

10 September 2024

Guardian Metal Resources plc

('Guardian Metal' or the 'Company')

Pilot Mountain Nevada - Inversion Results

Material Developments at Porphyry West and an Additional Anomaly Identified

Grant of Options

Guardian Metal Resources plc (LON:GMET,OTCQX:GMTLF), a strategic development and mineral exploration company focused in Nevada, USA, is pleased to announce an exploration update at the Company's 100% owned Pilot Mountain Project ("Pilot Mountain" or the "Project") located within the prolific Walker Lane Mineral Belt in Nevada, USA.

#### HIGHLIGHTS:

- **Inversion modelling of magnetic geophysical data over the 'Porphyry West' target has delineated a magnetic anomaly which is significantly larger than the anomaly constituting the 'Porphyry South', the original porphyry target identified at Pilot Mountain (see Figure 2 below).**
- **Geophysical inversion modelling has also identified an additional significant magnetic anomaly, 'North Target', in a new target area at Pilot Mountain (see Figure 1 below).**
- **Geochronological studies for the Porphyry South target, has successfully provided mineralisation age context within the broader geological belt.**

Oliver Friesen, CEO of Guardian Metal, commented:

"While drilling progress at Pilot Mountain continues at pace, the latest magnetic inversion geophysical modelling work has highlighted a very exciting target at Porphyry West, with the magnetic anomaly delineated at surface now shown to become considerably larger at depth. In addition, and to our excitement, the inversion results have uncovered a new magnetic anomaly in the north of the Project ('North Target'), which is coincident with the large chargeability anomaly delineated by our recent IP geophysical survey.<sup>1</sup>

"These results are enticing as the North Target is within a previously unexplored portion of the Project, and we will be following up with our boots on the ground geological team.

"Also, with the receipt of the first regular batches of drill sample laboratory assay results (including overlimits), we are looking forward to releasing inaugural drill assay results."

#### BACKGROUND

On 19 August 2024<sup>1</sup> the Company released an exploration update covering the significant findings from extensive geophysical campaigns undertaken at the Pilot Mountain and Garfield projects, and this may be viewed in the link below:

<https://www.londonstockexchange.com/news-article/GMET/significant-geophysical-campaign-results/16625258>

The geophysical work confirmed the 'Porphyry South' target is immediately adjacent (towards the south) to the Desert Scheelite deposit at Pilot Mountain. Porphyry South was subsequently confirmed by the Company through visual inspection of drill hole PM24-02 and Guardian Metal has now delineated a 1.5 km x 1.2 km surface expression for this large target.

Importantly, the two dimensional (2D) geophysical data also highlighted a new porphyry target 'Porphyry West', which has a surface expression of 1 km x 1 km and is in close proximity to the Gunmetal and Garnet deposits at Pilot Mountain.

There are no known magnetic minerals associated with either the Gunmetal or Garnet deposits, so the Porphyry West geophysical findings are considered significant and point to a potential covered porphyry target which warrants further exploration.

\*\*\*\*\* INFORMATION \*\*\*\*\*

## FURTHER INFORMATION

### Inversion Modelling Background

Inversion modelling of the magnetic geophysical survey data was expedited following the identification of a significant 2D magnetic geophysical anomaly constituting the Porphyry West target. Two different inversion modelling methods were employed including Magnetic Susceptibility (MS) and Magnetic Vector Inversion (MVI).

### Inversion Modelling Highlights

#### *Porphyry West*

- The 2D inversion modelling results highlighted a significant 1 km x 1 km anomaly at the Porphyry West Target which remains open to the west and south (Figure 1).
- Significantly, both the Magnetic Susceptibility and MVI inversions models completed over the Porphyry West target have uncovered a buried magnetic target which appears to be significantly larger than Porphyry South (Figure 2).
- This body has a steep, sharp eastern edge which likely represents a bounding fault, and remains open to the west and south. This anomaly coincides with outcropping quartz monzonite adjacent to the Gunmetal Deposit, and becomes larger with depth.

