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ASX Announcement

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Copper Hill Update

- **Revised geological model leading to upgraded resource on schedule**
- **Enhanced metallurgical recoveries for higher grade ore**
- **Revised capital and operating costs being developed**
- **Significant exploration potential identified**

Golden Cross Resources Limited (**ASX:GCR**) is pleased to announce that the management team has completed the geological review of the Copper Hill copper-gold project and the revised resource estimate and Scoping Study for the project are progressing on schedule. The resource estimate by independent consultant James Ridley is well advanced with the results to be released in mid-March while the Scoping Study based on a 2 – 3Mtpa operation is planned to be completed by mid-April.

Geological Review and Resource Estimate

As reported on 30 January recent detailed geological and structural analysis has improved the understanding of a number of controls on the mineralisation at Copper Hill. These include;

- A strong grid NW structural orientation which controls the bulk of the low to medium grade (0.2 – 0.3% Cu) mineralisation outside the high grade zones
- Grid north – south high grade zones which were mined in the past
- A weaker, but still material grid NE trending set of structures, also hosting historical workings
- A higher grade core to the mineralisation focussed in the areas of greatest structural intensity, especially at the intersection of N-S and NW trending structures. The main Copper Hill zone extends over a strike length of at least 400 metres and widths of 100 – 200 metres and to depths of up to 300 metres. It is outlined by the 0.3% Cu outline or wireframe (see Figure 1). In addition, steeply plunging “pipe-like” high grade zones are present at Buckley’s Hill and south of Copper Hill. The plunge of these zones is consistent with the intersection of the N-S and NW structures.
- Higher gold to copper ratios within the core of the high grade zone with Au:Cu generally around 3:1 (ie; 3g/t Au : 1% Cu) compared with a ratio of 1:1 for the deposit overall.
- A sub-horizontal 10 – 20 metres thick zone of supergene enrichment centred in the transitional weathering zone 25 - 70 metres below surface.

The combination of these factors has led to an enhanced geological model for the deposit and greater continuity than previously recognised for the higher grade zones. The recognition of preferred structural orientations for the mineralisation enabled drill intercepts which were previously considered “outliers” or “spotty highs” to be incorporated within relatively continuous grid N-S or NW higher grade zones. This in turn provides improved definition of the higher grade mineralisation which is the focus of this resource estimate and the Scoping Study.

