

LithiumBank Announces First Known Canada-Based Indicated Lithium Brine Resource Estimate at Boardwalk, Alberta

CALGARY, Alberta, Nov. 07, 2022 (GLOBE NEWSWIRE) -- **LithiumBank Resources Corp.** (TSX-V: **LBNK**) (OTCQX: **LBNKF**) (FSE: **HT9**) (“**LithiumBank**” or the “**Company**”) is pleased to announce updated NI 43-101 Mineral Resource Estimates (“MREs”) of 393,000 tonnes of Indicated Lithium Carbonate Equivalent (LCE) at a grade of 71.6 mg/L and 5,808,000 tonnes of Inferred LCE at 68.0 mg/L lithium, from the Company’s 100% owned ‘Boardwalk’ Lithium Brine Project, located in west-central Alberta (formerly defined as ‘Sturgeon Lake’).

LithiumBank CEO, Rob Shewchuk commented, “This Mineral Resource Estimate update represents an historic achievement as it is the first lithium brine project in Canada where there is enough historical oil and gas well entry points, brine assaying and hydrogeological work to confidently classify a portion of the Lithium Resource as Indicated, in accordance with CIM Definition Standards (2014). This is a milestone achievement in the development of the Boardwalk Lithium Brine Project as an Indicated Resource is the minimum requirement to allow the application of Modifying Factors in sufficient detail to support advanced studies, such as a Pre-Feasibility Study, that can serve as the basis for potential future development of this world-class project.”

Highlights:

- LithiumBank reports an updated NI 43-101 Indicated & Inferred Resource Estimate from Boardwalk, including 393,000 tonnes Indicated at 71.6 mg/L lithium and 5,808,000 tonnes Inferred LCE at a grade of 68.0 mg/L lithium.
- The Indicated Resource estimate at the Boardwalk project provides a pivotal advancement in the geological confidence of the Leduc Formation aquifer brine within the Sturgeon Lake Reef Complex at the Boardwalk NI 43-101 Resource Estimate, in accordance with CIM Definition Standards (2014).
- The Indicated Resource estimate area identified occurs within LithiumBank’s intended “Production Zone” (Figure 1) as defined via a hydrogeological study completed by Matrix (NR October 13, 2022). This work will be incorporated into the upcoming Preliminary Economic Assessment study.
- Indicated Resources are categorized using LithiumBank-collected brine samples that validated the historical brine samples analyzed for lithium in the Sturgeon Lake South oilfield and the reprocessing & reinterpretation of 7 existing 2-D seismic lines over the field.
- Geological and hydrogeological data demonstrate strong continuity over the investigated reservoir portions of the approximately 50 km long Sturgeon Lake Reef Complex.

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LithiumBank engaged APEX Geoscience Ltd. (“APEX”) to complete an updated NI 43-101 Mineral Resource Estimate for the Boardwalk Lithium Brine Project, in which LithiumBank consolidated 100% of Metallic and Industrial Mineral Permits (570,000 contiguous acres) that overlay the Leduc Formation brine aquifer within the Sturgeon Lake Reef Complex. The updated MRE incorporate Leduc Formation brine samples collected by LithiumBank from four separate oil and gas wells in the South Sturgeon Lake oilfield (Figure 1) (NR June 28, 2022) through a brine sampling agreement with the petro-operator. The brine samples enabled LithiumBank to independently validate the lithium brine content of historical brine samples collected between 2010-2019. The reprocessing & reinterpretation of seven existing 2-D seismic lines, totalling 67 line-kilometres that effectively covers the Sturgeon Lake South oilfield and improved the overall confidence of the indicated mineral resource area.

Furthermore, the 70-years of oil and gas activities from various petroleum companies have developed a strong foundation of social and physical infrastructure in the area. This history of hydrocarbon extraction resulted in an establishing a well-trained labour force, networks of all-weather gravel roads, drill sites that can be easily accessed from Provincial highways, and electrical transmission lines that run through and adjacent to the project (see Figure 1). Wells in the Sturgeon Lake South oilfield are currently inactive and not producing hydrocarbons, but LithiumBank has shown that they can be re-entered to obtain Leduc Formation brine with its 2021 brine sampling program providing significant savings versus drilling new wells.

