# **Drilling of Large Gold-Copper Targets Underway at Thomson**

Two 600m deep holes underway to test large coincident magnetic and gravity anomalies interpreted as potential Intrusion Related Gold and Copper systems.

### **High-impact Drill Targets**

- The F4 and Cut-B anomalies within the Thomson Project, located in far north-west NSW, are defined by discrete, coincident zones of elevated magnetic and gravity data.
- They are two of over a dozen untested, large, discrete geophysical targets within the exploration licences that may potentially represent Intrusion Related Gold-Copper (IRG-Cu) mineralisation.
- The Thomson district and targets share similar characteristics to other major Intrusion Related Gold-Copper (IRG-Cu) districts, such as the Paterson Province in WA, where recent major IRG-Cu discoveries have been made at Winu (2.8Mt Cu, 8Moz Au, 51Moz Ag)<sup>1,1</sup> and Havieron (7Moz Au, 0.3Mt Cu)<sup>11</sup>.

### **Discovery Opportunity**

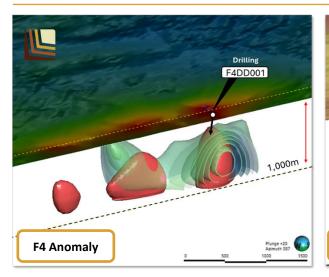
- Legacy Minerals is a first mover in this very under-explored and fertile geodynamic setting with a belt-scale exploration opportunity encompassing 5,500km<sup>2</sup>.
- These anomalies are interpreted to occur on major lithological boundaries or faults observed in the recently completed ambient noise tomography (ANT) magnetic and gravity surveys.
- The anomalies have been concealed beneath younger sedimentary cover rocks interpreted to be <100m and are hosted within the Cambrian-Ordovician basement rocks of the Thomson Orogen.

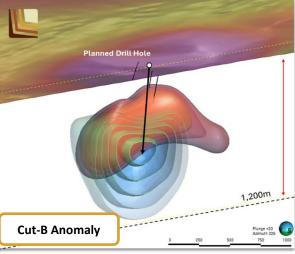
### **Drilling Assays Pending**

 Over 1,000m of previously unsampled drill core has been sent for assays expected to be returned late March - early April including zones of observed mineralisation and alteration<sup>iii</sup>.

### **Drilling Underway**

- Two 600m deep drill-holes for a total of 1,200m are planned to use a combination of mud-rotary and diamond drilling techniques.
- Drilling is anticipated to take up to six weeks to complete.





**Figure 1.** Oblique views of the F4 anomaly (Left image: 6613500mN, MGA94 z54) and Cut-B anomaly (Right image: 249750mE, MGA94 z55). 3D magnetic inversion model anomaly shells (Red >0.006 SI) and gravity anomaly modelled density shells (green >2.72) with surface showing magnetic RTP.

1: For cross-referencing, refer to End Notes on page 17.



Legacy Minerals Holdings Limited (ASX: **LGM**, **Legacy Minerals** or **the Company**) is pleased to advise that drilling of two major copper-gold targets has commenced at its Thomson Project (EL9190, EL9194 and EL9728) in NSW, Australia.

# **Management comment –** Legacy Minerals CEO & Managing Director Christopher Byrne said:

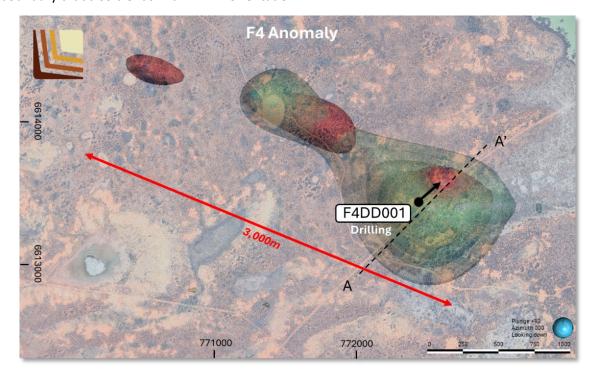
"Following on Legacy Minerals' upgraded gold and silver resource at Drake announced last week, we are pleased to be drilling some major, untested, geophysical targets at our Thomson Project targeting large gold and copper systems. With Government approvals in place to commence drilling at Thomson, we have wasted no time in getting the rig out to the site to start drilling.

