LithiumBank Resources Corp. Confirms up to 95% Lithium Recovery

14.04.2025 | Newsfile

And over 99% Impurity Rejection from DLE Pilot Testing Using SLB's Integrated Lithium Production Solution Technology on Boardwalk and Park Place Brines

LithiumBank Resources Corp. (TSXV: LBNK) (OTCQX: LBNKF) ("LithiumBank" or the "Company") is pleased to announce results from the Direct Lithium Extraction ("DLE") pilot campaign using SLB's integrated lithium production solution on bulk brine samples collected from the Boardwalk and Park Place lithium brine projects ("Boardwalk"), ("Park Place") located in west-central Alberta. The DLE tests based on ILiAD technology as part of the SLB's well-to-product integrated lithium production solution successfully recovered up to 95% of lithium from both Park Place and Boardwalk along with exceptional impurity removal of >99% for both brines (Table 1). Boardwalk and Park Place (Figure 1) combined host a total of 5,195,000 tonnes LCE measured and indicated at a grade of 81.6 mg/L lithium (Boardwalk only) and 24,474,000 tonnes LCE inferred at a grade of 80.1 mg/L lithium (Table 3) as recently announced on Feb. 20, 2025.

Highlights:

- Up to 95% lithium recovery from pilot testing of Boardwalk and Park Place brines.
- Greater than 99% overall combined impurity rejection, rejecting 98.80% of boron, 99.97% of calcium, 99.96% of magnesium, 99.98% of potassium, 99.98% of sodium, and 99.97% of strontium (Table 2).
- Boardwalk and Park Place piloting campaigns combined processed approximately 70,000 litres of brine
- Piloting results can be used to determine operating parameters for a ~25,000 cubic metres (m^3) per day commercial scale DLE unit
- The DLE technology absorbent in other piloting, processing alternate brines, has been shown to last 1000s of cycles over 6 years, has been shown to be able to be reconditioned and may have a service life of over 10 years
- ILiAD adsorbent materials are sourced and manufactured in North America

"We are very pleased with the results from the Boardwalk and Park Place DLE piloting campaigns that produced an exceptionally pure lithium chloride ("LiCl") product with up to 95% lithium recovery. The results demonstrate both projects are highly compatible with the SLB integrated solution," commented Kevin Piepgrass, COO of LithiumBank. "After visiting the SLB lithium production demonstration plant in Clayton Valley, Nevada this past year, it is clear SLB can scale-up and optimize the DLE process within the entire end-to-end flowsheet that produces a battery grade lithium carbonate. We look forward to continuing our collaboration with the ILiAD/SLB team as LithiumBank assesses the best method of extracting lithium from brine at Boardwalk and Park Place. We will continue advanced DLE, and post-DLE test work with additional strategic groups."

The tested DLE technology is a drop-in lithium recovery solution that is part of SLB's well-to-product fully integrated lithium extraction flow sheet. The commercial scale modules designed for LithiumBank can operate at ~4,815 gpm (~25,000 m3/day) and can produce ~3,500 tpa LCE based on grades and reported lithium recovery from Boardwalk. This flow is a 10th of what was studied in the Company's PEA LithiumBank published in February 2024 and internal financials can be used to determine this approach has a high likelihood of success at significantly lower financial risk.

The DLE pilot testing of Park Place and Boardwalk brines was conducted at the ILiAD facility in Central City, California in November and December 2024 respectively. Each pilot test consisted of approximately 34 cubic metres ("m^3") at a flow rate of approximately 360 ml/min (Table 1) with a runtime of 101.6 hours (22.9 cycles) and 111.5 hours (25 cycles) at Boardwalk and Park Place respectively. Both pilot campaigns maintained a pH between 5-6 and a temperature of approximately 60 degrees Celsius (°C).

