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## IP geophysical survey update - Paradise Dam Prospect, Peake Project

#### **Highlights**

- Follow-up IP geophysical survey has extended the chargeability zone by 1200m to the south on the Paradise Dam Prospect following up on recently completed drilling at drill hole 23PK11
- The chargeability zone remains open to the south along structure and is interpreted to be indicative of disseminated sulphides
- The IP geophysical survey will re-commence on 10 January after Christmas break to test the extent of the chargeability zone and inform potential drilling program design
- A heritage clearance survey, now planned for February, will be conducted once the IP survey data has been completed - in January
- A diamond core tail on hole RC 23PK11 was completed in early December to 651m depth, to test the edge of the promising chargeability anomaly on the southwest corner of the Paradise Dam Prospect
- Drill core from the diamond tail of 23PK11, from a depth of 475m to 651m, has been submitted for assay, with results expected late January



Figure 1 Location map of the Peake Project, Peake & Denison Domain - Gawler Craton, South Australia. Major mines in the area owned by BHP indicating Ore Reserves of contained tonnes of copper and ounces of gold, sourced from company reports.

### CONTACT

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#### **CEO Duncan Chessell Commented**

The extension and greater intensity of the IP chargeability anomaly is a very encouraging sign of potential disseminated sulphides in the shear zone adjacent to drill hole 23PK11 - with assays pending. We look forward to follow-up drilling in and around the promising Paradise Dam Prospect in 2024.

In addition to our loyal shareholder base, I'd like to thank all the Copper Search staff and contractors (drillers and geophysics crews), the local community at William Creek, the management, and staff of Anna Creek Station and the Arabana (traditional owners) for all the amazing support and hard work this year.



Copper Search Ltd (ASX: CUS) (Copper Search or the Company) is pleased to announce that the follow-up IP geophysical survey has identified a 1,200m southern extension along a significant structure of the chargeability anomaly adjacent to drill hole 23PK11. The chargeability anomaly is interpreted to be due to disseminated sulphides. The Fender Geophysics crew (contractor) have endured temperatures up to 49° C over the last few weeks and are taking a well-earned Christmas break. The geophysics crew will return and recommence the IP survey on about 10 January 2024 and continue to test the extent of the chargeability anomaly "along structure". The results of the IP survey, assays from the recently completed RC program (due late January) and the heritage survey in February will inform follow-up drill planning on the promising Paradise Dam Prospect in 2024.

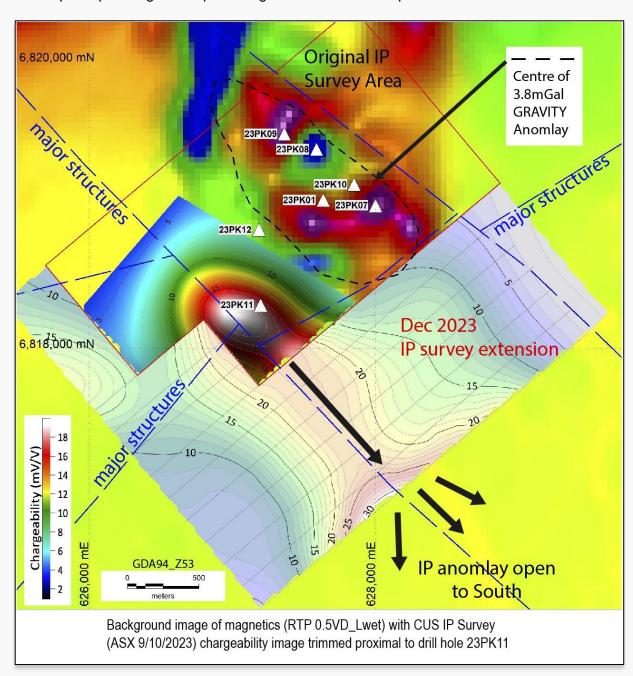


Figure 2 Paradise Dam Prospect, recent drill holes (white triangles), background image magnetics (source government SARIG website), with IP chargeability (mV/V) overlain proximal to drill hole ID 23PK11 from CUS, major structures in dash blue lines, with chargeability anomaly open to southeast and southwest along regional scale structures. The dashed black polygon indicates gravity anomaly (3.8mGal). RC drill holes target the de-magnetised, magnetised, and margin of the gravity anomaly.





