

## Significant copper anomaly at Yeneena - Paterson Province

- Aircore drilling at the Yeneena Project ("Yeneena") in the Paterson Province of WA has intersected a laterally extensive iron-manganese horizon with strong copper-silver anomalism
- Highly anomalous copper-silver assays occur at the weathering interface and are inferred to be derived from nearby primary mineralisation
- This potentially significant copper leakage anomaly is situated on a major regional fault adjacent to an interpreted syncline (analogous position to the Nifty copper deposit located ~50km north-west)
- Further drilling to target the base of the copper anomalous carbonate unit is planned in 2024
- Exploration at Yeneena is operated and funded by IGO Limited ("IGO", ASX:IGO) under a \$15M earn-in agreement

Encounter Resources Ltd ("Encounter") is pleased to advise drilling at Yeneena, part of an earn-in by IGO in the Paterson Province of WA, has intersected a potentially significant leakage anomaly at the BM5 target.

**Commenting on the undercover copper target identified, Managing Director Will Robinson said:**

*"The Paterson Province's potential for large, new copper deposits has attracted numerous large mining companies into the region in recent years including Rio Tinto, Fortescue and IGO. Exploration at the Yeneena project, located south of the Nifty copper mine, is completed in partnership and funded by IGO under a farm-in agreement."*

*Aircore drilling completed in September 2023 has identified a laterally extensive copper anomaly interpreted to be leakage along a fault from a primary position at depth.*

*Planned drilling will target primary copper mineralisation deposited at the base of a thick carbonate unit interpreted from geophysics."*

### Background

Yeneena comprises a major land position covering >1,450km<sup>2</sup> in the highly prospective Paterson Province, targeting copper-cobalt mineralisation. IGO can sole fund \$15m in exploration expenditure over a maximum of seven years to earn a 70% interest in Yeneena.

The first wide spaced drilling in the BM5 target area was completed by WMC in the early 1990s. This RC drilling intersected zones of iron-manganese rich material with associated copper, silver, lead and zinc anomalism below cover.

In 2009 Encounter completed seven aircore holes which confirmed the copper anomalous iron-manganese horizon sits above a carbonate unit which is the host to the base metal deposits in this region. Diamond drill hole (EPT062) completed by Encounter to test beneath the iron-manganese horizon intersected a narrow vein of massive sulphide (see Photo 1) containing sphalerite and galena in brecciated carbonate that returned:

- **0.1m @ 28.5% zinc, 2.3% lead and 33.9g/t silver from 301.6m<sup>1</sup>**

This intersection confirmed that processes required to form primary high-grade base metal mineralisation are present in the BM5 target area. A vein intersection of this type is consistent with a distal halo around a body of base-metal mineralisation.

### 2023 Aircore Drilling

Nine aircore holes were completed west of the historical drilling at BM5 in September 2023 as part of a 16 hole regional reconnaissance aircore drill program. This drilling was targeting the upflow source of a recently identified hydrochemical anomaly.

Aircore drilling returned anomalous copper, silver and base metal values in 400m-spaced holes to the west of a major regional fault. The anomalous assays occur within an iron-manganese horizon above a carbonate unit. Highly anomalous copper assays occur at the weathering interface and are interpreted to be hydromorphic dispersion up the fault from nearby primary copper mineralisation.

Results feature significant copper, silver and palladium anomalism including:

- **15m @ 0.17% Cu and 21.8g/t Ag from 69m to EOH (23PTAC0109)**
  - including 10m @ 0.23% Cu from 73m
- **9m @ 432ppm Cu and 4.7g/t Ag from 65m (23PTAC0108)**
  - including 7m @ 24.7ppb Pd from 67m

### Next Steps

Further drilling to locate and characterise the inferred primary mineralisation is planned. The follow up drill program will target primary copper mineralisation at the base of the carbonate in the faulted core of the syncline. This target position within the Broadhurst Formation adjacent to a major regional fault and is an analogous geological setting to that of the Nifty copper deposit located ~50km north-west (see Figure 2).



