ASX ANNOUNCEMENT

18 June 2025

Passive Seismic Survey Completed at White Plains Project Revealing Basin Structure

SUMMARY

- Four East-West passive seismic survey lines covering a total distance of 38km completed at the White Plains Lithium Brine Project in Utah, United States.
- Interpretation of survey data indicate a characteristic Half Graben Basin up to 600m in depth, typical of the Basin and Range Province.
- Utilising the passive seismic data generated, the next stage of exploration works will comprise a Magnetotelluric (**MT**) data survey across selected portions of the White Plains area to delineate high priority drill targets.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to announce the successful completion of an orientation Passive Seismic Survey at its White Plains Lithium Brine Project in Utah, United States (**White Plains**).

The passive seismic program was completed to examine in greater detail the subsurface geological structure of the target brine basin at White Plains.

Importance of Passive Seismic Surveys

Passive seismic technology has proven to be an invaluable tool in lithium brine exploration, enabling the identification and determination of basement rock depth, which serves as the theoretical lower limit of potential lithium mineralisation.

This exploration activity forms the initial part of Lithium Energy's broader exploration strategy aimed at defining drill targets to identify a potential lithium brine deposit at White Plains.

Passive Seismic Survey Results

The survey involved the collection of four East-West seismic lines covering a total distance of 38km with Figure 1 outlining the location and extent of the lines of the passive seismic works.

The completion of the survey has offered valuable insights into the subsurface characteristics of the White Plains brine aquifer. Preliminary analysis indicates a depth to basement of up to **600 metres**, providing an encouraging geological framework for subsequent investigations of the extent of potential lithium-rich brine mineralisation.

In particular, the interpretation of the passive seismic data has revealed a characteristic Half Graben Basin, where aquifers are often present adjacent to the bounding faults within conglomerates with a sandstone matrix (refer Figure 2).

