

**FORM 51-102F3  
MATERIAL CHANGE REPORT**

**Item 1 Name and Address of Company**

United Lithium Corp. (the “**Company**”)  
Suite 1080, 789 West Pender Street  
Vancouver, BC V6C 1H2

**Item 2 Date of Material Change**

October 27, 2021

**Item 3 News Release**

The Company disseminated a news release announcing the material change described herein through the news dissemination services of Globe Newswire on October 27, 2021, and a copy was subsequently filed on SEDAR.

**Item 4 Summary of Material Change**

The Company announced results from proprietary lithium purification testwork to produce lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) from spodumene concentrate. Testing produced lithium carbonate with a purity of approximately 99.1% from the initial bench tests.

**Item 5 Full Description of Material Change**

**5.1 Full Description of Material Change**

Please see the news release attached as Schedule “A” for a full description of the material change.

**5.2 Disclosure for Restructuring Transactions**

Not applicable.

**Item 6 Reliance on Subsection 7.1(2) of National Instrument 51-102**

The report is not being filed on a confidential basis.

**Item 7 Omitted Information**

There are no significant facts required to be disclosed herein which have been omitted.

**Item 8 Executive Officer**

The name and business number of the executive officer of the Company who is knowledgeable of the material change and this report is:

Faizaan Lalani  
Chief Financial Officer  
Telephone – 778-233-3537

**Item 9 Date of Report**

October 28, 2021

## **United Lithium Corp. Provides Update on Lithium Product Purification – Achieves Higher Than 99% Pure Lithium Carbonate with a Leach Recovery Exceeding 98%**

*Calcination, Acid Roasting and Water Leaching of spodumene concentrate (reported October 12, 2021) to produce lithium carbonate*

*Higher than 99% pure lithium carbonate achieved*

*Approximately 99% Li<sub>2</sub>O recovered from impurity removal stages*

*Test work to commence shortly on a direct lithium hydroxide from spodumene concentrate process*

Vancouver, British Columbia

October 27, 2021 – United Lithium Corp. (CSE: [ULTH](#); OTC: [ULTHE](#); FWB: [OULA](#)) (“ULTH” or the “Company”), is pleased to announce results from proprietary lithium purification testwork to produce lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) from spodumene concentrate. Testing produced lithium carbonate with a purity of approximately 99.1% from the initial bench tests. This test program was conducted under the supervision of Dr. Abdul Halim at Process Research Ortech Inc. in Mississauga, Ontario, Canada.

The technical grade of Li<sub>2</sub>CO<sub>3</sub> product and recovery of Li<sub>2</sub>O from flotation concentrates are considered excellent.

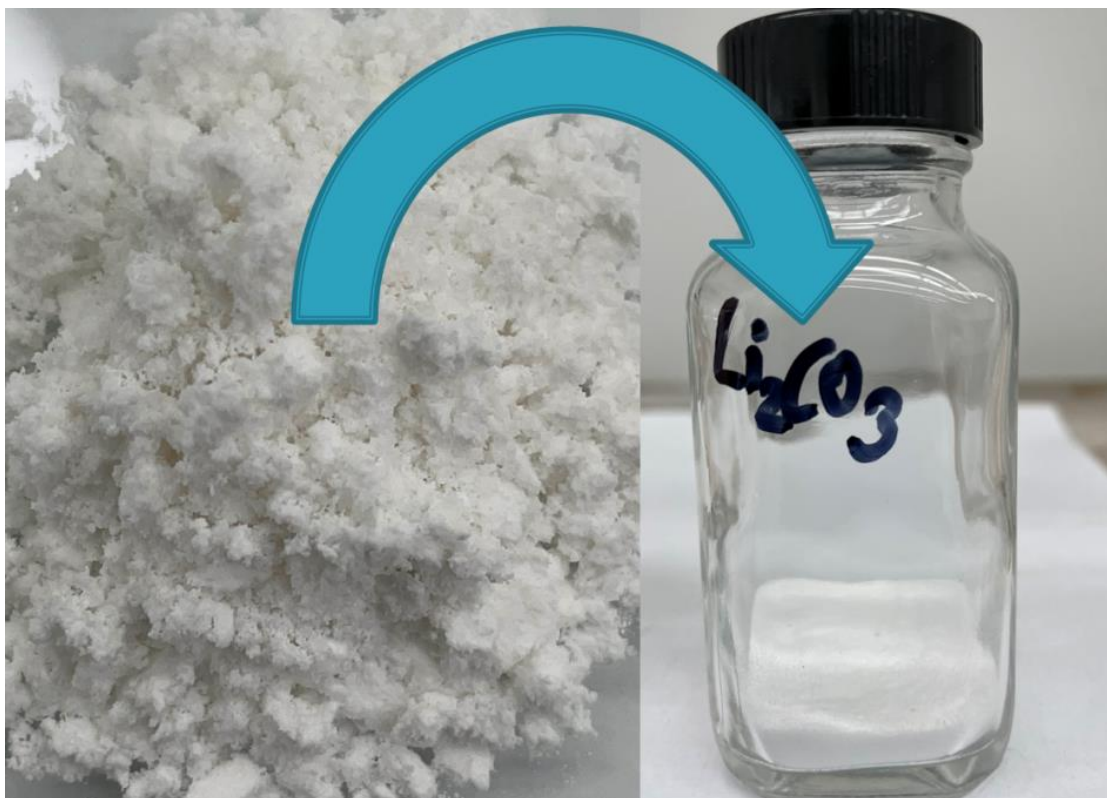
*Table 1 Assay of the final lithium carbonate products*

