

PRAIRIE PILOT IN FINAL PHASE OF OPERATION

HIGHLIGHTS

- The Direct Lithium Extraction (DLE) pilot plant at the Prairie Project has processed over 200,000 litres (L) of brine and produced over 13,500L of lithium concentrate, representing approximately 80 kilograms (kg) of Lithium Carbonate Equivalent (LCE).
- The pilot plant is in its final phase of operation and has operated exceptionally well over the past 3 months producing very high quality and consistent results.
- The data is currently being used to finalize the design and engineering of the commercial DLE facility.

Arizona Lithium Limited (ASX: AZL, AZLO, AZLOA, OTC: AZLAF) (“Arizona Lithium”, “AZL” or “the Company”), a company focused on the sustainable development of two large lithium development projects in North America, the Big Sandy Lithium Project (“Big Sandy”) and the Prairie Lithium Project (“Prairie”), is pleased to provide an update on its pilot plant operating at the Prairie Project in Saskatchewan, Canada. The pilot plant has processed over 200,000L of brine from Prairie, and produced exceptional results during operations over the past 3 months.

Operations have produced over 13,500L of high purity lithium concentrate that has been shipped to AZL’s Lithium Research Centre (LRC) in Tempe, Arizona. The brine process methodology is illustrated in Figure 1 and Figure 2 shows the Arizona Lithium laboratory technicians at the Lithium Research Centre (LRC) processing samples of brine and lithium concentrate. The lithium concentrate will be further processed using Counter Flow Reverse Osmosis (CFRO). The CFRO pilot is anticipated to be operational at the LRC in Q2 2024. Following CFRO processing, the final concentrated product will be converted into high purity, commercial grade lithium products, where it can be qualified for strategic offtakes.

The pilot plant is in its final phase of operations. After the Pilot is complete, the Company will release a comprehensive report of results from the Pilot.

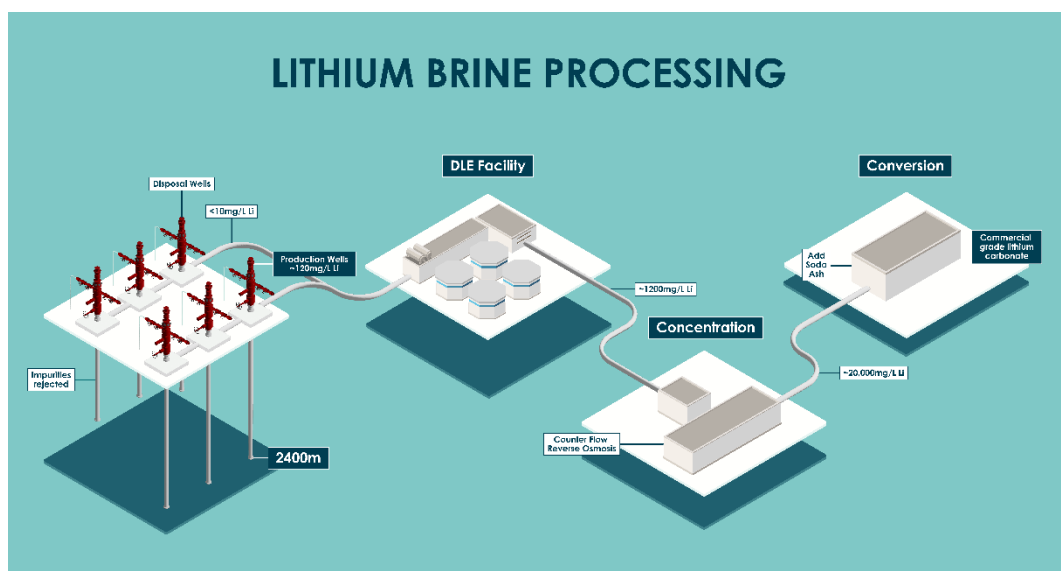


Figure 1: Lithium brine processing methodology



Figure 2: Arizona Lithium’s laboratory technicians process samples of brine and lithium concentrate at the Lithium Research Centre in Tempe, Arizona