We have also received new 3D modelled inversions from the recently completed gravity and ambient noise tomography (ANT) surveys at the Project. These have supported the exceptional targets and their potential as large IRG-Cu systems. The Legacy Minerals team is very encouraged by the coincident gravity and magnetic anomalies that have now been defined across a number of these anomalies. Furthermore, these targets sit on large-scale ANT velocity changes that may represent major lithological contacts, faults which, in some cases, support the interpretation of large intrusions at depth.

The ANT and magnetic models have indicated that basement in these locations is within 100m of the surface, well within the economic depths of a major discovery. The Thomson Project is a rare opportunity to explore a new intrusion-related gold and copper mineral system and is poised for a major discovery in the region and we look forward to keeping our shareholders updated with our progress."

# **F4 Anomaly**

The F4 anomaly is an undrilled, coincident linear magnetic and gravity anomaly striking WNW over a strike extent of about 3km and is approximately 300m wide. Geophysical modelling indicates that the anomaly is a steeply to near-vertical SSW dipping body that sits on an interpreted velocity change boundary that also trends in an WNW orientation.

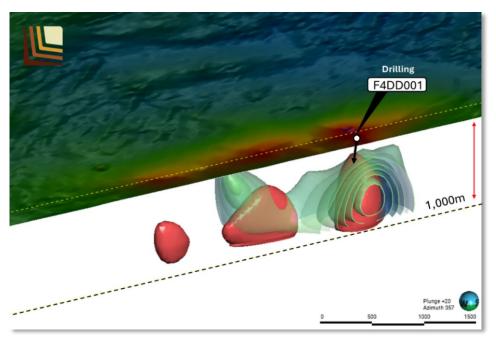


**Figure 2.** Plan view of the F4 magnetic anomaly shells (Red >0.006 SI) and gravity anomaly modelled density shells (green >2.72) over aerial image.

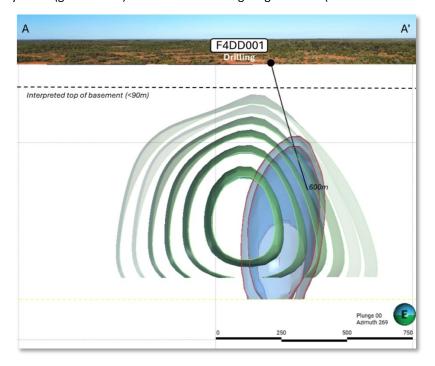


The F4 anomaly's unusual geometry compared to other known felsic-intermediate intrusive units in the Southern Thomson district suggests the cause of the magnetics and gravity anomaly is not due to a similar style intrusive geology unit. Furthermore, the likelihood that the feature is due to an intermediate dyke or sill is also thought to be unlikely due to its relatively short strike length and discrete pipe-like geometry.

The anomaly's isolated nature, its pipe-like geometry, and coincident gravity high and magnetism suggest hydrothermal alteration consistent with that seen elsewhere on the Thomson Project<sup>iii</sup>.



**Figure 3.** F4 anomaly 3D magnetic inversion model anomaly shells (Red >0.006 SI) and gravity anomaly modelled density shells (green >2.72) with surface showing magnetic RTP (section 6613500mN, MGA94 z54).



**Figure 4:** F4 anomaly cross section showing 3D magnetic inversion model anomaly shells (Red/Blue >0.006 SI) and gravity anomaly modelled density shells (green >2.72) with surface showing magnetic RTP (section 772500mE, MGA94 z54).