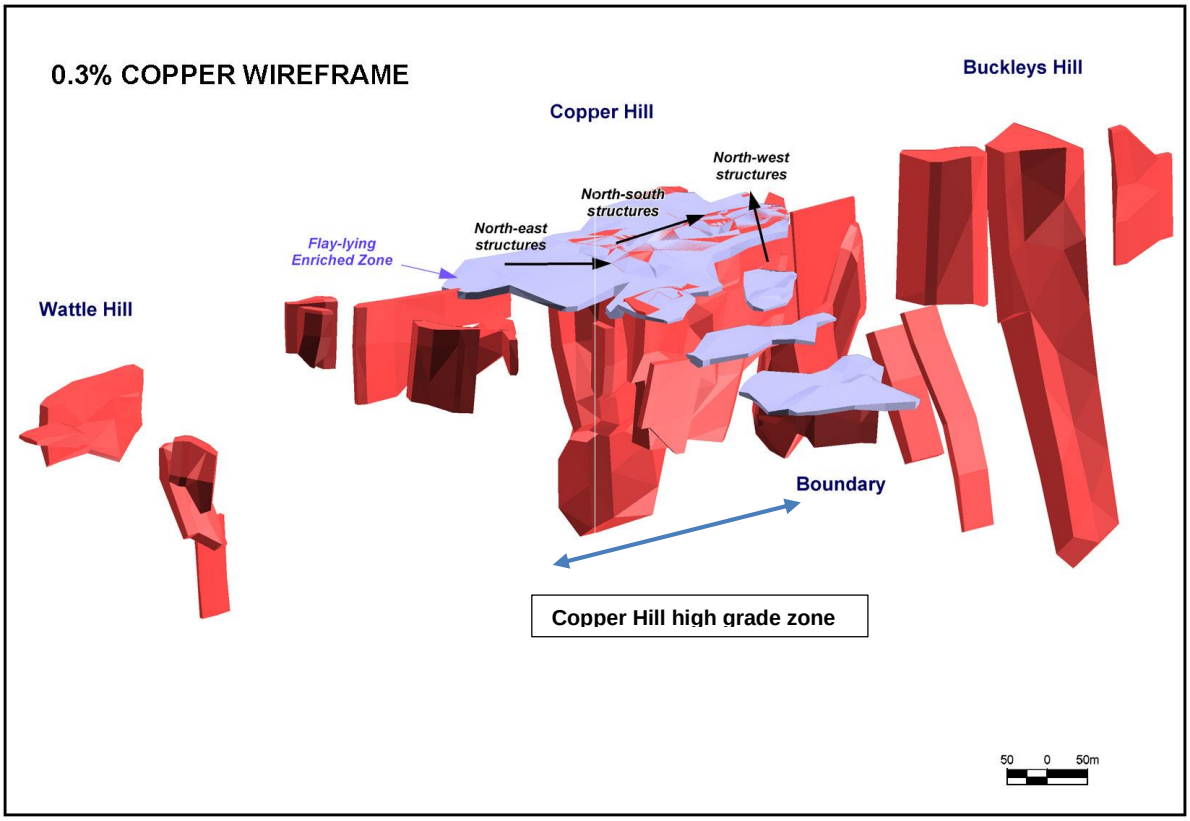

Figure 1: View of the Copper Hill 0.3% Cu wire frame (red) and enriched zone (blue) looking NNW.

For further technical information the reader is referred to previous announcements and Attachment 1 of this announcement which contains drill sections through the Copper Hill deposit. These sections provide the 0.1% Cu and 0.3% Cu outlines which define the mineralised envelope and higher grade mineralisation respectively, the major eastern and western bounding structures and drill hole intercepts above 0.2% Cu and 0.4% Cu. They confirm the clear continuity of the higher grade mineralisation at Copper Hill and include the high grade intercepts from the 2014 drilling program along with selected results from previous drilling. All drilling intercepts have been previously announced.

While the absolute impact of this improved geological interpolation of drilling results will not be known until the resource model is complete, the geological team expect it to result in an increased metal content within the high grade (>0.4% Cu) resource and a reduction in the tonnes of lower grade (<0.4% Cu) mineralisation. The incorporation of the 2014 drilling results, which extended the higher grade mineralisation at depth and generally delivered grades at or above those of adjacent drilling, is expected to result in an overall increase in the metal content of the high grade mineralised zone at Copper Hill.

Mining, Metallurgy and Scoping Study

The project team has been further strengthened with the appointment of Andrew Napier, an experienced process engineer with extensive project management, commissioning and operations experience as Study Manager.

The mining studies have commenced and key inputs for the optimisation from previous studies have been reviewed. The material reduction of oil prices and softening of the resources industry overall in the services and contracting markets particularly is expected to deliver reduced mining costs from the study. These improved costs reflect current mining costs and practices.

The mining work program will provide an overall optimised pit along with a higher grade stage one pit which will be a key input to the Scoping Study based on a 2 – 3Mtpa operation focused on mining and processing the shallow higher grade mineralisation at Copper Hill.

A review of the extensive previous metallurgical test work has identified upside opportunities for the project. The key improvement is higher metal recoveries for the higher grade ore.

The vast majority of metallurgical test work has concentrated on assessing copper and gold recoveries from the average grade of the bulk resource (grading around 0.3% Cu and 0.3g/t Au) as the focus was on a large (8Mtpa) operation. As expected, the test work on this lower grade mineralisation provided modest metal recoveries on average and some variable results. Accordingly, previous studies have used copper recoveries of 70% - 80% and gold recoveries of 40% - 45%, well below published for comparable NSW copper-gold operations.

