10 June 2024

Drilling completed at Fairbairn copper targets

Drilling programme tested three targets identified by geophysics and geological modelling

Key Points

- **Great Western has completed a drilling programme that tested three fixed-loop electromagnetic (FLEM) conductor targets, spaced between two to four kilometres apart, at the Fairbairn Copper Project in Western Australia**
- **Drilling of the EM conductors at the modelled depths intersected graphitic shales and disseminated pyrite. The Company interprets these units to be responsible for the FLEM conductor response. While samples have been submitted for assaying, it is anticipated that significant copper results will not be received from the trace chalcopyrite intercepts recorded**
- **Deep-sea turbidite sedimentary rocks and mafic and bimodal volcanic rocks similar to the host geology of the DeGrussa Copper VHMS Deposit were intersected, validating the geological environment targeted**
- **The alteration style of sections of the turbidite sequence and presence of trace chalcopyrite (<0.1%) in one of the drilled holes are indicative of proximity to a possible VHMS System, warranting down-hole EM surveying.**
- **The Company's focus now moves to our giant, 100% owned, highly prospective Oval and Oval South copper targets expected to be drilled early in the coming financial year.**

Great Western Exploration Limited (ASX:GTE) advises that it has completed drilling at the Fairbairn Copper Project, located 900km north-east of Perth in Western Australia (Figure 1).

The drill programme tested three Fixed Loop Electromagnetic (FLEM) targets spaced between two and four kilometres apart (Figure 2), which were interpreted to represent DeGrussa Style Copper-Gold mineralisation. The three isolated and discrete targets were identified by both FLEM ground and a heliborne EM surveys (GTE ASX Announcement 26 September 2023).

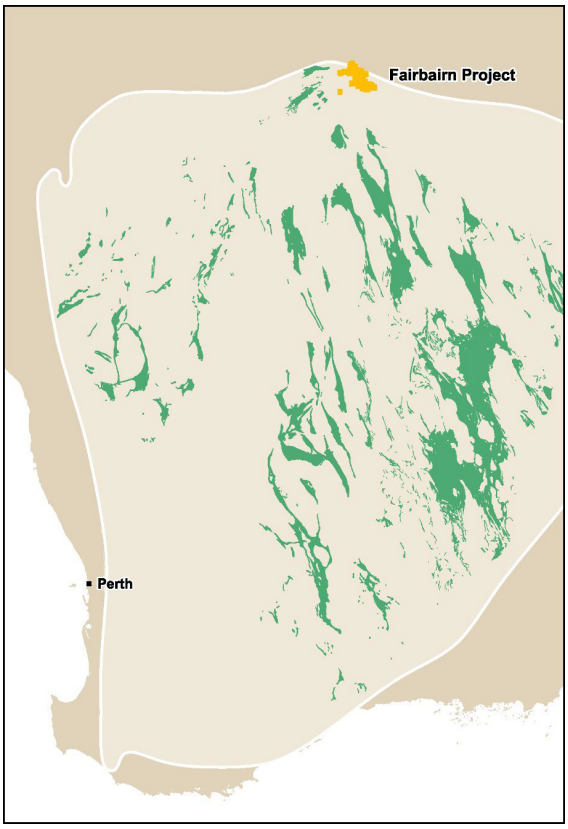

Figure 1: Fairbairn Project Location

Three RC pre-collared diamond drill holes (totalling 854m) were completed, one at each FLEM target. Drilling intersected turbidite stratigraphy (conglomerates fining upwards to siltstones and shales) in all three holes. Mafic volcanic rocks (dolerites) were intersected in drill-hole 24FNDD001 (Figure 3), and phyillic altered bimodal volcanic rocks (andesites and dacites) were noted in drill-hole 24FNDD003 (Figure 4). Potassic-silica-pyrite altered siltstones with minor quartz veining was logged below the turbidite-volcanic sequences in drill-hole 24FNDD003 (310.1- 383.25m).

At the modelled position of all three FLEM conductors, interbedded shale and siltstone sequences were intersected, with the former units containing graphite on sheared surfaces (up to 1%) and disseminated pyrite. The Company interprets that the graphitic shale generated the conductive FLEM response.

The turbidite rocks are indicative of a deep-sea environment, and combined with mafic and bimodal rocks intersected, are interpreted by the Company to be a prospective geological environment for volcanic hosted massive sulphide deposits formation, validating the targeted geological model. These turbidite units share similarities with the host stratigraphy of the DeGrussa Copper-Gold Deposit, with VHMS mineralisation hosted by turbidite and volcanic rock types.

Selective hematite alteration of individual bedding within the turbidite sequence within holes 24FNDD001 and 003, and trace chalcopyrite (<0.1%) noted in drillhole 24FNDD001 (196.8 - 202.21m) suggests a position proximal to a potential VHMS system. Geophysical modelling found off-hole VHMS mineralisation would be defined as discrete conductors, despite the presence of the graphitic shales. The Company plans to complete down-hole electromagnetic surveying for all three holes, targeting the prospective turbidite and volcanic stratigraphy. While samples have been submitted for assaying it is anticipated that significant copper results will not be received from the trace chalcopyrite (<0.1%) intercepts recorded.

