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CleanTech Lithium PLC ("CTL", CleanTech Lithium" or the "Company")
Laguna Verde PFS Process Validated with High Purity Lithium Carbonate Produced

CleanTech Lithium PLC (AIM: CTL, Frankfurt:T2N), an exploration and development company advancing sustainable lithium projects in Chile, is pleased to announce highly encouraging results from a comprehensive technical programme focused primarily on optimising and refining the process flowsheet developed in the Laguna Verde´s Pre-Feasibility Study ("PFS").

The programme culminated in the production of lithium carbonate with purities of up to 99.75% Li_2CO_3, independently analysed by Alex Stewart Laboratory. The results provide further technical validation of the proposed process route from Laguna Verde brine through Direct Lithium Extraction ("DLE"), purification, and concentration to final lithium carbonate product and provide important optimisation data as the Company advances Laguna Verde towards Definitive Feasibility Study ("DFS") stage.

Key Highlights:

- Key DLE adsorption parameters, including lithium adsorption yield and adsorption capacity, exceeded the PFS design benchmarks, providing further support for the planned 15,000 tonnes per annum production capacity.
- A volume of 24m^3 of feed brine from Laguna Verde was processed at Lanshen´s pilot plant facility in Santiago, Chile that replicated all process stages of the PFS design.
- In the nanofiltration stage, a DuPont™ FilmTec™ LiNE-XD element outperformed the PFS benchmark, demonstrating rejection of 99.8% magnesium and 95.0% calcium rejection, with lithium recovery of 98.3%.
- 5kg of high-purity lithium carbonate was produced in the laboratory-scale carbonation stage; three samples analysed by an independent chemical analysis laboratory returned Li_2CO_3 contents of 99.69% to 99.75%.

Ignacio Mehech, Chief Executive Officer of CleanTech Lithium PLC, said: "These are highly encouraging results for the Laguna Verde project. The pilot trial supports the PFS modelling under continuous pilot-scale operating conditions. This successful optimisation provides us with clear engineering improvements as we de-risk the project and move into our final design phase."

Further Details:

The Laguna Verde PFS completed in March 2026 included recommendations on test work to further validate and optimise the process flow sheet as the project progresses towards undertaking a DFS. Lanshen developed the PFS process design, with input from third-party specialists. The Company engaged Lanshen to undertake the optimisation trial, with a first stage to verify DLE process parameters, a second stage to evaluate advanced membrane and purification process steps, and a final carbonation stage to produce a 5kg sample of high-purity lithium carbonate; three samples analysed by an independent chemical analysis laboratory returned Li_2CO_3 contents of 99.69% to 99.75%. A volume of 24m^3 of feed brine from Laguna Verde was processed at Lanshen´s pilot plant facility in Santiago, Chile.



Figure 1: Pilot scale DLE carousel unit



Figure 2: Post DLE Process Unit

Stage 1: Verify DLE Process and Designed Throughput

Figures 1 and 2 show the DLE stage and post DLE process units at the facility which processed feed brine through to the final lithium carbonate product. At the DLE stage, key parameters of lithium adsorption yield and the adsorption capacity exceeded the PFS benchmark. This supports the planned commercial scale production for the project of 15,000 tonnes per annum which is based on 10 carousels scaled at 1,500 tonnes per unit. Examples of commercial scale units in operation in China are shown in Figure 3.



Figure 3: Commercial-scale DLE carousel unit in China

Stage 2: Evaluate Advanced Membrane and Purification Process Steps

The DuPont™ FilmTec™ LiNE-XD element, a high-productivity nanofiltration ("NF") membrane for lithium brine purification, was trialled along with the latest divalent ion-exchange ("IX") system developed by Lanshen, shown in Figures 4 and 5, respectively. The DuPont™ FilmTec™ LiNE-XD NF element outperformed the PFS baseline assumptions, demonstrating 99.8% magnesium rejection, 95.0% for calcium, and a lithium recovery rate of 98.3%. The IX polishing stage achieved over 99.0% efficiency for remaining divalent impurities, dropping calcium and magnesium levels to under 1 mg/L, also outperforming the PFS benchmark. Water recovery is important in Chile to ensure low environmental impact. Multi-stage reverse osmosis plus forced evaporation successfully recovered and recycled >90% of the desorption water back into the DLE stage. Forced evaporation testing optimised high water recycle rates and achieved zero salt precipitation, managing a key scaling risk.