#### *North Magnetic Target*

- The MVI inversion model has identified an additional magnetic high anomaly located towards the north of the Project, slightly east of the Garnet deposit (Figure 1b) which has been termed the 'North Target'. This feature appears as a magnetic low in the MS model.
- The North Target coincides with an outcropping quartz monzonite dyke, as well as a strong chargeability (>12 ms) anomaly identified in the recently acquired Induced Polarisation (IP) geophysical data.<sup>1</sup>
- In the magnetics data, the North Target is separated from Porphyry West by a northwest-southeast trending structure which aligns with a mapped fault at surface.

### Molybdenite Rhenium-Osmium Geochronology

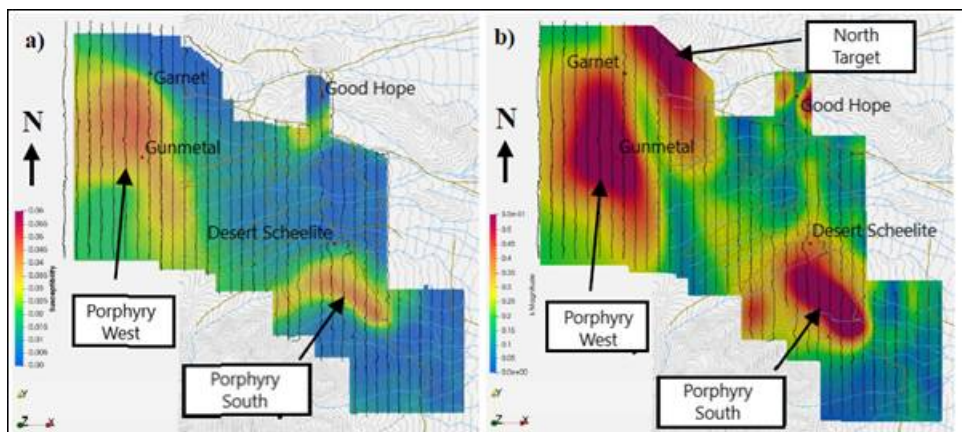
To place direct age constraints on the hydrothermal mineralisation identified at south porphyry, three samples of molybdenite were collected by Dr. Lawrence Carter from drill hole PM24-02 for Re-Os geochronological age determination by Professor David Selby, Durham University, UK.

A quartz-molybdenite-pyrite vein within quartz monzonite yielded an age of 88.6 Ma  $\pm$  0.5 Ma, whilst two molybdenite fracture coatings yielding ages of 86.4 and 85.8 Ma  $\pm$  0.5 Ma respectively (Figure 3). These findings indicate at least two episodes of hydrothermal mineralisation dating between circa 86-88 Ma. Our geological team is using this information to place the mineralisation at Pilot Mountain into regional context, also aiding our exploration activities at our Garfield project which is believed to be part of similar mineralising events.

