

APPOINTMENT OF CHIEF TECHNICAL OFFICER AND EXPLORATION UPDATE

Highlights

Arizona Lithium Ltd is pleased to announce the appointment of Brett Rabe as Chief Technical Officer of the Company, adding significant lithium project management and engineering experience to the existing management team. Mr Rabe's experience includes:

- Former VP of Engineering and Project Management at Lithium Americas Corp for the Thacker Pass Project in Nevada, the largest known lithium resource in the United States, and the most comparable project to Big Sandy. Instrumental in the running of the Pilot Plant and technical design documents for the Thacker Pass Project.
- Currently President of Project Development & Assessment Consultants LLC, specialising in project development and assessment for clients involved in the production of lithium battery chemicals, particularly in early stages of project development.
- Former roles as Senior Process Engineer at Jacobs in Arizona, a leading engineering firm with 55,000 staff across 40 countries, Plant Manager and Senior Process Engineer at Simbol Materials and Operations Manager at Elementis Global.

Arizona Lithium Limited (**ASX:AZL**) (**Arizona Lithium, AZL** or the **Company**), a company focussed on the sustainable development of the Big Sandy Lithium Project (**Big Sandy, Project**) in Arizona, is pleased to announce the appointment of Brett Rabe as Chief Technical Officer of the Company, bringing significant lithium project management and engineering experience to the existing management team.

Mr Rabe is the former VP of Engineering and Project Management at Lithium Americas Corp (**LAC**) for the Thacker Pass Project located in Nevada, the largest known lithium resource in the United States, and most comparable project to Big Sandy in terms of style and mineralogy. His role with LAC concluded following the submission of technical design documents required for issuance of the Record of Decision by the US Bureau of Land Management.

Brett is currently the President of Project Development & Assessment Consultants LLC (**PDAC**), specialising in project development and assessment for clients involved in the production of lithium battery chemicals, particularly in early stages of project development. PDAC's services include process design, pilot plant design, cost/financial analysis, risk analysis, and project management and execution, with a particular focus on implementation of best available technology and practices to minimize carbon footprint, emissions and water consumption.

Arizona Lithium Managing Director, Paul Lloyd, commented: *"We are very pleased to welcome Brett to Arizona Lithium in the position of Chief Technical Officer. With his significant experience in engineering and project management at Lithium Americas Corp's Thacker Pass Project, I'm confident that he'll be able to contribute significantly towards the sustainable development of Big Sandy. Thacker Pass represents the most similar project to Big Sandy and, through Brett's appointment, we'll be able to apply his learnings to fast track the Project."*

Arizona Lithium's newly appointed Chief Technical Officer, Brett Rabe, commented: *"I'm very excited to be joining AZL as the Company's Chief Technical Officer. With such huge potential at Big Sandy, I look forward to assisting in creating further shareholder value by applying my vast experience in engineering and project management of large scale lithium projects."*

Big Sandy Lithium Project (Arizona)

The Big Sandy Project, as a very shallow, flat lying mineralised sedimentary lithium resource and with excellent available infrastructure, has the potential to be developed with a very low environmental footprint.

Arizona Lithium’s successful 2019 drill program at Big Sandy resulted in the estimation of a total Indicated and Inferred JORC resource of 32.5 million tonnes grading 1,850 ppm Li for 320,800 tonnes Li_2CO_3 ¹. This represents 4% of the Big Sandy Project area that contains an estimated exploration target of between 271.1Mt to 483.15Mt at 1,000 - >2,000ppm Li^2 .

Note that the potential quantity and grade of the estimated geological potential (Exploration Target) is conceptual in nature. There has been insufficient exploration to estimate a mineral resource and it is uncertain whether future exploration will result in the definition of a mineral resource. It has been estimated using a range of thicknesses for the mineralised sediments calculated from drill intercepts, surface sampling and geological mapping. The grade estimates a range of values demonstrated from drilling and surface sampling.

An application for a Permit of Exploration (**POE**) that includes 145 exploration holes and a bulk sample at the Company’s Big Sandy Lithium Project in Arizona is awaiting Bureau of Land Management (**BLM**) approval.

The BLM is completing its evaluation of the Company’s drilling application, including completing any necessary procedures required to finalise the Environmental Assessment in accordance with the requirements of the National Environmental Policy Act and other requirements. Once that process has been completed, the Company will receive a decision on its exploration drilling application.

