

# EMP METALS FILES TECHNICAL REPORT TO SUPPORT PRELIMINARY ECONOMIC ASSESSMENT FOR VIEWFIELD LITHIUM BRINE PROJECT

VANCOUVER, BC, Feb. 15, 2024 /CNW/ - **EMP Metals Corp.** (CSE: EMPS) (OTCQB: EMPPF) ("**EMP Metals**" or the "**Company**") is pleased to announce the filing of a National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") technical report (the "Technical Report") with respect to the Viewfield Lithium Brine Project. The Technical Report titled "*NI 43-101 Technical Report: Preliminary Economic Assessment of the Lithium Brines in the Viewfield Area – Phase 1*" dated February 12, 2024 and effective as of October 31, 2023 supports the preliminary economic assessment (the "PEA") on the Viewfield Lithium Brine Project (see news release dated January 9, 2024). The Technical Report is available on [www.sedarplus.com](http://www.sedarplus.com) and on the Company's website at [www.empmetals.com](http://www.empmetals.com).

## **PEA Highlights**

- Average of 12,175 tonnes/year of battery-grade lithium carbonate over a 23-year period;
- USD \$1.49 billion NPV using an 8% discount on a pre-tax basis;
- Pre-tax IRR of 55% which represents a payout duration of 2.1 years;
- USD \$1.06 billion NPV using an 8% discount rate on an after-tax basis;
- After-tax IRR of 45% which represents a payout duration of 2.4 years;
- All-in operating costs ("OPEX") of \$3,319 USD/tonne LCE;
- Total capital expenditures ("CAPEX") of \$571 million USD inclusive of both direct and indirect capital costs, including \$52 million USD in contingency;
- Weighted average lithium concentrations of 128 mg/L from 7 target zones over the project life (range of 84 mg/L to 259 mg/L);
- Project economics used a base USD \$20,000/tonne. 20% variation in price to either USD\$16,000/tonne or USD \$24,000/tonne of LCE generates after-tax IRRs of 34% and 56%, respectively, and
- PEA encompasses approximately 11,000 net hectares, representing 46% of HCL's Viewfield land holdings and only 14% of HCL's total land holdings in Southern Saskatchewan.

## **Project Development**

The development plan employed in the PEA has been broken into three distinct units:

1. Wellfield: includes all production wellbores, disposal wellbores and pipeline networks.
2. Direct Lithium Extraction ("DLE"): includes infrastructure related to pre-filtration and DLE operations. Koch Technology Solutions ("KTS") was the DLE technical partner selected for the PEA.
3. Concentration, Refining and Conversion ("CRC"): includes all infrastructure downstream of DLE required to refine and convert lithium chloride eluent into battery grade LCE. Saltworks Technologies ("Saltworks") was the CRC technical provider selected for the PEA.

Based on production testing and fluid analysis conducted by HCL in 2023 in the Viewfield project area, in addition to publicly available lithium testing throughout the area, it is expected to see lithium grades of 84 mg/L to 259 mg/L in the seven target members of the Duperow within the PEA lands. Over the life of the project, an average weighted concentration of 128 mg/L has been estimated.

Exploitation of the resource will occur in two production stages via multi-leg, horizontal wellbores. All

project capital (minus end-of life capex) is allocated at the beginning of the project, with production estimated to commence in Q1 2027.

- Stage 1: Wymark C, D and E (Years 1-7)
  - These zones are the shallowest and highest concentration (160 mg/L to 259 mg/L) zones and will be produced first through to depletion
  - Average LCE output during Stage 1 is 18,850 tonnes/year with average OPEX of \$2,332/tonne USD
- Stage 2: Wymark A, B and Saskatoon A, B (Years 8 onward)
  - These zones are lower concentration (84 mg/l to 145 mg/L) and will be exploited after depletion of Wymark C, D and E
  - Average LCE output during Stage 2 is 10,200 tonnes/year with average OPEX of \$4,166/tonne USD

Note: A recovery factor of 50% of Total Lithium in Place was estimated for the PEA

A total of 36 multi-leg production wells will be drilled to exploit 7 target members of the Duperow, in addition to 30 vertical disposal wells to dispose of spent brine and process water. A network of underground pipelines will be constructed to transport the large water volumes from the wellheads to a DLE site for extraction and concentration to lithium chloride, and from there the eluent will be transported via pipelines to a CRC site for refining and conversion into battery-grade LCE. A total of five DLE sites and two CRC sites will process a daily average of 62,000 m<sup>3</sup>/day of brine, resulting in an average output of 12,175 tonnes/year of battery-grade LCE.

