

## MT Survey Generates New Copper Targets in Paterson Province

- The large scale (~100 line km) magnetotelluric (MT) survey completed at the Yeneena project in the Paterson Province has identified a suite of new copper drill targets
- New technologies generating new conceptual drill targets adjacent to zones of copper mineralisation intersected in previous drilling
- Near surface MT features have been validated against prior VTEM surveys providing improved confidence in conductive features identified at depth
- The Yeneena project is a collaboration between Independence Group NL (IGO) (ASX:IGO) and Encounter. IGO may, at any time before 1 March 2020, elect to enter an earn-in agreement to spend up to \$15 million to earn a 70% interest in Yeneena
- The Yeneena project expanded by 20% through an option agreement completed covering 235km<sup>2</sup> of ground adjacent to Yeneena

The directors of Encounter Resources Ltd (“Encounter / the Company”) are pleased to provide an update on the program of advanced exploration technologies being applied in collaboration with IGO at the Yeneena Copper-Cobalt Project (“Yeneena”) of Western Australia (WA).

**Commenting on the successful application of these new technologies, Encounter Managing Director Will Robinson said:** “The Paterson Province is a highly fertile district with enormous potential for new copper discoveries under thin sand cover. Applying new technologies is providing us with an improved understanding of the geological framework in areas where we have already drilled high grade copper mineralisation. These new targets generated are now being integrated and refined to be ready for drilling in the 2020 field season.”

### Background

Yeneena is a major strategic land holding in the emerging Proterozoic Paterson Province covering a 70km long corridor south of the Nifty Copper Mine (Figure 1). The project has recently been expanded by 20% through an option agreement completed covering 235km<sup>2</sup> of ground adjacent to Yeneena.

The Paterson Province is a proven mineral region with a consistent history of discoveries and with increasingly active majors.

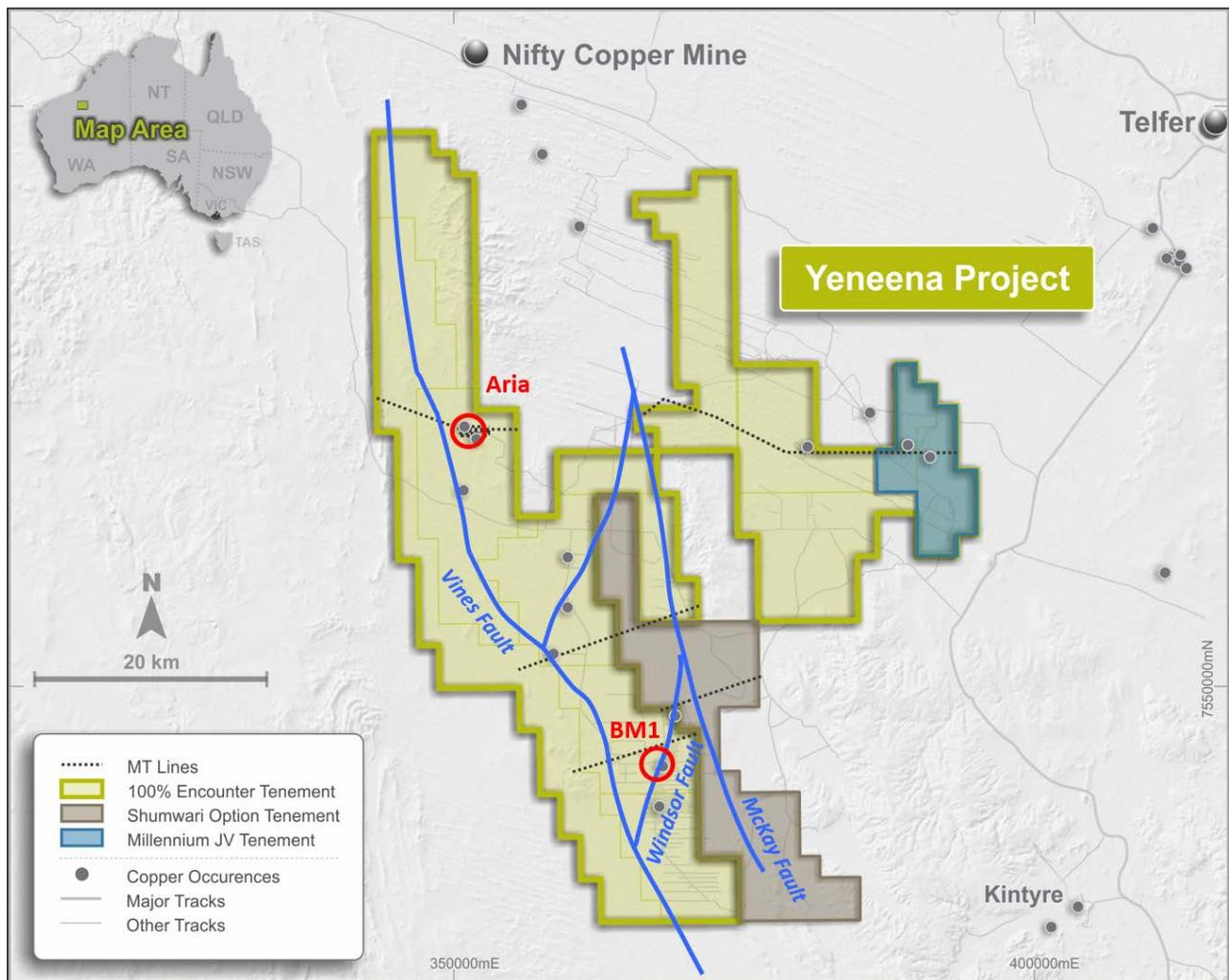
Yeneena is a collaboration between IGO and Encounter. IGO is a substantial shareholder in Encounter and may, at any time before 1 March 2020, elect to enter an earn-in agreement to spend up to \$15 million to earn a 70% interest in Yeneena (Earn-in Option).