Community involvement is welcomed to ensure mutually beneficial outcomes for all stakeholders and the Company is very confident that the drilling program can be completed without environmental impact and to the satisfaction of all stakeholders.



Figure 1- Arizona Lithium Project Portfolio, including major Li-battery infrastructure in close proximity to Big Sandy and Lordsburg Lithium Projects.

¹ Announcement Sept 26, 2019, Big Sandy Lithium Project, Maiden Mineral Resource

² Announcement Nov 7, 2019, Big Sandy Lithium Project, Exploration Target Update

Lordsburg Lithium Brine Project (New Mexico)

In November 2021, AZL announced the staking of a further 96 claims doubling the Company's landholding at the Lordsburg Lithium Brine Project to 15.54km². The planned passive seismic (Tromino) survey has been completed and Titan magnetotelluric electromagnetics is scheduled near the end of this quarter. The Tromino survey is used to map the subsurface geology and the Titan to identify potentially lithium mineralised subsurface brines. Similar geophysical methods have been used with success by Galan Lithium Limited on their Hombre Muerto Project in Argentina³.

The passive seismics have proven effective in mapping the subsurface geology identifying the thickest sediment fill in the basin and resolving faulting associated with the graben. The deepest parts of the basin (blue) clearly define a northerly trending sediment filled graben (Figure 2).

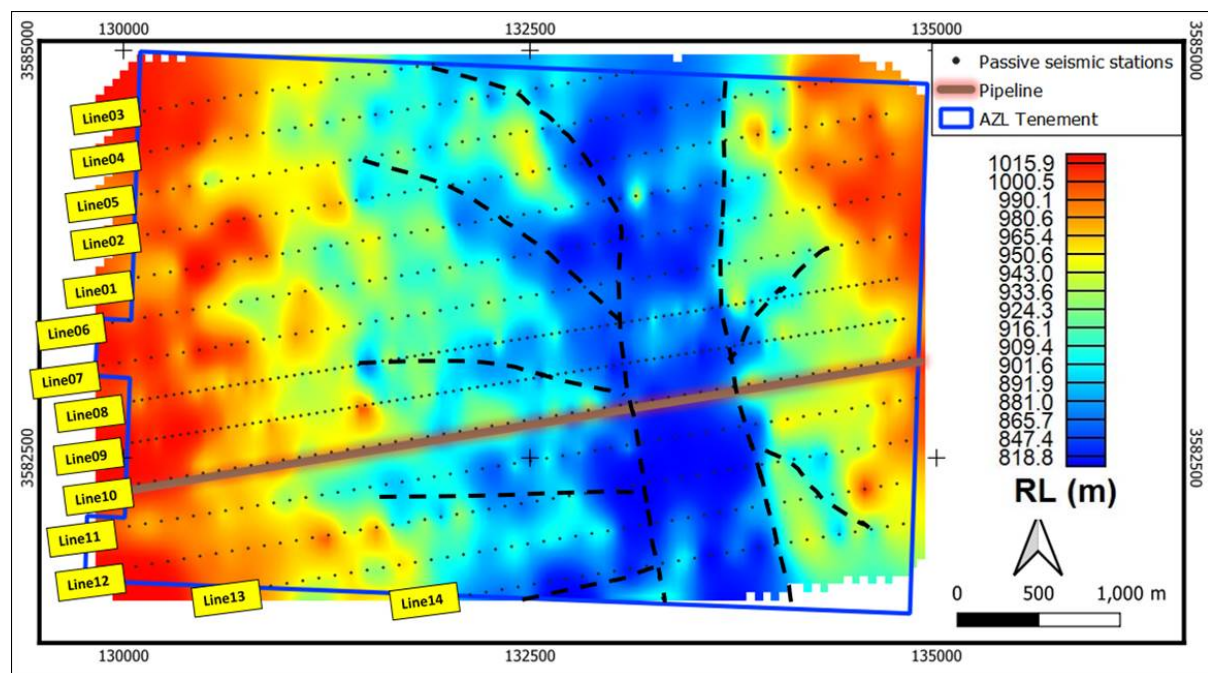


Figure 2 – Plan View, Lordsburg Passive Seismic Survey

A cross section through Line 14 looking north clearly identifies two continuous acoustic impedance contrast interfaces, where the deeper interface represents the acoustic basement (estimated at 300m deep at its deepest point) and the shallower interface is possibly the top of a relatively hard gravel or salt layer within the cover sequence. The dark blue colour between those two interfaces could be a velocity inversion related to a relatively soft mudstone or a clay-rich layer. Distinct vertical offsets in the interfaces between neighbouring survey stations may represent normal faults associated with horst/graben structures.

