Volt Lithium Announces Preliminary Economic Assessment at Rainbow Lake Project in Alberta, Highlighted by 45% IRR and US$1.5 Billion Before-Tax NPV8

14.12.2023 | GlobeNewswire

- *Pre-tax US$1.5 Billion NPV8 and IRR of 45%*
- *Rainbow Lake Area has a long history of resource extraction, well established infrastructure, and supportive government*

CALGARY, Alberta, Dec. 14, 2023 -- Volt Lithium Corp. (TSXV: VLT) ("Volt" or the "Company") is pleased to announce the summary results from the Company's Preliminary Economic Assessment ("PEA") for the Rainbow Lake Lithium Project (the "Rainbow Lake Project"), a lithium brine project in northwest Alberta, Canada, where the Company owns lithium rights across 430,000 acres of land. The PEA outlines the estimated production scaling from 1,000 to over 23,000 metric tonnes per year of battery-grade lithium hydroxide monohydrate ("lithium hydroxide" or "LHM") over a 19-year period. Volt's completed NI 43-101 PEA Technical Report is expected to be filed on SEDAR+ within 45 days.

All dollar values in this press release are stated in US dollars unless otherwise noted.

"We are very pleased with the results of the PEA" commented Alex Wylie, President & CEO of Volt. "Volt's focus on extracting lithium from oilfield brines allows for significant project returns and economics that will allow Volt to grow its lithium production in a measured and responsible way."

Rainbow Lake PEA Highlights[1]

- Production growing from 1,000 to over 23,000 metric tonnes per year (average over years 5 to 19) of battery grade LHM[2] spanning a 19-year period;
- Pre-tax $1.5 Billion NPV at 8% discount rate ("NPV_8") and IRR of 45%;
- After-tax $1.1 Billion NPV_8 and IRR of 35%;
- Volt has entered into a capital expenditure recovery program and cost sharing arrangement with a private oil and gas company (the "E&PCo"), which is expected to allow Volt to significantly enhance overall project economics[3];
- OPEX of approximately $3,276/tonne LHM in the Muskeg formation, with an average grade of 92 mg/L and approximately $4,545/tonne in the Keg River formation with an average grade of 49 mg/L; and
- Project economics assumed $25,000/tonne LHM and provides strong leverage to higher lithium prices.

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[1] *Readers are cautioned that reliance on information in this announcement without reference to the Technical Report may not be appropriate. The forthcoming Technical Report is meant to be read as a whole, and sections should not be read or relied upon out of context*
[2] 23,000 *metric tonnes lithium hydroxide monohydrate ("LHM") is equivalent to 20,240 metric tonnes lithium carbonate equivalent ("LCE")*
[3] *Volt's cost sharing arrangement with the E&PCo treated as Other Revenue in the cash flow statement for the IRR Analysis*

Rainbow Lake PEA

Introduction

The Rainbow Lake PEA was compiled by Sproule Associates Limited ("Sproule") integrating the work of

Sproule and other consultants each having the qualifications necessary to author their respective sections of the PEA.

Volt is a lithium brine exploration and development company focused on advancing its Rainbow Lake Project in northern Alberta, Canada. The Rainbow Lake Project is based on a LHM plant with an assumed 19-year production life.

Volt will target production growth in three phases:

- Phase 1: Production is targeted at 1,000 tonnes per annum ("tpa") focused on the Muskeg formation with an average lithium grade of 92 mg/L.
- Phase 2: Volt intends to expand production to 5,000 tpa of LHM primarily focused on the Muskeg formation.
- Phase 3: Volt intends to expand production to an average of approximately 23,000 tpa of LHM focused on the Muskeg and Keg River formations.

During the production ramp-up, Volt will maintain an ongoing exploration program to further its understanding of the reservoirs in the Rainbow Lake Area with the goal of targeting lithium production from brines in the Muskeg and Keg River formations offering the highest lithium concentrations.

The PEA contemplates brines will be treated using the Company's proprietary direct lithium extraction ("DLE") technology ("IES-300") that has been proven to selectively extract lithium from brine. This IES-300 technology was successfully tested during the Company's Pilot Program conducted during the second quarter of 2023 and was used as the basis for the PEA. After passing through the extraction process, the concentrated lithium brine stream will undergo further processing steps including purification, concentration and conversion in order to produce commercial battery grade LHM.

Economic Analysis

The base case analysis assumes a long-term LHM price of $25,000/tonne. Using this price assumption, the Rainbow Lake Project generates a positive NPV8 of $1.5 billion pre-tax and $1.1 billion after-tax.

Key indicators and PEA Highlights are shown below in Table 1.

Table 1 - PEA Highlights

Initial Annual Production LHM	tpa[(1)]	1,020[(2)]
Average Production Yrs 3-4 LHM	tpa	5,028
Average Production Yrs 5 - 19 LHM	tpa	23,031
Average Annual Production LHM	tpa	18,906
Plant Operating Life	years	19[(3)]
Total Capital Expenditures	$ millions	1,549[(4)(5)]
Annual Operating Cost - Muskeg	$/t	3,276[(6)]
Annual Operating Cost - Keg River	$/t	4,545[(6)]
Selling Price	$/t	25,000
Net Present Value - Pre-Tax	$ millions	1,469
Net Present Value - After-Tax	$ millions	1,063
Internal Rate of Return (IRR) Pre Tax	%	45
Internal Rate of Return (IRR) After Tax	%	35

Notes:

All model outputs are expressed on a 100% project ownership basis with adjustments for project financing

assumptions.