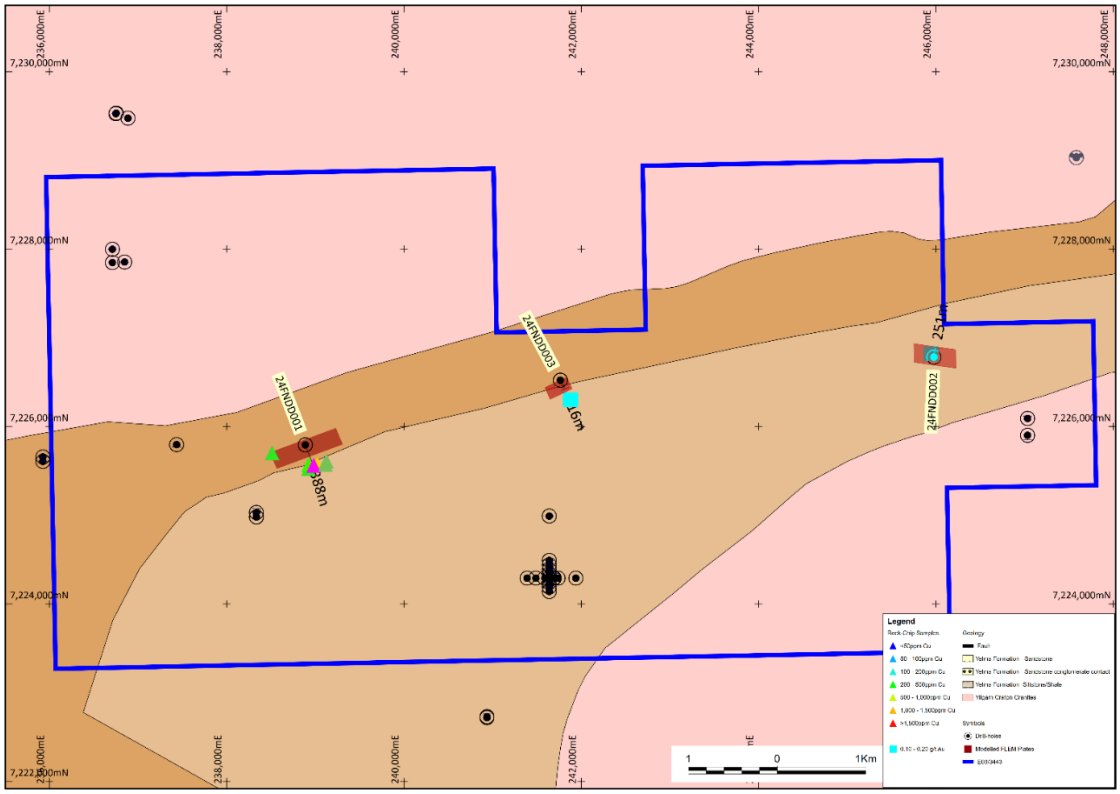

Figure 2: Plan location of modelled FLEM conductors FLG134, FLG285, and FLG574.

