ASX ANNOUNCEMENT

22 September 2025

Magnetotelluric (MT) Survey Completed at White Plains Revealing Two Aquifers

SUMMARY

- Further geophysical work continues at the White Plains Project in Utah with Lithium Energy recently completing a detailed 97 station Magnetotelluric (**MT**) survey across the project area.
- The MT survey builds upon the previously conducted 38 line km passive seismic survey which revealed a characteristic Half Graben Basin of up to **600m** in depth at White Plains
- The recently completed MT survey data has been integrated with historical MT survey data to create a detailed basin image of areas likely to host lithium brine mineralisation with analysis indicating highly encouraging host geology for lithium brine mineralisation.
- Two potential aquifers have been identified - a shallow near surface **Upper Aquifer** and a **Deep Aquifer** starting at ~200m depth with a **thickness of ~150m.**
- A first pass 20 hole auger drilling program has been completed with assay results pending completion of analysis and announcement.
- The geophysical data is highly encouraging and now allows Lithium Energy to establish priority drill targets within the Upper and Deep Aquifers to test the potential extent and grades of lithium mineralisation, porosity and flow rates across the layer(s) of conductive brines which have been identified by geophysics.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to announce the completion of a detailed 97 station Magnetotelluric (**MT**) survey across its White Plains Lithium Brine Project in Utah, United States (**White Plains**). This geophysical survey was conducted to further refine the Company's objectives in delineating a significant lithium brine deposit at White Plains.

The MT survey builds upon the previous 38 line kilometre passive seismic survey[1], which revealed the subsurface characteristics of the White Plains brine aquifer indicating 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 to basin depth.

To complete a geophysical picture of the basin architecture, the passive seismic program was followed on by the MT survey, which was conducted across 97 stations within the White Plains project area.

Upon receipt of the MT survey data, this information was merged with a previous MT survey data acquired by Lithium Energy over part of the White Plains project area with the combined data set then subject to a detailed analysis to determine the presence of more conductive brines (having lower resistivity) as an indicator of potential lithium mineralisation.

1 Refer LEL ASX Announcement dated 18 June 2025: Passive Seismic Survey Completed at White Plains Project Revealing Basin Structure

Figure 1 shows an interpretation of the cross-section of the MT survey Line 3 (and previous passive seismic survey Line 3) outlining the main target aquifer within a characteristic Half Graben Basin, where aquifers are often present adjacent to the bounding faults within conglomerates with a sandstone matrix.

