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Guardian Metal Resources PLC
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Guardian Metal Resources plc

('Guardian Metal' or the 'Company')

Porphyry Results - Pilot Mountain, NV

Geochemical Results Confirm Porphyry Cu Fertility

Guardian Metal Resources plc (LON:GMET, OTCQX:GMTLF), a strategic development and mineral exploration company focused in Nevada, USA, is very pleased to announce results of whole rock geochemical fingerprinting from the Company's ongoing drilling campaign at its 100% owned Pilot Mountain Project ("Pilot Mountain" or the "Project) located within the prolific Walker Lane Mineral Belt in Nevada, USA.

The drilling at Desert Scheelite is advancing very well with 34 drillholes now completed and the next batch of assay results expected within the coming weeks. To date, results from 13 drillholes have been reported.

Highlights:

- **Geochemical fingerprinting of the Pilot Mountain porphyry confirms the system is 'fertile' for porphyry copper-molybdenum mineralisation.**
- **Reconnaissance rock chip sampling successfully identified elevated copper (Cu) and molybdenum (Mo) concentrations across the hydrothermal alteration aureole that spans circa 500m south of the porphyry south magnetic anomaly, demonstrating the size of the porphyry system.**
- **Review of Duval Corporation drilling reports from the 1970s confirm historic intercept of chalcopyrite-molybdenite-quartz veins in phyllic altered quartz monzonite (i.e. porphyry style Cu-Mo mineralisation) at depth between Good Hope and Desert Scheelite, on the margins of the induced polarisation ("IP") geophysical anomalies discovered by the Company's recent geophysical surveys.**
- **Drilling at Desert Scheelite is progressing very well with the objective of adding to the current resource base of tungsten-copper-silver-zinc and confirming the deposit model for the upcoming pre-feasibility study.**

Oliver Friesen, CEO of Guardian Metal, commented:

"Our flagship asset has taken another important step forward with the results of the geochemical fingerprinting now completed. While our focus remains on the Project's four at-surface tungsten-copper-silver-zinc skarn zones, principally Desert Scheelite which hosts what we believe to be the largest undeveloped tungsten deposit in the U.S., we recognise the tremendous exploration potential that exists elsewhere across Pilot Mountain, principally within the various porphyry targets.

"With this important work now completed not only have we confirmed that the footprint of Porphyry South is much bigger than originally understood, spanning several hundred metres south of the magnetic anomaly, but also importantly, the geochemical signatures point to molybdenum and copper fertility at Porphyry South. This leads us to believe that a copper rich shell is still to be found within Porphyry South.

"Drilling continues at pace within Desert Scheelite, the results of which will support the Company's resource expansion goals as well as the upcoming pre-feasibility study (PFS), meanwhile the Company will work with its technical advisors to determine next optimal steps to further assess the Project's exciting porphyry potential."

Background

In June 2024 the Company enlisted Dr. Lawrence Carter, a porphyry system expert, to review the Pilot Mountain Project and to assess the potential for a undiscovered large-scale porphyry style Cu-Mo system(s). Dr Carter's recommendations included to geochemically fingerprint the outcropping quartz monzonite in order to assess its porphyry 'fertility' (i.e. potential of producing

a porphyry type deposit), whilst also assessing the spatial extent of copper mineralisation across the Project. Closely spaced rock-chip sampling was completed across the Porphyry West and Porphyry South targets, as well from the expansive area of hydrothermally altered wall rocks to the south of the porphyry south magnetic anomaly.

From global compilation studies granitic rocks associated with porphyry Cu-Mo deposits, when compared to barren intrusive suites, have distinctive 'fertile' geochemical signatures which can be measured through advanced analytical techniques.[1,2,3] The signatures are all indicative of water and volatile rich magmatic systems and are routinely used globally in porphyry exploration. The findings of the geochemical study are presented here, along with consideration of historic geological reports by Duval Corporation and Union Carbide from the 1970s.

FURTHER INFORMATION

Porphyry System Geochemical Fertility

Whole rock geochemical analysis (ALS 'Complete characterisation package') of 12 different exposures of quartz monzonite across the Pilot Mountain included trace and rare earth element determination by lithium borate fusion and ICP-MS. Unlike common acid digestion techniques, it allows the complete digestion/dissolution of highly refractory minerals and sulphides.

