



LEADING EDGE MATERIALS CORP.

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TSX.V: LEM | Nasdaq First North: LEMSE | OTCQB: LEMIF | FRA: 7FL

NEWS RELEASE

January 9, 2023

LEADING EDGE MATERIALS REPORTS WARRANT EXERCISE AND PROVIDES CORPORATE UPDATE

Vancouver, January 9, 2023 – Leading Edge Materials Corp. (“Leading Edge Materials” or the “Company”) (TSXV: LEM) (Nasdaq First North: LEMSE) (OTCQB: LEMIF) (FRA: 7FL) is pleased to announce that the Interim Chief Executive Officer Mr. Eric Krafft has exercised warrants providing proceeds to the Company of CAD 1.3 million in order to support the ongoing development and exploration programs at its Swedish and Romanian projects. Upon closing of the exercise, Mr. Krafft will hold 38% of the issued and outstanding common shares of Leading Edge Materials, and 42% of the common shares on a fully diluted basis.

Eric Krafft, Director and Interim CEO of the Company, states: “As previously, I am pleased to be able to support funding of the Company by exercising existing issued warrants. There is strong support from the shareholder base and the Board is committed to avoid dilutive equity financings at these levels. We expect material progress during 2023 to advance all our three projects in order to increase and make visible significant shareholder value.”

General corporate update:

Norra Kärr

Norra Kärr (NK) represents one of the most significant heavy rare earth deposits with an unusual enrichment of the heavy magnet critical elements Dysprosium and Terbium. NK is identified as a critical project by the European Parliament (ERECON study). Highlights of the Preliminary Economic Assessment¹ (PEA) completed on NK reported potential to recover the industrial mineral Nepheline Syenite (NS), zirconium oxide (Zr) and niobium oxide (Nb) in addition to the rare earth oxide (REO) products, resulting in more than 50% of total mined material planned to be sold as products. The PEA, in comparison to previous studies, substantially reduced land area usage of the Project by approximately 80% and results in no chemical process tailing dams being required at Norra Kärr. These changes considerably reduce the environmental risk profile of the Project at Norra Kärr, including potentially reducing additional water requirements by almost 100% and the elimination of discharge requirements to local water bodies compared to if mine dewatering is used solely for water supply. Financial highlights of the PEA are a post-tax Net Present Value of \$762M (using a 10% discount rate) and an Internal Rate of Return of 26.3%.

Leading Edge Materials is currently in the process of undertaking the Natura2000 environmental study for project which is expected to highlight the much-reduced environmental footprint of the project as defined in the PEA. Current Swedish legislation requires a Natura 2000 permit prior to the evaluation of a mining lease. In addition to the Natura2000 the Company is planning on commencing the Pre-feasibility Study for NK in the second half of 2023.

Woxna Graphite

Woxna Graphite represents one of few fully-built graphite mines in the western world, with four deposits under mining leases, fully built processing plant and infrastructure. The mine was built in the mid-90s, but currently remains on care and maintenance. During 2022 the Company announced plans to consider re-starting the mine. However, a change in the Company’s executive management during the second half of the year delayed a decision on this process.

¹ See National Instrument 43-101 report titled “PRELIMINARY ECONOMIC ASSESSMENT OF NORRA KÄRR RARE EARTH DEPOSIT AND POTENTIAL BY-PRODUCTS, SWEDEN” prepared for Leading Edge Materials Corp. with effective date August 18, 2021 and issue date August 19, 2021. See Leading Edge Materials Corp.’s SEDAR profile on www.sedar.ca or www.leadingedgematerials.com for report and more information. The PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

A PEA² issued in 2021 indicated the potential viability of a Swedish operation producing battery grade graphite anode material utilising the existing graphite mine and concentrator with the addition of a value-add processing facility offsite. The proposed process route in the PEA uses a thermal purification process which, combined with access to low-cost hydropower offers a low carbon footprint for the operation. The PEA utilised only one of four deposits currently owned by Woxna under granted exploitation concessions, where two of the other deposits also have indicated and inferred mineral resource estimates offering potential upside for further expansion in future development or studies. Based on this, the PEA reports a Post-tax Net Present Value (NPV) of \$248m using an 8% discount rate and IRR of 37.4%.

Bihor Sud

The Bihor Sud exploration license perimeter covers a 25 square kilometre area in the Northern Apuseni Mountains of Transylvania. Located approximately 90 km south-east from Oradea, which is the administrative capital of Bihor County, the Project lies within the Upper Cretaceous and Neogene Carpathian magmatic arcs which extend from Turkey to Hungary and are host to several well-known mines and mineral deposits such as the Timok-Bor-Majdanpek copper-gold zone, Skouries and Chelopech. The Northern Apuseni Mountains have documented high grade skarn and carbonate replacement mineral deposits and historic production of Cu, Mo, Ag, Au, Zn, U and Pb. Within the License area, there is a significant amount of historical mine works including a substantial former underground uranium and polymetallic mine which stopped production in the 1990s.