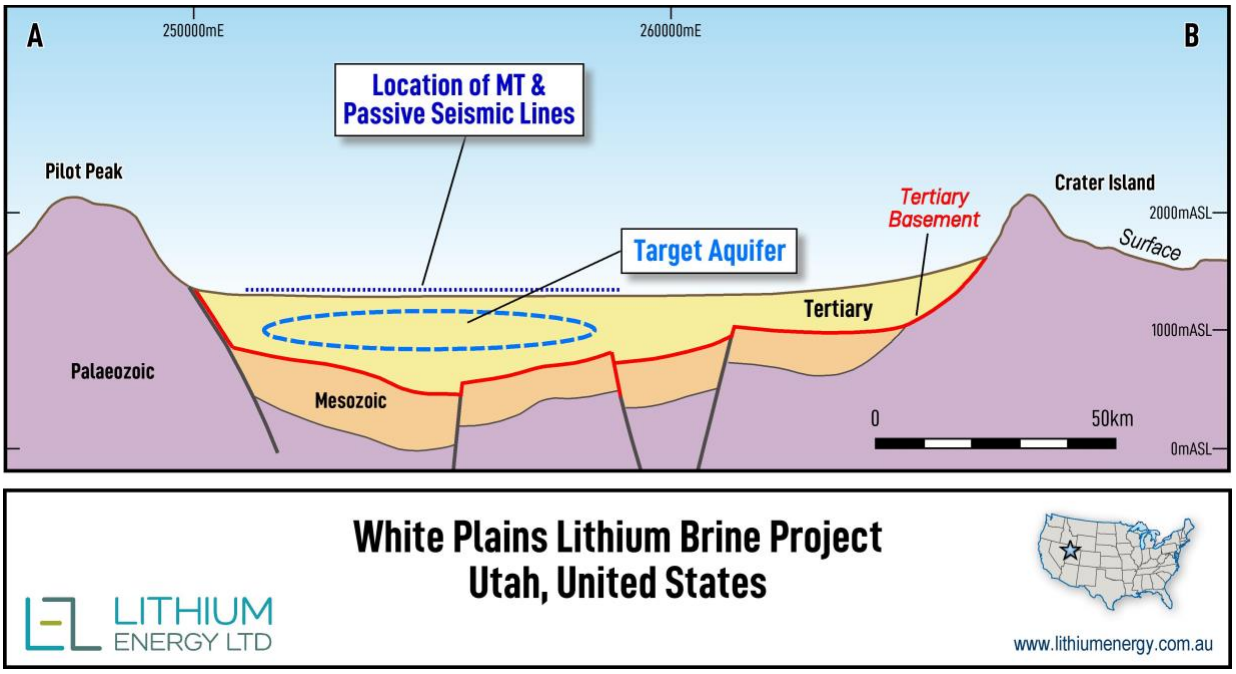

Figure 1: Interpreted A to B cross-section from MT survey Line 3 (refer Figure 2)

The analysis conducted outlined significant areas of low resistivity associated with potential lithium bearing formations and is highly encouraging with final resistivity values indicating the potential for significant accumulations of salt brines. Resistivity cross sections from the merged MT survey data imposed over the White Plains project area is illustrated through a 3D representation in Figure 2 below. Areas of low resistivity outlined in Figure 2 are considered to be highly prospective by Lithium Energy.

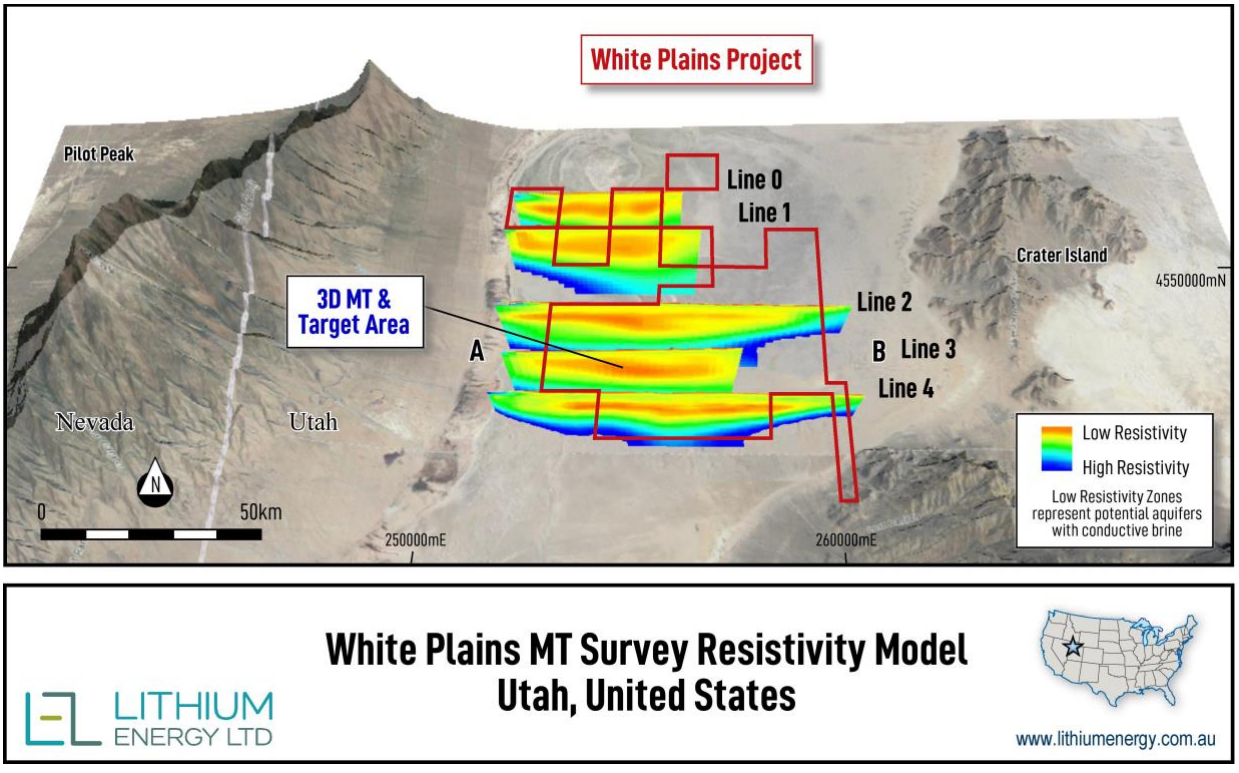

Figure 2: 3D resistivity cross sections from 5 MT survey lines within the White Plains claims area (shown in red)

Identification of Upper and Lower Aquifers

The geophysical data analysis has identified two potential aquifers, with a near surface shallow aquifer (**Upper Aquifer**) and a deeper aquifer (**Deep Aquifer**) starting at ~200m depth with a thickness of ~150m.

