

UPDATED COMMERCIAL DEVELOPMENT PLAN FOR NORTH AMERICA'S FIRST LITHIUM BRINE PRODUCTION FACILITY

HIGHLIGHTS

- Updated strategic phased development plan has been implemented for the Prairie Lithium Project.
- Phase I will see the Prairie Lithium Project go into production at Pad #1 using a commercial-scale DLE unit capable of producing 150tpa of Lithium Carbonate Equivalent (LCE).
- To get into production, only AUD35m (USD22m) required to spend on Phase 1 CAPEX.
- Non-dilutive capital initiatives currently being considered with multiple potential strategic partners completing extensive due diligence on the Prairie Lithium Project, in addition to existing Government grants and loans being considered as well as traditional debt financing solutions.
- First commercial production marks the first Company in North America to reach this milestone.
- De-risking by a commercial scale proof of concept allows production to be increased by rapid replication of the process at Pad #1.
- Construction work will commence at Pad #1 in Q2 2025.
- Phase 2 will immediately expand the facility with additional commercial-scale DLE units. Additional units can be rapidly deployed to increase production at Pad #1. Phase III will see the Pad design replicated across the already drilled and de-risked Pad #2, and Pad #3. Additional Pad locations are also being finalised in 2025.
- Grey Owl Engineering has been engaged for facility engineering, procurement, and construction (EPC). Grey Owl is a leading Western Canadian oil & gas facilities engineering company.
- The Prairie Lithium Project in Canada is perfectly positioned to feed battery-grade lithium carbonate into the mature Asian battery market. Battery-grade samples produced from the Prairie project are currently being distributed and tested in Asia.¹

Arizona Lithium Limited (ASX: AZL, AZLO, 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 Prairie Lithium Project ("Prairie") and the Big Sandy Lithium Project ("Big Sandy"), is pleased to provide a progress update for the commercial scale proof of concept facility at Pad #1 and further outlay the development plan for the Prairie Project. The Prairie Project will be put into production across three phases of development. Phases I, II, and III represent the methodical steps being taken to cost-effectively bring the project into production while minimising the risk associated with commercialising a first-of-its-kind process.

Phase I will see the project go into production at Pad #1 using a commercial-scale Direct Lithium Extraction ("DLE") unit capable of producing 150 Tonnes Per Annum ("TPA") Lithium Carbonate Equivalent ("LCE"). The lithium produced will be used to de-risk end market opportunities where battery-grade samples are currently being tested by interested groups in Asia. Phase I will process brine at a rate of approximately 1,000m³ per day. It is critical to process raw brine at this commercial scale to de-risk the temperature, pressure and chemical constituents of the brine while feeding a commercial scale DLE unit 24 hours per day, 7 days a week. A video rendering of Phase I at Pad #1 has been prepared and can be viewed here: <https://youtu.be/mUNExsUBjfo>

This will represent one of the world's largest DLE facilities and provide the guidance required to scale up production cost-effectively across the Prairie Project shortly thereafter. Upon commissioning and operating at this scale, the Company will have significantly de-risked the process and proceed to Phase II.

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Phase II will see the immediate expansion of production on Pad #1. Phase II expansion will highlight the benefits of modularised scale-up as additional commercial-scale DLE units will be rapidly deployed. Additional wells will also be drilled to maximise production from Pad #1.

Phase III will see the replication of the wells and facility at Pad #1, applied to Pad #2, Pad #3 and additional Pads that are currently being identified.