Test #	Concentration (%)										Li <sub>2</sub> CO <sub>3</sub> Purity (%)
	Li <sub>2</sub> O	Al	Ca	Fe	K	Mg	Mn	Na	S	Zn	
Li <sub>2</sub> CO <sub>3</sub> T1	39.52	<DL	<DL	<DL	<DL	<DL	<DL	0.64	0.24	<DL	99.1
Li <sub>2</sub> CO <sub>3</sub> T2	39.22	<DL	0.13	<DL	<DL	<DL	<DL	0.52	0.20	<DL	99.1

Process Research Ortech Inc. (PRO) was contracted by United Lithium Corp. to develop a sustainable process flow-sheet for the recovery of lithium from a hard rock deposits. The primary lithium mineral to be concentrated is the alumina-silicate spodumene. Spodumene is considered the most important commercial lithium mineral due to its high Li content and favorable processing characteristics. For phase one of the program a lithium rich pegmatite was sourced from Canada for testing.

The success of this program has encouraged United Lithium to continue forward with expanded test work for direct lithium hydroxide production from spodumene concentrate. Test work to date will allow optimization of pilot plant testing, expected to commence early in 2022. The proposed pilot plant will test lithium rich feed materials from a variety of projects, with results expected to be suitable for an economic assessment of a flowsheet to recover Li<sub>2</sub>CO<sub>3</sub> and LiOH from spodumene and petalite feed.

**Figure 1** Photograph of the final product obtained from test  $\text{Li}_2\text{CO}_3$  T1



**Table 2** Analysis of the process solutions related with  $\text{Li}_2\text{CO}_3$  precipitation tests

Test	Description	Concentration (mg/L)								
		$\text{Li}_2\text{O}$	Al	Ca	Fe	K	Mg	Mn	S	Zn
$\text{Li}_2\text{CO}_3$ T1	Feed	39309	<5	134	<5	466	<5	<5	6888	<5
	Filtrate	3620	<5	10	<5	406	<5	<5	62140	<5
	WW	3488	<5	6	<5	27	<5	<5	5192	<5
$\text{Li}_2\text{CO}_3$ T2	Feed	35172	<5	6	<5	8	<5	<5	42060	<5
	Filtrate	3925	<5	16	<5	17	<5	<5	40320	<5
	WW	3989	<5	11	<5	<5	<5	<5	2874	<5

Work to date continues to demonstrate a “greener” process: lower temperatures, lower chemical needs, shorter processing times versus incumbent technologies point toward the environmental and  $\text{CO}_2$  impacts of high grade lithium salts production to be substantially reduced. Reagents and water

consumption can be minimized by recycling the process streams such as filtrates, washes, evaporated water and crude products to the  $\text{Li}_2\text{CO}_3$  precipitation, impurity removal, and water leaching stages.

When additional test work to convert spodumene concentrate into lithium carbonate is completed, a life cycle assessment for this innovative process is planned, and engineering data will be available to support decision making. A test program to optimize the calcination and roasting portions of the flowsheet to make them even more environmentally friendly is being designed by the company's President and CEO Michael Dehn and Dr. Abdul Halim, VP Technology of Process Research Ortech Inc.

"Test work to date has demonstrated that it is possible to modify traditional processes and shortcut lithium carbonate production using innovative out of the box thinking. United Lithium aims to commercialize a sustainable and robust process flow sheet for lithium concentrate production, high grade lithium carbonate and potentially high purity battery grade lithium hydroxide, with the ability to accommodate multiple feed materials with minimal modifications.", states Michael Dehn, President and CEO of United Lithium. "By making minor improvements in each step of the traditional flowsheet, we believe we can deliver a new lithium flowsheet with distinct economic and environmental benefits".

The detailed bench test work to develop a flowsheet was conceived and supervised by Dr. Abdul Halim, VP Technology of Process Research Ortech Inc. He has over 15 years of experience in developing and optimizing innovative and sustainable technologies for critical metals including lithium, cobalt, nickel and other base metals, PGMs, gold, germanium and rare earths (REEs) from mined natural resources and recycle materials through bench, pilot, and demonstration plant operations. He has authored more than 50 scientific and technical papers, holds 5 US patents, and has authored a number of book chapters in these areas. He worked at FLSmidth, Salt Lake City, USA, and SGS Lakefield, Canada prior to joining Process Research Ortech Inc. as a VP Technology.

Mark Saxon (FAusMM), Technical Advisor to the Company, is a qualified person as defined by National Instrument 43-101 (Standards of Disclosure or Mineral Projects) and has prepared or reviewed the scientific and technical information in this press release.

**On Behalf of The Board of Directors,**

United Lithium Corp.

Michael Dehn, President, CEO and Director

**For further information, please contact the Company at:**

[michaeldehn@unitedlithium.com](mailto:michaeldehn@unitedlithium.com)

[www.unitedlithiumcorp.com](http://www.unitedlithiumcorp.com)

**About United Lithium Corp.**

United Lithium Corp. (CSE: ULTH) is an exploration & development company energized by the global demand for lithium. The Company is targeting lithium projects in politically safe jurisdictions with advanced infrastructure that allows for rapid and cost-effective exploration, development and production opportunities.

**Forward Looking Statements**

*This news release contains forward-looking statements. All statements included in this release, other than statements of historical fact, are forward-looking statements that involve risks and uncertainties. There can*

*be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. The reader is cautioned that assumptions used in the preparation of any forward-looking information may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company. The reader is cautioned not to place undue reliance on any forward-looking information. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date of this news release and the Company will update or revise publicly any of the included forward-looking statements as expressly required by applicable law.*

***The CSE does not accept responsibility for the adequacy or accuracy of this release***