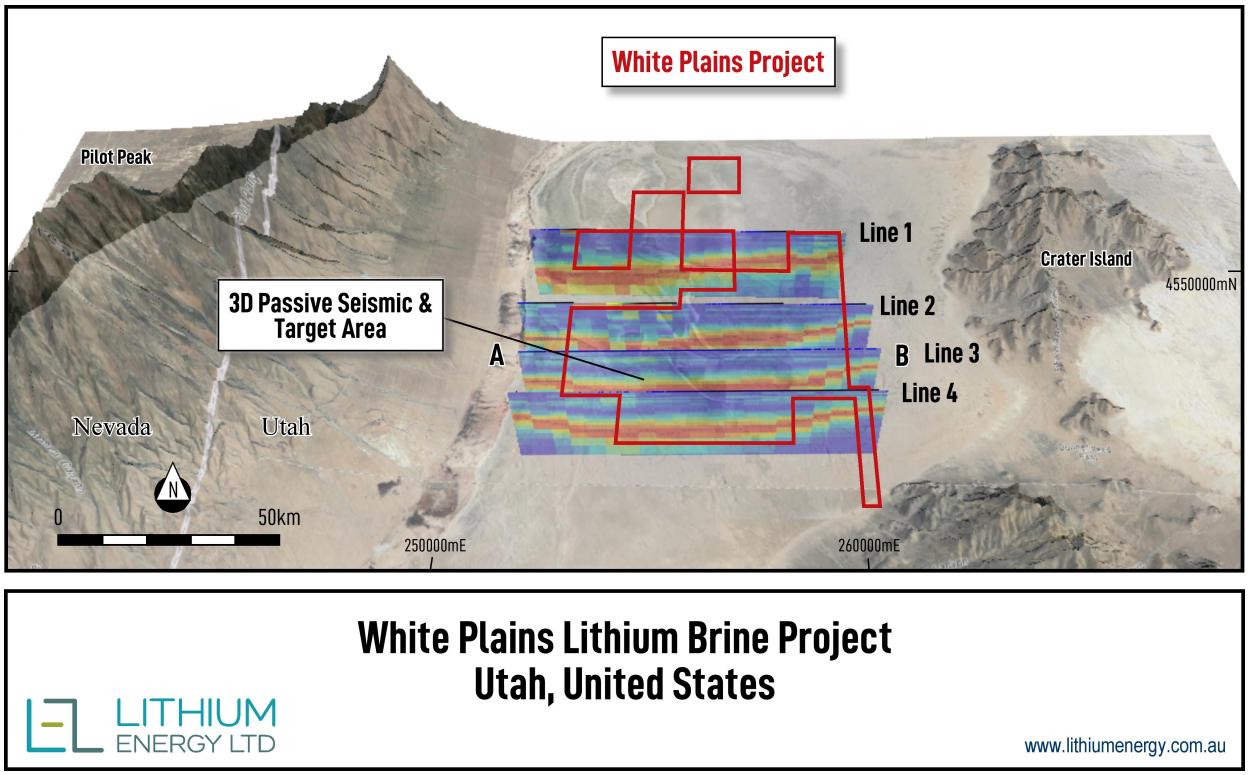

Figure 1: 3D passive seismic survey results from 4 survey lines within the White Plains claims area (shown in red)

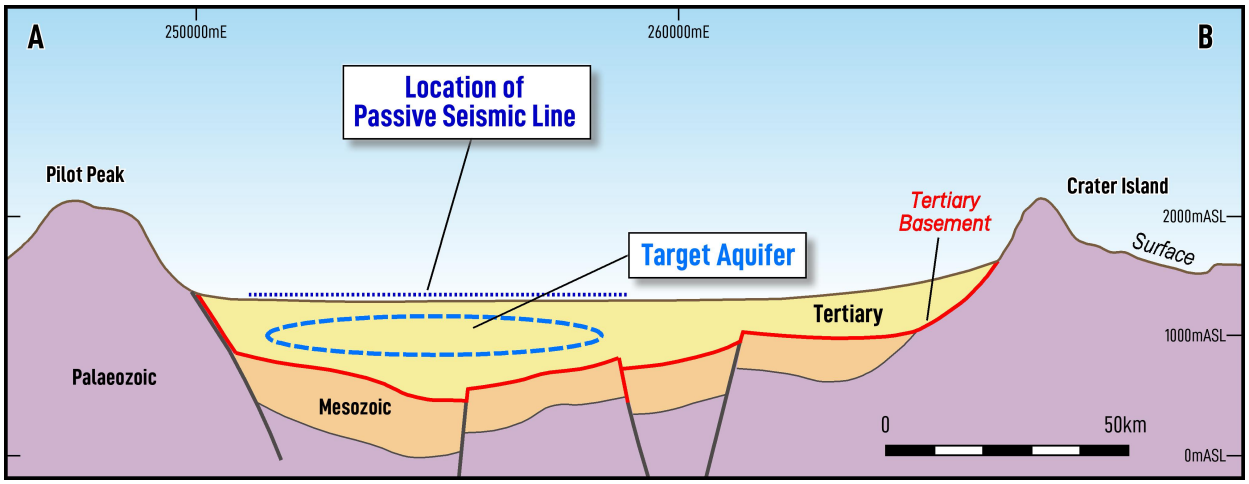

Figure 2: Interpreted A to B cross-section from passive seismic survey Line 3 (refer Figure 1)

Next Steps in Exploration Program

Based upon the encouraging results of its passive seismic program, the next stage of exploration activity at White Plains will involve the completion of a Magnetotelluric (**MT**) data survey across selected portions of the project area.

A MT data survey is a geophysical method used to investigate the Earth's subsurface electrical conductivity by measuring natural variations in geomagnetic and geoelectric fields at the surface. This technique is a valuable exploration tool enabling the mapping of geological structures at depths ranging to hundreds of metres.

As a tool for outlining the potential for a lithium brine deposit, an MT survey is useful as it provides deep subsurface imaging of **electrical conductivity variations**, which are crucial for detecting lithium-rich brine aquifers. Lithium brines are typically found in **closed basins** where fluids are continually evaporated and the minerals concentrated, leading to hypersaline brines - MT surveys help distinguish these hypersaline brines from surrounding geological formations. By measuring natural electromagnetic signals, MT surveys can map the **depth** and **extent** of the more **conductive hypersaline brines** as a guide to identifying high priority drill targets.

