thatched areas highlight recently acquired ground



SCOPING STUDY CONSULTANTS

The Study uses information and assumptions provided by a range of independent specialist consultants, including the following who have contributed to the key components of the Scoping Study:

Table 4: Lac Rainy Scoping Study Consultants and Scope of Work

Consultant	Scope of Work
Magnor Exploration Inc.	Exploration Results
CoxsRocks Pty Ltd	Resource Estimate
SGS Canada Inc.	Metallurgical Test work
Benchmark Mineral Intelligence	Market Report
DRA Americas Inc.	Mine Plan
DRA Americas Inc.	Process and Infrastructure Design
DRA Americas Inc.	Capital Cost and Operating Cost Estimate
DRA Americas Inc.	Financial Analysis

GEOLOGY AND MINERAL RESOURCE ESTIMATE

The project area geology (hosting the Lac Rainy graphite deposit) 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.

LAC RAINY - JORC (2012) MINERAL RESOURCE ESTIMATE

Lac Rainy hosts a JORC (2012) Mineral Resource Estimate of 13.3Mt at 11.5% TGC in the category of Indicated and Inferred for 1.529Mt of contained graphite, using a 5% TGC cut-off.

The global resource is made up of the high-grade South-East Carheil Graphite Deposit which is classified in the Indicated category and the North-West Carheil Graphite Deposit which is classified in the Inferred category, as shown in Table 1 (below).

Deposit	Classification	Tonnes	Total Graphitic Carbon (TGC)	Contained Graphite (Tonnes)	S %
South-East Carheil Graphite Deposit	Indicated	9,600,000	13.1%	1,257,600	9.8
North-West Carheil Graphite Deposit	Inferred	3,700,000	7.3%	270,000	7.3
	Total ¹	13,300,000	11.5%	1,529,500	9.1

Table 5: JORC (2012) Mineral Resource Estimate

1. Mineral Resource estimated at a 5% TGC cut-off

Refer to ASX announcement dated 15 June 2020 and titled "High-Grade Maiden JORC Resource at Lac Rainy Graphite Project".



The mineral resource at Lac Rainy offers potential for development into a long life, high-grade graphite mining operation. Lac Rainy can be mined using open cut mining methods with low strip ratios as more than 90% of the current global resource defined within the first 100m.

Drilling completed to date has only tested the first 1.6km of the approximate 4km of strike along the Main Carheil Graphitic Trend with the SE and NW strike extensions and also the recently discovered West Carheil Graphitic Trend still to be drilled. The Company has designed an extensional drilling program to further grow the resource base and drill test some of the other high-priority targets which have been identified.

The deposit at Lac Rainy remains open to the north and south along strike, as well as down-dip and plunge, indicating significant exploration upside and drill ready targets.

JORC (2012) EXPLORATION TARGET ESTIMATE

The JORC (2012) Exploration Target Estimate for the high-grade Lac Rainy Graphite Project has been defined as 7.3Mt to 14.6Mt @ 7.5% to 12.5% Total Graphitic Carbon (TGC) for an additional 0.55Mt to 1.825Mt of contained graphite using a 5% TGC cut-off.

The potential quantity and grade of the defined Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The Exploration Target is in addition to the JORC (2012) Mineral Resource Estimate at the Lac Rainy Graphite Project. The global Exploration Target is made up of the high-grade South-East Carheil Graphite Exploration Target and the recently discovered West Carheil Graphite Exploration Target, as shown in Table 1 (below). The Company believes there is potential for a future substantial increase in the JORC (2012) Mineral Resource beyond the current JORC (2012) Exploration Target.

Deposit	Classification	Tor	ines	Total Graph (TC	nitic Carbon GC)	Contained Graphite (Tonnes)		
		lower limit	upper limit	lower limit	upper limit	lower limit	upper limit	
South- East Carheil Graphite	Exploration Target	3,080,000	6,160,000	8.0%	13.0%	248,000	806,000	
West Carheil Graphite	Exploration Target	4,200,000	8,400,000	7.0%	12.0%	294,000	1,000,000	
	Total ¹	7,280,000	14,560,000	7.5%	12.5%	542,000	1,806,000	

Table 6: JORC (2012) Exploration Target

2. Exploration Target estimated at a 5% TGC cut-off

Refer to ASX announcement dated 10 September 2020 and titled "High-Grade JORC Exploration Target at Lac Rainy Graphite".

The potential quantity and grade of the defined Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.



The figure below illustrates the Plan Display Google Image for the Lac Rainy Graphite Deposits and Exploration Targets:



Figure 5: Plan Display Google Image for the Lac Rainy Graphite Deposits and Exploration Targets

MINING AND PRODUCTION TARGET

Using HxGn MinePlan software, DRA completed a pit optimization analysis that identified the most economic part of the deposit to mine. The optimisation confirms that practically all the Mineral **Resources can be mined profitably**. The pit shells were generated from the pit optimization analysis using a pit slope of 45°. Table 7 illustrates the pit economic limit parameters.

 Table 7: Economic Pit Limit Parameters

Description	Units	Values
Daily Average Mill Feed	tpd	2,500
Annual Mill Feed	tpy	912,500
Mill Graphite Recovery	%	86.3%
Cut-Off Grade	%	5.00%
Concentrate grade	%	96.7%
OP Mining Cost - Waste	USD/t (mined)	7.55
OP Mining Cost - mineralized materiel	USD/t (mined)	12.22
Mill operation cost	USD/t (milled)	12.86
Transportation Cost	USD/t (milled)	2.98
Administration + Infrastructure	USD/year	2,508,000
Sales Price	USD/t (concentrate)	882
NSR Royalty	%	0%
Open Pit Mining Dilution	%	5.0%
Mining Recovery – Open Pit	%	95.0%



From the pit shells, the pit was designed using the following the design criteria in Table 8.

Table 8: Pits Design Criteria

Description	Values
Face slope	70°
Catch bench interval	20 m
Road Width	15 m

Table 9 represents the results from the South and North pits. Approximately 74% of LOM Production Target from Indicated Mineral Resource and 26% from Inferred Mineral Resource based on mine plan.

Table 9: Mineralized Material from South and North Pits

Mineralized Material Category	Tonnage (kt)	Tonnage (%)	Grade (Cg) (%)	Graphite In-situ (kt)
Indicated (South Pit)	9,267	74%	13.1	1,077
Inferred (North Pit)	3,268	26%	7.4	215
Total	12,535	100%	11.6	1,292

Figure 6 and Figure 7 represents the North and South final pit design.



