

29 July 2025

# World's Highest-Resolution Geophysical Survey to Commence at Highway Reward Copper-Gold Mine

# **Key Highlights**

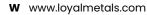
- Loyal Metals to commence the world's highest-resolution geophysical drone survey of the mining leases at the Highway Reward Copper-Gold Mine in Queensland, Australia.
- No geophysics has been done since 1997, even though the mine produced 3.65 Mt at 5.7%
  Cu and 260 kt at 4.5 g/t Au, and copper and gold prices have risen by 664% and 1,317%<sup>2</sup>.
- Expert Geophysics' latest MobileMTd drone survey technology, capable of investigating depths beyond 1,000 metres, will deliver a high-resolution 3D model highlighting both remnant mining and exploration potential.
- MobileMTd drone survey results will be integrated with existing exploration and mining data to enable AI-powered mining software to generate drill targets at depth and along strike.
- The drone-based survey uses natural electromagnetic fields to detect conductive anomalies, such as copper-gold sulphides, targeting conductive features beyond previously mined depths (220m open pit, 390m underground) and along strike within Highway Reward's unique VMS setting.
- With \$4.4 million<sup>1</sup> in available funding, Loyal Metals is primed to deploy modern exploration techniques and re-engage with Highway Reward's exceptional coppergold potential.

Loyal Metals Ltd (ASX:LLM) (**Loyal**, **LLM**, or the **Company**) is excited to announce that it will commence the world's highest-resolution geophysical drone MobileMTd survey over the Highway Reward Copper-Gold Mine in Queensland, Australia. The mine, which previously produced 3.65 Mt at 5.7% Cu and 260 kt at 4.5 g/t Au², has seen no geophysics since the 1997 feasibility study — despite copper and gold prices increasing by 664% and 1,317%, respectively². Using Expert Geophysics' cutting-edge MobileMTd technology—capable of investigating depths beyond 1,000 metres—a high-resolution 3D model will be generated to highlight both remnant mining and exploration potential. Results will be integrated with existing exploration and mining data to enable Al-powered software to model subsurface geology and define new drill targets at depth and along strike. Backed by \$4.4 million¹ in available funding, Loyal is well-positioned to apply modern exploration techniques and unlock the next phase of copper-gold discovery at Highway Reward.



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#### Loyal Metals' Managing Director, Mr. Adam Ritchie, commented:

"We're excited to launch the world's highest-resolution geophysical drone survey at the Highway Reward Copper-Gold Mine. The presence of exceptionally high-grade historic copper lenses supports our bold decision to implement a closely spaced survey, aimed at unlocking the full potential of this unique VMS system."

"By combining MobileMTd technology with extensive historical data and AI-powered modelling, we're unlocking geological insight rarely seen in the industry. Our strong partnership with Expert Geophysics, gives us confidence this survey will deliver outstanding results. With solid funding and modern tools, Loyal is ready to reignite exploration at Highway Reward and uncover its next chapter."

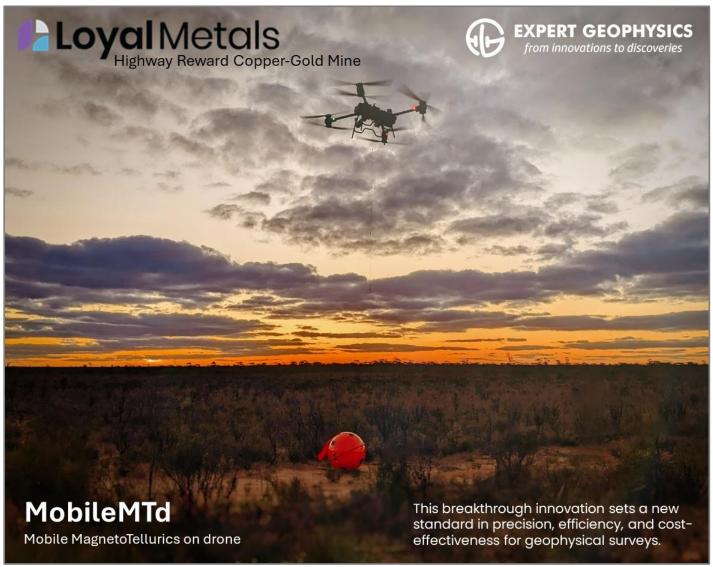


Figure 1: Highway Reward Copper-Gold Mine: Expert Geophysics MobileMTd drone taking off with a broad-band probe.