The Earn-in Option covers 1,505km<sup>2</sup> of tenure and includes the 14km long BM1-BM7 copper-cobalt trend, Lookout Rocks copper-cobalt prospect and Aria IOCG (iron oxide copper gold) style target.

The 2019 program was designed to define the 3D geology and identify large scale copper targets by applying several advanced exploration technologies for the first time at the Yeneena project including:

- a large-scale (MT) survey (~100 line-km) to better define the Yeneena basin architecture and further advance 3D target definition;
- detailed 3D audio-magnetotelluric (AMT) inversion modelling over the Aria iron oxide copper-gold prospect in order to better define possible conductive zones associated with significant Cu sulphide mineralisation.;
- end-of-hole trace multi-element geochemistry of historical AC drilling to define alteration footprints of copper deposits and the host rocks, which remains in progress; and
- application of new surface geochemistry techniques to detect base metal anomalies through shallow sand cover, the trial phase of which is complete with follow up sampling programs in progress.

The work completed to date has generated a suite of new copper targets at Yeneena.



**Figure 1. Yeneena - MT sections, key structures and Leasing summary**

## MT Survey Generates New Drill Targets

### 1. BM1

A line of MT was completed in the south west of the project crossing the Vines Fault corridor in the west and over the Windsor Fault to the east, 2km to the north of the BM1 copper prospect. BM1 is a zone of near surface copper oxide mineralisation discovered by Encounter in 2010. High grade copper oxide intersections at BM1 include:

- 10m @ 6.8% Cu from 32m\*
- 20m @ 2.0% Cu from 22m\*
- 16m @ 3.2% Cu from 26m
- 50m @ 1.1% Cu from 12m

This 400x200m zone of shallow copper mineralisation is hosted within the conductive sediments of the Broadhurst Formation and is interpreted to be the weathered product of an in-situ sulphide body adjacent to the Windsor Fault.

The MT survey has highlighted conductivity anomalies to the west and east of the Windsor Fault that are interpreted to be mapping the Broadhurst Formation. The shallower eastern anomaly hosts the BM1 mineralisation to the south of the MT line. Drilling of the covered area to the north of BM1 is limited and the MT survey has highlighted the potential for an extension of the BM1 system to the north.

The deeper anomaly to the west of the Windsor Fault is interpreted to represent the western fault offset of the Broadhurst Formation (Figure 2). Exploration efforts will now focus on locating additional primary sulphide mineralisation within the Broadhurst Formation adjacent to the Windsor Fault. Applying high powered ground EM is being considered to further define these conceptually compelling targets.