³ Galan Lithium Ltd, Announcement October 4, 2018: Geophysical Results Define Brine Potential at Candelas Project, Hombre Muerto

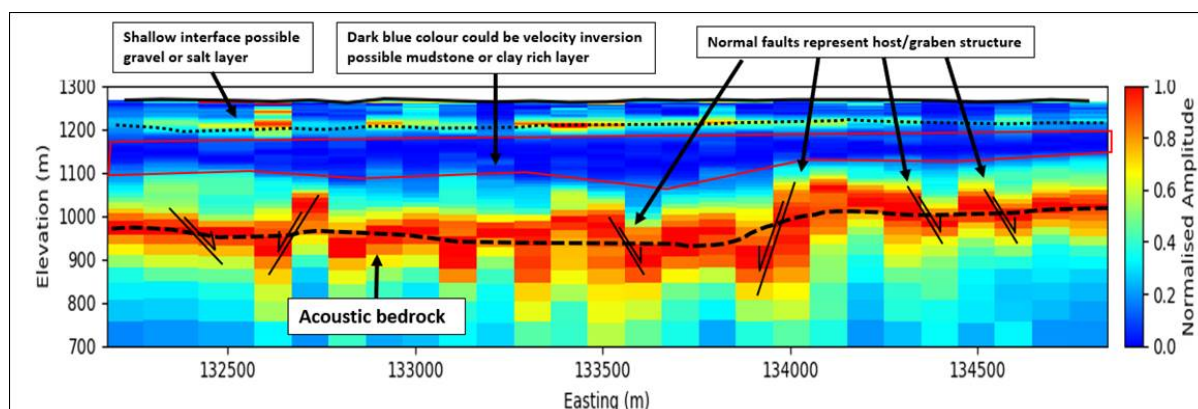


Figure 3 – Cross Section - Passive Seismic Survey, Line 14 Looking North

The Lordsburg Project lies 15km to the southwest of the town of Lordsburg, New Mexico, within the playa lake system at the northernmost end of the Animas Valley. The basin is an elongated sediment filled graben (valley) surrounded by tertiary volcanic rocks, a similar setting to the Clayton Valley, host to the only producing lithium project in the USA.

Stock wells on the eastern Animas basin margin, south of the Project, intersected steam and hot springs essential in the development of lithium bearing brines. A 1954 US Geologic Survey map shows a windmill just west of the Project, on the western basin margin, labelled as a "salt well" demonstrating the presence of highly saline subterranean water.

Previous surface sampling across the playa has returned up to 114.5 ppm Li⁴.

Two of the large cost burdens on lithium brine projects are energy costs and transportation costs. Lordsburg Brine Project is 16km from the 15MW Lightning Dock Geothermal Plant (Figure 3) and conveniently located right next to key interstate highways.

This announcement has been authorised for release by the Board of Arizona Lithium Limited.

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⁴ ASX Announcement 8 November 2021, Arizona Lithium Doubles Land Position at Lordsburg Lithium Project as Exploration Commences

JORC compliant Maiden Mineral Resource Breakdown

Resource Classification	Tonnes (Mt)	Li Grade (ppm)	Contained Li Metal (t)	Contained LCE (t)
Indicated	14.6	1,940	28,400	150,900
Inferred	17.9	1,780	31,900	169,900
Total	32.5	1,850	60,300	320,800

COMPETENT PERSON'S STATEMENTS

The information in this announcement that relates to the exploration results at the Lordsburg Project and the Resource and Exploration Target at the Big Sandy Sedimentary Lithium Project is based on, and fairly represents, information compiled by Gregory L Smith. Mr Smith is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Smith is a Consultant to the Company and holds shares in the Company. Mr Smith consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears. The Company confirms that the material assumptions and technical parameters underpinning the Resource estimate and Exploration Target, which were announced to the ASX on 26 September 2019 and 7 November 2019 respectively, have not materially changed.

