Grounded Lithium Announces Robust Investment Metrics in Preliminary Economic Assessment for the Kindersley Lithium Project

CALGARY, ALBERTA (July 26, 2023) **(TSX.V: GRD OTCQB: GRDAF)** - Grounded Lithium Corp. ("**GLC**" or the "**Company"**) is pleased to announce the results of our preliminary economic assessment ("**PEA**") on the first phase 11,000 tonnes per year of battery-grade lithium hydroxide monohydrate ("**LHM**") production from the Kindersley Lithium Project ("**KLP**"). We anticipate development of additional phases at the KLP motivated largely by the compelling commercial merits of the economics of the PEA.

Phase 1 KLP Highlights:

- **Generates an after-tax internal rate of return ("IRR") of 48.5% using a realized sales price of USD $25,000/tonne of LHM (flat for the duration of the model) and an after-tax USD $1.0 billion net present value ("NPV") at an 8% discount rate, on a capital investment of USD $335 million;**
- **Payout of initial capital costs is only 3.7 years inclusive of lead time design and construction of 1.5 years. We anticipate future KLP phases will be materially financed via internally generated cash flow;**
- **Initial capital estimate of USD $335 million (including USD $45 million for contingencies) delivers a capital intensity of USD $30,500/tonne of LHM for our initial 11,000 tonnes per year project, one of the lower capital intensities of North American lithium from brine projects;**
- **All-in operating costs are anticipated to be USD $3,899 per tonne of LHM, or USD $42.9 million annually;**
- **Only 24 of our current 300 sections of lithium rights will be developed in Phase 1 of the KLP. The balance of the sections will support the development of subsequent phases of the KLP; and**
- **Phase 1 infrastructure investment is expected to underpin capital and operating cost efficiencies for all future phases.**

"Grounded is pleased to have achieved another significant milestone in less than three years from incorporation," commented Gregg Smith, President and CEO. "The independent economic results of

Phase 1 of the KLP compare favourably within the lithium mining industry from a CAPEX and OPEX perspective and we believe the results of the PEA bode well for critical future steps, including securing strategic partnerships, off-take agreements, and capital formulation for a commercial project. We now focus our corporate attention on the completion of a field pilot with Koch Technologies Solutions' ("**KTS**") extraction process, while at the same time undertaking certain field activities to provide higher certainty on our resources leading to a pre-feasibility study."

Project Summary

The economic analysis of the PEA is based on the following main assumptions:

- realized sales price of USD $25,000 per tonne of LHM;
- annual production of 11,000 tonnes per year of LHM;
- commerciality of KTS' Li-Pro^{TM} lithium extraction technology;
- minimal prefiltering expenditures due to the absence of hydrocarbons and H_2S;
- large diameter wellbores to mitigate pressure loss due to friction and permit installation of large volume electrical submersible pumps; and
- estimated operating and capital costs for the project based on the most current industry data available inclusive of recent strong inflationary pressures on facilities and labour.

The PEA is based on the expected first phase of production at the KLP which is derived from the mineral resource estimate for the KLP set out in Company's NI 43-101 technical report titled, "*NI 43-101 Technical Report: Resource Assessment of the Kindersley Lithium Project in Saskatchewan, Canada for Grounded Lithium Corp. (As of March 15, 2023)*" (the "**Technical Report**") which is available on SEDAR at www.sedarplus.com.

All values reported are in USD unless otherwise noted. The Company will file the PEA on SEDAR (www.sedarplus.com) within 45 days of this press release. The PEA presents data provided by several leading experts in their respective fields, namely Sproule Associates Limited, Grey Owl Engineering, Codeco - Vanoco Engineering Inc., Tundra Engineering Inc. and Fracture Modeling Inc.

