

# Clean Air Metals Announces the New SLR Mineral Resource Estimate for the Thunder Bay North Critical Metals Project with an Indicated Resource of 14.0 million tonnes containing 1.2 million ounces of 2PGE (Pt+Pd) 57,500 tonnes of Cu and 34,300 tonnes of Ni

written by Raj Shah | May 4, 2023

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Clean Air Metals Inc. (“**Clean Air Metals**” or the “**Company**”) (TSXV: [AIR](#)) (OTCQB: CLRMF) (FRA: CKU) is pleased to announce that further to its disclosure of February 15, 2023, the Company has completed an updated Indicated and Inferred Mineral Resource estimate disclosed in accordance with National Instrument 43-101 (“**NI 43-101**”) for the Company’s 100%-owned Thunder Bay North Critical Metals Project (the “**Project**”).

The New Mineral Resource Estimate was prepared by SLR Consulting Ltd. (“SLR”) and is based on an underground constrained resource model using a Net Smelter Return (NSR) cut-off value of US\$48/tonne and consensus metal pricing (Table 3). An NI 43-101 technical report will be filed on SEDAR within 45 days of the date of this news release.

The **Current Deposit** contains an Indicated Mineral Resource of 8.2 million tonnes grading 2.7 g/t 2PGE ("Pt + Pd"), 0.33% copper and 0.22% nickel and an Inferred Mineral Resource of 1.6 million tonnes grading 1.7 g/tonne 2PGE, 0.32% copper, 0.20% nickel (See Table 1; Figure 1).

The **Escape Deposit** contains an Indicated Mineral Resource of 5.8 million tonnes grading 2.6 g/t 2PGE, 0.52% copper, 0.28% nickel and an Inferred Mineral Resource of 0.6 million tonnes grading 1.5 g/tonne 2PGE, 0.29% copper, 0.17% nickel (See Table 1; Figure 1).

### **Thunder Bay North Critical Mineral Project Highlights**

- Contained metal Indicated mineral resource at the Current Deposit is 717,000 oz 2PGE, 27,000 tonnes copper, 17,700 tonnes nickel.
- Contained metal Indicated mineral resource at the Escape Deposit is 492,000 oz 2PGE, 30,400 tonnes copper, 16,500 tonnes nickel.
- The underground Mineral Resources at the Current and Escape Deposits will now be the focus of a renewed economic study which will include specific work completed on mining run rate, optimal sequencing of the two adjacent deposits, geotechnical analysis by Carlisle Mine Geotech and updated metallurgical recoveries.
- Bench scale metallurgical testing and recovery estimates are being completed to a pre-feasibility standard by DRA Americas and will be reported in due course.
- Rhodium and cobalt are not considered payables but are potentially valuable by-product credits in the metals mix at Thunder Bay North Project.
- The Current and Escape Deposits exhibit a roughly 1:1 platinum to palladium ratio and comparable geological attributes and metal grades.

**Table 1: Thunder Bay North Project – Grade Summary**

<b>CLASS</b>	<b>Density</b>	<b>Tonnes</b>	<b>Pt</b>	<b>Pd</b>	<b>Au</b>	<b>Ag</b>	<b>Cu</b>	<b>Ni</b>	<b>2PGE<sup>8</sup></b>
<b>Deposit</b>	<b>t/m<sup>3</sup></b>	<b>ktonnes</b>	<b>g/t</b>	<b>g/t</b>	<b>g/t</b>	<b>g/t</b>	<b>%</b>	<b>%</b>	<b>g/t</b>
<b>Current Deposit</b>									
Indicated	2.94	8,223	1.4	1.31	0.09	1.98	0.33	0.22	2.7
Inferred	2.95	1,641	0.87	0.79	0.07	1.91	0.32	0.2	1.7
<b>Escape Deposit</b>									
Indicated	3.11	5,810	1.17	1.46	0.11	3.32	0.52	0.28	2.6
Inferred	3.01	631	0.67	0.80	0.06	1.67	0.29	0.17	1.5
<b>Total</b>									
Indicated		14,033	1.31	1.37	0.10	2.53	0.41	0.25	2.7
Inferred		2,272	0.81	0.79	0.07	1.84	0.31	0.19	1.6