Photo 1 – Vein of massive sulphide from 301.6m in EPT062 at the BM5 prospect

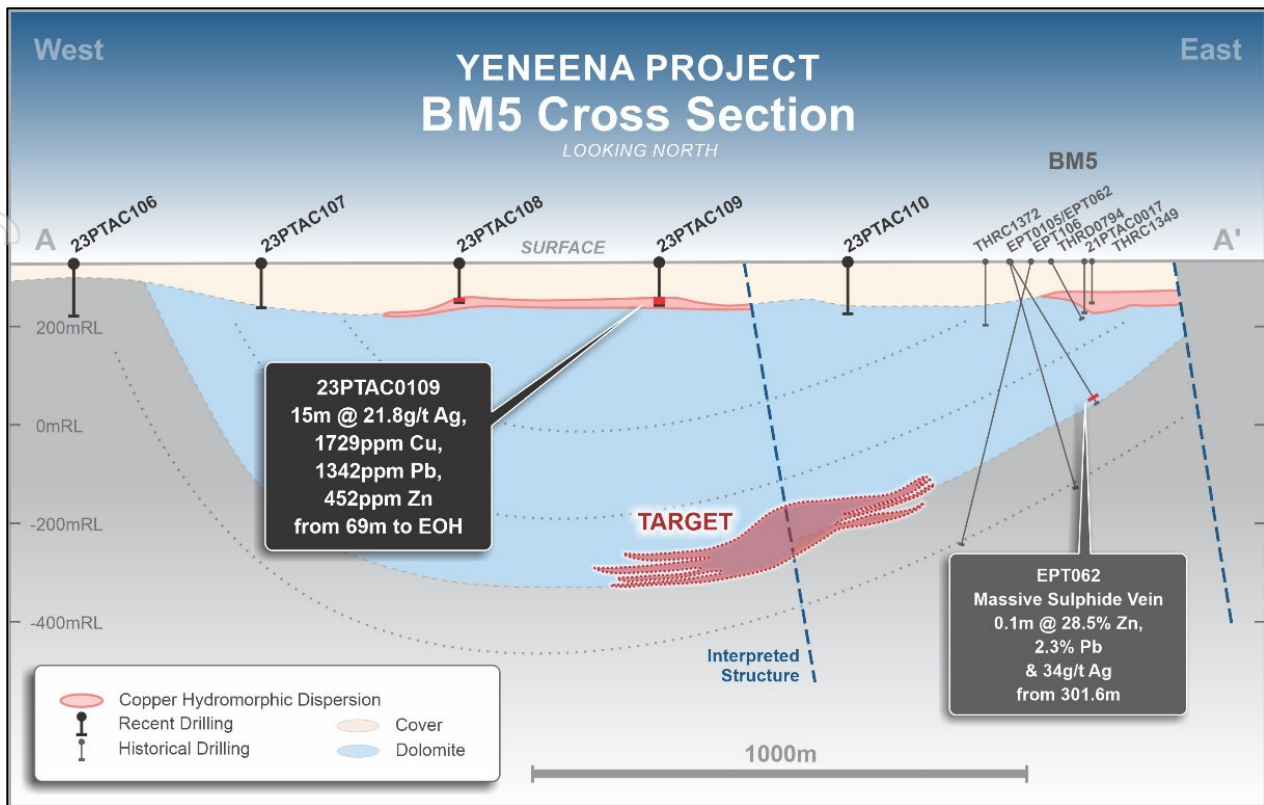


Figure 1: Cross section and drilling target at BM5

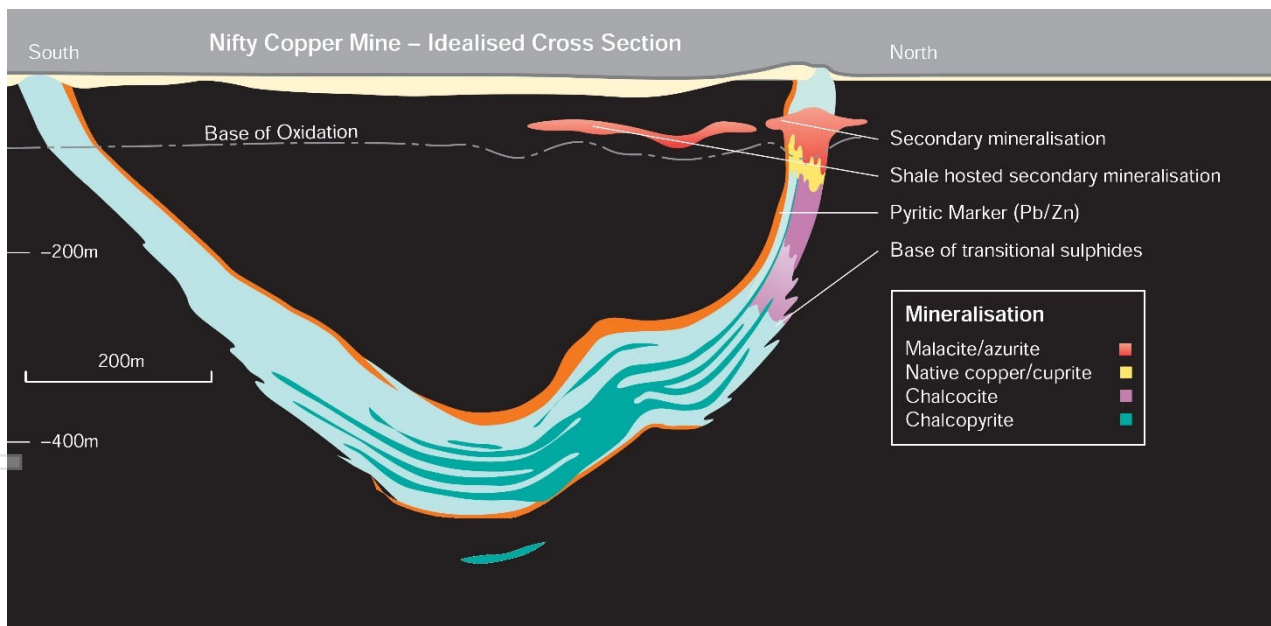


Figure 2: Idealised cross section through the Nifty copper mine showing copper mineralisation hosted in a syncline and associated with the base of a carbonate unit (blue) within the Broadhurst formation (source: Straits Resources Annual Report 2001)