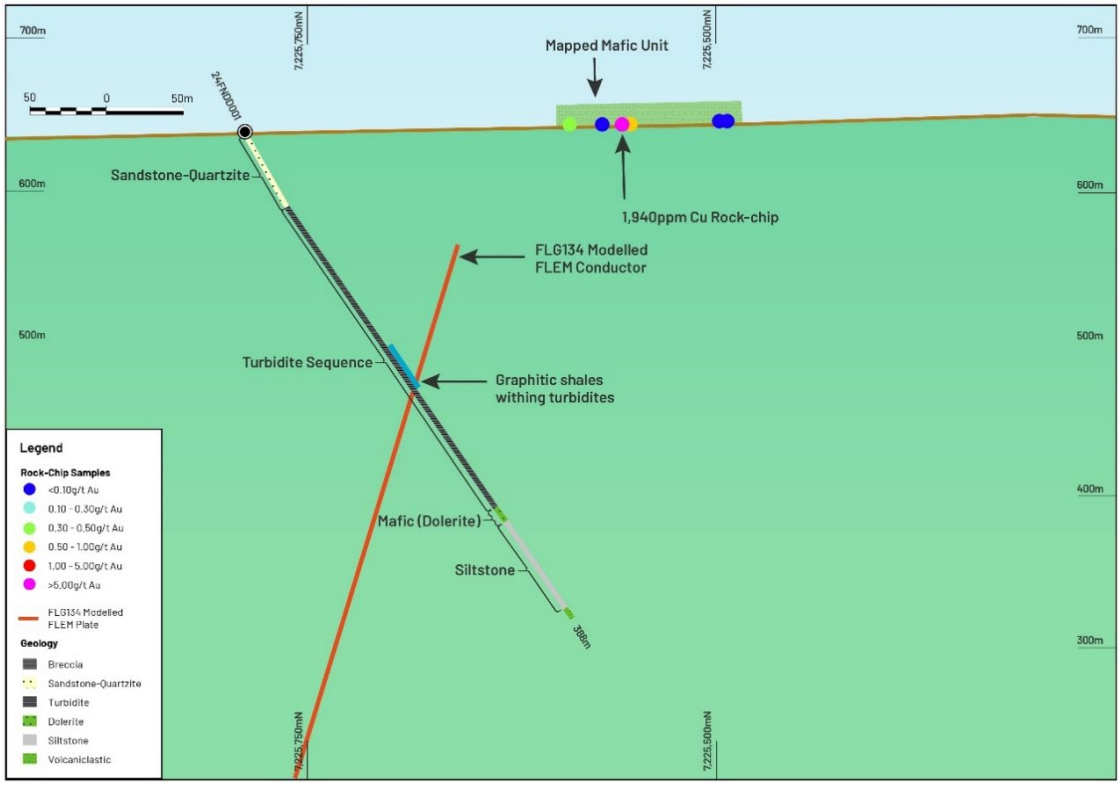

Figure 3: Cross Section of drill-hole 24FNDD001 and modelled EM Plate FLG134, looking east. Note turbidite sequence and dolerite units, similar to the host stratigraphy at the DeGrussa Copper-Gold Deposit. Trace (<0.1%) Chalcopyrite was noted.

between 196.8 – 202.2m at the position of the EM conductor. Further, silica and potassic alteration with minor quartz veining was noted within siltstones below the turbidite and dolerite units.

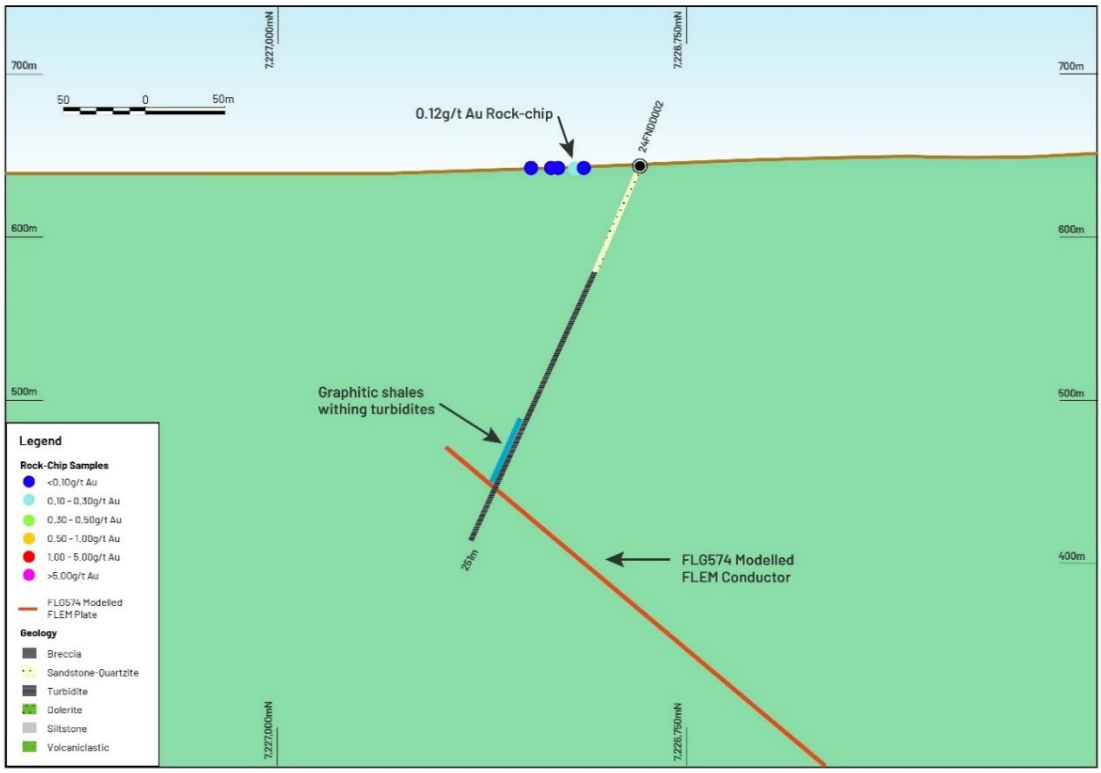

Figure 4: Cross Section of drill-hole 24FNDD002 and modelled EM Plate FLG574, looking west. Note turbidite sequence unit that are similar to the host stratigraphy at the DeGrussa Copper-Gold Deposit.

