

Volt Lithium Corp. Announces Successful Pilot Project, Confirming 90% Lithium Recovery, Commercial Economics And Unprecedented Breakthrough

24.05.2023 | [GlobeNewswire](#)

- *Pilot Project achieved 90% lithium recoveries at concentrations as low as 34 mg/L*
- *97% recoveries achieved using 120 mg/L concentrations under simulated operating conditions*
- *Operating costs under CAD\$4,000 per tonne at 120 mg/L expected to drive robust economics*
- *Novel breakthrough confirms commercial lithium extraction at low concentrations*
- *Pilot Project results set the stage for preparation of Preliminary Economic Assessment*

Calgary, Alberta, Canada, May 24, 2023 -- [Volt Lithium Corp.](#) (TSX-V: VLT, OTCQB: VLTLF, FSE: I2D) ("Volt" or the "Company") is very pleased to announce the results from a successful pilot project to test its proprietary direct lithium extraction ("DLE") technology in a simulated commercial environment (the "Pilot Project"). The Pilot Project proved the Company's ability to achieve lithium recoveries of 90% based on concentrations of only 34 mg/L. The Company also simulated operating conditions at concentrations of 120mg/L and achieved recoveries of up to 97% with operating costs under CAD\$4,000 per tonne, assuming sustained average annual production of 20,000 tonnes (tpa) of lithium hydroxide monohydrate ("LHM"). Further, in an unprecedented result, the Pilot Project proved Volt's DLE technology can maintain 90% lithium recoveries in concentrations as low as 34 mg/L, and still maintain commercial economics, an achievement that has yet to be reported by other lithium producers.

"Volt has achieved remarkable and ground-breaking results through the Pilot Project, and achieved an impressive 97% recovery rate with 120 mg/L concentrations under simulated operating conditions. I want to thank the entire R&D, operational and engineering teams for their dedication and hard work in successfully executing this first phase," commented Alex Wylie, President and CEO of Volt. "These results confirm that Volt's proprietary technology is a true game-changer. With this accomplishment, we are poised to lead the way in North America as the first commercial producer of lithium from oilfield brines, which we are targeting for the second half of next year."

Volt is pleased to be participating in a webinar hosted by Energy Prospectus Group later this morning, Wednesday, May 24 at 11AM ET (9AM MT / 8AM PT) to discuss the Company, the significance of these results and what lies ahead for Volt and its stakeholders. All interested parties are encouraged to join the live webinar by clicking [HERE](#).

PILOT PROJECT PROVES COMMERCIALITY OF VOLT'S TECHNOLOGY

In March of 2023, Volt commenced its Pilot Project which was designed to simulate a commercial operating environment and allow the Company to confirm economic recoveries of lithium at concentrations of up to 120 mg/L, an equivalent concentration to that found in the Muskeg aquifer at Volt's Rainbow Lake Property as outlined in the Company's press release issued May 18, 2023. The Pilot Project enables Volt to verify the extraction capabilities of its IES-300 technology and to determine operating costs for the DLE process, a key factor in determining viability for commercial applications and ultimate profitability.

The Company consistently achieved extraction recoveries up to 90% using IES-300 at low lithium concentrations of 34 mg/L. Volt simulated pilot conditions using brine concentrated to 120 mg/L and achieved lithium extraction results as high as 97% with realized operating costs of less than CAD\$4,000 per tonne, assuming sustained average production of 20,000 tpa of LHM. The Company intends to process brines with lithium concentrations of 120 mg/L through the Pilot Project in the next week to validate in practice the results Volt realized in its simulated environment.

As outlined in the Company's technical report, Volt has a total inferred mineral resource of 4.3 million tonnes of lithium carbonate equivalent ("LCE") (4.9 million tonnes of LHM) at its Rainbow Lake property, more than 215 times its targeted sustained average production of 20,000 tpa, with lithium concentrations as high as 121 mg/L. This affords Volt ample brine sources at varying lithium concentrations in its current asset base to continue advancing commercial development, including commencing discussions to secure the required refining infrastructure needed to generate commercial quantities of LHM.