Metallurgical tests on higher grade mineralisation (around 0.5% Cu) using the current process plant design including a target 75 micron grind size have delivered results of 80% - 90% copper recoveries and 70% - 80% gold recoveries. These samples lie within the current 0.3% Cu wireframe which outlines the higher grade mineralisation and hence the metallurgical results are regarded as reasonably representative of this higher grade proposed plant feed for a 2 – 3Mtpa operation.

As metal recoveries flow directly to project revenue and margin it is anticipated these revised recovery parameters will significantly improve the financial results for an operation based on extracting the better performing, higher grade mineralisation.

Due to weaker resource industry conditions and hence more competitive equipment and service prices the project team is currently assessing the merits and costs of a revised capital cost for the project against a factored estimate based on recent previous studies.

As part of the Scoping Study operating costs will be revisited to ensure they reflect current market conditions and prices, notably the lower A$/US$ exchange rate and lower oil price.

Exploration Potential

The favourable geological setting of Copper Hill combined with the large size of the mineralised system have long been recognised by the GCR team.

The Ordovician Macquarie Arc consists of four volcanic belts which host world-class porphyry copper-gold deposits being mined at Cadia (Newcrest), Northparkes (China Molybdenum) and Cowal (Barrack).

One of these belts, the Molong Volcanic Belt, hosts significant porphyry gold-copper deposits such as Cadia, Cadia East, Ridgeway (all part of Newcrest's Cadia operations), **Cargo (GCR),** Yeoval and **Copper Hill (GCR)**, and intrusive-related skarn gold ± copper deposits such as Browns Creek and Junction Reefs, within the corridor formed by the WNW trending Lachlan Transverse Zone. Accordingly, GCR's tenements within this strongly mineralised area are regarded as highly prospective for copper - gold deposits in particular.

The recent Copper Hill geological review, assisted by internationally-renown consultancy Corbett Menzies Cunliffe, has added further to the potential of the Copper Hill mineralising system. A number of features logged in the 2014 drilling, including mineral forms and associations combined with multi-element geochemical data, indicate we may be yet to intercept the postulated main mineralising porphyry. This interpreted system is most likely at depth or along strike from the currently outlined mineralised system and represents a compelling exploration target.

While the company is currently focused on the Scoping Study it is intended to assess the best options to obtain vectors to target any future exploration activities and drilling. It should be emphasized this remains a conceptual target at this time, albeit outlined by recognised mineralisation trends from international studies of porphyry deposits.

