United Lithium Corp. Provides Update on Innovative Flotation Test Work For Spodumene Recovery

Up to 8.39% Li_2O produced in flotation concentrate testing

Up to 70.3% of the Li_2O in the tested pegmatite recovered in flotation testing

Lithium Carbonate product recovery tests on flotation concentrate results expected to be released shortly

Spodumene prices registered an 86% increase in September (FOB Australia) against a backdrop of tight raw material supply and surging chemical prices in China

Vancouver, British Columbia

October 12, 2021 – United Lithium Corp. (CSE: ULTH; OTC: ULTHF; FWB: 0ULA) ("ULTH" or the "Company"), is pleased to announce the results from flotation testing of spodumene-rich pegmatite sample materials using an innovative and proprietary flotation technology. This test program was conducted on lithium (Li) bearing pegmatite samples collected from a Canadian source containing 1.4—2.1% Li_2O to develop a proprietary process flowsheet that can then be applied to various other spodumene rich ore deposits. The scope of the program included sample preparation and characterization as well as flotation.

The greatest hard rock concentrations of lithium-containing minerals occur in granitic pegmatites. The most important of these minerals are spodumene ($Li_2O.Al_2O_3.4SiO_2$), petalite ($Li_2O.Al_2O_3.8SiO_2$) and lepidolite ($LiF{\cdot}KF{\cdot}Al_2O_3{\cdot}3SiO_2$). Among these minerals, spodumene is considered the most important commercial lithium mineral due to its higher Li content and better processing characteristics.

Table 1 Test results with the best yield (recovery)

Test ID	Highest grade	Recovery
	% Li_2O	%
12	5.81	60.4
23	8.28	53.6
24	6.40	70.3
26	8.39	40.6

Process Research Ortech (PRO) was contracted by United Lithium Corp. to develop a sustainable process flowsheet for the recovery of lithium from a hard rock deposits. The primary lithium mineral to be concentrated is the alumina-silicate mineral, spodumene. For Phase 1 of the program (making a flotation concentrate) materials from a lithium-rich pegmatite was sourced in Canada for testing.

Table 2 Analysis of pegmatite from Canada for use in the Phase 1 program

Sample ID	Li_2O	Al	Ca	Co	Cr	Cu	Fe	K
	%							
HEAD SAMPLE Bag 1-0	1.43	6.130	0.144	<DL	0.015	<DL	0.374	1.686
HEAD SAMPLE Bag 1-1	1.92	5.952	0.248	<DL	<DL	<DL	0.434	1.488
HEAD SAMPLE Bag 1-2	2.13	5.524	0.252	<DL	<DL	<DL	0.492	1.681

Sample ID	Mg	Mn	Mo	Na	Ni	Pb	Ti	Zn
	%							
HEAD SAMPLE Bag 1-0	0.038	0.035	<DL	1.533	<DL	<DL	0.012	0.032
HEAD SAMPLE Bag 1-1	0.051	0.055	<DL	1.240	0.031	0.012	0.022	<DL
HEAD SAMPLE Bag 1-2	0.048	0.050	<DL	1.201	0.016	0.012	0.020	<DL

The QEMSCAN analysis was carried out at Activation Laboratories Ltd. in Ancaster, Ontatrio, Canada on two size fractions of the feed: -200M (21-0165) and +200M (21-0164). The results of the QEMSCAN came after most of the flotation runs were completed. As shown in Table 2, spodumene is the predominant Li bearing mineral present in the feed, and the coarser fraction is enriched in this mineral.

Table 3 Minerals in the feed material (QEMSCAN)

Sample ID	21-0164	21-0165
Measurement Name	02	03
Chalcopyrite	n.d.	0.01
Pyrite	0.00	0.14
Bismuthinite	0.03	0.22
Fe Oxi/Hydroxi	0.04	0.68
Columbite	0.01	0.05
Ilmenite	0.03	0.80
Titanite	0.01	0.05
Quartz	29.23	29.75
Albite	30.63	34.29
K-Feldspar	12.37	13.24
Spodumene	23.64	11.18
Petalite	0.75	0.62
Pyroxene	0.30	0.58
Amphibole	0.04	0.17
Garnet	0.03	0.04
Muscovite	2.02	6.10
Biotite	0.27	0.50
Lepidolite	0.02	0.06
Epidote	0.15	0.38
Tourmaline	0.02	0.03
Clinochlore	0.02	0.17
Kaolinite	0.03	0.04
Zircon	n.d.	0.01
Calcite	0.04	0.07
Apatite	0.01	0.06
Others	0.31	0.75
Sum	**100**	**100**

