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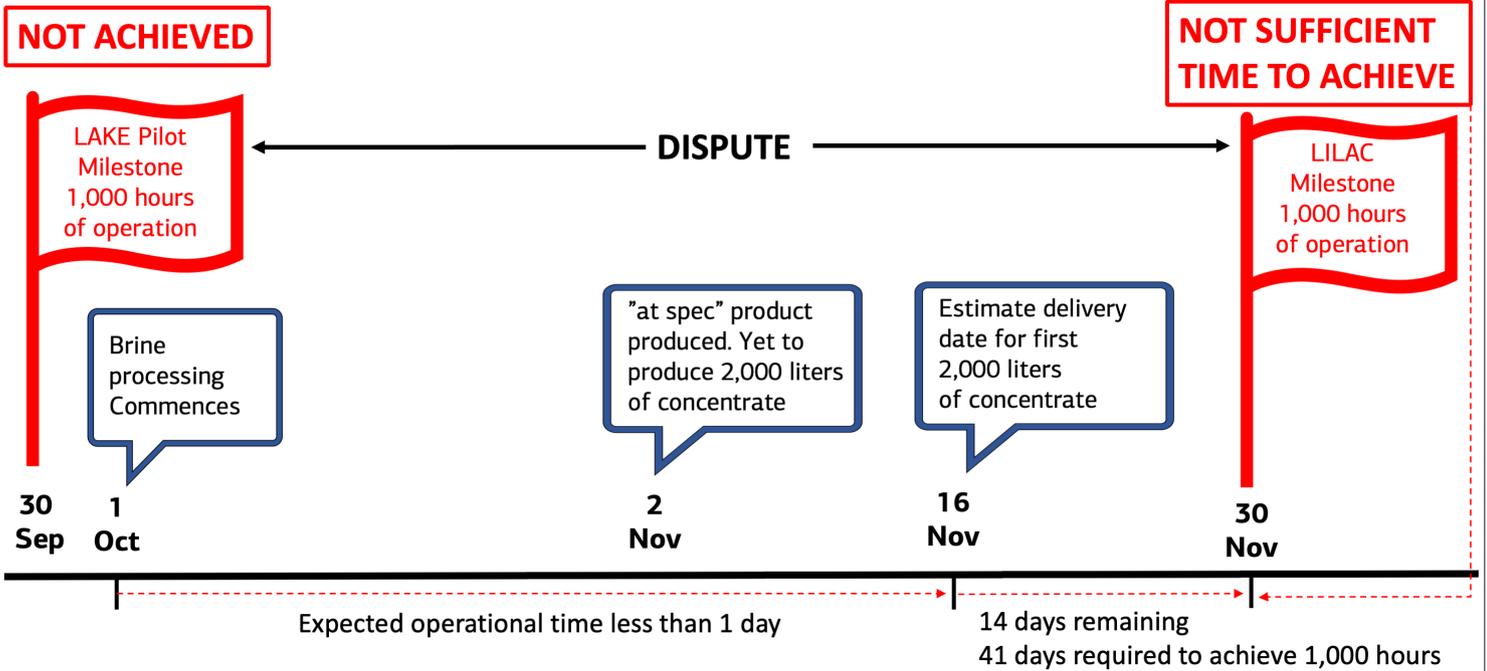
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Lilac unlikely to meet the performance deadline

LILAC PILOT PLANT PROGRESS ON SITE



KEY: 1,000 hours = 42 days, 1,000 hours = 120,000 liters of concentrate, 2,000 liters = 17 hours (less than one day of operations)

Source: Company announcements September 7, 14 and 19



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Lake Resources' (Lake's) announcement on November 2 that the pilot plant had "delivered product at spec" on the surface was positive. But what it really revealed is that Lilac Solutions is unlikely to meet its own performance deadline of November 30 for the Pilot Project Agreement with Lake.¹ Contrasting data from Lake's September 14 and September 19 announcements leads us to this conclusion.

ASX & OTC

LAKE RESOURCES
CLEANER LITHIUM
FOR THE ELECTRIC WORLD

14 September 2022

Lake Resources Update on Kachi Pilot Plant

Lake wishes to update the market in respect of progress under its Pilot Project Agreement dated on or about 21 September 2021 (Agreement) with Lilac Solutions Inc., (Lilac).

Lilac will earn in to the Kachi Project, up to a 25% stake, based on achievement of certain milestones under the Agreement by an agreed date.

These milestones include Lilac:

- completing at least **1,000 hours of operations** (including uptime, maintenance, monitoring, and other work that constitutes operations as determined by Lilac in its reasonable discretion) of the Lilac Pilot Unit onsite at Kachi provided; and
- producing a Lithium carbonate feed **totaling at least 2,500 kg of lithium** carbonate equivalents from onsite operations.

Source: [Lake Announcement, September, 14 2022](#)

Lake notified the market on September 14 that it was proceeding to arbitration with Lilac under the terms of its Pilot Project Agreement for a disagreement over milestone dates that may trigger Lake to buy back option rights.² Lake claims the Pilot Project Agreement milestone date of operating for 1,000 hours and producing sufficient lithium carbonate feed to produce 2,500 kg of Lithium Carbonate Equivalent (LCE) was September 30.³ Lilac claims it should be November 30. However, as is set out below, the dispute may possibly be moot, as it appears Lilac is unlikely to

1 https://lakeresources.com.au/wp-content/uploads/2022/11/lke_kachi-product_2-nov-22.pdf

2 https://lakeresources.com.au/wp-content/uploads/2022/09/lke_kachi_14-sep-22.pdf, https://lakeresources.com.au/wp-content/uploads/2022/03/lke_demo-plant_3-mar-22.pdf

3 https://lakeresources.com.au/wp-content/uploads/2022/09/lke_kachi_14-sep-22.pdf

achieve either of those dates.

