

Surface Copper Mineralisation and Large Soil Anomaly at Mount Squires

HIGHLIGHTS

- Copper mineralisation found in surface outcrop on the West Musgrave Ni-Cu Corridor
- New copper-palladium soil geochemistry anomaly striking over 8km
- Coincident with a magnetic lineament striking over 17km through the project area
- New Airborne Electromagnetic (AEM) anomalies identified on trend
- Further soil geochemistry results pending, including infill of earlier positive results
- Reconnaissance aircore drilling completed across AEM anomalies and geological targets near OZ Minerals' One Tree Hill prospect, results pending
- Drilling completed at the Duchess Prospect, all results pending

Caspin Resources Limited (ASX: CPN) ("Caspin" or "the Company") is pleased to provide an update on exploration activities and results at the West Musgrave Ni-Cu Extension at the Mount Squires Project in the West Musgrave region of Western Australia. The Company has successfully completed drilling, soil and rock chip sampling as well as airborne geophysics over the past six weeks.

Enticing Surficial Copper within Large-Scale Soil Anomaly

The Company has received further ultra-fine fraction (UFF) soil geochemistry results in addition to those reported on 31 August 2022. These results have now defined a copper-palladium anomaly striking over 8km, coincident with a magnetic lineament (or gradient) along strike from known copper mineralisation at the One Tree Hill Prospect, operated by OZ Minerals (OZL) and with the Nebo-Babel and Succoth Deposits further along strike (part of a recently announced \$1.7b mine development¹).



Figure 1. Copper mineralisation (malachite) in outcrop.

The copper-palladium anomaly is particularly interesting, as this is the same style of mineralisation observed at the Succoth Deposit (owned by OZL) and a type of anomaly highly likely to be associated with magmatic sulphide mineralisation, rather than any barren lithological source. Field inspection of the soil anomaly area revealed that it is mostly concealed by transported cover but very importantly, Caspin’s geologists did locate a small outcrop of mafic rocks with visible copper mineralisation (Figure 1).