A 3-D closed solid polygon wireframe of the Leduc Formation aquifer domain within the Sturgeon Lake Reef Complex (Figure 2) and the boundaries of the property was used to define the resource area and calculate the volume of the Leduc Formation rock, or the aquifer volume. The aquifer volume underlying the Boardwalk Property, summarized as the total Leduc Formation domain aquifer volume, is of 19.833 km³ (Indicated) and 308.930 km³ (Inferred; see Table 1).

The brine volume is calculated for the Leduc Formation aquifer domain by multiplying the aquifer volume times the average porosity times the percentage of brine assumed within the pore space. Using an average porosity value of 5.3% and the average modal abundance of brine in the Leduc formation pore space percentage of 98%, the Leduc Formation aquifer domain brine volume is 1.03 km³ Indicated and 16.046 km³ Inferred in the respective resource areas.

The average Leduc Formation aquifer brine lithium concentration used

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in the resource estimation calculations was 71.6 mg/L Li and 68.0 mg/L for the indicated and inferred resources, respectively. These values were determined from lithium assay databases that include 25 analyses as conducted by LithiumBank (Indicated) and 89 combined historical and LithiumBank analyses (Inferred). The Li-brine resource was estimated using a cut-off grade of 50 mg/L lithium.

The grade increase in the updated MREs is a result of the brine geochemical work conducted at the property by the Company in 2021. Based on the analytical results of an independent and accredited laboratory, the LithiumBank-collected brine samples returned lithium grades that were higher than that of the initial inferred Resource Estimate (67.1 mg/L lithium; NR May 31, 2021 and Table 2 for comparison). LithiumBank has implemented a rigorous Quality Control and Quality Assurance (QA/QC) protocol for sample collection and analyses. Special attention was given to assay laboratories and applying appropriate lab techniques that result in improved accuracy and precision with respect to lithium assays.

The Technical Reports senior author and QP is not aware of any significant issues or inconsistencies that would cause one to question the validity of the historical assay data for use in resource estimates. The method of sample collection, preparation, security, and analytical techniques of the historical brine sampling work is reasonable within the current exploration protocols of subsurface confined aquifer lithium brine deposits.

The updated Boardwalk Leduc Formation Li-brine indicated and inferred resources is estimated at 74,000 tonnes at 71.6 mg/L of indicated elemental lithium and 1,091,000 tonnes at 68.0 mg/L of inferred elemental lithium (Table 1). The total lithium carbonate equivalent (LCE) mineral resources are 393,000 tonnes of indicated LCE at 71.6 mg/L Li and 5,808,000 tonnes of inferred LCE at an average grade of 68.0 mg/L Li.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve.

Table 1 Boardwalk Leduc Formation Li-brine NI 43-101 indicated & inferred resource estimate presented as a global (total) resource.

Reporting parameter	Indicated Leduc Formation Reef Domain	Inferred Leduc Formation Reef Domain
Aquifer volume	19.833 (km ³)	308.93 (km ³)
Brine volume	1.03 (km ³)	16.046 (km ³)

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Average lithium concentration	71.6 (mg/L)	68.0 (mg/L)
Average porosity	5.3 (%)	5.3 (%)
Average brine in pore space	98.0 (%)	98.0 (%)
Total elemental lithium resource	74,000 (tonnes)	1,091,000 (tonnes)
Total lithium carbonate equivalent	393,000 tonnes (LCE)	5,808,000 tonnes (LCE)

Table 2 Initial (2021) Boardwalk Leduc Formation Li-brine NI 43-101 inferred resource estimate presented as a global (total) resource. This MRE is superseded and replaced by the MRE presented in Table 1.

Reporting parameter	Leduc Formation Reef Domain
Aquifer volume	321.99 (km ³)
Brine volume	16.72 (km ³)
Average lithium concentration	67.1 (mg/L)
Average porosity	5.3 (%)
Average brine in pore space	98.0 (%)
Total elemental lithium resource	1,122,000 (tonnes)
Total lithium carbonate equivalent	5,973,000 tonnes (LCE)

Note 1: Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. The estimate of mineral resources may be materially affected by geology, environment, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs).