#### **Background and geological details**

**The Peak Project** is prospective for (Iron-Oxide-Copper-Gold) IOCG-style mineralisation in the northeast corner of the Gawler Craton, South Australia. Copper Search's drilling in early 2023 was deemed a near-miss at hole 23PK01 (*ASX announcement 24/7/2023*) at the Paradise Dam Prospect (née Target AC23) intersecting narrow intervals of typical IOCG elements. The highest grades included copper up to 0.45%, gold up to 5.35 g/t Au, uranium up to 64 ppm, and IOCG pathfinder elements Ce+La up to 2,025 ppm.

The Paradise Dam Prospect is located along the structure from recently identified IOCG-style mineralisation at the Wills Prospect (ASX: A1M: 18/1/2023) on neighbouring AIC Mines Limited tenements, see Figure 3. Both the Wills Prospect and the Paradise Dam Prospect are positioned on the regional scale Karari shear zone. Importantly the Paradise Dam Prospect is positioned where the NE-trending Karari shear intersects an NW-trending structure. The intersection of large regional scale structures is a prime location for the emplacement of an IOCG deposit. The 3.8 mGal gravity anomaly identified by Copper Search at the Paradise Dam Prospect, through detailed research and significant gravity station data acquisition, occupies a likely place for the occurrence of an IOCG deposit. See Figure 3 for more details.

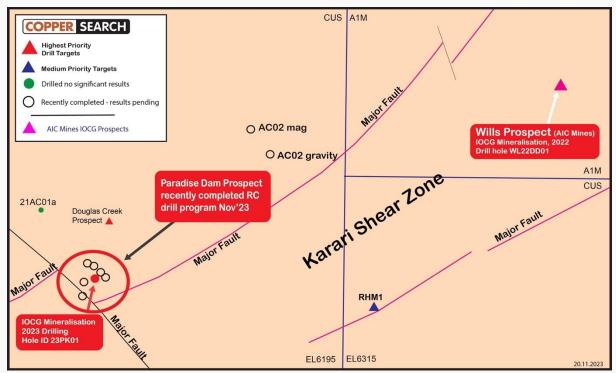


Figure 3 The Paradise Dam Prospect is on the northeast to southwest trending Karari Shear Zone, on a cross-cutting northwest major fault. Structural interpretation PGN Geosciences 2022. Note eight recently completed drill holes indicated with black circles, results pending.





#### Recently completed drilling Paradise Dam Prospect

In November, a six-hole reverse circulation drilling program was completed with one diamond core tail on drill hole 23PK11. Selected RC drilling samples have been dispatched for multi-element geochemical analysis, with results expected in late January. Results will determine if extending the RC holes is warranted and allow the Company to determine if additional drill holes are required. The drill program included one diamond core tail on drill hole 23PK11, from 330m to 651m depth, to test a 500m-deep chargeability anomaly identified by an IP geophysical survey at the Paradise Dam Prospect. The drill core from 23PK11, from 475m to 651m, was transported to Adelaide, cut, sampled, and submitted for assay to the ALS Laboratory. Results are expected in late January and will be released with the RC drilling assays as one package.

The drilling program was designed to test two geophysical features: 1) a ~1,400m long by ~800m-wide modelled gravity anomaly, and 2) the chargeable IP anomaly. The high-density gravity shells have been modelled to be present from approximately 200m to 300m below the surface. The chargeable IP anomaly is interpreted to be directly on the cross-cutting structures identified by a company IP survey conducted in mid-2023. A series of six RC holes were drilled using a Schramm 685 RC drill rig capable of ~650m. However, water in the basement rocks prevented the RC rig from drilling deeper than 330m. Assay results will aid the company in determining if extending the holes is warranted with a diamond drilling rig. The use of a diamond rig would allow deeper drilling without being affected by groundwater. The second objective was to test the chargeable IP anomaly. Drill hole 23PK11 was collared sub-optimally to the northeast of the strongest part of the IP anomaly due to logistical considerations and achieved the objective to test the chargeability anomaly at 500m depth.

#### **Next Steps**

The IP geophysical survey will re-commence in January to cover the along-structure potential of the Paradise Dam Prospect, see Figure 2. The results of the IP survey will inform the Company's decision-making on drilling additional holes targeting the chargeability anomaly on the Paradise Dam Prospect. Analysis of assays from the RC drill holes will inform follow-up drilling plans elsewhere on the Paradise Dam Prospect.