Arizona Lithium Managing Director, Paul Lloyd, commented: *“Having recently again visited the Pilot Plant at our Prairie Project in Saskatchewan, I am very impressed with the operational consistency, and exceptional results delivered over the past 3 months. Seeing the pilot plant process brine from our well and produce a high quality lithium concentrate 24 hrs a day, 7 days a week, has the whole team very excited for commercialisation. We are in our final phase of the pilot and look forward to releasing an extensive report on the results.”*

About the Prairie Lithium Project

AZL’s Prairie Lithium Project is located in the Williston Basin of Saskatchewan, Canada, and holds a resource of 6.3 MT of LCE, comprised of 4.5 MT LCE Indicated and 1.8 MT LCE Inferred¹. Located in one of the world’s top mining friendly jurisdictions, the projects have easy access to key infrastructure including electricity, natural gas, fresh water, paved highways and railroads. The projects also aim to have strong environmental credentials, with Arizona Lithium targeting to use less use freshwater, land and waste, aligning with the Company’s sustainable approach to lithium development.

As announced on 12 December 2023, the Company is fast tracking towards the commercialisation of the Prairie Project, with the pilot plant delivering 95.6% lithium recoveries with 99.9% rejection of impurities².

¹ ASX Announcement – “6.3 Million Tonne Lithium Resource At Prairie” – 13 December 2023

² ASX Announcement – “Pilot Update 95.6% Li Recovery 99.9% Impurities Rejected” – 12 December 2023

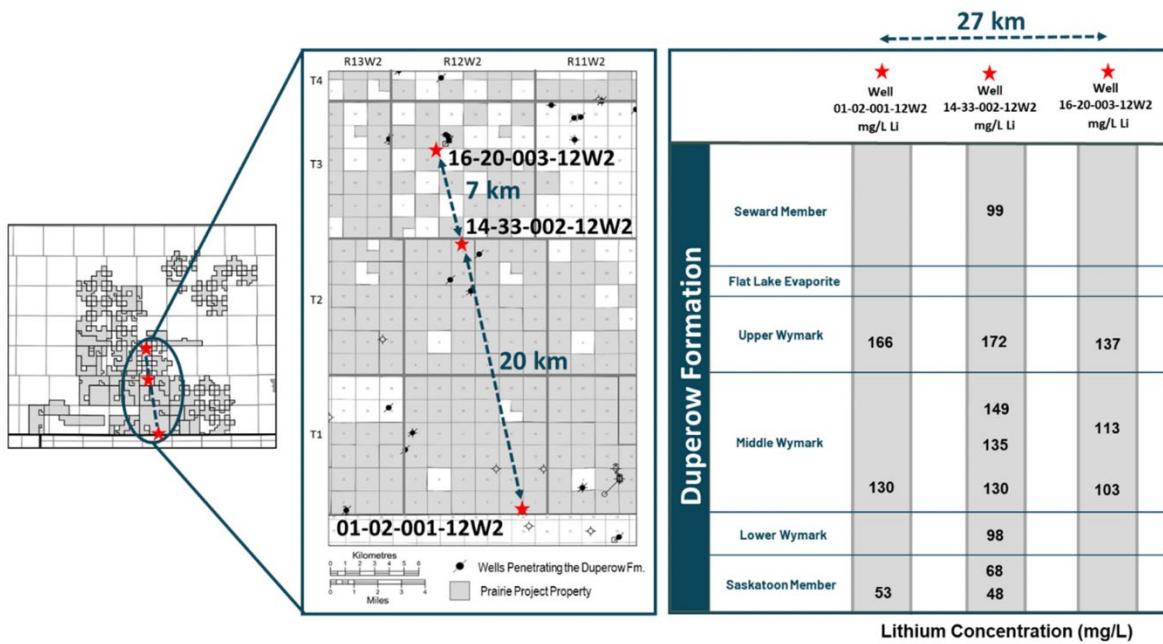


Figure 3: Location map and representative lithium concentrations from Arizona Lithium's test wells

