

St-Georges Eco-Mining Corp. Lithium Hydroxide Production Plant Engineering Report

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Montréal, May 4, 2023 - [St-Georges Eco-Mining Corp.](#) (CSE: SX) (OTC: SXOOF) (FSE: 85G1) is pleased to report the completion of an important milestone in the preparation of its proposed lithium hydroxide production plant. The Company would also like to provide an overview of other important advancements related to its battery recycling operations.

St-Georges Metallurgy - Lithium Hydroxide Process

WSP Engineering has completed the metallurgical modeling and mass balances for the lithium process. The metallurgical modeling report covers all interactions of gases, elements in the liquids requiring treatment, and the evaluation of elements that are turned into products. The study covers in detail all the reactions, endothermic and exothermic, allowing for optimum equipment and plant design. Care for wear, corrosion resistance, and spare parts planning is also part of the independent review of the Company's effort. The Company will undertake efforts to evaluate full sensor integration to optimize the plant's automation.

The next phase will begin once production and operational agreements with strategic suppliers of different technological areas of the process are completed. This phase will help size and determine the opex and capex of the various scenarios being considered, including lithium-ion battery recycling and spodumene hard rock. The Company is planning to use Canadian resources from Quebec and Ontario. Other material from overseas is currently being reviewed and pilot tested by the Company's contracted laboratories.

The work is planned for evaluation at several sites in Quebec and Ontario. These sites were shortlisted to include infrastructure and optimize transport.

"(…) These studies have saved us invaluable time and money, allowing us to accelerate the process dramatically (…); the next phases of work will be based on business decisions for each location's size and operating costs. This is intended to finalize the optimal balance of site and strategy for current and future operations with respect to resources and battery recycling (…); This is a powerful moment for us as everything is coming together (…); there will be a lot of detailed work going on behind the scenes even if it doesn't make for lots of exciting announcements (…)" said Enrico Di Cesare, CEO of EVSX and St-Georges Metallurgy.

Aluminum Recovery

Aluminum recovery has progressed well and now has possible options such as high-purity alumina and alumina nitrate.

"(…) It may seem confusing where the aluminum is coming from. A pure crystal of spodumene has the chemical formula $\text{LiAl}(\text{Si}_2\text{O}_6)$. For every molecule of lithium entering the solution, we obtain a molecule of aluminum (…); close to four times the amount of aluminum entering the solution. Therefore, we feel the time spent turning this product into a valuable, salable one was worthwhile. The remaining by-product is silica (SiO_2), or, to help visualize it, beach sand (…); This work does not include the by-products of various chemistries of fertilizer by-products, which will be directly associated with the chemistry of the source of spodumene," said Enrico Di Cesare, CEO of EVSX and St-Georges Metallurgy.

Modeling Includes Air Streams

Confidentiality and design protection agreements are expected to be signed prior to providing information to

suppliers for a lithium showcase facility. The facility is intended for spodumene and lithium-ion battery recycling to produce lithium hydroxide. The location has not been chosen yet, but it is expected to be in Quebec or Southern Ontario, potentially in the Thorold area.

Research and development have continued at a larger scale, confirming what has already been accomplished. This information will be used to obtain a solid CapEx for the large pilot plant/showcase facility. The Company will apply for grants for the facility.

EV SX - Battery Recycling Update

The Company is in advanced discussions with other battery recyclers, as well as with major car and battery manufacturers, to secure additional tonnages of batteries. Black mass from battery aggregators overseas is being sourced, and it is expected that the first maritime containers of material will be received by EV SX in the second half of 2023.

The first automated circuit to prepare the batteries will be en route to Thorold, Ontario, in May and is expected to be on-site in Q3. The automated circuit of 26 modular units in transit is contained in 12 standard and specialized containers. The circuit will allow the Company to process lithium and nickel-based batteries, for example, nickel-cadmium domestic batteries, at a rate of 7,800 tons annually. Currently, the capacity for alkaline battery recycling is just under 5,000 tons, with the imperative to ramp up capacity to over 20,000 tons due to the current levels of solicitation by third parties requiring extra capacity. This circuit is now installed and ready, awaiting environmental permitting. The Company is accelerating the efforts to optimize it and upgrade its capabilities while it can start industrial production.

Ferro-Manganese Production Plant

The Company has identified potential partners to process the plastic from batteries until and if it establishes its own plastic capacities. These partnerships would allow EV SX to recycle 100% of the batteries. There is an agreement in place that would enable the Company to start production and sell the manganese and zinc, which represent approximately 80% of the mass of the alkaline batteries, as a soil regenerator for agricultural applications. However, the Company's goal is to switch a large part of this production to the tertiary production of ferro-manganese with an initial capacity in Canada of 25,000 tons per year. Potential partners are in discussions to finance that part of the operation. The Company has mandated that its independent engineering firm review and update the internal confidential study completed two years ago for this segment of the recycling business.

ON BEHALF OF THE BOARD OF DIRECTORS

"Frank Dumas"

FRANCOIS (FRANK) DUMAS

Chief Operating Officer & Director of [St-Georges Eco-Mining Corp.](#)

About St-Georges Eco-Mining Corp.

St-Georges develops new technologies to solve some of the most common environmental problems in the mining sector, including maximizing metal recovery and full-circle battery recycling. The Company explores for nickel & PGEs on the Manicouagan and Julie Projects on Quebec's North Shore and has multiple exploration projects in Iceland, including the Thor Gold Project. Headquartered in Montreal, St-Georges' stock is listed on the CSE under the symbol SX and trades on the Frankfurt Stock Exchange under the symbol 85G1 and as SXOOF on the OTCQB Venture Market for early stage and developing U.S. and international companies. Companies are current in their reporting and undergo an annual verification and management certification process. Investors can find Real-Time quotes and market information for the company on www.otcmarts.com

Visit the Company website at www.stgeorgesecomining.com

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