

ASX Announcement

6 February 2024

PRAIRIE DRILLING CONTRACTOR APPOINTED FOR FULLY FUNDED PROGRAM

HIGHLIGHTS

- Rhythm Engineering Inc. has been awarded the Drilling and Completion Engineering and Supervision Services work for the upcoming drilling program at the Prairie Lithium Project in Saskatchewan, Canada.
- Well license received for 2nd well at Pad #1. The first two wells at Pad #1 are now permitted to drill.
- Detailed planning is underway, with field activities to commence in Q2 2024 on the already built Pad #1.
- Exploration will be conducted into two new identified zones that are prospective for enriched lithium brine, below the Duperow formation and the resource of 6.3 million tonnes of LCE.
- Drilling and completion is another milestone towards production of lithium brines in the first quarter of 2025.

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 upcoming drilling program at Prairie in Saskatchewan, Canada. The Company has completed an extensive proposal review process and is pleased to announce that it has awarded the Drilling and Completion Engineering and Supervision Services to Rhythm Engineering Inc. (“Rhythm”) based in Calgary, Alberta. Rhythm has particular expertise that will add considerable value to Arizona Lithium throughout the planning, procurement and execution phases of the upcoming drilling program in Saskatchewan.

The fully funded exploration wells will be conducted via drilling wells into the deeper Dawson Bay and Souris River Formations. Both of the identified formations are prospective for enriched lithium brine, but to date have not been explored. The first two Dawson Bay and Souris River wells have been licensed to drill on the already built Pad #1.

The development wells are being planned to support the production of brine from the Duperow Formation, and the disposal of the lithium depleted brine. Drilling activities are anticipated to commence in Q2 2024 on the already cleared and built Pad #1 (refer ASX Announcement – 6 November 2023). Subsequent wells will be drilled on Pad #2 and Pad #3, with the combined three pads anticipated to support the production of 6,000 Tonnes of Lithium Carbonate Equivalent (LCE).

Arizona Lithium Managing Director, Paul Lloyd, commented: “The drilling program is officially underway with the commencement of the detailed planning phase, with field activities to commence in Q2 of 2024. We were very impressed with the proposal from Rhythm Engineering Inc. and although we had a plethora of options, we are confident that Rhythm are the group capable of completing this key task with the highest speed and quality. We look forward to keeping the market up to date with field activities as well as long lead time purchases/orders in order to continue ticking the boxes to successfully start production of lithium brines in 2025.”

Rhythm Engineering Inc. President of Engineering and Operations, Keith Simard P.Eng commented: “We are tremendously grateful for this opportunity to work with Arizona Lithium on their Prairie Project. Our team looks forward to delivering the design and execution plans required to prove this world-class asset and help secure and develop a long-term source for lithium.”

