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LU7 – BÉCANCOUR LITHIUM REFINERY DESIGN PROVING TO HANDLE VARIOUS SPODUMENE TYPES

Highlights

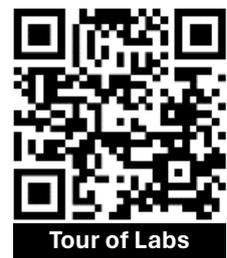
- Testwork conducted to Linyi University Lithium Research Centre
- Second batch completed and meets stringent battery grade specs
- Research test centre used is world-class with in-house analysis
- Not often achievement of battery grade on first pass programs
- Metallurgical testing on various international sources of spodumene
- Bécancour Lithium Refinery to have robust capability
- Able to process spodumene from any part of the world
- Spodumene feedstock optionality whilst Canadian supply develops

Lithium Universe Limited (referred to as "Lithium Universe" or the "Company," ASX: "LU7") is pleased to announce that the ongoing testwork program shows that battery-grade (>99.5% Li_2CO_3) lithium carbonate can be produced from the various types of spodumene concentrate from around the world using the Bécancour Lithium Refinery (Bécancour) design.

Recently, the Company's key lithium Board members and CEO visited the Definitive Feasibility Study (DFS) metallurgical testing at the Linyi University Lithium Research Centre (Linyi), a world-class research centre with in-house analysis facilities. The ongoing test work program of various spodumene ores is an integral component of the DFS being conducted by Hatch Ltd (Hatch) for the Company's Bécancour Lithium Refinery.

The Refinery is a multi-purpose battery-grade lithium carbonate refinery designed to a production capacity of 16,000 metric tons per annum, assuming a spodumene feed grade of approximately 5.5% Li_2O . Within the scope of this program, spodumene samples, ranging from 5.0% to 6.0% Li_2O with diverse particle sizes (See Photo 1), are being subjected to comprehensive testing.

See the tour of facilities video. <https://youtu.be/yeD2S8l6ecM>



The objective of establishing a downstream standalone lithium refinery is to design it with the robust capability to process spodumene feedstock from any part of the world. Samples from Australia, Brazil, and Africa, featuring various lithium grades, were sourced and are currently undergoing process testing at Linyi. The proposed refinery will have the capability to efficiently process spodumene feedstock from diverse sources worldwide. This adaptability ensures that the lithium production operation remains robust and flexible, offering optionality in spodumene feedstock while the Canadian supply chain continues to develop. This strategic approach positions the Bécancour Lithium Refinery to navigate fluctuations in the global spodumene market, maintaining operational continuity and stability.

LU7 is pleased to announce that the second batch of lithium batteries tested at the Linyi has successfully met battery-grade specifications. Furthermore, all streams involved in the testing process have been fully analyzed, ensuring a comprehensive understanding of the lithium extraction and battery production processes. So far, test work shows that the Bécancour Lithium Refinery design can handle all types of spodumene concentrate. The design has cyclone preheaters at the feed to the calcination kiln which will allow the process to handle these finer ore types. Cyclone preheating, alike Jiangsu, will improve the calcination of fine spodumene feed, enhancing the efficiency of the extraction process.

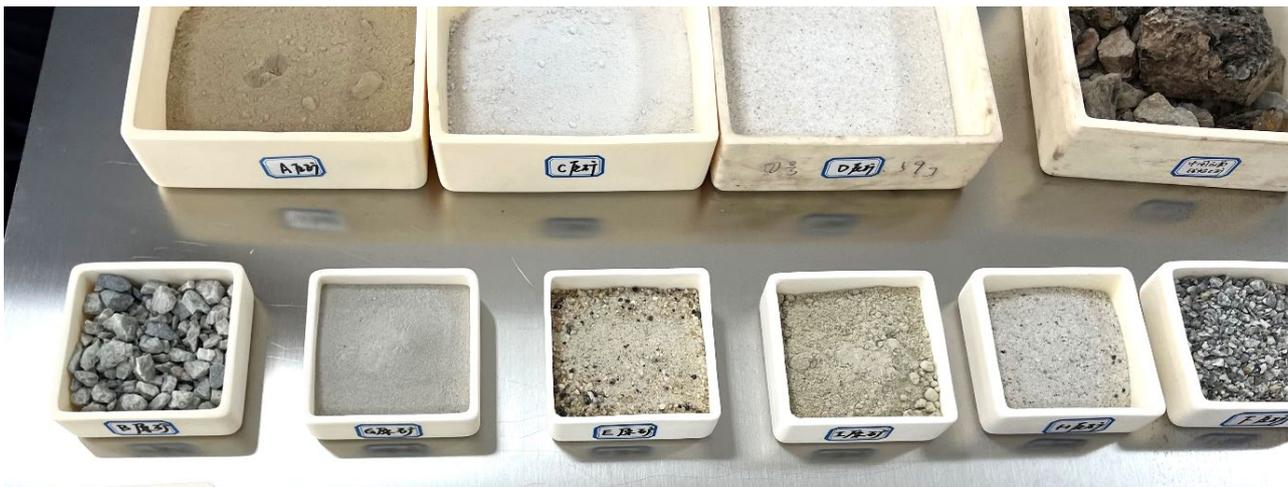


Photo 1 – Various Spodumene Concentrates from around the world showing various particle sizing and grades