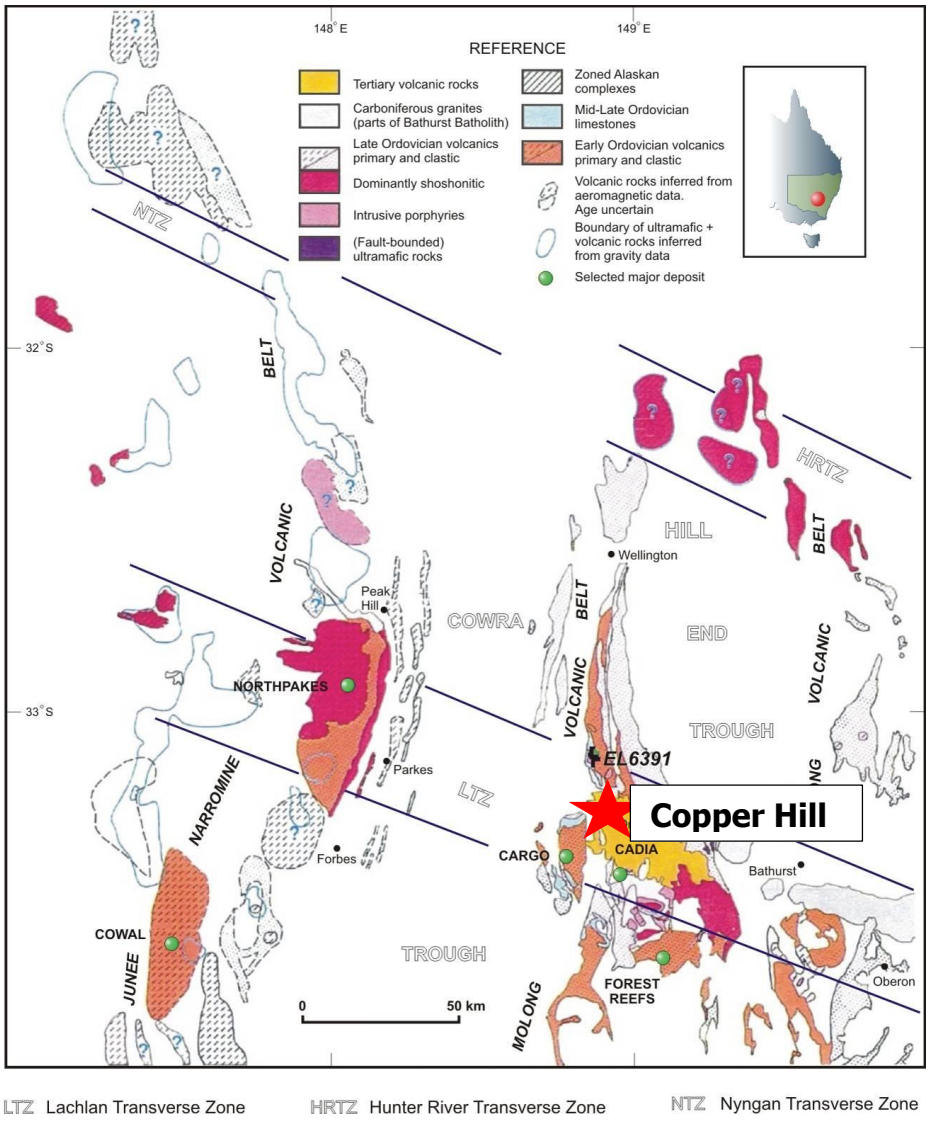

Figure 2: Geology and mineralisation of Parkes – Orange Region

Ken Hellsten

Interim CEO

Further information, contact Ken Hellsten on (02) 9472 3500

Compliance Statement. *The information in this report that relates to Exploration Results is based on information compiled by Mr. Kenneth Hellsten, who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Hellsten is an employee of Golden Cross Resources Limited, and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Hellsten consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.*

Attachment 1

Drill sections from Copper Hill High Grade Zone Sections 5300N to 5600N.