The presence of two aquifers is highly encouraging with the current geophysical analysis allowing the Company to now build a comprehensive geological profile of the White Plains Basin architecture and to plan for a drilling programme to test for the presence of lithium bearing salt brines in the basin.

Figures 3, 4 and 5 : Lithium Energy geophysical team members conducting MT survey at White Plains Project, Utah, USA

Importance of MT Survey Data

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.

MT surveys are useful as a tool for outlining the potential for a lithium brine mineralisation, 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.

At White Plains, MT surveys have been utilised (based on the Company's previous exploration experience in salt lakes in Argentina at its Solaroz Lithium Brine Project) on the basis that conductive brines are primarily present in more porous rock units (aquifers) and so laterally continuous flat lying low resistivity zones are likely to be associated with the targeted porous aquifers considered to be prospective for lithium brine mineralisation. This assumption forms the basis for Lithium Energy's main exploration focus.

Exploration Program

Based upon the encouraging results of its passive seismic survey, Lithium Energy has also recently completed a first pass surface sampling from 20 auger holes (to ~2m depth) over White Plains, with the assay results pending completion of analysis and announcement.

2D/3D geological models of the White Plains basin architecture will now be developed, integrating historic exploration data (purchased by the Company) and the results of the recently completed (passive seismic and MT) geophysics and surface sampling.

Lithium Energy proposes to undertake further surface sampling and drilling programs over priority targets to test for the presence of lithium bearing salt brines within the White Plains basin.

About the White Plains Project

Lithium Energy (through its United States subsidiary) has staked 6,870 hectares of mineral claims (796 claims in total) in Utah, United States (**White Plains**), which it considers prospective for potentially hosting lithium brine mineralisation.[2]

White Plains is located approximately 200km west of Salt Lake City and comprises a large portion of a land-locked hypersaline salt pan bounded by mountains on three sides. The Salt Lake City region has been a focus for lithium and potash companies, including Intrepid Potash's (NYSE:IPI) potash at Wendover, US Magnesium's and Waterleaf Resources' direct-lithium extraction (**DLE**) lithium projects at the Great Salt Lake.

White Plains is well serviced by nearby infrastructure, being located adjacent to US Highway 80 and 15km from the town of Wendover (refer Figure 6).

2 Refer LEL ASX Announcements dated 31 July 2025: Quarterly Activities and Cash Flow Report – 30 June 2025 and 5 June 2025: White Plains Lithium Brine Project, Utah, United States

