ASX Announcement

5 October 2023

Giant Copper Targets at Oval and Oval South

Highlights

- **Review of geological data has identified giant and potentially transformational targets, Oval and Oval South.**
- **Great Western interprets that coincident geophysics anomalism, location on major crustal scale mantle tapping fault, and within favourable stratigraphy has the potential for a colossal scale discovery to be made.**
- **Both targets interpreted to be Winu and Haverion style intrusive related copper-gold mineralisation, with Oval and Oval South sharing close similarities to both these deposits.**
- **Great Western is in the process of completing access approvals for drilling of these highly compelling targets.**

Great Western Exploration Limited (ASX: GTE) ("Great Western" or "the Company") is pleased to announce the completion of a geological review of the Company's Yerrida North Project. Within this project are two colossal potentially transformational copper-gold intrusive related targets, Oval and Oval South.

These two targets have coincident electromagnetic (EM), gravity, and magnetic geophysical anomalism, and are both located on a proven fertile, mantal tapping crustal scale fault. The geophysical signature of these targets is similar to both giant Haverion and Winu copper-gold intrusive related deposits, representing an extremely compelling targets for Great Western Exploration.

Yerrida North Project

GTE 100% (E51/1324, E51/1330, E51/1560, E51/1712, E51723, E51/1724, E51/1728, E51/1746, E51/1747, E51/1819, E51/1827, E51/2033, E51/2068)

The Yerrida North Project is located on the northern and western portions of the Yerrida Basin, approximately 800km north-east of Perth and adjacent to the DeGrussa and Monty Cu-Au Volcanic Hosted Massive Sulphide deposits (VHMS), shown in Figure 1 and 2.

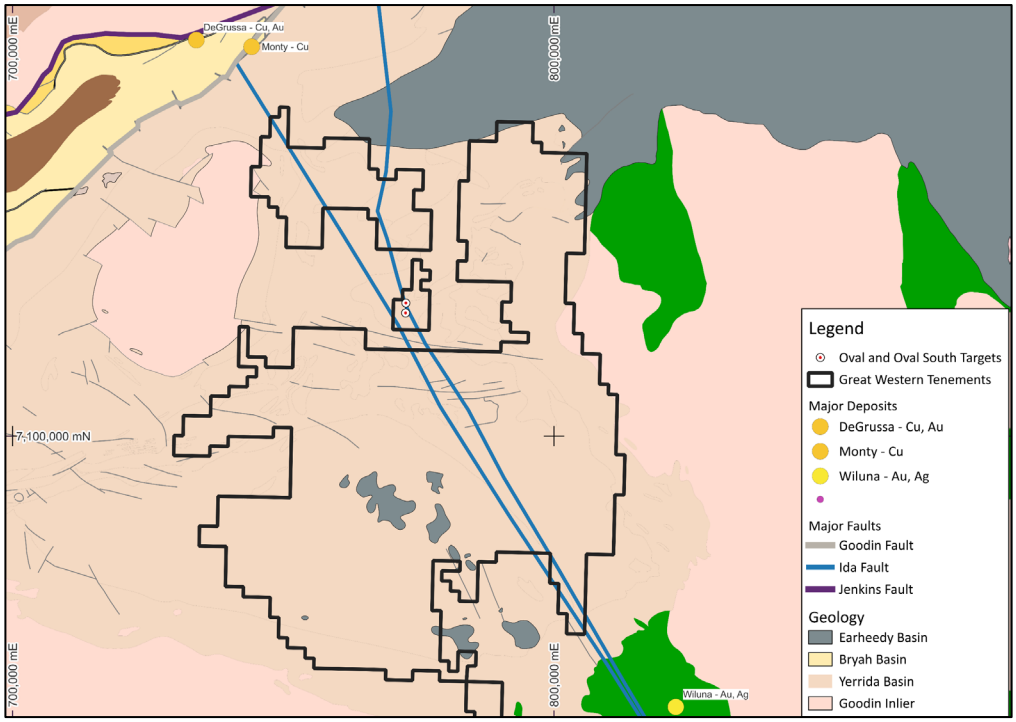

Figure 1: Location of the Oval and Oval South Targets and Great Western Tenements within the Yerrida Basin, and proximity to the DeGrussa and Monty Deposits in the nearby Byrah Basin.

