

## **Maiden RC drill program commences at the Whatling Hill copper-gold project in NSW**

### **Highlights**

- Two drill rigs commence testing a number of large copper-gold targets at Whatling Hill
- Targets generated from compelling geochemical results of up to 2% copper and 0.25g/t gold in stockwork quartz veins within altered monzonite intrusives
- Recent Induced Polarisation geophysical survey has provided additional targets at depth that correspond with elevated copper and gold soil geochemistry
- The anomalous soil geochemistry and geophysical targets now extend over a large 5km<sup>2</sup> area
- Age dating and alteration from limited surface exposure is similar to world-class porphyry copper-gold deposits in the province including Cadia-Ridgeway and Northparkes
- Initial results from the maiden drill program at Whatling Hill expected in the second Quarter of 2019

### **Emmerson Managing Director Mr Rob Bills commented:**

*“Drilling at Whatling Hill is now underway and will test a variety of geological, geophysical and geochemical targets over the next four to five weeks with first results expected in the second quarter of 2019. The recent Induced Polarisation (IP) geophysical survey at Whatling Hill has successfully provided an insight into the subsurface geology and alteration to assist with targeting for this program. Importantly the IP augments the elevated copper, gold and molybdenum soil geochemistry suggesting possible “leakage” of metals into the subsurface above or lateral to porphyry copper-gold mineralisation.*

*Our field-based exploration has been complemented by cutting edge science which has included analysis of the alteration where initial findings suggest we are within the geochemical footprint of a porphyry system. Moreover, age dating has demonstrated our targets are consistent in age with the mineralised intrusions at the world-class Northparkes and Cadia-Ridgeway copper-gold deposits.*

*Based on the encouraging early stage results at both Whatling Hill and nearby Kadungle, Emmerson has consolidated its ground position to take account of possible multiple centres of porphyry copper-gold mineralisation occurring within the Macquarie Arc and Lachlan Transverse Zone (Figure 1).*

*A discovery across any of our NSW projects would be transformational for Emmerson – particularly given the paucity of new, large scale copper-gold projects and the competition for new resources.”*

## **Whatling Hill (Figure 2)**

The recent IP survey has complemented the soil geochemical program that now stretches some 4km to the south of Whatling Hill. As previously reported (ASX Announcement dated 8 August 2018), a 500m grid based aircore program at Whatling Hill produced elevated copper, molybdenum and gold corresponding to sparse outcrops of quartz stockwork magnetite veins within highly altered monzonite intrusives. These quartz-magnetite-chalcopyrite stockwork veins assay up to 2% copper and 0.25g/t gold and provide evidence of potential for underlying or nearby mineralisation (refer to ASX Announcement dated 14 June 2018).

The IP survey has generated a number of resistivity and chargeability anomalies at depth, some of which correspond to elevated copper and gold geochemistry (refer to ASX Announcement dated 26 November 2018). The drill program consists of two diamond drill holes aimed at testing a chargeable IP anomaly, some 300m below the surface (Figure 3). These strongly chargeable zones combined with the anomalous copper and gold geochemistry are consistent with the presence of sulphides. There is no outcrop or drilling in the vicinity, however the presence of epidote alteration, quartz stockwork veins to the north associated with Ordovician age monzodiorites indicates these IP anomalies may correspond to buried mineralisation.

An additional four reverse circulation drill holes will test a variety of geological, geochemical and geophysical targets.

Note this mineralisation was identified from systematic sampling and recognition of widespread epidote-chlorite alteration typically associated with the outer zones of porphyry copper-gold mineralisation.

The host Ordovician Raggatt Volcanics and related intrusives are truncated to the west by the Devonian Gobondery Granite, and to the east by the overlying Silurian conglomerates – providing a “window” of prospective, metal-fertile Ordovician rocks that likely extend undercover to the east where Emmerson has recently expanded its ground position to include the greater Kadungla project.

This window of prospective Ordovician rocks is anomalous in metals and mostly covered by regolith (Figure 2). Trace element analyses of epidote from the recent aircore drilling reinforce previous conclusions that this belt is prospective for porphyry copper-gold and epithermal gold-silver mineralisation (as determined from collaboration with the University of Tasmania via the ARC Linkage Project).

Moreover, Whatling Hill and Emmerson’s five other NSW projects were selected from the application of proprietary predictive targeting models, aimed to increase the probability of a major discovery of copper and gold.