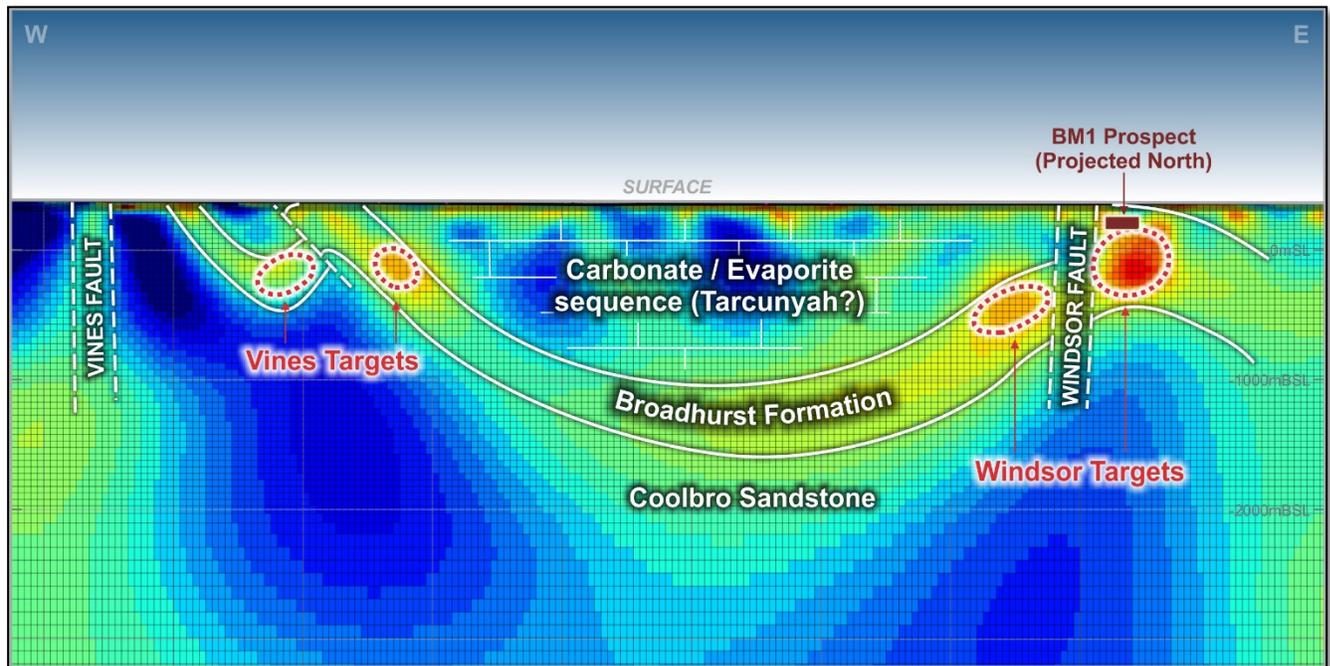


Figure 2. MT section – Vines Fault to BM1. Interpreted geology with drill targets

## 2. Vines Fault Targets

The MT survey has outlined a potential sub basin of conductive Broadhurst sediments 5km west of BM1 (Figure 2). The conductive stratigraphy identified at BM1 adjacent to the Windsor Fault is interpreted to come to surface adjacent to the major regional Vines Fault, 5km to the west. Additional surface geochemistry has been completed in this area as a precursor to a potential drill program to test the conductive units highlighted in this area by the MT program.

The Windsor and Vines Targets have been validated through the generation and interrogation of a solid conductivity model from the detailed VTEM dataset. The shallow conductivity features seen in the VTEM model correlate with the near surface anomalies seen in the MT sections providing improved confidence in conductive features identified at depth.

## 3. Aria

Aria is a regionally significant, 1.5km long oval shaped magnetic anomaly located on a major crustal scale structure (Figure 3). Localised copper mineralisation (~1% Cu) has been intersected in both diamond holes drilled to-date, but the partially coincident magnetic and gravity anomalies remain unexplained. The geology at Aria has been confirmed as hematite-altered, polymictic breccia of probable IOCG style and a possible setting for a large tonnage copper deposit e.g. Carrapateena.

A detailed 3D audio-magnetotelluric (AMT) survey and inversion modelling over the Aria IOCG prospect has been completed in order to identify conductive zones that may be associated with accumulations of copper sulphide mineralisation. This modelling has highlighted a conductive feature within the interpreted breccia pipe (Figure 4). This conductor is untested by prior drilling with the closest drill hole, EPT2276 (see Photo 1), located 500m to the west.