Figure 6: Final Design of the South Pit for the Lac Rainy Graphite Project





Figure 7: Final Design of the North Pit for the Lac Rainy Graphite Project

The mine plan was developed to supply an average of 913 kt of mineralised material per year over a 14-year period. The mine plan includes a preproduction phase of one year which is required to pre-strip 122 kt of overburden, construct the mine haul roads and to prepare the pit for operations. The mine development and production will start with the South pit which has the indicated mineral resource and higher grade. The mine will progress in the manner until Year 7, when the development and production begin in the North pit. **Importantly, 100% of the first seven years of production is scheduled from Indicated Mineral Resource category.** The last seven (7) years of production will be from both the South and the North pit. Figure 8 shows the material movement and Cg grade over the life of mine whilst Table 9 shows the mine production schedule per year.



Figure 8: LOM Material Moved and Cg grade



	1	1	1	1	1	1	1	1	1	1	1	1	1	T	1	1	4
Description	Units	PRE	Year	Total													
		PROD	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
CONCENTRATE	kt		97	116	111	105	99	112	105	102	96	90	88	72	63	43	1,297
Inferred (North)	kt								0	2	6	27	30	47	59	43	216
Indicated (South)	kt		97	116	111	105	99	112	104	100	90	62	57	25	3	0	1,081
Total mineralized material	kt		688	919	921	919	919	918	923	931	928	950	936	940	981	664	12,535
North Pit	kt		-	-	-	-	-	-	6	40	87	412	447	682	932	662	3,268
South Pit	kt		688	919	921	919	919	918	917	891	841	539	488	258	49	1	9,267
Cg	%		15.7	14.2	13.5	12.8	12.1	13.6	12.7	12.3	11.6	10.6	10.5	8.6	7.2	7.3	11.6
North Pit Cg	%		-	-	-	-	-	-	4.5	6.0	7.6	7.4	7.6	7.8	7.2	7.3	7.4
South Pit Cg	%		15.7	14.2	13.5	12.8	12.1	13.6	12.7	12.6	12.0	13.0	13.1	10.7	7.7	5.6	13.1
Total Waste	kt	122	3,312	4,581	5,492	5,794	5,793	5,794	5,490	5,482	5,484	5,462	4,977	4,972	4,742	3,205	70,703
Overburden	kt	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122
Waste Rock	kt	-	3,312	4,581	5,492	5,794	5,793	5,794	5,490	5,482	5,484	5,462	4,977	4,972	4,742	3,205	70,581
Total Material Moved	kt	122	4,000	5,500	6,413	6,713	6,713	6,713	6,413	6,413	6,413	6,413	5,913	5,913	5,723	3,868	83,238
Stripping Ratio			4.8	5.0	6.0	6.3	6.3	6.3	6.0	5.9	5.9	5.7	5.3	5.3	4.8	4.8	5.6

Table 9: Mine Production Schedule per year



TAILINGS MANAGEMENT

The Tailings Storage Facility (TSF) will be used to dry stack the process plant tailings during operation. The process plant tailings represent approximately 90% of the mineral processing plant feed and will be filtered, hauled, and dumped in the TSF. The TSF has been designed to contain 11.3 million tonnes of tailings in an area of 289 thousand square metres. The TSF will be lined with an impermeable high-density polyethylene liner. The TSF liner will drain into a collection pond where run-off water will be neutralized prior to reuse or discharge into the environment.

METALLURGY

Scoping study level metallurgical test work was conducted in 2020 on an 85 kg sample selected by Magnor Exploration Inc. which was considered to be representative of the graphite mineralisation at Lac Rainy. *Refer to ASX Announcement released on 30 June 2020 and titled "Metallurgical Testing Confirms Lac Rainy High Purity/Grade"*.

The metallurgical testwork included sample preparation, chemical characterisation, and two batch cleaner flotation tests based on a flowsheet comparable with the process proposed for the nearby Lac Knife graphite deposit being developed by Focus Graphite Inc. Characterization of the sample showed no elevated concentrations of typical deleterious elements such as vanadium, cadmium, or arsenic.

Due to elevated losses in the rougher circuit, test F1 produced a low open circuit total carbon recovery of 78.6%. The combined concentrate grade using the reconciled size fraction analysis was 96.4% C(t). The second test F2 used slightly modified operating parameters and produced an open circuit total carbon recovery of 86.3% at a combined graphite concentrate at a grade of 96.7% C(t). The flake size distribution of tests F1 and F2 are shown in Table 10.

Flake Size Category		Tes	t F1	Test F2			
	Mesh Size	Distribution, %	Total Carbon Grade, %C(t)	Distribution, %	Total Carbon Grade, %C(t)		
Jumbo Flake	+48	7.4	95.6	5.7	97.4		
Large Flake	-48 to +80	15.4	96.3	14.3	97.0		
Medium Flake	-80 to +100	7.0	96.6	8.0	96.9		
Small Flake	-100 to +200	30.4	96.6	33.7	96.7		
Fine	-200	39.8	96.3	38.3	96.9		

Table 10: Graphite Concentrate Flake Size Distribution and Grade, Tests F1 and F2

Test results from test F2 were assumed for the Scoping Study as they are more representative of expected graphite and weight recoveries.

The Lac Rainy composite was subjected to a Bond abrasion test and a Bond ball mill grindability test. The measured abrasion index ("Ai") was 0.221 g, which implies the material is medium abrasive. The measured Bond Ball Mill Work Index ("BWi") was measured at 10.6 kWh/t, which implies the material requires relatively low grinding energy. These values were used as input for the plant design.



PROCESS DESIGN

The key design criteria for the Lac Rainy mineral processing plant are summarized in Table 11.