Lithium Energy Executive Chairman, William Johnson:

> *Lithium Energy is employing cutting-edge geophysical techniques to unlock the full potential of its exploration assets. The combination of passive seismic and magnetotelluric data will provide a comprehensive understanding of the basin's subsurface, supporting the Company's strategic objective of outlining a significant lithium brine deposit at White Plains.*

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

William Johnson
Executive Chairman

T | (08) 9214 9737
E | chair@lithiumenergy.com.au

JORC CODE (2012) COMPETENT PERSON STATEMENTS

The information in this document that relates to Exploration Results (in relation to the passive seismic geophysics work on the White Plains Lithium Brine Project, Utah, USA) are based on, and fairly represents, information and supporting documentation prepared by Mr Peter Smith, BSc (Geophysics) (Sydney) AIG ASEG. Mr Smith is a Member of the Australian Institute of Geoscientists (**AIG**) and an Executive Director of the Company. Mr Smith has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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' (the **JORC Code**). Mr Smith consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

ANNEXURE A

JORC CODE (2012 EDITION)
CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA FOR EXPLORATION RESULTS

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	Explanation	Comments
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 XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used* • *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 3kg was pulverised to produce a 30g 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.*	Sampling was carried out with TROMINO® Passive Seismic equipment. TROMINO® is a small (1 dm^3, < 1 kg) all-in-one instrument, equipped with: • 3 velocimetric channels (adjustable dynamic range) • 3 accelerometric channels • 1 analog channel • GPS receiver • built-in radio transmitter/receiver (for synchronization among different units) • radio triggering system (for MASW surveys and similar) TROMINO® works in the [0.1, 1024] Hz range. Samples were collected for a 20-minute duration at station spacing of 500m.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, 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.).*	The Company has yet to conduct any drilling at White Plains and therefore, no drilling techniques are reported.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed* • *Measurements taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	The Company has yet to conduct any drilling at White Plains and therefore, no drill sample recovery data are reported.
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.* • *The total length and percentage of the relevant intersections logged*	The TROMINO® Passive Seismic equipment works in the [0.1, 1024] Hz range.

Criteria	Explanation	Comments
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	No sub sampling was carried out as the Passive Seismic method is not invasive and is passive in nature.
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.* • *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 accuracy (i.e. lack of bias) and precision have been established.*	Individual Passive Seismic readings are continuous in nature, at up to 1000Hz, and can be statistically processed to optimise the data quality.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes* • *Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.* • *Discuss any adjustment to assay data.*	The TROMINO® Passive Seismic equipment is equipped with internal and external GPS and is processed by external consultants proficient in passive seismic data collection and processing. Repeats and cross line correlation have been used to assist in sampling verification and QAQC.
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 Resources estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	The TROMINO® Passive Seismic equipment is equipped with internal and external GPS, and is processed to present the data in WGS84 UTM Zone 12N.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Passive Seismic data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of 500m.

Criteria	Explanation	Comments
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Passive Seismic data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of 500m.
Sample security	• *The measures taken to ensure sample security.*	Data collection is stored digitally, and uploaded daily to the external consultant for processing.
Audits or reviews	• *The results of and audits or reviews of sampling techniques and data.*	No external audit or review of the data has taken place

Section 2 Reporting of Exploration Results

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

Criteria	Explanation	Comments
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 interest, historical sites, wilderness or national park and environmental settings.* • *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 White Plains Lithium Brine Project comprises 760, 20 acre placer claims totalling approximately 6,150 hectares located in the State of Utah in Central USA (**White Plains**). The claims are held by White Plains Corporation (incorporated in Nevada, USA), which is a wholly-owned subsidiary of White Plains Pty Ltd, which, in turn, is a wholly-owned subsidiary of Lithium Energy Limited. The White Plains claim details are outlined in Lithium Energy's ASX Announcement dated 5 June 2025 entitled "White Plains Lithium Brine Project, Utah, United States".
Exploration done by other parties	• *Acknowledgement and appraisal of exploration by other parties.*	The Company has reviewed the relevant open file published documents and images relating to the project area and from this review, made its interpretations relating to the Company's White Plains Project. The published data upon which the geological model for White Plains has been developed includes the following: • Selected Hydrologic Data for the Bonneville Salt Flats and Pilot Valley, Western Utah, 1991-93, James L Mason et al, USGS OFR 95-104 • Investigating the margins of Pleistocene lake deposits with high resolution seismic reflection in Pilot Valley, Utah. Phd by John V South 2008. • Shallow groundwater flow and inverted fresh/saline-water interface in a hypersaline endorheic basin (Great Basin, USA). Alan Mayo et al Hydrogeology Journal, 28: 2877-2902,2020 • Hydrogeology and Surface Morphology of the Bonneville Salt Flats and Pilot Valley Playa, Utah, Geological Survey Water-Supply Paper 2057 US BLM Gregory C Lines, 1979