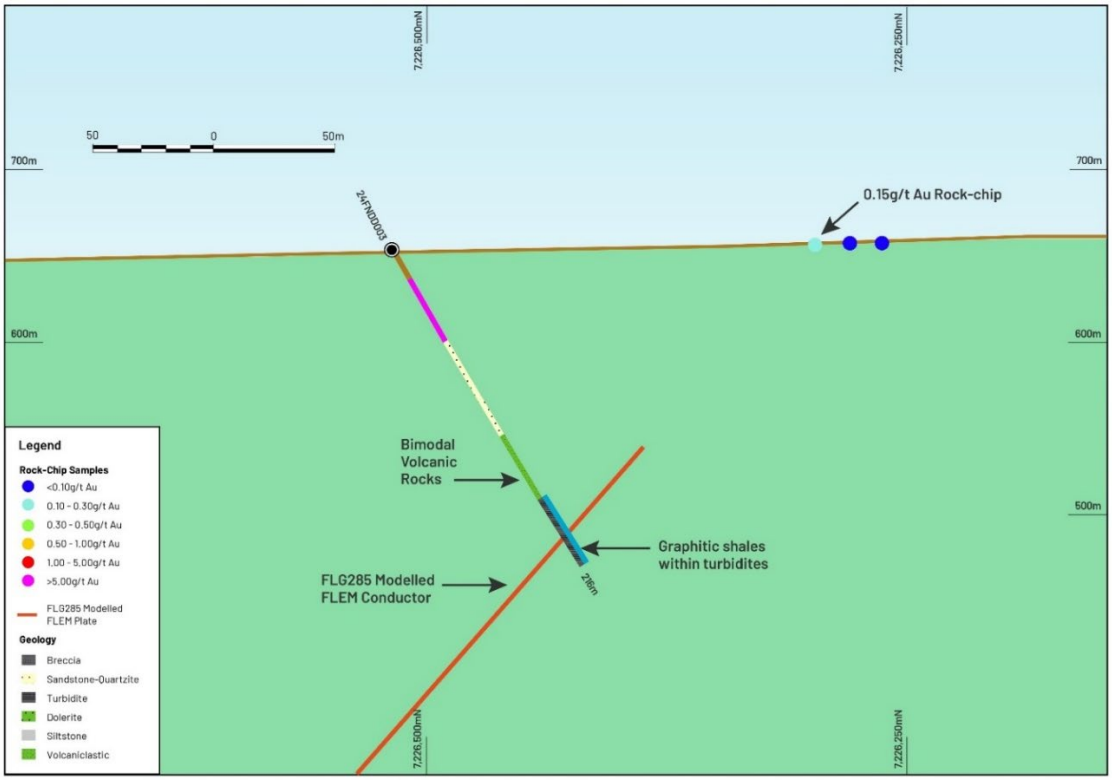

Figure 5: Cross Section of drill-hole 24FNDD003 and modelled EM Plate FLG285, looking east. Phyllic altered bimodal volcanic rocks intersected, with turbidite sequence showing similarities to the host stratigraphy at the DeGrussa Copper-Gold Deposit.

Oval and Oval South

Great Western's focus now moves to drilling the Company's 100% owned highly prospective giant Oval and Oval South targets within its Yerrida North Project early in the coming financial year.

Yerrida North is located on the northern and western portions of the Yerrida Basin (Figure 6), approximately 800km north-east of Perth. The two highly prospective Oval and Oval South targets both have several coincident geological attributes, which Great Western believes represent giant Winu-style intrusive related copper-gold mineralisation.