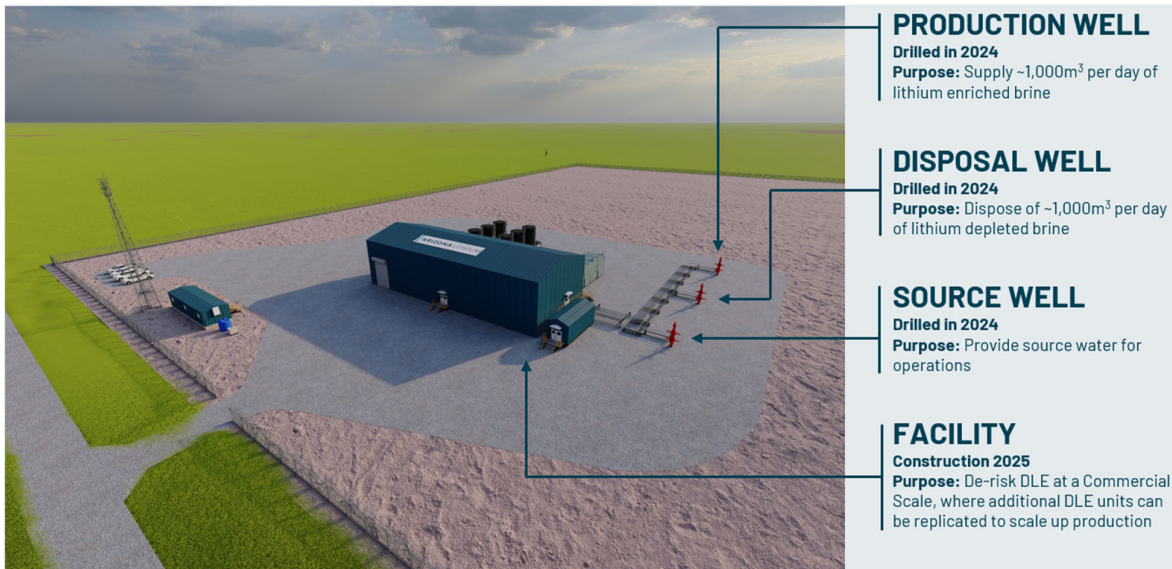


Figure 1: Rendering of site layout and facility for Phase I at Pad #1

Arizona Lithium Managing Director, Paul Lloyd, commented: “We are excited to share additional details about our plans for the Prairie Project. In 2023, a PFS was released that highlighted lithium production across three pad locations from the Prairie Project. In 2024, we partnered with three landowners to secure the three pad locations and immediately went to work permitting and clearing the ground for the pads. A major drilling program was then executed across those three pads, which significantly de-risked the project and put us in a position to continue development toward production. 2025 will be a year of facility construction and commissioning Phase I at Pad #1. Our phased development plan clearly articulates how we will continue to de-risk and develop the project. Modularisation allows rapid and cost-effective scale-up to increase production in Phase II and III.”

About the Prairie Lithium Project

AZL’s Prairie Lithium Project is located in the Williston Basin of Saskatchewan, Canada. Located in one of the world’s top mining friendly jurisdictions, the project has easy access to key infrastructure including electricity, natural gas, fresh water, paved highways, and railroads. The project also aims to have strong environmental credentials, with Arizona Lithium targeting to use less freshwater, land and waste, aligning with the Company’s sustainable approach to lithium development.

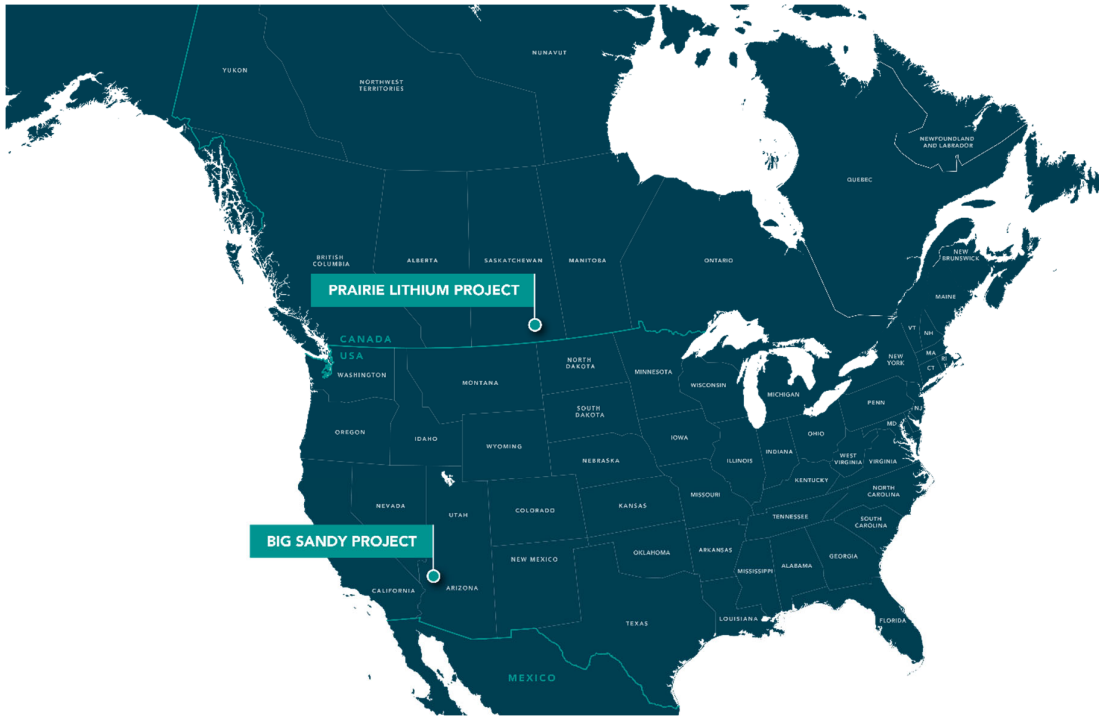


Figure 2: Location of Arizona Lithium's core projects

This ASX announcement is authorised for release by the Board.

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1. ASX Announcement – “Battery Grade Lithium Carbonate Produced from Prairie” – 23 August 2024

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