



Production of 2,000 Tons per Year of Lithium Carbonate


 **Country:** Argentina

 **Sector:** Mining

 **Amount:** 27.648.000,00

 **Province:** Catamarca

 **Subsector:** Exploration, exploitation and extraction of critical minerals/energy transition (lithium, cobalt, rare earths)

 **Web:** no

Entity Profile:

Mr. Hugo Chirino, head of the LTA project, is a Mining Engineer from the National University of San Juan. He began his professional career in the late 1980s, working in various private-sector mining companies.

Abroad, he worked in Brazil (AngloGold Ashanti, Minera Cerro Grande) and Chile (Barrick, Minera Zaldívar).

In 2021, he served as Secretary of Environmental Management and Mining Control at the Ministry of Mining of the Province of San Juan.

Project description:**1. PROJECT DESCRIPTION**

The LTA Project seeks to produce 2,000 tons per year of lithium carbonate (Li₂CO₃) at the Archibarca Salt Flat, located at approximately 4,000 meters above sea level in the Puna (high plateau) of the Catamarca Province, in Northwestern Argentina.

The salt flat lies within the “Lithium Triangle,” an area containing the largest lithium reserves in the world, with estimated reserves of 156,656.77 tons of lithium carbonate. Based on this, the project’s estimated lifespan is 78 years at an extraction rate of 2,000 tons per year. These reserves were confirmed through drilling wells reaching depths of 200 meters.

The proposal involves exploiting high-purity brine in three successive expansion stages (starting with 2,000 tons and, if larger reserves are confirmed, adding 6,000 tons and finally 12,000 additional tons per year, reaching 20,000 tons annually) using the Direct Lithium Extraction and Crystallization (DLEC™) method, tested and patented by Watercycle Technologies Ltd (United Kingdom). This technology provides a circular, low-impact, and commercially viable way to

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secure one of the world's most critical materials.

The project is currently in an advanced exploration stage with resource estimation, while the direct extraction method is patented and already operating at small scale, with all legal and technical approvals in place.

The next steps include establishing a subsidiary company in Argentina and initiating the Environmental Impact Assessment (EIA) for the exploitation phase.

2. BUSINESS MODEL

The project consists of producing battery-grade lithium carbonate in modular plants manufactured in the United Kingdom by Watercycle Technologies (WCT) and installed by their engineers at a production well in Argentina, capable of delivering 140 cubic meters per hour (140 m³/hour) of brine. At this rate, the initial plant will have the capacity to process 2,000 tons per year.

Both the exploitation of the salt flat—including mining methods for brine extraction and pumping—and the subsequent processing using DLEC™ will consider three key aspects:

- Environmental: The possibility of using 100% renewable energy (solar/wind), along with a low-impact brine reinjection method.
- Community Development: A program allocating 2% of annual profits and complying with Free, Prior, and Informed Consent (FPIC) protocols.
- Governance: Annual external audits under the standards of the Extractive Industries Transparency Initiative (EITI).

Additionally, the project will implement Argentina's mining work system (14 days on / 14 days off roster). The plant will operate with two 12-hour daily shifts. Total direct personnel will consist of 80 employees distributed across four shifts.

3. FINANCING

The estimated capital expenditures (CAPEX) required to complete the evaluation stage—including Preliminary Economic Assessment (PEA), Pre-Feasibility Study (PFS), and Feasibility Study (FS)—as well as infrastructure development, procurement and transportation of the DLEC™ plant, commissioning, and reaching initial production of 2,000 tons per year, amount to USD 27,648,000.

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Phase Duration (Months) Investment (USD) Notes

- | | | | |
|---|-------|------------|--|
| 1 | 0–4 | 3,950,000 | Establishment of subsidiary / Transfer of mining rights / Legal structuring |
| 2 | 4–9 | 680,000 | Environmental Impact Assessment / Sectoral permits |
| 3 | 9–13 | 3,250,000 | Construction and transport of DLEC™ plant |
| 4 | 13–22 | 15,950,000 | PEA/PFS/FS / Camp infrastructure / Plant infrastructure / Third-party services |
| 5 | 22–27 | 1,350,000 | Hiring / Plant commissioning |

Contingencies 2,468,000 Contingencies and working capital (2 months)

Total 27 months 27,648,000

4. IRR AND INVESTOR PROFILE

For the economic evaluation, an operating cost (OPEX) of USD 4,600 per ton of battery-grade lithium carbonate is assumed, based on average costs reported by companies in their annual financial statements.

As a reference sales price, the Shanghai exchange price (January 22, 2026: USD 20,236.85 / EUR 17,445.56 per ton) is used. Economic projections estimate are as follows:

- Conservative scenario: USD 16,000 per ton
- Base scenario: USD 20,000 per ton

Estimated annual gross profit ranges from USD 22.8M to USD 30.8M, while total project profit over its lifetime could reach up to USD 2.4B before taxes.

The target investor profile is a company or fund specialized in mining with an interest in critical minerals.

By contributing the required investment of USD 27,648,000, the investor would acquire a 50.1% controlling stake in the project. This requires establishing an investor subsidiary in Argentina.

5.- EXECUTION PLAN

The project has already completed the following activities:

- Surface exploration and general geophysical surveys conducted by Beijing Engineering Company (BETEC)
- Drilling of two rotary wells at depths of 227 and 250 meters, including completed well geophysics and chemical analyses at different depths

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- Pumping tests and infrastructure development, including roads and platforms

Future steps include:

- Establishing an investor subsidiary in Argentina and preparing the Environmental Impact Assessment (EIA) for the exploitation stage
- Developing the Preliminary Economic Assessment (PEA), Pre-Feasibility Study (PFS), and Feasibility Study (FS)
- Construction and transportation of the DLEC™ plant from the United Kingdom
- Building the camp and supporting infrastructure for the processing plant, outsourcing services such as lodging, medical services, maintenance, legal, gas, and electricity

