

## ASX Announcement 4 December 2024

# 3D Modelling Delivers Compelling Drill Targets at Thomson Project

Upcoming drilling to be funded through the recent \$3M capital raise<sup>i,1</sup>

## 3D magnetic and gravity modelling delivers exciting results

- New 3D modelling of magnetic anomalies has highlighted the quality of the undrilled targets, consistent with an intrusion-related gold and copper deposit model (IRG-Cu).
- Historical drill results show increased levels of pathfinder elements consistent with IRG-Cu systems adjacent to untested modelled magnetic and/or gravity bodies.

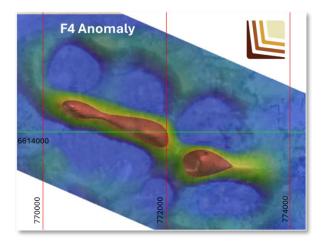
## Significant amounts of historical core, with visible mineralisation unsampled

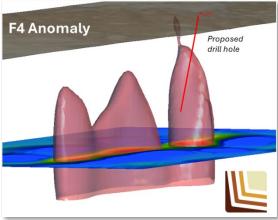
- Logging and sampling of previously unsampled mineralised and strongly altered historic drill core will commence shortly to inform future drill targeting.
- Assays from re-sampling this historic drill core are expected in early Q1, 2025.
- These assays have the potential to expand previously known mineralised drilling intercepts and provide vectors towards IRG-Cu mineralisation for future drill testing.

## Cutting-edge geophysics and Artificial Intelligence to help refine drill targets

A 3D gravity and passive seismic survey (Ambient Noise Tomography) will commence imminently to refine high-priority targets for drill testing.

- The 3D data acquisition survey captures seismic and gravity data facilitated by edge computing and rapid data processing. This will deliver real-time 3D mapping of the underlying geology.
- Artificial Intelligence computing will be applied to the geophysical and new drill assay data to help increase the potential for a successful mineral discovery at the Project.
- Fleet Space has built a unique knowledge of NSW geology, intrusion-related, and porphyry deposits. This expertise will be critical in helping the Company identify and drill test-quality IRG-Cu targets within the Project.





**Figure 1:** Plan view of the F4 anomaly, which starts 200m from surface. **Figure 2:** Oblique view (looking NE) of the F4 anomaly and proposed drill hole (section 6,613,500mN, MGA94 z54).

1: For cross-referencing, refer to End Notes on page 15.



Legacy Minerals Holdings Limited (ASX: **LGM**, **Legacy Minerals** or **the Company**) is pleased to provide an update on its Thomson Project (EL9190, EL9194 and EL9728) in NSW, Australia.

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

"The new 3D models have provided exceptional insights into the potential for the IRG-Cu systems within the Thomson Project. Targeting mineralised zones in IRG-Cu systems can be difficult; however, the Legacy Minerals team and our consultants are very encouraged with the updated magnetic and gravity models as they remain consistent with the interpreted IRG-Cu target model.

"The models have given important resolution to the geometry of previously identified magnetic anomalies and highlight new shallower potential drill targets. A historical drilling review has confirmed that some of these anomalies are associated with large hydrothermal alteration systems containing magnetic pyrrhotite.

"We believe that the Thomson Project has the potential to host a new intrusion-related gold and copper mineral system and is poised for a major discovery in the region. The addition of Fleet Space's global knowledge of the geophysical characteristics of these systems and their cutting-edge AI and seismic technology makes them a tremendous addition in our search for globally significant deposits."

# **Thomson Project Targeting Update**

## **Magnetic Modelling and Unsampled Historical Drill Core**

Geophysical consultant Mitre Geophysics Pty Ltd extracted magnetic data from the available airborne and ground magnetic data for eight Priority-1 magnetic targets in the Thomson Project. 3D unconstrained inversion models were completed of the residual magnetic data for each prospect, and selected profiles of the magnetic data for some of the prospects were extracted, and parametric profile (2.5D) modelling of those profiles was completed. Gravity modelling was also completed.



**Figure 3:** CUTAD01, 433m – Unsampled pyrite (brass yellow) – chalcopyrite (yellow) quartz vein (see Appendix 1, Drill Log Summaries).

<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.'