Note 3: Tonnage numbers are rounded to the nearest 1,000 unit.

Note 4: In a 'confined' aquifer (as reported herein), porosity is a proxy for specific yield.

Note 5: The resource estimation was completed and reported using a cut-off of 50 mg/L Li.

Note 6: In order to describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to Li₂CO₃, or Lithium Carbonate Equivalent (LCE).

LithiumBank has completed an initial Direct Lithium Extraction (DLE) test work program using Conductive Energy (news release dated November 1, 2022). Conductive's DLE technology has successfully returned 93% recovery in under 60 minutes with up to a 60 times grade increase of lithium chloride concentrate. While bench-scale, and demonstration

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pilot plants operated by companies other than LithiumBank are reportedly having success in the recovery of battery-grade lithium from subsurface confined aquifers, it is important to note that the DLE technology associated with battery grade lithium extraction from deep confined brine aquifers is in the development stage and has not yet been proven at commercial scale.

The updated MREs and DLE test work will be incorporated into the upcoming Preliminary Economic Assessment being led by Hatch Ltd. as will be the recently reported Hydrogeological study (NR October 13, 2022). The PEA considers a 20-year production period with a daily brine production rate of 250,000 cubic meters within the Production Zone shown in Figure 1 (NR October 13, 2022). The PEA will focus on a Production Zone that consists of approximately 25% of the overall Boardwalk permit holdings that encompass the Sturgeon Lake Reef Complex.

The scientific and technical information relating to the mineral resources presented in this news release has been reviewed and approved by Mr. Roy Eccles P. Geol. of APEX Geoscience Ltd. Mr. Eccles is independent of LithiumBank and the Boardwalk Property, and a Qualified Person as defined by NI 43-101. The technical report supporting this disclosure will be filed at www.sedar.com, and available at www.lithiumbank.ca within 45 days from the date of this News Release.

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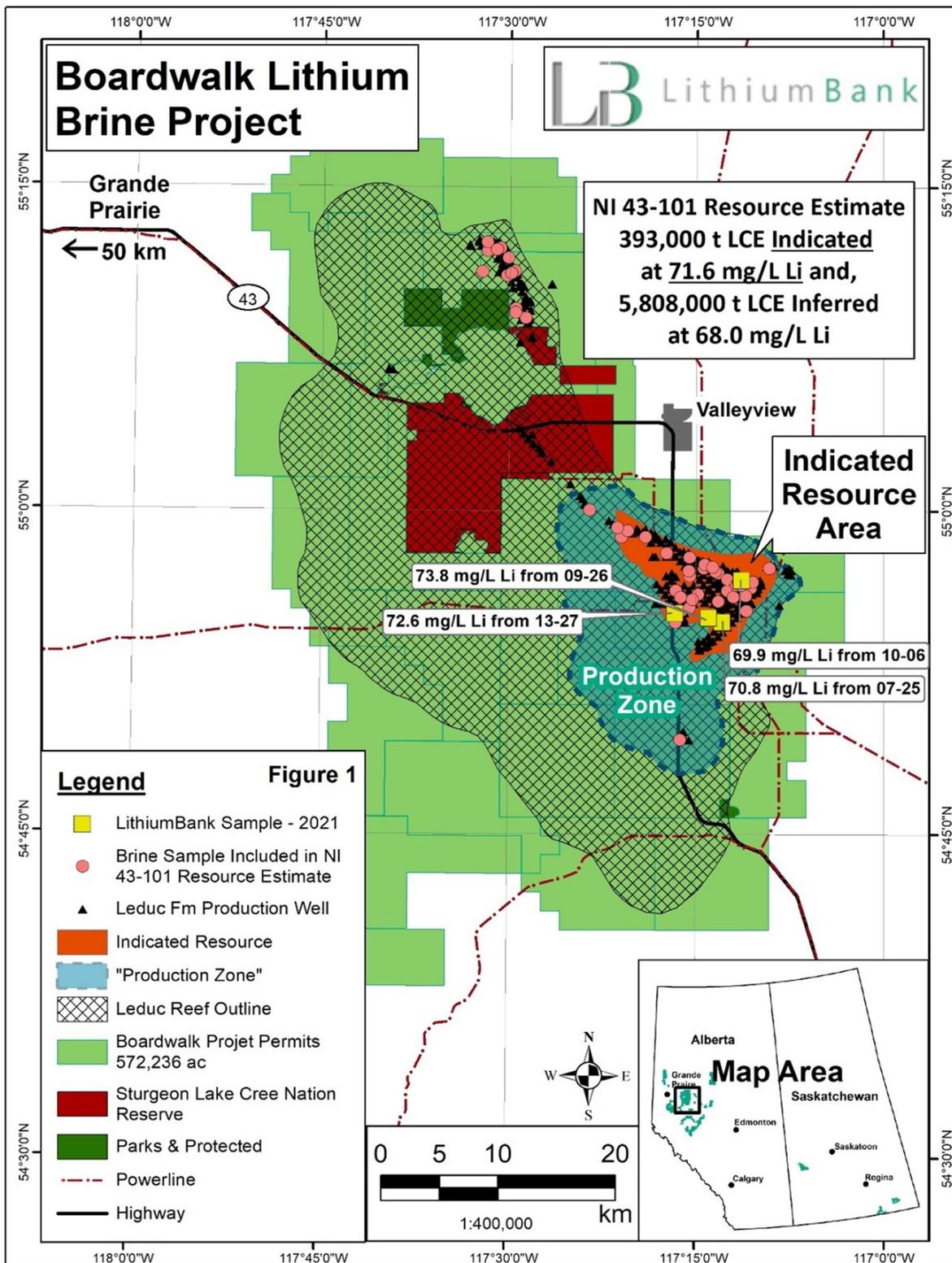


