



NEWS RELEASE

TSXV: CYP | OTCQX: CYDVF

## CYPRESS DEVELOPMENT ENGAGES THYSSENKRUPP NUCERA FOR DESIGN AND ENGINEERING OF CHLOR-ALKALI PLANT IN FEASIBILITY STUDY

October 27, 2022 – Vancouver, Canada – Cypress Development Corp. (TSXV: CYP) (OTCQX: CYDVF) (Frankfurt: C1Z1) (Cypress or Company - <https://www.commodity-tv.com/ondemand/companies/profil/cypress-development-corp/>) is pleased to announce the selection of thyssenkrupp nucera USA, Inc. (thyssenkrupp nucera) to provide the design and engineering for the chlor-alkali plant as part of the ongoing Feasibility Study on the Company's Clayton Valley Lithium Project in Nevada, USA (Project). The chlor-alkali plant is an essential component which will allow the Project to self-generate two key reagents required for processing lithium-bearing claystone through to a  $\text{Li}_2\text{CO}_3$  (lithium carbonate) product.

"The Company's selection of thyssenkrupp nucera is another important step towards completion of the Feasibility Study for the Project's production of lithium carbonate. Their experience and proven track record as an electrolysis technology company with worldwide knowledge in the chlor-alkali field will add to our Feasibility Study" stated Bill Willoughby, President, and CEO of Cypress Development.

thyssenkrupp nucera USA Inc. is the U.S. subsidiary of thyssenkrupp nucera AG & Co. KGaA, an international company that offers world-leading technologies for high-efficiency electrolysis plants, which includes chlor-alkali electrolysis, HCl electrolysis, and alkaline water electrolysis. thyssenkrupp nucera's scope in the chlorine electrolysis business includes the supply and services around engineering, supply of all major plant equipment, supervision of the erection and commissioning activities, training of the operating personnel as well as holistic 360-degree service solutions for the entire lifecycle of a plant.

thyssenkrupp nucera's scope of work will include the development of a facility concept for treatment of the recovered brine stream from Cypress' process and ensure compatibility with the membrane electrolysis cells of a chlor-alkali plant. Standardized and proprietary e-BiTACv7 BiPolar type membrane cell electrolyzers from thyssenkrupp nucera serve as the heart of the chlor-alkali plant to generate the key reagents HCl (hydrochloric acid) and NaOH (sodium hydroxide) required to process the lithium ore. The NaCl (sodium chloride) and  $\text{H}_2\text{O}$  (water) molecules present in the recovered brine are electrolyzed to produce  $\text{Cl}_2$  (chlorine),  $\text{H}_2$  (hydrogen) and the sodium hydroxide, where then outside of the cells, the chlorine and hydrogen molecules are combined to produce hydrochloric acid.

## **Feasibility Study Update**

The Company's Feasibility Study on the Project commenced in **March 2022** under the direction of Wood PLC (Wood), with support from Global Resource Engineers, Continental Metallurgical Services, WSP USA Environment & Infrastructure Inc., and Cypress.

Progress on the Feasibility Study is advancing as planned. Wood and the supporting teams have completed or are near completion of several key items, including resource and reserve estimates, mine plan, processing plant design, and tailings and waste storage facilities.

Positive results from test work conducted at Saltworks Technologies Inc. (Saltworks) (see [news release](#) dated September 19, 2022), where high purity lithium carbonate was made at Saltworks from concentrated lithium solutions produced at Cypress' Lithium Extraction Facility in Nevada.

Saltworks has since completed a second phase of testing which examined the production of lithium from the blowdown-brine stream collected during the lithium carbonate concentration in the first stage of testing. We are pleased to report these results are positive and confirm the viability of an increase in lithium recovery via re-concentration of the blowdown-brine and production of additional lithium carbonate solids. Results from third-party laboratory analysis are pending for lithium carbonate quality obtained during this test. This step has the potential to significantly reduce the volume required to be recycled back to the upstream direct lithium recovery (DLE) plant and reduce size and capital cost of the DLE plant.

Based on the progress and results from Saltworks, Cypress is focusing on lithium carbonate as the end-product for the Feasibility Study and has engaged Saltworks to provide the engineering and design for the final steps in producing lithium carbonate. Based on timelines for the major components and cost analysis, as well as to allow thyssenkrupp nucera sufficient time to complete its design and optimization studies, the Company expects the Feasibility Study to be completed in the second quarter of 2023.

## **Qualified Person**

Todd Fayram, MMSA-QP, is the qualified person as defined by National Instrument 43-101 and has approved of the technical information in this release.

## **About Cypress Development Corp**

Cypress Development Corp. is a Canadian based advanced stage lithium company, focused on developing its 100%-owned Clayton Valley Lithium Project in Nevada, USA. Cypress is in the pilot stage of testing on material from its lithium-bearing claystone deposit and progressing towards completing a 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 CYPRESS DEVELOPMENT CORP.**

WILLIAM WILLOUGHBY, PhD., PE

*President & Chief Executive Officer*

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