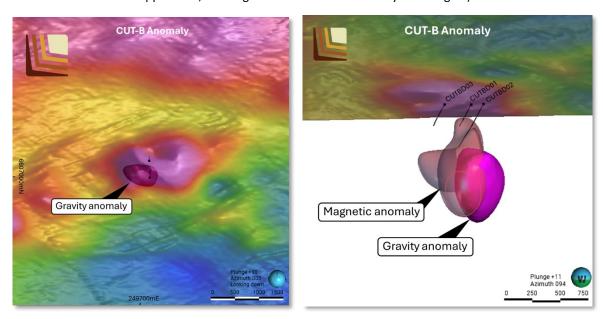


## **CUT-B Anomaly**

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<sup>ii</sup> 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 4:** CUTBD03, 145m – Unsampled pyrite(brass-yellow)-pyrrhotite (brown-bronze) in quartz vein (see Appendix 1, Drill Log Summaries and Cautionary Note Page 2).



**Figure 5:** Plan view of the CUT-B magnetic and gravity anomaly. **Figure 6:** Untested gravity high anomaly (density >2.8) adjacent to magnetic anomaly shells (>0.005 SI) (section 249,700mE, MGA94 z55).



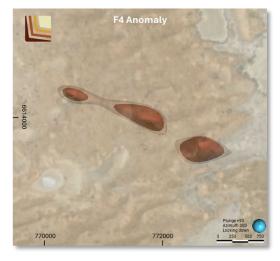
Figure 7: CUTBD02, 419.8m – Unsampled arsenopyrite (grey) in quartz vein (see Appendix 1, Drill Log Summaries and Figure 3 Cautionary Note Page 2).

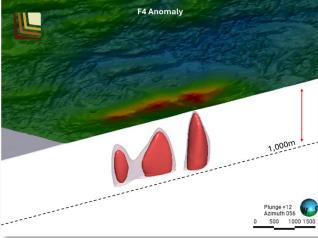
## **F4 Anomaly**

The F4 anomaly is an undrilled, linear magnetic anomaly striking WNW over a strike extent of about 3km and is approximately 300m wide. Profile modelling indicates that the magnetic anomaly is a steeply to near-vertical SSW dipping body.

Its unusual geometry compared to other known felsic-intermediate intrusive units in the Thomson suggesting the cause of the magnetics is not due to a similar 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 pipe-like geometry.

The anomaly's isolated nature, its pipe-like geometry, and magnetism suggest hydrothermal alteration consistent with that seen elsewhere on the Thomson Project, which increases the target's priority ranking.





**Figure 8:** Plan view of the F4 magnetic anomaly shells (>0.006 SI) over aerial image. **Figure 9:** 3D magnetic inversion model anomaly shells (>0.006 SI) (section 6613500mN, MGA94 z54).

# **CUT-A Anomaly**

This is a large mineralised system extending over a 1,000m strike length. A 480m zone of alteration intercepted in historic drilling is characterised by silicification, carbonation, veining and brecciation indicating an extensive mineralized hydrothermal system. IRG-Cu pathfinder historical assays up to 2.53g/t Au, 58g/t Ag, 0.12% Bi, 105ppm Mo, 1.8%Pb and 1.0% Zn indicate proximity to sourceiii.



Figure 10: CUTAD01, 225.3m - Unsampled pyrrhotite (brown-bronze)-chalcopyrite (yellow)-pyrite (brass yellow) in quartz vein (see Appendix 1, Drill Log Summaries and Figure 3 Cautionary Note Page 2).

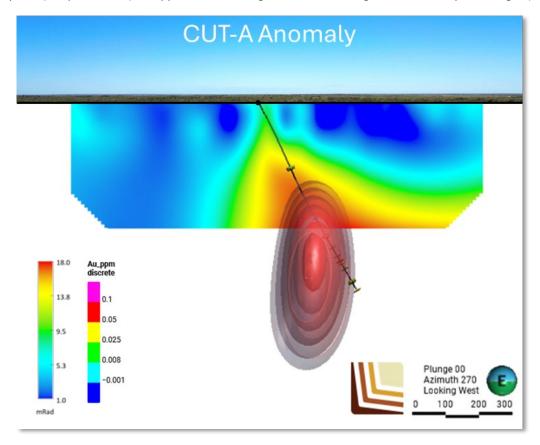


Figure 11: Coincident magnetic (>0.0045 SI shells) and IP chargeability anomaly showing limit of historical sampling and historic drill hole anomalous gold values (section 232,900mE, MGA94 z55)iv.