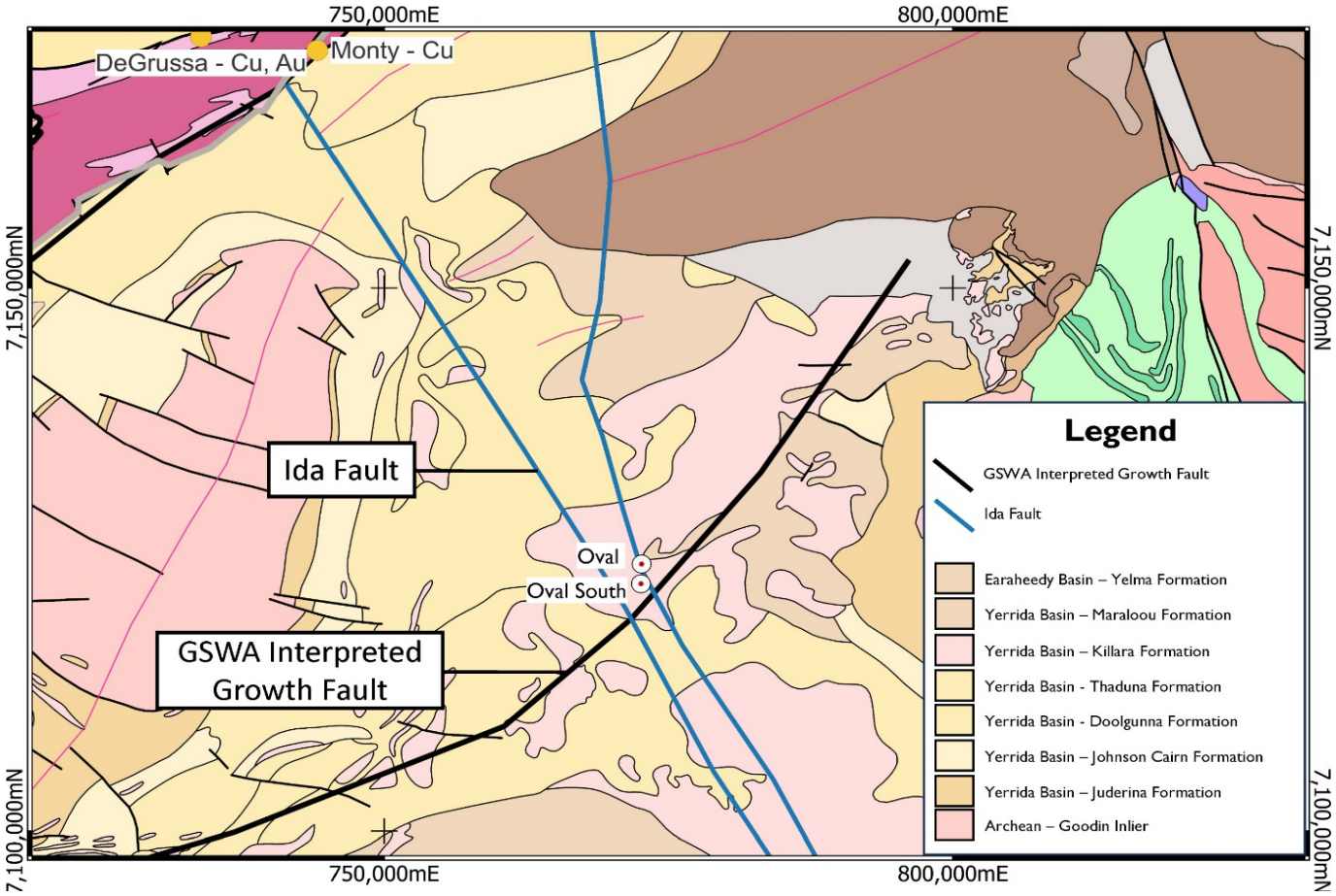

Figure 6: Location of the Oval and Oval South Targets and Great Western Tenements within the Yerrida Basin, with the location of the Ida and GSWA Growth Faults that potentially focused fluids at these two targets.

The Oval and Oval South Targets were originally defined by a Rio Tinto Tempest airborne EM survey in the late 1990s. Rio Tinto drill-tested the Oval target, drilling a hole to a depth of 232m and terminating the hole within black shale with disseminated pyrite, considered at the time to be the source of the conductor (GTE ASX Announcement 4 October 2023).

In 2010 a VTEM survey was completed by Great Western 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, below the shale surface where OVR001 was terminated (Figure 7); hole OVR001 did not intersect the conductor.

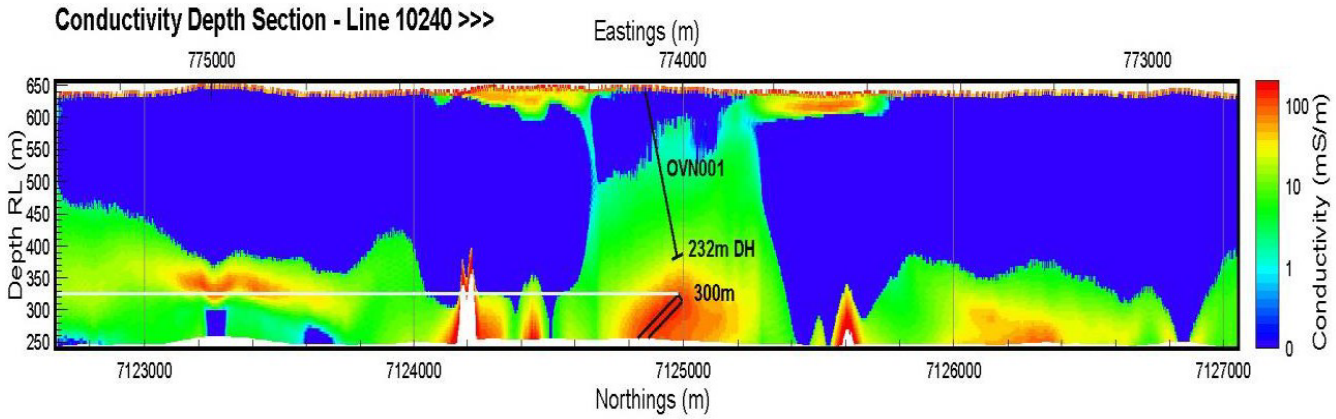

Figure 7: Position of Rio Tinto drilled hole at Oval overlaid on VTEM data. Note position of conductor below termination of OVN001.

Further definition of the Oval and Oval South targets was completed by a joint venture between Great Western and Sandfire (ASX: SFR), where Sandfire spent $4.5M on exploration on the project from 2017 before withdrawing (GTE ASX Announcement 17 August 2023). Great Western assumed 100% ownership of the Yerrida North Project, with all associated exploration data compiled and completed by Sandfire during the joint venture.

Sandfire completed an Airborne Gravity Gradiometry (AGG) in 2022, with the AGG survey defining discrete gravity highs at Oval and Oval South, that overlayed near perfectly with the VTEM anomalies (Figure 8). The coincident gravity and EM anomalies were interpreted as potential buried bodies of metal rich sulphide mineralisation (GTE ASX Announcement 4 October 2023).

The EM and gravity anomalies are both located on the intersection of the crustal scale Ida Fault, and the basin forming Yerrida Growth Fault. Great Western interprets this intersection of two major structures focused metal rich fluids from the Ida Fault into favourable stratigraphy of the Yerrida Basin, potentially accumulating significant copper-gold mineralisation at Oval and Oval South.