Description	Units	Value	Source
Daily plant throughput	t/d	2,500	DRA
Average annual throughput	t/y	912,500	Calculated
Crusher circuit operating percentage	%	70.0%	DRA
Processing plant operating percentage	%	92.3%	DRA
Operating hours per year	h/y	8,088	Calculated
Design feed grade	% C(t)	11.5%	DRA
Graphite concentrate production	t/y	93,650	Calculated
Overall concentrate grade	% C(t)	96.7%	Testwork
Overall graphite recovery	%	86.3%	Testwork
Graphite product distribution			
Jumbo Flake (+48 mesh)	%	5.7%	Testwork
Large Flake (-48 to +80 mesh)	%	14.3%	Testwork
Medium Flake (-80 to +100 mesh)	%	8.0%	Testwork
Small Flake (-100 to +200 mesh)	%	33.7%	Testwork
Fine (-200 mesh)	%	38.3%	Testwork

The proposed mineral processing plant is designed with the following unit process operations:

- Primary crushing with a jaw crusher to produce a crushed product;
- Crushed material stockpile with 1-day live capacity to decouple the crushing and milling circuits;
- Primary grinding circuit with Semi-Autogenous Grinding ("SAG") mill in closed circuit with a vibrating screen, producing an 80% passing 680 µm product;
- Flash graphite flotation circuit to recover the jumbo and large graphite flakes;
- Secondary grinding circuit with ball mill in closed circuit with fine vibrating screens, producing an 80% passing 210 µm product;
- Rougher flotation circuit to recover the remainder of the graphite;
- Polishing and cleaner flotation circuit to upgrade combined flotation concentrates into a high purity graphite concentrate; this circuit includes:
 - Primary polishing;
 - Magnetic separation to remove magnetic material from the graphite product;
 - Primary cleaner flotation;
 - Screening of cleaner concentrate into coarse and fine products (80 mesh split);
 - Secondary coarse polishing;
 - Secondary coarse cleaner flotation;



- Secondary fine polishing;
- Secondary fine cleaner flotation;
- Graphite concentrate dewatering circuit to thicken, filter, and dry graphite concentrate to 0.3% moisture by weight;
- Graphite screening and bagging circuit producing five products prior to loading into trucks for shipment;
- Tailings dewatering circuit to thicken and filter tailings to 15% moisture by weight;
- Filtered tailings stockpiling prior to re-handling via front-end loader and hauling to the TSF;

A simplified representation of the overall process is shown in Figure 9.



Figure 9: Final Design of the North Pit for the Lac Rainy Graphite Project

INFRASTRUCTURE

The project infrastructure includes site access roads, internal site roads, haul roads, power supply and distribution, buildings, accommodations, TSF, water supply and management, which are required to complement the processing of graphite at a throughput rate of 2500 t/d.

Roads

Site Access Road

The mine site will be accessed via an upgraded existing road and new diversion portion coming from the North existing public road to the process plant area. The existing road is a gravel surface which is 7m wide and is oriented North-South and mainly follows the electrical corridor. This road will be widening to 8m for the initial 5.5km to provide two 3m lanes for traffic and 1m shoulder each side for snow storage



during cleaning activities. The diversion portion will be 1.3km from the existing route to the process plant. Access roads will include ditches and culverts according to drainage requirements.

Internal Site Roads

The project will have some internal roads to connect multiple locations with the process plant and an independent road to the explosive magazine, after the haul road to the TSF. All internal roads will be constructed in compacted gravel layers with width of 6m and will include ditches and culverts according to drainage requirements.

Haul Roads

A network of gravel haulage roads outside the pits have been constructed. They will connect the multiple pits with the waste dump, the TSF and with the process area. Haul roads have been designed to a compacted gravel (assumed 600 mm) layer and width of 16m with berms on fill conditions or/and ditches on cut conditions, culverts included according to drainage requirements.

Power Supply and Distribution

To supply the power requirements of the plant, a new 34.5 kV overhead power line approximately 45km long is necessary. The new line will be taped to the existing Hydro Québec substation Post Normand (Fermont). The new pole line will be installed along the highway 389 and along the local road to the mine site.

The total power demand is estimated in wintertime at approximately 10MW and in summertime at approximately 8.4MW. The process power demand is estimated at approximately 7.5MW. The power demand for the Concentrator heating during the wintertime is estimated at approximately 1.6MW. The power necessary for administration offices, electrical rooms, plant warehouse, truck shop, fuel station, and gatehouse are estimated at 871kW. The mine site does not request electrical power because all the mining equipment is diesel operated.

The plant will be supplied by a 34.5kV/4.16kV Main Substation installed in the vicinity of the Concentrator. The step-down transformer (12/15 MVA, ONAN/ONAF) is sized to provide the operation of the entire site and to allow future extension. The transformer is protected on the primary side by a recloser. The electrical equipment will be installed a Main Substation Electrical Room and in two Electrical Rooms for the Cushing area and the Concentrator.

The Electrical Rooms will be 4.16kV supplied with buried cable from the Main Substation's Electrical Room to Concentrator building and then in cable trays. The cable supplying the Crusher will be partially installed on the conveyor. The 4.16kV pole lines site distribution network supplies to the following consumers: Gatehouse, Fuel Station, Tailings Handling and Explosive Storage.

Emergency Power

An emergency power system will be provided as a standby source of power to feed essential services (emergency and exit lighting, fire pumps, etc.) as well as critical process loads in the event of power loss from the generating plant. The standby power source consists one Diesel Generator located in the neighbourhood of the Main-Substation.

Buildings

In addition to the concentrator building that will house the processing equipment, the site will include administration offices, plant warehouse, truck shop, fuel station, explosives storage facilities, and a security gatehouse. Several independent terraces related to the buildings are designed with grading and a drainage system that will allow the runoff water to reach the collection ponds and natural drains in accordance with the site water management requirements.



Accommodations

Due to the proximity of a well-developed mining industry in the Fermont area, it is assumed no permanent camp is required for the project.

Water Supply

Water supply for the project will be pumped from Lac Carheil or pumped from a local well to be used as fresh water.

Water Management

In order to limit the environmental impact of the mine site, surface water run-off from the site and associated infrastructure will be managed. Water streams will be diverted away from mine infrastructure to avoid contamination. All run-off water from mine infrastructure will be managed appropriately and, if necessary, treated prior to discharged to the environment.

The overall site layout plan for the Lac Rainy project mine site is illustrated below in Figure 10.



Figure 10: Overall site layout plan for the Lac Rainy project mine site, Quebec, Canada

ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT

Metals Australia will operate in line with all relevant laws and conventions of the International, Australian and Canadian jurisdictions. Environmental compliance will be considered in the context of the Environmental and Social Impact Assessment (**ESIA**) required by the Impact Assessment Agency of Canada before the project is approved to proceed.



The Project location in relation to the environmental and social setting is important and will inform project alternatives, assist in evaluating project trade-offs, in the developing management and mitigating measures to be implemented and inform the feasibility of the Project in terms of cost related to environmental and social drivers.