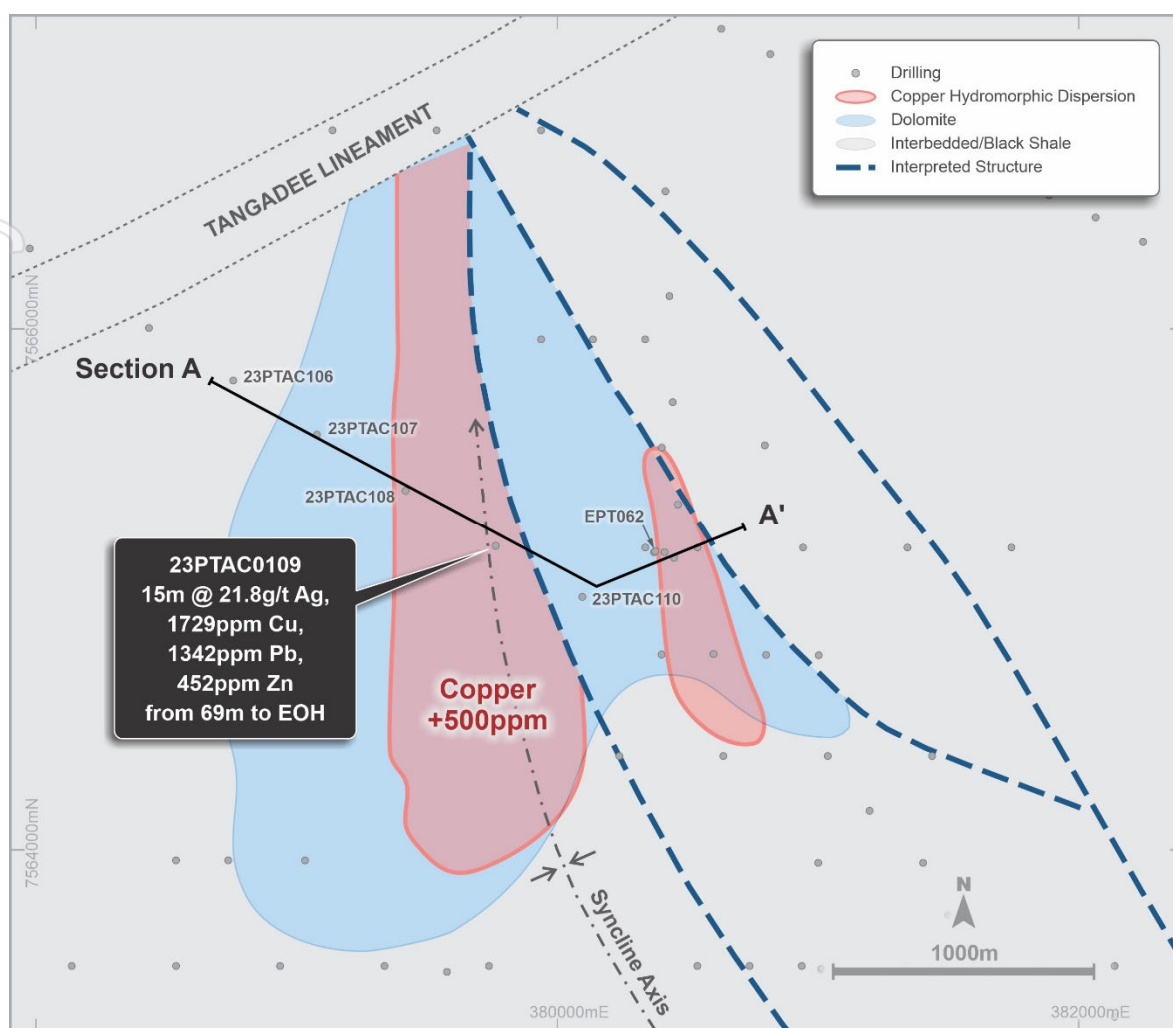


Figure 3: BM5 Exploration summary plan

Hole ID	from (m)	to (m)	interval (m)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Pd (ppb)	Zn (ppm)
23PTAC0107	84	87*	3	1.2	184	53	BDL	1757
23PTAC0108	65	74	9	4.2	432	201	19.4	234
including	67	74	7	4.8	471	212	24.7	289
23PTAC0109	69	84*	15	21.8	1729	1342	1	452
including	73	83	10	30.9	2330	1759	1.4	604
23PTAC0110	83	91	8	1.6	188	244	4.5	1083

Table 1 – Drillhole intersections from the aircore drill program completed at BM5 in September 2023. Intersections reported have been calculated using a nominal 2ppm Ag, 1000ppm Cu or 1000ppm Zn cutoff and include a maximum of 4m of internal dilution.

BDL - below detection limit

\* denotes intersection extends to the end of the hole

Hole_ID	Hole_Type	Grid_ID	MGA_East	MGA_North	MGA_RL	Azimuth	Dip	EOH Depth
23PTAC0095	AC	MGA94_51	380415	7566527	359	0	-90	89
23PTAC0096	AC	MGA94_51	380430	7566126	323	0	-90	144
23PTAC0097	AC	MGA94_51	380443	7565720	340	0	-90	96
23PTAC0105	AC	MGA94_51	378434	7566004	348	0	-90	115
23PTAC0106	AC	MGA94_51	378757	7565803	307	0	-90	105
23PTAC0107	AC	MGA94_51	379078	7565596	325	0	-90	87
23PTAC0108	AC	MGA94_51	379418	7565381	312	0	-90	75
23PTAC0109	AC	MGA94_51	379764	7565167	310	0	-90	84
23PTAC0110	AC	MGA94_51	380096	7564971	322	0	-90	94

**Table 2- Drillhole collar table for holes completed at the BM5 prospect in 2023**

**<sup>1</sup> ASX announcement 28 January 2010**

*The information in this report that relates to Exploration Results is based on information compiled by Dr Tim Worthington who is a Member of the Australian Institute of Geoscientists. Dr Worthington is a full time employee of IGO 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'. Dr Worthington 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. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.*