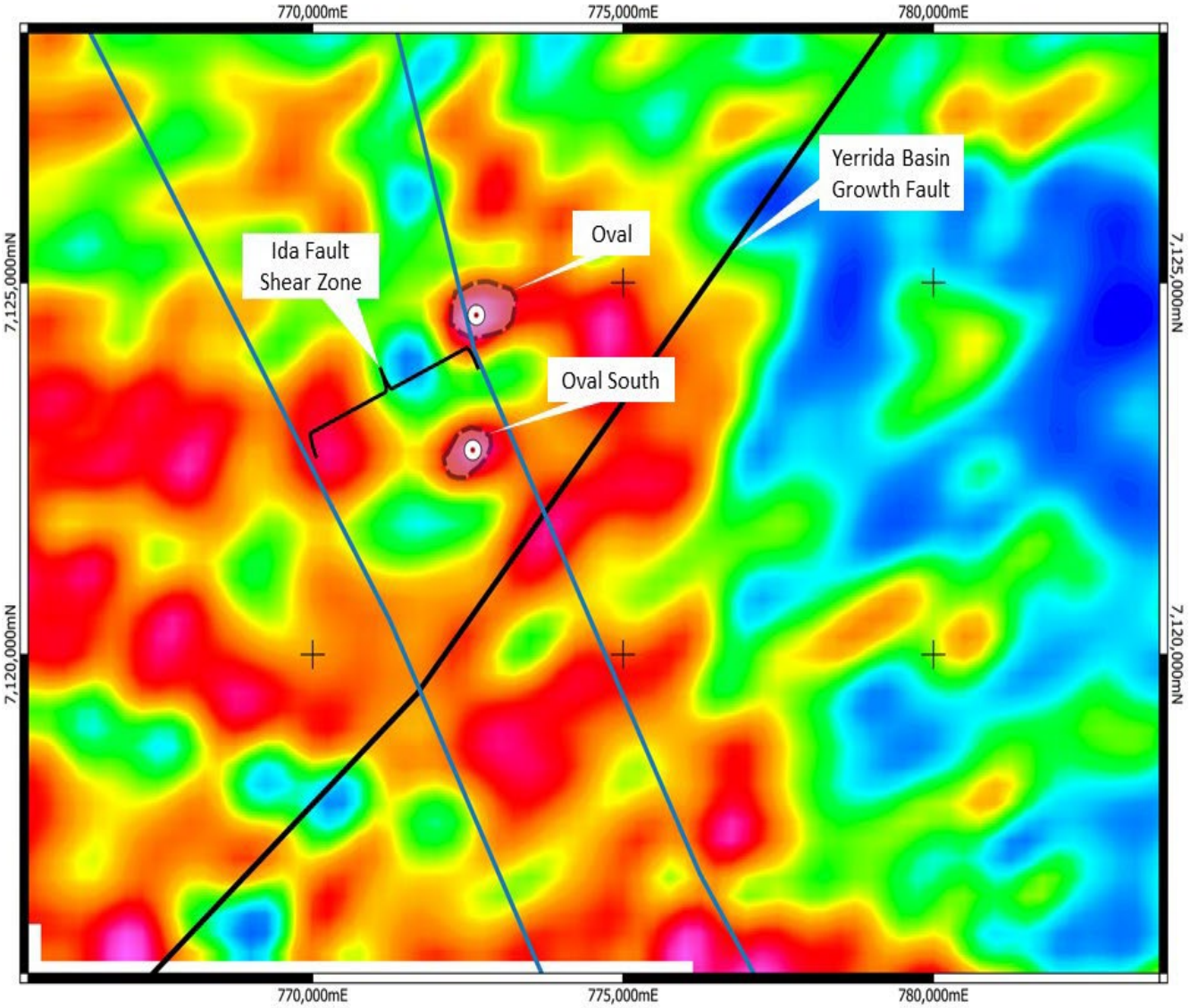

Figure 8: Oval and Oval EM anomalies, overlaid on gravity gradiometry data. Note the location of the Ida Fault Shear Zone and Yerrida Basin Growth Fault, focusing potential metal rich fluids GTE ASX Announcement 4 October 2023).

Authorised for release by the Board of Directors of Great Western Exploration Limited.

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7. 17 May 2024 Drilling of the Fairbairn Copper Targets Commenced

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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.