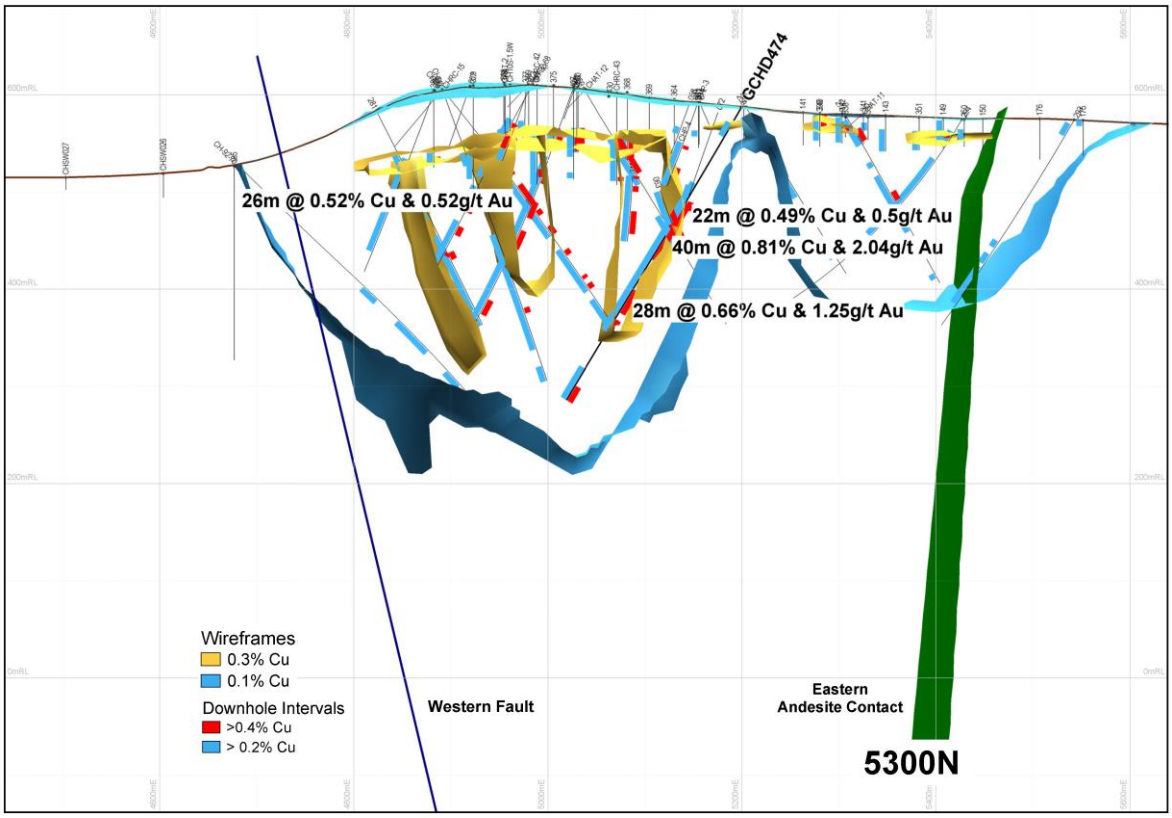

Figure 3: Drill Section 5300N with mineralised envelopes and drill result summary