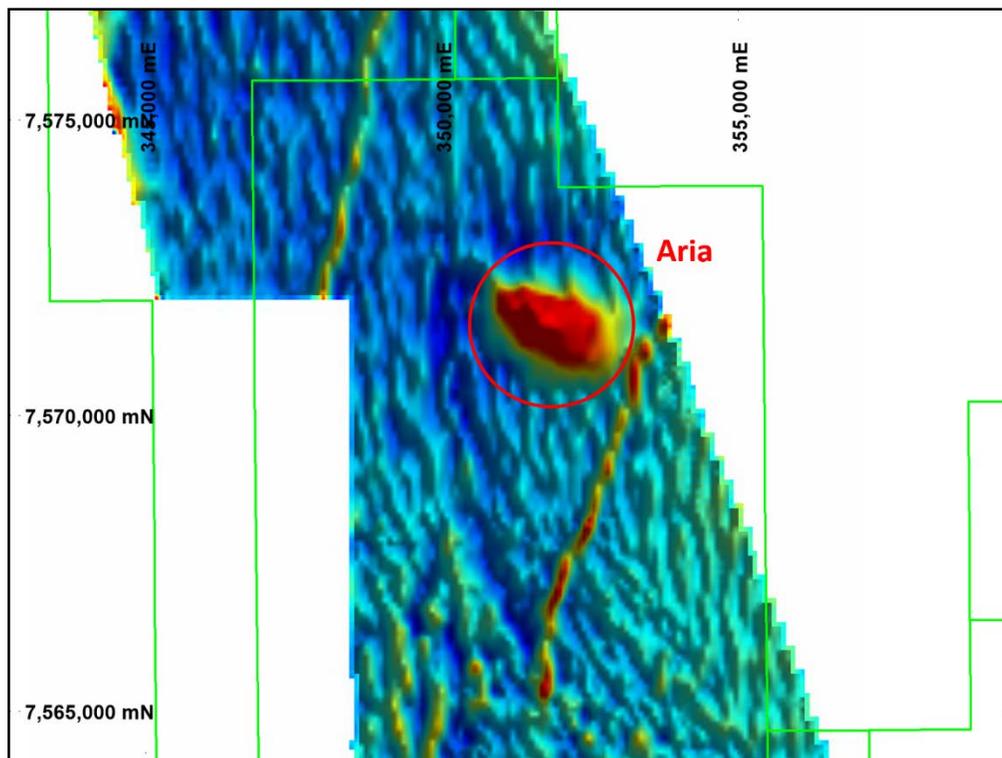
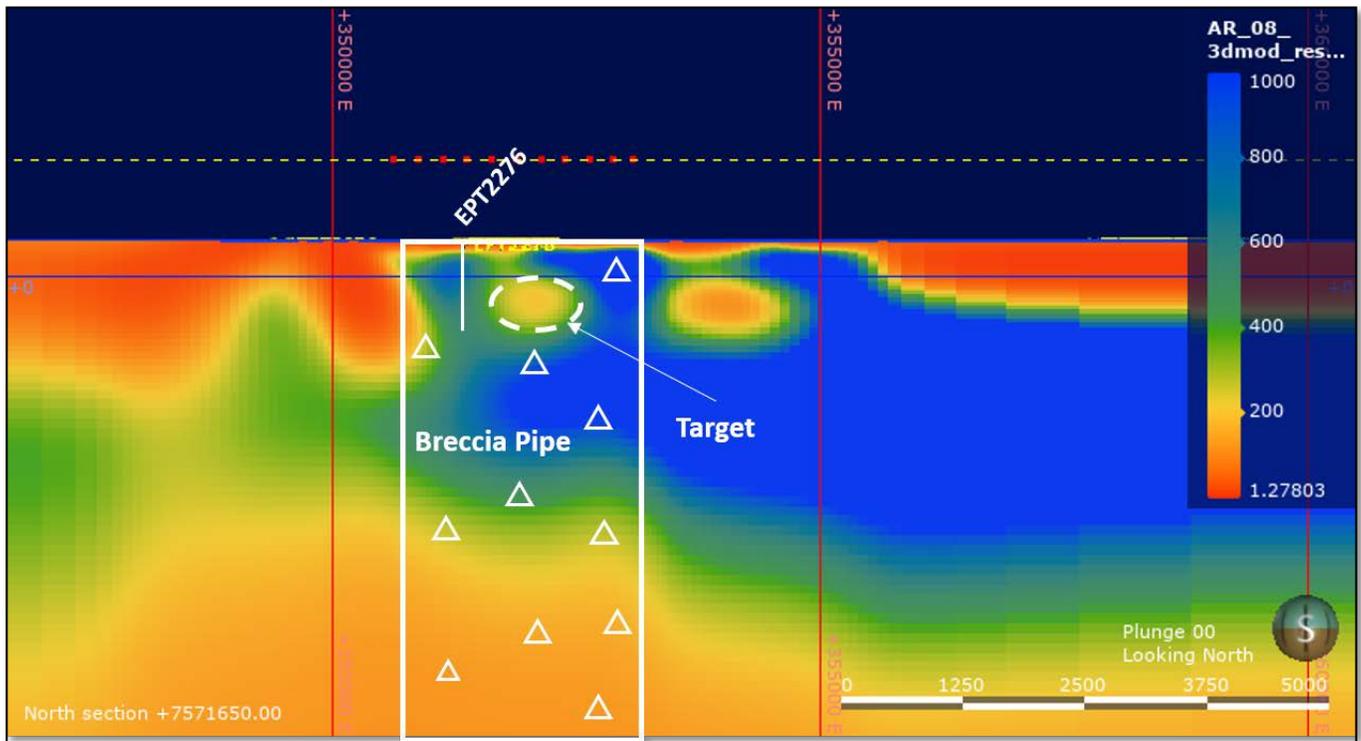


