

ASX ANNOUNCEMENT 13 November 2024

# ANT GEOPHYSICAL SURVEY INTERPRETATION IDENTIFIES 7 PRIORITY LITHIUM TARGETS AT WOODY

#### **Highlights**

- Ambient Noise Tomography ("ANT") geophysical interpretation revealed 7, high priority potential drill targets for pegmatite-associated lithium mineralisation.
- Survey data integration with geochemical data shows surface expression of anomalies.

Infinity Mining Limited (ASX: **IMI**) ("Infinity" or the "Company") is pleased to announce it has progressed it's interpretation of the Ambient Noise Tomography ("ANT") geophysical survey to identify seven priority pegmatite targets at the Woody Prospect, Located within the Infinity Project in the Pilbara, see Figure 1.

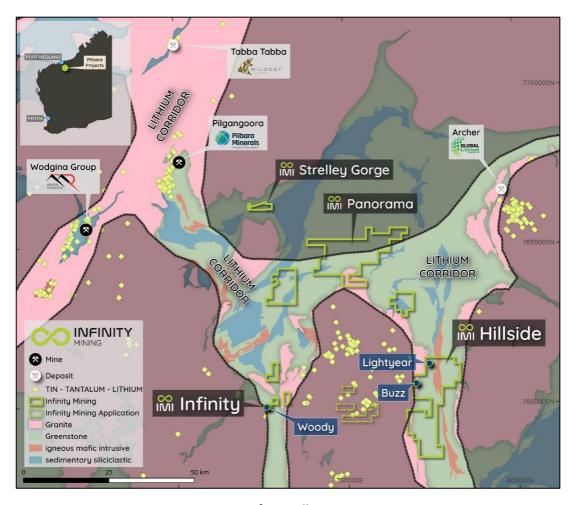


Figure 1: Infinity Pilbara Projects.



# **ANT BACKGROUND**

ANT is a passive ground geophysics method that uses natural or man-made seismic noise as a signal source to measure the seismic velocity of the subsurface in three dimensions. During an ANT survey geodes are place in the ground on a regular grid and record the passive seismic noise over a period of time. Depending nature of the seismic noise, this can take several days, after which the geodes are moved to new sites on the grid.

Once the survey is completed a 3D shear wave (S-wave) velocity model of the ground under the grid is made and in the case of IM's Woody Prospect used to identify potentially sizeable lithium bodies at depth. These larger concealed pegmatite bodies are the roots to the currently exposed pegmatite dykes (Figure 2) and should appear as low S-wave velocity zones due to their lower rock density relative to the surrounding denser greenstones.

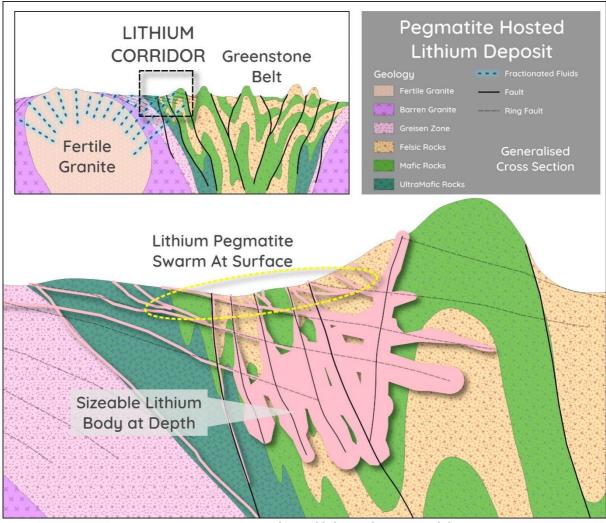


Figure 2: Pegmatite hosted lithium deposit model.

#### THE SURVEY

At the Woody Project, the ANT survey covered the entire tenement E45/4848 and the southern portion of E45/5720.



The grid layout focused on specific areas based on previous findings:

- Western Grid (200m x 200m): Over Li-bearing pegmatite outcrops.
- Eastern Grid (200m x 250m): Focus on concealed targets without known pegmatites.
- **NW Infill Grid (100m x 100m)**: Over prior lag rock chip survey areas showing anomalous Li-Rb-Cs geochemistry and extending south.

An additional grid was established in southern E45/5720 to extend exploration along the northeast trend of pegmatite dykes.