1. Tonnes (1,000 kg) per annum.
2. Initial annual production figure represents Year 2 production, following a ramp-up period in Year 1.
3. Plant design and financial modelling based on 19-year economic life.
4. Capital Expenditures include 15% contingency for facility capital and 10% contingency for total development capital.
5. No inflation or escalation has been carried for the economic modelling.
6. Includes operating expenditures and sustaining capital.
7. Selling price of battery-quality LHM based on a flatline price of $25,000/t over total project lifetime.
8. Assumes a corporate tax rate of 23% and Royalty Tax rate of 1%, prior to project payout and 12% post project payout.
9. Any discrepancies in the totals are due to rounding effects.

Capital Expenditures and Operating Costs

The capital expenditure ("CAPEX") estimate was prepared in accordance with the Association for the Advancement of Cost Engineering ("AACE") Class 5 Study standards, and has an approximate accuracy of +50% / -30%.

Assuming average production over 19 years of 18,906 tpa of LHM, the direct capital costs are estimated at $1.4 billion, with indirect costs of $95 million. A contingency of 10% was applied to total development program costs and 15% was applied to the facilities and indirect costs, yielding an estimated all-in capital cost of $1.55 billion.

The total estimated CAPEX for the project is presented in Table 2 below, inclusive of contingency.

Table 2 - CAPEX

	CAPEX ($ million)
Area Operations - Phase 1	
DLE Facilities	21
Drilling and Pipeline Costs	33
Indirect Costs	5
Admin and Power Generation	1
Subtotal	60
Area Operations - Phase 2	
DLE Facilities	60
Drilling and Pipeline Costs	152
Indirect Costs	24
Admin and Power Generation	6
Subtotal	242
Area Operations - Phase 3	
DLE Facilities	398
Drilling and Pipeline Costs	465
Indirect Costs	66
Admin and Power Generation	17
Subtotal	946
Central Processing Facility	
Lithium Processing Plant	165
Administrative Plan	3
Onsite Infrastructure	15
Subtotal	183
Total Direct Costs	1,431
Contingency - Facility Contingency	118

Total Project Costs	1,549

The operating expenditure ("OPEX") estimate for the project was also prepared in accordance with the AACE Class 5 Study standard. The total OPEX is presented in Table 3 below.

Table 3 - OPEX

	Average Annual Cost ($/t)[1]	
	Muskeg	Keg River
Reagents	1,769	2,597
Consumables	272	513
Power	244	444
Labour[2]	250	250
Maintenance Materials and Services[3]	300	300
Transport and Logistics	115	115
General and Administrative	326	326
Total Annual OPEX	3,276	4,545

Notes:

1. Operating costs are calculated based on average annual production of 19,299 tonnes of LHM.
2. Approximately 65 full time equivalent positions.
3. Includes contract maintenance, solids waste disposal, and external lab services.

Processing Overview & Cost Arrangements

As outlined above, Volt will deploy a three-phase strategy to grow its operations at Rainbow Lake. This is expected to facilitate a measured roll-out that allows for continued exploration of the reservoir, which ensures the Company is focused on area operations with the highest lithium grades, while minimizing dilution to shareholders as Volt anticipates using debt and other financing strategies to support growth while in commercial operations.

The capital cost arrangement with the E&PCo (the "Cost Arrangement") is structured to allow Volt to recover all capital expenditures it incurs for the recompletion and drilling of production wells ("Wells") to a total payout up to 200% of the original capital cost of the Wells. For the disposal wells, Volt's capital cost arrangement is as follows: a) In Phase 1 Volt will pay 50% of the capital costs associated with the disposal wells and will receive a total payout of up to 200% of the capital costs paid by Volt for the disposal wells; and (b) In Phases 2 and 3, Volt will pay 100% of the capital costs associated with the disposal wells and will receive a total payout of up to 200% of the capital costs of the disposal wells. The Company has also entered into an operating agreement with the E&PCo (the "OPEX Agreement") whereby the E&PCo will pay Volt operating costs to manage shared wells and facilities on behalf of both the E&PCo and the Company. The Cost Arrangement and the OPEX Agreement significantly improve overall project economics for Volt at Rainbow Lake.

Volt's proprietary IES-300 process produces a high-quality lithium chloride solution which will be further purified and concentrated by means of reverse osmosis, chemical softening and ion exchange. After purification and concentration of the raw lithium chloride, a conventional, two-stage, lithium carbonate crystallization process will be deployed for final conversion of the polished lithium chloride to battery-quality LHM.

Project Economics

The financial results described above are derived from inputs based on the annual production schedule as set forth in the PEA and summarized in Table 1 above. Sensitivity analysis on the economic results over a 19-year operating life are summarized in Table 4 below.

Table 4: Sensitivity Analysis

	After Tax NPV Discounted at 8% (MM$US)	After Tax IRR (%)
LHM Price		
-20%	616	23.1
0%	1,063	34.9
+20%	1,506	48.9
Production		
-5%	952	31.8
0%	1,063	34.9
+5%	1,175	38.2
Capital Costs		
+20%	901	26.3
0%	1,063	34.9
-20%	1,221	50.4
Operating Costs		
+20%	980	32.8
0%	1,063	34.9
-20%	1,145	37.1

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
awylie@voltlithium.com
M: +1.403.830.5811

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 the qualification of the FT Units as "flow-through shares" under the Tax Act, which is subject to the risks set out in the Prospectus Supplement; the use of proceeds from the Offering and the Concurrent Private Placement; the ability of the Company to incur qualified Canadian Exploration Expenses with the gross proceeds of the sale of the FT Units; the conduct of the Company's preliminary economic assessment for the Rainbow Lake project; the Company's continued exploration of its mineral properties; and general business

and economic conditions. With respect to the forward-looking information contained in this news 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 amended and restated annual information form and the Shelf. 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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