ASX Announcement

23 October 2019

Deep diamond drilling of Whatling Hill copper-gold porphyry target to commence next month

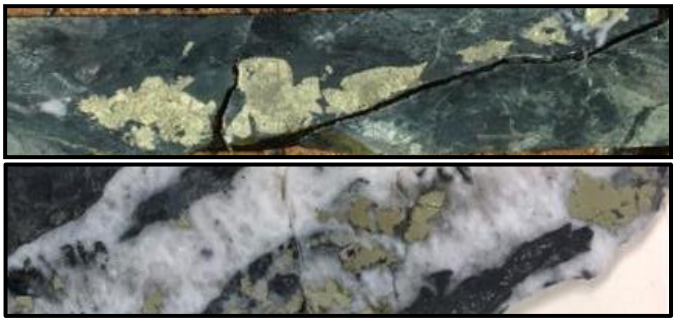
Highlights

- 1,000m diamond drill hole to test the Whatling Hill copper porphyry target to commence in November.
- Approximately 1,000m of phase two RC drilling completed at the Whatling Hill copper-gold target in Lachlan Fold Belt of NSW with assay results expected in late November
- Drilling tested several shallow targets and intersected pervasive epidote-chlorite alteration consistent with the outer zones of porphyry copper-gold mineralisation
- Drill holes WHCR007 and 006 intersected significant sulphides, predominantly pyrite that are typically associated with the outer shell around porphyry copper-gold mineralisation
- These encouraging results have provided further vectors to deeper copper-gold targets, with the first 1,000m deep diamond drill hole planned to commence in mid-November
- Water bore successfully drilled by Emmerson for drought impacted local landowners at Whatling Hill as part of local land holder engagement strategy

John Whatling (property owner of Whatling Hill) - intersecting water in bore drilling

Emmerson Resources Limited
ABN 53 117 086 745

t: +61 8 9381 7838 | **e:** admin@emmersonresources.com.au | **w:** www.emmersonresources.com.au
3 Kimberley St, West Leederville 6007 WA



Example of the chalcopyrite-pyrite-quartz- veins from drill hole WHDD002. Alteration consists of chlorite-epidote ("green rock") ASX: 21 May 2019

Emmerson Managing Director Mr Rob Bills commented:

"The second phase of drilling at Whatling Hill has assisted in providing vectors to where the core of this copper-gold porphyry system likely resides. Our science based, systematic approach utilising cutting edge techniques coupled with traditional exploration methodology has further narrowed the search area. The first deep drill diamond hole testing one of these deep target zones will commence in mid-November with results expected in December 2019."

Whatling Hill (Figures 1 & 2)

Approximately 1,000m across five reverse circulation (RC) drill holes has tested a range of combined geophysical and geological targets. Whilst economic intercepts of copper or gold are not anticipated in assays expected in late November, drill holes WHCR006 and 007 provided clear visual indications that the core of the copper-gold system is proximal and likely at depth. This is confirmed by previously announced diamond drill hole WHDD002, which intersected 8m at 0.4% copper from 194m, including 1m at 1.4% copper (ASX: 21 May 2019).

Trace element analysis of the epidote-chlorite alteration provide proximity indicators which also point to a deeper source to the high-level mineralisation. The proposed 1,000m diamond drill hole to be completed in November 2019 will test a combination of the geology, chlorite proximity indicators and the Induced Polarisation (IP) geophysics.

As the geology and alteration thus far encountered at Whatling Hill compares favourably with other porphyry copper-gold deposits in the district (the Cadia-Ridgeway and Northparkes deposits and Alkane Resources' recent Boda discovery), this deep drill hole is the next step in testing for economic mineralisation.

The geology at Whatling Hill consists of late Ordovician volcanics, volcanoclastics and sediments plus at least three high potassium to shoshonitic intrusive phases of a similar age and chemistry to Northparkes and Cadia-Ridgeway. The alteration of chlorite – epidote ("green rock") associated with the mineralisation clearly indicates that all previous drilling tested the periphery of the system (Figure 3). Interestingly some of the mineralised veins have substantial disseminated pyrite, minor actinolite-potassium feldspar and magnetite, signalling proximity to the core of the system.

An IP geophysical survey will commence at the Kiola project in November 2019, which is our next most advanced and ranked NSW project.

For further information, please contact:

Rob Bills
Managing Director and CEO
E: rbills@emmersonresources.com.au
T: +61 8 9381 7838

Media enquiries
Michael Vaughan, Fivemark Partners
E: michael.vaughan@fivemark.com.au
T: +61 422 602 720

About Emmerson Resources, Tennant Creek and New South Wales

Emmerson is fast tracking exploration across five exciting early-stage gold-copper projects in NSW, identified (with our strategic alliance partner Kenex/Duke Exploration) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery.(Duke can earn up to 10% (to pre BFS) of any project generated providing certain success milestones are met).