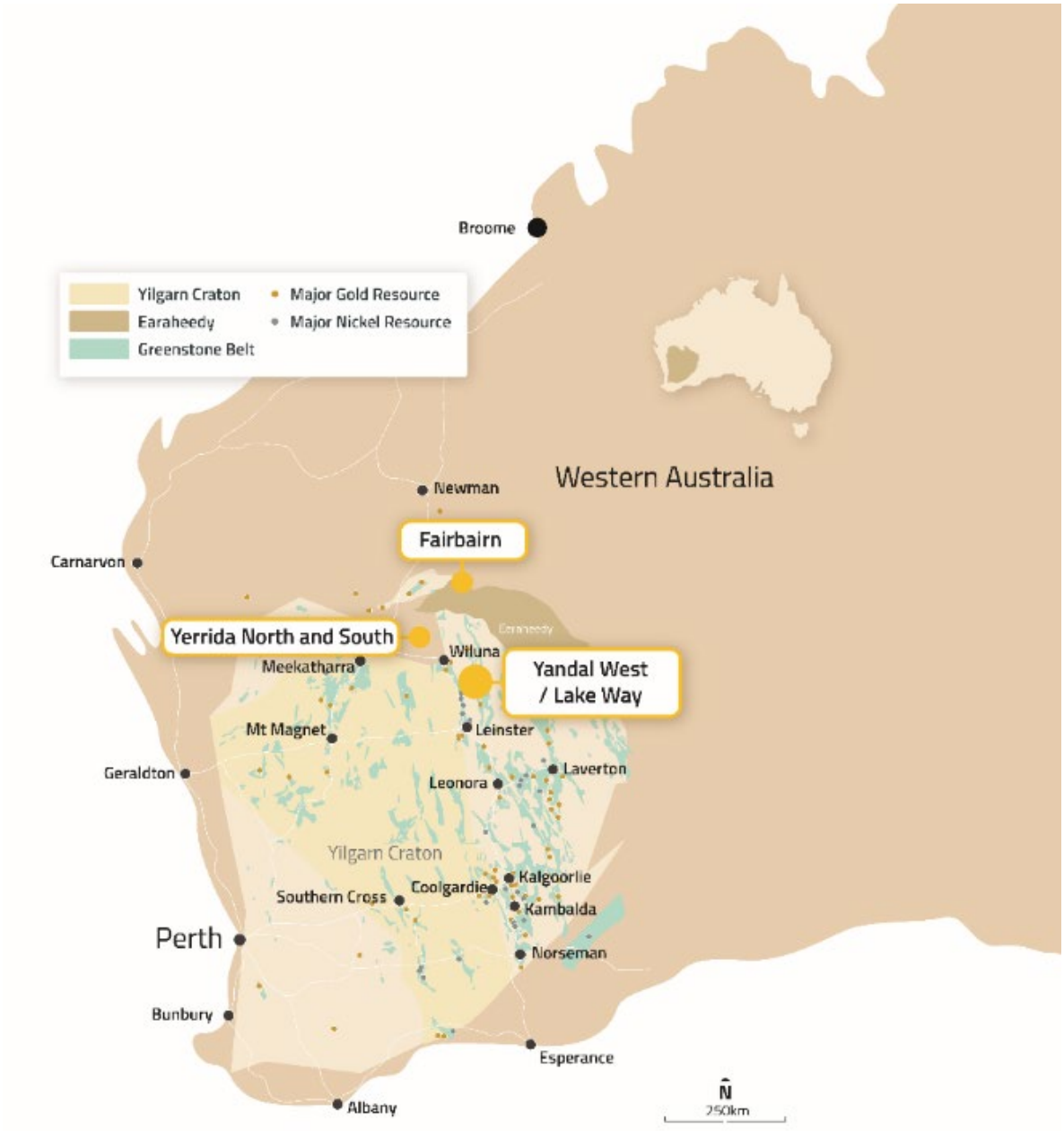
The information in this report that relates to the Company's Exploration Results is a compilation of Results previously released to ASX by Great Western Exploration (26/06/2023, 4/10/2023, 17/08/2023, 29/02/2024, 26/03/2024, 9/05/2024, and 17/05/2024) Mr. Shane Pike consents to the inclusion of these 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.

About Great Western Exploration

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

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



Appendix 1

Collar Table

Drillhole	Prospect	Easting (GDA94 51S)	Northing (GDA94 51S)	RL (m)	Dip (deg)	Azimuth (TNth)	Depth (m)	Drill Type
24FNDD001	FLG134	238889	7225791	639	-60	159	387.6	RC/DD
24FNDD002	FLG574	245980	7226781	644	-70	1	251	RC/DD
24FNDD003	FLG285	241766	7226521	655	-60	153	215.7	RC/DD

Appendix 2
JORC Code, 2012 Edition (Table 1) – Fairbairn RC/Diamond Drill Programme

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Drill samples were obtained from reverse circulation (RC) and diamond drill (DD) holes. The collar details and depths of these holes are summarised in Appendix 1. • RC samples were collected from the cyclone at 2m intervals in buckets and laid upon the ground in lines of 20-25. A corresponding 2-3kg sub-sample was collected each metre from the cone splitter for laboratory analysis. • DD was conducted utilising HQ3 / NQ2 sized core. Core was collected in core trays where it was marked up and logged. Core was cut length ways and half-core sampled. • Collar locations were recorded with a handheld GPS (+/- 3m accuracy) by the site geologist. Downhole surveys were conducted using a north-seeking Axis gyroscope, which is unaffected by country rock magnetics. Downhole surveys were taken every 10-30m.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is*	• GTE contracted DDH1 Ltd to complete both the DD and RC drill programme utilising a Sandvik DE840 Multipurpose Drill Rig. • RC drilled holes were completed at a standard RC drilling diameter of 5.5" using a face sampling bit.

Criteria	JORC Code explanation	Commentary
	oriented and if so, by what method, etc).	• The DD hole was drilled using a HQ3 and NQ2 diameter drill bit. DD core was orientated utilising a Reflex Act 3 Orientation Tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• RC sample recovery, moisture and contamination was visually assessed on a per metre basis and recorded by the site geologist. RC recovery was assessed as high. • DD core was physically measured and recorded on a metre basis. Core sample loss was logged in highly fractured and broken intervals. • No assays have been returned.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Each RC sample was sieved (wet and dry), logged on a 2-metre scale with regolith, lithology, veining, alteration, and mineralisation recorded. • Drill core was logged to a 10cm scale with regolith, lithology, structure, veining, alteration, and mineralisation recorded. • Drillhole logging data was recorded within a database. • Logging was qualitative. Chip-trays and core trays containing half-core have been stored and photos taken for future reference. • All drillholes (100%) were geologically logged on site by a qualified geologist.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.*	• DD core was cut in half lengthways using an Almonte core-saw. Half core was taken for assay analysis and half core retained. Core was cut off-site by ALS Geochemistry Perth. • Representative RC sub-samples were produced using a trailer mounted cyclone and cone splitter. Samples were mostly dry. • Both DD and RC sampling is an appropriate method for gold and base metal exploration. • Before each drillhole the cyclone and cone splitter has been inspected