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# Thomson Project – Intrusion-Related Gold and Copper

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

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Located west of Bourke, the Thomson Project covers 5,500km<sup>2</sup> of tenure under granted and pending exploration licenses, 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>v</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 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.

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<sup>vi</sup>. 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.



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## Approved by the Board of Legacy Minerals Holdings Limited.

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## **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, Exploration Results, Mineral Resources or Ore Reserves 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.



# **About Legacy Minerals**

Legacy Minerals is an ASX-listed public company that has been acquiring and exploring gold, copper, and basemetal 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 ( $\sim$ 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 highgrade 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 AI 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.

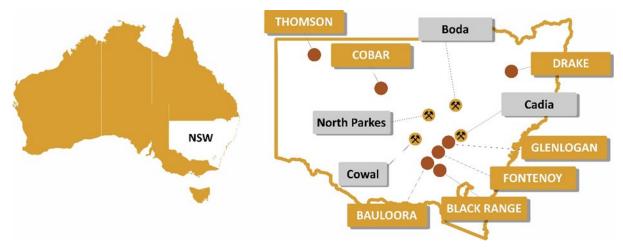


Figure 13: Location of Legacy Minerals' Projects in NSW, Australia, and major mines and deposits

# Appendix 1 – Drill log vein summaries

| Reference | Estimated<br>Vein % | Estimated<br>Sulphide<br>% | Preliminary Observations - nature of mineral occurrence, mineral identification and estimated sulphide proportion |
|-----------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------|
| Figure 3  | 25                  | 15                         | Qtz vein with py (12%) and cpy (3%)                                                                               |
| Figure 4  | 80                  | 20                         | Qtz vein with py (15%) and po (5%)                                                                                |
| Figure 7  | 90                  | 10                         | Qtz vein with apy (10%)                                                                                           |
| Figure 10 | 20                  | 10                         | Qtz vein with po (8%), pyrite (1%) and cpy (1%)                                                                   |

Observation codes: qtz – quartz, cpy – chalcopyrite, hem – hematite, py – pyrite, po – pyrrhotite, apy - arsenopyrite.

# Appendix 2 – 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, random chips, or specific specialised industry                                                                                                                           | No subsampling has been undertaken with the current works.                                                                                                                                                                                                |
|                        | 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. | All information reported is from historically acquired geophysics.                                                                                                                                                                                        |
|                        |                                                                                                                                                                                                                              | Magnetic data was an airborne magnetic survey completed by UTS Geophysics Pty Ltd in 2007 and 2009 using:                                                                                                                                                 |
|                        |                                                                                                                                                                                                                              | UTS tail stinger magnetometer installation.                                                                                                                                                                                                               |
|                        |                                                                                                                                                                                                                              | Cesium Vapour total field magnetometer.                                                                                                                                                                                                                   |
|                        |                                                                                                                                                                                                                              | <ul> <li>Fluxgate three component vector<br/>magnetometer.</li> </ul>                                                                                                                                                                                     |
|                        |                                                                                                                                                                                                                              | <ul> <li>RMS Aeromagnetic Automatic Digital<br/>Compensator (AADC II).</li> </ul>                                                                                                                                                                         |
| Sampling<br>Techniques |                                                                                                                                                                                                                              | <ul> <li>Diurnal monitoring magnetometer<br/>(Scintrex Envimag or Geometrics GR-856).</li> </ul>                                                                                                                                                          |
|                        |                                                                                                                                                                                                                              | Line spacing was 100m, traverse direction<br>180deg, tie-lines of 1000m, tie-lines 90 deg<br>and sensor height 20m. Magnetic data maps<br>magnetism in the rocks.                                                                                         |
|                        |                                                                                                                                                                                                                              | Haines Surveys completed a ground gravity survey in 2008. Survey consisted of 2,000 stations at 50m by 50m. Gravity data is acquired with a Scintrex CG-3M Autograv Gravity Meter and Real Time Kinematic GPS accuracy for detailed projects. (+/- 0.5m). |
|                        |                                                                                                                                                                                                                              | Dipole-Dipole Induced Polarisation survey was completed in 2008 by Zonge Geophysics and included 4 N-S Oriented lines at 4 different magnetic anomalies (CutB, CutA, CutAC and CutD) at 100m spacing.                                                     |