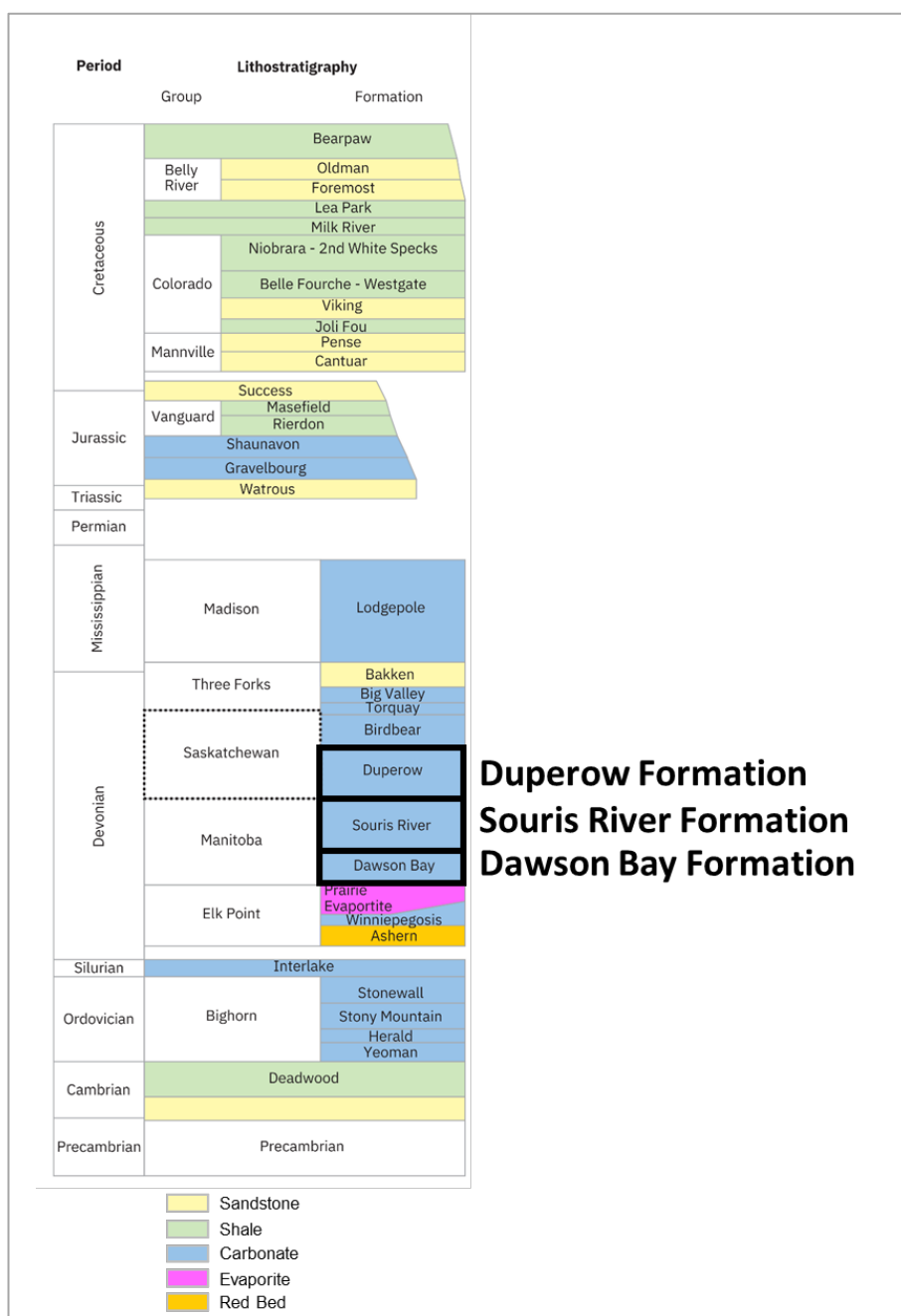


Figure 1: Stratigraphic Chart

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.

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

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. At the one-third point of the scheduled test duration, the pilot processed over 80,000 L (Litres) of brine and produced over 6,000 L of lithium concentrate. The remarkable steady-state of 95.6% Li (Lithium) extraction was established at an average feed concentration of 118 mg/L, with no single-point exceedance below 94% recovery. Steady-state rejection of impurities was established at 99.9%. Notably, sodium concentration has been reduced from 95,460 mg/L to 61 mg/L in the concentrate.

Pilot testing will continue into February 2024, with an exclusive focus on producing concentrate for downstream production of lithium chemicals and determining process capability indexes for Li recovery and rejection of impurities.

