
NEWS RELEASE

CENTURY LITHIUM REPORTS ON TESTING WITH SALTWORKS AND PRODUCTION OF BATTERY GRADE LITHIUM CARBONATE

August 21, 2023 – Vancouver, Canada – Century Lithium Corp. (TSXV: LCE) (OTCQX: CYDVF) (Frankfurt: C1Z) (Century Lithium or the Company) is pleased to report testing results at Saltworks Technologies, Inc. (Saltworks) in Richmond, Canada, and additional production of high-purity lithium carbonate (Li_2CO_3) using product solutions from the Company's Lithium Extraction Facility (Pilot Plant) in Amargosa Valley, Nevada, USA. The solutions tested at Saltworks were derived from leaching of claystone from the Company's 100%-owned Clayton Valley Lithium Project (Project) in Nevada; and processed at the Pilot Plant via direct lithium extraction (DLE) to produce an intermediate concentrated lithium solution (DLE eluent).

"It is very positive to see consistency in our high-purity, 99.87%, lithium carbonate product grades from our Pilot Plant this year" stated Bill Willoughby, President, and CEO of Century Lithium. "The highlight though, is the almost five-fold increase in lithium grade in the concentrated lithium solution generated at the Pilot Plant. This was achieved through collaboration with Koch Technology Solutions and their Li-Pro™ system, and its integration into Century Lithium's chloride-based leaching process."

Highlights

- Repeated production of high-purity (99.87%) battery-grade lithium carbonate
- Improved lithium concentrations in DLE eluent
- Reduced volume of solution in downstream treatment and recycling
- Potential to eliminate evaporation from the post DLE process flowsheet
- Active testing underway to further improve DLE eluent grade

Lithium Carbonate Assay Results

Saltworks has once again produced battery-grade lithium carbonate (Li_2CO_3) from the DLE eluent produced at the Pilot Plant. The table below is a comparison of Saltworks' 2023 results for Li_2CO_3 , DLE eluent Batch 2, with the previously reported results from DLE eluent Batch 1 (see May 25, 2023 [news release](#)). Also shown are the constituent levels for battery grade Li_2CO_3 , as published by two major producers. The assays results were finalized by Saltworks and independently assayed by SGS Canada, Inc. These results show consistency in composition of both the DLE eluent produced by the Pilot Plant earlier in the year and the resulting Li_2CO_3 product produced by Saltworks, achieving 99.871% content versus 99.875% reported previously.



Li₂CO₃ Assay Results

		Century Li ₂ CO ₃ Batch 2 (August 2023)	Century Li ₂ CO ₃ Batch 1 (May 2023)	Reference Grades
Li ₂ CO ₃	wt%	99.871	99.875	>99.5
H ₂ O	wt%	0.05	0.03	0.2 to <0.5
Na	wt%	0.027	0.047	0.03 to <0.05
Ca	wt%	0.012	0.009	0.01 to <0.04
Fe	Wppm	3	3	<5 to 10
Al	Wppm	3	<2	<10 to 10
Cu	Wppm	3	<4	<5 to 10
Ni	Wppm	<5	<5	<6 to 10
Zn	Wppm	<5	13	<5 to 10
Cl	wt%	0.01	0.008	<0.01

Notes: wt% (weight percent), wppm (weight parts per million), calculated Li₂CO₃ purity based on sum of impurities measured above detection limit. Reference grades are from published specifications from two major producers of battery grade Li₂CO₃

Lithium in DLE Eluent

As recently reported (see August 9, 2023 [news release](#)), Century Lithium collaborated with Koch Technology Solutions (KTS), a Koch Engineered Solutions' (KES) company, and integrated KTS' Li-Pro™ system into the DLE stage of the Pilot Plant. This work has increased the grades of the DLE eluent (intermediate lithium product solution) several fold. These changes are outlined in the table below, as reported by analyses from Saltworks.