|                                                         | 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. |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                                                         | 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. |
| Drilling<br>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. |
|                                                         | Method of recording and assessing core and chip sample recoveries and results assessed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Not Applicable. No drilling conducted. |
| Drill sample                                            | Measures taken to maximise sample recovery and ensure representative nature of the samples.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Not Applicable. No drilling conducted. |
| 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. |
| 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 logging.            |
| Logging                                                 | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Not Applicable. No logging.            |
|                                                         | The total length and percentage of the relevant intersections logged.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Not Applicable. No drilling conducted. |
|                                                         | If core, whether cut or sawn and whether quarter, half or all core taken.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Not Applicable. No drilling conducted. |
| Sub-sampling<br>techniques and<br>sample<br>preparation | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Not Applicable. No drilling conducted. |
|                                                         | For all sample types, the nature, quality and appropriateness of the sample preparation technique.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Not Applicable. No drilling conducted. |
|                                                         | Quality control procedures adopted for all subsampling stages to maximise representivity of samples.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Not Applicable. No drilling conducted. |



|                                                     | 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.                                                                                                                                                                                                                           |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                     | Whether sample sizes are appropriate to the grain size of the material being sampled.                                                                                                                                            | Not Applicable. No drilling conducted.                                                                                                                                                                                                                           |
| Quality of<br>assay data and<br>laboratory<br>tests | 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.                                                                                                                                                                                                                           |
|                                                     | 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. | Magnetics data has been reviewed by consultants and the Competent Person and is considered to be of a good quality and mapping sub-surface magnetic material. Anomalies associated with infrastructure (e.g. historic tailings and buildings) have been ignored. |
|                                                     | 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.                                                                                                                                                                                                                           |
|                                                     | The verification of significant intersections by either independent or alternative company personnel.                                                                                                                            | Not Applicable. No drilling conducted.                                                                                                                                                                                                                           |
| Verification of sampling and                        | The use of twinned holes.                                                                                                                                                                                                        | Not Applicable. No drilling conducted.                                                                                                                                                                                                                           |
| assaying                                            | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.                                                                                                       | Not Applicable. No drilling conducted.                                                                                                                                                                                                                           |
|                                                     | Discuss any adjustment to assay data.                                                                                                                                                                                            | Not Applicable. No drilling conducted.                                                                                                                                                                                                                           |
| Loration 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.                                                                                                                                                                                                                           |
| 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 survey was conducted using a professional specialist contractor. Their survey control was considered accurate for the context in which it is presented.                                                                                              |
|                                                     | Data spacing for reporting of Exploration<br>Results.                                                                                                                                                                            | No spaced data is reported other than geophysical data.                                                                                                                                                                                                          |
|                                                     |                                                                                                                                                                                                                                  | Magnetics data, based on 100m flightlines is considered reasonable for the system models the data is being used for.                                                                                                                                             |
| Data spacing<br>and                                 |                                                                                                                                                                                                                                  | Dipole-Dipole Induced Polarisation survey was completed at 100m spaced dipoles, n=10/11.                                                                                                                                                                         |
| distribution                                        |                                                                                                                                                                                                                                  | Haines Surveys completed a ground gravity survey in 2008. Survey consisted of 2,000 stations at 50m by 50m.                                                                                                                                                      |
|                                                     | 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)                                  | Survey lines were N-S. This is considered the best orientation to assess alteration localized along E-W striking structures. The orientation of key structures may be locally                                                                                    |
|                                                     |                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                  |



|                                    | and classifications applied. Whether sample compositing has been applied.                                                                                                                                  | variable and any relationship to mineralisation has yet to be identified.                                                                                                                                                                                        |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | Whether sample compositing has been applied.                                                                                                                                                               | None has been applied                                                                                                                                                                                                                                            |
| Orientation of<br>data in relation | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.                                                 | With reference to the magnetic data – flightlines were flown on an orientation 180 degrees, which is generally perpendicular to the interpreted principal geological structures.                                                                                 |
|                                    |                                                                                                                                                                                                            | With reference to IP Geophysics – lines were oriented N-S, which is approximately perpendicular to the principal E-W oriented geological structure.                                                                                                              |
| to geological<br>structure         |                                                                                                                                                                                                            | Haines Surveys completed a ground gravity survey in 2008. Survey consisted of 2,000 stations at 50m by 50m.                                                                                                                                                      |
|                                    | 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. | No new sampling reported in this release.                                                                                                                                                                                                                        |
| Sample<br>security                 | The measures taken to ensure sample security.                                                                                                                                                              | No samples were collected. The Company has in place protocols to ensure data security.                                                                                                                                                                           |
| Audits or reviews                  | The results of any audits or reviews of sampling techniques and data.                                                                                                                                      | Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the drilling programme. Internal reviews of the data by the company's geologists have found the data to be of high quality. |