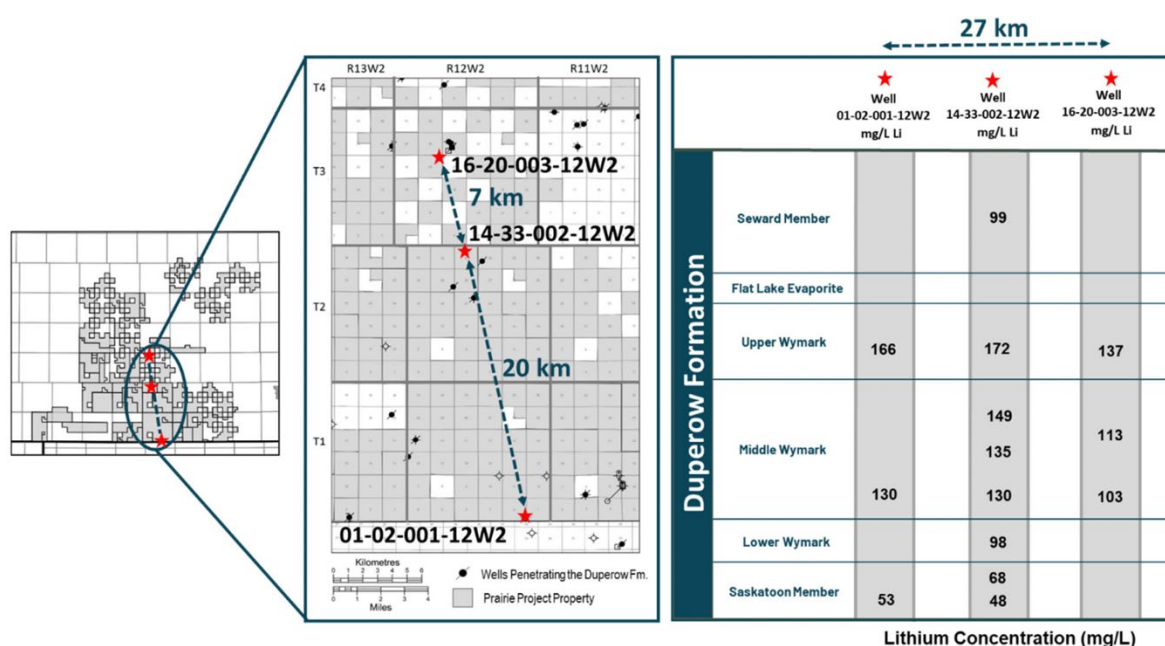


Figure 2: Location map and representative lithium concentrations from Arizona Lithium's test wells

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

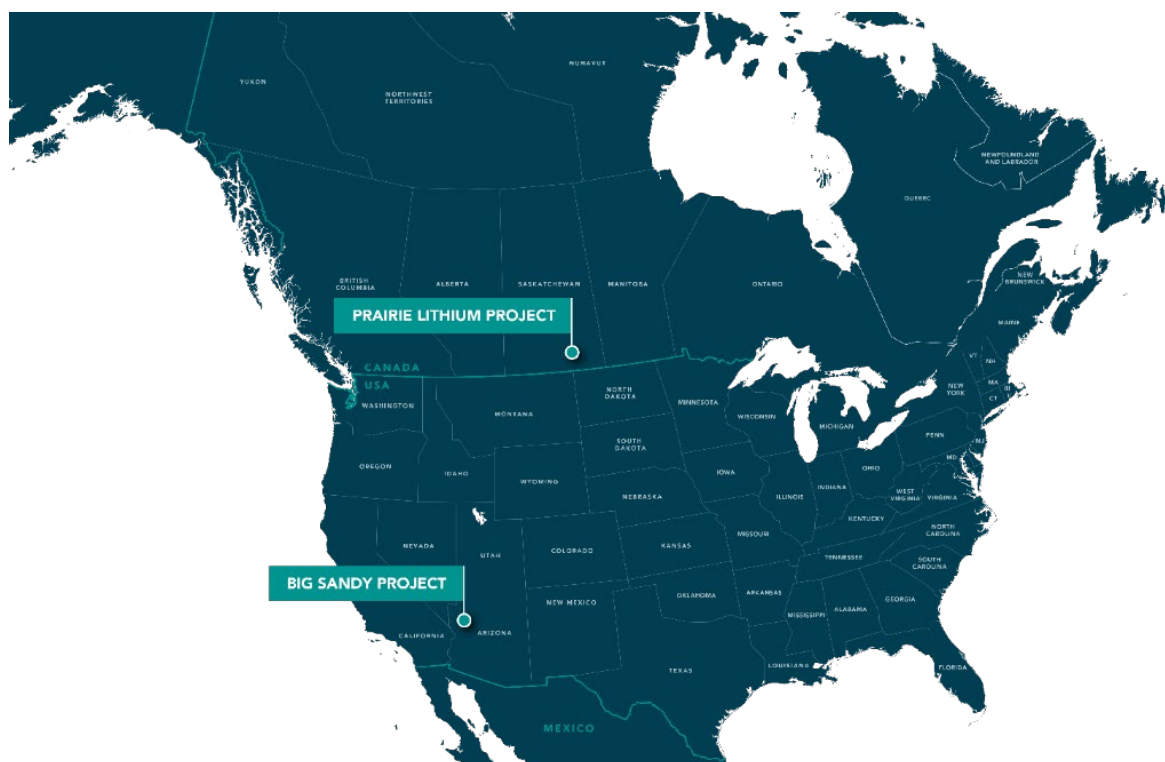


Figure 3: Location of Arizona Lithium's core projects

This ASX announcement is authorised for release by the Board.

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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.