

# Lake PFS confirms brine tech promise

A prefeasibility study for Lake Resources' advanced Kachi brine project in Argentina's lithium triangle has concluded the development would be well-placed to provide battery makers with a 99.9% pure lithium carbonate capable of reaping premium prices.



*Lake has quantified the promise of the Salar de Carachi Pampa*

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Lake managing director Steve Promnitz described Kachi's PFS as delivering a "compelling" vision for a sustainable, low-cost, and long-life operation that can produce 25,500 tonnes per annum of battery grade product that, based on a forecast price of US\$11,000, would generate operating margins of 62% assuming operating costs of \$4178/t.

With a post-tax net present value of A\$1.2 billion and an internal rate of return of 22%, earnings would be \$245 million in the first full year of production.

Over the 25-year life of the project more than \$6 billion in earnings was estimated.

Around US\$544 million would be needed for the stage one development. Payback is targeted at year five.

The PFS figures are based around a development using Lilac Solutions' pioneering direct extraction technology that is being trialled in the US, and uses

the indicated resources of 1Mt. A successful development could see modular development of the other 88% of total resources.

An additional 20,000 litres of brine was recently dispatched to Lilac's California pilot plant so Lake can ensure it has sufficient samples for potential offtake partners. Processing of the initial 20,000L is ongoing.

Lake had hoped to shift its first samples by now, however COVID-19 has slowed down the process.

Promnitz hopes Lilac will be a key differentiator for Lake, offering a more rapid lithium extraction, allowing the brine to be re-injected and avoiding both large evaporation ponds and the 12-18 months required to recover first product.

The same sun that is used for evaporation is an obvious area for additional cost savings.

Opex is based on \$2500/t for the Lilac process, with the balance based on high local gas prices. Incorporating solar photovoltaic panels, and batteries, could reduce the costs substantially.

Half of the capital costs are in site works and the contingency, so there are additional opportunities for cost reduction during engineering studies to be completed with Hatch.

Lake will also look to reduce upfront costs by examining a staged development, starting from 10,000tpa.

Securing offtake interest and debt funding is the next critical step to moving into a full feasibility study, with 2023 targeted for first production, around the time demand was expected to exceed supply, prior to the COVID-19 economic slowdown.

Lake shares were up 2.6% this afternoon to A3.9c, towards the lower end of its 12-month range of 2.20-11.5c, capitalising the company at \$20 million.



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