A heritage survey planned for late January has been moved to February to allow the IP survey team more time to define the extension of the chargeability anomaly and for interpretation of the data. Once the heritage survey is completed, a new drilling program can be planned, with drilling permits already secured.

For further information, please contact the authorising officer, Duncan Chessell:

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#### **JORC Compliance Details**

#### **Competent Person Statement**

The information in this report related to Exploration Results is based on data compiled by Mr Duncan Chessell, a member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and Australasian Institute of Geoscientists (MAIG). Mr Chessell is a full-time employee of the company. As previously disclosed, Mr. Chessell holds Shares, performance rights and Options in the Company. Mr Chessell has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Chessell consents to the inclusion of the matters in the report based on his information in the form it appears.

#### **JORC Information**

This report includes regional data from the South Australian Government SARIG website sourced from public data.

The Company confirms that it is unaware of any new information or data materially affecting the results cross-referenced in this announcement. References to neighbouring projects have been obtained from company websites, reports and/or ASX announcements.

#### **Related ASX Announcements**

- 9/10/2023 Geophysics Surveys and Drilling Update Peake Project
- 24/7/2023 Assays confirm IOCG-style mineralisation in drilling
- 10/7/2023 Geophysics and drilling update
- 18/1/2023 (ASX: A1M/DRM) Peake and Denison Drill Results
- 21/9/2021 Copper Search IPO Prospectus lodged ASIC 30/7/2021

#### **Abbreviations**

Cu = Copper

Ce = Cerium

La = Lanthanum

Au = Gold





Appendix 1. Summary IP Survey conducted on EL6195 Anna Creek in 2023.

# Location of Paradise Dam Prospect IP survey and Survey Equipment Hardware – EL6195 Peake Project

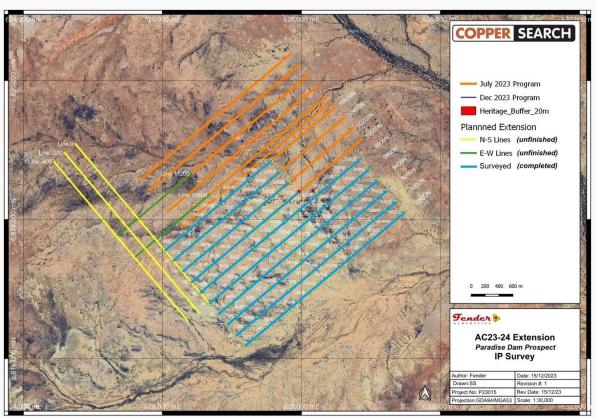


Figure 4 Blue lines indicate recently completed IP survey in December 2023, yellow and green lines will be added in January 2024, further extensions parallel and south of the blue lines will also be completed in January 2024.

Survey Specifications		
Survey Type	Induced Polarisation	
Array Type	Pole-dipole	
Rx Dipole Length	200m (100m early trials)	
Domain and Cycle	Time domain – 2s or 0.125Hz plus test on line 10600N: 8s or 0.5Hz	
Depth of Investigation (n) [nodes]	16	
Line Bearing	50 degrees	
Line Separation	200m with some 100m infill (see map)	
Line Length	2200m to 2800m	
Total Line Kilometres in 2023	47.4km	
Co-ordinate System	GDA94/MGA53	





#### **Survey Equipment - Hardware**

Item	Model	
Receiver	Instrumentation GDD Rx-32 16-Channel	
Transmitter	Thunderbird 18kVA	
Generator	Able 22kVA	
Receiver Electrode Pots	Non-polarising porous pots	
Transmitter Electrode Plates	120mm x 800mm x 5mm aluminium plate	
Rx Cables	Multi-core data cable	
Tx Wire	2.5mm single-core wire	
UHF Radios	5W handheld radios	
Handheld GPS Units	Garmin 64s – 3m accuracy	
Vehicles	Mine-spec Mitsubishi Triton or Toyota Hilux	

#### Instrumentation GDD Rx32 16-channel IP Receiver

Voltage Measurement: Resolution  $1\mu$ V, Accuracy  $\leq$  0,15% Chargeability measurement: Resolution  $1\mu$ V/V, Accuracy  $\leq$  0.4%