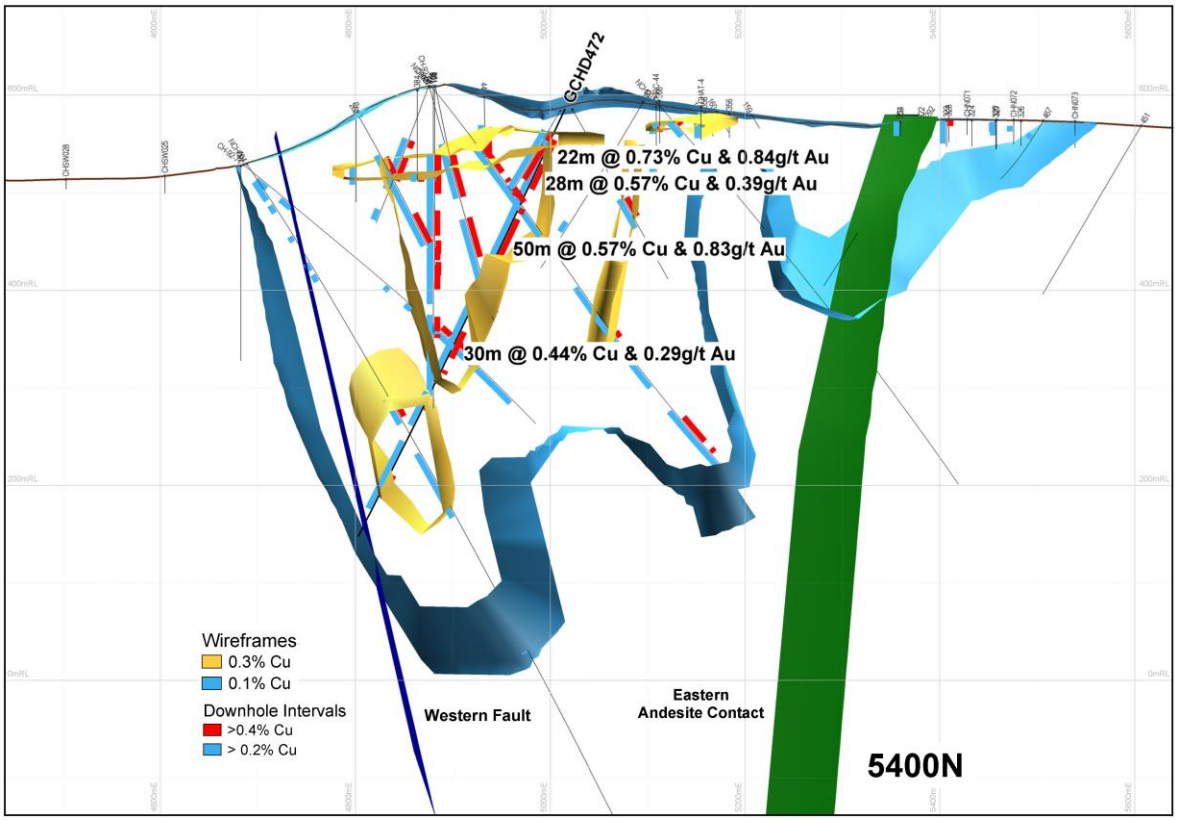

Figure 4: Drill Section 5400N with mineralised envelopes and drill result summary