**Table 2: Thunder Bay North Project – Contained Metal**

<b>CLASS</b>	<b>Density</b>	<b>Tonnes</b>	<b>Pt</b>	<b>Pd</b>	<b>Au</b>	<b>Ag</b>	<b>Cu</b>	<b>Ni</b>	<b>2PGE<sup>8</sup></b>
<b>Deposit</b>	<b>t/m<sup>3</sup></b>	<b>ktonnes</b>	<b>koz</b>	<b>koz</b>	<b>koz</b>	<b>koz</b>	<b>ktonnes</b>	<b>ktonnes</b>	<b>koz</b>
<b>Current Deposit</b>									
Indicated	2.94	8,223	370.9	346.4	23.5	522.9	27.0	17.7	717.3
Inferred	2.95	1,641	45.8	41.9	3.7	100.9	5.3	3.2	87.7
<b>Escape Deposit</b>									
Indicated	3.11	5,810	218.8	273.3	20.8	620.0	30.4	16.5	492.1
Inferred	3.01	631	13.5	16.2	1.2	34.0	1.8	1.1	29.7
<b>Total</b>									
Indicated		14,033	589.7	619.7	44.3	1,142.9	57.5	34.3	1,209.4
Inferred		2,272	59.4	58.0	4.8	134.8	7.1	4.3	117.4

**Table 1 and Table 2 Notes:**

1.	CIM (2014) definitions were followed for Mineral Resources.
2.	The Mineral Resources have been reported within underground reporting shapes generated using Deswik Stope Optimizer (DSO) using an NSR cut-off value of US\$48/tonne.
3.	Material below lakes and within 20 m of the bottom of the overburden has been excluded from the Mineral Resource statement.
4.	The NSR used for reporting is based on the following:
a.	Long term metal prices of US\$1,500/oz Pd, US\$1,450/oz Pt, US\$1,800/oz Au, US\$24/oz Ag, US\$4.25/lb Cu, US\$10/lb Ni.
b.	Net metallurgical recoveries of 86% Pd, 82% Pt, 50% Au, 40% Ag, 83% Cu, and 46% Ni.
5.	Bulk densities were interpolated into blocks and averages range between 2.94 t/m <sup>3</sup> and 3.11 t/m <sup>3</sup> .
6.	Numbers may not add up due to rounding.
7.	Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
8.	2PGE = Pt + Pd

**Figure 1. Drill-indicated oblique view of the Current and Escape deposits as defined by wireframes of mineralized zones**

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### **Triple Flag Precious Metals**

The Company is pleased to report that Triple Flag Precious Metals Corp. has now forwarded the Tranche 2 payment of C\$5 million pursuant to the royalty facility of the Thunder Bay North Project, previously reported (Press release December 19, 2022).

**Abraham Drost, CEO stated:** “The new combined Mineral Resource

Estimate (“MRE”) for the Escape and Current deposits comprising the Thunder Bay North Critical Metals Project is now complete. Work will continue to determine viability of a potentially bulk mineable, ramp accessible underground constrained mineral resource. Run rates, production sequencing and preliminary economics of the new MRE are presently being scoped internally in preparation to continue technical studies. The Inferred mineralization suggests that the Current and Escape deposits are open and that the underexplored remainder of the two host magma conduits have the potential to add additional mineral resources.

The Thunder Bay North Critical Metals Project is a potential domestic North American source of platinum, palladium, copper and nickel. Federal and provincial governments have placed a strong focus on bolstering the domestic critical mineral supply chain in North America. We are very pleased that Triple Flag Precious Metals has completed Tranche 2 of a previously announced royalty financing to facilitate potential development, together with our Indigenous partners, of a sustainable critical metals mining project at Thunder Bay North.”

### **2023 Exploration Update**

A total of 73,990 m in 171 holes were drilled by the Company from 2020-2023 for a total drilling database of 105,086 m in 266 holes which support the new Mineral Resource Estimate at the Escape Deposit.

