

ASX Announcement

4 April 2024

OPERATIONAL REVIEW SUPPORTS NAL RAMP-UP PLAN

- **Operational review supports continuation of North American Lithium (NAL) production; full value of recent capital improvements yet to be realised**
- **Multiple daily production records achieved in March 2024 with process recoveries above expectations**
- **Capital improvement initiatives provide line of sight to steady state production in 2024**
- **Target to reduce NAL unit operating costs by end of 2024**

North American lithium producer Sayona Mining Limited ("Sayona") (ASX:SYA; OTCQB:SYAXF) today announced that following a detailed review of the North American Lithium (NAL) operation and a range of operating scenarios, the joint venture partners have agreed to continue the NAL production ramp-up towards steady state production with regular reviews of operating costs and market conditions. NAL is jointly owned by Sayona (75%) and Piedmont Lithium (25%).

During the operational review Sayona assessed opportunities to optimise production, reduce costs, preserve optionality and maximise value for shareholders. In continuing production, the JV partners noted that several nearly complete capital initiatives will enhance operational ramp-up and achievement of steady state production at NAL in 2024.

Sayona's Interim CEO, James Brown said: "The NAL operational review was a critical exercise to ensure we are optimising our resources and positioning Sayona for long-term success. Importantly, there is clear line of sight towards achieving steady state production in 2024, while NAL will further benefit from capital improvements such as the Crushed Ore Dome. Process plant recoveries have exceeded expectations, a significant milestone in any ramp-up, with multiple new daily production records achieved in March.

"Throughout this process, a key consideration was the direct impact on our dedicated workforce and host communities. This review has also validated our approach to continue to assess capital improvement initiatives that will increase production or lower unit operating costs.

"Looking forward, we will regularly evaluate NAL operations in the ordinary course of business based on prevailing market conditions and the ability to achieve our operating cost targets. We are confident that this approach to considering alternatives and maintaining optionality will enable Sayona to maximise value for shareholders ahead of an anticipated recovery in the lithium market.

"Over the long term, we remain optimistic about the demand profile for spodumene concentrate and other lithium chemicals. With high quality lithium resources, Sayona is well positioned as a reliable, strategic supplier of lithium products to serve the North American EV and battery market as the energy transition accelerates."

Operational Review Background

During the latter portion of 2023 and early 2024, the global lithium market declined rapidly due to a lower growth rate of global electric vehicle (EV) demand than projected and increased availability of battery material inventory across the supply chain. The lithium market has experienced fluctuations in previous cycles, however the accelerated downward pricing pressure has forced many global lithium producers and developers of lithium mines to revise production strategies and in some cases halt or moderate production.

NAL has been undergoing a positive production ramp-up process since it recommenced operations in 2023, however it is yet to achieve full production throughput and concentrate output rates. The operational review was conducted to assess multiple operating scenarios and identify opportunities to reduce NAL's cost base, manage cash flow and preserve financial sustainability and value for Sayona shareholders.

Operating Scenarios

The review considered several Continued Operations scenarios at NAL, including a continuation of the production ramp-up to the full plan as well as various moderated production output scenarios.

The JV partners also evaluated various Care and Maintenance scenarios covering options to either slow down or cease mining, process existing stocks only, and suspend operations for up to 12 months.

Key considerations assessed as part of the scenario analysis included sunk costs, the progress of initiatives to deliver production upgrades and unit cost savings, the substantial costs associated with the recommencement of operations following any care and maintenance program and potential impacts on the workforce, community and other local stakeholders.

Review Outcome

Following assessment of these alternatives, the JV partners agreed to continue operations in line with the full ramp-up plan at NAL, with regular business reviews of operating costs and market conditions.

The review found that there has not been sufficient time for multiple capital improvement projects (Crushed Ore Dome, Crushed Ore Refeed System) to deliver intended production increases and unit operating cost improvements.