Figure 1: Indicated Resource area and Proposed "Production Zone" from LithiumBank's Boardwalk Lithium Brine Project.

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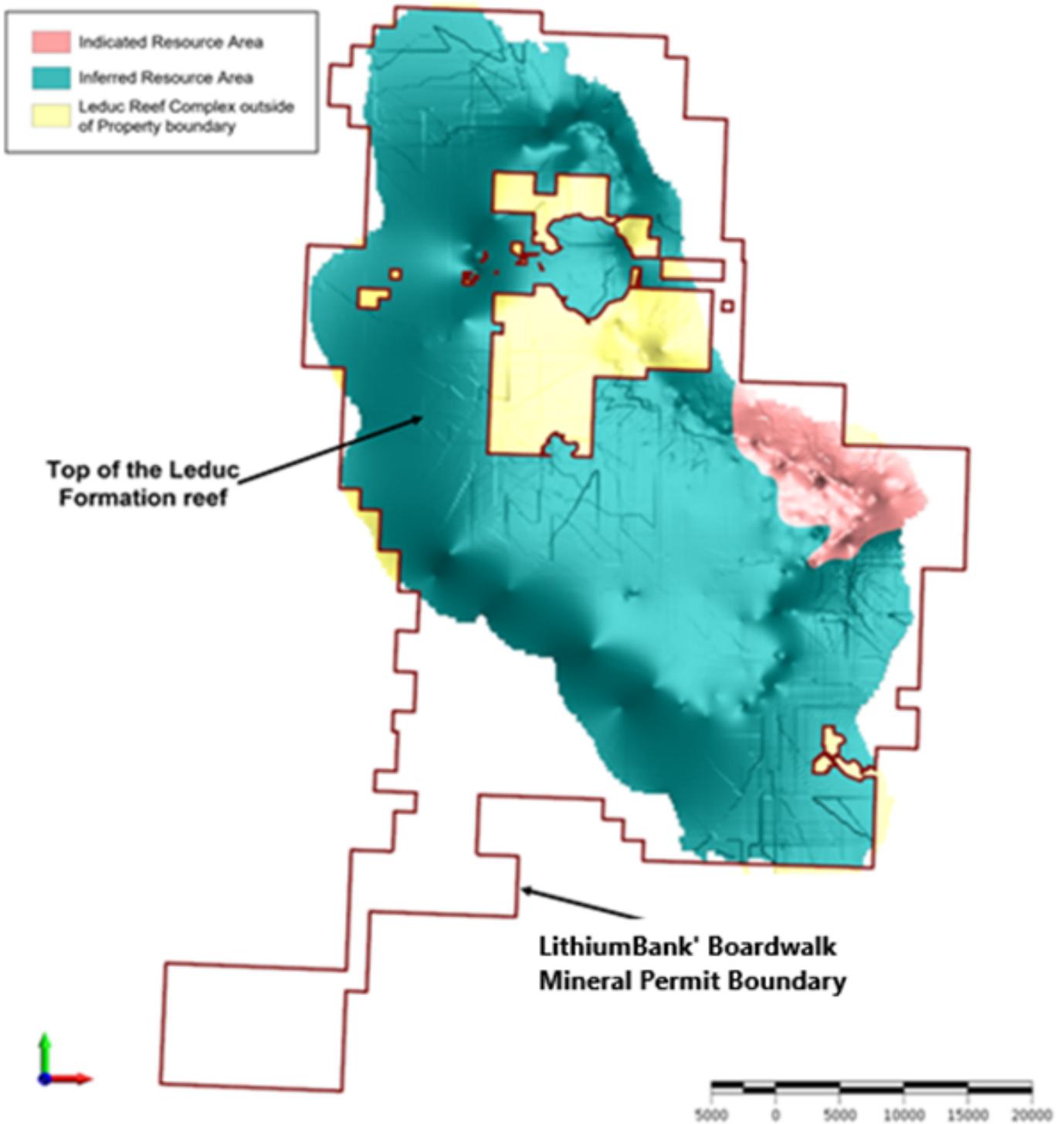