From the geochemical study, the different exposures of quartz monzonite at Pilot Mountain are all related to one another. Further, they have strong adakitic signatures (Sr/Y > 80; La/Yb> 20; Yb <1.5) and have either slightly negative or positive Eu anomalies (Eu_n/Eu_n* typically > 0.9). Based upon these and other geochemical signatures, the Pilot Mountain quartz monzonite appears very prospective on widely accepted global Cu-Mo porphyry fertility plots (Figure 1).[2,3]

Expanding Porphyry South's Copper Footprint

Previous work has focused on defining the known areas of W-Cu-Zn-Ag-Au skarn-type mineralisation across the Project. No previous work has explored the extent of anomalous copper concentrations in the large area of hydrothermally phyllic/quartz-sericite-pyrite ("QSP") altered rocks which continues circa 500 m south of Desert Scheelite and the Porphyry South target (Figure 2).

Of the nine representative whole rock chip samples of quartz monzonite and sericitically altered sediments collected south of Desert Scheelite, eight had Cu concentrations > 150 ppm, and three had Cu concentrations >550 ppm. Significantly, the highest Cu concentrations (691 & 799 ppm) were in samples of QSP hydrothermally altered metasedimentary rocks located approximately 500 m SE and 700 m southwest, respectively, of the outermost extents of the Porphyry South anomaly, and are located 1,100m southeast and 950m southwest respectively of the PM24-02 drill collar (which targeted the core of the Porphyry South magnetic anomaly, and drilled Mo mineralised quartz veins in quartz monzonite from surface to total depth (TD) at 407.1 m).

The QSP altered metasediment sample which returned 691 ppm Cu also contained 201 ppm Mo. Copper surface showings across the area include chrysocolla, malachite and chalcocite associated with oxidised sulphide bearing quartz veins. These findings suggest that a large footprint of anomalous Cu concentration exists across the south of the Pilot Mountain Project, and is suggestive of the presence of a Cu mineralised shell within the Mo mineralised porphyry system discovered by PM24-02.

For reference, the highest downhole intervals (circa 3m of core samples) of Cu and Mo concentration intercepted in PM24-02 was 540 ppm Cu and 507 ppm Mo. These results have triggered planning of a larger scale, systematic rock chip sampling campaign to better delineate copper enriched zones and to help vector towards possible centres of sub cropping economic grade Cu mineralisation.

Historic Reports of Porphyry Style Cu-Mo Mineralisation

Dr. Carter has reviewed the historical reports of exploration activity by Duval Corporation and United Carbide Corporation. Previous work has focused on the known at-surface W-Cu-Zn-Ag-Au skarns with the porphyry potential being largely overlooked. However, at least one historic drillhole by the Duval Corporation in the 1970s between Good Hope and Desert Scheelite, on the margin of the >18 ms chargeable and >175 ohm.m resistive ridge discovered by the company's IP survey in spring 2024 reported quartz-chalcopyrite-molybdenite veins in quartz-sericite-pyrite (QSP)/phyllic altered quartz monzonite - i.e. porphyry style Cu-Mo mineralisation. This 1000 foot (304.8m) drillhole is >1 km north of PM24-002, further highlighting the size of the mineralising system. These previous observations supports the Company's belief that a large but almost entirely untested sub cropping Cu-Mo porphyry system exists within the Project.