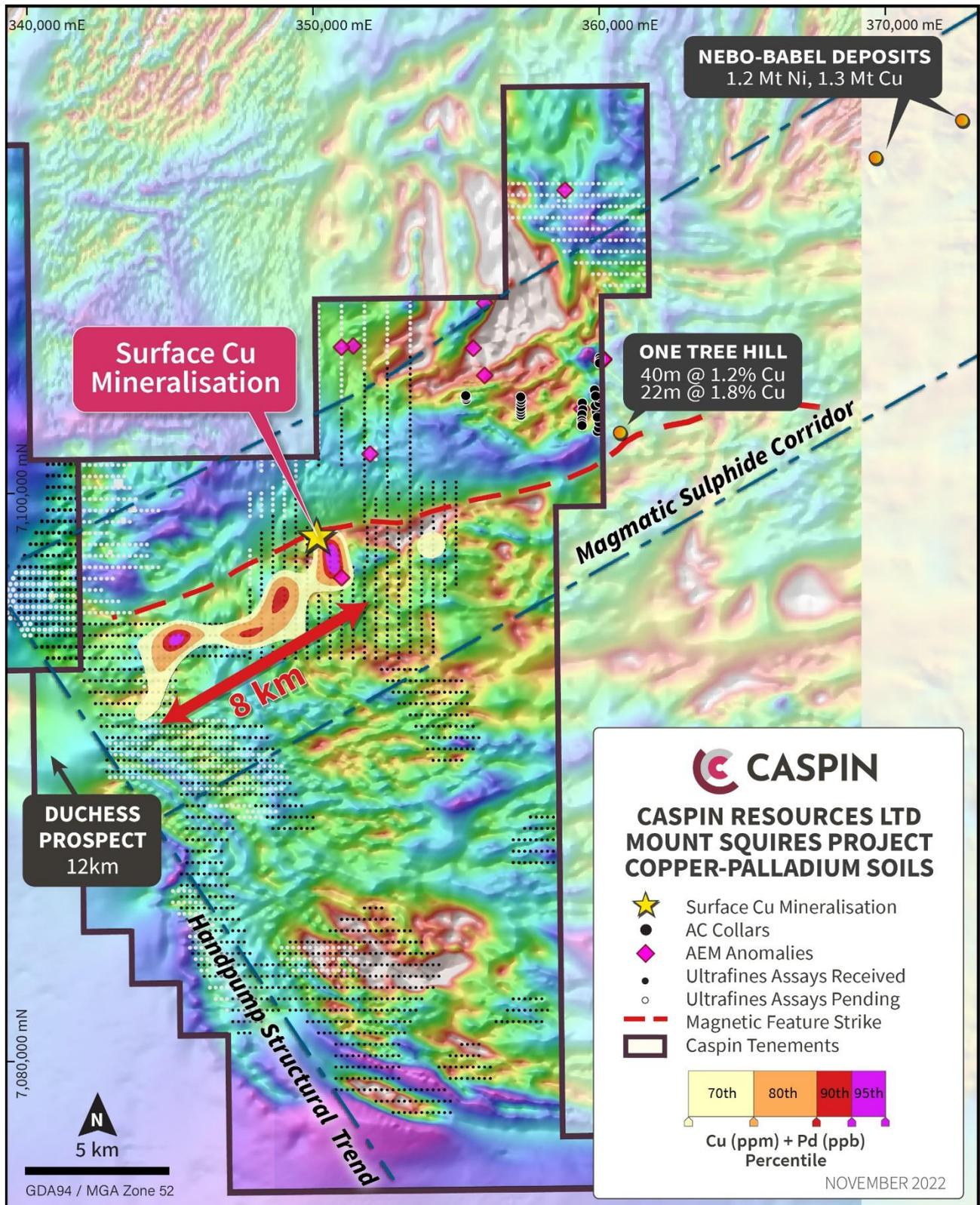


Figure 2. West Musgrave Ni-Cu mineralisation trend showing copper-palladium anomaly and location of copper mineralisation outcrop, soil sample locations and drill hole locations (results pending).

Assay results from sampling the outcrop are pending. Although this occurrence is small, it is highly significant as it confirms that this large 8km long soil anomaly is likely to be associated with mineralisation.

A strategically significant aspect of this work is the effectiveness of the UFF soil geochemistry in identifying bedrock anomalism through shallow transported cover. The Company considers that the application of modern UFF soil sampling is opening up a major new search space within this highly prospective terrane.

The spatial association of this large Cu-Pd geochemical anomaly with a strong NE lineament in magnetic data (Figure 2) is also considered further evidence of the potential of this anomaly to host mineralisation. This magnetic lineament potentially represents a deep-seated structure that has provided a conduit for the emplacement of mineralised magmatic intrusions. Importantly, this lineament occurs sub-parallel to, and central to, the NE-trending structural corridor that hosts the Nebo-Babel and Succoth deposits along strike (owned by OZL). The Company is continuing to interpret results and develop its geological models.

It is worth noting that the Nebo and Succoth (~1Mt contained Cu) deposits have no surface expression at all, lying beneath shallow sand cover and the Babel Deposit has only a very small subcrop of approximately 5 square metres, which also displays malachite. Therefore, any surface expression of mineralisation in this region is highly encouraging.

A further 1,200 soil samples along the West Musgrave Ni-Cu corridor remain pending. These results will assist the Company evaluate additional copper (and nickel) anomalies along this trend and possibly define drill targets or additional geophysical surveying for the 2023 field campaign.