Table 1 – Summary Economics

Description	Value	Units	Value	Units
Average Annual Production (LHM)	11,000	tonnes/year	12,125	tons/year
Average Annual Production (LCE)	9,685	tonnes/year	10,676	tons/year
Project Life	20	years	20	years
Foreign Exchange (FX)	0.75	ratio	1.33	ratio
Total Capital Cost (CAPEX)	447,323	CAD$M	335,492	USD$M
Annual Operating Expenditure (OPEX)	57,188	CAD$M	42,891	USD$M
OPEX per tonne LHM	5,199	CAD/tonne	3,899	USD/tonne
LHM Commodity Price	33,333	CAD/tonne	25,000	USD/tonne
Average Annual Revenue	366,592	CAD$M	274,944	USD$M
Economic Indicators	**Before-Tax (Btax)**	**Units**	**After-Tax (Atax)**	**Units**
Net Present Value (NPV@8%)	1,819,507	CAD$M	1,309,860	CAD$M
Net Present Value (NPV@8%)	1,364,630	USD$M	982,395	USD$M
Internal Rate of Return (IRR)	58.2	%	48.5	%
Payout (PO)	3.5	years	3.7	years
Profitability Index (PI@8%)	5.1	ratio	3.9	ratio

Note 1: The PEA is a preliminary cost estimate and includes inferred mineral resources that are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves under National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“**NI 43-101**”). There is no certainty the results of the KLP outlined by the PEA will be realized.

Capital Costs

Table 2 – KLP Capital Cost Summary

($ thousands)	Total CAD	Total USD
Wellfield		
Drilling	$ 31,051	$ 23,289
Completion	17,280	12,960
Pipelines	55,782	41,836
Subtotal	**$ 104,113**	**$ 78,085**
Central Processing Facility		
Infrastructure	$ 238,754	$ 179,066
Planning, Engineering, Legal & Administration	14,922	11,192
Construction & Commissioning	29,844	22,383
Subtotal	**$ 283,520**	**$ 212,640**
Contingency	**$ 59,689**	**$ 44,766**
TOTAL	**$ 447,322**	**$ 335,492**

Given the operating conditions, the capital intensity for the KLP is forecasted to be materially lower than some of the other operations in the industry. Capital efficiency is vitally important in projects of this size and the leverage that accrues to project stakeholders due to industry leading capital efficiency ratios directly impact rates of return. These capital estimates will be further refined as the Company moves toward the pre-feasibility and bankable feasibility milestones. These estimates represent a Class 5 engineering cost estimate. We do expect modifications to these estimates with the completion of more precise and detailed engineering.

Operating Costs

Table 3 – KLP Operating Cost Summary

Annual OPEX in $ thousands per year OPEX in $ per metric tonne LHM	Annual OPEX CAD/yr	Annual OPEX USD/yr	OPEX CAD/tonne LHM	OPEX USD/tonne LHM
Personnel	$ 6,250	$ 4,688	$ 568	$ 426
Electric Power	13,626	10,220	1,239	929
Reagents and Consumables	21,218	15,914	1,929	1,447
Maintenance and Servicing	7,839	5,879	713	534
Product Transport & Disposal	2,555	1,916	232	174
Direct Operational Expenditures	**$ 51,489**	**$ 38,617**	**$4,681**	**$3,511**
Indirect Operational Expenditures	**$ 2,528**	**$ 1,896**	**$230**	**$172**
Land Fess, Taxes, Other	**$ 3,172**	**$ 2,379**	**$288**	**$216**
TOTAL	**$ 57,188**	**$ 42,891**	**$5,199**	**$3,899**

Total operating costs of USD $42.9 million per year, or USD $3,899 per tonne of LHM, are broken out by each major project step and are inclusive of direct and indirect costs. The majority of the operating costs are associated with reagents required within the system and power consumption. For purposes of the PEA, we assumed that sufficient power can be secured from the existing grid structure. However, as we advance the KLP towards commercialization, there is the potential to construct owner secured power options such as a cogeneration unit. This would represent an additional capital charge offset by the benefit of stable, predictable, cost-efficient power supply. Excess power generated from such a unit could be sold into the existing power market to partially offset the operating costs.