# **Cut-B Anomaly**

The coincident gravity high and magnetic high anomaly shows the close spatial relationship between magnetic material and dense material located in a favourable structural position. Historical drilling appears to have tested the magnetic anomaly but not the adjacent gravity anomaly, where an increase in the historical assays and mineralised veins was noted. These veins are within a 300m long zone of strong silica, albite, tourmaline and biotite alteration indicative of a large, metalliferous, intrusion-related hydrothermal system.

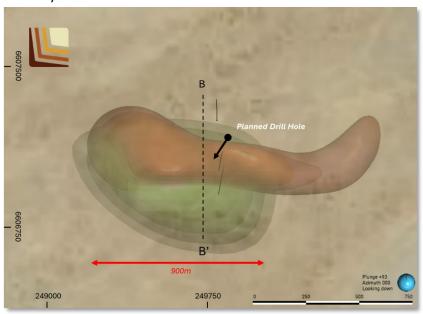
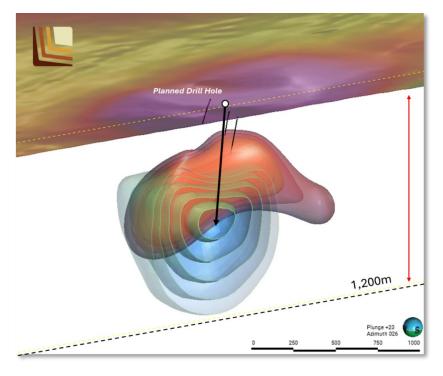
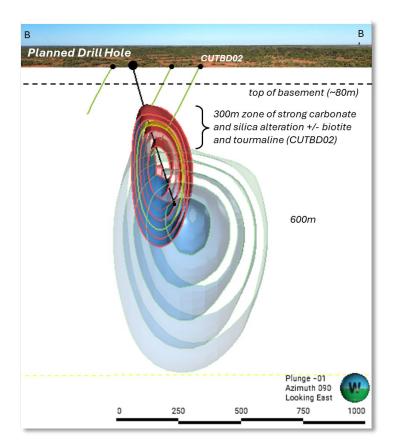


Figure 5 Plan view of the Cut-B magnetic anomaly shells (Red >0.006 SI) and gravity anomaly modelled density shells (green >2.78) over aerial image.



**Figure 6.** Cut-B anomaly 3D magnetic inversion model anomaly shells (Red >0.006 SI) and gravity anomaly modelled density shells (green >2.72) with surface showing magnetic RTP (section 6613500mN, MGA94 z54).



**Figure 7:** Cut-B anomaly cross section showing 3D magnetic inversion model anomaly shells (Red >0.006 SI) and gravity anomaly modelled density shells (green >2.72) with historic drilling and surface showing magnetic RTP<sup>iii</sup> (section 249750mE, MGA94 z55).

# **Thomson Project Targeting**

### **Ground Gravity and Magnetic Modelling**

Geophysical consultant Mitre Geophysics Pty Ltd has completed unconstrained 3D inversion modelling of the recently completed gravity survey over the F4, Cut-B, F3 and Cut-A anomalies, which were recognised as Priority-1 magnetic targets in the Thomson Project.

The ground gravity survey was completed on a regional 1,200m x 1,200m grid pattern with in-fill surveying completed down to 200m x 200m in areas of interest for a total of 540 stations. These surveys covered a total area of approximately  $173 \text{km}^2$ .

The survey results have formed a powerful dataset when used in conjunction with the magnetic 3D unconstrained inversion models that were completed on the available airborne and ground magnetic data.

The modelling was completed for the residual magnetic data of each prospect, selected profiles of the magnetic data for some of the prospects were extracted, and parametric profile (2.5D) modelling of those profiles was completed<sup>iii</sup>.

### **Ambient Noise Tomography Geophysics**

An ANT survey was completed over the project area using Fleet Space Technologies' (<a href="https://www.fleetspace.com">https://www.fleetspace.com</a>) 'Exosphere' technology. The Exosphere ANT technology is a passive seismic exploration technique that utilises seismic noise derived from natural and anthropogenic sources to visualise the three-dimensional subsurface changes in seismic velocity which is collected and modelled in real-time via a satellite network.