AEM Survey Identifies New Geophysical Targets

An airborne electromagnetic (AEM) survey was flown over the West Musgrave corridor and Handpump-Duchess corridors in September 2022, targeting potential massive sulphide mineralisation. A total of 10 preliminary anomalies were detected along the West Musgrave corridor. These anomalies are likely to require heritage clearance prior to ground EM surveying to assist drill targeting. Encouragingly, the AEM survey identified an anomaly 1.6km to the southeast of the outcropping malachite mineralisation in Figure 1 and located within the broader 95th percentile Cu-Pd UFF anomaly (see Figure 2).

Reconnaissance Aircore Drilling Completed at One Tree Hill

The Company has completed several traverses of reconnaissance aircore drilling immediately adjacent to OZ Minerals' One Tree Hill Prospect, for a total of 30holes and 546m. The Company's goal with this program was to test preliminary AEM anomalies and secondly, determine if suitable lithologies and potentially mineralising structures, previously identified at One Tree Hill, continue into Caspin's Mount Squires Project area and then evaluate the requirement for more targeted testing in 2023, likely utilising a larger capacity drill rig. Preliminary assessment of the results of this drilling indicates that it appears to have intersected the type of mafic lithologies that are known to host mineralisation at the One Tree Hill Prospect, approximately 200m east of the project boundary.

Next Steps

The Company is eagerly awaiting results for both soil geochemistry and aircore drilling on the West Musgrave corridor but has already found sufficient encouragement from results to date to warrant an escalation of exploration activities during the 2023 field season.

An update on results from drilling, mapping and sampling on the Handpump-Duchess trend is expected before the end of the year.



Caspin's Chief Executive Officer, Mr Greg Miles, commented *"Whilst at a very early stage in exploration, our field programs have provided some tantalising results already. Shareholders should be very pleased with progress at the Mount Squires Project. The project has demonstrated significant value, not just because of its address in the heart of an emerging province, but with obvious mineralisation potential. This new copper and palladium anomaly, with occurrences of copper at surface, is a significant breakthrough for the Company.*

"With drilling programs now underway at Yarawindah Brook and results from Mount Squires to come shortly, the short-term outlook for the Company has never looked better."

This announcement is authorised for release by the Board of Caspin Resources Limited.

-ENDS-

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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, a Competent Person who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on his information 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 Exploration Results information included in this report from previous Company announcements, including Exploration Results extracted from the Company's Prospectus announced to the ASX on 23 November 2020 and the Company's subsequent ASX announcements of 28 June 2021, 3 August 2022, 31 August 2022 and 29 September 2022.

Reference:

1. <https://www.ozminerals.com/en/investing-in-us/asx-releases/2022-asx-releases/green-light-for-west-musgrave-project>