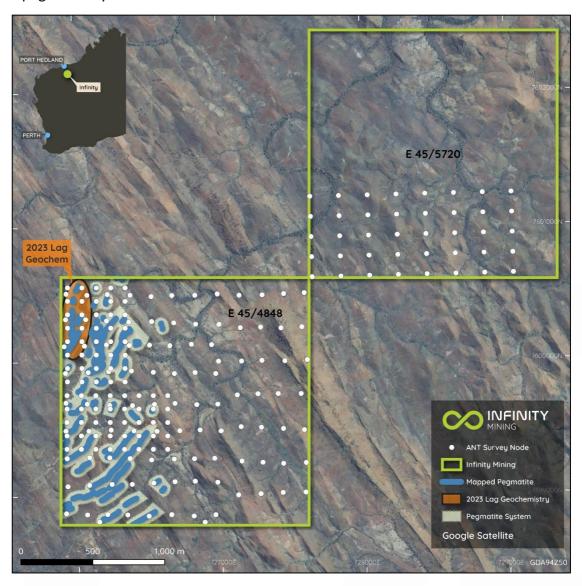


Figure 3: ANT survey node distribution.

### **RESULTS**

Results from the ANT survey were converted into a 3D block model using a kriging extrapolation orientated to the regional NNE geological trend and near vertical dip of the geological units (see Figure 4)



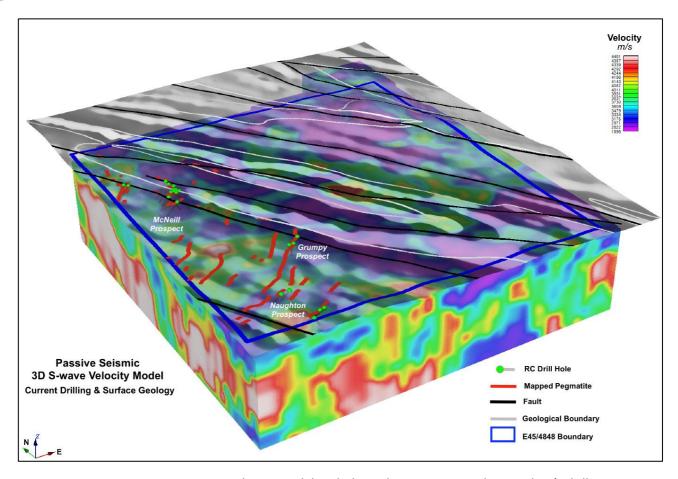


Figure 4. 3D ANT S-wave velocity model with draped magnetics, geology and IM's drilling.

Analysis of the 3D model incorporating 3D magnetic inversions, ground gravity, surface geology and geochemistry and IM's existing drilling identified 7 Targets. The targets are relatively flat lying concealed zones of low density which cut through the steeply dipping stratigraphy, see Figure 5 and Figure 6. The targets also lie below the base of weathering which is easily identified in the seismic data. Exact depths and thicknesses of the targets are different to quantify as their interpretation is based on varying low speed S-wave velocities.



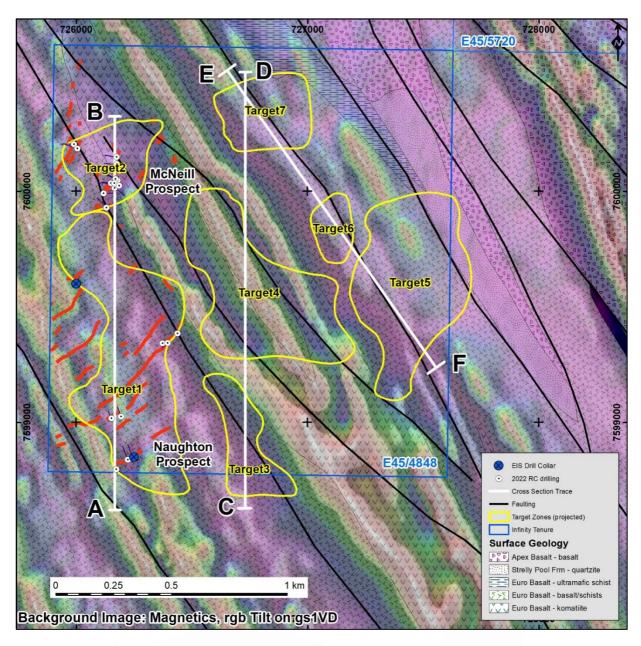


Figure 5. E45/4848 surface geology, drilling and surface projected Target Zones on 2VD magnetics

# **TARGETS**

Two of the target zones, Target 1 and 2, lie directly below mapped outcropping lithium bearing pegmatites and IM's drilling, which intersected spodumene bearing pegmatites dykes at depths, see Figure 5.