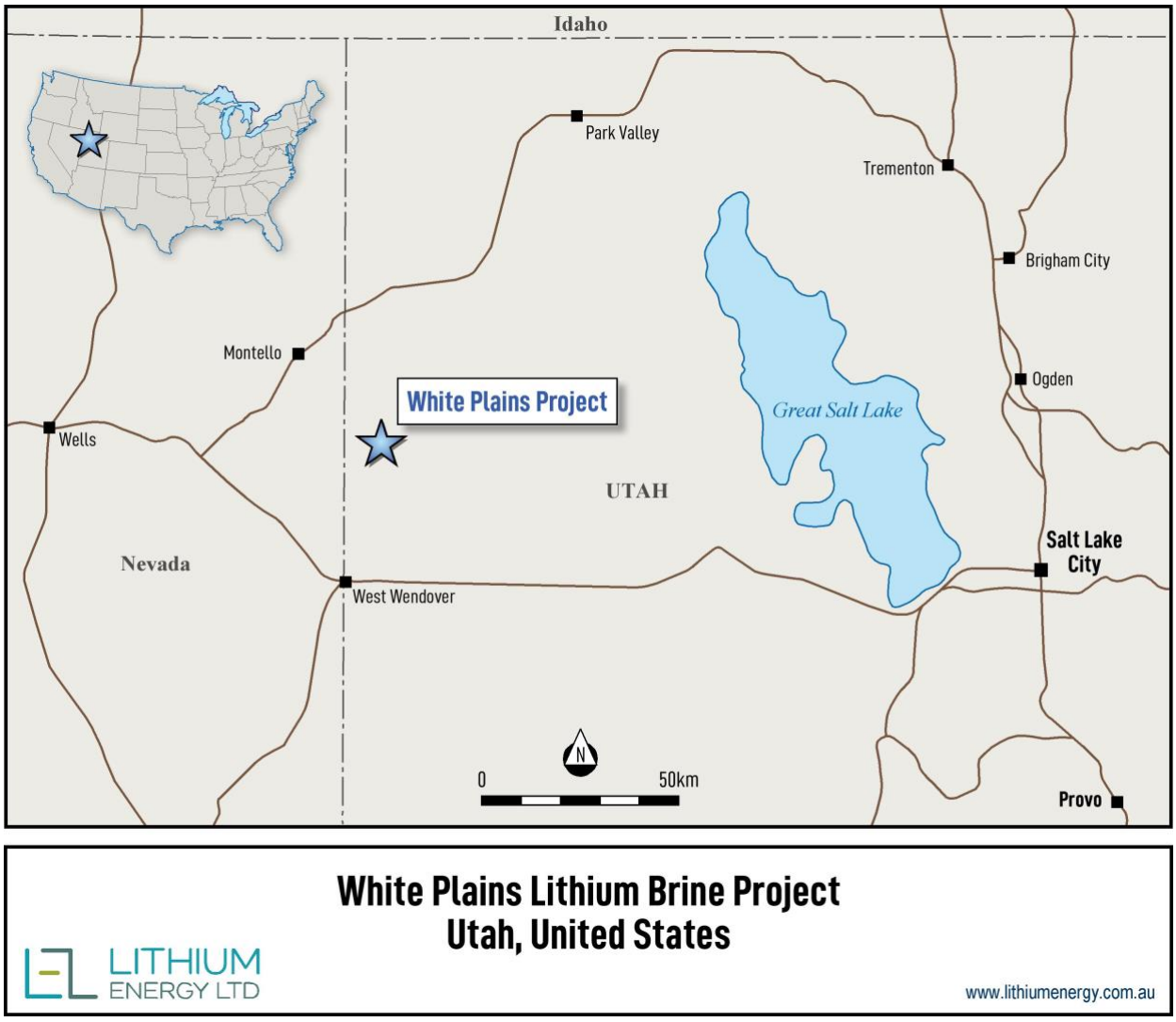

Figure 6: Location of White Plains Lithium Brine Project, Utah, United States

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

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JORC CODE (2012) COMPETENT PERSON STATEMENTS

(a) The information in this document that relates to Exploration Results (in relation to the magnetotelluric (MT) 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.

(b) 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) is extracted from the following ASX market announcement made by Lithium Energy dated:

- 18 June 2025 entitled "Passive Seismic Survey Completed at White Plains Project Revealing Basin Structure"

The information in the original announcement is based on, and fairly represents, information and supporting documentation prepared and compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG). Mr Smith is a Member of the AIG and a 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 JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (referred to above).

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.

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 Phoenix Geophysics Magnetotelluric (**MT**) equipment. The Phoenix MTU-5C receivers were matched with Phoenix wideband Coils and electrode receivers: • Wide band 10kHz – 10,000s • GPS receiver Samples were collected for a 6 hour duration during the day; stations were also placed for overnight collection; nominal station spacings were 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 Phoenix MT equipment works in the 10kHz -10000s 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 MT survey 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 MT readings are continuous in nature, at up to 10000Hz, 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 Phoenix MT equipment is equipped with internal and external GPS and is processed by external consultants proficient in passive MT 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 Phoenix MT equipment has 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.*	The MT survey data are 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.*	The MT survey data are 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 796, 20 acre placer claims totalling approximately 6,870 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 Announcements dated: • 5 June 2025 entitled "White Plains Lithium Brine Project, Utah, United States"; and • 31 July 2025 entitled "Quarterly Activities and Cash Flow Report – 30 June 2025".
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 • 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

Criteria	Explanation	Comments
		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 understanding of the report, the Competent Person should clearly explain why this is the case.*	No drilling results are being presented.
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.*	No brine or core sampling results are being presented.