The JV partners are committed to continuing to assess capital improvement projects to enhance ramp-up of production and have determined that there is clear line of sight to achieving steady state spodumene concentrate production at design levels during 2024. NAL also aims to reduce unit operating costs of spodumene concentrate by the end of 2024.

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Process Plant Operational Performance

The operational review assessed a range of primary indicators that are within expected tolerance and those that require continued improvement. Year to date (YTD) references below are from 1 July 2023 to 24 March 2024 (FY24 YTD).

Sayona previously reported that resources were directed towards the crushing circuits of the plant. While there is a continued focus on this area, current plant throughput rates YTD are in line with forecast expectations at 161tph (tonnes per hour) and 8% below design capacity of 175tph.

Process plant recoveries are now exceeding expectations, a significant milestone in NAL's ramp-up process. Recoveries from the plant have exceeded the target of 67% during March 2024 (March month to date 69%) with a global recovery YTD of 62%.

Production of spodumene concentrate has steadily increased with a new daily production record of 740 tonnes achieved in mid-March 2024. Product quality remains consistent at 5.45% Li₂O YTD, with moisture and other elements in line with expectations.

Mill utilisation remains challenging at 73% YTD. Planned downtime aligns with expectations, however unplanned downtime (breakdowns) have impacted overall operational performance. Severe cold conditions have played a role in the downtime events, however these are expected to reduce as the NAL operations head into the Northern Hemisphere spring. Commissioning of the Crushed Ore Dome in April 2024 will deliver significant operational improvement by eliminating the impact by snow, ice and water on the ROM feed.

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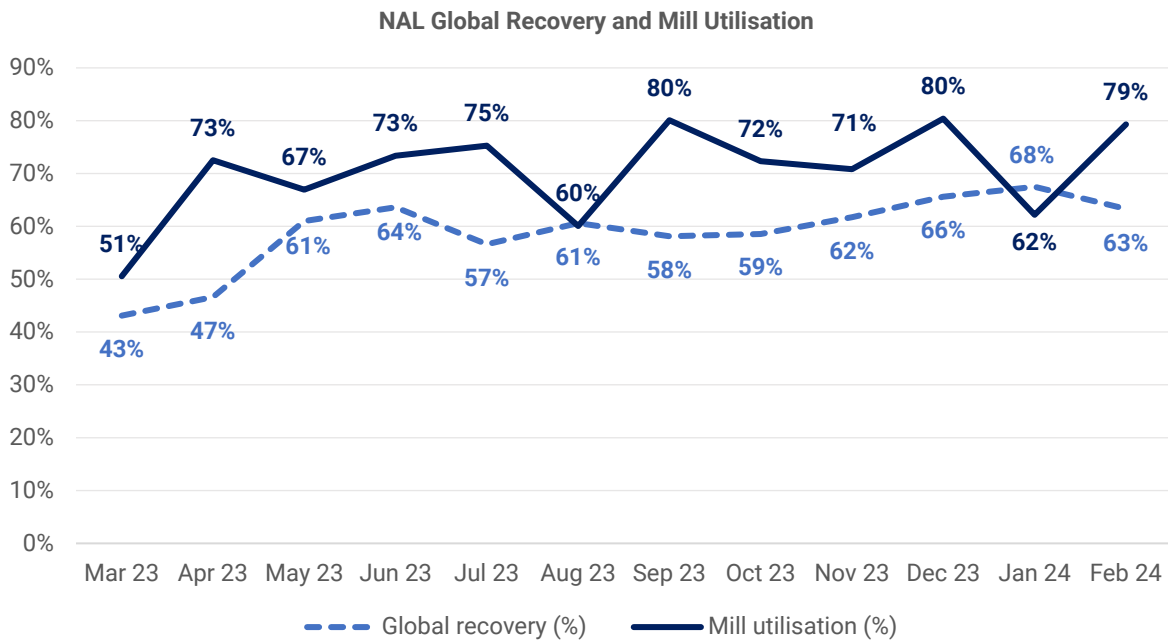