The highly prospective Macquarie Arc in NSW hosts >80Mozs gold and >13Mt copper with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's five exploration projects contain many attributes of the known deposits within the Macquarie Arc but remain underexplored due to historical impediments, including overlying cover (farmlands and younger rocks) and a lack of exploration. Kadungle is a JV with Aurelia Metals covering 43km^2 adjacent to Emmerson's Fifield project.

In addition, Emmerson has a commanding land holding position and is exploring the Tennant Creek Mineral Field (TCMF), one of Australia's highest-grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes of copper from deposits including Warrego, White Devil, Orlando, Gecko, Chariot, and Golden Forty. These high-grade deposits are highly valuable exploration targets, and to date, discoveries include high-grade gold at Edna Beryl and Mauretania, plus copper-gold at Goanna and Monitor. These are the first discoveries in the TCMF for over two decades.

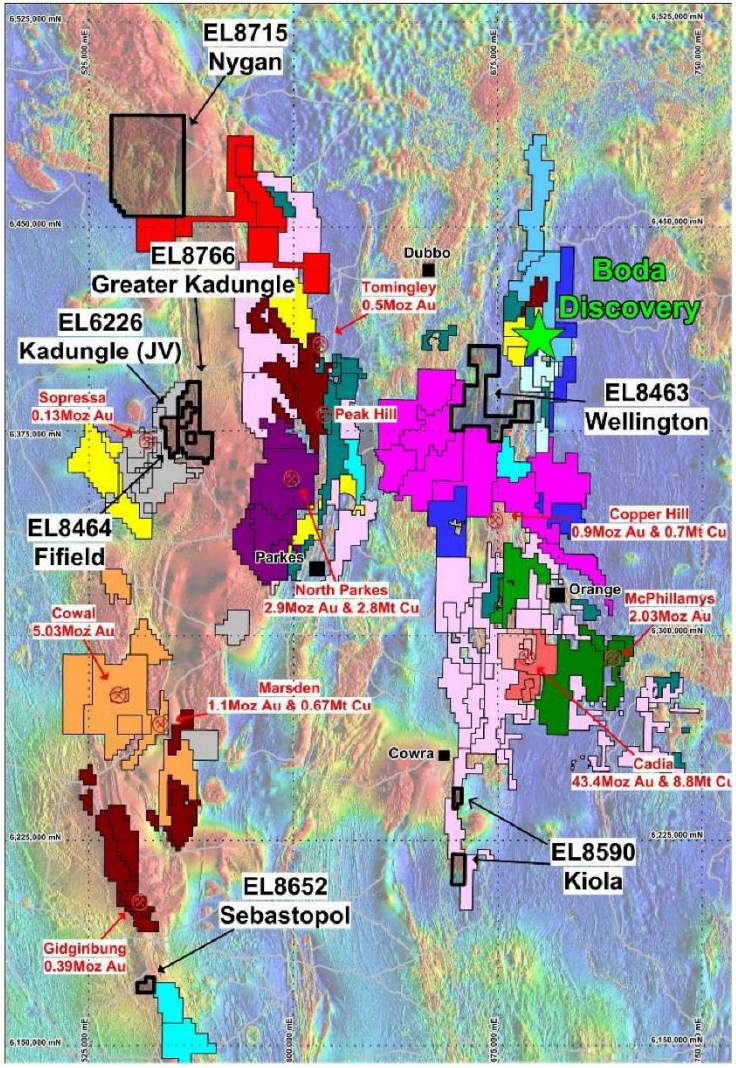
Emmerson recently announced the formation of a strategic alliance with Territory Resources to build a central mill in Tennant Creek to support the processing from Emmerson's small gold mines and other third-party feed. This alliance also extends to a $5m earn-in by Territory Resources over Emmerson's southern tenements (where ERM is the Operator and Manager) plus a Mining Joint Venture over a portfolio of Emmerson's small mines that is on a 75/25 profit share basis, except for the Edna Beryl and Chariot mines which respectively have a 12% and 6% gold production royalty.

Emmerson is led by a board and management group of experienced Australian mining executives including former MIM and WMC mining executive Andrew McIlwain as non-executive chairman, and former senior BHP Billiton and WMC executive Rob Bills as Managing Director and CEO.