Media

Media

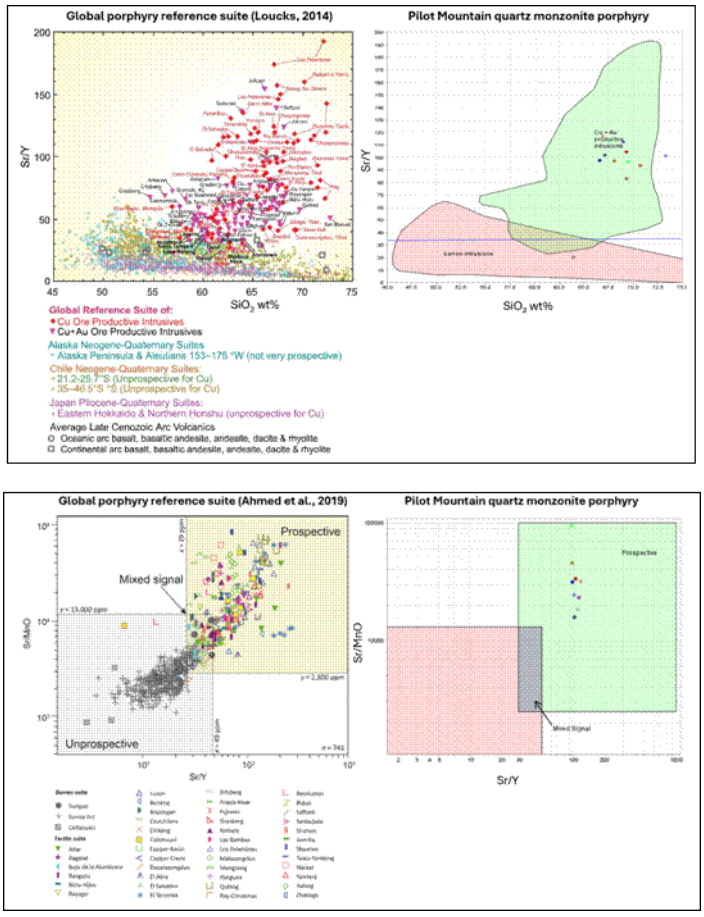

Figure 1: *Pilot Mountain porphyry geochemical data compared to global porphyry reference suites.[2,3] Top: Strontium (Sr) over Yttrium (Y) ratio plotted against SiO_2 weight percentages. Top left highlights the location where major global porphyry deposits plot and on the right the location of the sampled intrusives from Pilot Mountain. Bottom shows Sr over MnO (manganese) showing the location where major global porphyry deposits plot and on the right the location of sampled intrusives from Pilot Mountain.*

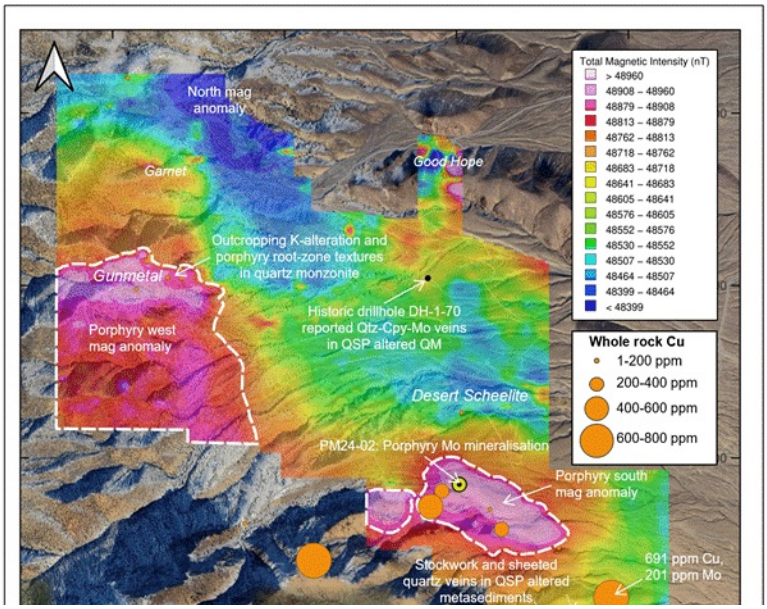

Figure 2: *Map of Pilot Mountain showing copper concentration of whole rock samples and key features annotated.*

Figure 3: *Field photograph of stockwork quartz veins in hydrothermally altered metasediments south of the Porphyry South magnetic anomaly. Intense quartz veining, QSP alteration and sporadic copper shows occur for circa 500 m south of the Porphyry South magnetic anomaly.*

References

[1] Richards, J., 2011. High Sr/Y arc magmas and porphyry Cu-Mo-Au deposits: Just add water. Economic Geology, 106, 1075-1081. 0361-0128/11/3981/1075-7

[2] Loucks, R., 2014. Distinctive composition of copper-ore-forming arc magmas.Australian Journal of Earth Sciences, 61, 5-16.https://doi.org/10.1080/08120099.2013.865676

[3] Ahmed, A. et al., 2019. Assessing copper fertility of intrusive rocks using field portable X-ray fluorescence (pXRF) data. GEEA. https://doi.org/10.1144/geochem2018-077

This announcement contains inside information for the purposes of Article 7 of EU Regulation 596/2014 (which forms part of domestic UK law pursuant to the European Union (Withdrawal) Act 2018).

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

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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