Figure 1 – NAL Global Recovery and Mill Utilisation

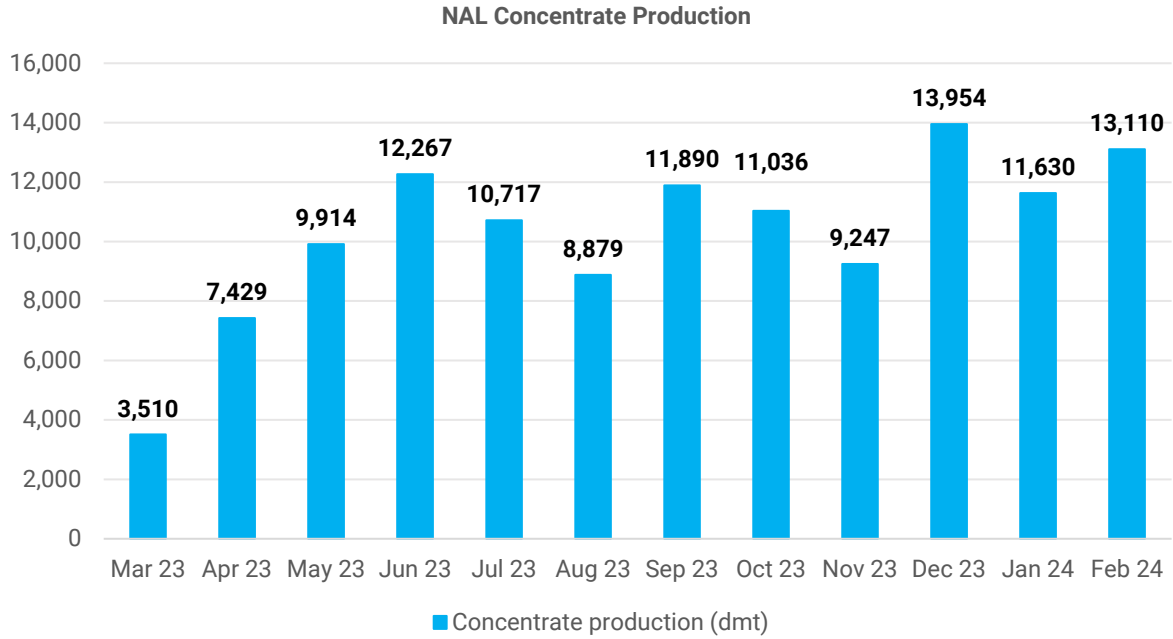


Figure 2 – NAL Concentrate Production

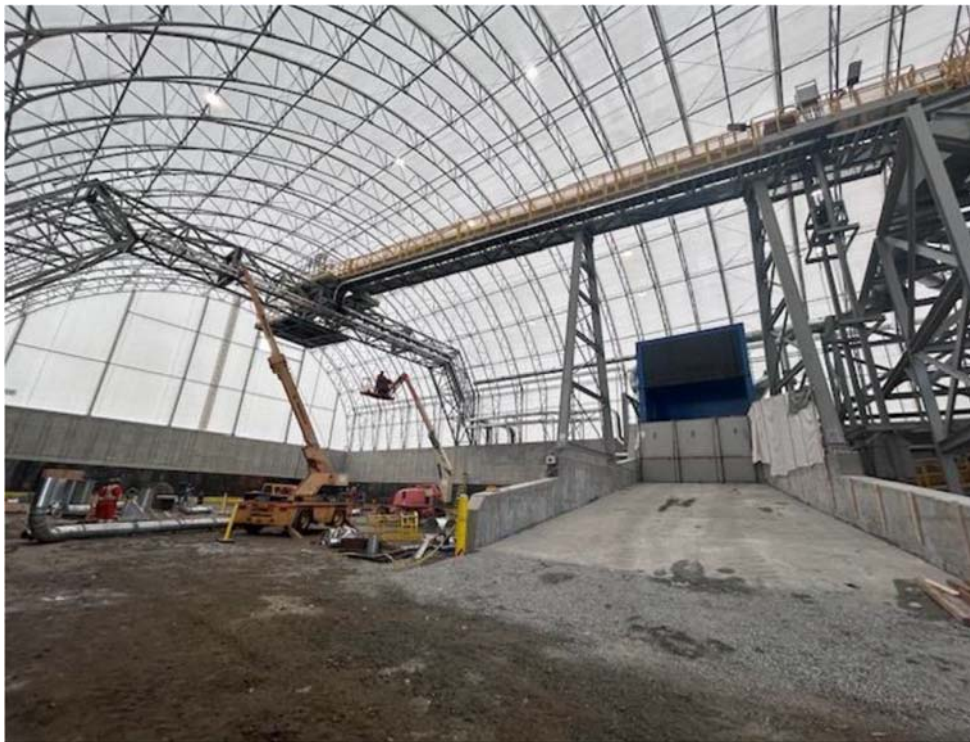


Figure 3 – Crushed Ore Dome nearing completion

During late February 2024 NAL commenced commissioning of the Bypass Crushing Circuit (BCC) or Refeed System located between the primary and secondary crusher. The BCC now allows crushed ore feed to the secondary crusher and the mill while the primary crusher is offline, addressing previous mill redundancy challenges. Consistent mill feed is critical to ensuring the process circuits deliver increased output, higher recoveries and consistent grade product material.

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Figure 4 – Refeed System nearing completion

Mine Operations

During the FY24 year, NAL put priority on the launch of the Phase 2 and Phase 3 mining areas. Productivity has remained consistent, enabling the accumulation of an adequate stockpile of ore on the ROM pad.

The ROM pad stockpile plays a crucial role in managing mine productivity fluctuations and addressing uncertainties associated with the production of ore from the underground stopes in the Phase 2 and Phase 3 areas. Dilution and grade control are in accordance with the mine plan, with the NAL geology team collaborating closely with the mining contractor to optimise the mining sequence and minimise dilution. The results have been reflected in the ROM feed grade to the plant at 1.18% Li₂O YTD.

Operational productivity is expected to improve as the mining process moves through the areas of underground workings and into fresh ore, with this progression scheduled during 2024.

Expenditure Analysis

The review also sought to identify opportunities to reduce NAL's operating cost basis, targeting lower unit operating costs on a steady state production basis by the end of 2024.