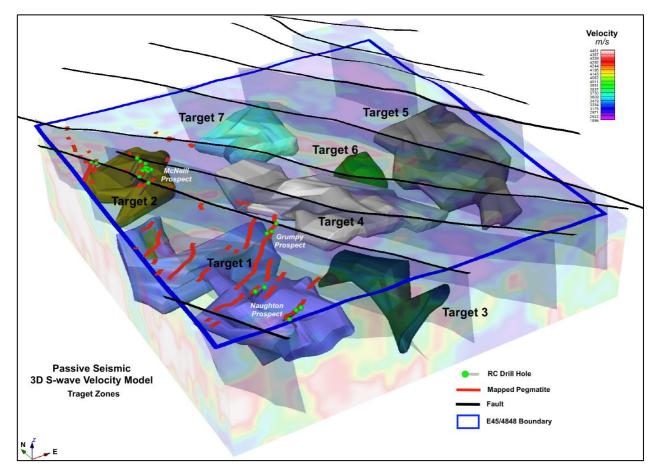


Figure 6. Targets zones with 3D faulting, mapped pegmatites and IM's drilling.

# Target 1

Target 1 is situated within the Euro Basalt along the boundary between a basalt unit and a felsic schist unit, extending approximately 1.2 km north from the Naughton Prospect. The top of this target is estimated to be between 100m and 200m below the surface, as shown in Figure 7. Below the Naughton Prospect drilling, the target extends to approximately 350m in what may be a feeder structure. Thicknesses vary from 30m to 100m. The host basalt exhibits a strong magnetic response along strike from the prospect, which has been disrupted within the target zone. The less magnetic felsic schist to the east also shows subtle magnetic destruction.

#### Target 2

Located at the northern end of the central ultramafic (komatiite) unit of the Euro Basalt, Target 2 exhibits magnetic signature destruction in the komatiite unit. The target lies just below the 2022 RC drilling at the McNeill Prospect (see Figure 7) and measures approximately 350m by 300m, with a thickness of around 40m. It also extends to roughly 350m below the Naughton Prospect drilling area, possibly in a feeder structure.



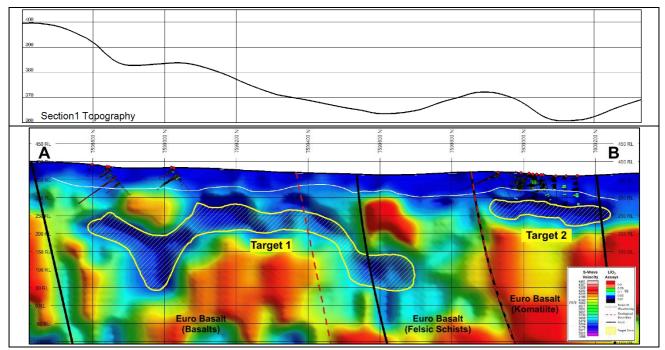


Figure 7. North-south cross-section 1 through Targets 1 and 2. Note, the section is 50m wide and includes data either side the section line. Section location shown in Figure 5.

# Target 3

Targets 3 lies at the southern end of the tenement within felsic schists of the Euro Basalt where they are faulted up against the central komatiite unit. The target is approximately 500m by 150m and 60m thick and dips at ~45° to the north, with the top of the body at the southern end being approx. 60m below the surface and northern end approx. 250m below, see Figure 8. There is possible magnetic destruction in the area however this is overshadowed by strong magnetic response of the adjacent komatiite.

# Target 4

Target 4 lies within the central komatiite unit and lies approx. 35m to 60m below the surface. It is approx. 700m long and up to 500m wide and 60m thick. No pegmatite dykes are exposed in these ultramafic rocks however they are tightly folded and faulted and maybe concealing pegmatites at depth. There is no evidence of strong magnetic destruction despite the body cutting roughly horizontal across the near vertical dip of the komatiite units.



#### Target 5

Target 5 is another large body that lies within basalts and schists of the Euro Basalt, on the eastern side of the komatiite, where they are faulted up against rocks of the Apex Basalt. The body is approx. 850m long and up to 500m wide and lies roughly 70m to 130m below the surface, thanks to ~15° to the north. The area is also partially covered by alluvium and colluvium and displays magnetic destruction.