A detailed hydrological and a hydrogeological investigation is planned to commence. This will include a hydro-census to determine the sources of drinking water used by communities. Hydrogeological investigation will assist in determining potential impacts of the mining activity and tailings disposal.

A baseline noise and air quality monitoring programme will also commence as part of the ESIA process. The findings of these studies will guide the requirements for noise abatement and dust control requirements.

Metals Australia has demonstrated a strong commitment to social equity and will commit to a comprehensive community and social policy ramping up from the development phase through to operations. A key element will be meeting community expectations with respect to the impact of a mining project and the positive effects of development.

MARKETING

Global Graphite Demand

Flake (or crystalline) graphite is the term used for a form of natural carbon with a layered structure of particles which have a flat and thin morphology and graphitisation of between 95-100%.

The primary end-market for flake graphite is the refractory, foundries and crucible sector which consumed approximately 71% (387,660 tonnes) of flake graphite production in 2020. The refractory industry is the volume driver for flake graphite, with foundries and crucibles offering smaller markets for higher purity graphite products. The major product flake graphite is consumed in is magnesia-carbon bricks, a mainstream, global refractory brick which is used in the steel industry.

The battery sector is the main emerging market for flake graphite. Greater capacity batteries, such as those required for electric vehicles, are expected to drive significant demand for graphite over the coming years.

Global Graphite Supply

China is the world's leading producer of natural flake graphite, supplying approximately 71.3% of the market in 2020. Brazil, India, Canada and North Korea were estimated to have collectively contributed an additional 25.6% of global production.

For the past two years, flake graphite supply has outstripped market demand. The anticipated emergence of major new-end-markets has failed to deliver the volume of sales which many in the industry had anticipated. This has been matched by weak demand from traditional industrial markets which have suffered as a result of the ongoing global economic downturn.

With a number of junior projects looking to come online over the next two years, greater demand will be required from both traditional and emerging end-markets in order to prevent greater supply congestion and further downward price pressures.

Marketing Strategy

Metals Australia is targeting a very simple mining and processing operation, selling reasonable volumes of very high-quality graphite concentrates into existing markets.

Metals Australia is also actively considering the construction and operation of a downstream processing operation, such as a spherical graphite plant. This will involve the beneficiation of the high-quality Lac Rainy concentrate into a spheronized product which will allow the Company to deliver into high-margin downstream markets, at a time where there is increased demand for high-quality graphite products in



the Lithium-ion battery markets and other downstream markets. This will be considered in subsequent studies by the Company. Initially, Metals Australia will be focusing upon entry into existing primary end-markets, including refractories and foundries. This will be enabled through potential low-cost production, allowing Lac Rainy concentrates to compete on price point with China, the world's largest supplier of natural flake graphite.

It is noted that test work of Lac Rainy concentrates and market assessments are being conducted in parallel to enable Metals Australia to capitalise on future growth in demand in Lithium-ion battery demand.

Marketability of Lac Rainy Product

Benchmark Mineral Intelligence's scoping level assessment indicates that based upon high level global demand and supply forecasts for natural flake graphite, there is a reasonable expectation that the product will be able to be sold into existing and future graphite markets at the corresponding flake sizes. It should be noted that the preferred mesh sizing for spheroidization for use in later production of lithium-ion battery anode material is most commonly -100 Mesh material.

Graphite is a significant component of many types of battery and graphite anodes are currently made by spheroidizing and treating smaller flake graphite. The technological impetus towards battery-based energy storage devices will almost certainly create increased demand for natural graphite.

Metals Australia has conducted preliminary market investigations and is in ongoing discussions with potential end-user groups and offtake partners in the graphite sector in Europe and North America.

Prices of graphite are contingent on product purity and flake size.

ECONOMICS

OPERATING COST ESTIMATE

This project operating cost estimate covers mining, process plant, products transportation and general and administration cost. The LOM average operating cost has been estimated at approximately US\$44.76 per tonne of feed to the plant and US\$432.63 per tonne of graphite concentrate. Table 12 presents the operating costs summary.

A summary of the operating costs by area over the LOM is presented in Figure 11.

Operating Cost	LOM Average USD/tonne feed	LOM Average USD/tonne concentrate	% of total costs	
Mining	15.34	148.31	34%	
Process	16.69	161.32	37%	
Concentrate Transportation	9.98	96.49	22%	
General and Administration	2.74	26.50	6%	
Total Operating Cost	44.76	432.63	100%	

 Table 12: Operating Cost Estimate Summary

The totals may not add-up due to rounding.





Figure 11: LOM Operating Costs, Lac Rainy mine site

Mining Operating Cost Estimate

Mining operating costs were estimated at average US\$2.31 per tonne mined for the life of the mine. The mine operating cost was estimated for each period of the mine plan. The estimate is based on DRA calculations. The breakdown of these costs is summarised in Table 13.

Mining Operating Cost	USD/tonne mined	USD/tonne feed	USD/tonne concentrate	% of total costs
Loading	0.10	0.65	6.27	4%
Hauling	0.52	3.47	33.52	23%
Drilling & Blasting	0.57	3.78	36.53	25%
Support & Service	0.07	0.46	4.41	3%
Manpower	1.05	6.99	67.58	46%
Total Mining Operating Cost 2.31 15.34 148.31 100%				
Mining cost doesn't include Pre-Production period.				
The totals may not add-up due to rounding.				

Table 13: Mining OPEX Estimate Summary

Process Operating Cost Estimate

Process operating costs were estimated at US\$16.69 per tonne of feed to the plant and US\$162.58 per tonne of graphite concentrate, based on processing 912,500 tonnes per year and producing 93,650 tonnes of graphite concentrate per year respectively. The estimate is based on DRA calculations, test work data, and benchmarking of similar projects. A summary of the estimate is shown in Table 14.



Table 14: Process OPEX Estimate Summary

Process Operating Cost	USD/tonne feed	USD/tonne concentrate	% of total costs
Manpower	5.60	54.56	34%
Electrical power	2.91	28.37	17%
Grinding media and reagent consumption	2.54	24.79	15%
Bagging system	2.81	27.34	17%
Material handling / Mobile equipment	0.21	2.03	1%
Maintenance and consumables	2.17	21.13	13%
Spare parts and miscellaneous	0.45	4.36	3%
Total Process Operating Cost	16.69	162.58	100%

Based on mill throughput of 912,500 tonne per year.

Based on graphite concentrate production of 93,650 tonne per year.