In addition to the spodumene samples displaying different particle sizing, the samples also presented varying levels of key impurities including magnesium, calcium, and iron. The Jiangsu plant (on which the Bécancour design is based upon) was the first plant to implement ion exchange technology for the removal of calcium impurities, a groundbreaking achievement that has set new standards in lithium purification. Additionally, the utilization of a CO₂ purification circuit has resulted in remarkably low levels of sodium and sulfate impurities, well below industry cutoff thresholds. Metallurgical studies so far, have demonstrated that the Bécancour process is highly robust, capable of handling various spodumene ore types from around the world with ease, resulting in the production of battery-grade lithium carbonate.



Photo 2 – Board and CEO meeting Linyi Lithium Research Centre

The two completed test program results are shown in the table below.

Elements	LC Content	SO ₄ ²⁻	Cl ⁻	Ca	Na	K	Al	Zn	Ni	Fe	Mn	Mg	Cu	B
	%	ppm												
Concentrate Sample 1	99.71	170	1	13	70	1	2	2	ND	ND	1	2	ND	1
Concentrate Sample 2	99.67	214	2	6	34	2	2	1	ND	3	ND	1	ND	1
LC CN Standard YS/T582-2013	≥99.5	800	30	50	250	10	10	3	10	10	3	80	3	NS
Brine LC CN Standard GB/T2385-2022	≥99.6	100	200	50	300	20	NS	NS	NS	10	10	NS	50	50

The information set out in the above table has been reviewed by the Company's technical director, Dr Jingyuan Liu and is considered to be in a form suitable for inclusion in this ASX release.

Discussion of Results

The primary concern in battery-grade lithium carbonate is sodium, with a specification of less than 250 ppm. The Bécancour process demonstrates its capability to yield an even higher quality product, boasting sodium levels below 100 ppm. Additionally, calcium content is notably low, below 13 ppm compared to the 50 ppm specification. Another significant advantage of lithium carbonate derived from hard rock sources over brine-based alternatives is its remarkably low chloride levels, measuring less than 2 ppm as opposed to the 200 ppm found in brine grades.



Photo 3 – LU7 is using world-class lithium test facilities for all test work

Commenting on the test work, Chairman, Iggy Tan said that *“Based on the Lithium Dream Team’s experience and network, the Company is able to use one of the best lithium research and test facility in the world. One of the Professors (Dr Jie Gao) who heads the research institute started her lithium career at the Jiangsu Lithium Carbonate plant under the guidance of LU7’s Non-executive Director, Dr Jingyuan Liu. We are very pleased with the one-pass success of producing battery-grade lithium carbonate. Our experience with other laboratories around the world is that they cannot achieve such a result in such a short time period.*

“The results demonstrate the validity of the process design when processing multiple types of spodumene feedstock from all around the world. This places LU7 in a unique position; due to the design not being tied solely to a single spodumene mine but having the flexibility to produce battery-grade lithium carbonate from spodumene feedstocks all around the world.”

- Ends -

Lithium Universe Interactive Investor Hub

Engage with Lithium Universe directly by asking questions, watching video summaries and seeing what other shareholders have to say about this, as well as past announcements, at our Investor Hub <https://investorhub.lithiumuniverse.com/>

Authorisation

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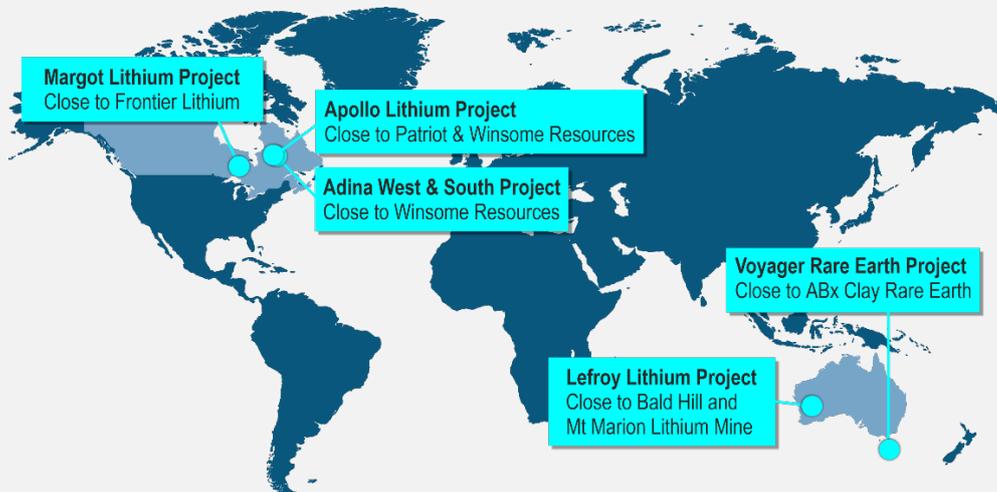
Forward-looking Statements