On September 19, Lake attempted to calm the market by detailing progress on the pilot plant commissioning and stating that once 2,000 liters of lithium concentrate is produced, it would be delivered to be converted into lithium carbonate.⁴ Lake had also stated on September 7 that the pilot project would operate for 1,000 hours and produce 120,000 liters of lithium concentrate.⁵ Based on the information provided by Lake, to produce 2,000 liters of lithium concentrate would therefore take approximately 17 hours of operations.⁶

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LAKE
RESOURCES
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FOR THE ELECTRIC WORLD

19 September 2022

Lake Updates Kachi Demonstration Plant Activity

Lake Resources NL (Lake) advises that work proceeds with Lilac Solutions, Inc. (Lilac) on site at the Kachi Project in Argentina, with commissioning now underway on the demonstration plant.

Whilst on 14 September 2022 Lake issued a Notice of Dispute under its agreement with Lilac, in respect of certain performance timelines (Dispute), Lake wishes to advise that ongoing work is being done by Lilac at the Kachi Project and all parties are confident on-site operations will be successful.

Lake confirms that construction of the facility to house the Lilac demonstration plant is now complete.

Dry commissioning of the demonstration plant commenced on Wednesday September 14.

Lilac has advised Lake that, subject to completion of dry commissioning, it expects to begin wet commissioning of the plant on September 22; once wet commissioning is complete, Lilac expects to begin on-site processing of Kachi brines in the first week of October.

Whilst the test program is based on operating the demonstration plant for 1000 hours it is anticipated that the first 2000 litres of lithium concentrate produced from the demonstration plant will be sent for conversion into Lithium Carbonate once delivered. Lake proposes that this final Lithium product will then be qualified by a tier 1 battery maker to validate product specifications.

Source: [Lake Announcement September, 19 2022](#)

4 https://lakeresources.com.au/wp-content/uploads/2022/09/lke_kachi_19-sep-22.pdf

5 https://lakeresources.com.au/wp-content/uploads/2022/09/lke_presentation_7-sep-22.pdf

6 See data table at the end of the report for calculations. As Lake has not made clear the hours of operation and lithium concentration level we have included scenarios based on data they have previously made available. Lake claims the pilot plant can produce lithium concentrate in the range of 30,000 to 60,000 parts per million (PPM). If the concentrate is produced at these levels, then it would take between 24 and 48 hours to produce that amount of concentrate based on 1,000 hours of operation to produce 2,500 kg of LCE.

Lake’s November 2 announcement stated the pilot plant had “delivered product at spec,” meaning a recovery rate of 80%, which was in the previously stated 80-90% recovery rate.⁷ In the same announcement, Bart Paker, Executive Vice President at Lilac stated, “Optimization work continues on site; Lilac anticipate the first samples of Lithium Chloride will be shipped for conversion to Lithium Carbonate within two weeks.”

Lake has already stated that, when the first 2,000 liters is delivered, it will be shipped. Therefore, we can possibly assume that by November 16 (i.e. two weeks from the November 2 announcement), the pilot plant will produce that much concentrate (i.e. 2,000 liters). Even if the pilot plant produced 24 hours a day until the end of November, there are only 672 hours left in the month from November 2. If the plant produces only 2,000 liters by November 16 then there are only 336 hours left till November 30. Therefore, it seems Lilac has already signalled that it cannot meet its own November 30 deadline for 1,000 hours of operation. It would appear that Lilac’s pilot plant is not operating as they expected and will not meet the performance criteria for the Pilot Project Agreement.

Pilot Plant Data

A. Hours of Operation	Hours	1,000
B. Lithium Carbonate Equivalent	Kilograms	2,500
C. Lithium Concentrate required to produce 2,500 kg [C=B/(PPM/1000000)]		
Lithium Concentrate at 20,800 PPM	Liters	120,000
Lithium Concentrate at 30,000 PPM	Liters	83,333
Lithium Concentrate at 60,000 PPM	Liters	41,667
D. Lithium concentrate/Hour (D=C/A)		
Lithium Concentrate at 20,800 PPM	Liters	120
Lithium Concentrate at 30,000 PPM	Liters	83
Lithium Concentrate at 60,000 PPM	Liters	42
E. Hours to produce 2,000 Liters Lithium Concentrate (E=2,000/D)		
Lithium Concentrate at 20,800 PPM	Liters	17
Lithium Concentrate at 30,000 PPM	Liters	24
Lithium Concentrate at 60,000 PPM	Liters	48
F. Hours remaining in November (F=(28 days)x24)	Hours	672

Source: Company announcements on 7, 14 and 19 September.

⁷ https://lakeresources.com.au/wp-content/uploads/2022/11/lke_kachi-product_2-nov-22.pdf

What Lake did not tell investors in the November 2 announcement is revealing. There was no update on the status of the dispute with Lilac. Investors do not know if Lake will claw back equity from Lilac. There was no data on the performance of the medium used in the pilot plant. Investors do not know at what recovery rate each cycle of the medium is performing. Lake has not revealed the amount of lithium that is contained in the concentrate being produced by the plant.



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