

# Clean Air Metals Identifies Potential Down Plunge Extent of Escape Intrusion and Provides a Company Update

Clean Air Metals to Host a Live, Interactive Investor Webinar

**Thunder Bay, ON, August 29, 2023** – Clean Air Metals Inc. ("Clean Air Metals" or the "Company") (TSXV: AIR; FRA: CKU; OTCQB: CLRMF) is pleased to announce new magnetic inversion results from the Company's Thunder Bay North Critical Minerals Project near Thunder Bay, Ontario, Canada (the "Project").

The Thunder Bay North Critical Minerals Project hosts an indicated resource of 13.8Mt containing 1.2M ounces of 2PGE (Pt+Pd), 56,800 tonnes of Cu and 33,800 tonnes of Ni between the twin magmatic intrusions (chonoliths) known as the Current and Escape deposits. The Escape deposit contains 5.8Mt grading 2.6g/t 2PGE (Pt+Pd), 0.52% Cu and 0.22% Ni, as announced May 3<sup>rd</sup>, 2023. The bulk of this mineralization is hosted in the high-grade zone (HGZ) occurring in the southeastern portion of the currently drill defined intrusion. Mineralization remains open to the southeast.

A magnetic inversion case study was executed along the trend of the Escape chonolith and the intersection of the Escape fault to the southeast, to model the potential down plunge extension of the deposit. The study was successful in identifying a volume of material with high magnetic susceptibility at depth, along the plunge of the Escape intrusion. The magnetic inversion model has an estimated top of ~650m below surface with a vertical extent of ~800m and estimated width of 500m and centred ~2000m ESE of the most eastern intersection of peridotite from the Escape drill program (ELR20-034). The entirety of this plunge potential is currently untested.

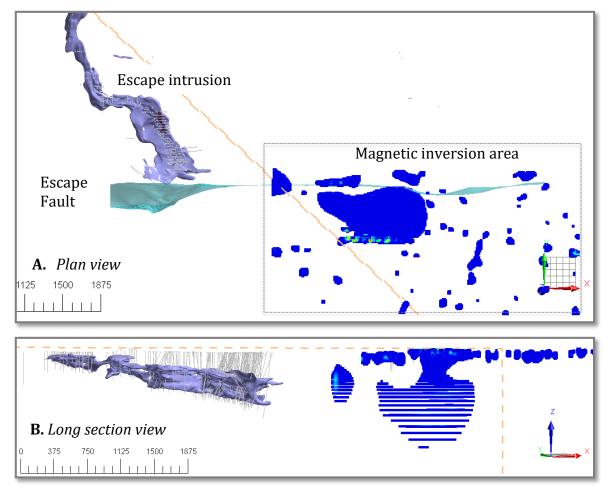
A larger geophysical inversion program using existing datasets has recently been initiated. Joint inversions of the magnetic, magnetotelluric (MT) and Z-TEM data will be completed for an area of ~80km² which covers the Thunder Bay North Intrusive complex. The magnetic susceptibility and conductivity products from these inversions will be utilized to target the intrusions and potential mineralization hosted within at depth.

Geoff Heggie, VP Exploration commented: "The location and size of this magnetic anomaly is a logical down plunge extension of the Escape intrusion and fits with the genesis theory of these intrusions where mineral bearing magma was injected at high pressure from depth. The further refinement of this anomaly by the recently commissioned geophysical inversion program will establish the targets for the next phase of diamond drilling which is expected to commence early in 2024".

**Methodology:** Two magnetic inversion models were completed by EarthEX utilizing data from a 2010 ground survey and a 2008 airborne magnetic survey data. The 2008 airborne survey was completed by UTS Geophysics, utilizing a fixed wing PAC-750XL plane with three Geometrics G822A cesium vapour total field magnetometers in conjunction with a fluxgate three component vector magnetometer. The survey was carried out on 40m spaced lines and a nominal sensor height of 30m. Magnetic inversions were run on both data sets as unconstrained and generated



similar results (**Fig. 1**) which identified a volume of material with high magnetic susceptibility at depth, along the plunge of the Escape intrusion.



**Figure 1A:** Plan view of the Escape chonolith (purple), the interpreted strike of the Escape fault (teal) and magnetic inversion model of the 2008 airborne magnetic data (Blue). Magnetic inversion model is filtered to shown blocks with highest magnetic susceptibility. **Figure 1B**: Long section view of the Escape chonolith (purple) with the high magnetic susceptibility model down plunge to the right (blue).

## **Permitting**

The early exploration permitting process for the next phase of exploration drilling was submitted in May 2023 and has received support from the three proximate First Nations communities upon whose traditional territory the Thunder Bay North project lies and from the two potentially affected Metis communities. The Ministry of Mines is currently consulting with one final Indigenous group and the Company expects the permits to be issued later this fall.



## **Receipt of Final Metallurgical Test Report**

On August 22<sup>nd</sup> the Company received the final report from Base Metallurgical labs for the completed Phase Two metallurgical test program (see press release dated June 29, 2023). The test program was completed using large diameter core samples from both the Current and Escape deposits to produce 3 composites and 17 variability samples. The test program comprised a suite of 80 open circuit development tests, 8 locked cycle flotation tests and follow-up variability tests. Modelled recoveries are shown in **Table 1** (below). These were generated using estimated head grades and the recovery curves derived from the Phase Two test program.