The Company's analysis of the geophysical data, the position adjacent to the crustal scale mantle tapping Ida Fault, and the favourable sedimentary units of the Yerrida basin makes these targets highly prospective for colossal scale deposits such as:

- Intrusive related copper-gold - Winu (2.88Mt Cu – 7.88Moz Au, Rio Tinto 2023) and Greatland Gold-Newcrest's Haverion (2.9Moz Au – 140Kt Cu, Newcrest 2023) deposits, or
- DeGrussa-Monty style VHMS deposits (combined metal endowment 766Kt Cu, 588Kt Oz Au).

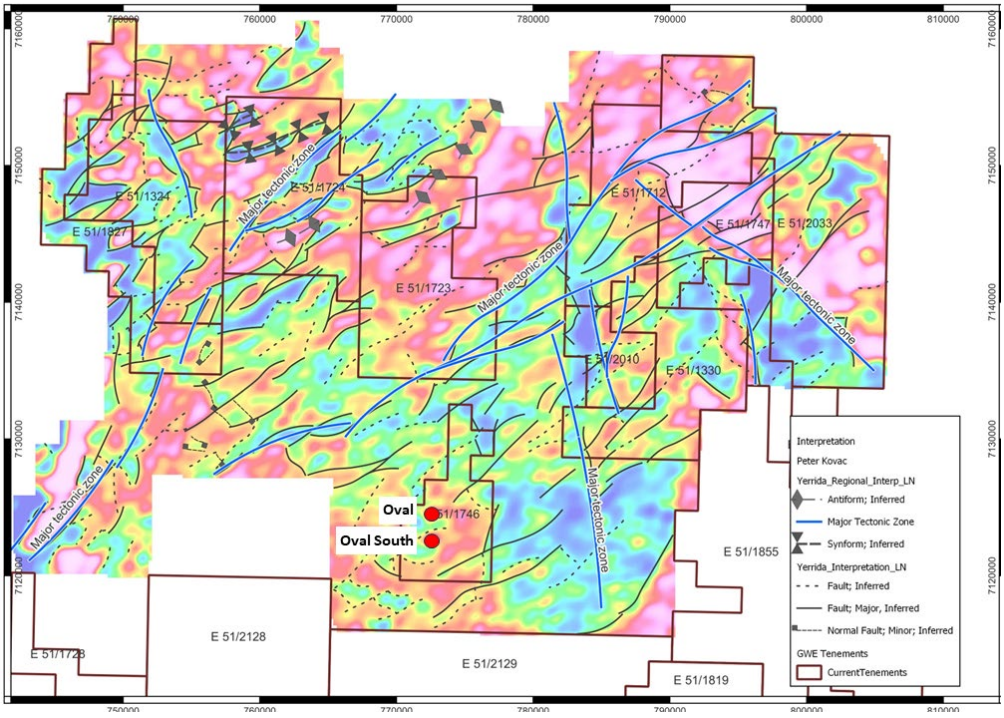

Figure 2: Airborne gravity gradiometry with interpreted major tectonic zones, and the Oval/Oval South Targets.

Technical Discussion

The Oval and Oval South Targets are located on the crustal scale Ida Fault, shown in Figure 3. The Ida Fault has an extent of over 500km and separates the Kalgoorlie and Youanmi Terrains. The significant scale of the fault and the large number of giant nickel, gold, and copper deposits peppered along and adjacent its length (Mt Keith – Nickel, Perseverance – Nickel, Wiluna – Au) indicates the mantle tapping potential of the structure, allowing metal rich fluids to ascend to the surface and accumulate in suitable structural and stratigraphic trap sites.

The Ida Fault's northern extent is traced to Wiluna and is interpreted to trend north below the Yerrida Basin, evident in gravity and magnetic regional gravity sets (Figure 3), within the Company's Yerrida North Project. To the north-east of the Project area, the DeGrussa and Monty VHMS deposits are located on the intersection of the interpreted projection of the Ida and the Jenkin and Goodin Faults respectively (Figure 3).