ANT surveys completed elsewhere (Benson et. al, 2007 and Chen et. al., 2021) have demonstrated that magmatic intrusions, hydrothermal alteration, and faults can respectively manifest as zones of high and low seismic velocity.

The Thomson Project survey comprised of 200 geodes, spaced approximately 1,200m apart and covered 173km<sup>2</sup>. Data processing used 3D shear velocity models generated via Fleet Space Technologies' proprietary automated data processing.

An initial interpretation has been completed, with several features of interest being:

- East-west trending boundary between mod-velocity and lower-velocity domains suggesting the responses may be lithologically controlled and possibly a major fault trend. The F4 anomaly sits on the boundary of these two velocity domains.
- A low-velocity zone within the Cut-B magnetic anomaly area and semi-coincident with the Cut-B gravity anomaly. This is interpreted to possibly represent a deeper sulphide bearing intrusion manifest as a coincident zone of elevated gravity and magnetic data.
- Significant breaks in high-velocity trends possibly reflecting major, previously unrecognised NNW-SSE trending faults.

# Pending Drilling Assaysiii

Sampling of over 1,000m of previously unsampled mineralised and strongly altered historic drill core is expected to be returned late March - early April 2025 (total of 1,089 samples). These results are expected to further inform future drill targeting at partially tested geophysical anomalies. These assays have the potential to expand previously known mineralised drilling intercepts and provide vectors towards IRG-Cu mineralisation for future drill testing.

### **CUT-A Anomaly**

<u>Cautionary Note – Visual Estimates of Mineralisation:</u> 'Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.'



**Figure 8.** CUTAD01, 225.3m – Unsampled pyrrhotite (brown-bronze)-chalcopyrite (yellow)-pyrite (brass yellow) in quartz vein<sup>iii</sup>.



**Figure 9.** CUTAD01, 433m – Unsampled pyrite (brass yellow) – chalcopyrite (yellow) quartz vein<sup>iii</sup> (see Cautionary Note Page 6).

# **CUTBD03 Anomaly**



**Figure 10.** CUTBD03, 145m – Unsampled pyrite(brass-yellow)-pyrrhotite (brown-bronze) in quartz vein<sup>iii</sup> (see Cautionary Note Page 6).



Figure 11. CUTBD02, 419.8m – Unsampled arsenopyrite (grey) in quartz vein<sup>iii</sup> (see Cautionary Note Page 2).

# 8900000 9100000 9100000 9100000 9100000 9100000

# Thomson Project – Intrusion-Related Gold and Copper

**Figure 12.** Project overview showing EL9190, EL9194, EL9728 and examples of "bullseye" magnetic targets (inset).

Located west of Bourke, the Thomson Project covers 5,500km<sup>2</sup> of tenure under granted and pending exploration licences, securing a belt-scale exploration opportunity for Legacy Minerals shareholders. Legacy Minerals is now exploring nine projects in NSW, with four under farm-in and joint venture agreements covering more than 8,000km<sup>2</sup> of tenure.

The Thomson Project is located near the southern margin of the Thomson Orogen nearby the interpreted contact with the Lachlan Fold Belt and the Delamerian Orogen. The Thomson Orogen covers a large area of Queensland and north-western New South Wales, mostly under cover of the Mesozoic Eromanga Basin.

The dominant basement rocks are interpreted to consist of Cambrian to Ordovician volcanics, metamorphosed turbidite, siltstone, and slate that are intruded by Silurian to Devonian felsic and mafic igneous rocks:

- Several deep stratigraphic drillholes, such as Tongo1, Laurelvale 1, completed by the NSW Geological Survey (GSNSW)<sup>iv</sup>.
- Historic drillholes completed by previous exploration companies.
- The incorporation and interpretation of regional geophysical data (aeromagnetic, gravity and seismic) conducted by the GSNSW with geology logged in drill holes.