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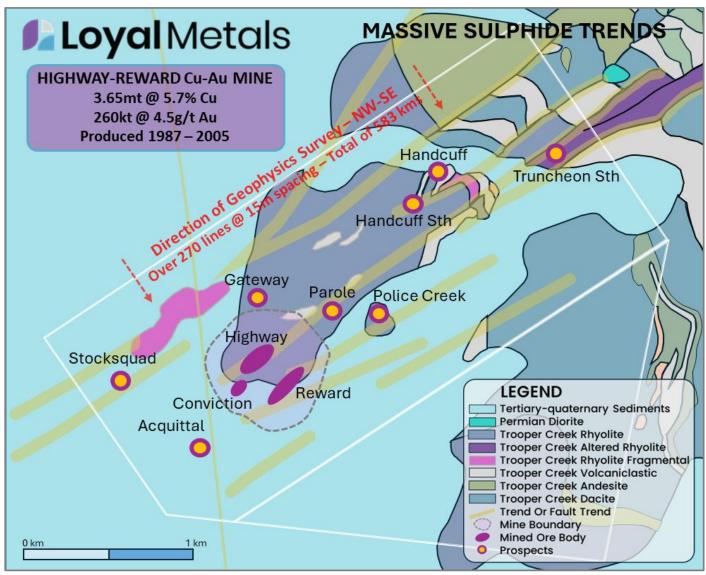
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In addition to the historic workings of the Highway Reward Copper-Gold Mine, Loyal Metals' granted mining leases host a 3 km northeast-trending corridor of underexplored massive sulphide mineralisation within Trooper Creek dacite, rhyolite, and volcaniclastic rocks. To unlock this potential, Loyal will deploy a high-resolution MobileMTd airborne geophysical drone survey across 9 km², using 15 m line spacing to acquire approximately 583 line kms of data.



**Figure 2:** Highway Reward Copper-Gold Mine: Geology map of granted mining leases showing 3km strike of favourable northeast geological trends within the Trooper Creek dacite, rhyolite & volcanoclastic rocks that host the Highway Reward Copper-Gold Mine. Note the direction of the high-resolution MobileMTd geophysical drone survey.

Using a heavy-lift drone, the survey will maintain optimal terrain clearance to ensure data integrity. The MobileMTd system captures naturally occurring electromagnetic fields across a wide frequency range (17 Hz – 20,000 Hz), enabling deep imaging up to 1,000 m—ideal for identifying copper-gold sulphides in complex VMS geology. Final outputs will include high-resolution conductivity maps, 2.5D resistivity sections, 3D voxel models, and digital elevation and



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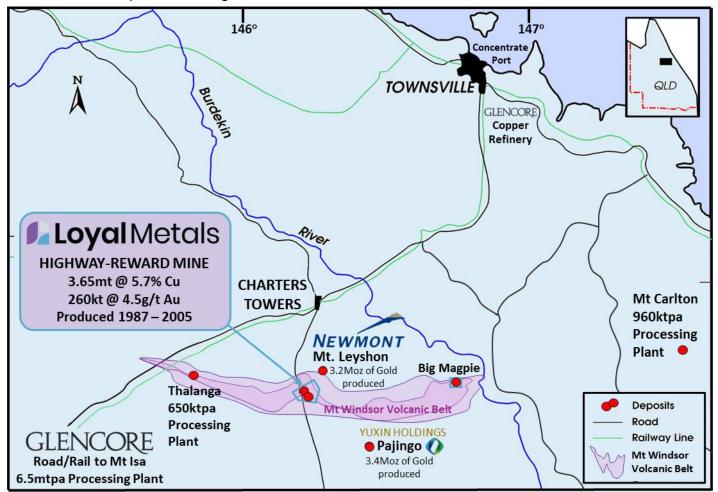
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interference maps, with optional structural analysis and targeted inversion modelling to support drill planning. Al-powered modelling will integrate this new data with digitised historical records to define new exploration targets across the leases.



**Figure 3** Highway Reward Copper-Gold Mine: Located 37 km south of Charters Towers within the Mt Windsor Volcanic Belt. Accessible via an all-weather highway, 172 km from the Port of Townsville, Queensland, Australia.

This announcement has been authorised for release by Loyal Metal's Board of Directors.

## For more information:

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## **About Loyal Metals**

Loyal Metals Limited (ASX: LLM) is a well-structured listed resource exploration company with projects in Tier 1 North American and Australian mining jurisdictions. Through the systematic exploration of its projects, the Company aims to delineate JORC compliant resources, creating value for its shareholders.

#### **Future Performance**

This announcement may contain certain forward-looking statements and opinion Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Loyal Metals Limited.

## **Competent Person's Statement**

The information in this announcement that relates to Exploration Results, is based, and fairly reflects, information reviewed by Mr Darren Allingham, who is the Company's geologist. Mr Allingham is a Fellow of the Australian Institute of Geoscientists. Mr Allingham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person (CP) as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results (JORC Code). Mr Allingham consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.

#### **List of References:**

- ASX LLM Announcement 30 April 2025 Quarterly Activities Report For the Quarter Ending 31 March 2025.
- <sup>2.</sup> ASX LLM Announcement Loyal to Acquire The High-Grade Highway Reward Copper Gold Mine 02 July 2025.





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