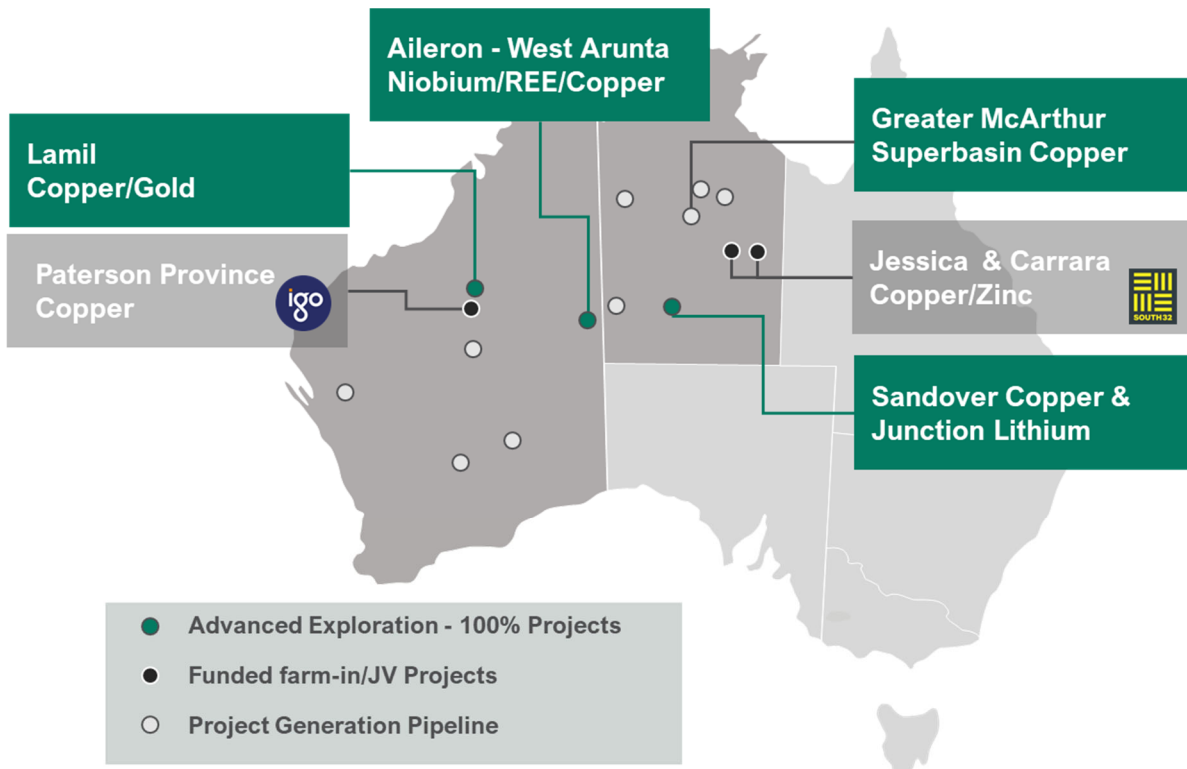
*The information in this report that relates to Exploration Results in the ASX announcement 28 January 2010 is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick is a holder of shares and options in, and is a director of 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 2004 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.*

*This announcement has been approved for release by the Board of Encounter Resources Limited.*

## About Encounter

Encounter is one of Australia's leading mineral exploration companies listed on the ASX. Encounter's primary focus is on discovering major copper and niobium/REE deposits in Australia.

Encounter controls a large portfolio of 100% owned projects in Australia's most exciting mineral provinces that are prospective for copper and critical minerals including the Aileron project in the West Arunta region of WA. Complementing this, Encounter has numerous large scale copper projects being advanced in partnership and funded through farm-in agreements with leading miners: South32 and IGO.