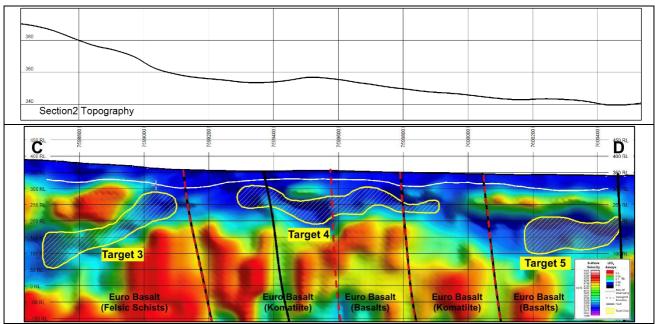


Figure 8. North-south cross-section 2 through Targets 3, 4 and 7. Note, the section is 20m wide and includes data either side the section line. Section location shown in Figure 5.

#### Target 6

Target 6 is approx. 300m long by 150m wide and up to 80m thick. The body lies roughly 150m below the surface between Targets 5 and target 7 and maybe related to the former, see Figure 9. It's also located within basalts and schists of the Euro basalt which are partly covered by alluvium. The area shows magnetic destruction similar to that seen in Target 5.

#### Target 7

Target 7 lies in the central northern part of the tenement. The target is roughly 300m by 250m and the top lies approx. 130m below the surface. It is located within interbedded basalts and schist of the Euro Basalt. There is no evidence of pegmatites however the area is covered by recent alluvium and colluvium. The host basalts also show evidence of magnetic destruction which roughly lines with trends seen in the Target 2 area.



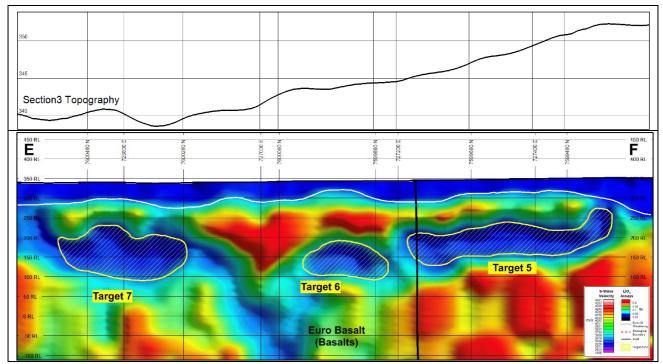


Figure 9. North-West cross-section 3 through Targets 5, 6 and 7. Note, the section is 20m wide and includes data either side the section line. Section location shown in Figure 5.

# **NEXT STEPS**

Infinity Mining has planned two 300m diamond drill holes targeting the northern and southern ends of Target 1, with one hole positioned beneath previous Reverse Circulation (RC) drilling and surface sampling at the Naughton Prospect (see Figure 10).

The diamond core obtained will provide valuable insights into the geology and geochemistry of the Li pegmatites.

Additional exploratory holes are also planned to test other targets, with further detailed drilling contingent on these initial results.



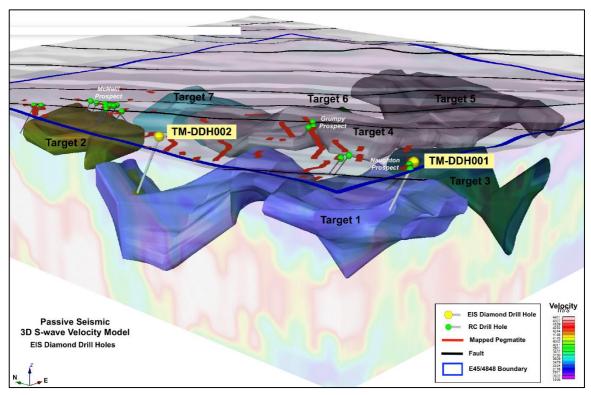


Figure 10: Proposed Drillholes over Passive Seismic 3D Model.

#### Joe Phillips, Executive Chairman of Infinity Mining commented:

"We are thrilled with the results from our recent ANT geophysical survey which has not only identified high-priority lithium targets but also confirmed the effectiveness of advanced passive seismic technology in our exploration strategy. The ability to pinpoint subsurface structures indicative of larger concealed lithium pegmatite bodies gives us a significant advantage as we continue to build the project scale.

Dimond drilling is needed to gain a deeper understanding of these target zones. This next phase of exploration will provide invaluable geological data that will guide our ongoing exploration and contribute to Infinity's growth in the lithium sector. To this end the company is seeking a venture partner to continue the journey Infinity Mining started in 2002."