Volt's R&D and operational team, led by Dr. John McEwen, PhD, Chem, believe the operating conditions have been successfully achieved for lithium extraction culminating in a successful Pilot Project.

PROPRIETARY TWO-STAGE DLE TECHNOLOGY PROCESS

Volt's proprietary DLE technology involves a two-stage process to extract lithium from oilfield brine. In Stage One, the oilfield brine is treated using proven equipment and established processes, and during the Pilot Project, Volt confirmed the ability to effectively remove up to 99% of contaminants in the preparation of clean brine for the DLE process. This is critical as having contaminants in the brine causes interference during the DLE process and can lead to uneconomic processes.

Please click here to view image

In Stage Two, Volt uses the Company's proprietary IES-300 technology to extract lithium from the brine, which is concentrated down into a lithium chloride solution that will ultimately be upgraded to LHM, an essential raw material required for batteries, and in particular, electric vehicle batteries. Volt's IES-300 technology reduces the amount of re-agent required to treat oilfield brine as it enters the extraction process.

The combination of continued high lithium extraction levels, a streamlined process and ongoing efficiency improvements has resulted in lower operating costs for Volt, demonstrated at less than CAD\$4,000 per tonne in the Pilot Project, driving robust economics that can support sustainability and anticipated profitability over the long-term.

STRATEGIC IMPORTANCE OF PILOT PROJECT BREAKTHROUGH

While the Company's asset base offers significant development opportunities at the higher lithium concentration levels, Volt recognized that expanding its asset base and access to brine necessitates achieving extraction recovery levels of at least 90% using brine that contains much lower lithium concentrations.

Through the Pilot Project, the Company simulated a number of operating conditions and various cycle times for its proprietary IES-300 technology in order to determine the parameters for eventual commercial operations and confirm IES-300 was robust enough to successfully extract lithium from the lowest concentration brine in oilfields and other reservoirs. Volt succeeded in achieving recoveries of 90% at concentrations as low as 34 mg/L, with the operating costs associated with varying concentration levels under commercial operating assumptions shown in Figure A. This technological discovery effectively opens up multiple oilfield reservoirs across North America that can now offer commercial lithium extraction using Volt's proprietary DLE process.

The operating cost estimates presented in Figure A included reagent, direct and indirect costs for the DLE process, with approximately 63% of the total operating costs based on usage of reagent and other consumables that are required to extract lithium from the brine, as well as conversion to LHM. Since the Company did not seek to optimize reagent usage during the Pilot Project, Volt anticipates that future reagent consumption can be optimized and will be explored once a permanent pilot plant is commissioned.

NEXT STEPS

Based upon the successful execution of the Pilot Project, Volt will look to establish a permanent pilot plant in

order to continue refining its IES-300 technology, test the optimization of reagent usage, and continue to improve operating conditions with the goal of continually driving down operating costs to achieve improved economics that underpin commencing commercial operations.

In addition, Volt will continue to focus on upgrading its resource estimate and commencing the preparation of a Preliminary Economic Assessment based on the successful extraction and operating results of this Pilot Project and the Company's recently published NI 43-101 resource report. Volt will also advance the engineering design phase to determine the optimal commercial parameters for its DLE process which will ultimately support the achievement of commercial production by the second half of 2024.

QUALIFIED PERSON

Scientific and technical information contained in this press release has been prepared under the supervision of Doug Ashton, P.Eng, and Meghan Klein, P.Eng of Sproule Associates Limited, each of whom are qualified persons within the meaning of National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101").