The Thomson Project is covered by younger sediments that ranges up to 280m thick. These sediments are part of the Eromanga and the Surat Basin cover sequences.

Historically this cover has partly, deterred exploration and has limited the realisation of the Thomson Orogen's mineral potential. Importantly, historical work indicates that this cover sequence is geophysically transparent, with a number of the key geophysical targeting methods, such as magnetics and gravity, providing highly useful and important data sets.



SIGN UP TO LEGACY MINERALS' INTERACTIVE INVESTOR HUB

The GSNSW has suggested that the basement rocks within the Thomson Orogen can hold similar mineral potential to the adjoining belts, including the base metal and gold endowment of the Lachlan Orogen to the south, which is over 80Moz gold and 13Mt copper. A series of major, belt-scale faults are observable, which may act as major fluid flow conduits during both early extensions and later deformation of the belt.

### For more information:

**Investors:** 

**Chris Byrne** 

**CEO & Managing Director** 

chris.byrne@legacyminerals.com.au

+61 (0) 499 527 547

Media:

**Nicholas Read** 

**Read Corporate** 

nicholas@readcorporate.com.au

+61 (0) 419 929 046

### DISCLAIMER AND PREVIOUSLY REPORTED INFORMATION

Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company's website <a href="https://legacyminerals.com.au/">https://legacyminerals.com.au/</a>. The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

This announcement contains certain forward-looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Legacy Minerals Holdings Limited (LGM). These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement reflect the views of LGM only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, LGM does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward-looking statements is based.

### **COMPETENT PERSON'S STATEMENT**

The information in this Report that relates to Exploration Targets and Exploration Results is based on information compiled by Thomas Wall, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Wall is the Technical Director and a full-time employee of Legacy Minerals Pty Limited, the Company's wholly-owned subsidiary, and a shareholder of the Company. Mr Wall has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Wall consents to the inclusion of the matters based on this information in the form and context in which it appears in this announcement.

The information in this announcement that relates to the Mineral Resource Estimate and classification of the Drake Project is based on information compiled by Kate Kitchen, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Kate Kitchen is an independent consultant employed full time by Mining Plus Pty Ltd. Kate Kitchen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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'). Kate Kitchen consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.



# **About Legacy Minerals**

Legacy Minerals is an ASX-listed public company that has been exploring gold, copper, and base-metal projects in NSW since 2017. The Company has nine projects that present significant discovery opportunities for shareholders.

### Au-Ag Black Range (EL9464, EL9589)

Extensive low-sulphidation, epithermal system with limited historical exploration. Epithermal occurrences across 30km of strike.

### Cu-Au Drake (EL6273, EL9616, EL9727, ALA75)

Large caldera (~150km²) with similar geological characteristics to other major pacific rim low-sulphidation deposits.

### Cu-Au Rockley (EL8926)

Prospective for porphyry Cu-Au and situated in the Macquarie Arc Ordovician host rocks with historic high-grade copper mines that graded up to 23% Cu.

### Au-Cu (Pb-Zn) Cobar (EL9511) Helix JV

Undrilled targets next door to the Peak Gold Mines. Several priority geophysical anomalies and gold in lag up to **1.55g/t Au.** 

### Au-Ag Bauloora (EL8994, EL9464) Newmont JV

One of NSW's largest low-sulphidation, epithermal systems with a 27km<sup>2</sup> epithermal vein field.

### Au Harden (EL9657)

Large historical high-grade quartz-vein gold mineralisation. Drilling includes **3.6m at 21.7g/t Au** 116m and **2m at 17.17g/t Au** from 111m.

### Cu-Au Glenlogan (EL9614) S2 Resources JV

Large, undrilled magnetic anomaly underneath Silurian cover located 55kms from Cadia Valley.

### Au-Cu Fontenoy (EL8995) Earth Al JV

Significant PGE, Au and Cu anomalism defined in soil sampling and drilling. Significant drill intercepts include 120m @ 0.3g/t PGE from 298, and 79m at 0.27% Cu from 1.5m.