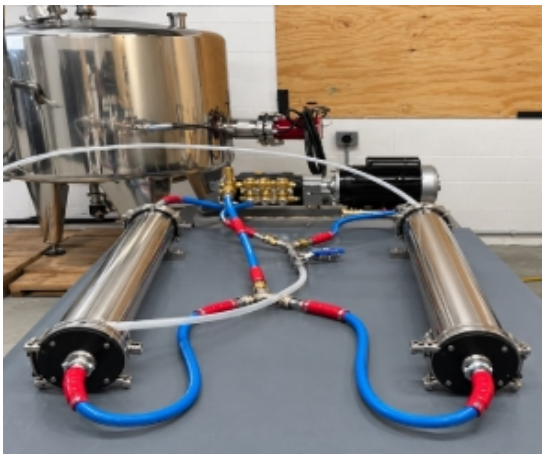


Figure 4: DuPont™ FilmTec™ LiNE-XD element



Figure 5: Experimental IX unit

Stage 3: Carbonation - High Purity Lithium Carbonate

Three samples of lithium carbonate were produced in the laboratory-scale carbonation stage based on a process of precipitation of the concentrated LiCl solution with sodium carbonate, centrifuging, hot water washing, and drying. The samples were analysed by the Alex Stewart Laboratory in Argentina. As shown in the table below, each achieved purities exceeding 99.6% Li_2CO_3, which is a standard for the Li_2CO_3 purity to achieve battery grade.

Parameter	**CTL 100**	**CTL 200**	**CTL 300**
Li_2CO_3 (%)	99.69	99.73	99.75
Na (%)	0.117	0.093	0.109
K (%)	0.014	0.019	0.019
Fe (%)	0.003	0.001	0.002
Ca (%)	0.052	0.026	0.020
Mg (%)	0.007	0.007	0.003
B (%)	0.002	0.001	0.001
SO_4 (%)	0.031	0.047	0.051
Cl (%)	0.001	0.001	0.001
HCl insoluble (%)	0.064	0.055	0.030

Table 1: Analysis of Lithium Carbonate Samples (Alex Stewart Laboratory)

Competent Persons Statement

The following professional acts as a qualified person, as defined in the AIM Note for Mining, Oil and Gas Companies (June 2009) and JORC Code (2012):

Marcelo Bravo: Chemical Engineer (Universidad Católica del Norte), has a Master's Degree in Engineering Sciences, major in Mineral Processing, Universidad de Antofagasta. He currently works as a Senior Process Consulting Engineer at Ad-Infinitum. Mr. Bravo has relevant experience in researching and developing potassium, lithium carbonate, and solar evaporation concentration design processes in Chile, Argentina, and Bolivia. Mr. Bravo, who has reviewed and approved the information in this announcement, is registered under No. 412 in the public registry of Competent Persons in Mining Resources and Reserves under the Law of Persons Competent and its Regulations in force in Chile. Mr Bravo has sufficient experience relevant to the metallurgical tests and the subsequent processing of the extracted brines under consideration, and to the activity being carried out, to qualify as a competent person, as defined in the JORC Code. Mr Bravo consents to the inclusion in the press release of the matters based on his information in the form and context in which it appears.

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Notes

About CleanTech Lithium

CleanTech Lithium (AIM:CTL, Frankfurt:T2N) is an exploration and development company advancing lithium projects in Chile for the clean energy transition. CleanTech Lithium has two key lithium projects in Chile, Laguna Verde and Viento Andino, and exploration stage project in Arenas Blancas (Salar de Atacama), located in the lithium triangle, a leading centre for battery grade lithium production. CleanTech Lithium and the Mining Ministry in Chile have agreed the contractual terms for the Special Lithium Operating Contract ("CEOL") for Laguna Verde, subject to final ratification.

CleanTech Lithium is committed to utilising Direct Lithium Extraction ("DLE") with reinjection of spent brine. Direct Lithium Extraction is a transformative technology which removes lithium from brine with higher recoveries, short development lead times and no extensive evaporation pond construction. For more information, please visit: www.ctlithium.com

About DuPont

DuPont (NYSE: DD) is a global innovation leader, providing advanced solutions that help transform industries and improve everyday life across key markets of healthcare, water, construction, and industrial. Through its Water Solutions business, DuPont provides advanced separation technologies and technical expertise, including an end-to-end portfolio of direct lithium extraction (DLE) solutions designed to help optimize lithium recovery across diverse brine resources. More information about the company, its businesses and solutions can be found at www.dupont.com. Investors can access information included on the Investor Relations section of the website at investors.dupont.com.

FilmTec™ is trademark owned by an affiliate of DuPont de Nemours, Inc.

About Lanshen

Xi'an Lanshen New Material Technology Co., Ltd. (Lanshen) is an international leading provider of Direct Lithium Extraction (DLE) technologies, with core expertise in DLE selective adsorption material development and production, including design - fabrication and commercialization of industrial modular DLE plant solutions. The company has extensive international experience across the full DLE value chain, including DLE process performance - validation at pilot plant scale, DLE process engineering, equipment design and fabrication, on-site installation, operator training and commissioning.

Through this integrated technical capability, Lanshen supports partners in accelerating the development, optimization, and scale-up of lithium brine projects worldwide.

****ENDS****

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