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## **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 Limited) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery. 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<sup>2</sup> adjacent to Emmerson's Fifield project.

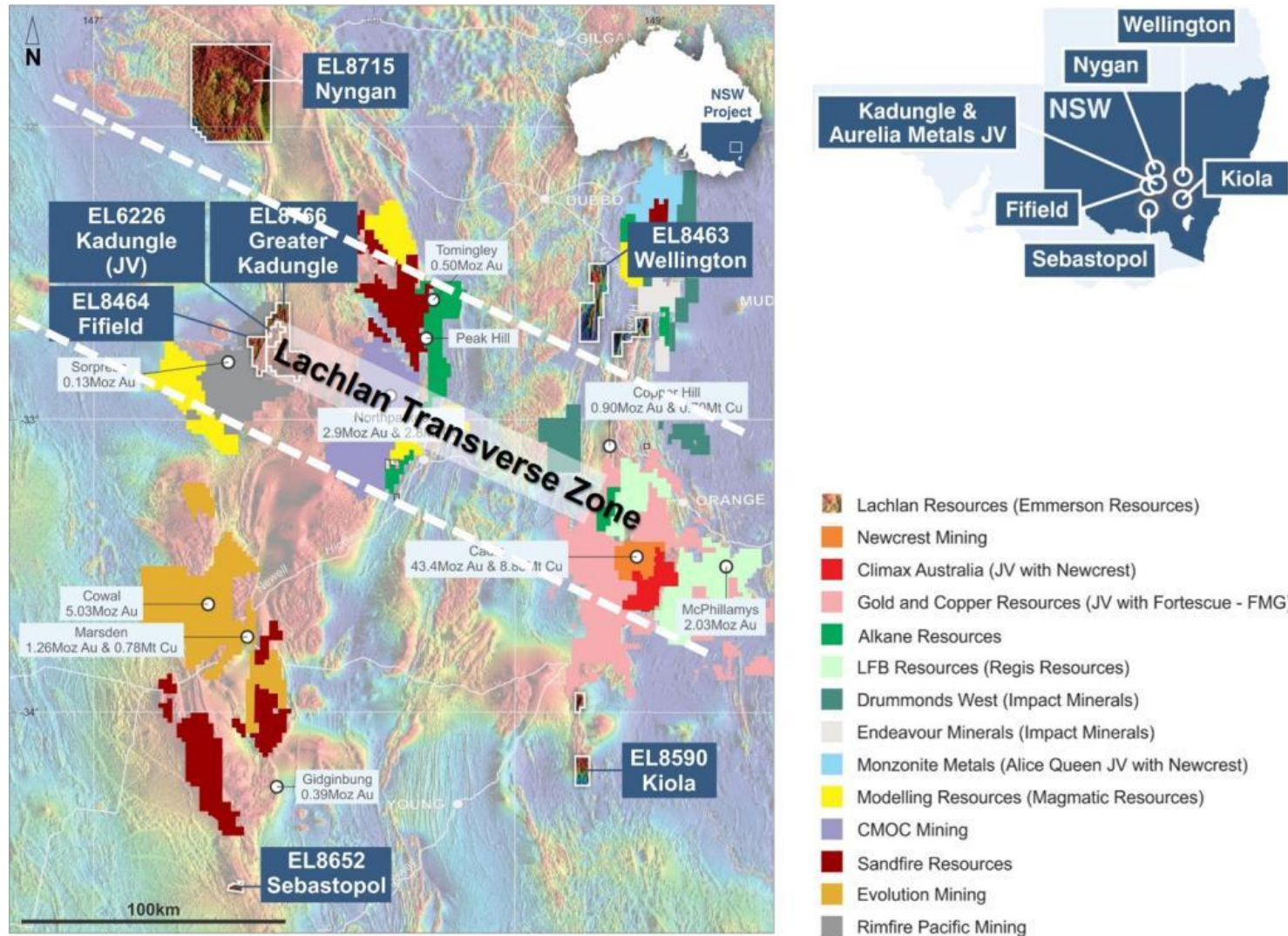
In addition, Emmerson has a commanding land holding position and is exploring the Tennant Creek Mineral Field (TCMF), one of Australia's highest-grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes of copper from deposits including Warrego, White Devil, Orlando, Gecko, Chariot, 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.