### Cu-Au Thomson (EL9190, EL9194, EL9728)

Prospective for intrusion-related gold and copper systems the project contains numerous 'bullseye' magnetic and gravity anomalies that remain untested.

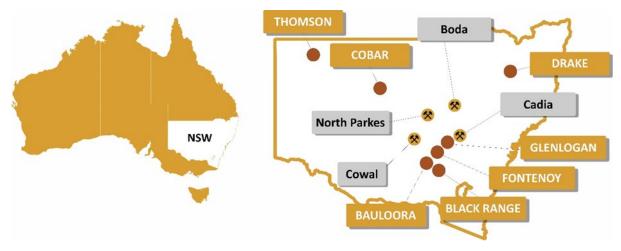


Figure 13. Location of Legacy Minerals' Projects in NSW, Australia, and major mines and deposits

# Appendix 3 – JORC Code, 2021 Edition Table 1

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code Explanation	Commentary
	Nature and quality of sampling (e.g., cut channels,	No drilling conducted.
	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.	The gravity data was collected by Fender Geophysics using a Scintrex CG5 gravimeter. Station spacing was on a 1,200m x 1,200m grid for the regional surveys with infill to 200m x 200m over areas of interest. Gravity stations at ANT geode locations were surveyed using Post Processed Kinematic (PPK) methodology due to the wide (1200m) distribution, while the other stations were surveyed using Real Time Kinematic (RTK) methodology. The survey data was tied to the Australian National Gravity Datum utilising the GA gravity benchmark 64911106 located at Wanaaring.
Sampling Techniques		Ambient Noise Tomography (ANT) Survey was completed by Fender Geophysics. Two hundred (200) Geodes® (Geodes) plus spares enabled for real-time data acquisition and uplink, including live survey monitoring tools via ExoSphere Cloud interface. Station spacing was 1,200m x 1,200m with minor adjustments to account for terrain.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	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 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.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diametre, 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: No drilling conducted. Ground geophysical survey results reported.
	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable: No drilling conducted. Ground geophysical survey results reported.



- ··· ·		
Drill sample		
recovery	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: No drilling conducted. Ground geophysical survey results 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.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not applicable: No drilling conducted.  Ground geophysical survey results reported.
	The total length and percentage of the relevant intersections logged.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Sub-sampling techniques and	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
sample preparation	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	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: No drilling conducted. Ground geophysical survey results reported.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Quality of		Gravity data has been reviewed by consultants and the Competent Person and is considered to be of a good quality and mapping sub-surface density. Anomalies associated with infrastructure have been ignored.
assay data and laboratory tests	For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Fleet Space Technologies Pty Ltd (Fleet Space Technologies) completed two surveys over a month.
		Ambient Noise Tomography (ANT) Survey. Two hundred (200) Geodes® (Geodes) plus spares enabled for real-time data acquisition and uplink, including live survey monitoring tools via ExoSphere Cloud interface.
		Data processing uses 3D shear velocity models generated via Fleet Space Technologies' proprietary automated data processing in ExoSphere Cloud, which allows



		unlimited user access to view and export 3D model results
		Ambient noise tomography uses the Earth's background hum as the signal for measuring subsurface velocity structure. An array of seismic sensors (Geodes) records ambient seismic noise created by natural and anthropogenic sources from which the travel-times of surface waves between pairs of Geodes is extracted via the process of cross-correlation and stacking. This technique effectively transforms each pair into a virtual source-receiver pair, from which the phase velocity versus frequency relationship (dispersion) can be measured and used to model the subsurface velocity structure
	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.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	The verification of significant intersections by either independent or alternative company personnel.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Verification of sampling and	The use of twinned holes.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
	Discuss any adjustment to assay data.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Laurian of	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: No drilling conducted. Ground geophysical survey results reported.
Location of data points	Specification of the grid system used.	The grid system used is GDA94, MGA Zone 55 and zone 54
	Quality and adequacy of topographic control.	Geophysical surveys were conducted using a professional specialist contractor. Their survey control was considered accurate for the context in which it is presented.
Data spacing and distribution	<b>g</b> Data spacing for reporting of Exploration Results.	No spaced data is reported other than geophysical data.
		Ground gravity surveying was completed on a regional 1,200m x 1,200m grid with infill to 200m x 200m over areas of interest. This is considered reasonable for the system models the data is being used for.
		ANT data, based on a $1,200  \text{m} \times 1,200  \text{m}$ grid survey pattern is considered reasonable for the system models the data is being used for.
		At the exploration stage, data spacing is variable and designed to understand the nature and controls on mineralisation.