Competency Statement

The information in this report which relates to NSW Projects Exploration Results is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2004 edition and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Cuison is a full-time employee of the Company and consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

- Lachlan Resources (Emmerson Resources)
- Newcrest Mining
- Climax Australia (JV with Newcrest)
- Gold and Copper Resources (JV with Fortescue – FMG)
- Alkane Resources
- LFB Resources (Regis Resources)
- Drummonds West (Impact Minerals)
- Endeavour Minerals (Impact Minerals)
- Monzonite Metals (Alice Queen JV with Newcrest)
- Modelling Resources (Magmatic Resources)
- CMOC Mining
- Sandfire Resources
- Evolution Mining
- Rimfire Pacific Mining
- Freeport – McMoran
- Ardea Resources
- Newmont (Australian Consolidated Gold)



Location of Emmerson's projects in central NSW showing mines, advanced projects and selected metal endowment (endowment = current resource as at November 2017. Source: www.resourcesandenergy.nsw.gov.au)

Figure 1. Location of Emmerson's NSW Projects (Lachlan Resources). The background is the regional magnetic image, with red indicating the various segments of the Macquarie Arc. Note the Fifield (EL8464) tenement contains the Whatling Hill project.

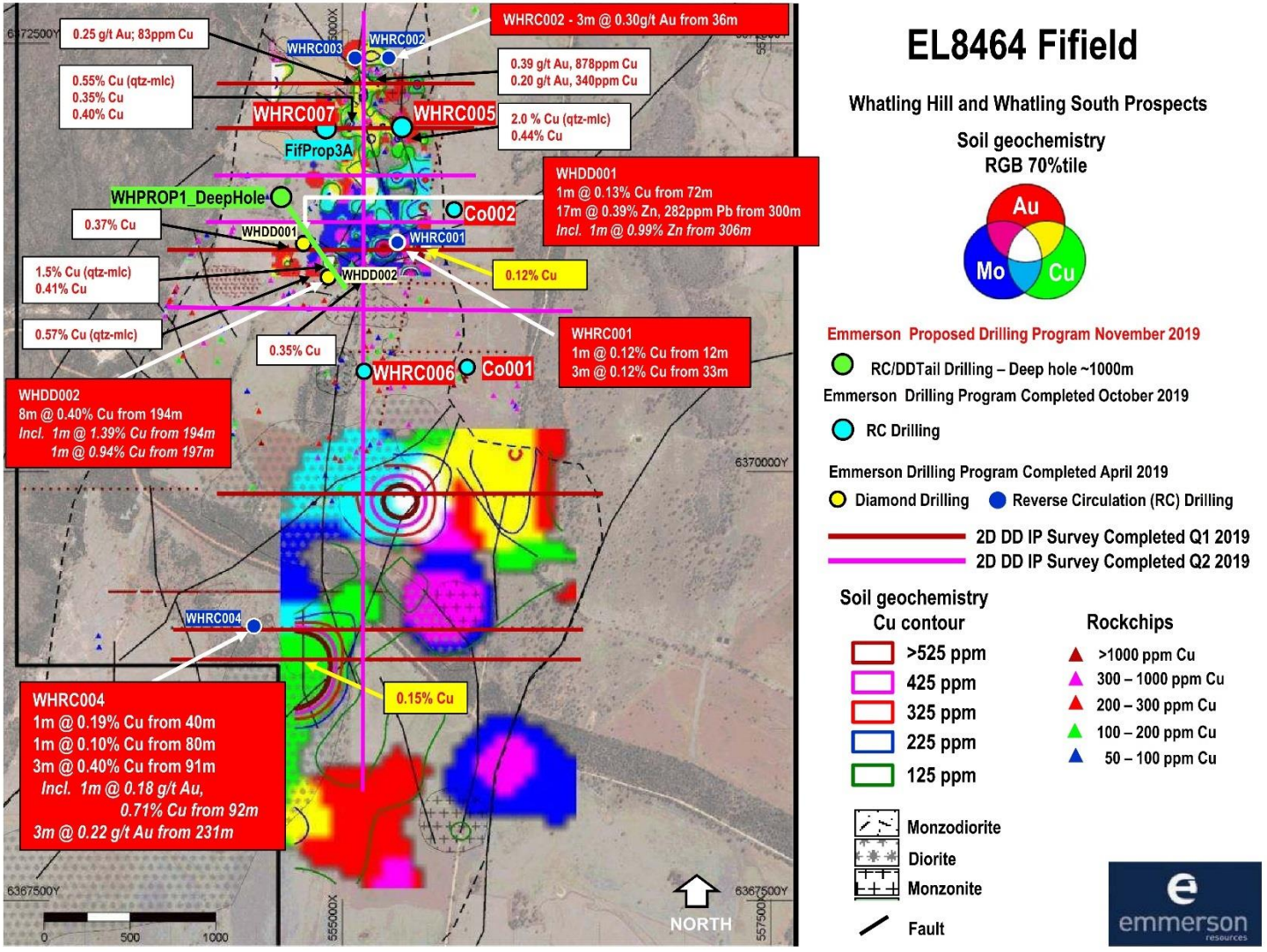


Figure 2: Location and assay results from drilling (red call out boxes) at Emmerson Whatling Hill Project. Background is the previously announced geochemistry, the IP geophysical survey (red lines) and rockchip assays (red font), with peak assay results from the regolith (yellow call out boxes). **The green trace is the proposed deep diamond drill hole** (the geochemical results were reported in ASX Announcements dated 8 August 2018 and 26 November 2018 and there is no new information or data that materially affects the information included in those previous announcements).

