

# Positive Report from Skarn Expert on Further Prospectivity at Oracle Ridge

- Detailed report by world-renowned skarn expert, Dr Larry Meinert, concludes:
  - Enhanced prospectivity for additional high-grade mineralisation beneath the Leatherwood intrusive in the mine area
  - Southern extension of the mine area is prospective for additional copper-rich mineralisation
  - Two areas identified as possible sources of hydrothermal fluids which deposited high-grade copper mineralisation
  - Aeromagnetics confirmed as a highly effective tool for targeting additional mineralisation
- Findings of the review further enhance the prospectivity for mineralisation on the Leatherwood intrusive lower contact at OREX
- UAV magnetic survey for OREX completed and results being processed for drill targeting

Eagle Mountain Mining CEO, Tim Mason, commented:

"Dr Meinert's review of drill core, mineral assemblages and assays substantially supports and further enhances our view that the area below the Leatherwood intrusive in the mine area is prospective for further high-grade mineralisation. This review also adds confidence to our recent discovery of highgrade mineralisation outcropping along a 4 kilometre exposure of the Leatherwood lower contact at surface at OREX. The combination of this discovery and Dr Meinert's review provides further credibility that OREX is an exciting prospective target area. We are completing a UAV magnetic survey to define drill targets.

Dr Meinert's work on geochemical ratios pointed to additional potential skarn mineralisation in the southern areas of the mine. This area coincides with both a magnetic high anomaly over 750m long and the recent discovery of high-grade mineralisation along the upper Leatherwood intrusive contact, with drilling to be prioritised in this area."

Eagle Mountain Mining Limited (**ASX:EM2**) ("**Eagle Mountain**", the "**Company**") is pleased to provide updates on its exploration activities at the Company's 100%-owned Oracle Ridge Project ("Oracle Ridge", the "Project") in Arizona, USA.

The Company has recently received an initial technical report from Dr Larry Meinert, a world-renowned expert on skarns and associated mineralisation who was engaged earlier in the year to provide support

to Eagle Mountain's technical team (refer ASX announcement dated 21 January 2021). The Company would also like to acknowledge the extensive contribution by Jena Kozacek of Upside Modelling who undertook much of the compilations on metal ratios.

Dr Meinert's review included examination of drill core, mapping of underground formations and assay analysis.

Key conclusions from Dr Meinert's report include:

- The southern extension to the Oracle Ridge mine area is prospective for additional copper-rich mineralisation
- Potential for additional skarn-hosted mineralisation exists in the central and southern part of the Oracle Ridge mine area beneath the Leatherwood intrusive and forms a prime target for deeper drilling
- Aeromagnetics is an effective tool in targeting copper mineralisation at Oracle Ridge
- Detailed logging of minerals across the deposit will allow vectoring towards copper-rich zones

Dr Meinert will continue to collaborate with Eagle Mountain's technical team to further improve the knowledge of the mineralisation system, evaluate exploration results at near mine targets including OREX, and define new prospective areas in the Oracle Ridge region.

Dr Meinert's assistance in training to the Company's technical team in Arizona has been extremely valuable and greatly appreciated by Eagle Mountain's geologists.

### Southern Extension Potential

The spatial distribution of copper, zinc and lead values shows evidence of an upwelling of hightemperature, copper-rich fluids in the central mine area (refer Figure 1), which is also where the majority of the known mineralisation is situated. In addition, copper-zinc and zinc-lead ratios are also elevated to the south, indicating a possible additional source of copper-rich fluids in that direction (refer Figure 1).

While zinc and lead mineralisation in the skarns at Oracle Ridge is generally of uneconomic grades, they are beneficial in defining the directional flow of hydrothermal fluids when the mineralisation was deposited. Therefore, this analysis can then assist in vectoring towards the source of mineralisation.