Table 1. Boardwalk and Park Place DLE pilot test parameters

Test Parameters	Boardwalk	Park Place

Lithium Recovery (%) at steady state	94.5	95.0
Test Time (hours)	101.6	111.5
Cycles	22.9	25
pH	5-6	5-6
Temperature (°C)	60	60
Flow Rate (mL/min)	360	360

The piloting campaigns began with a 'tuning phase' to establish operational parameters before reaching a steady state (3 cycles on Boardwalk and 12.3 cycles on Park Place). At 'steady state' the DLE process is run continuously to achieve repeatable lithium recovery rates and maintain consistent impurity rejection. At steady state, the pilot operations achieved high lithium recovery rates of 95% for Park Place brine and 94.5% for Boardwalk brine (Table 1). Impurity rejection for both brines were similar and generated an exceptionally pure LiCl product averaging over 99% impurity rejection (Table 2).

Table 2. Impurity rejection from Boardwalk and Park Place brines.

Element	Boardwalk Percent Rejection	Park Place Percent Rejection
Boron (B)	98.82%	98.77%
Calcium (Ca)	99.96%	99.97%
Magnesium (Mg)	99.96%	99.95%
Manganese (Mn)	96.08%	96.64%
Potassium (K)	99.97%	99.98%
Sodium (Na)	99.97%	99.98%
Strontium (Sr)	99.97%	99.97%
Average	99.25%	99.32%

The bulk brine sample from Boardwalk was collected from well 100/10-06-069-21W5/00 ("10-6") (Figure 1) during a 48 hour pump test first reported in the Company's news release dated August 8, 2024. The lithium grade from the 10-6 well was reported to be 82 mg/L (see the Company's news release dated September 23, 2024). Bulk brine from Park Place was collected from well 100/12-03-059-23W5/00 ("12-3") and reported an average grade of 77.2 mg/L lithium (see the Company's news release dated January 17, 2023) (Figure 1).

Table 3: LithiumBank' Total Lithium Resource Holdings from Boardwalk and Park Place

Project	Resource Category	Lithium Grade (mg/L)	Tonnes LCE	LithiumBank Combined Resources (tonnes LCE)	Lithium Grade (mg/L)	Cor
Boardwalk	Measured	81.2	1,671,000	5,195,000	81.6	Mea
	Indicated	81.8	3,524,000			
	Inferred	79.0	2,777,000			
Park Place	Inferred	80.2	21,697,000	24,474,000	80.1	Infe

*The NI 43-101 Park Place resource estimate entitled "LithiumBank Resources Corp. Park Place NI 43-101 Technical Report" effectively dated June 24, 2024, is available on SEDAR+

**The NI 43-101 Boardwalk resource estimate entitled "LithiumBank Resources Corp. Boardwalk NI 43-101 Technical Report" effectively dated February 20, 2025, is available on SEDAR+

***LithiumBank is following the same systematic development strategy at Park Place as it has with Boardwalk Note: 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 ever be upgraded to a higher category. The estimate of mineral resources may be materially affected by geology, environment, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

Figure 1. Map showing Boardwalk and Park Place lithium brine NI 43-101 resource estimates and wells used for bulk brine sampling.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/10140/248387_figure1.jpg

The lithium yield recovery was calculated using ICP-OES data and the overall lithium recovery by ICP was determined by averaging the results obtained from three different percent recovery methods:

Method 1: Lithium Recovery ICP Inputs
Recovery = Measured Lithium Mass in Product by ICP / Lithium Mass in Feed by ICP
Method 2: Lithium Recovery ICP Outputs
Recovery = Measured Lithium Mass in Product by ICP / (Lithium Mass in Depleted Brine by ICP + Measured Lithium Mass in Product by ICP)
Method 3: Lithium Recovery ICP Outputs
Recovery = 1 − (Measured Lithium Mass in Depleted by ICP / Lithium Mass in Feed Brine by ICP)

To ensure the accurate normalization of bias from instrument error and to reconcile the overall lithium mass balance during pilot tests, three methods are typically employed. Utilizing multiple methods, rather than relying on just one, helps predict a realistic recovery rate by avoiding potential overestimation of performance or underestimation due to lithium loss or gain from system errors.