The Oval and Oval South Targets are located on the projected Ida Fault trend within the Yerrida Basin, both with coincident electromagnetic (EM), magnetic, and gravity anomalies.

The Oval Target was originally defined by a Rio Tinto Tempest Airborne EM survey completed in the 1990s, with drilling in the target area completed by Rio (drill-hole OVN001). This hole was terminated at 232m after intersecting black shale with up to 10% pyrite, interpreted at the time to be the source of EM anomalism from the available data (Figure 4).

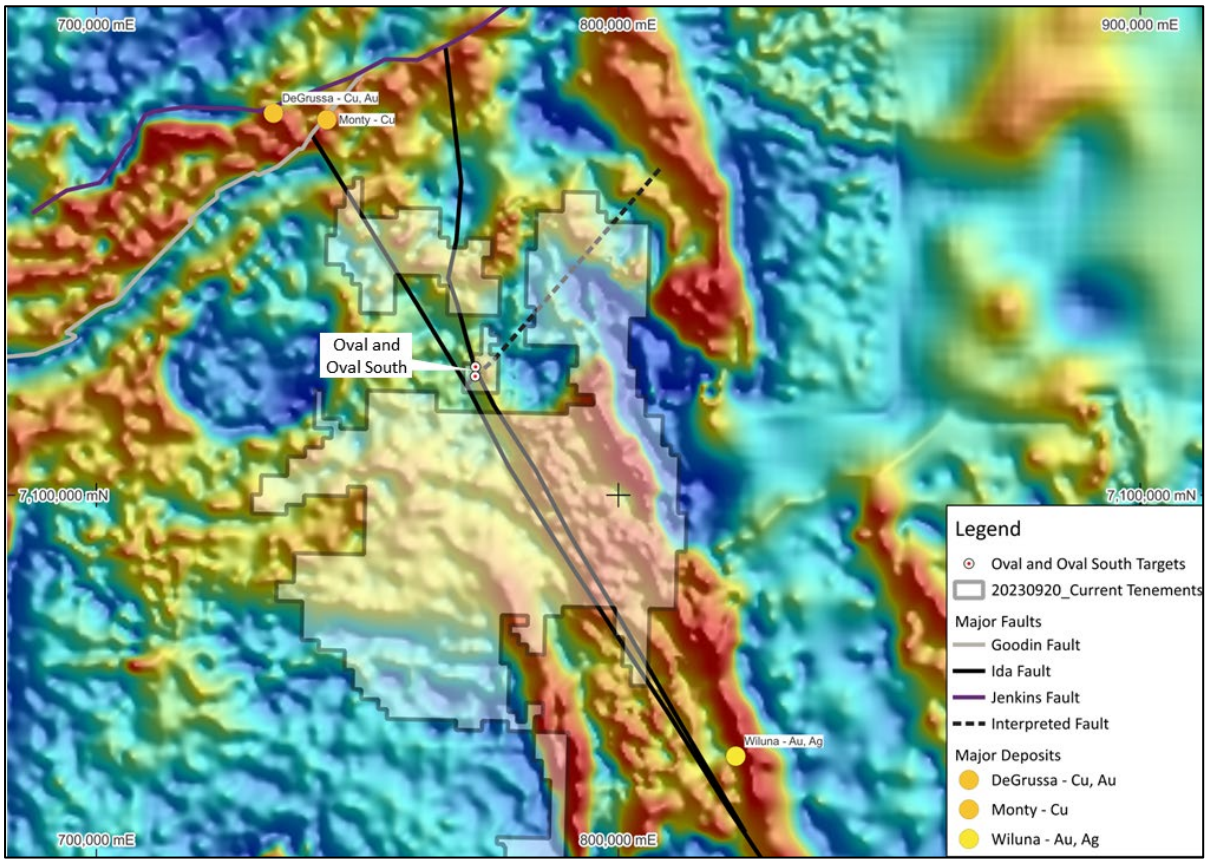

Figure 3: Location of the crustal scale Ida Fault relative to Oval and Oval South, overlaid on regional gravity data.

