



## **ELECTRIC METALS (USA) LIMITED UPDATES EMILY MANGANESE DEPOSIT METALLURGICAL TEST WORK**

- Current direct leaching results successful in achieving high manganese extractions of more than 90% using a reductant
- Previous leach test work confirmed +80% recovery of manganese and produced a number of chemical grade manganese products including EMD, EMM, and  $MnCO_3$  in the lab
- Focus is now on developing a viable optimized flow sheet

**Toronto, Ontario, April 22, 2024** – Electric Metals (USA) Limited (“EML” or the “Company”) (TSXV: EML) (OTCQB: EMUSF) is pleased to provide a review and progress report on the manganese metallurgical test work with Kemetco Research Inc., of Richmond, BC, Canada, from samples obtained from the Company’s Emily manganese deposit, located in central Minnesota. Kemetco is one of the leading metallurgical firms specializing in the extraction and processing of manganese ores and compounds worldwide.

As reported in the 2022 NI 43-101, Kemetco was commissioned in 2013 to undertake parametric leach tests on Emily manganese ore to provide an initial determination of leaching conditions and the ultimate manganese recovery potential. Using a leaching protocol that utilizes  $SO_2$  as a reducing agent, Kemetco demonstrated that more than 80% of the manganese could be recovered from the feed without requiring pre-concentration. Kemetco also performed a larger batch leach and used the purified leach solution in laboratory-scale electrowinning to produce of chemical grade manganese dioxide ( $MnO_2$ ), electrolytic manganese metal (EMM) and chemical grade manganese carbonate ( $MnCO_3$ ).

In 2023, Electric Metals recommissioned Kemetco to continue working on the metallurgy and commercial processing. The 2023-4 metallurgical test work at Kemetco utilized two manganese composites weighing approximately 228 kilograms taken from 40 samples:

- Higher grade whole rock composite sample (37.0% Mn, 19.03% Fe, and 4.61%  $SiO_2$ ), and
- Lower grade whole rock composite sample (15.57% Mn, 20.61% Fe, and 38.45%  $SiO_2$ )

The leach optimization tests are leveraging off of the earlier studies and have been conducted to determine appropriate conditions and likely leach yields. The acid leach tests indicate that high manganese extractions recovered more than 90% manganese using a reductant. The metallurgical test work is ongoing with expectations of developing a viable process flowsheet for the project in the coming months. Future work will focus on the optimization of the proposed approaches.

This work has been conducted to determine what products can be economically produced from Emily ore, including High Purity Manganese Sulphate Monohydrate (HPMSM) which is essential and a major component to electric vehicle (EV) batteries, rechargeable batteries, and other emerging energy storage applications.

Brian Savage, CEO, Electric Metals, commented “we are very pleased to be working with Kemetco, a renowned metallurgical laboratory, to advance the Emily manganese deposit metallurgical test work. Our focus is on producing HPMSM, crucial for the EV battery sector, and other high-value manganese chemicals. We look forward to continued positive results”.

### **Qualified Person**

The scientific and technical data contained in this news release was reviewed and approved by Norman Chow, PEng, who is a Qualified Person under National Instrument 43-101 Standards of Disclosure for Mineral Projects.

### **About Kemetco Research Inc.**

Kemetco Research Inc is a Richmond, BC, Canada based company specializing in Extractive Metallurgy, Mineral Processing, Specialty Chemistry, Chemical Processing, Battery Technology, and Green Technology with experience in manganese processing. Kemetco clients range from multibillion dollar production companies to engineering contractors and exploration companies. The company offers services including metallurgical testing, flowsheet development, laboratory optimization, and pilot work.

### **About Electric Metals (USA) Limited**

Electric Metals (USA) Limited (TSXV: EML) (OTCQB: EMUSF) is a U.S.-based mineral development company with manganese and silver projects geared to supporting the transition to clean energy. The Company’s principal asset is the Emily Manganese Project in Minnesota, which has been the subject of considerable technical studies, including a National Instrument 43-101 Technical Report – Resource Estimate, with over US\$26 million invested to date. The Company’s mission in Minnesota is to become a domestic U.S. producer of high purity, high value manganese metal and chemical products for supply to U.S. energy, technology and industrial markets. With manganese playing a critical and prominent role in lithium-ion battery formulations, and with no current domestic supply or active mines for manganese in North America, the development of the Emily Manganese Project represents a significant opportunity for America, the State of Minnesota and for the Company’s shareholders.

### **For further information please contact**

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### **Forward-Looking Information**

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“intends,” “could”, “estimates”, “expects”, “forecasts”, “projects” and similar expressions, and the negative of such expressions.

Forward-looking statements in this news release include, but are not limited to, statements with respect to the announcement of updated metallurgical test work to produce battery grade high purity manganese sulphate monohydrate (HPMSM) and other high-grade manganese products from the Emily Manganese Project ore.

These statements address future events and conditions and so involve inherent risks, uncertainties and other factors that could cause actual events or results to differ materially from estimated or anticipated events or results implied or expressed in such forward-looking statements. Such risks include, but are not limited to, the failure to obtain all necessary stock exchange and regulatory approvals. Forward-looking information is based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and perception of trends, current conditions and expected developments, and other factors that management believes are relevant and reasonable in the circumstances at the date such statements are made. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information.

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