	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. Whether sample compositing has been applied.	Results are considered early stage, with the nature and controls on mineralisation still being established
	Whether sample compositing has been applied.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Orientation of data in relation to geological structure		The orientation of the grid isn't relevant to the outcome of the Gravity and ANT data collection
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	An array of seismic sensors (Geodes) records ambient seismic noise created by natural and anthropogenic sources from which the travel-times of surface waves between pairs of Geodes are extracted via the process of cross-correlation and stacking. This technique effectively transforms each pair into a virtual source-receiver pair, from which the phase velocity versus frequency relationship (dispersion) can be measured and used to model the subsurface velocity structure
	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.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Sample security	The measures taken to ensure sample security.	Not applicable: No drilling conducted. Ground geophysical survey results reported.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable: No drilling conducted. Ground geophysical survey results reported.

# **Section 2 Reporting of Exploration Results**

(Criteria in this section apply to all succeeding section)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Status	Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, 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 Thomson Project is comprised of EL9190, EL9194 and EL9728. The licences are owned 100% by Starlight Exploration Pty Ltd (a fully owned subsidiary of Legacy Minerals Holdings Ltd). There is a 1.5% NSR on EL9190 and EL919 which can be purchased by Starlight Exploration Pty Ltd at any stage.  The land is primarily western lands lease.  One Native Title claim is registered over the area (NNTT #NC1997/032).
		All of the tenements are current and in good standing.
Exploration  Done by Other	Acknowledgment and appraisal of exploration	Early exploration throughout the 1980's was undertaken by WMC, Dominion, Norand and Preussag Australia in search for phosphate.
Parties	by other parties.	Throughout 2005 to 2010 exploration was focused on the search for Cobar Type



orebodies. Work during this time was completed by Compass Resources, Platsearch, Minotaur and Thomson Resources. Exploration work completed consisted of detailed airborne magnetics and radiometrics, limited detailed ground magnetics and detailed ground gravity surveys. 17 drill holes were attempted to test interpreted buried magnetic bodies. Drilling was plagued by wet weather and poor drilling conditions, however successful tests discovered large alteration systems with magnetism attributable to hydrothermal pyrrhotite. The basement rocks in the project area form part of the Thomson Orogen, but these rocks are covered by younger sediments of the Eromanga Basin and do not outcrop within the tenements. Targets in the basement beneath the cover rocks are the focus of the Company's exploration activities. The Thomson Orogen is one of the most poorly understood major orogenic belts in Australia. It covers a vast area of south central Queensland and extends into northwestern New South Wales, where the Company's tenements are located. The southern part of the Thomson Orogen is a major east-west oriented structure that runs broadly parallel to the Queensland-New South Wales border. Aeromagnetic data can be used to map structures in the basement, as well as to identify key anomalies that may be associated with mineralisation. A cooperative program between the Geological Surveys of Queensland and

New South Wales and Geoscience Australia that commenced in 2005 led to a better understanding of the regional potential. High quality aeromagnetic data became available from this program, and this led to drill testing of some of the anomalies by a small number of companies.

The southern Thomson Orogen is considered prospective for copper-gold intrusionrelated deposits. These deposits can often have a magnetic signature that reflects either magnetic minerals associated with the alteration or ore bearing fluids. Discrete gravity anomalies may reflect the hydrothermal intrusion related system.