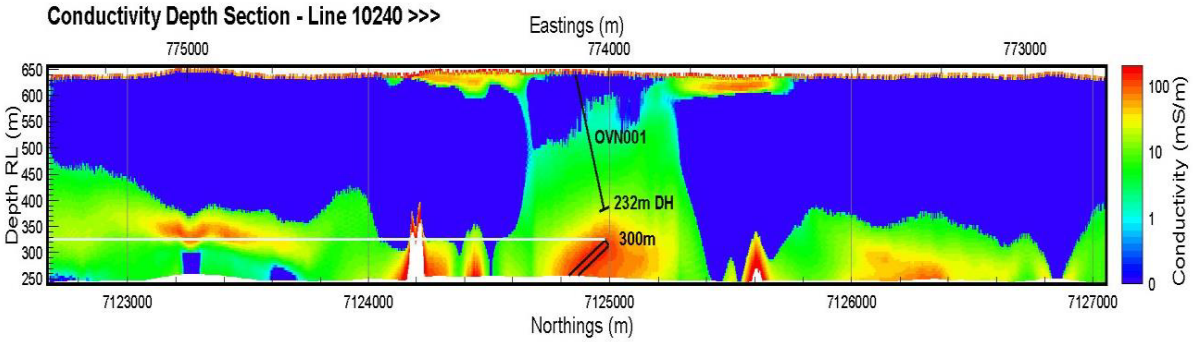

Figure 4: Position of Rio Tinto drilled hole at Oval overlaid on VTEM data. Note position of conductor below termination of OVN001.

However, in 2010 a VTEM survey was completed over an area that encompassed both Oval and Oval South. This geophysical method can penetrate deeper into highly conductive terrains such as shales at this location than the Tempest technique utilised by Rio Tinto. The VTEM data defined the conductor at a depth of 300m and below the shale surface where OVR001 was terminated (Figure 4). The conductor was found to be steeply dipping, effectively eliminating the flat lying shale sequence drilled as the source; the Oval EM conductor remains untested.

In 2022 an Airborne Gravity Gradiometry (AGG) was completed over the Yerrida North Project by Sandfire Resources (ASX:SFR), at the time a joint venture partner of Great Western's. The AGG survey defined discrete gravity highs at Oval and Oval South, that overlay near perfectly with the VTEM anomalies (Figure 5 and 6 respectively). The coincident gravity and EM anomalies have been interpreted as potential buried bodies of metal rich sulphide mineralisation.