Figure 3. Detailed magnetics 1VD TMI – Aria prospect



**Figure 4. MT section – Aria prospect**



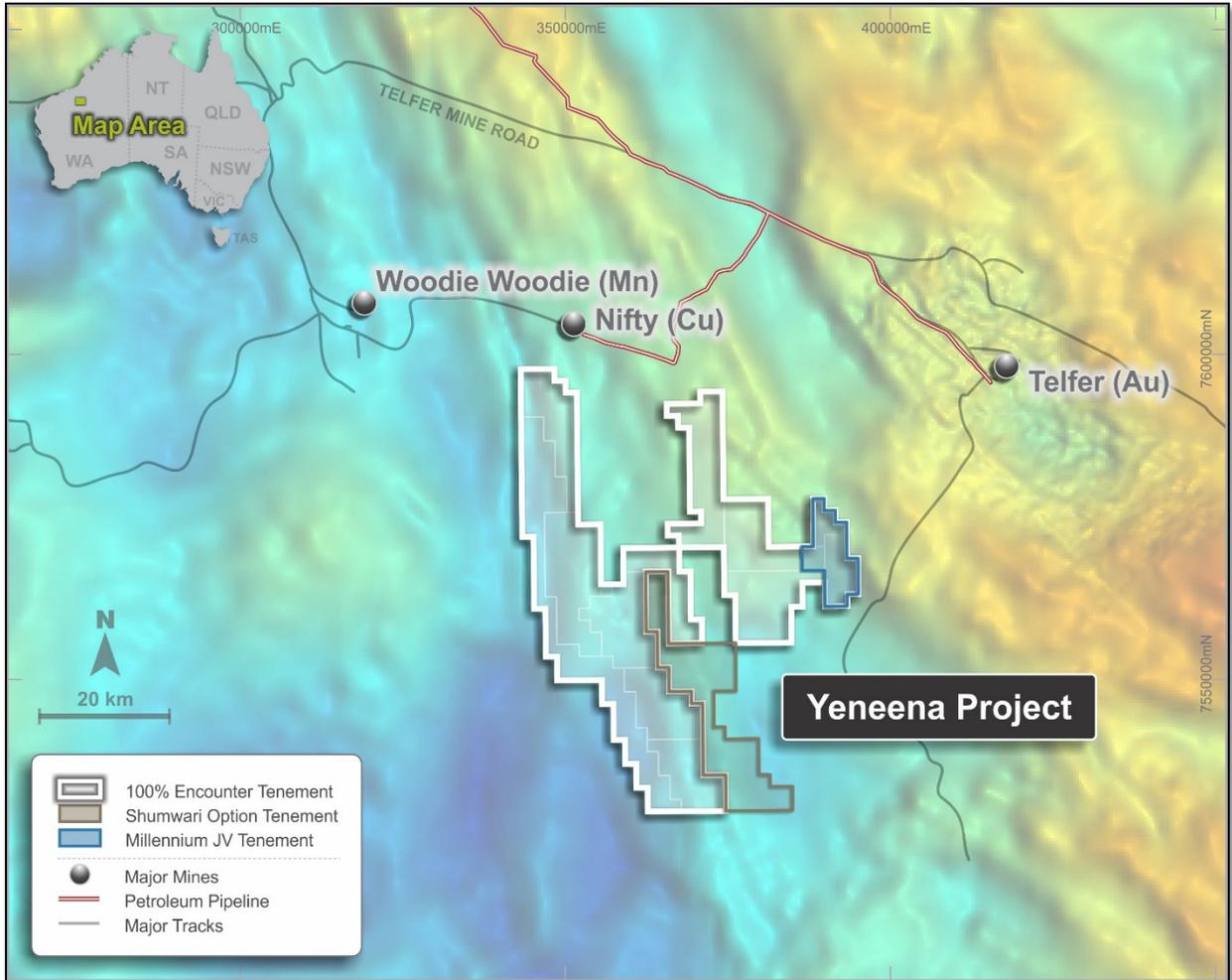
**Photo 1. Polymictic breccia with vein hosted blebby chalcopyrite in EPT2276**