Recent drilling has confirmed the southern part of the Oracle Ridge mineralised system to be well endowed in copper, silver and gold with outstanding results including (see ASX announcements 29 January 2021 and 31 March 2021):

- WT-20-05: 15.1m @ 1.72% Cu, 16.87g/t Ag and 0.38g/t Au from 313.9m
- WT-21-06: 12.7m @ 3.96% Cu, 49.11g/t Ag and 1.38 g/t Au from 363.1m
- WT-20-10: 13.3m @ 2.43% Cu, 52.6g/t Ag and 0.94g/t Au from 348.7m
- WT-20-11: 8.4m @ 2.8% Cu, 18.75g/t Ag and 0.61g/t Au from 285.6m



Figure 1 - Map of the Oracle Ridge mine area with magnetic image (Total Magnetic Intensity, Reduced to Pole). The main mineralised area shows a strong magnetic response however large portions of the anomaly are sparsely drilled. (see announcement 27 February 2020)

## Depth Potential

Depth potential within the Oracle Ridge mine footprint is enhanced by the following observations:

- Favourable geological units are mineralised in many locations where they are in proximity to the Leatherwood granitic intrusion
- Hydrothermal fluids tend to pond beneath traps such as the Leatherwood-Sediment contact where the geological boundary acts as an impermeable layer
- Copper-mineralised skarn could occur at depth, below the lower Leatherwood contact:
  - o In the same rocks which are endowed at the mine, due to structural repetition
  - In older limestone units where they are in contact with the Leatherwood granitic intrusive (Refer Figure 2)



Figure 2 - Schematic cross-section of the Oracle Ridge mine and OREX areas, looking north. The significance of the Leatherwood intrusive contact has been confirmed in the mine area and from historical and recent exploration results at OREX. The presence of favourable host rocks (such as limestones) at depth could generate further prospective areas below the mine area, along the Leatherwood lower contact (see announcement 16 April 2021).

### Magnetic High Signature

The majority of mineralisation at Oracle Ridge has a strong magnetic signature due to the abundant magnetite present in the copper-mineralised skarn. Geophysical surveys will be used to detect magnetic anomalies to be drilled.

The Company has successfully tested discrete magnetic anomalies at Oracle Ridge (e.g. WT-21-03 returning 12m @ 3.47% Cu, 50.22g/t Ag and 0.02g/t Au) (see ASX announcement 25 February 2021) and the southern zone coinciding with a strong magnetic high, further enhancing its prospectivity (refer Figure 1).

Good mineralisation has also been found in non-magnetic areas, however the current focus is to examine the magnetic high zones.

### Implications for Drilling Program

The outcomes of Dr Meinert's work support the Company's decision to prioritise exploration drilling at the Oracle Ridge mine in the southern zone. Several pads have been recently established and roads refurbished to facilitate better access to this area in the coming months. The drill rig has recently moved from the eastern side of Marble Mountain and is currently drilling from one of these new pads.

A drone-supported magnetic survey has been recently completed at OREX and the data is currently being interpreted. Results of the survey will be used to prioritise drill targets in this area.

#### Next Steps

- Finalise results of the magnetic survey at OREX for drill targeting;
- Confirm mobilisation of a third diamond drill rig to site;
- Undertake geochemical evaluation of the OREX outcrops to assist vectoring towards potential sources of the mineralisation found at surface;
- Undertake additional structural modelling in the central and southern zones of the Oracle Ridge mine and project these zones towards the Leatherwood intrusive contact for drill targeting; and
- Continue diamond drilling in the southern zone of Oracle Ridge mine in the area coinciding with the strong magnetic anomaly.

### About Dr Larry Meinert

Dr Meinert, of Meinert Consulting based in Washington DC USA, is currently:

- Editor in Chief Economic Geology
- Affiliate Research Professor, Colorado School of Mines, Golden CO USA

Previously, Dr Meinert was:

- Deputy Associate Director Energy and Mineral Resources at the U.S. Geological Survey
- Congressional Fellow in both the U.S. Senate and House of Representatives
- Professor at Smith College, Massachusetts USA
- Professor Economic Geology at Washington State University, Washington USA

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This Announcement has been approved for release by the Board of Eagle Mountain Mining Limited

### COMPETENT PERSON STATEMENT

Where the Company references previous exploration results including technical information from previous ASX announcements, JORC Table 1 disclosures are included within them. The Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements, and all material assumptions and technical parameters underpinning the results within those announcements continue to apply and have not materially changed. In addition the form and context in which the Competent Persons findings are presented have not been materially modified from the original reports.

#### EAGLE MOUNTAIN MINING LIMITED

Eagle Mountain is a copper-gold explorer focused on the strategic exploration and development of the Oracle Ridge Copper Mine and the highly-prospective greenfield (Silver Mountain) project, both located in Arizona, USA.

Arizona is at the heart of America's mining industry and home to some of the world's largest copper discoveries such as Bagdad, Miami and Resolution, one of the largest undeveloped copper deposits in the world

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