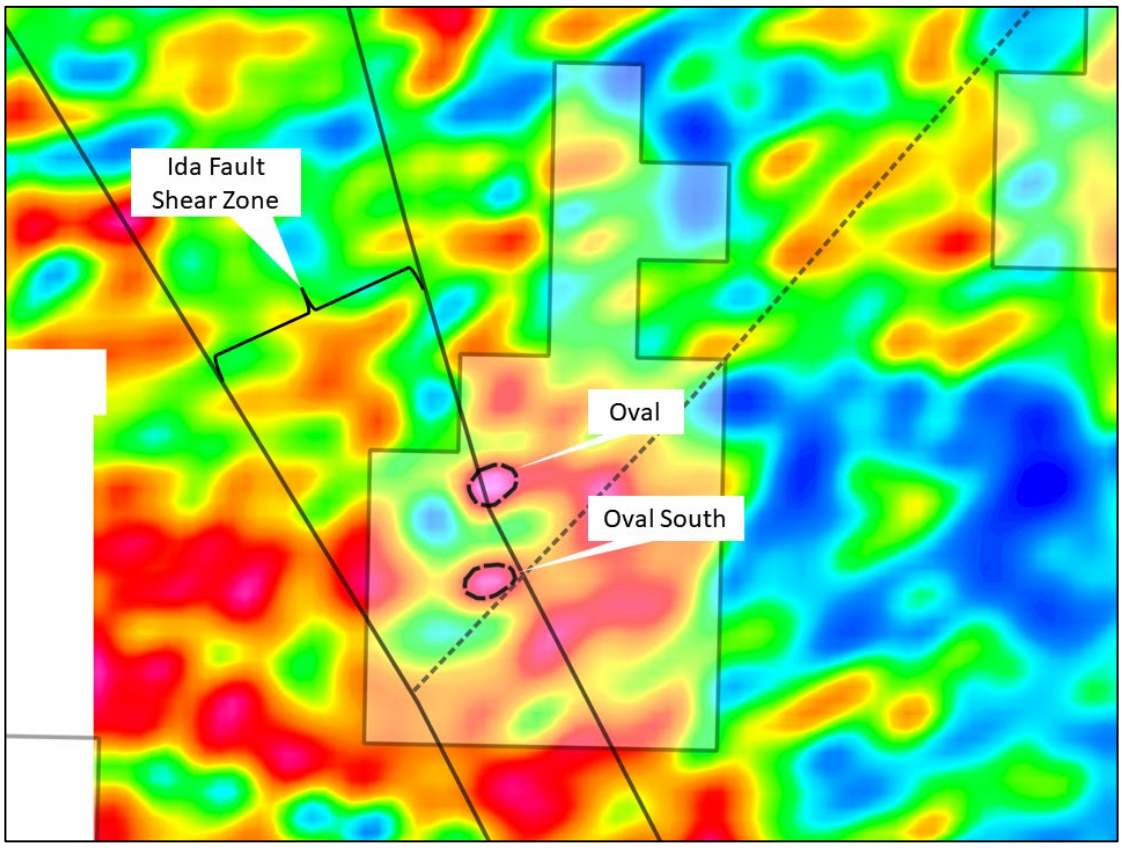

Figure 5: Oval and Oval gravity anomalies, overlaid on gravity gradiometry data.

Further, magnetic anomalism modelled at this location is interpreted to be a large intrusion at depth, and a potential mineralised fluid source and heat driver for sulphide mineralisation emplacement. The magnetic anomaly is located on an east-west corridor of intrusives (Figure 7), indicating potential weakened crust at this location. The position of both Oval and Oval South adjacent to the Ida Fault, and within this east-west intrusive corridor would significantly increase the potential for metal rich mantle fluids to be channelled to a favourable stratigraphical trap site.

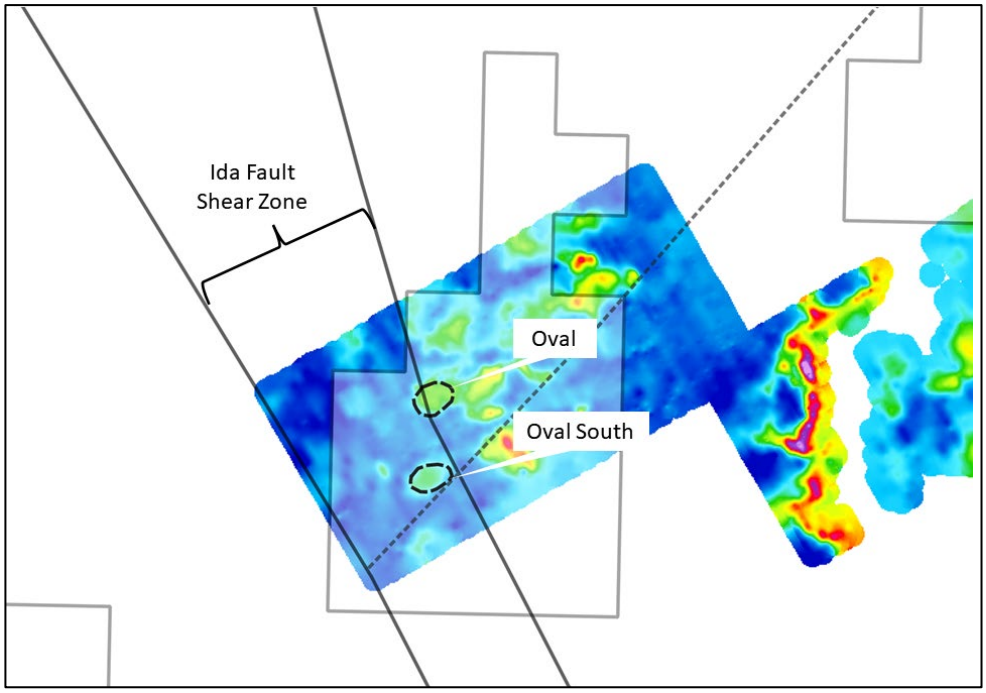

Figure 6: Oval and Oval South VTEM anomalies, with dotted circles the location of co-incident gravity anomalies from Figure 4.