About Volt

Volt is a lithium development and technology company aiming to be North America's first commercial producer of LHM and lithium carbonates from oilfield brine. Our strategy is to generate value for shareholders by leveraging management's hydrocarbon experience and existing infrastructure to extract lithium deposits from existing wells, thereby reducing capital costs, lowering risks and supporting the world's clean energy transition. With four differentiating pillars, and a proprietary Direct Lithium Extraction ("DLE") technology, Volt's innovative approach to development is focused on allowing the highest lithium recoveries with lowest costs, positioning us well for future commercialization. We are committed to operating efficiently and with transparency across all areas of the business staying sharply focused on creating long-term, sustainable shareholder value. Investors and/or other interested parties may sign up for updates about the Company's continued progress on its website: <https://voltlithium.com/>.

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Forward Looking Statements

This news release includes certain "forward-looking statements" and "forward-looking information" within the meaning of applicable Canadian securities laws. When used in this news release, the words "anticipate", "believe", "estimate", "expect", "target", "plan", "forecast", "may", "would", "could", "schedule" and similar words or expressions, identify forward-looking statements or information. Statements, other than statements of historical fact, may constitute forward looking information and include, without limitation, statements about future exploration activities; the preparation and disclosure of a NI 43-101 technical report; the merits of the Rainbow Lake Project; the disclosure of additional technical information and recommended exploration activities for the Rainbow Lake Project; the financial position, assets, liabilities and loss position of Volt; Volt's future financial commitments; Volt's expected financial position and financial commitments following completion of the Acquisition; the satisfaction of closing conditions and completion of the Acquisition; the merits of the Acquisition; the ownership and management of the Company upon closing; the minerals targeted by Volt; that the Acquisition accelerates the execution of the Company's strategy; and the expected closing of the Acquisition. Forward-looking statements and forward-looking information also include any statements relating to future mineral production, liquidity, enhanced value and capital markets profile of Volt, future growth potential for Volt and its business, and future exploration plans. With respect to the forward-looking information contained in this news release, the Company has made numerous assumptions regarding, among other things, the closing of the Acquisition; the approval of the TSXV; and the ability of the parties to complete the Acquisition as contemplated in the Agreement. Assumptions have also been made

regarding, among other things, the price of copper, lithium and other metals; no escalation in the severity of the COVID-19 pandemic; costs of exploration and development; the estimated costs of development of exploration projects; Volt's ability to operate in a safe and effective manner and its ability to obtain financing on reasonable terms, that the geological, metallurgical, engineering, financial and economic advice that the Company has received is reliable and are based upon practices and methodologies which are consistent with industry standards. While the Company considers these assumptions to be reasonable, these assumptions are inherently subject to significant uncertainties and contingencies and may prove to be incorrect. Additionally, there are known and unknown risk factors which could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information contained herein. Known risk factors include, among others: fluctuations in commodity prices and currency exchange rates; uncertainties relating to interpretation of well results and the geology, continuity and grade of mineral deposits; uncertainty of estimates of capital and operating costs, recovery rates, production estimates and estimated economic return; inability to obtain TSXV approval on terms acceptable to the Company and the Vendors; inability to satisfy the closing conditions of the Agreement; inability to realize the expected synergies from the Acquisition; the need for cooperation of government agencies in the exploration and development of properties and the issuance of required permits; the need to obtain additional financing to develop properties and uncertainty as to the availability and terms of future financing; the possibility of delay in exploration or development programs or in construction projects and uncertainty of meeting anticipated program milestones; uncertainty as to timely availability of permits and other governmental approvals; increased costs and restrictions on operations due to compliance with environmental and other requirements; increased costs affecting the metals industry and increased competition in the metals industry for properties, qualified personnel, and management. All forward-looking information herein is qualified in its entirety by this cautionary statement, and the Company disclaims any obligation to revise or update any such forward-looking information or to publicly announce the result of any revisions to any of the forward-looking information contained herein to reflect future results, events or developments, except as required by law.

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<https://www.rohstoff-welt.de/news/444308--Volt-Lithium-Corp.-Announces-Successful-Pilot-Project-Confirming-90Prozent-Lithium-Recovery-Commercial-Econ>

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