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## SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sounds, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Nine air core (AC) holes have been drilled to the west of BM5 as part of a 16 hole regional AC program. All holes were drilled by a Mantis 300 rig equipped with a 600cfm/200psi compressor owned and operated by Wallis Drilling Pty Ltd.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	Drill hole collar locations were recorded by handheld GPS, which has an estimated accuracy of +/- 5m.
	<i>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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information</i>	<p>Sample piles representing intervals of one AC metre are spear sampled to accumulate 4m composite samples for analysis, with a total 2-3kg collected into pre-numbered calico bags.</p> <p>Base of hole or 1m re-samples were obtained by spear sampling single sample piles and collecting a total 2-3kg into pre-numbered calico bags.</p> <p>4m composite samples were submitted to ALS for analysis method ME-ST43 (aqua regia digest followed by ICP analysis for 53 elements including Au).</p> <p>1m bottom of hole samples were submitted to ALS for analysis method ME-MS61r (4-acid digest followed by ICP-MS analysis for 60 elements including the REE) as well as ALS method PGM-ICP 23 (30g Fire assay ICP for Au, Pt, Pd).</p> <p>All samples were submitted to ALS Laboratories in Perth where they were crushed and pulverised for analyses.</p>
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	<p>Results reported in this announcement refer to samples from AC drilling.</p> <p>AC drilling was used to obtain 2-3 kg samples from every 4m downhole together with a 1m sample from the bottom of the hole.</p>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	AC sample recovery has not been quantitatively assessed, however the visual condition of the cuttings, their dry or wet condition and any potential smearing contamination are recorded at the time of drilling by IGO geologists at 1m intervals.
	<i>Measures taken to maximise sample recovery and</i>	Driller's used appropriate measures to minimise down-hole and/or cross-hole contamination, including cleaning of the

ensure representative nature of the samples

cyclone at rod changes and cleaning of buckets between holes. If sample contamination was suspected this was noted by IGO field staff as a percentage.

*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.*

To date, no detailed analysis to determine the relationship between sample recovery and/or grade has been undertaken for this drill program.

Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<i>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.</i>	IGO Geologists have completed geological logs on all AC chips. Lithology, alteration and mineralisation are recorded.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Geological logging is qualitative in nature and records interpreted lithology, alteration, mineralisation and other geological features of the samples.
	<i>The total length and percentage of the relevant intersections logged</i>	IGO Geologists have completed geological logs on all AC chips. Lithology, alteration, mineralisation is recorded.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No assays from core drilled are reported in this announcement.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	AC drill cuttings were collected from the cyclone at 1m intervals and transported to sample piles. The sample piles were spear sampled to accumulate 4m composite or 1m samples. Samples were recorded as being dry, moist or wet by IGO field staff.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation was completed at ALS Laboratories in Perth for analyses. Samples were crushed and pulverised to enable a subsample for analyses. This is considered appropriate for the analysis undertaken.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Field QC procedures involve the use of commercial certified reference materials (CRMs) and in house blanks. The insertion rate of these is at an average of 1:20.
	<i>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.</i>	Field duplicates were taken during AC drilling and were collected on the rig via splitter at a rate of 1:20.  The results from these duplicates are assessed on a periodical basis.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample sizes are considered appropriate to give an accurate indication of the mineralisation. The nature of the drilling and sampling method means representativity is indicative only, with the sampling aimed at finding anomalous concentrations rather than quantifying absolute values.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	4m composite samples were submitted to ALS Laboratories for aqua regia digest followed by analysis of a 53-element suite. The digestion method is not considered total for some analysed elements but is appropriate for anomaly detection.
		1m samples from the base of each hole were submitted to ALS Laboratories for 4-acid digest followed by analysis of a 60-element suite including the REE and for a 30g fire assay with ICP finish for Au,



Pt, Pd. This digestion method is considered near total for all analysed elements.

*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.*

No handheld XRF or geophysical data are reported.

Criteria	JORC Code explanation	Commentary
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks as part of in-house procedures. IGO also submits an independent suite of CRMs and blanks (see above). A formal review of this data is completed on a periodic basis.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Geological observations included in this report have been verified by Sarah James (Encounter Resources Exploration Manager)
	<i>The use of twinned holes.</i>	No twinned holes have been drilled.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Logging at site is entered directly into a notebook computer running acQuire and uploaded weekly to IGO's SQL database. All AC chip trays and bottom of hole samples are transported to and stored at IGO's Midvale storage facility. Assay data are imported directly from digital assays files sent by ALS and merged into IGO's acQuire/SQL drill hole database by IGO's Geological Database Administrator. All digital data is backed up regularly in off-site secure servers.
	<i>Discuss any adjustment to assay data.</i>	There have been no adjustments to the assay data.
<b>Location of data points</b>	<i>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.</i>	Drill hole collar locations are determined using a handheld GPS. All AC holes were vertical.
	<i>Specification of the grid system used.</i>	Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94) Map Grid of Australia 1994 (MGA94) Zone 52
	<i>Quality and adequacy of topographic control.</i>	RLs were assigned using a DTM created during the detailed aeromagnetic survey.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	The drill hole section spacing are nominally 400m spaced.