Adjustment: Automatic sync, SP compensation, gain setting and stacking

ADCs: 24-bit

Primary Voltage:  $\pm$  10 $\mu$  to  $\pm$  15V for any channel

Operating Temperature: -40° C to +60° C

Full waveform acquisition: Yes – QC with GDD Full Waveform post-processing software

#### Thunderbird 18kVA EM/IP Transmitter

Output max. pulse current: 200A Input max. voltage: DC 1500V

Control Power: AC 3-phase in-line 375-455V or

single phase/3-phase line neutral 210-255V @ 50 or 60Hz

GNS Sync. Error (EM): 1 µs





Appendix 2. The following tables are provided to ensure compliance with the JORC Code (2012) requirements for reporting the exploration results for The Peake Project, Section 1 Sampling Techniques and Data – Geophysics Surveys

	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.  This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Drilling techniques	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.).	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.





Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>IP: data points were positioned using handheld Garmin 64s GPS with an accuracy of 3 metres.</li> <li>Grid system used is MGA_GDA94 Zone 53.</li> <li>Topographic control has been provided by government-provided topographical data and is sufficient for the stage of exploration undertaken.</li> </ul>





Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>IP data was collected using a Pole-diploe configuration. With Rx Dipole Length of 100m – 200m and line separation of 200m, with infill of 100m separation. See Appendix 1a for a list of station and lines spacing and Table 1a for map of the stations and line locations.</li> <li>This release is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	This release is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Sample security	The measures taken to ensure sample security.	This release is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being reported.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audit has been completed.





Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary		
Mineral tenement and land tenure	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures,		Tenement number	Tenement name
status	partnerships, overriding royalties, native title interests, historical sites, wilderness or national		6181	Curdimurka
			6195	Anna Creek
	<ul> <li>park and environmental settings.</li> <li>The security of the tenure held at the time of</li> </ul>		6235	Allandale
	reporting along with any known impediments to		6238	Stuarts Creek
	obtaining a license to operate in the area.		6314	Callana
			6315	Ruby Hill
			6808	Spring Hill
			6862	Mt Denison
			6899	Blyth Creek oration leases or tenements
		•	Pty Ltd, a wholly-company. The ter and fully granted, schedule in the man ASX Announc party to an NTMA holders, the agree exploration. Targe sensitive area, an required for poter The tenure is sectimpediments to op	by Copper Search Australia owned subsidiary of the nements are in good standing as defined on the Tenement nost recent Quarterly report as ement. The Company is a with the Arabana Native Title ement allows for mineral et AC03 is a known culturally and further negotiations are nitial access. ure and with no known perating, except for Target reek Prospect), as stated
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	•	undertaken by pro tenements, with c intersections in 5, was undertaken f	ntion drilling has been evious explorers within the only 28 basement ,477km², previous exploration for diamonds, uranium and used in the IPO Prospectus
Geology	Deposit type, geological setting and style of mineralisation.	•	company is copp the Iron Oxide Co of deposit. IOCG distributed within of South Australia	et of exploration by the er-gold mineralisation of opper Gold (IOCG) class deposits are widely the Gawler Craton region a. The potential also exists Copper Gold (ISCG)
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:	•	geophysical surve to this release – r	related to results from eys; this section is not relevan no drilling is being reported. as been excluded that would from the understanding of





Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is 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.	Appropriate maps are included in the main body of the report. Noting that – no drilling or drill sampling assays is being reported in this Appendix.
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.	This Appendix is related to results from geophysical surveys; this section is not relevant to this release – no drilling is being 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.	Ground based Induced Polarity (IP).  IP sampling was conducted by Fender Geophysics using a Pole-dipole configuration. Line length of 2200m to 2800m with an n=16. Line separation was 200m with some 100m infill (see Appendix 1 for details). Survey hardware consisted of a Thunderbird 22kVa transmitter and an Instrumentation GDD Rx-32 16-Channel receiver. Electrodes consisted of non-polarising porous pots. Processing of initial data and 2D sections was conducted by Fender Geophysics. Company consultants Arrow Geophysics completed 3D inversions.
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 IP survey is incomplete at this time and the Comp[any intends to continue the survey in January 2024. Once completed further maps will be provided outlining the next steps. Diagrams are included in the body of the report illustrating potential along structure chargeable zones.