## **Section 2 Reporting of Exploration Results**

(Criteria in this section apply to all succeeding section)

| Criteria                               | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                    | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mineral<br>Tenement and<br>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 Thoms 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.  Early exploration throughout the 1980's was                                                                                                                                                                                                                                                                                                                                                                                                                |
| Exploration  Done by Other  Parties    | Acknowledgment and appraisal of exploration by other parties.                                                                                                                                                                                                                                                                                                                                                            | undertaken by WMC, Dominion, Norand and Preussag Australia in search for phosphate. 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

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.

# Drill hole Information

Geology

A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:

Deposit type, geological setting and style of

mineralisation

- Easting and northing of the drill hole collar
- •Elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar
- Dip and azimuth of the hole
- Down hole length and interception depth
- Hole length

Not Applicable. No drilling.

small number of companies.



|                                                     | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                     |                                                                                                                                                                                                                                                                                                                               | No drilling results reported in this release.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Data<br>aggregation<br>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.                                                                                                                       | The 3D magnetic inversion modelling was completed by Mitre Geophysics Pty Ltd using MGinv3D written by Scientific Computing and Applications. The input data was extracted from existing 2007 or 2009 detailed airborne magnetic surveys. The models consisted of a 3D mesh of cells with dimension 20m x 20m x 10m to a depth of 1000m for targets CutA, CutB, F1, F2, & F3, and 40m x 40m x 10m to a depth of 1000m for the larger target areas at TW1, F4, F6 & Paroo. The 3D inversion process is unconstrained so there are no controls over the magnetic susceptibility that can be allocated to each cell, except that it must remain positive. It must be noted that any unconstrained magnetic inversion model is only one possible solution to a non-unique problem and should always be treated with some caution. |
|                                                     | 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 aggregation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                     | The assumptions used for any reporting of metal equivalent values should be clearly stated.                                                                                                                                                                                                                                   | Not applicable. No aggregation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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. | Not applicable. No drilling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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<br>Reporting                               | Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.                                                                                                       | See body of the report.  All results reported in this release have been compiled from open file information and appropriately listed in the reference list.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Other<br>substantive<br>exploration                 | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment;                                                                                           | All material or meaningful data collected has been reported. The geological results are discussed in the body of the report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



#### data

metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. All results reported in this release have been compiled from open file information and appropriately listed in the reference list.

The magnetic survey data was reported by Thomson Resources in the annual reports for 2008 and 2010 and available through the NSW Government portal. Magnetic data was a drone survey completed by UTS Geophysics Pty Ltd. Line spacing was 100m, traverse direction 180deg, tie-lines of 1000m, tie-lines 90 deg and sensor height 20m. Magnetic data maps magnetism in the rocks and hydrothermal alteration has been shown to occur with hydrothermal magnetic pyrrhotite in historic drilling.

Dipole-Dipole Induced Polarisation survey was completed in 2008 by Zonge Geophysics 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>&</sup>lt;sup>i</sup> ASX Release LGM 2 December 2024 Legacy Minerals Completes Oversubscribed \$3M Capital Raise

ii Eastern Meals Limited Prospectus, Dated 18<sup>th</sup> August 2021; Thomson Resources Limited Prospectus, dated 22 October 2010; ASX Release TMZ 22 September 2022 *Drilling intersects three large polymetallic mineralised systems,* ASX Release TMZ 31 March 2012 *Quarterly Report* 

Eastern Meals Limited Prospectus, Dated 18<sup>th</sup> August 2021; Thomson Resources Limited Prospectus, dated 22 October 2010; ASX Release TMZ 22 September 2022 *Drilling intersects three large polymetallic mineralised systems* 

<sup>&</sup>lt;sup>iv</sup> ASX Release TMZ 31 March 2012 *Quarterly Report*, Eastern Meals Limited Prospectus, Dated 18<sup>th</sup> August 2021

<sup>&</sup>lt;sup>v</sup> Minview, Geological Survey of NSW: MinView | Regional NSW | Mining, Exploration and Geoscience

vi Lachlan Fold Belt Project https://www.ga.gov.au/about/projects/resources/lachlan