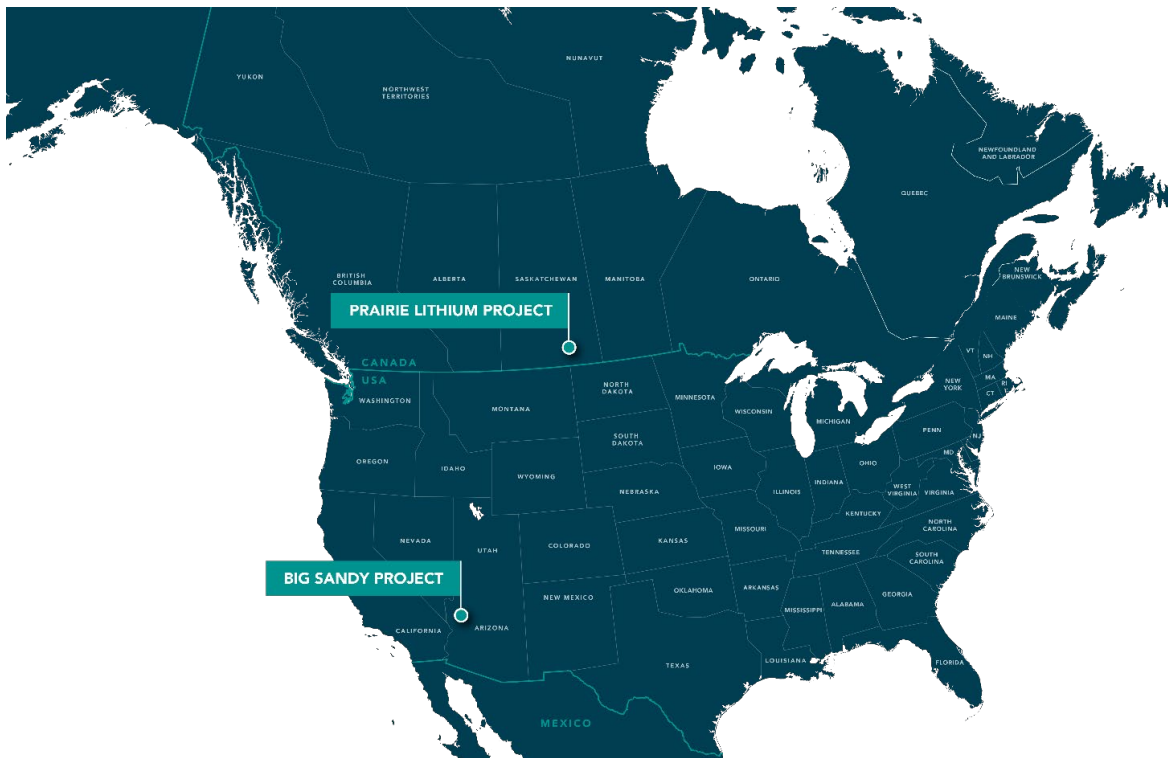


Figure 4: Location of Arizona Lithium's core projects

This ASX announcement is authorised for release by the Board.

For further information please contact:

Mr. Paul Lloyd
Managing Director
Tel. +61 419 945 395
paul@arizonalithium.com

Competent Persons statement for Prairie and Registered Overseas Professional Organisation (ROPO) and JORC Tables

Gordon MacMillan P.Geol., Principal Hydrogeologist of Fluid Domains, who is an independent consulting geologist of a number of brine mineral exploration companies and oil and gas development companies, reviewed and approves the technical information pertaining to the resource provided in the release and JORC Code – Table 1 attached to the release. Mr. MacMillan is a member of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), which is ROPO accepted for the purpose of reporting in accordance with the ASX listing rules. Mr. MacMillan has been practising as a professional in hydrogeology since 2000 and has 23 years of experience in mining, water supply, water injection, and the construction and calibration of numerical models of subsurface flow and solute migration. Mr. MacMillan is also a Qualified Person as defined by NI 43-101 rules for mineral deposit disclosure.