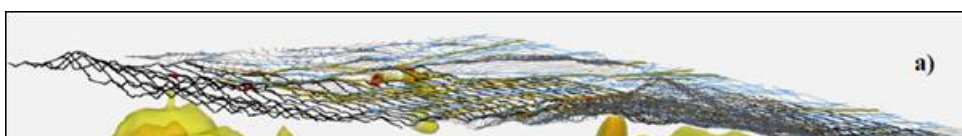
### Issue of Options

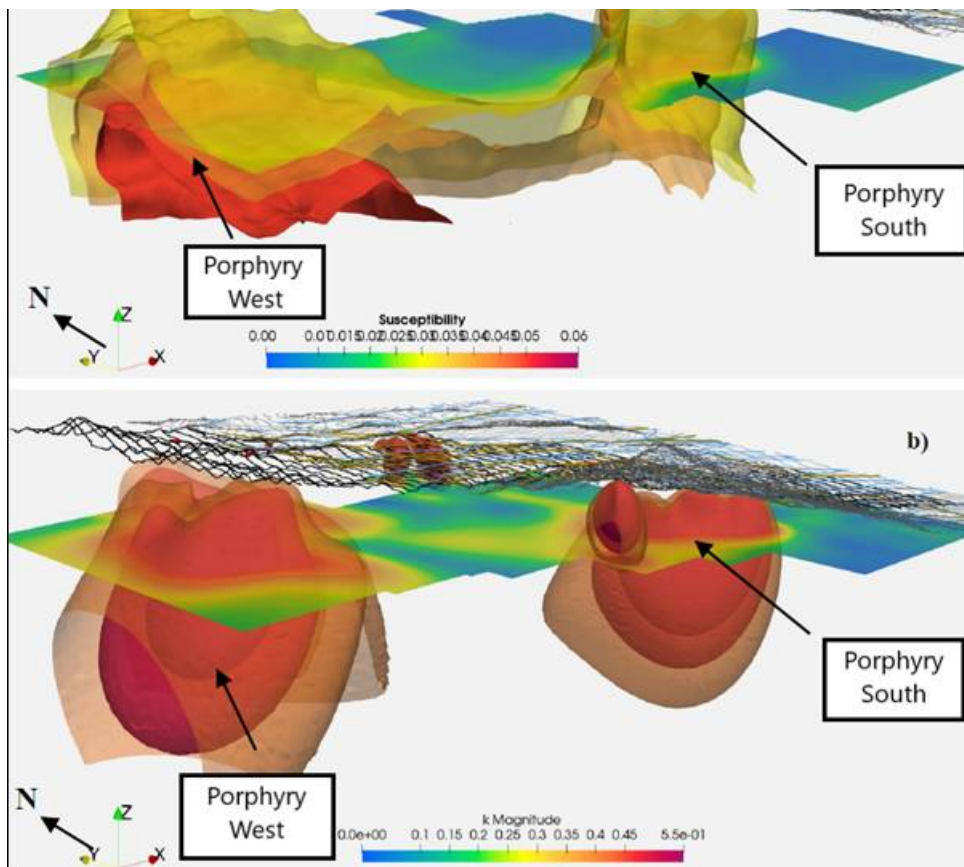
The Company also announces that it has issued a total of 1,000,000 options over Ordinary Shares to two third-party consultants (500,000 each). The options are exercisable at 40p each. Half of the options vest immediately and the other half in twelve months' time.

### Media



**Figure 1:** Magnetic 3D inversion models - plan view, slice at 1700 m elevation. a) 3D magnetic susceptibility model; b) 3D magnetic vector inversion (MVI) model, showing amplitude of magnetization vector.





**Figure 2:** Magnetic 3D inversion models- 3D view, looking to the NE from the SW, showing 3D iso-surfaces. a) 3D magnetic susceptibility model; b) 3D magnetic vector inversion (MVI) model, showing amplitude of magnetization vector (North Target is located behind Porphyry West).



**Figure 3:** Photographs and Re-Os age determination of molybdenite samples collected from PM24-02.

#### References

<sup>1</sup> <https://www.londonstockexchange.com/news-article/GMET/significant-geophysical-campaign-results/16625258>

## COMPETENT PERSON STATEMENT

The technical information contained in this disclosure has been read and approved by Mr Nick O'Reilly (MSc, DIC, MIMMM QMR, MAusIMM, FGS), who is a qualified geologist and acts as the Competent Person under the AIM Rules - Note for Mining and Oil & Gas Companies. Mr O'Reilly is a Principal consultant working for Mining Analyst Consulting Ltd which has been retained by Guardian Metal Resources plc to provide technical support.

### Forward Looking Statements

This announcement contains forward-looking statements relating to expected or anticipated future events and anticipated results that are forward-looking in nature and, as a result, are subject to certain risks and uncertainties, such as general economic, market and business conditions, competition for qualified staff, the regulatory process and actions, technical issues, new legislation, uncertainties resulting from potential delays or changes in plans, uncertainties resulting from working in a new political jurisdiction, uncertainties regarding the results of exploration, uncertainties regarding the timing and granting of prospecting rights, uncertainties regarding the timing and granting of regulatory and other third party consents and approvals, uncertainties regarding the Company's or any third party's ability to execute and implement future plans, and the occurrence of unexpected events.

Actual results achieved may vary from the information provided herein as a result of numerous known and unknown risks and uncertainties and other factors.

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