DLE Eluate Assay Results

Batch	1	2	3	4	5
Lithium (Li) (ppm)	1,430	1,610	1,885	3,970	6,780
Sodium (Na) (ppm)	22,400	25,850	24,150	19,100	8,220
Total dissolved solids (TDS) (ppm)	77,450	77,850	82,600	78,300	79,300
Li:TDS	0.018	0.021	0.023	0.051	0.085
Li:Na	0.064	0.062	0.078	0.208	0.825

Notes: DLE eluent for Batch 1 and 2 used to produce Li₂CO₃ cited above.

Batches 1, 2 and 3 are DLE eluents produced during the first quarter of 2023. Li₂CO₃ production was carried out to completion in batches 1 and 2 but the processing of Batch 3 was put on hold due to its similarity to batches 1 and 2 and the improvements seen in the grades of batches 4 and 5. These improvements in lithium grade from 1,430 parts per million (ppm) to 6,780 ppm, increase in the ratio of lithium to total dissolved solids (TDS) from 0.018 to 0.085, and reduction in sodium from 25,850 ppm to 8,220 ppm all occurred with the introduction of KTS' Li-Pro™ system into the DLE stage of the Company's Pilot Plant.

Implications for Lithium Carbonate Production

The increase in lithium (Li) grade and the Li:TDS ratio has positive implications for the size and costs of the lithium carbonate production portion of the lithium extraction process at the Project. Within the Saltworks flowsheet, these higher values equate to a lower volume of solution to be treated and a proportionate



decrease in the amount of water that must be removed (evaporated) prior to lithium carbonate precipitation. This will also affect the recycled solutions within the lithium carbonate production stage by reducing the volume of solutions moved in this stage and other leaching areas of the processing plant.

The information derived from the Pilot Plant, including the test results from the combination of Century Lithium's DLE process and KTS' Li-Pro™ system, and recent component changes at the Saltworks laboratory, is supplemental to the Feasibility Study for the project. The design basis for the Feasibility Study was established at a Li:TDS ratio of 0.02.

The Saltworks flowsheet targets a lithium grade of 10,000 to 20,000 ppm (10-20 g/L) for precipitation. Work with KTS at the DLE stage at the Pilot Plant has seen preliminary, internally assayed, lithium solution grades of over 8,000 ppm in the DLE eluent. Work is continuing within the DLE area to further increase lithium grades in solution, creating the scope to reduce solution volumes and the potential to eliminate a major evaporation step from the process flowsheet. As a supplement to the Feasibility Study, the Company is pursuing these potential cost and size savings with Saltworks.

Moving Forward

Work on the Feasibility Study continued throughout the six months ended June 30, 2023, with more than 20,000 consultant hours expended since its commencement. Following receipt of initial values from our consultants, Wood PLC and thyssenkrupp nucera, the Company is conducting internal reviews to assess optimization and cost reduction opportunities; work which is underway. In June 2023, the Company engaged Kiewit Industrial Group in Lone Tree, Colorado to assist with the review of project designs and estimates with attention to site development, material and supply costs, and construction methods. One optimization opportunity, reducing or eliminating the use of thickeners for tailings separation in the process configuration, was implemented and is under trial at the Pilot Plant.

The Company's collaboration with KTS is underway, utilizing KTS' Li-Pro™ equipment in the DLE section of the Pilot Plant, where lithium is selectively recovered from the leach solution while deleterious elements are rejected. Testing with KTS is expected to continue through the 3rd quarter while KTS collects information to prepare an engineering design and cost estimate for a full-scale deployment of Li-Pro™ system which will supplement the Company's Feasibility Study.

Qualified Person

Todd Fayram, MMSA-QP and Daniel Kalmbach, CPG, are the qualified persons as defined by National Instrument 43-101 and have approved the technical information in this release.

About Century Lithium Corp.

Century Lithium Corp. (formerly Cypress Development Corp.) is an advanced stage lithium company, focused on developing its 100%-owned [Clayton Valley Lithium Project](#) in west-central Nevada, USA. Century Lithium is currently in the pilot stage of testing on material from its lithium-bearing claystone deposit at its Lithium Extraction Facility in Amargosa Valley, Nevada and progressing towards completing a Feasibility Study and permitting, with the goal of becoming a domestic producer of lithium for the growing electric vehicle and battery storage market.

ON BEHALF OF CENTURY LITHIUM CORP.



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