Appendix 1: JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Not applicable as results relate to passive seismic survey.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Not applicable as results relate to passive seismic survey.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Not applicable as results relate to passive seismic survey.
Drilling techniques	Drill type (e.g. core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka,	Not applicable as no drilling undertaken.

	sonic, etc.) and details (e.g. core diameter, triple or standard tube,	
	depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Not applicable as no drilling undertaken
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable as no drilling undertaken
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable as no drilling undertaken
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Not applicable as no drilling undertaken
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Not applicable as no drilling undertaken
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography	Not applicable as no drilling undertaken
	The total length and percentage of the relevant intersections logged.	Not applicable as no drilling undertaken
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable as no drilling undertaken

	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not applicable as no drilling undertaken
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Not applicable as no drilling undertaken
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Not applicable as no drilling undertaken
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Not applicable as no drilling undertaken
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable as no drilling undertaken
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the Assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable as no drilling undertaken
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of	Tromino Tromographs were used for the survey, an instrument used in the dynamic characterisation of soils and structures. Readings were taken on 14, 200m north-south spaced ENE oriented lines at intervals of 50m for 2 test lines (Lines 8 & 9) and then 100m on the remaining lines. All survey planning, instrument supply and interpretation was carried out

	accuracy (i.e. lack of bias) and precision have been established.	by Resource Potentials. The survey was carried out by Harrison Land Services based in Moab, Utah.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Not applicable as no drilling undertaken
Verification of sampling and assaying	The use of twinned holes.	Not applicable as no drilling undertaken
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The data are currently stored in hardcopy and digital format in the Company's office.
	Discuss any adjustment to assay data.	Not applicable as no drilling undertaken
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Not applicable as no drilling undertaken
Location of data points Data spacing and distribution	Specification of the grid system used.	NAD83 UTM Zone 12N
	Quality and adequacy of topographic control.	All survey sites were located in NAD83 UTM Zone 12N using a handheld GPS accurate to 3m.
	Data spacing for reporting of Exploration Results.	The survey sites were at 50 and 100m spacings along 14 ENE oriented lines across the playa.
Data spacing and distribution Orientation of data in relation to geological structure	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve	Not applicable as no drilling undertaken

	estimation procedure(s) and classifications applied.	
	Whether sample compositing has been applied.	Not applicable as no drilling undertaken
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of the survey lines is perpendicular to the northerly trend of the sediment filled graben basin.
Orientation of data in relation to geological structure Sample security	If the relationship between the drilling orientation and the orientation of key mineralised structures are considered to have introduced a sampling bias, this should be assessed and reported if material.	Not applicable as no drilling undertaken
	The measures taken to ensure sample security.	Not applicable as no drilling undertaken
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No reviews have yet been completed.

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Lordsburg project consists of 192 BLM mining claims of approximately 20 acres each, physically staked on Bureau of Land Management, federally administered land. All indigenous title is cleared and there are no other known historical or environmentally sensitive areas.

	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The claims have been granted and are subject to an annual payment. Other than the payment there is no requirement for minimum exploration or reporting. There is no expiry date on the claims.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There has been no exploration for lithium mineralisation on this project other than that completed previously by Big Sandy Inc (wholly owned subsidiary of Arizona Lithium Ltd).
Geology	Deposit type, geological setting and style of mineralisation.	The geology is characterized by a broad flat playa lake lying within a north trending, fault bounded graben basin. The exploration target is the potential of the underlying sedimentary layers below the surface of the playa surface to host Li bearing brines.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	Not applicable as no drilling undertaken
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	This information has not been excluded.

Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade, truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable as no drilling undertaken
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Not applicable as no drilling undertaken
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable as no value reported.
Relationship between mineralization widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.	Not applicable as no drilling undertaken
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable as no drilling undertaken
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Appropriate maps are included.

Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Not applicable as no drilling undertaken
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulkdensity, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	The subsurface geology playa lake is unknown. No drilling, bulk sampling or metallurgical testwork has been completed. Further geophysical surveys are planned. No water table has been identified.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further geophysical surveys are planned.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable as no drilling undertaken