Sensitivity Analysis

Table 4 – Economic Sensitivity Summary (USD)

OFAT Sensitivity Analysis - CAPEX					
($ thousands)	Low Case CAPEX -40% USD	Low Case CAPEX -20% USD	Base Case CAPEX USD	High Case CAPEX +20% USD	High Case CAPEX +40% USD
CAPEX	$ 201,295	$ 268,394	**$ 335,492**	$ 402,590	$ 469,689
NPV@8% - Btax	$ 1,473,192	$ 1,418,999	**$ 1,364,630**	$ 1,310,615	$ 1,256,423
NPV@8% - Atax	$ 1,067,559	$ 1,025,042	**$ 982,395**	$ 940,007	$ 897,328
IRR (%) - Btax	92	71	**58**	49	42
IRR (%) - Atax	76	59	**49**	41	36

OFAT Sensitivity Analysis - OPEX					
($ thousands)	Low Case OPEX -40% USD	Low Case OPEX -20% USD	Base Case OPEX USD	High Case OPEX +20% USD	High Case OPEX +40% USD
OPEX	$ 25,735	$ 34,313	**$ 42,891**	$ 51,469	$ 60,047
NPV@8% - Btax	$ 1,498,577	$ 1,431,692	**$ 1,364,630**	$ 1,297,922	$ 1,231,037
NPV@8% - Atax	$ 1,080,176	$ 1,031,350	**$ 982,395**	$ 933,698	$ 884,872
IRR (%) - Btax	62	60	**58**	56	54
IRR (%) - Atax	52	50	**49**	47	45

OFAT Sensitivity Analysis - LHM Price					
($ thousands)	Low Case LHM Price -40% USD	Low Case LHM Price -20% USD	Base Case LHM Price USD	High Case LHM Price +20% USD	High Case LHM Price +40% USD
LHM Price per tonne	$ 15	$ 20	**$ 25**	$ 30	$ 35
NPV@8% - Btax	$ 576,730	$ 970,769	**$ 1,364,630**	$ 1,758,846	$ 2,152,885
NPV@8% - Atax	$ 406,465	$ 694,876	**$ 982,395**	$ 1,270,172	$ 1,557,821
IRR (%) - Btax	31	45	**58**	71	83
IRR (%) - Atax	27	38	**49**	59	68

A table similar to Table 4 expressed in Canadian dollars can be found on the Company's website. A detailed future pricing study for lithium chemicals was not completed for the PEA. The average price used for future sales of battery-quality LHM was developed by reviewing pricing data generated from reliable sources as reported in publicly disclosed data collected from peer companies. The future average selling price of USD $25,000/tonne for LHM is consistent with that used in publicly released economic assessments of other lithium projects in recent history. Current spot pricing for battery-grade lithium products average greater than USD $40,000/tonne, therefore the potential upside leverage to KLP economics is noteworthy.

Sensitivities demonstrate that the KLP is expected to provide torque to the upside upon any potential future increase in underlying commodity prices. With the demand for critical minerals expected to exceed world supply, the low-cost structure of the KLP is expected to provide elastic returns to the upside. The low-cost structure of the KLP was a key determinant in the Company focusing on the KLP area, since during downturns in commodity cycles, low-cost operations provide projects with improved price resilience.

About Grounded Lithium Corp.

GLC is a publicly traded lithium brine exploration and development company that controls approximately 4.2 million metric tons of lithium carbonate equivalent of inferred resource over our focused land holdings in Southwest Saskatchewan as of the effective date of the Technical Report. The Company's PEA reports a Phase 1 NPV_8 after-tax of US$1.0 billion with an after-tax internal rate of return of 48.5%. GLC's multi-faceted business model involves the consolidation, delineation, exploitation and ultimately development of our opportunity base to fulfill our vision to build a best-in-class, environmentally responsible, Canadian lithium producer supporting the global energy transition shift. U.S. investors can find current financial disclosure and Real-Time Level 2 quotes for the Company on https://www.otcmarkets.com/.

Qualified Persons and Technical Report

Scientific and technical information contained in this press release has been prepared under the supervision of Doug Ashton, P.Eng., Suryanarayana Karri, P. Geoph., Alexey Romanov, P. Geo. and Meghan Klein, P. Eng., Dean Quirk, P.Eng., Jeffrey Weiss, P.Eng., Chad Hitchings., P.L. Eng., and Michael Munteanu, P.Eng., each of whom is a qualified person within the meaning of NI 43-101.