Table 4 Spodumene Liberation

Sample ID	Spodumene Liberation, free surface area wt%										
	Locked			Associated						Free	
	<10	**10-20**	**20-30**	**30-40**	**40-50**	**50-60**	**60-70**	**70-80**	**80-90**	**90-100**	**Liberated**
21-0164	0.58	0.92	0.55	1.18	1.00	1.20	0.40	1.93	5.66	35.48	51.09
21-0165	0.96	0.65	1.13	1.41	0.54	0.86	1.25	2.41	9.97	27.81	53.00

Photos 1 Spodumene bearing pegmatite (hard rock) and flotation concentrate

Table 5 Grades and Recovery per test

Test ID	Grade	Recovery
	% Li_2O	%
1	0.92	1
2	1.33	0.9
3	3.7	1.4
4	2.82	59.2
5	2.37	31.4
6	3.26	38.3
7	2.84	18.6
8	4.27	45.7
9	3.45	44.1
10	3.87	5.3
11	4.12	52.1
12	5.81	60.4
13	3.67	60.2
16	3.28	23.7
19	2.6	34.6
21	1.91	34.9
23	8.28	53.6
24	6.4	70.3
25	4.06	67.5
26	8.39	40.6

The success of this program using this ”greener” flotation technology encourages United Lithium to continue forward by testing lithium-rich pegmatite material from its 100% owned Barbara Lake Lithium Project in Ontario, Canada, and its 100% owned Bergby Lithium project in Sweden and continue with development of a sustainable flowsheet for lithium recovery. United Lithium also plans to test Li-rich materials that will be collected as part of due diligence programs for projects that may be acquired by the Company in the future.

”We are very pleased with the work completed to date and are now encouraged to test multiple hard rock, dominantly spodumene bearing, lithium deposits. Our ultimate goal is commercializing a sustainable and robust process flow sheet to produce lithium concentrate as well as high grade lithium carbonate that will accommodate multiple sources of feed material with little or no modification to the process”, states Michael Dehn, President and CEO of United Lithium. “Success to date is the result of innovations and tweaks that Dr. Halim has been able to develop without reinventing a totally new process, and by looking at opportunities where energy, reagents, and water can be reduced in the process, and adding tweaks along the way to improve recoveries and recycling of reagents.”

Work to date has successfully demonstrated a “greener” process: lower temperatures, lower chemical needs, shorter processing times versus incumbent technologies point toward the environmental and CO_2 impacts of high grade lithium salts production to be substantially reduced. When additional test work in converting the 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.

Benchmark Minerals reported on October 6, 2021 that “ the mid-September digital auction held by Pilbara Minerals was the latest catalyst in the ongoing spodumene price rally when it received a record-high bid of $2,240/tonne (FOB Australia) for 8,000 dry metric tonnes (dmt) of spodumene concentrate (SC 5.5%), which follows the recent previous record-high price of $1,250/tonne in late July 2021, also achieved at a Pilbara auction.” Theslarge increase in price in a short period demonstrates that shortness of supply of spodumene.

On September 20, 2021 Roskill reported the price achieved by Pilbara Minerals that “The majority of volume is largely tied up in long term agreements, including shareholder agreements, where prices are based on discrete pricing formulae to allow for price stability and sustainability. Besides shareholder agreements, the majority of volumes are tied up in long-term supply agreements, which were required by financing institutions to provide funding for projects. These agreements leave very little volume available for external parties and smaller converters will be scrambling for raw materials to allow them to partake in a market where prices are continuing to increase.”

The PRO test work flowsheet was conceived and supervised by Dr. Abdul Halim, VP Technology of Process Research Ortech. He has over 15 years of experience in developing and optimizing innovative and sustainable technologies for critical metals including lithium, cobalt, nickel & other base metals, PGMs, gold, germanium and rare earths (REEs) from mined natural resources and recycled 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 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.
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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.

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