Criteria	Explanation	Comments
	• *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.*	
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. Geometry and intersection qualifications of open file information are not been 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.*	No plans or cross section representations of drilling are being presented. Figure 1 shows the interpreted A to B cross-section from MT survey Line 3 (shown in Figure 2) and passive seismic survey Line 3 previously reported in the Company's ASX Announcement dated 18 June 2025 entitled " Passive Seismic Survey Completed at White Plains Project Revealing Basin Structure". Figure 2 shows the 3D resistivity cross section of the MT survey results from 5 survey lines within White Plains. Figure 6 shows the location of White Plains in Utah, central USA. Figure 7 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.

Criteria	Explanation	Comments
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 first pass comprehensive geophysical (passive seismic over and MagnetoTelluric geophysics (**MT**)) survey program has been completed, with the results announced by Lithium Energy on ASX. The passive seismic survey results/data will be used to determine the depth of the underlying basement rock (i.e. the theoretical limit of potential lithium mineralisation) underneath the White Plains area. The MT survey results/data will be used to identify the location and thickness of potential lithium-hosting conductive brines underneath the White Plains area. Surface sampling from auger drill holes has been completed, with the results pending announcement by Lithium Energy on ASX 2D/3D geological models of the White Plains basin architecture will be developed, integrating historic exploration data (purchased by the Company) and the results of the completed (passive seismic and MT) geophysics and surface sampling. The Company proposes to undertake further surface sampling and an initial 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 Further drilling programs will aim to locate potentially lithium bearing brines of economic interest, obtain preliminary information related to the hydrogeological and geochemical characteristics of the brine rich aquifer that comprises the salt pan underneath the White Plains area, and delineate a maiden JORC Mineral Resource. 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).

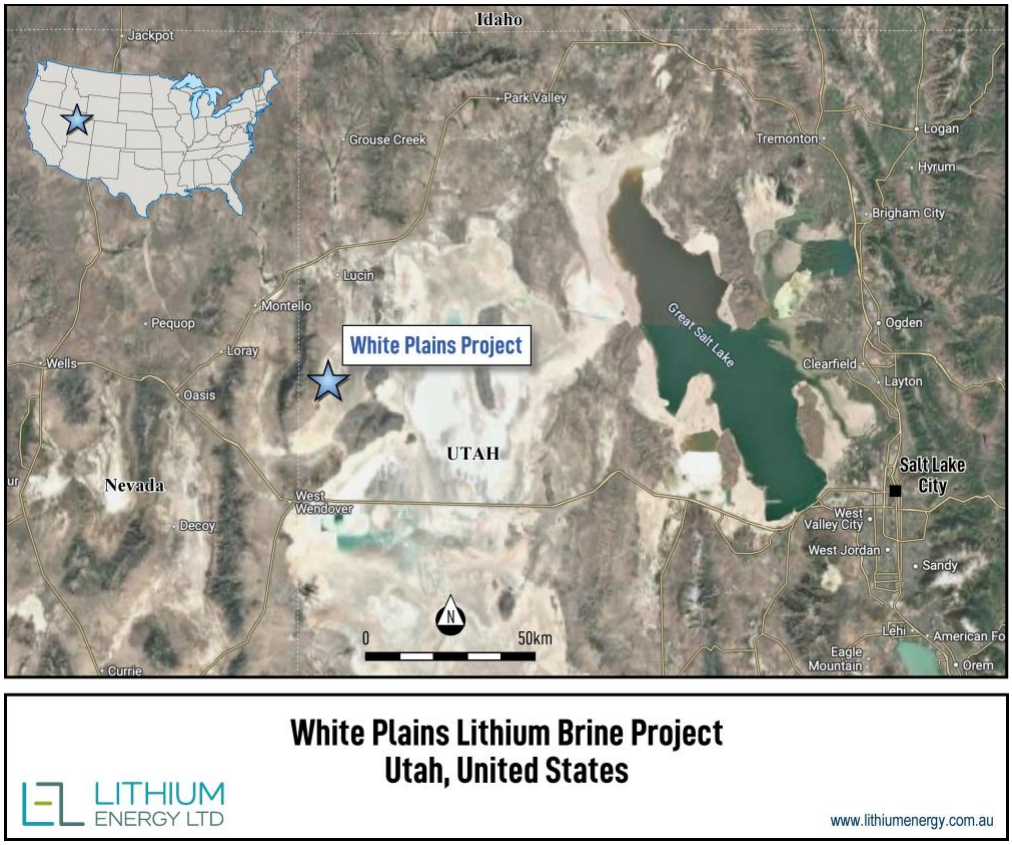

Figure 7: Location of White Plains Lithium Brine Project, Utah, United States