

Synthetic Brine Testing Commences at Vulcan's Facility

Synthetic brine testing has commenced at Vulcan Energy Resources' facility in Germany, marking a significant step toward optimising lithium extraction processes ahead of bulk brine sample analysis.

HIGHLIGHTS

- Synthetic brine testing underway at Vulcan Energy Resources' state-of-the-art testing facility in Germany.
- This testing will refine extraction parameters ahead of future bench and pilot-scale evaluation of brine samples from Salar de Coipasa, Salar de Empexa and Salar de Pastos Grandes in Bolivia.
- Early-stage data will assess the performance of Vulcan's proprietary VULSORB® Adsorption-Type Direct Lithium Extraction (A-DLE) technology with the major chemistry of Bolivian lithium brines.
- Findings from the synthetic brine trials will guide the processing of bulk brine samples currently in transit to Germany.



Figure 1 – Laboratory testing apparatus Containing Vulcan's Proprietary VULSORB® Sorbent¹. VULSORB® sorbent, a next-generation material engineered to enhance lithium recovery in magnesium-rich brines and minimise water consumption, a key factor for sustainable lithium extraction in Bolivia's salars.

Cosmos Exploration Limited (ASX: C1X) ("Cosmos" or "the Company") is pleased to advise that synthetic brine testing has now commenced at Vulcan Energy Resources Limited's ("Vulcan") testing facility in Germany. This marks a key step in refining extraction parameters ahead of future bench and pilot-scale testing of bulk brine samples.

¹ <https://v-er.eu/in-house-sorbent-vulsorb/>

Cosmos Executive Chairman, Jeremy Robinson, said: *“The commencement of synthetic brine testing at Vulcan’s facility represents a major milestone in our lithium extraction strategy. This work allows us to fine-tune extraction parameters ahead of testing our Bolivian brine samples, ensuring we maximise efficiency in assessing the commercial viability of Vulcan’s VULSORB® technology. We look forward to seeing the results from both synthetic and bulk brine testing as we advance towards a potential large-scale commercial lithium development.”*

Bolivia Project Update

Following the shipment of 5m³ of brine samples from Bolivia’s premier lithium salars to Germany for testing (ASX release, 11 February 2025), Cosmos, through its exclusive option to acquire EAU Lithium Pty Ltd, has progressed with synthetic brine testing at Vulcan Energy Resources’ laboratory. This early-stage testing aims to refine extraction parameters, ensuring optimal conditions for the upcoming bulk brine analysis.

Vulcan’s proprietary VULSORB® Adsorption-Type Direct Lithium Extraction (A-DLE) technology is an advanced process designed to enhance lithium recovery efficiency while minimising water consumption. The synthetic brine trials enable a controlled assessment of lithium extraction dynamics, ensuring the most effective approach is applied to Bolivia’s brine chemistry.

These trials also provide early insights that will be shared with Yacimientos de Litio Bolivianos (YLB), Bolivia’s state-owned lithium company, as part of the technology testing agreement. This marks a key step toward validating the feasibility of industrial-scale lithium extraction using A-DLE technology and advancing discussions on industrialisation agreements (joint ventures) for lithium brine processing in Bolivia.

This announcement has been authorised by the Board of Cosmos Exploration Limited.

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About Cosmos Exploration

Cosmos Exploration Limited (ASX: C1X) is an ASX-listed international critical minerals company focused on developing Bolivia’s vast lithium resources via Adsorption-Type Direct Lithium Extraction (A-DLE) through a technology partnership with Vulcan Energy Resources Limited. Cosmos also holds significant critical minerals exploration projects in Canada and Australia.

Competent Person Statement

There are no new exploration results or data reported in this announcement.

The information in this announcement that relates to geological interpretation is based on information and data compiled or reviewed by Mr Kristian Hendricksen. Mr Hendricksen is an employee and shareholder of Cosmos Exploration Limited (Cosmos) and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM).

Mr Hendricksen has sufficient experience relevant to the style of mineralisation under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Accordingly, Mr Hendricksen consents to the inclusion of the matters based on the information compiled by him, in the form and context it appears.

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