Criteria	Explanation	Comments
		• Stratigraphy of Lake Bonneville deposits along Grouse Creek, NW Utah, USGS OFR 91-342 • Brine Supply and Reserves northwestern Bonneville area, Quintana Petroleum 1967 M.P.Nackowski
Geology	• *Deposit type, geological settings and style of mineralisation.*	The Pilot Valley Salt playa/pan (within which White Plains is situated) is bounded on the west by the Pilot Range, where Pilot Peak is the highest point (3,266m) in the range. The eastern boundary of the valley is comprised of the Silver Island Range, including the Silver Island and Crater Island mountains, where Graham Peak (2,305m) is the highest point. A vast area of the northeastern Great Basin of the western USA was inundated by a succession of Plio-Pleistocene lakes, including Lake Bonneville (28ka to 12ka). The Bonneville Basin is that area of the Great Basin which was inundated by pluvial lakes from late Pliocene through Pleistocene time. The geographic extent of the Bonneville Basin covers a large portion of Western Utah, and parts of Nevada and Idaho. The Pilot Valley playa/pan occupies a part of the Bonneville Basin near its western edge. The Pilot Valley playa, located just east of the Utah-Nevada border near Wendover, Utah, within the eastern Basin and Range Province, represents an 8 to 16km wide and ~50km long remnant of these lakes. The playa corresponds to the upper surface of a closed basin that is delimited by two mountain ranges, which are mantled by recent alluvial fans over which the playa sediments have prograded. The mountains on either side of the playa/pan are late Proterozoic to early Paleozoic in age, with the main exploration target being lithium rich hypersaline brines within sandstone dominant units in the Tertiary fill of the postulated half graben basin structure derived from the Basin and Range extension during the Miocene.
Drill hole Information	• *A summary of all information material for 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) and the drill hole collar* ▪ *Dip and azimuth of the hole* ▪ *Down hole length and interception depth* ▪ *Hole length* • *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*	No drilling results are being presented. The Company has yet to conduct any drilling at White Plains and therefore, no drillhole information is reported.

Criteria	Explanation	Comments
	understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration results, weighing 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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	The Company has yet to conduct any brine or core sampling at White Plains and no data aggregation has taken place and hence no aggregation methods have been carried out.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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')*	The interpretations made by the Company are conceptual in nature. The Company has yet to conduct any drilling and/or sampling of existing well infrastructure at White Plains and hence geometry and intersection qualifications of open file information cannot be made or validated.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar locations and appropriate sectional views.*	The Company has yet to conduct any drilling or brine or core sampling at White Plains hence and no plans or cross section representations of drilling have been reported. Figure 1 shows the 3D passive seismic survey results from 4 survey lines within White Plains. Figure 2 shows the interpreted A to B cross-section from passive seismic survey Line 3 (shown in Figure 1). Figure 3 shows the location of White Plains in Utah, central USA.
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.*	Historical and open file reports have been collated and are consistent across numerous companies and the Company has no reason to doubt the balanced reporting of the various technical open file reports.
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; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or containing substances.*	As part of the review of exploration results within the White Plains area, the Company has analysed a number of public documents, which primarily focus on the Hydrogeology of the Lake Bonneville sediments, which represent the upper 4-6m of sedimentation in the Salt Pan. Prior to this, the Tertiary sedimentary fill is poorly understood, and no public information or drilling is available.
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).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.*	A major exploration program is underway comprising comprehensive geophysical surveys (passive seismic and MagnetoTelluric geophysics (**MT**) surveys). An initial drilling program is planned, aimed at locating potentially lithium bearing brines of economic interest, obtaining preliminary information related to the hydrogeological and geochemical characteristics of the brine rich aquifer that comprises the salt pan underneath the White

Criteria	Explanation	Comments
		Plains rea, and delineating a maiden JORC Mineral Resource. The passive seismic programs across White Plains will be used to determine the depth of the underlying basement rock (i.e. the theoretical limit of potential lithium mineralisation) underneath the claims. The MT survey will seek to identify the location and thickness of potential lithium-hosting conductive brines underneath the White Plains area. The MT survey will be followed by an exploration drilling campaign to assess the distribution and geochemistry of the brine and to obtain data related to basic physical parameters of the different hydrogeological units underneath the White Plains area. In addition to the above works, the Company will be undertaking an assessment of relevant mine economic criteria to assist in developing a pathway to the completion of feasibility study(s), including the delineation of a maiden JORC Mineral Resource.