Similarly, a total of 17,172 m in 78 holes were drilled by the Company from 2020-2023 for a total drilling database of 179,630 m in 818 holes drilled variously in 2006 – 2015 and 2020 -2023 which support the new Mineral Resource Estimate at the Current Deposit.

### **Mineral Resource Estimate**

Block models for the Current and Escape Deposits were created by SLR using Seequent's Leapfrog Geo and Edge using drilling and assays results as of April, 2023. Wireframes for the ultramafic chonolith were generated based on logged lithologies and chromium assays. Higher grade mineralization wireframes were generated at a 1.0 g/t Pt + Pd cut-off grade with lower grades included to maintain continuity. Assays were composited to 2 m lengths and were used for block estimation on an uncapped basis. Pt, Pd, Au, Ag, Cu, Ni and density were interpolated using Ordinary Kriging (OK) into blocks measuring 5.0 m by 5.0 m by 2.5 m. Inverse Distance Squared (ID2) and Nearest Neighbour estimates were run for validation purposes. Blocks were classified following CIM Definitions (2014) as Indicated and Inferred using drill hole spacing based criterion. Indicated Mineral Resources were based on a nominal drill hole spacing of 50 m. Mineral Resources have been reported within underground reporting shapes based on an NSR cut-off value of US\$48/tonne. A crown pillar exclusion of 20 m from the bottom of the overburden below lakes and the underground reporting shapes used during reporting ensure that the Mineral Resources meet the minimum requirements for Reasonable Prospects of Eventual Economic Extraction (RPEEE).

### **NSR and Mineral Resources Cut-off Value**

NSR values have been estimated for an operating scenario that includes production of a split copper sulphide concentrate and a nickel-rich residual sulphide concentrate, each containing payable platinum and palladium, for both the Escape and Current deposits.

Metal prices are based on consensus, long term forecasts from banks, financial institutions, and other sources. The metal prices and other input parameters used in development of a unit NSR value for each block is provided in Table 3.

<b>Table 3: NSR Parameters</b>							
<b>Commodity</b>	<b>Units</b>	<b>Metal Prices (USD\$)</b>	<b>Net Metallurgical Recovery</b>	<b>Refining Cost (USD\$)</b>	<b>Transport Cost/wmt (Cu Con/Bulk Con)</b>	<b>Treatment Cost/dmt (Cu Con/Bulk Con)</b>	<b>Royalty</b>
Palladium	per oz	\$1,500	86 %	\$15.00	US\$100/US\$100	US\$67.33/US\$150	3.50 %
Platinum	per oz	\$1,450	82 %	\$15.00			
Silver	per oz	\$24.00	40 %	\$0.45			
Gold	per oz	\$1,800	50 %	\$4.50			
Copper	per lbs	\$4.25	83 %	\$0.07			
Nickel	per lbs	\$10	46 %	\$0.00			

For the purpose of Mineral Resource reporting, underground constraining shapes were developed using the Deswik Stope Optimizer (DSO) based on an NSR cut-off value of US\$48/tonne. The cut-off parameters, based on previous study work, are provided in Table 4:

<b>Table 4: Cut-off Parameters</b>		
<b>Parameter</b>	<b>Unit</b>	<b>Value</b>
Mining (Underground)	US\$/t milled	\$26.92
Processing	US\$/t milled	\$15.38
G&A	US\$/t milled	\$5.38
Total Unit Operating Cost	US\$/t milled	\$47.69

### **Previous Disclosure**

In its press release of February 15th 2023, the Company disclosed that initial work on an updated mineral resource estimate indicated the potential for a material reduction in the total metals content of the Current deposit in the range of 20-50%. The Company confirms that on a comparative basis, under

the new Mineral Resource Estimate, the Current Deposit is approximately 33% lower in Indicated Pt + Pd Contained Metal and 21% lower in Indicated Cu Contained Metal. Management has begun the process of evaluating the potential options and viability for development of the Thunder Bay North project based on the new mineral resource.