Figure 2. 3D Polygon of the Sturgeon Lake Leduc Reef Complex at the Boardwalk Lithium Brine Project. Indicated resources are highlighted in pink and Inferred resources are in green.

About LithiumBank Resources Corp.

LithiumBank Resources Corp. is an exploration and development company

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focused on lithium-enriched brine projects in Western Canada where low-carbon-impact, rapid DLE technology can be deployed. LithiumBank currently holds over 4 million acres of mineral titles, 3.68M acres in Alberta and 326K acres in Saskatchewan. LithiumBank's mineral titles are strategically positioned over known oil and gas reservoirs that provide a unique combination of scale, grade, exceptional flow rates and access to deep subsurface brines that are necessary for a large-scale direct brine lithium production. LithiumBank is advancing and de-risking several projects in parallel of the Boardwalk Lithium Brine Project.

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Cautionary Statement Regarding Forward Looking Statements

This release includes certain statements and information that may constitute forward-looking information within the meaning of applicable Canadian securities laws, including statements regarding the expected continued growth in demand for lithium, plans and expectations regarding the Boardwalk project, and expectations regarding the completion and timing of the PEA. All statements in this news release, other than statements of historical facts, including statements regarding future estimates, plans, objectives, timing, assumptions or expectations of future performance. Generally, forward-looking statements and information can be identified by the use of forward-looking terminology such as "believes", "intends" or "anticipates", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "should", "would" or "occur". Forward-looking statements are based on certain material assumptions and analysis made by the Company and the opinions and estimates of management as of the date of this press release, including there will be continued growth in demand for lithium, that the results of exploration work to date will support a PEA that shows an economically viable multi-decade DLE project and that the project will be scalable, and that the PEA will be completed on the timetable anticipated. These forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the

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Company to be materially different from those expressed or implied by such forward-looking statements or forward-looking information. Important factors that may cause actual results to vary, include, without limitation the risk that the demand for lithium will fall or not grow as anticipated, the risk that the PEA will not be completed on the timetable anticipated or at all, and the risk that the PEA will not show an economically viable multi-decade DLE project or that the project will not be scalable. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and forward-looking information. Readers are cautioned that reliance on such information may not be appropriate for other purposes. The Company does not undertake to update any forward-looking statement, forward-looking information or financial outlook that are incorporated by reference herein, except in accordance with applicable securities laws.

Photos accompanying this announcement are available at

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