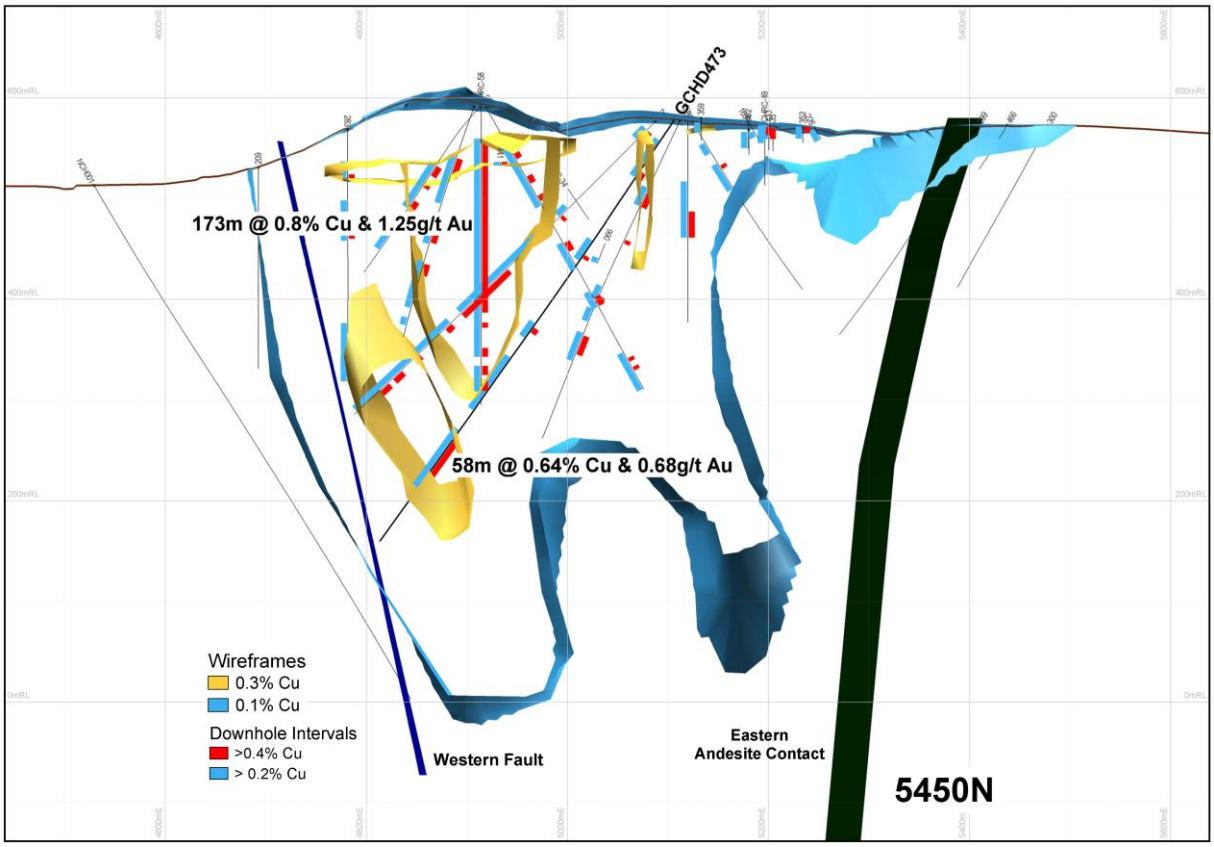

Figure 5: Drill Section 5450N with mineralised envelopes and drill result summary

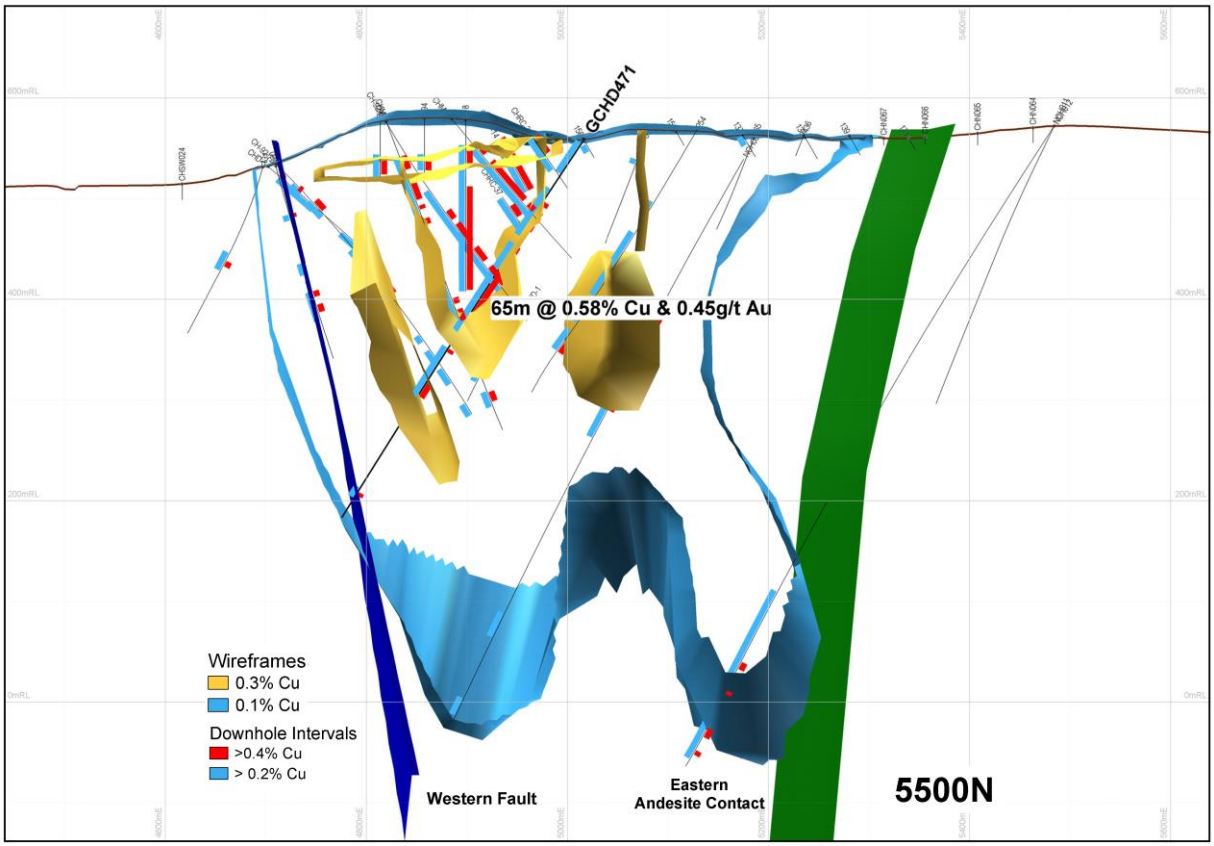

Figure 6: Drill Section 5500N with mineralised envelopes and drill result summary

