

4 April 2022

POSITIVE NOVONIX TESTS REAFFIRM AUTHIER PRODUCT QUALITY

Highlights

- **Positive results from leading lithium-ion battery innovator NOVONIX reaffirm high quality of Authier spodumene**
- **Sayona product samples matched and performed equally as well as benchmark lithium hydroxide samples in commercial performance tests**
- **Results demonstrate potential for downstream processing in Québec to capture added value for all stakeholders, amid growing demand from expanding North American battery market.**

Emerging lithium producer Sayona Mining Limited (ASX:SYA; OTCQB:SYAXF) has received further confirmation of the quality of its Authier spodumene product, following successful testing by leading lithium-ion battery innovator NOVONIX (NASDAQ:NVX; ASX:NVX) at its Battery Technology Solutions laboratories in Nova Scotia, Canada.

A sample of lithium hydroxide made by ICS Lithium in Perth using spodumene concentrates from Sayona's Authier Lithium Project in Québec was sent to NOVONIX Battery Technology Solutions, to evaluate its suitability in the most advanced lithium-ion battery chemistries.

NOVONIX scientists incorporated the sample into a common lithium battery cathode compound precursor (NMC622), which was used to make lithium-ion coin half-cells. The results showed the discharge capacity of Sayona's hydroxide-based cathode cells was the same as benchmark cathode cells using currently available commercial lithium hydroxide (see results below).

The positive results show that the Authier product performs as well as commercially available battery-grade lithium hydroxide. The ICS Process is a clean and green solution, which combined with the benefits of Québec's sustainable hydroelectric power provides substantial long-term environmental and competitive advantages.

The latest test results follow previous analysis by CSIRO’s Mineral Resources laboratories in Perth, Western Australia, which showed Authier spodumene is capable of being processed into exceptionally high purity, 99.99% lithium hydroxide (refer ASX release 7 July 2021).

Commenting on the results, Sayona’s Managing Director, Brett Lynch said: *“This is further independent verification of the performance of Authier spodumene and its suitability for conversion into lithium hydroxide, an extremely sought after product.*

“Sayona has committed to downstream processing in Québec, including lithium carbonate or hydroxide. These results by an industry-leading battery tester have further increased confidence in our strategy, which will deliver added value for all stakeholders and support North America’s decarbonisation drive.”

Test results

The test results supplied by NOVONIX showed the excellent performance of Sayona’s samples, with a high lithium concentration and metals such as iron (Fe), copper (Cu) and other heavy metals all below detection limits.

Normalised discharge capacity fade was also excellent, as exhibited by the following:

Discharge Capacity Retention (%) (10 cycles at C/5)	LiOH·H ₂ O Source		
	Benchmark 1	Benchmark 2	Sayona
	98.6 ± 0.1	98.5 ± 0.7	98.8 ± 0.1

The table above shows the extent of performance decay of the three samples tested after 10 full charge-discharge cycles (the formula C/5 means the cells were charged from 2.8V to 4.5V in 5h, and fully discharged over a similar time).

The first two are the benchmark samples, the third (in bold), the Sayona sample. The normalised capacity fade of the three samples was 1.4%, 1.5% and 1.2% respectively (the same within error).

Moblan drilling

Meanwhile, drilling continues at Sayona’s Moblan Lithium Project in northern Québec, with the drilling program expected to conclude in mid-April.

Visiting the project, Sayona’s Mr Lynch said the drilling program was proceeding as planned, with results expected to further swell the Company’s expanding lithium resource base.



Sayona's Managing Director Brett Lynch (centre), with Exploration Director Carl Corriveau (left) and SOQUEM's Laury Schmitt at the Moblan Lithium Project

On the corporate front, Sayona officially joined the S&P/ASX 300 Index on 22 March 2022 following significant growth in market value, a move which is expected to spur further institutional investment in the Company.

"Sayona has made an extremely bright start to 2022, despite significant geopolitical and market instability, amid a continued focus on the electrification of transport to curb emissions," Mr Lynch added.

"Upcoming milestones including the delivery of a successful Authier-NAL feasibility study, with updates due within weeks, will further demonstrate our progress towards becoming North America's leading lithium producer, with the electric vehicle (EV) revolution showing no sign of a slowdown."

Issued on behalf of the Board.

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About Sayona Mining

Sayona Mining Limited is an emerging lithium producer (ASX:SYA; OTCQB:SYAXF), with projects in Québec, Canada and Western Australia.

In Québec, Sayona's assets comprise North American Lithium together with the Authier Lithium Project and its emerging Tansim Lithium Project, supported by a strategic partnership with American lithium developer Piedmont Lithium Inc. (Nasdaq:PLL; ASX:PLL). The Company also holds a 60% stake in the Moblan Lithium Project in northern Québec, with the remaining 40% held by SOQUEM.

In Western Australia, the Company holds a large tenement portfolio in the Pilbara region prospective for gold and lithium. Sayona is exploring for Hemi-style gold targets in the world-class Pilbara region, while its lithium projects are subject to an earn-in agreement with Morella Corporation (ASX:1MC).

For more information, please visit us at www.sayonamining.com.au

About ICS Lithium

ICS Lithium Pty Ltd is an innovative process technology development company that since 2014 has been developing and optimising its breakthrough, widely patented Hunwick lithium ore refining process at CSIRO's mineral resources laboratories in Perth, Western Australia.

Uniquely, the Hunwick Process is fully 'closed': all chemicals required are fully internally recycled. Energy requirements may be met with renewably generated electricity, making it entirely green, ideally suited to deployment in Québec.

About NOVONIX

NOVONIX Limited is a leading battery technology company with operations in the United States. NOVONIX provides advanced, high-performance materials, equipment, and services for the global lithium-ion battery industry with sales in 14 countries. We develop materials and technologies to support longer-life and lower-cost batteries that are powering us towards a cleaner energy future.

Our NOVONIX Battery Technology Solutions division, based in Halifax, Nova Scotia, Canada focuses on innovative battery research and development, along with providing advanced battery testing equipment and services on a global scale.