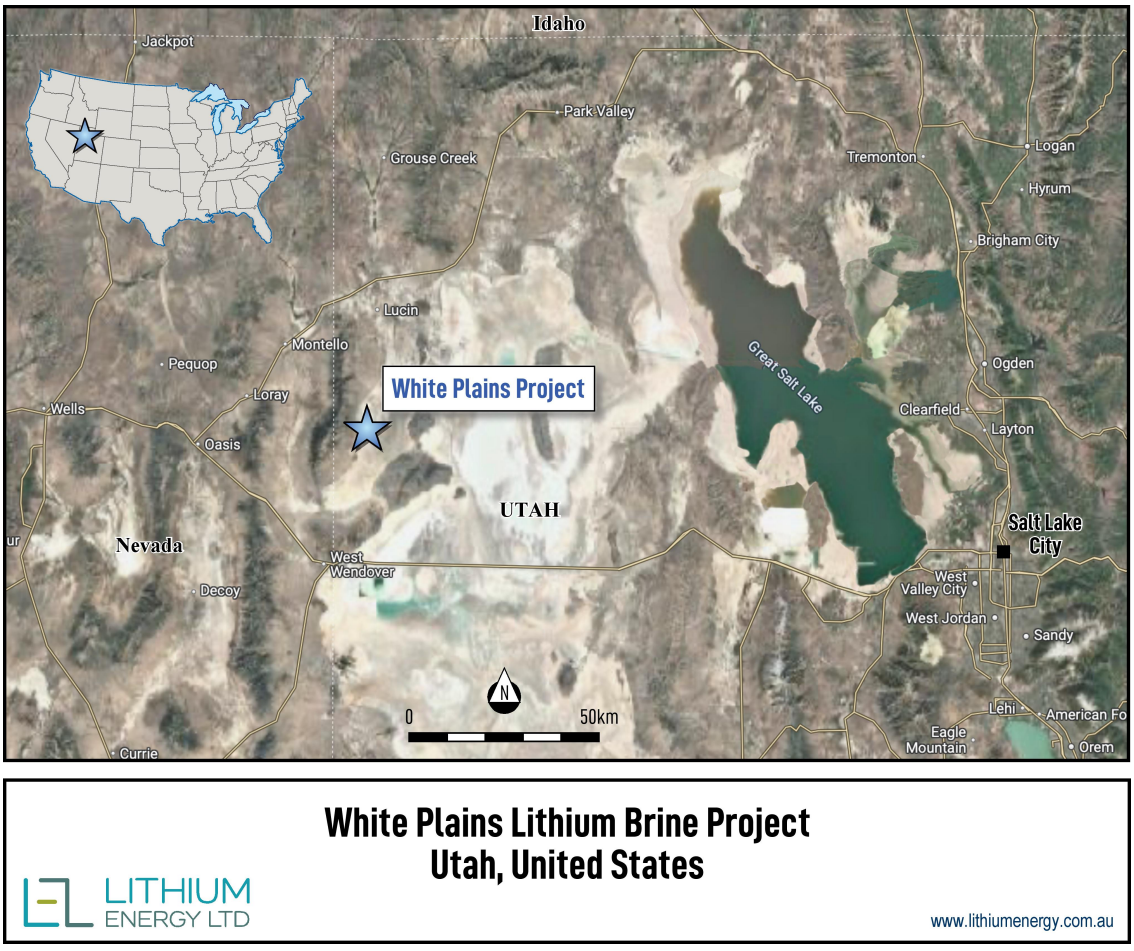

Figure 3: Location of White Plains Lithium Brine Project, Utah, United States

FORWARD LOOKING STATEMENTS

This document contains “forward-looking statements” and “forward-looking information”, including statements and forecasts which include without limitation, expectations regarding future performance, costs, production levels or rates, mineral reserves and resources, the financial position of Lithium Energy, industry growth and other trend projections. Often, but not always, forward-looking information can be identified by the use of words such as “plans”, “expects”, “is expected”, “is expecting”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or variations (including negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might”, or “will” be taken, occur or be achieved. Such information is based on assumptions and judgements of management regarding future events and results. The purpose of forward-looking information is to provide the audience with information about management’s expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lithium Energy and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, changes in market conditions, future prices of minerals/commodities, the actual results of current production, development and/or exploration activities, changes in project parameters as plans continue to be refined, variations in grade or recovery rates, plant and/or equipment failure and the possibility of cost overruns.

Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Lithium Energy believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Lithium Energy does not undertake to update any forward-looking information or statements, except in accordance with applicable securities laws.