For further information please contact:

#### **Joe Phillips**

Executive Chairman +61 7 3221 1796 communications@infinitymining.com.au



#### **Company Profile**

Infinity Mining Limited holds a diverse portfolio of projects, spanning over 3,700 km² across highly prospective regions, including NSW's Macquarie Arc, Victoria's Melbourne Zone, and the East Pilbara and Central Goldfields in Western Australia. These tenements host potential high-grade resources, including copper, gold, and other base metals, alongside the Company's existing focus on lithium.

The flagship Cangai Copper Project, a historic high-grade copper mine with a JORC-compliant resource, offers near-term development potential. Infinity's broader portfolio is strategically located near established mining operations, enhancing the economic viability and development timelines of its projects.

#### **Caution Regarding Forward Looking Statements**

Certain of the statements made and information contained in this press release may constitute forward-looking information and forward-looking statements (collectively, "forward-looking statements") within the meaning of applicable securities laws. All statements herein, other than statements of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future, including but not limited to statements regarding exploration results and Mineral Resource estimates or the eventual mining of any of the projects, are forward-looking statements. The forward-looking statements in this press release reflect the current expectations, assumptions or beliefs of the Company based upon information currently available to the Company. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and no assurance can be given that these expectations will prove to be correct as actual results or developments may differ materially from those projected in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include but are not limited to: unforeseen technology changes that results in a reduction in copper, nickel or gold demand or substitution by other metals or materials; the discovery of new large low cost deposits of copper, nickel or gold; the general level of global economic activity; failure to proceed with exploration programmes or determination of Mineral resources; inability to demonstrate economic viability of Mineral Resources; and failure to obtain mining approvals. Readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. The forward-looking statements contained in this press release are made as of the date of this press release and except as may otherwise be required pursuant to applicable laws, the Company does not assume any obligation to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.

#### **Competent Persons Statement**

The information contained in this report that relates to the Exploration Results is based on information compiled by Dr Darryn Hedger, who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Hedger is a Geological Consultant for Infinity Mining and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian JORC Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Hedger consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



# **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	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m 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.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Not Applicable – the ASX Release only contains geophysical results.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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 estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Sample security	The measures taken to ensure sample security.	Not Applicable – the ASX Release only contains geophysical results.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not Applicable – the ASX Release only contains geophysical results.

# **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	<ul> <li>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.</li> <li>The security of tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>South Tambourah is located within tenement E45/4848 held by Infinity Mining Limited.</li> <li>The tenement covers an area of 3.2 sq km.</li> <li>The Infinity tenement (E45/4848) is in good standing.</li> <li>A Heritage Agreement with the Palyku Claimant Group is in place.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>No exploration for Lithium has been reported on E45/4848.</li> <li>A Ta (Li) occurrence in the north-west corner of the E45/4848, Tambourah North 2 is reported in the WAMEX mineral occurrence database but no description of this occurrence was found.</li> <li>Nickel exploration was carried by Anglo (1969-1973). No significant mineralisation was found.</li> <li>Gold exploration was carried by Altura (2012-2015), B Keilor (2001-2005), Mineral Prospectors (1986-1993), BHP (1981-1986) No significant mineralisation was found.</li> <li>Altura recognised Lepidolite bearing pegmatites approx. 2.5km south of the tenement and sampling returned up to 1.38% Li2O (Trautman, 2013). Altura's focus was the granite/greenstone margin, and their tenement was adjacent to E45/848.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Lithium-Cesium-Tantalum (or REE) pegmatites with structurally deformed Archean Greenstones, similar to the Greenbushes, Pilgangoora and Wodgina



Criteria	JORC Code explanation	Commentary
		lithium deposits.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
	this exclusion does not detract from the understanding of the report, the Competent	
Data aggregation methods	<ul> <li>Person should clearly explain why this is the case.</li> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
Relationship between mineralisation widths and intercept lengths	<ul> <li>equivalent values should be clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	Not Applicable – the ASX Release only contains geophysical results.
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.	presented within the ASX Release Body and/or the appendices of the ASX Release.
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 – the ASX Release only contains geophysical results.



Criteria	JORC Code explanation	Commentary
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 contaminating substances.	earth at different frequencies. Geophones are acoustic detectors which are laid out in a grid to record these vibrations and allow subsurface rocks with differing S-wave velocities to be detected.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	'Further work' is presented in the 'Next Steps' section of the ASX Release Body.