Criteria	JORC Code explanation	Commentary
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	for damage, cleanliness, and correct set-up. The cyclone was cleaned with compressed air between (6m) drill runs. • RC duplicate samples were collected every 20 samples from a second chute on the cone splitter and will be assayed to determine sample representativity. No DD core duplicates were taken in the field. • Target sub-sample weight for RC samples was 2.5kg. DD core sampling intervals are >0.4m and <2.5m. Where necessary ALS will split overweight core samples post coarse-crush to generate a ~2.5kg sample for further analysis. This sample size is considered appropriate for the material / mineralisation type.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• No assay results reported. • No geophysical tools have been used. • Quality control measures to be reported with assay results.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No assay results reported. • No twinned holes completed. • Field data was recorded electronically and backed up in secure off-site servers. Once checked, field data was loaded to an SQL database which is operated and maintained by Geobase Australia. All database processes are logged, and time stamped. • No assay data reported, hence no adjustments made.

Criteria	JORC Code explanation	Commentary
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole collars were located using a handheld GPS with +/- 3m accuracy in plan. This accuracy is acceptable for exploration drilling. Downhole surveys have been conducted using an Axis gyroscope. • Grid: MGA, Datum: GDA94, Zone: 51 • Drill hole collar elevations have been assigned using the GSA SRTM digital elevation data.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• A single drill hole has been completed at each drill target, see Appendix 1. • Drill spacing was for exploration purposes and will not be sufficient for Mineral Resource and Ore Reserve Estimation. • Samples were composited to 2m directly from the rig mounted cone splitter. DD samples composited to 2m intervals or to geological contacts.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Drilling was planned near-perpendicular to the modelled electro-magnetic targets to achieve unbiased sampling. • The drill orientation did not introduce any sample bias.
Sample security	• *The measures taken to ensure sample security.*	• Drill samples are securely packed on site and delivered to the laboratory (ALS Perth, WA) by the commercial freight carrier, Countrywide Fridge Lines.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits or reviews were undertaken on sampling techniques and data. Drill data was reviewed internally by the Senior Exploration Geologist.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Relevant tenements are listed below. **Tenement No:** E 69/3443 **Tenement Type:** Exploration License, Western Australia **Status:** Granted – 20/12/2016 **Location:** Wiluna District **Size (km2)** 55.9 **Ownership:** Vanguard Exploration, 100% subsidiary of GTE. Tenement is withing Determined Area WAD6002/2003 (Gingirana). **Native Title:** A Land Access & Mineral Exploration Agreement is in place between the Marputu Aboriginal Corporation RNTBC & GTE. **Other Agreements:** None **Non-State Royalties:** None **Other Encumbrances:** None **Historical Sites:** None **National Parks:** None **Environment:** Tenement is within the Carnarvon Range Proposed Reserve Environmentally Sensitive Area (ESA). • The tenement is in good standing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Acknowledgement and appraisal of exploration undertaken by previous parties disclosed in GTE ASX Announcement 22 March 2022:

Criteria	JORC Code explanation	Commentary
		Nickel Exploration Programme at Fairbairn.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Fairbairn Project regional geology occupies the north-western edge of the Palaeoproterozoic Earaheedy Basin. It includes Archaean granite and greenstone rocks of the Marymia Inlier and Proterozoic sedimentary rocks of the Earaheedy Group and Collier Group. The Project is prospective for Au-Cu VHMS and orogenic gold deposits hosted within the Archaean to Proterozoic aged lithologies.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• See Appendix 1 for drill hole details, no assay intercepts are being reported. • All material information has been disclosed.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of*	• No assay results are being reported.

Criteria	JORC Code explanation	Commentary
	metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• No assay results are being reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Relevant maps and sections are available in the body of the announcement (Figures 3-5). A plan view of the drill hole locations is shown in Figure 2.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• No assay results reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• The exploration drilling was targeting electromagnetic anomalies. This was previously made public is the following ASX announcements: ○ 26 September 2023: *Large DeGrussa-Style Copper Targets Defined from Fairbairn EM Survey* ○ 4 October 2023: *Nickel Copper Targets Defined at the Fairbairn Project* ○ 17 August 2023: *Great Western Assumes 100% of Yerrida North*

Criteria	JORC Code explanation	Commentary
		○ 29 February 2024: *Drilling to Commence Next Month at Fairbairn Copper Project* ○ 26 March 2024: *Final Design of Drilling to Test DeGrussa Style Copper-Gold Targets* ○ 9 May 2024: *Drilling Rig Mobilised for Fairbairn Copper Project in WA* ○ 17 May 2024: *Drilling of the Fairbairn Copper Targets Commenced*
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further exploration work will include multi-element assay analysis of RC and DD samples. Downhole electromagnetic surveys are also being planned. • No further drilling is planned as assays are yet to be returned.