After receiving the exploration license for Bihor Sud in May 2022, the Company has commenced field work on the property which it holds through its 51% owned Romanian subsidiary, LEM Romania SRL (“LEM”). Initial work focused on field mapping to investigate petrographic, structural, alteration, and mineralisation data with the latter especially located in a carbonate lithology.

Over the last couple of months, LEM’s team of geologists have performed geological mapping work based from the established exploration camp in the Leucii Zone in the south-western area of the license perimeter. Entrance to this area is facilitated by an existing forestry road and grants the exploration team and consultants a base for accessing gallery openings G7 and G4 in the Leucii Zone, and G Dibarz in the Dibarz Zone. This area was prioritized based on results from previous work done and sampling of historical mined material during the prospecting permit, with samples assaying up to 28% nickel, 6.8% cobalt and 17.75 ppm gold.

During this mapping work the carbonate level has been identified precisely in several new locations extending previous knowledge of the extent of the carbonate lithology. Alteration and mineralization zones associated with major fault zones have also been outlined. Additional findings have been several previously unknown historical mining galleries, believed to be from exploration work performed by Soviet geologists in the 1950-60s. These newly identified mining works are two hidden gallery mouths, eight prospecting trenches as well as a number of drilling locations, including discarded drill cores on the ground. These discoveries will aid to better understand the extent of historical exploration work done on the project.

During 2023 the Company is planning on opening adits G7 and G4 which will initially enable a face-sampling program to be undertaken on the historical report base metal exposures reported in these adits. Following this program, the Company expects to commence an exploration drilling program from sites within the adits.

Qualified Person

Martin S. Oczlon, PhD Geo, CEng MIMMM, a consultant to Leading Edge Materials and Qualified Person as defined in NI 43-101, has read and approved all technical and scientific information related to the Company’s projects contained in this news release.

² See National Instrument 43-101 report entitled “NI 43-101 Technical Report – Woxna Graphite” prepared for Woxna Graphite AB with effective date June 9, 2021 and issue date July 23, 2021. See Leading Edge Materials Corp.’s SEDAR profile on www.sedar.ca or www.leadingedgematerials.com for report and more information. The PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

**On behalf of the Board of Directors,
Leading Edge Materials Corp.**
Eric Krafft, Interim CEO

For further information, please contact the Company at:

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About Leading Edge Materials

Leading Edge Materials is a Canadian public company focused on developing a portfolio of critical raw material projects located in the European Union. Critical raw materials are determined as such by the European Union based on their economic importance and supply risk. They are directly linked to high growth technologies such as batteries for electromobility and energy storage and permanent magnets for electric motors and wind power that underpin the clean energy transition towards climate neutrality. The portfolio of projects includes the 100% owned Woxna Graphite mine (Sweden), Norra Kärr HREE project (Sweden) and the 51% owned Bihor Sud Nickel Cobalt exploration alliance (Romania).

Additional Information

The information was submitted for publication through the agency of the contact person set out above, on January 9, 2023 at 3:00 pm Vancouver time.

Leading Edge Materials is listed on the TSXV under the symbol "LEM", on the OTCQB under the symbol "LEMIF" and Nasdaq First North Stockholm under the symbol "LEMSE". Mangold Fondkommission AB is the Company's Certified Adviser on Nasdaq First North.

Reader Advisory

This news release may contain statements which constitute "forward-looking information" under applicable Canadian securities laws, including statements regarding plans, intentions, beliefs and current expectations of the Company, its directors, or its officers with respect to the future business activities of the Company. The words "may", "would", "could", "will", "intend", "plan", "anticipate", "believe", "estimate", "expect" and similar expressions, as they relate to the Company, or its management, are intended to identify such forward-looking information. Investors are cautioned that any such forward-looking information is not a guarantee of future business activities and involves risks and uncertainties, and that the Company's future business activities may differ materially from those in the forward-looking information as a result of various factors, including, but not limited to; the Company's objectives, goals or future plans, statements; exploration results, potential mineralization, the estimation of mineral resources, exploration and mine development plans; the Company has yet to generate a profit from its activities; there can be no guarantee that the estimates of quantities or qualities of minerals disclosed in the Company's public record will be economically recoverable; uncertainties relating to the availability and costs of financing needed in the future; competition with other companies within the mining industry; the success of the Company is largely dependent upon the performance of its directors and officers and the Company's ability to attract and train key personnel; changes in world metal markets and equity markets beyond the Company's control; the possibility of write-downs and impairments; the risks associated with uninsurable risks arising during the course of exploration, development and production; the risks associated with changes in the mining regulatory regime governing the Company; the Company's ability to secure necessary permits to complete exploration work; the potential re-opening of mine galleries in Bihor Sud; and the uncertainty relating to a positive Feasibility Study technical report being filed. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the Forward-Looking Statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such Forward-Looking Statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such Forward-Looking Statements. Such Forward-Looking Statements has been provided for the purpose of assisting investors in understanding the Company's business, operations and exploration plans and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on Forward-

Looking Statements. Forward-Looking Statements are made as of the date hereof, and the Company does not undertake to update such Forward-Looking Statements except in accordance with applicable securities laws. Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accept responsibility for the adequacy or accuracy of this news release.