Additional information related to the PEA is contained in the Company's news release dated January 9, 2024.

## **PEA Cautionary Note**

The PEA is preliminary in nature and includes inferred resources that are considered too speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty the estimates presented in the PEA will be realized.

## **About EMP Metals**

EMP Metals is a Canadian-based lithium exploration and development company focused on large scale resources using direct lithium extraction ("DLE"). EMP Metals, in partnership with ROK Resources Inc., currently holds 196,000 net (79,300 hectares) acres of Subsurface Dispositions and strategic wellbores in Southern Saskatchewan. For more information, please go to the Company's website at [www.empmetals.com](http://www.empmetals.com)

## **Qualified Persons and Technical Report**

The Preliminary Economic Assessment was prepared by Sproule Associates Limited. ("Sproule") with the assistance of the contractors outlined below. All contractors completing the report are Qualified Persons as defined by NI 43-101 and are independent of the Company. The National Instrument 43-101 PEA report will be filed on SEDAR ([www.sedarplus.com](http://www.sedarplus.com)) within 45 days.

Sproule Associates Limited: Sproule is a global energy consulting and advisory firm that helps companies, investors and governments minimize risk and optimize business decisions. Ms. Meghan Klein ("Klein"), P.Eng., is the Sr. Manager Engineering at Sproule and a Qualified Person for the PEA.

Red Tree Exploration Inc. ("Red Tree Exploration"): Red Tree Exploration is an independent Geological consulting company with experience in oil and gas, lithium and helium evaluations. Mr. Trevor Else ("Else"), P.Geo., is a Qualified Person for the PEA and the President of Red Tree

Exploration.

**Koch Technology Solutions:** Koch Technology Solutions is a technology licensing business, a part of Koch Engineered Solutions. KTS creates value for its customers across a growing portfolio of technologies including the polyester value chain, the refining industry and lithium extraction fields. Nojan Ghadi ("Ghadi"), is a Qualified Person for the PEA.

**Saltworks Technologies:** Saltworks is a team of engineers, scientists and builders focused on the innovation, construction and delivery of full-scale systems to treat industrial wastewater and refine lithium into a battery-grade product. Mr. Ben Sparrow ("Sparrow"), P.Eng., is a Qualified Person for the PEA and CEO of Saltworks.

Each of Klein, Else, Ghadi and Sparrow are independent Qualified Persons in accordance with NI 43-101 and have reviewed and approved the technical contents of this news release.

## **Forward-Looking Statements**

Information set forth in this news release contains forward-looking statements that are based on assumptions as of the date of this news release. These statements reflect management's current estimates, beliefs, intentions and expectations. They are not guarantees of future performance. EMP Metals cautions that all forward-looking statements are inherently uncertain, and that actual performance may be affected by a number of material factors, many of which are beyond EMP Metals' control. Such factors include, among other things: risks and uncertainties relating to EMP Metals' limited operating history, ability to obtain sufficient financing to carry out its exploration and development objectives on its mineral properties, obtaining the necessary permits to carry out its activities and the need to comply with environmental and governmental regulations. Accordingly, actual and future events, conditions and results may differ materially from the estimates, beliefs, intentions and expectations expressed or implied in the forward-looking information. Except as required under applicable securities legislation, EMP Metals undertakes no obligation to publicly update or revise forward-looking information.

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**For further information:** Rob Gamley, President & CEO, [rob@empmetals.com](mailto:rob@empmetals.com), Phone: 1-604-689-7422; Paul Schubach, COO, [paul@empmetals.com](mailto:paul@empmetals.com), Phone: 1-306-519-8341

CO: EMP Metals Corp.

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