Table 1: Modelled recoveries

Near Surface High Grade Zones (Early Years Mining)

	Pt	Pd	Cu	Ni	Au	Ag
% Recovery	80.6%	86.2%	95.9%	57.0%	85.0%	65.2%
Head Grade	1.58 g/t	1.61 g/t	0.45 %	0.24 %	0.11 g/t	2.77 g/t

Remaining Zones (Later Mining)

	Pt	Pd	Cu	Ni	Au	Ag
% Recovery	77.6%	85.0%	95.4%	55.5%	85.0%	65.2%
Head Grade	1.18 g/t	1.30 g/t	0.41 %	0.23 %	0.10 g/t	2.52 g/t

Optimal results were achieved with bulk flotation, followed by a copper-nickel separation process which resulted in a simple flowsheet and improved overall recovery of metals in two concentrates. The modelled concentrate grade outlined the potential for a clean copper concentrate grading 22% Cu, 38 g/t Pt+Pd and a PGE Ni-rich concentrate grading 50 g/t Pt+Pd and 3.75% Ni. In addition, the results of three multi-element scans of the concentrates did not identify problematic abundances of deleterious elements. A preliminary assessment of concentrate marketability was completed and identified that the projected concentrates produced, were marketable with interest and indicative terms received from several domestic and overseas smelters.

## **Market Commentary**

With four critical metals as potentially payable in its concentrate, the Company is well positioned to take advantage of the pending metals price super cycle predicted by many analysts to supply the green energy revolution. Climate related events over the last few years have awoken the world to the effects of climate change and the need to transition away from fossil fuels as quickly as possible. Almost every major government is injecting significant financial incentives into the green energy transition. Were it not for a generally slower global economy, most significantly China's slowing economy, we would perhaps already be entering a metals price super cycle.

Of particular importance to Clean Air Metals, but not fully recognized yet by the markets, is the important role that platinum will play in the green hydrogen economy. Hydrogen is expected to be the fuel that replaces carbon-based energy in planes, ships, trains, long distance trucking and



the remainder of the heavy transportation industry. In addition, steel manufacturing and other heavy industry, currently reliant on fossil fuels will have to transition to hydrogen.

The production of green hydrogen through electrolysis utilizes platinum in the electrodes to improve efficiency and resist corrosion. Likewise, hydrogen fuel cells use a platinum-based membrane to generate electricity from hydrogen. The platinum market globally is very small with only about 6 million ounces of primary production per year, almost 90% of which comes from South Africa with its inherent supply risk.

Jim Gallagher, CEO of Clean Air Metals stated: "The Thunder Bay North project remains one of the very few and very rare platinum projects outside of Africa. The project development timeline of further exploration, permitting, technical studies and project construction potentially aligns with the growth of the hydrogen economy and potential metals price appreciation. We continue to prudently manage our cash resources and still advance the Project. Equity markets in general are currently very difficult for most of the junior mining sector and the Company does not currently intend to do any dilutive financing at these low valuations. We currently have approximately \$8 million in cash, sufficient to support currently planned activities well into 2024. We do continue to investigate potential strategic partners who share the Company's long-term view on the platinum market and who potentially would partner with the Company moving forward."

## **Upcoming Events**

- Webinar and Q&A session: September 6, 2023 at 4pm ET
- Beaver Creek Precious Metals Summit: September 12-15, 2023

#### **Qualified Person**

Dr. Geoff Heggie, Ph.D., P.Geo., a Qualified Person under National Instrument 43-101 and Vice President, Exploration for the Company, has reviewed and approved all technical information in this press release.

#### **Indigenous Community Social and Economic Engagement**

Clean Air Metals Inc. and its wholly owned subsidiary Panoramic PGMs (Canada) Ltd. acknowledge that the Thunder Bay North Project is on the traditional territories of the Fort William First Nation, Red Rock First Nation 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,



Métis and Inuit peoples based upon principles of mutual trust, respect, reciprocity and collaboration in the spirit of reconciliation.

#### About Clean Air Metals Inc.

Clean Air Metals' flagship asset is the 100% owned, high grade Thunder Bay North Critical Minerals 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 Critical Minerals Project hosts the Current and Escape deposits, twin magma conduits which form the basis for the new mineral resource estimate reported on May 4, 2023.

CEO Jim Gallagher and COO Mike Garbutt lead an experienced technical team who are using a orthomagmatic mineral deposit model to guide ongoing exploration and development studies for a potential mine development on the Project. 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.

#### ON BEHALF OF THE BOARD OF DIRECTORS

"Jim Gallagher"
Jim Gallagher, Chief Executive Officer of Clean Air Metals Inc.

### For further information, please contact:

Jim Gallagher, Chief Executive Officer of Clean Air Metals Inc.

**Phone:** 705-690-7997

Email: jgallagher@cleanairmetals.ca
Website: www.cleanairmetals.ca

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 Project and the Escape and Current deposits and timing of technical studies including prefeasibility studies and updated 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 expectations or projection.