Volt Lithium Achieves Significant Operational Milestone with the Scale-Up of its Field Unit to 96,000 Litres Per Day, Paving the Way for Operations to Commence in Q3 2024

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- *Scale-up to 96,000 litres per day representing a 100 times scale-up of Volt's processing capabilities[1]*
- *Lithium recoveries of up to 99%[2] achieved during scale-up, with inlet brine concentrations as low as 31 mg/L*
- *Achievement confirms Volt's ability to extract lithium from oilfield brines when the Company commences field operations in Q3 2024*
- *Volt's proprietary DLE technology has been verified by ALS Canada Ltd, a division of ALS Environmental, an independent third-party and is a global leader for independent testing*

CALGARY, Alberta, July 17, 2024 -- Volt Lithium Corp. (TSXV: VLT | OTCQB: VLTLF) ("Volt" or the "Company") is pleased to announce the achievement of another pivotal milestone on the path to commercializing its proprietary and proven next-generation Direct Lithium Extraction ("DLE") technology for processing oilfield brines. The Company has scaled-up production capacity to 96,000[1] litres per day (equivalent to 600 barrels per day ("bbls") and ("bbls/d")) representing a 100 times scale-up in its processing capabilities. Following the strategic investment from its U.S. partner which closed on May 2, 2024, Volt has scaled-up operations at its field simulation centre in Calgary, Alberta (the "Field Simulation Centre") in order to build this first field unit for deployment in Q3 2024.

"The Permian basin currently produces 19 million barrels of lithium infused brine per day, making it one of the largest potential sources of lithium in the United States," commented Alex Wylie, President & CEO of Volt. "With the scaling-up of our Field Simulation Centre, we have accelerated the Company's trajectory to becoming a significant North American lithium producer."

"Volt is on a clear path to become a low-cost commercial producer of battery-grade lithium from oilfield brines in North America," added Dave Kimery, COO of Volt. "The Volt engineering and operational teams continue to scale-up production capacity for our proprietary DLE technology. As demand for high-quality, domestically supplied lithium continues to grow, Volt's latest achievement positions us to help meet North America's expanding demand for this critical mineral, and to do so in a safe, environmentally sustainable and lower-impact manner."

Volt's Permian Basin Strategy

Volt has identified the Permian Basin as a key area to commence Company operations. Today, the Permian Basin produces 19 million barrels of lithium infused oilfield brine each day, making it the single largest producer of oilfield brine in North America. The Permian also has the necessary infrastructure in place to allow Volt to commence operations without incurring capital costs to: 1) drill wells; 2) build associated infrastructure to manage water production; 3) create pipeline networks to transport water to a production facility; and 4) manage the overall subsurface reservoir.

Volt's strategy of partnering with existing producers is expected to allow the Company to achieve meaningful cash flow and production growth much sooner than if operating independently. Further, operating in the Permian will also allow Volt to commence commercial operations much sooner than would otherwise be the case, with substantially lower costs and no exploration risks.

DLE Operational Milestone

Volt continues to accelerate process improvements realized by the Company's operations team related to its proprietary DLE technology at its Field Simulation Centre. With operations set to commence in Q3 2024, the Company has been focused on building its field unit for deployment and ensuring operational success in the field by simulating Permian Basin production conditions at the Field Simulation Centre.

Volt's proprietary DLE technology has been verified by ALS Canada Ltd, a division of ALS Environmental, an independent third-party and a global leader for independent testing. Through the scale-up of Volt's production capacity, the technical standards of achieving 99% lithium extraction have been maintained with key associated operational improvements including:

1) Volume Scale-Up: Volt successfully scaled-up its system to process over 4,000 litres per run equating to 96,000 litres per day[3] (equivalent to 600 bbls/d) representing a 100 times scale-up in processing capacity;

2) Extraction Time Improvements: Volt realized a reduction in lithium extraction time from oilfield brine to 60 minutes from 120 minutes previously, significantly improving operational capability and throughput capacity; and

3) Continuous Processing vs Batch Processing: Volt has designed its Field Unit to operate 24/7 ensuring continuous lithium extraction from oilfield brine rather than extracting in batches.

U.S. Field Unit Operations and Future Commercial Operations

Volt's field unit built for deployment in Q3 2024, represents a 1:166 scale to future commercial production. Volt's field unit is modular based and provides the company with the ability to scale-up to process commercial levels of brine through the following methods: (1) add modules to increase processing capacity; (2) reduced lithium extraction time to increase volumes; and (3) larger extraction modules.

Based on the historic detailed modelling completed by the Company's engineering team, the first full-scale commercial modularized unit is estimated to be capable of processing 100,000 bbls/d of brine, which will position Volt as a near-to-market, low-cost and full-scale commercial producer. Upon successful results in the field, Volt anticipates scaling up to full-scale commercial production by the second half of 2025.

The Company's phased scale-up approach, coupled with extensive testing at its Field Simulation Centre and strategic investment partnership, mitigates project execution risk and accelerates timeline to full-scale commercialization. This plan minimizes capital at risk and allows for validation of Volt's proprietary DLE technology prior to full-scale commercialization.

Permian Basin Brine Production

The brine production from the Permian Basin today is approximately 19 million bbls/d. Assuming average economics from lithium extraction, sensitivities are as follows at potential production levels and lithium concentrations [4,5]:

Brine Production per day (bbls)	Lithium Produced per annum (tonnes) (31 mg/L)	Lithium Production per annum (tonnes) (55 mg/L)	Operating Cash Flow[6] per annum (31 mg/L) ($US)	Operating Cash Flow[6] per annum (55 mg/L) ($US)
100,000	970	1,720	$16,750,000	$29,700,000
500,000	4,850	8,600	$83,750,000	$148,600,000
1,000,000	9,700	17,200	$167,500,000	$297,200,000
2,000,000	19,400	34,400	$335,000,000	$594,350,000

Qualified Person's Statement

Scientific and technical information contained in this press release has been reviewed and approved by

Meghan Klein, P.Eng of Sproule Associates Limited, whom is a qualified person within the meaning of National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"). Ms. Klein consents to the inclusion of the data in the form and context in which it appears.

About Volt

Volt is a lithium development and technology company aiming to be North America's first commercial producer of lithium hydroxide 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 and process, 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/.

Contact Information

For Investor Relations inquiries or further information, please contact:

Alex Wylie, President & CEO
T: +1.403.830.5811
E: info@voltlithium.com

Or

Greg Foofat, Vice President, Investor Relations
T: +1.587.888.5213
E: info@voltlithium.com

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", "will", "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, information with respect to the terms of the operational milestone, Volume Scale-up. Extraction Time Improvements and Continuous Processing vs Batch Processing, the deployment of the Field Unit in the Permian Basin, the production of battery grade lithium by the Field Unit, and the commercial production of lithium from oilfield brine. With respect to the forward-looking information contained in this press release, the Company has made numerous assumptions. 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 including those known risk factors outlined in the Company's annual information form dated February 29, 2024 and (final) short form base shelf prospectus dated July 20, 2023. 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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[1] The figures presented assume continuous production with no downtime for equipment maintenance or failure.
[2] The equipment detection limit for lithium is 2 parts per million. Results below this limit are assumed to represent 99% recovery.
[3] The figures presented assume continuous production with no downtime for equipment maintenance or failure.
[4] Assumes pricing of US$20,000/tonne lithium hydroxide monohydrate and a 2-hour cycle time
[5] Based upon Volt's preliminary estimates processing brine at lithium concentrations similar to the Permian Basin
[6] Operating cash flow is calculated as revenue less operating costs and does not include taxes or royalties.

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