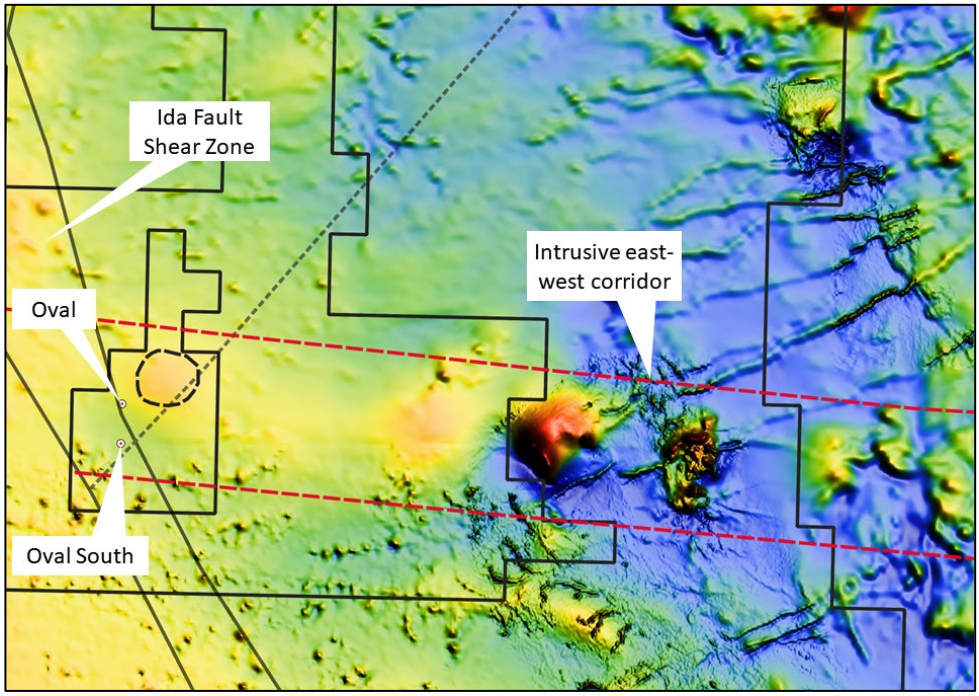

Figure 7: Magnetic anomaly dotted in black and to the northeast of Oval, interpreted to be an intrusive, within an east-west intrusive corridor. This location is likely a zone of crustal weakness particularly in close to the Ida Fault, which potentially could allow mineralised fluids to ascend to surface.

Great Western's assessment of all available data of the Oval and Oval South Targets is that it represents a significant opportunity for the Company to make a giant discovery, based on the following:

- ✓ Co-incident gravity and EM anomalies – potentially representing obscured metal rich sulphide mineralisation;
- ✓ Co-incident magnetic anomalism representing a deep intrusive providing mineralised fluids and heat source to drive a mineralised system;
- ✓ Favourable stratigraphic hosts for mineralised fluids (Johnson Cairn Formation - shales, dolomites, siltstones)
- ✓ Proximity to the crustal scale Ida Fault a proven fertile conduit for metal rich mantle fluids;
- ✓ Position of Oval and Oval South within an east-west intrusive corridor – potential zone of weakened crust which in conjunction with the Ida Fault makes an ideal trap site for metal accumulation.

Two models are proposed, both with the potential to host colossal size copper-gold +/- zinc lead mineralisation:

1. Intrusive related copper gold deposits – fluids from an intrusive at depth interact with favourable stratigraphy depositing copper-gold mineralisation. Western Australian examples include Rio Tinto's Winu Deposit (2.88Mt Cu – 7.88Moz Au, Rio Tinto 2023, Figure 8 and 9) and Greatland Gold-Newcrest's Haverion Deposit (2.9Moz Au – 140Kt Cu, Newcrest 2023),. Both deposits have similar geophysical and geological signatures to Oval and Oval South.
2. Volcanic Hosted Massive Sulphide (VHMS) – formed from volcanic exhalation onto a submarine/seafloor environment. Western Australian examples include the nearby DeGrussa and Monty deposits (combined metal endowment 766Kt Cu and 588Kt Oz Au). The Oval and Oval South Targets are within stratigraphic similar Yerrida rocks as the Byrah Basin that hosts DeGrussa/Monty, all proximal to the Ida Fault.