The Company wishes to remind investors that the presence of pegmatite does not necessarily equate to spodumene mineralization. Also that the presence of pegmatite and spodumene mineralization on nearby tenements does not necessarily equate to the occurrence on Lithium Universe Limited's tenements. This announcement contains forward-looking statements which are identified by words such as 'anticipates', 'forecasts', 'may', 'will', 'could', 'believes', 'estimates', 'targets', 'expects', 'plan' or 'intends' and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this announcement and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of our Company, the Directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.

About Lithium Universe Limited (ASX:LU7)

LU7's main objective is to establish itself as a prominent Lithium project builder by prioritizing swift and successful development of Lithium projects. Instead of exploring for the sake of exploration, LU7's mission is to quickly obtain a resource and construct a spodumene-producing mine in Québec, Canada. Unlike many other Lithium exploration companies, LU7 possesses the essential expertise and skill to develop and construct profitable projects. Additionally, Lithium Universe Limited has access to significant Lithium opportunities in Tier 1 mining jurisdictions in Canada and Australia.

Tier 1 Lithium Inventory



Apollo Lithium Project (80%)

Commanding a land position spanning over 240 km², Apollo is located in the same greenstone belt and only 29 kilometres south-east of the Corvette Lithium Project owned by Patriot Battery Metals (market cap of over A\$1.4 billion). Patriot's most successful drill result was a remarkable 156 meters at 2.12% Li₂O at CV5. Similarly, 28 kilometres to the east, Winsome Resources Limited (market capitalization of over A\$300 million) recently announced drilling hits of 107 meters at 1.34% Li₂O from 2.3 meters (AD-22-005) at their Adina Project. Apollo has 17 pegmatite outcrops reported on the tenement package. Given the exceptional results from these neighbouring projects, the Apollo Lithium Project has the potential to be equally successful.

Adina South & Adina West Lithium Project (80%)

The project is situated in close proximity to the Adina discovery, which is owned by Winsome Resources, a Company with a Market Capitalisation of over A\$300m in the market. The Adina Project has produced a visual pegmatite intersection of over 160m in drills, lying beneath outcropping 4.89% Li₂O. Recently, Winsome Resources reported successful drilling results, with AD-22-005 yielding 107m at 1.34% Li₂O from 2.3m at their Adina Project. The Adina South & Adina West Lithium Project boasts one of the largest prospective land holdings near Winsome Resources Limited. Aerial satellite images have revealed similar pegmatite occurrences at the surface.

Margot Lake Lithium Project (80%)

The Margot Lake project is located in north-western Ontario, in the premium lithium mineral district of Ontario's Great Lakes region. The project is situated 16km southeast of Frontier Lithium's (TSX-V: FL) PAK Deposit, which contains 9.3Mt at 2.0% Li₂O, and 18km away from Frontier's Spark Deposit, which contains 32.5Mt at 1.4% Li₂O. The tenement contains nine confirmed and mapped pegmatites and is located in a highly competitive district due to recent major discoveries of lithium. Frontier Lithium, with a market capitalization more than CAD\$450 million, is a significant player in the region.

Lefroy Lithium Project (100%)

Lefroy is in the mineral-rich Goldfields region of Western Australia. This strategically located project is in close proximity to the Bald Hill Lithium Mine, which has a top-quality spodumene concentrate with low levels of mica and iron, as well as significant tantalum by-product production. The Bald Hill mine has a resource of 26.5 million tonnes at 1.00% Li₂O. The Lefroy project is also located near the Mt. Marion Lithium Mine, which is owned by Mineral Resources and has a market capitalization of A\$17B. Mt. Marion produces 900,000 tonnes of mixed-grade spodumene concentrate annually and is approximately 60 kilometres from the Lefroy project.

Voyager Rare Earth Project (80%)

The Voyager project is north tenements are positioned between ABx Group tenures, where clay-hosted rare earth elements (REE) and niobium have been discovered and hold resources of 27Mt. These areas are analogous with Ionic Adsorption Clay (IAC) deposits that have produced REE in southern China using simple leaching. ABx stated that early testwork indications show their rare earth elements are easily leached and could be concentrated at low cost, with no deleterious elements. Geological mapping of Voyager's tenures indicates the presence of various areas of clay and bauxite, which is the ideal geological environment for the occurrence of rare earth elements.