



CENTRAL AMERICA NICKEL INC.

NEWS RELEASE

**CENTRAL AMERICA NICKEL ANNOUNCES  
ULTRASOUND TECHNOLOGY FOR NICKEL AND COBALT  
EXTRACTION AND REDUCTIVE ATMOSPHERIC  
LEACHING PROCESS PATENT**

**Montreal, Quebec / October 24, 2023** – Central America Nickel Inc. (the “Company” or “CAN”) is pleased to announce it has filed a provisional patent application in the United States (Reference number 63/387,565) for the extraction of nickel and cobalt using the Company’s Ultrasound Assisted Extraction (UAEx) and Reductive Atmospheric Leaching (RAL). The Company will also be filing a patent application for this technology in the Democratic Republic of the Congo as well as a Patent Cooperation Treaty (PCT) application which covers 157 contracting regions. The patent application is titled *“Process for extraction of nickel, cobalt, manganese and magnesium from laterite feedstocks.”*

- The process is a combination of Reductive Atmospheric Leaching (RAL), an efficient green alternative to High Pressure Air Leaching (HPAL) as an extraction method, combined with the use of CAN’s ultrasound technology, the Ultrasound Assisted Extraction (UAEx), as a process intensifier.
- The UAEx is an environmentally-friendly alternative to conventional processing methods which increases mineral recovery rates while reducing processing time. The carbon emissions and energy requirements are substantially minimized due to the lack of heat utilized in the cavitation process compared to existing processes; this increased efficiency requires less reagents and results in reduced chemical waste for neutralization.
- Both nickel and cobalt are essential minerals required for the green transition, and are crucial for the development of numerous industrial sectors and energy solutions; nickel and cobalt are primary ingredients for electric vehicle battery production, and are listed on the critical mineral lists outlined by the governments of Canada and the United States.

Metallurgical testing has been conducted on the ore sourced from the Company’s nickel laterite assets in Guatemala, with recovery rates of up to 97% nickel, 95% cobalt and manganese, within 1-hour of extraction time. The key project within CAN’s Guatemalan nickel laterite assets hosts historic inferred resources estimated at **57 million tonnes at a grade of 1.73% Ni, including a calculated 21 million tonnes at a grade of 2.00% Ni**. The Company intends to commence direct shipping ore operations from Guatemala before the end of this year.



By using Reductive Atmospheric Leaching (RAL) in combination with the UAEx, the proprietary metallurgical process represents an environmentally-friendly substitute to conventional extraction methods such as High Pressure Air Leaching (HPAL); the process can be used for the production of nickel-cobalt mixed hydroxide products (MHP) and subsequently nickel, cobalt and scandium sulphates at battery grade levels. CAN's proprietary UAEx technology has been effective at recovering up to 95% nickel, 98% cobalt and over 93% scandium in solution from RAL feed within less than 2-hours. The work on this patent application was done in collaboration with the Company's technology partner, Impact Global Solutions Inc. (IGS). CAN likewise mandated IGS to prepare two metallurgical studies: first one with regard to the production of MHP, and the second study with regard to the production of battery-grade nickel sulphate that could be supplied to EV battery manufacturers. The filed provisional patent application is accessible at: [bit.ly/3VTT1bS](https://bit.ly/3VTT1bS).

The Company is focused on the sourcing, production and processing of strategic and critical minerals, as well as on the development of its proprietary technologies. CAN's work on new metallurgical processes contributes to the extraction industry as it offers several key advantages including rapid mineral separation with reduced processing times and cost considerations compared to traditional methods, while also minimizing overall environmental impact.

### **About The Company**

Central America Nickel Inc. ("CAN") is a privately-held corporation based in Montreal, focused on the processing and purification of critical minerals and energy metals using patented and patent-pending technologies, in partnership with strategic partners. CAN has access, directly or through joint ventures, to minerals projects including nickel, cobalt, scandium, vanadium, lithium and rare earth elements located in several countries, including Guatemala and the Democratic Republic of the Congo.

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### **Forward-Looking Statements**

*Information set forth in this news release involves forward-looking statements under applicable securities laws. The forward-looking statements contained herein include, but are not limited to, financings and transactions being pursued, and all such forward-looking statements are expressly*



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