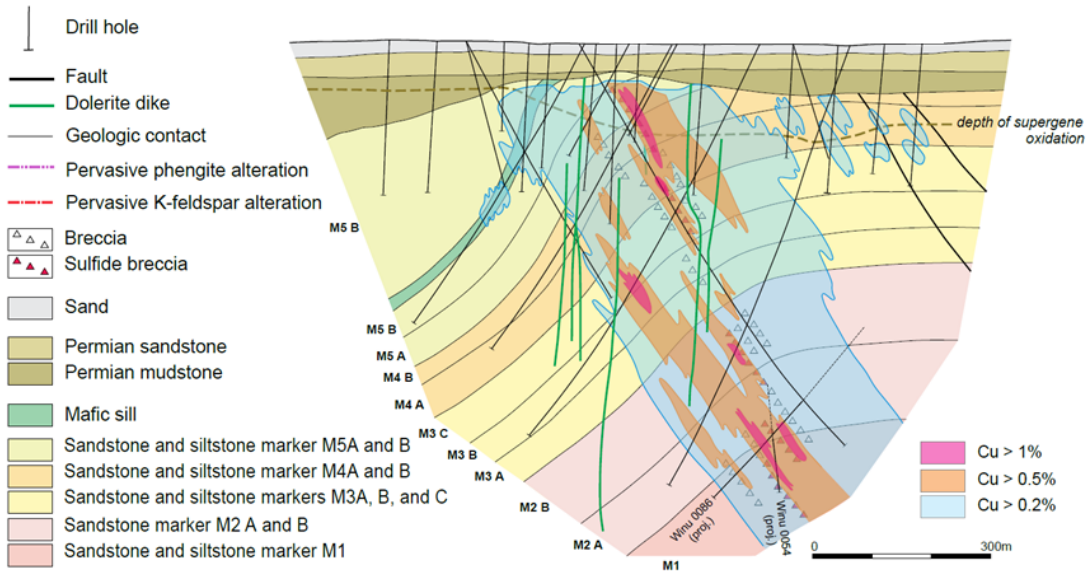

Figure 8: Schematic geological cross-section of the Winu Cu-Au Deposit (after Dalstra et al, 2023a).

