

# FIRST ENERGY METALLURGICAL HEAD SAMPLE ASSAYS 1.46 PERCENT LITHIUM OXIDE FOR AUGUSTUS LITHIUM PROPERTY TESTWORK

VANCOUVER, BC, April 4, 2022 /CNW/ - **First Energy Metals Ltd.** (CSE: FE) ("**First Energy**" or the "**Company**") is pleased to announce that it has received an update from SGS Canada Inc. in Lakefield, Ontario, Canada regarding progress and the next steps to be taken for the ongoing metallurgical testwork on the Augustus Lithium Property. The head sample being used for the testwork assayed 1.46 percent lithium oxide (Li<sub>2</sub>O).

The following are the highlights of the metallurgical testwork steps:

1. The head sample assayed 0.68% Li (or 1.46% Li<sub>2</sub>O), with < 0.01% total sulphur (S). An ICP multi-element scan and XRD on a head sample were still pending.
2. Heavy liquid separation (HLS) testing showed favourable potential of using dense media separation (DMS) to produce >6% Li<sub>2</sub>O concentrates at specific gravity (SG) of 2.90 and above, at ~32% global lithium recovery, or 40% stage recovery. However, it was noted that the iron content in the spodumene concentrate was high, at 1.40% iron oxide (Fe<sub>2</sub>O<sub>3</sub>). Magnetic separation will be attempted to recover this iron.
3. The laboratory is requested to proceed to DMS operations with a 1<sup>st</sup> pass stage at an SG of 2.65 to remove major silicate gangue minerals followed by a 2<sup>nd</sup> pass stage on the 1<sup>st</sup> pass floats at an SG of 2.90 to produce spodumene concentrate. The DMS concentrate will be split into 2 or 3 fractions to attempt to reject iron through magnetic separation and produce a final spodumene concentrate targeting >6% Li<sub>2</sub>O and < 1% Fe<sub>2</sub>O<sub>3</sub> assays. The DMS middlings plus the DMS -0.5 mm fines will be combined for flotation testing and QEMSCAN analysis.
4. The DMS operation if successful can result in lower operating costs for the project at the production stage.

## **About Metallurgical Testwork**

The goal of the testwork is to develop a preliminary process to treat the spodumene bearing lithium mineralized rock to conceptualize a flowsheet, produce lithium oxide concentrate, and generate a high-purity lithium carbonate product.

The Company has shipped to SGS Canada Inc. in Lakefield, Ontario, a 200-kilogram sample which includes a 50/50 mixture of drill core and surface samples with visible spodumene bearing lithium oxide mineralization.

The testwork approach will be to first develop a beneficiation process on the composite sample with the goal of generating concentrate >6% Li<sub>2</sub>O at maximum recovery. Dense media separation (DMS) and flotation will be the main two processes examined. Beneficiated concentrates from this work will be combined for extractive metallurgical evaluation. The main goal of this part of the scope will be to generate a high-purity lithium carbonate product.

The program is scheduled to be completed in 28 weeks' time period. As the testwork includes several stages, the Company will keep track of progress on each stage and will release interim results as they are received from the laboratory.

Afzaal Pirzada, P.Geo., Geological Consultant of the Company, and a "Qualified Person" for the

purposes of National Instrument 43-101 - *Standards of Disclosure for Mineral Projects*, has reviewed and approved the scientific and technical information contained in this news release.

ON BEHALF OF THE BOARD OF  
**FIRST ENERGY METALS LTD.**

**"Gurminder Sangha"**

Gurminder Sangha  
CEO & Director

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*Except for the statements of historical fact, this news release contains "forward-looking information" within the meaning of the applicable Canadian securities legislation that is based on expectations, estimates and projections as at the date of this news release. "Forward-looking information" in this news release includes information about the Company's information concerning the intentions, plans and future actions of the parties to the transactions described herein and the terms thereon.*

*The forward-looking information in this news release reflects the current expectations, assumptions and/or beliefs of the Company based on information currently available to the Company. In connection with the forward-looking information contained in this news release, the Company has made assumptions about the Company's ability to obtain required approvals. The Company has also assumed that no significant events occur outside of the Company's normal course of business. Although the Company believes that the assumptions inherent in the forward-looking information are reasonable, forward-looking information is not a guarantee of future performance and accordingly undue reliance should not be put on such information due to the inherent uncertainty therein.*

Table 1: Head Sample Assays

Sample ID	Head Assays, %																
	Li	Li <sub>2</sub> O	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	MnO	Cr <sub>2</sub> O <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	LOI	Sum	S
Composite Head	0.68	1.46	74.9	15.0	0.47	0.05	0.15	3.32	2.90	<0.01	0.01	0.13	<0.01	<0.01	0.62	97.6	<0.01

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