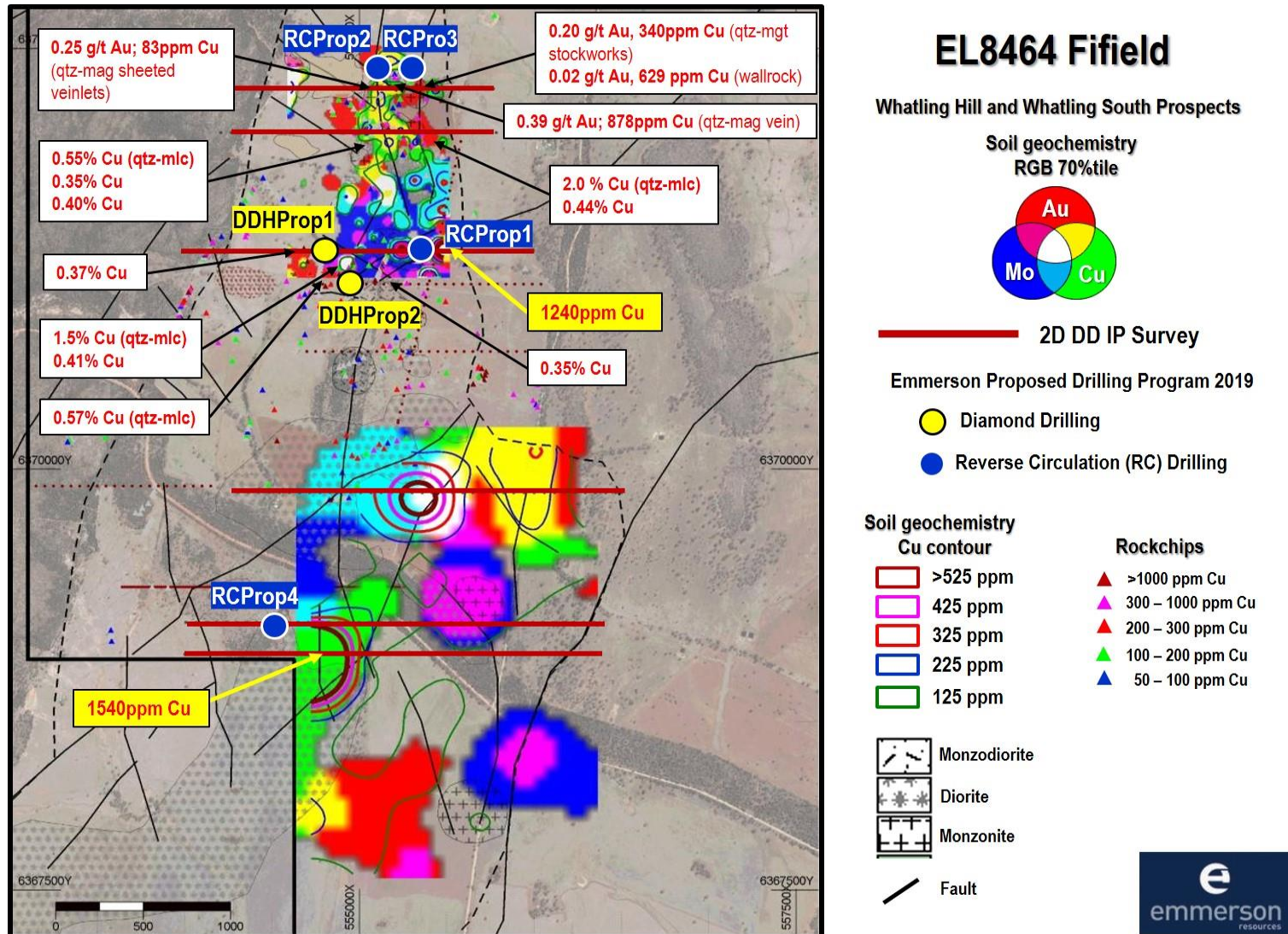
### **Competency Statement**

*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.*



**Figure 1.** Location of Emmerson's NSW Projects (blue outline). 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:** Geochemical aircore results from the Whatling Hill Project within the larger Fifield tenement. Note the red lines mark the IP geophysical survey, the rockchip assays (red font) and peak assay results from the regolith (yellow call out boxes). The above exploration 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.