The totals may not add-up due to rounding.

Concentrate Transportation Cost Estimate

The cost of transporting graphite concentrate from site to Sept-Îles port has been estimated at US\$96.49 per tonne of graphite concentrate.

General and Administration Operating Cost Estimate

General and Administration operating costs were estimated at US\$2.74 per tonne of feed to the plant and US\$26.73 per tonne of graphite concentrate, based on processing 912,500 tonnes per year and producing 93,650 tonnes of graphite concentrate per year respectively. The estimate is based on benchmarking of similar projects. A summary of the estimate is shown in Table 15.

Table 15: General and Administration Opex Summary

General and Administration Operating Cost	USD/tonne feed	USD/tonne concentrate	% of total costs
Administration	1.24	12.11	45%
Technical services	0.67	6.50	24%
Site Services	0.83	8.13	30%
Total General and Administration Operating Cost	2.74	26.73	100%

Based on mill throughput of 912,500 tonne per year.

Based on graphite concentrate production of 93,650 tonne per year.

The totals may not add-up due to rounding.

CAPITAL COST ESTIMATE

Initial Capital Cost

Initial Capital costs (determined to a nominal accuracy of -20% to +30%) for the open pit mine, process plant, reagents and plant services and all other project infrastructure are estimated at approximately US\$189.8 million, including indirect cost, owner's cost and contingency.



The Capital cost (**CAPEX**) estimate include mining fleet capital as the Study is based on an owner's mining fleet scenario. Indirect costs include provision for contractor's indirect costs, inventories (plant spares, first fill of reagents and consumables), project services (Engineering, procurement, construction management cost up to and including commissioning, quality control, third party engineering), vendor representative cost to assist and verify equipment installation for warranty purposes.

The reference period for the cost estimate is Q4 2020. The Capex base currency is United States Dollars (USD). An exchange rate of 0.761 USD per CAD was assumed to convert the cost estimates.

The Initial Capital cost is summarized in Table 16 below:

Area	Area Description	Total Cost
Alea		(Million USD)
	Direct Costs	
1010	Open Pit Mine	7.4
3000	Process Plant	76.9
4100	Power and Communications	16.7
4300	Tailings and Water Management Facilities	10.0
4500	Site Infrastructure	6.7
	Subtotal – Direct Costs	117.8
	Indirect Costs	
9100	Indirect Costs	30.9
9500	Owner's Costs	10.0
9900	Contingency	31.2
	Subtotal –Indirect Costs	72.1
	Total Initial Capital Costs	189.8

Table 16: Initial Capital Cost Estimate Summary

The totals may not add-up due to rounding.

FINANCIAL ANALYSIS

The Scoping Study referred to in this report is based on low-level technical and economic assessments and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

The Project economic evaluation is based on Q4-2020 price forecast from Benchmark Minerals Intelligence. The economic assessment has been generated in US dollars and based on 100% equity. No provision was made for the effects of inflation. Current Canadian tax regulations were applied to assess the corporate tax liabilities while the Québec mining tax regulations were applied to assess the mining tax liabilities.



Technical Assumptions

Table 17 summarises the technical assumptions used.

Table 17: Technical Assumptions

Item	Units	Value
Total Material Mined	M tonnes	83.2
Total Material Milled	M tonnes	12.5
LOM	Year	14
LOM Average Feed Grade	% Cg	11.6
LOM Average Stripping Ratio	w:o	5.6
Mill Graphite Recovery	%	86.3
Graphite Concentrate Grade	%Cg	96.7
LOM Average Mill Feed (Excludes Year 1 and 14)	kt/y	932
LOM Average Concentrate Production (Excludes Year 1 and 14)	kt/y	96
Average Mining Operating Costs	USD/tonne concentrate	148
Average Process Operating Costs	USD/tonne concentrate	161
Average Concentrate Transport Costs	USD/tonne concentrate	96
Average General & Administration Costs	USD/tonne concentrate	27
Average Total Operating Costs	USD/tonne concentrate	433

The first production year consists of a ramp-up period of three (3) months followed by nine (9) months at quasi-full production. The start of commercial production (as defined by the Canada Revenue Agency) corresponds to the beginning of this nine-month period.

FINANCIAL MODEL AND RESULTS



Figure 12 shows life of mine products production profile.

Figure 12: Life of Mine Products Production





Figure 13 presents the life of mine net sales revenue for the five products respectively.

Figure 13: LOM Net Sales Revenue Profile

Figure 14 shows the after-tax cash flow and cumulative cash flow profiles of the Project for base conditions.



Figure 14: After-Tax Cash Flow and Cumulative Cash Flow Profiles



A summary of the base case cash flow results is shown in Table 18.

Description	Unit	Value
Net Sales Revenue	Million USD	1,147.6
Initial Capital Cost		
Direct Costs	Million USD	117.8
Indirect and Contingency Costs	Million USD	72.1
Total Initial Capital Cost	Million USD	189.8
Total Sustainable Capital Cost	Million USD	18.0
Closure cost	Million USD	7.6
Total Operating Cost	Million USD	561.0
Pre-Tax		
NPV (discount rate=6%)	Million USD	165.6
NPV (discount rate=8%)	Million USD	123.0
NPV (discount rate=10%)	Million USD	88.9
IRR	%	18.9
Payback period	Years	3.4
After-Tax		
NPV (discount rate=6%)	Million USD	91.8
NPV (discount rate=8%)	Million USD	61.4
NPV (discount rate=10%)	Million USD	37.1
IRR	%	14.2
Payback period	Years	4.0

Table 18: Project Financial Evaluation Summary – Base Case

Payback period was measured from the start of commercial production.

SENSITIVITY ANALYSIS

A sensitivity analysis was carried out to assess the impact of changes in total CAPEX, OPEX and average concentrate price (**Price**) on the project's NPV at 8% (i.e. base case) and IRR. Each variable was examined one-at-a-time. An interval of ±30% with increments of 10% was applied to the CAPEX, OPEX and Price variables.

The pre-tax sensitivity analysis is shown in Figure 15 and after-tax in Figure 16. It shows that the NPV and IRR are most sensitive to variations in Price. If the Price increases by 20%, after-tax NPV increases to US\$132.8 million and after-tax IRR increases to 20.5%.