Sayona previously reported unit operating costs for the NAL operation of A\$1,286/dmt¹ (FOB Port of Québec) equating to US\$839/dmt for the half year ended 31 December 2023. Unit operating costs are expected to remain stable compared to recently observed levels, with the moderation in unit costs expected once NAL achieves steady state production later in 2024. The target reduction in unit operating costs is expected to be delivered via production output increases flowing directly through fixed costs divisible by more tonnes produced and sold.

The review also sought to identify opportunities to defer non-critical capital expenditure to support the joint venture's working capital requirements. Previously committed exploration funding will deliver further exploration activity at NAL during 2024.

¹ Unit operating cost is calculated on an accruals basis and includes mining, processing, transport, port charges, site-based general and administration costs and cash based inventory movements, and excludes depreciation and amortisation charges, freight and royalties. It is reported in \$/dmt sold, FOB Port of Québec.

Issued on behalf of the Board.

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About Sayona Mining

Sayona Mining Limited is a North American 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). Sayona also holds a 60% stake in the Moblan Lithium Project in northern Québec.

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 include Company-owned leases and those subject to a joint venture with Morella Corporation (ASX:1MC).

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

References to Previous ASX Releases

- Corporate Update – 22 February 2024
- Operational Review to Optimise NAL Cost Structure – 25 January 2024

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

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