Criteria	JORC Code explanation	Commentary
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*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.*

Mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.

*Whether sample compositing has been applied.*

Intervals have been composited using a length weighted methodology.

#### **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.*

This is early-stage exploration drilling and the orientation of the hole with respect to key structures is not fully understood.

*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.*

This is early stage drilling and the orientation of the hole with respect to key structures is not fully understood.

#### **Sample security**

*The measures taken to ensure sample security.*

The chain of custody is managed by IGO. Sealed samples were stored at IGO managed field camps for up to 2 weeks prior to transport to ALS in Perth by Bishops Transport. A sample reconciliation advice is sent by ALS to IGO's Geological Database Administrator on receipt of the samples.

#### **Audits or reviews**

*The results of any audits or reviews of sampling techniques and data.*

Sampling techniques, procedures and data are subject to regular internal reviews. No specific external audits or reviews have been undertaken.

## **SECTION 2 REPORTING OF EXPLORATION RESULTS**

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	<p>The Yeneena project is located within the tenements E45/2500, E45/2502, E45/2657, E45/2658, E45/2805, E45/2806, E45/3768, E45/4861, E45/5333, E45/5334 and E45/5686 which are held 100% by Encounter Resources</p> <p>IGO can sole fund \$15m in exploration expenditure over a maximum of seven years to earn a 70% interest in Yeneena.</p> <p>The tenements are within Martu Native title.</p> <p>No historical or environmentally sensitive sites have been identified in the work area.</p>
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>The first wide spaced drilling in the BM5 target area was completed by WMC in the early 1990s. This RC drilling intersected zones of iron-manganese rich material with associated copper, silver, lead and zinc anomalism below Permian and Recent cover</p>

<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation</i>	The Yeneena project targets are hosted within sediments of the Broadhurst Formation in a similar geological setting to the Nifty copper deposit
<b>Drill hole information</b>	<p><i>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <li>• <i>Easting and northing of the drill hole collar</i></li> <li>• <i>Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</i></li> <li>• <i>Dip and azimuth of the hole</i></li> <li>• <i>Down hole length and interception depth</i></li> <li>• <i>Hole length</i></li> </ul>	Refer to tabulation in the body of this announcement
<b>Data aggregation methods</b>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	All reported assays have been length weighted. Intersections reported have been calculated using a nominal 2ppm Ag, 1000ppm Cu or 1000ppm Zn cutoff and include a maximum of 4m of internal dilution. No capping or top-cutting of high grades was undertaken.
	<i>Where aggregated 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.</i>	All reported assays have been length weighted. Intersections reported have been calculated using a nominal 2ppm Ag, 1000ppm Cu or 1000ppm Zn cutoff and include a maximum of 4m of internal dilution. No capping or top-cutting of high grades was undertaken.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents have been reported in this announcement.
<b>Relationship between mineralization widths and intercept lengths</b>	<i>These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralization 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 (e.g. 'down hole length, true width not known').</i>	The geometry of the mineralisation is not yet known due to insufficient drilling in the targeted area.
<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Diagrams</b>	<i>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 plane view of drill hole collar locations and appropriate sectional views.</i>	Refer to body of this announcement
<b>Balanced Reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	All reported assays have been length weighted. Intersections reported have been calculated using a nominal 2ppm Ag, 1000ppm Cu or 1000ppm Zn cutoff and include a maximum of 4m of internal dilution. No capping or top-cutting of high grades was undertaken.
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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</i>	<p>All meaningful and material information has been included in the body of the text.</p> <p>No metallurgical assessments have been completed.</p>

contaminating substances.

**Further Work**

*The nature and scale of planned further work (e.g. 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.*

The next phase of work will feature further drilling to delineate and target the base of the copper anomalous unit.