Not applicable: No drilling conducted. Ground geophysical survey results reported.

Geology

Deposit type, geological setting and style of mineralisation

Drill hole

Information

understanding of the exploration results including tabulation of the following information for all Material drill holes:

• Easting and northing of the drill hole collar

A summary of all information material to the

- •Elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar
- Dip and azimuth of the hole



SIGN UP TO LEGACY MINERALS' **INTERACTIVE INVESTOR HUB** 

**ASX: LGM** 

	<ul><li>Down hole length and interception depth</li><li>Hole length</li></ul>	
	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.	Not applicable: No drilling conducted. Ground geophysical survey results reported
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: No drilling conducted. Ground geophysical survey results reported
	Where aggregated 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: No drilling conducted. Ground geophysical survey results reported
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable: No drilling conducted. Ground geophysical survey results reported
Relationship		
between	These relationships are particularly important in the reporting of exploration results. If the	
mineralisation	geometry of the mineralisation with respect to	Not applicable: No drilling conducted.
widths and	the drill hole angle is known, its nature should be reported. If it is not known and only the down	Ground geophysical survey results reported
intercept	hole lengths are reported, there should be a	
lengths	clear statement to this effect.	
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 plane view of drill hole collar locations and appropriate sectional views.	Not applicable. No drilling. Refer to Figures in body of text. A prospect location map and plan view are shown in the report.
Balanced	Where comprehensive reporting of all Exploration Results is not practical,	See body of the report.
Reporting	representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results reported in this release have bee compiled from open file information and appropriately listed in the reference list.
		All material or meaningful data collected h been reported. The geological results are discussed in the body of the report.
Other	Other exploration data, if meaningful and material, should be reported including (but not	All results reported in this release have bee compiled from open file information and appropriately listed in the reference list.
substantive	limited to): geological observation; geophysical survey results; geochemical survey results; bulk	Magnetic data was a fixed wing survey
exploration	samples – size and method of treatment;	completed by UTS Geophysics Pty Ltd. Line spacing was 100m, traverse direction
data	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	180deg, tie-lines of 1000m, tie-lines 90 deg and sensor height 20m. Magnetic data mag magnetism in the rocks and hydrothermal alteration has been shown to occur with hydrothermal magnetic pyrrhotite in histor drilling.
		Dipole-Dipole Induced Polarisation survey was completed in 2008 by Zonge Geophysi



		and included 4 N-S Oriented lines at 4 different magnetic anomalies (CutB,CutA, CutAC and CutD) at 100m spacing. IP maps chargeability of the rocks in the CutA anomaly appear to be mapping sulphide alteration and veins intercepted in drilling.  Haines Surveys completed a ground gravity survey in 2008. Survey consisted of 2,000 stations at 50m by 50m.
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, provided this information is not commercially sensitive.	See body of report. See figures in body of report. Further exploration will be planned based on ongoing drill results, geophysical surveys and geological assessment of prospectivity.

### **Endnotes**

<sup>1</sup> ASX Release RIO, 20 February 2025, Reserves and Resources - Supporting Information and Table 1s

Winu Total Mineral Resource (Indicated and Inferred):

Tonnage (Mt)	% Cu Grade	Au (g/t)	Ag (g/t)
721	0.4%	0.34	2.21

ii Greatland Gold, 28 February 2024, Presentation Building a platform for growth

Greatland Gold Total Mineral Resource (Indicated and Inferred):

Tonnage (Mt)	% Cu Grade	Au (g/t)
131	0.21%	1.7

iii LGM ASX Release, 9 December 2024, Thomson Drill Targets Announcement 4 December 2024 - Amended



iv Minview, Geological Survey of NSW: MinView | Regional NSW | Mining, Exploration and Geoscience

<sup>&</sup>lt;sup>v</sup> Lachlan Fold Belt Project <a href="https://www.ga.gov.au/about/projects/resources/lachlan">https://www.ga.gov.au/about/projects/resources/lachlan</a>