Figure 15: Pre-Tax NPV and IRR Sensitivity to Changes in CAPEX, OPEX and Price



Figure 16: After-Tax NPV and IRR Sensitivity to Changes in CAPEX, OPEX and Price

NEXT STEPS

Based on the outstanding results of the Scoping Study, the Company plans to proceed to the next feasibility study stage; the details of which will be released to the market shortly. It is anticipated that the next phase of study will include:

- Comprehensive metallurgical and processing test work program with the aim of producing significant concentrate volumes for evaluation by potential offtake partners. This program is scheduled to commence shortly and will define the design criteria for the process plant and confirm the selected process flowsheet and equipment selection.
- An infrastructure assessment program aimed at identifying opportunities to enhance the project economics through further capital and operating cost reductions.
- Examination of tailings disposal methodology. Significant capital and operating cost savings may be possible through reconfiguration of the tailings disposal process via either unlined tailings dams or deposition of tailings back into exhausted pits.



- Environmental and social monitoring and assessments, as well as First Nation Engagement.
- Further exploration. Exploration for additional high grade resources along strike from and at the recently discovered West Carheil Trend. An infill drilling program to upgrade the resource classification and increase the overall resource base at the main Lac Rainy deposit is planned.
- Ongoing marketing studies will further define target customer markets, preferred product specifications and supply and demand forecasts. The Company continues to work with potential North American and European offtake partners to in order to secure future offtake agreements and partnerships.
- Continued engagement with logistics partners and potential providers with the intent to secure an optimal transport solution for graphite concentrates.
- Commencement of meaningful discussions with finance providers with the intent of securing funding for the development and construction of the Lac Rainy Project.

CONCLUSION

Metals Australia is pleased to present a Scoping Study that clearly demonstrates the Lac Rainy Project's strong commercial potential, centred on very low operating and capital costs, with product revenues generated from a very high-quality product.

The Study validates Metals Australia's strategy of exploring for high-grade, shallow graphite mineralisation at Lac Rainy, with the aim of delivering:

- 1. Very low operating costs
- 2. Very low capital costs
- 3. Very simple mining and processing operations
- 4. Targeting entry to existing markets, with battery markets as future upside.

Importantly, the Project is not reliant on large scale to reduce operating costs. This enables Metals Australia to focus on placing quantities of product into primary end-markets, including refractories and foundries, at a scale that can be absorbed by existing demand. This marketing strategy will be enabled through the very low-cost production, allowing Lac Rainy concentrates to compete on price point with China, the world's largest supplier of natural flake graphite.

The delivery of a capital estimate significantly below peers (in both absolute and capital intensity terms) puts Metals Australia in a very strong position to engage in discussions around future financing of the Project.

Additionally, the low operating cost nature of the Project provides protection, and ensures profitability, even in extreme downside pricing scenarios.



Caution Regarding Forward-Looking Information

This document contains forward-looking statements concerning Metals Australia. 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 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.

ASX Listing Rules Compliance

In preparing this announcement dated 3 February 2021, the Company has relied on the announcements previously made by the Company and disclosed below. 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 dated 3 February 2021.

Lac Rainy Graphite Project

Pursuant to ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the announcements dated 15 June 2020, 30 June 2020, 10 September 2020 and 12 November 2020.



Competent Person Declarations

The information in this announcement that relates to Exploration Results 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 announcement that relates to Metallurgical Testwork, is based on information compiled by Mr Oliver Peters, M.Sc, P.Eng., MBA, a Competent Person who is a Professional Engineer registered with the Professional Engineers of Ontario (PEO), in Canada. Mr Peters, is the Principal Metallurgist and President of Metpro Management Inc. and a Consulting Metallurgist for SGS Canada Inc. All competent persons are independent from the issuer of this statement, Metals Australia Limited. Mr Peters has sufficient experience 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 Peters 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 announcement that relates to Mineral Processing, is based on information compiled by Mr. Ewald Pengel, M.Sc., P.Eng., a Competent Person who is registered member of Professional Engineers Ontario (#90520297) in Canada. Mr. Pengel, is the Senior Process Engineer for DRA Americas Inc. All competent persons are independent from the issuer of this statement, Metals Australia Limited. Mr. Pengel has sufficient experience 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. Pengel 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 announcement that relates to Mining Methods and the Scoping Study, is based on information compiled by Mr.Daniel M.Gagnon, P.Eng., a Competent Person who registered member of Ordre des Ingénieurs du Québec (#118521) and a Member of the Canadian Institute of Mining, Metallurgy and Petroleum in Canada. Mr. Gagnon, is the Vice President of Mining Geology & Met-Chem Operations for DRA Americas Inc. All competent persons are independent from the issuer of this statement, Metals Australia Limited. Mr. Gagnon has sufficient experience 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. Gagnon consents to the inclusion in the report of the matters based on their 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 in this section apply to all succeeding sections)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	 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. 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. 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. 	 Sampling method is half-core sampling of HQ diamond drill core (HQ:63.5mm). Quarter-core sampling utilised where a duplicate sample has been taken. Sampling was carried out using Magnor Exploration Inc sampling protocols and QAQC procedures as per industry best practice, delivered by ALS 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.
Drilling techniques	 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.). 	 Diamond drilling completed by Magnor Exploration WL66 (HQ) conventional diamond drilling with core diameter of 63.5mm. All drillholes have been orientated. Downhole surveying completed using a Devico Deviflex downhole survey instrument.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 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. Careful drilling techniques in areas of broken ground are employed with communication between the geologist and drillers to maximise core recovery. A sampling bias has not been determined.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 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. 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. The lithological, mineralogical, alteration and structural characteristic of the core has been logged in digital format and following established procedures. All drillholes have been photographed in both wet and dry states.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Sample preparation follows industry best practice standards and is conducted by internationally recognised laboratories - ALS Laboratories Ltd in Val d'Or, Québec. 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. 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. 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. No blanks or standards were submitted by the company with laboratory blanks, standards, and duplicates relied upon, with results reviewed by the companys consultants and found to be satisfactory with no material concerns. Maxwells Data management systems for appraisal of the QA/QC indicated no issues The sample sizes are considered appropriate for the type of mineralisation under consideration.



CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Quality of assay data and laboratory tests Verification of sampling and assaying	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 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 CO2. 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. The analytical methods are considered appropriate for this style of mineralisation. No geophysical tools or handheld instruments were utilised in the preparation of this announcement. Duplicate sampling has been completed at a rate of 1:40 where practicable; duplicate results for all holes are satisfactory. 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. Laboratory QAQC methods include the insertion of certified reference material standards, blanks, and duplicates. Determination of the reported downhole intervals of mineralisation have been verified by alternative company personnel both in person and via electronic photographic data. No twin-hole drilling completed to date although several neighboring holes holes have been completed and showed excellent correlation. 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
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 No adjustments or calibrations were made to any assay data used in this report. Drillhole locations were planned using a combination of GIS software packages. Drillhole locations were determined originally using a Garmin handheld GPS unit with an accuracy of +/- 1m. Drill collar azimuths were determined with a handheld Suunto compass that has a precision of +/-0.5 degrees
		 or +/- 0.5 degrees. Subsequent DGPS survey methods established drill collars to a 0.25 m level of accuracy. Downhole surveys were completed using a Devico Deviflex downhole survey instrument at regular intervals. Original Grid system is UTM NAD 84 Z 19 Topographic control has been established by handheld GPS and cross-correlation with digital laser topographic imagery and is considered and is adequate for the greenfields exploration completed



Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 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. 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 is considered appropriate to allow for the JORC-compliant Mineral Resource Estimate (MRE) to be completed at the Indicated and Inferred resource categories. Through the main graphite zones, nominal 2m sampling has been applied where appropriate and sampled to geological boundaries elsewhere.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 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.
Sample security	The measures taken to ensure sample security.	All drill core was transported by courier transport from the project to the ALS laboratory in Québec
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 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.



Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 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. 	 Metals Australia Limited is the 100% owner of the Lac Rainy Graphite Project, pursuant to the binding acquisition agreement. There are no other known material issues affecting the tenements. Québec 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 Québec Lithium Limited. All tenements are in good standing and have been legally verified by a Québec lawyer specializing in the field. The licence is in good standing with no known impediments.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 No modern exploration has been conducted by other parties. Government mapping records multiple graphitic carbon bearing zones within the project area, but no data is available



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Geology	 Deposit type, geological setting and style of mineralisation. 	 The Lac rainy graphite project is located in close proximity to Focus Graphite Lac Knife Project, which is hosted in a similar geological environment. The projects were first discovered in 1989, and has been subject to basic geological review since then. 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. 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. 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.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	• Drillhole information pertaining to the drilling at Lac Rainy is summarised in the figures and tables in the text of this announcement and comprehensively reported in previous ASX releases related to the drilling results Lac Rainy.



Data aggregation methods	 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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 A nominal cut off of 5% graphite has been used in any reporting previously conducted. No high-grade cut-off has been used in this announcement. 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. No metal equivalents have been used in this report.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	 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 mineralisedd zones 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.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Appropriate maps and cross-sections have been included in the text of this announcement. (See Figures 5→12)
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	 All significant intercepts above the nominal cut-off grade of 5% Cg have been reported. This announcement provides the total information available to date and is considered to represent a balanced report.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 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.





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Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 GEOLOGY AND MINING Definition drilling program aimed at identifying additional resources and upgrade resources. Perform a geotechnical drill program and rock mechanics assessment to confirm pit slope angle and stability. Perform hydrological and hydrogeological studies to define the pit dewatering needs in the open pit over the mine life. MINERAL PROCESSING Perform additional comminution test work. Carry out testing of variability samples. Continue flowsheet development and optimization. Evaluate potential tailings treatment options. SITE INFRASTRUCTURE Carry out geotechnical studies for the final locations of the various structures of process plant, roads, waste rock, tailings storage facility etc. Perform condemnation drilling in proposed locations Initiate consultation with Hydro-Québec regarding power supply and consumptions ENVIRONMENT AND COMMUNITY Perform environmental studies as well as community consultations to support permitting requirements and to optimise the site layout. Investigate options for water management strategy to take into consideration of the future plant water requirement and site water management. Carry out geochemical tests to characterize the mineralized material, the waste rock of the property as well as the tailing. MARKETS Review graphite product marketing options and develop off-take agreements. Investigate the economics of producing spherical graphite.



Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Criteria	JORC Code Explanation	Commentary
Criteria Database integrity	 JORC Code Explanation Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Commentary Data package was supplied and downloaded on as a Dropbox ™ company dataset. The data package included historic exploration data, geophysical surveys, QAQC data, rock chips, channel sampling, mineralogical and testwork data. Drill data consisted of excel files for collar, survey, lithology and assay data. The data was validated for the following: missing data issues overlapping sample interval issues depth issues logging issues A second validation was completed in 3D interpretation in Micromine (64 bit) geological modelling software. Data plotted correctly on the topographical surface and on the collar location as planned and supported on the documentation supplied. Downhole survey was checked for significant deviation. No issues were identified. Assay were checked for anomalies between geology and total graphitic carbon grade (Cg). No anomalies were identified. Drill core with no sample assays were inserted with undefined (-999) Cg grade to relate the assay data file to the agelogy logging is planned and supported (-999) Cg grade to relate the assay data file to the agelogy is planned in the data data file to the agelogy is planned.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Simon Coxhell (Competent Person) is a Geological Consultant and has not undertaken a site visit. Mr Coxhell has been one of the chief resource estimation consultants to Talga Resources (ASX: TLG), who have a number of graphite deposits in Northern Sweden. Core photographs and geological and analytical records were examined in detailed to verify and confirm the work completed.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Confidence in the interpretation of the Lac rainy deposit is considered to be high given: Domain interpretation was completed with a consideration for field logs, geochemical data and surrounding holes Drill hole domains interpretation were validated visually and statistically Consideration is always given to mining and estimation practicalities to ensure models are fit for purpose and realistic.