### Expansion of Project area

The Yeneena project has expanded by ~20% from 1,270km<sup>2</sup> to 1,505km<sup>2</sup> through an option with Shumwari Pty Ltd over E45/5379. The 235km<sup>2</sup> Shumwari Option tenement sits along the eastern boundary of the project and covers the southern extension of the McKay Fault (Figure 1).

**Upcoming Activity**

The full integration and interpretation of the data collected at Yeneena is expected to be completed in the December 2019 quarter and the results will guide the follow-up geochemical, geophysical and drilling programs.



**Figure 5: Location of the Yeneena Project in the Paterson Province.  
Background image - regional gravity**

**Tanami and West Arunta**

Fast-tracking exploration via joint ventures with Newcrest

**Paterson Province – Copper-Cobalt**

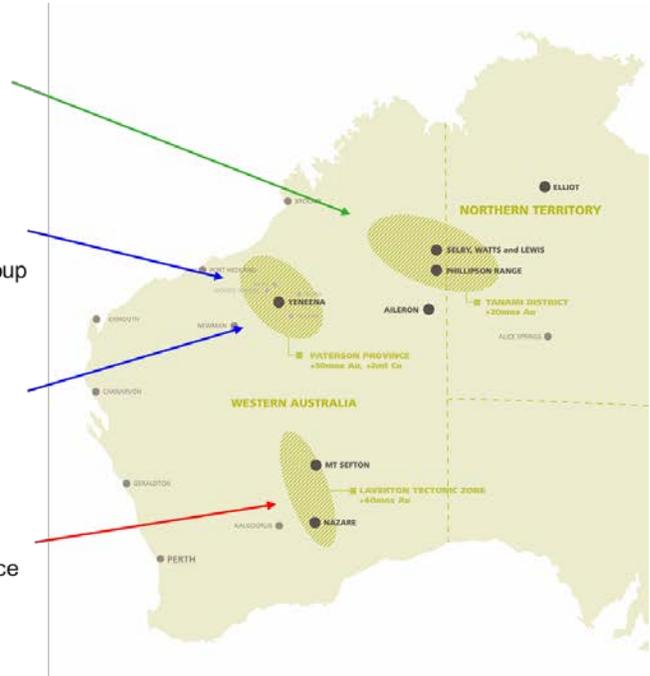
New approach in a known Cu-Co district with Independence Group

**Paterson Province – Copper-Gold**

Copper-Gold targets analogous to Rio Tinto's Winu discovery

**Laverton Tectonic Zone**

Innovative new generative program in a world class gold province



**About Encounter**

Encounter Resources Limited is one of the most productive project generation and active mineral exploration companies listed on the Australian Securities Exchange. Encounter's primary focus is on discovering major gold deposits in Western Australia's most prospective gold districts: the Tanami, the Paterson Province and the Laverton Tectonic Belt.

The Company is advancing a highly prospective suite of projects in the Tanami and West Arunta regions via joint ventures with Australia's largest gold miner, Newcrest Mining Limited (ASX:NCM).

Encounter also 100% controls an extensive, underexplored project position covering the southern extension of the +40Moz Laverton Tectonic Zone.

Complementing its expansive gold portfolio, Encounter controls a major ground position in the emerging Proterozoic Paterson Province where it is exploring for copper-cobalt deposits with highly successful mining and exploration company Independence Group NL (ASX:IGO), and intrusive related copper-gold deposits at its 100% owned Lamil Project.

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*The information in this report that relates to Exploration Results is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bewick consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed.*