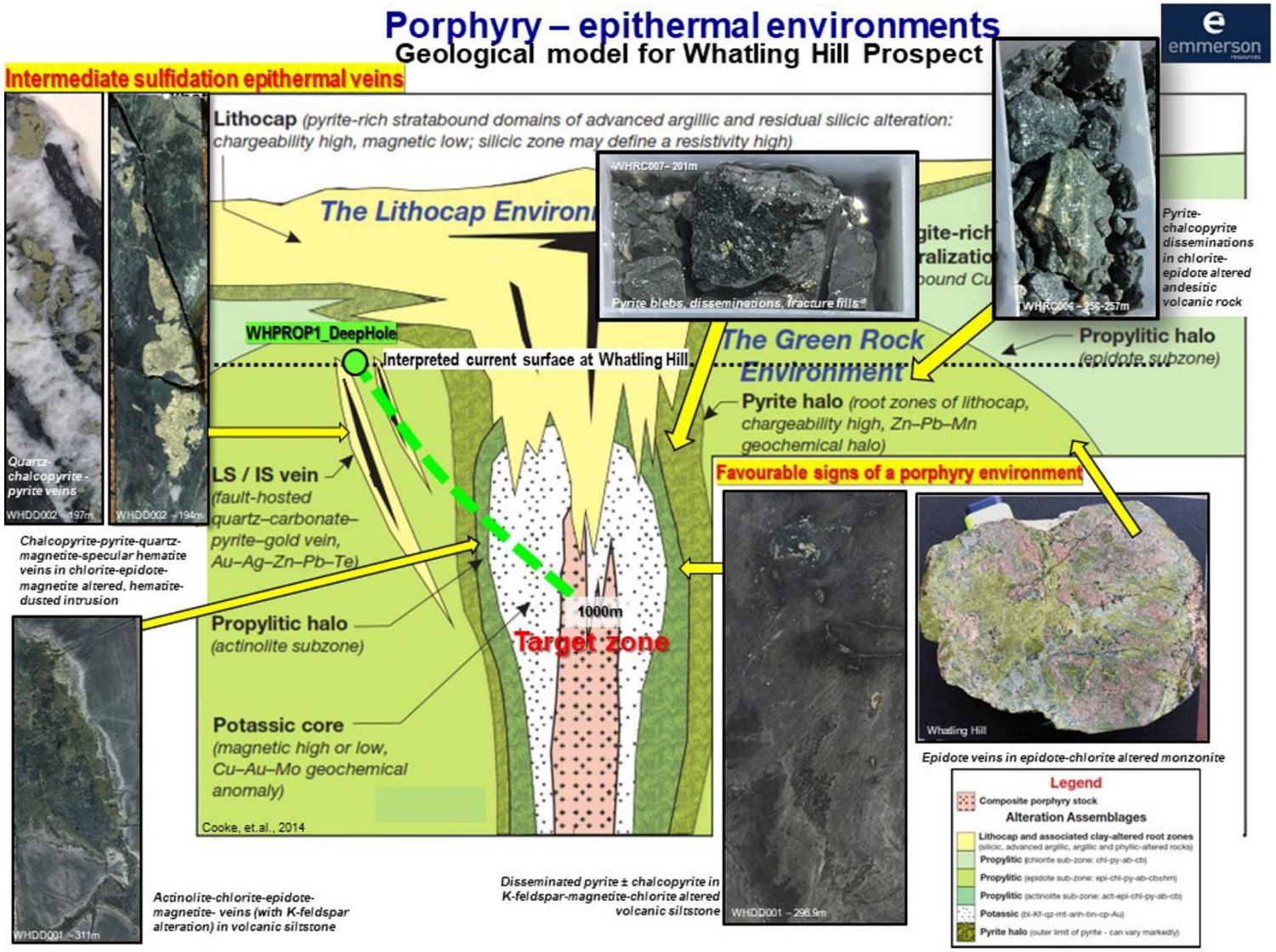


Figure 3: Schematic Porphyry Copper-Gold Model showing the approximate location of Emmerson's recent drilling with respect to the core or target zone of the system. The next phase of exploration is aimed at testing the core of the system and is where the higher grades of copper and gold are expected