### **Qualified Persons**

The Mineral Resource estimate was prepared by, Sean Horan, P.Geo. (Ontario) and Tudorel Ciuculescu, P.Geo. (Ontario), of SLR Consulting Ltd., independent “Qualified Persons” under National Instrument 43-101- Standards of Disclosure for Mineral Projects. Verification included a site visit to inspect drilling, logging, density measurement procedures and sampling procedures, and a review of the control sample results used to assess laboratory assay quality. In addition, a random selection of the drill hole database results was compared with original records.

### **About Clean Air Metals Inc.**

Clean Air Metals’ flagship asset is the 100% owned, high grade Thunder Bay North Project, a platinum, palladium, copper, nickel project located near the City of Thunder Bay, Ontario and the Lac des Iles Mine owned by Impala Platinum. The Thunder Bay North Project hosts the twin magma conduit bodies which host the Current and Escape deposits forming the basis for the mineral resource estimate reported herein.

Executive Chair Jim Gallagher, P.Eng. and COO Mike Garbutt, P.Eng. lead an experienced technical team studying the economics of a sustainable mining operation at Thunder Bay North. As the former CEO of North American Palladium Ltd. which owned the Lac des Iles Mine prior to the sale to Impala Platinum in December 2019, Jim Gallagher and team are credited with the mine



turnaround and creation of significant value for shareholders

### **Social Engagement**

Clean Air Metals Inc. and its wholly-owned subsidiary Panoramic PGMs (Canada) Ltd. acknowledge that the Thunder Bay North Critical Metals Project is on the traditional territories of the Fort William First Nation, Red Rock Indian Band and Biinjitiwabik Zaaging Anishinabek. The parties together are the Cooperating Participants in a Memorandum of Agreement dated January 9, 2021 (press release January 11, 2021) and Exploration Agreement signed April 13, 2022 (press release April 14, 2022).

The Company appreciates the opportunity to work in these territories and remains committed to the recognition and respect of those who have lived, traveled, and gathered on the lands since time immemorial. Clean Air Metals is committed to stewarding Indigenous heritage and remains committed to building, fostering and encouraging a respectful relationship with First Nations and Métis peoples based upon principles of mutual trust, respect, reciprocity and collaboration in the spirit of reconciliation.

### **Investor Relations**

The Company is pleased to announce the engagement of Harbor Access in the capacity of investor relations service provider effective immediately. Harbor Access is a full-service and strategic investor relations advisory firm with offices in Stamford, Connecticut and Toronto, Ontario, Canada. Under the terms of the agreement, Harbor Access will be paid a retainer of US\$8,500/month. Harbor Access has no interest, directly or indirectly, in the Company or its securities, or any right or intent to acquire such an interest.

## **ON BEHALF OF THE BOARD OF DIRECTORS**

**"Abraham Drost"**

Abraham Drost, Chief Executive Officer of Clean Air Metals Inc.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

### **Cautionary Note**

The information contained herein contains "forward-looking statements" within the meaning of applicable securities legislation, including statements regarding the potential of the Thunder Bay North Critical Metals Project and the Escape and Current deposits and timing of technical studies and mineral resource estimates. Forward-looking statements relate to information that is based on assumptions of management, forecasts of future results, and estimates of amounts not yet determinable. Any statements that express predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance are not statements of historical fact and may be "forward-looking statements." Forward-looking statements are subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking statements, including, without limitation: political and regulatory risks associated with mining and exploration; risks related to the maintenance of stock exchange listings; risks related to environmental regulation and liability; the potential for delays in exploration or development activities or the completion of feasibility studies; the uncertainty of profitability; risks and uncertainties relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits; risks related to the inherent uncertainty of production and cost

estimates and the potential for unexpected costs and expenses; results of prefeasibility and feasibility studies, and the possibility that future exploration, development or mining results will not be consistent with the Company's expectations; risks related to commodity price fluctuations; and other risks and uncertainties related to the Company's prospects, properties and business detailed elsewhere in the Company's disclosure record. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking statements. Investors are cautioned against attributing undue certainty to forward-looking statements. These forward-looking statements are made as of the date hereof and the Company does not assume any obligation to update or revise them to reflect new events or circumstances, except in accordance with applicable securities laws. Actual events or results could differ materially from the Company's expectation or projection.

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