E3 METALS CORP

Development of E3 Metals' Extraction Technology Improves Lithium Concentration and Recovery

HIGHLIGHTS

- E3 Metals' brine concentrated lithium nearly 20 times, to 1498 mg/L Li
- Extraction testing achieved lithium recoveries greater than 99% Li
- Successful scale-up of lithium-selective sorbent outperformed previous testing
- E3 Metals releases an updated Investor Presentation

CALGARY, Dec. 4, 2018 /CNW/ - E3 METALS CORP. (TSXV: ETMC) (FSE: OU7A) (OTC: EEMMF) (the "Company" or "E3" or "E3 Metals"), is pleased to provide an update on the optimization and scale up of its proprietary extraction technology as part of the pilot plant project previously announced on September 26, 2018.

The first set of objectives leading to the pilot plant project was to reproduce and enhance the performance of the initial results of the lithium extraction testing from E3 Metals' brine. Four recent extraction tests completed on the scaled-up sorbent exceeded previous performance. The tests achieved demonstrated lithium recoveries greater than 99%, averaging 90%, and volume reductions up to 20 times while consistently removing 99% of critical metal impurities. The extraction testing produced lithium-enriched brines with up to 1498 mg/L lithium from an original raw brine concentration of 72 mg/L. The average concentration factor across the four tests was 18 times with an average increase in concentration to 1308 mg/L.

This work was conducted at GreenCentre Canada and demonstrated the successful enhancement of the ion-exchange sorbent developed in collaboration with the University of Alberta, funded through Alberta Innovates (see E3 Metals news announcement August 28, 2018). An important differentiator of this proprietary technology is that it concentrates and purifies Alberta petro-brine feedstock in a single step, producing a highly concentrated lithium feedstock for further purification and refinement into battery-grade lithium products. The technology is also designed to be proficient at processing raw brines at the high brine flow rates that the Leduc Reservoir is capable of delivering[1].

The next steps planned for the ion-exchange optimization is to test performance at increased concentration factors and repeat cycles. Once the Company has successfully demonstrated the performance goals of the ion-exchange material, it will move closer towards the construction of a pilot plant, which will include:

- Optimizing the ion-exchange sorbent material to commercial readiness
- Design, construction and testing of lab-scale ion-exchange equipment using the optimized sorbent material
- Refining mass balance and generating large volumes of concentrate
- Producing lithium hydroxide at the lab-scale
- Finalizing the lithium production process flow sheet

"The increased performance of the ion-exchange material demonstrates that E3 Metals continues to be on the right track with its proprietary technology," commented E3's CEO, Chris Doornbos. "The ion-exchange sorbent, and continual scale-up of this process, is the last key development prior to outlining a full cycle process flow sheet for lab-scale production of lithium hydroxide. While we continue to push for increased performance of the technology, the Company is confident that it is in a position to achieve its goals outlined above."

The lithium extraction technology under development at our partner's laboratories represents a small portion of the overall direct brine processing flow sheet E3 intends to pursue. The Company has developed a technology that we believe integrates seamlessly into already commercially available processes, minimizing the overall technology development risk. There is no guarantee these results will have a positive impact on overall project economics.

E3 Metals is also pleased to announce that it has released a new Investor Presentation, available on the Investor tab at www.e3metalscorp.com. This presentation includes further details on technology development and the overall extraction process flow sheet. Please contact investor@e3metalscorp.com to receive further details.

ON BEHALF OF THE BOARD OF DIRECTORS,

Chris Doornbos, President & CEO
E3 METALS CORP.

Chris Doornbos (P.Geo), CEO and Director of E3 Metals Corp., is a Qualified Person as defined by NI 43-101 and has read and approved the technical information contained in this announcement.

1: E3 Metals NI 43-101 Report: Geological introduction to E3 Metals Corp. Clearwater and Exshaw Lithium-Brine Properties in South-Central Alberta. This report is available on SEDAR (www.sedar.com)

This news release includes certain forward-looking statements concerning the potential of the Company's projects and technology, as well as management's objectives, strategies, beliefs and intentions. Forward looking statements are frequently identified by such words as "may", "will", "plan", "expect", "anticipate", "estimate", "intend" and similar words referring to future events and results. Forward-looking statements are based on the current opinions and expectations of management. All forward-looking information is inherently uncertain and subject to a variety of assumptions, risks and uncertainties, including the speculative nature of mineral exploration and development, fluctuating commodity prices, the effectiveness and feasibility of emerging lithium extraction technologies which have not yet been tested or proven on a commercial scale or on the Company's brine, competitive risks and the availability of financing, as described in more detail in our recent securities filings available at www.sedar.com. Actual events or results may differ materially from those projected in the forward-looking statements and we caution against placing undue reliance thereon. We assume no obligation to revise or update these forward-looking statements except as required by applicable law.

SOURCE E3 Metals Corp.

View original content to download multimedia:
http://www.newswire.ca/en/releases/archive/December2018/04/c1089.html

%SEDAR: 00011471E

For further information: 205 - 227 10th St NW, Calgary, AB T2N 1V5, +1 (587) 324-2775, info@e3metalscorp.com, e3metalscorp.com

CO: E3 Metals Corp.

CNW 00:05e 04-DEC-18