Certain data verification, exploration information and other disclosure regarding the mineral resources data contained in this press release is included in the Technical Report.

Market Support Agreement

The Company has transitioned its market making services to Red Cloud Securities Inc. ("**Red Cloud**"). Red Cloud will provide these services for trading on the TSX Venture Exchange ("**TSXV**") in accordance with the TSXV policies, for the purpose of maintaining an orderly market. The Company will engage Red Cloud on a month-to-month basis for a fee of $5,000 cash per month. Red Cloud and GLC are unrelated and unaffiliated entities. Red Cloud will not receive shares or options as consideration. Red Cloud or affiliate(s) of Red Cloud currently hold 145,834 common shares and 2,326,137 broker warrants of GLC received in consideration for services previously performed for GLC. The capital used for market making will be provided by Red Cloud.

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Technical Abbreviations and CIM Definition Standards

The disclosure in this news release uses mineral resources and mineral reserves classification terms that comply with reporting standards in Canada, and the mineral resource and mineral reserve estimates are made in accordance with the CIM Definition Standards and NI 43-101.

In this news release, the following abbreviations have the meanings set forth below:

bbls	barrels
bbls/d	barrels per day
km	kilometres

m	metres
m^3	cubic metres
mi	miles
mg/L	milligram per litre
ppm	parts per million

Forward-Looking Statements

This press release may contain forward-looking statements and forward-looking information within the meaning of applicable Canadian securities laws. The opinions, forecasts, projections and statements about future events of results, are forward looking information, forward-looking statements or financial outlooks (collectively, "forward-looking statements") under the meaning of applicable Canadian securities laws. These statements are made as of the date of this press release and the fact that this press release remains available does not constitute a representation by GLC that the Company believes these forward-looking statements continue to be true as of any subsequent date. Although GLC believes that the assumptions underlying, and expectations reflected in, these forward-looking statements are reasonable, it can give no assurance that these assumptions and expectations will prove to be correct. Such statements include, but are not limited to, statements regarding the NPV of the first phase of production at the KLP, the expected realized sales price of LHM, the capital intensity of the first phase of production at the KLP, the operating cost and capital cost of the first phase of production at the KLP, the expectation the Company will implement multiple 10,000 tonnes/year phases of production of LCE on the KLP, the completion of the Company's field pilot, obtaining higher certainty on GLC's resources leading to a pre-feasibility study, obtaining funding under government programs, securing strategic partnerships, off-take agreements and capital formulation, supply in the battery mineral market, creating shareholder value, the amount of annual production at the KLP, the commerciality of KTS' Li-Pro™ lithium extraction technology, re-injection of brine in the reservoir, the number of production wells and injector wells on the KLP, the average brine production from each production well, the drilling of additional production wells and the impact of same on project economics, the project life of the KLP, the pre-treatment required for KLP brine, the timing of the construction of the field pilot, obtaining power from the grid, constructing owner secured power such as a co-generation unit, the use of contractors in the process of commercializing the KLP, and GLC's vision of becoming a best-in-class, environmentally responsible, Canadian lithium producer supporting the global energy transition.

Among the important factors, risks, uncertainties and assumptions that could cause actual results to differ materially from those indicated by such forward-looking statements are: those assumptions listed under "*Project Summary*" above, GLC's expectation that our operations will be in Western Canada, unexpected problems can arise due to technical difficulties and operational difficulties which impact the production, transport or sale of our products; geographic and weather conditions can impact the production; the risk that current global economic and credit conditions may impact commodity prices and consumption more than GLC currently predicts; the failure to obtain financing on reasonable terms; the risk that unexpected delays and difficulties in developing currently owned properties may occur; the failure of drilling to result in commercial projects; unexpected delays due to the limited availability of drilling equipment and personnel; and the other risk factors detailed from time to time in GLC's periodic reports. GLC's forward-looking statements are expressly qualified in their entirety by this cautionary statement.

This news release shall not constitute an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release.