		 Graphite is distinct geochemically and visually compared to the host gabbros and dolerite dykes and is defined using a graphitic carbon grade cut-off of 5% Cg. Wireframe solids and surfaces of the mineralised domain are used to generate wireframes of the interpreted mineralisation and act as 'hard' boundaries during estimation for the mineralisation and waste domains. Geology and grade are generally highly continuous in mineralised graphite horizons. The 5% Cg cut-off equates very well to the logging descriptions and boundary of the geology.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	 As currently defined the Lac Rainy East mineralisation strikes 300° for a total distance of 510 metres with a dip of 75-80° towards 300°. The Lac rainy West mineralisation strikes at about 300° for a distance of 500 metres and dips steeply towards 300° at approximately 75-80 degrees. The mineralisation pinches and swells to a maximum thickness of 80m. Average true mineralisation thickness varies between 5m and 60m. The mineralisation extends from surface to a maximum depth of 150m The mineralization would be expected to continue to greater depth and further drilling to evaluate is planned. Mineralisation is open at depth.
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 Samples are collected at varying sample intervals, (average of 1.5 metre) based on the graphite mineralisation (ore) domain or waste. Sample data was flagged by domains using wireframe solids for mineralisation (ore). All assay data has been composited to 2m based on the domain. 2m composite samples were used in the estimation with minimum composite sample of length of 1m. Initial statistical analysis was carried to provide geostatistical parameters for domain modelling. All volume modelling, and estimations were carried out using Micromine 3D mining software. Two block models were constructed based on the main principal strike direction 300° and dipping subvertically to the NW. Block model was constructed using geological surfaces as hard boundaries. Parent block sizes (X,Y,Z) 4m x 40m x 5mRL based on quarter the nominal drill hole spacing within an area with sub blocks of 2.0m x 20m x 2.5m. Block models were aligned with strike direction. Total Graphitic Carbon (Cg) and Sulphur (S) were estimated as in-situ grades. Both Cg and S were estimated separately. Identical search ellipse orientations and



		 search parameters for Cg and S grade were used for estimation based on a combination of statistical analysis and drill spacing. A single search pass, a minimum of 8 composite samples and maximum of 12 with no more than 4 samples per drill hole was required to estimate a block. Only data belonging to a domain was used to estimate that domain and hard boundaries were used. No top cuts were applied, based on visual review of all data and statistical analysis of the data lying within the hard mineralised boundaries. Validation of the final resource has been carried out in a number of ways, including: Visually comparing block model estimated grade against drill hole by section Comparison by mineralisation zone Comparing statistically, by domain, wireframe and block model grades versus sample and composite grades All modes of validation have produced acceptable results. This is the maiden resource estimate for the Lac Rainy Graphite Deposit.
Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	 All mineralised tonnages are estimated by applying a mean bulk density of 2.80g/cc, (t/bcm). with natural moisture.
Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 A natural mineralisation cut-off occurs at 5% Cg and was used to define the mineralised envelope. No material change in resource occurs by using a lower cut-off, as the cut-off grade matches the logged graphite horizon.
Mining factors or assumptions	 Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	 Metals Australia is at a scoping level of study and currently envisages to use open pit mining. Mining assumptions please refer to Table 4.1 for Pit Economical Limit Parameters and Table 4.2 for Pits Design Criteria. No geotechnical data supporting this alternative mining method exists.
Metallurgical factors or assumptions	 The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	 The Lac Rainy 2020 metallurgical test program and the results were presented in the announcement released to the ASX on 30 June 2020. Given the geological similarities to the Lac Knife deposit, a similar flowsheet has been used for metallurgical testing and mineral processing plant design, both of which support reasonable prospects for economic extraction at Lac Rainy. More extensive metallurgical testwork is



		 recommended to bring the project to a PFS level. These include: additional comminution testwork, continued flowsheet development and optimization, testing of variability samples, and work to evaluate potential tailings treatment options. The Competent Person determined that: based on the metallurgical testwork that was completed by SGS (Canada) Inc. in 2020 on a 85kg sample from the Lac Rainy Project, and based on his own experience with graphite ore bodies and graphite mineralisation, there is reasonable basis to conclude that the JORC (2012) Mineral Resource estimate for the Lac Rainy Project has a reasonable prospect for eventual economic extraction pursuant to clause 20 of the JORC Code. the information contained in the report from SGS (Canada) Inc. contains the required mineralogical information to define the graphite specification in terms of other minerals that comprise the graphite concentrate, pursuant to clause 49 of the JORC Code, and provides the necessary information to enable him to conclude that the Lac Rainy Project has a reasonable prospect for experiment of the graphite concentrate, pursuant to clause 49 of the JORC Code, and provides the necessary information to enable him to conclude that the Lac Rainy Project has a reasonable prospect for experiment for experimentation.
Environmental factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	 Based on scoping mining studies, volumes of mineralized material and waste have been quantified. Further studies are required for waste disposal, particularly given the high Sulphur content associated with the graphite mineralisation. As part of the 2020 metallurgical test program, the process plant tailings have been identified as Potentially Acid Generating (PAG) and will need to be managed accordingly. In the Scoping Study, provisions have been included to manage PAG tailings and any potentially acidic effluents. Prior to performing a PFS, it is recommended to perform further evaluate potential tailings product. The impact of sulphur has no impact on the Mineral Resource estimate given that the Lac Rainy graphite concentrate produced metallurgical test programs in 2018 and 2020 have determined that a commercial-grade graphite concentrate the economics of the deposit. The Competent Person determined that: the high sulphur content of the waste material does not affect his conclusion that the JORC (2012)



Bulk density	 Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 Mineral Resource estimate has a reasonable prospect for eventual economic extraction in accordance with the provisions of the JORC Code. Bulk densities used in the Mineral Resource Estimate are based on a mean bulk density of 2.80g/cc for all mineralisation. The bulk density determination was as follows: ALS 0A-GRA08b, which completed specific gravity measurements using a pycnometer which gave a range of 2.75→3.29, with a mean of 3gm/cc.(t/bcm) In future cross checks on the core using the OA-GRA09 which used the Archimedes method is recommended to consider any voids or porosity in the natural rock. It is for this reason that an ISBD of 2.8t/bcm was adopted this resource estimate of Lac Rainy.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 The Mineral Resources have been classified as the Indicated Categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including: Geological continuity Data quality Drill hole spacing Modelling techniques Estimation properties including search strategy, number of informing data, average distance of data from blocks and estimation output from the interpolation The Mineral Resource Classification reflects the views of the Competent Person.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	 Various aspects of the data acquisition, assaying, geological modelling and resource estimation have been independently reviewed at various times over the life of the project. Further work is planned.
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. 	 Calculated accuracy and confidence in the Mineral Resource Estimate are not explicitly stated. However, relative accuracy is reflected in the resource classification, based on statistical analysis, and comparing the output of the results from the interpolation techniques with the mean statistical grades lying within the individual domains and wireframes. The Indicated and Inferred Mineral Resource Estimates are considered to represent a local estimate as there is reasonable confidence in the location of mineralisation and waste domains. Closer spaced drilling and additional check assays and bulk density



• These statements of relative accuracy and	determinations is required for a
confidence of the estimate should be compared	Measured Resource to be estimated.
with production data, where available.	 No production data is available for the Lac Rainy graphite deposit.