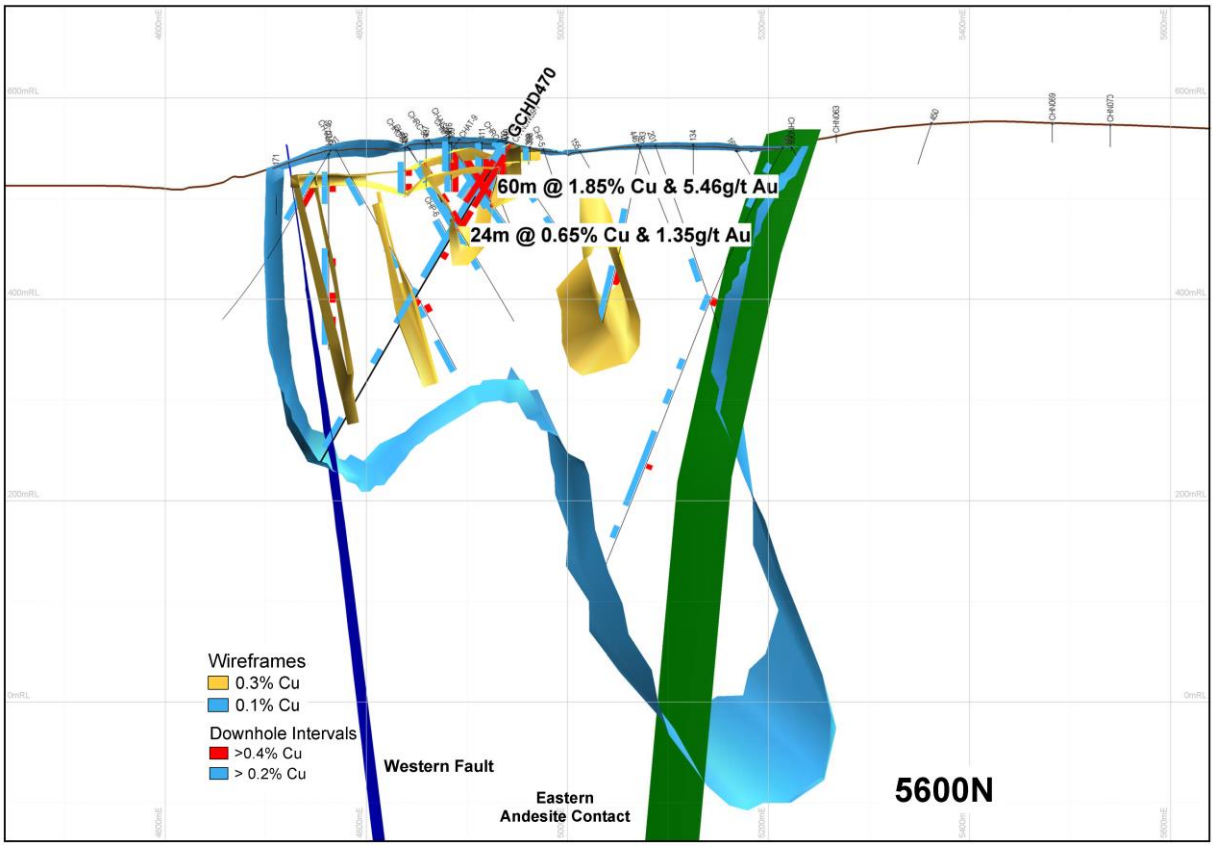

Figure 7: Drill Section 5600N with mineralised envelopes and drill result summary