Comments by the Qualified Person:

- The data disclosed, including sampling, analytical, and test data underlying this announcement have been verified by the QP through review and analysis of test data, and discussions with the DLE provider.
- Limitations to the verification include independent measurement of brine composition and density for recovery estimates were not obtained, where SLB and LithiumBank report slightly differing values between well samples and piloted samples, therefore third-party verification of values could add additional certainty to results.
- Based upon the testing data and other information provided, the DLE process proposed for this project appears to be sufficiently defined for this early stage of the project but is subject to changes in circumstance or understanding as the project develops.
- The ultimate recoveries of lithium are dependent on the full process, not just the DLE extraction unit and must take into account any or all potential losses from reservoir to final product outlet.
- To advance the DLE technology to the next project stage additional trials are recommended to optimize this DLE process for the Boardwalk and Park Place brines, which should include longer pilot runs to confirm the sorbent lifespan and either regeneration or replacement cycle for the brines.

The scientific and technical information relating to the Mineral Processing and Metallurgical Testing presented in this news release has been reviewed and consent to publicly disclose this data is provided by George Brindle, P.Eng., of GLJ Ltd. of Calgary, Alberta. George Brindle, P.Eng. is independent of LithiumBank and a Qualified Person as defined by NI 43-101.

About LithiumBank Resources Corp.

LithiumBank Resources Corp., is a publicly traded lithium company that is focused on advancing its two flagship projects, Boardwalk and Park Place, in Western Canada. The Company holds 1,855,915 acres of brown-field lithium brine licenses, across three (3) districts in Alberta and Saskatchewan. The Company has pilot tested multiple mature Direct Lithium Extraction ("DLE") technologies and is working toward establishing commercial lithium production by a modular approach.

Contact:
Rob Shewchuk
CEO & Director
rob@lithiumbank.ca
(778) 987-9767

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 release.

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. 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, including without limitation, the Company's expectations regarding piloting results being used to determine operating parameters, the Company's expectations regarding DLE technology, the Boardwalk and Park Place projects being highly compatible with the SLB integrated solution, that SLB can scale up and optimize the DLE process within the entire end-to-end flowsheet that produces a battery lithium grade carbonate, the Company continuing its collaboration with ILiAD/SLB team, the Company continuing advanced DLE and post-DLE test work with additional strategic groups and statements regarding the operating and production capacity of the DLE technology are forward-looking statements and contain forward-looking information. Generally, forward-looking statements and information can be identified by the use of forward-looking terminology such as "intends" or "anticipates", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "should" or "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 that the piloting results can be used to determine operating parameters for a ~25,000 cubic metres per day commercial scale DLE unit, that the Boardwalk and Park Place projects are highly compatible with the SLB integrated solution, that SLB can scale up and optimize the DLE process within the entire end-to-end flowsheet that produces a battery lithium grated carbonate, that the Company will continue its collaboration with the ILiAD/SLB team, that the Company will continue advanced DLE and post-DLE test work with additional strategic groups and that the DLE technology will operate and produce as 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 Company to be materially different from those expressed or implied by such forward-looking statements or forward-looking information. Important risks that may cause actual results to vary, include, without limitation, that the piloting results will not be able to be used to determine operating parameters as anticipated, that the Boardwalk and Park Place projects will not be highly compatible with the SLB integrated solution, that SLB will not scale up and optimize the DLE process as anticipated, and that the DLE technology will not operate and produce as anticipated.

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.

Dieser Artikel stammt von Rohstoff-Welt.de
Die URL für diesen Artikel lautet:
https://www.rohstoff-welt.de/news/688659--LithiumBank-Resources-Corp.-Confirms-up-to-95Prozent-Lithium-Recovery.html

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere AGB/Disclaimer!

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere AGB und Datenschutzrichtlinen.