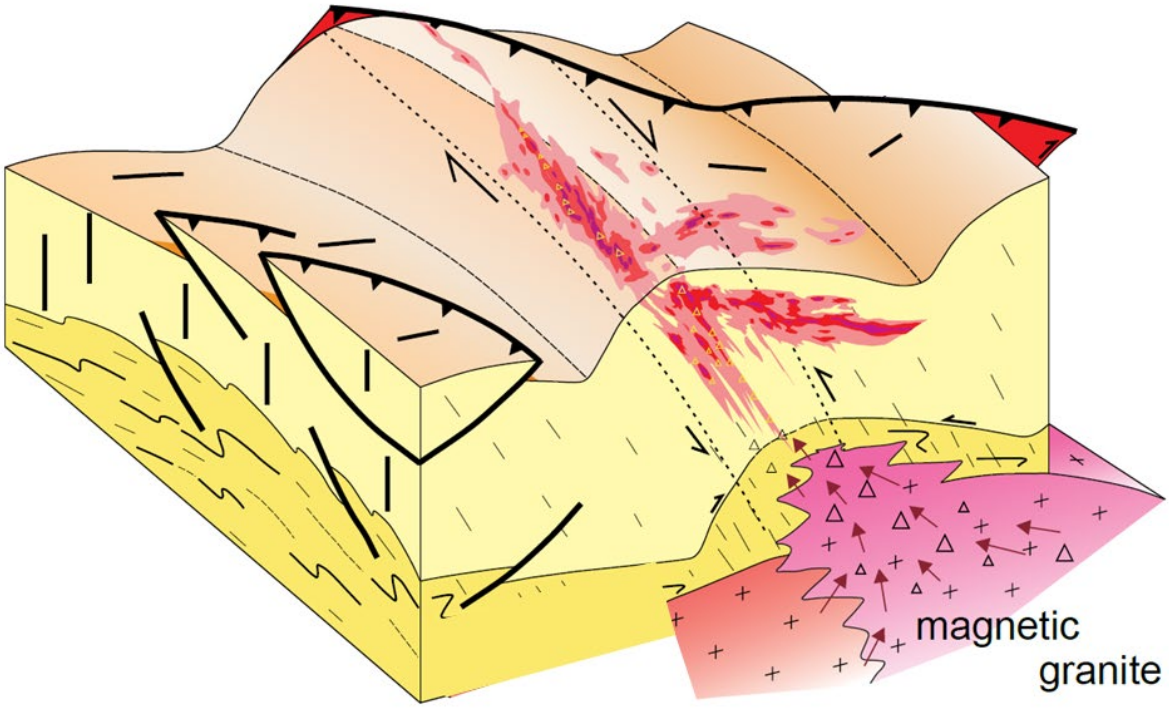

Figure 9: Schematic illustration of copper mineralisation genesis at Winu (after Dalstra et al, 2023b).

The tenure was until recently a joint venture between Great Western and Sandfire Resources (ASX:SFR), where Sandfire spent $4.5M on exploration on the project from 2017 to its recent withdrawal (GTE ASX Announcement 17 August 2023). Great Western has assumed 100% ownership of the project, with all associated exploration data compiled and completed by Sandfire during the joint venture.

Great Western looks forward to updating shareholders as the Company progresses towards drilling of these most exciting targets.

References:

Burton, D, *Neds Creek Project 2013 Combined Annual Report C191/2012*, Annual exploration report to the Department of Mines and Petroleum Western Australia, August 2013, pp.14.

Hilke Dalstra, Adam Black, Inna Mudrovska; Geology of Winu-Ngapakarra 2023a, *Great Sandy Desert of Western Australia, a Recently Discovered Intrusion-Related Cu-Au Deposit*. *Economic Geology* 2023;; pp. 976. doi: https://doi.org/10.5382/econgeo.5005.

Hilke Dalstra, Adam Black, Inna Mudrovska; Geology of Winu-Ngapakarra 2023b, *Great Sandy Desert of Western Australia, a Recently Discovered Intrusion-Related Cu-Au Deposit*. *Economic Geology* 2023;; pp. 995. doi: https://doi.org/10.5382/econgeo.5005

Newcrest Mining 2023, *Annual Mineral Resource and Ore Reserves Statement*, ASX Announcement, Newcrest Mining Limited, 11 August 2023, pp. 8.

Rio Tinto 2023, *Changes to Ore Reserves and Mineral Resources*, ASX/LSE Announcement, Rio Tinto, 22 February 2023, pp. 4.

About Great Western Exploration

Great Western Exploration (GTE.ASX) is a copper, gold and nickel explorer with a world class, large land position in prolific regions of Western Australia. Great Western's tenements have been under or virtually unexplored (Figure 10).

Numerous field work programmes across multiple projects are currently underway and the Company is well-funded with a tight capital structure, providing leverage upon exploration success.

Figure 10: Location of Great Western's Exploration Tenure.

Authorised for release by the board of directors of Great Western Exploration Limited.

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Previous ASX Releases – GTE.ASX

1. 17 August 2023 Great Western Assumes 100% of Yerrida North.
2. 21 July 2023 June 2023 Quarterly Activities Report

Competent Person Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Shane Pike who is a member of the Australian Institute of Mining and Metallurgy. Mr. Pike is an employee of Great Western Exploration Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Pike consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Company's Exploration Results is a compilation of Results previously released to ASX by Great Western Exploration (17/08/2023 and 21/07/2023) Mr. Shane Pike consents to the inclusion of these Results in this report. Mr. Pike has advised that this consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.