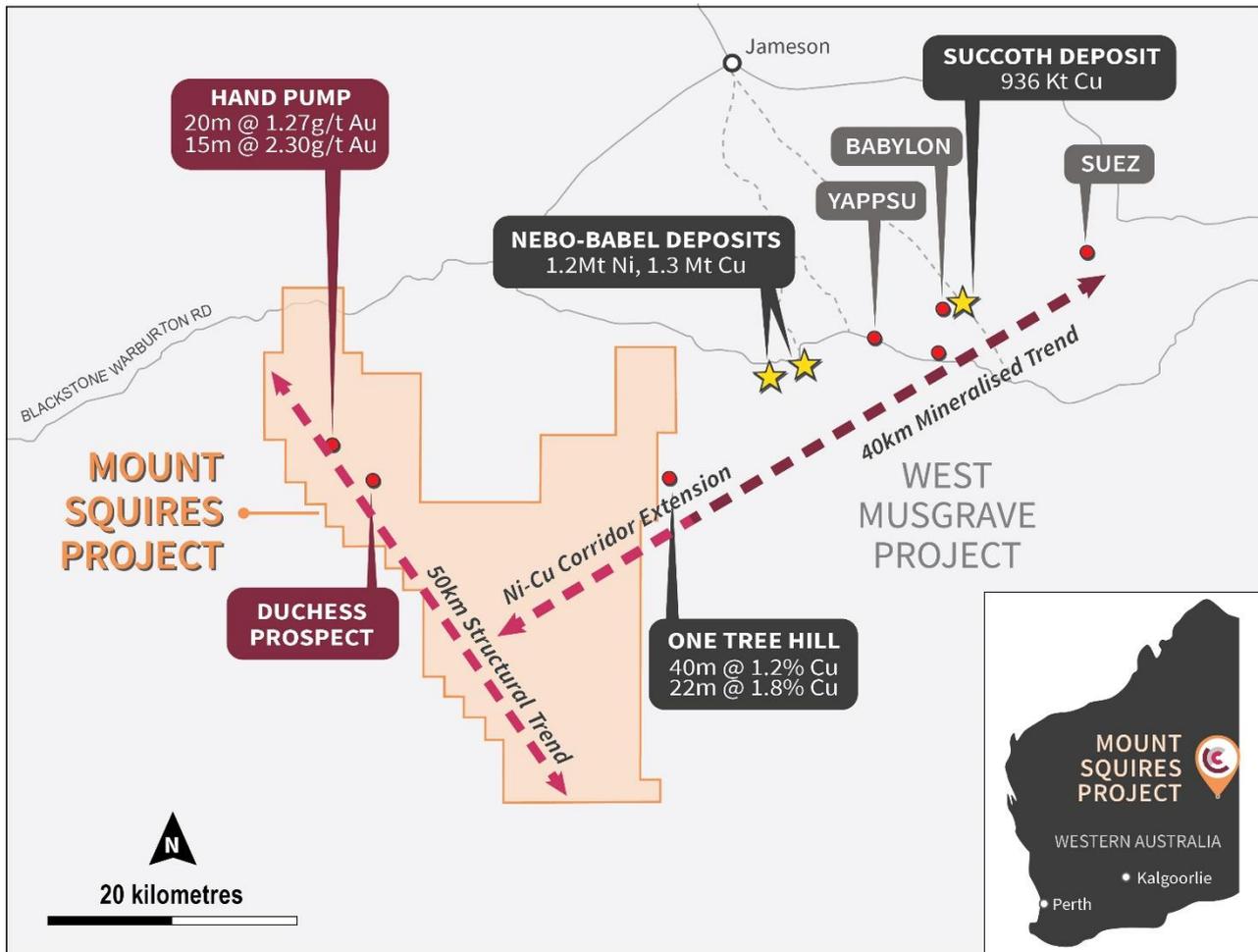


Figure 3. Mount Squires Project with prospect locations.

ABOUT CASPIN

Caspin Resources Limited (ASX Code: **CPN**) is a new mineral exploration company based in Perth, Western Australia. Caspin has extensive skills and experience in early-stage exploration and development. The Company is actively exploring the Yarawindah Brook Project in Australia's exciting new PGE-Ni-Cu West Yilgarn province and the Mount Squires Project in the West Musgrave region, one of Australia's last mineral exploration frontiers.

At the Company's flagship Yarawindah Brook Project, recent drilling campaigns at Yarabrook Hill have made new discoveries of PGE, nickel and copper sulphide mineralisation. Meanwhile, the Company continues to bring new targets to drill readiness by collecting geophysical and geochemical data across the project.

At the Mount Squires Project, Caspin has identified a 50km structural corridor with significant gold mineralisation and potential copper porphyry prospects. The Company will conduct further soil sampling and reconnaissance drilling along this trend. Caspin will concurrently continue to evaluate the potential for Ni-Cu mineralisation along strike from the One Tree Hill Prospect and Nebo-Babel Deposits.

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ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the Mount Squires Project.

SECTION 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

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 sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>Surface soil samples were collected on east-west orientated lines spaced 400m apart with samples collected at 200m intervals along these lines. Samples were collected by digging a 30x30x20cm pit, cleaning the base of the pit out before homogenising the sample. The sample was immediately sieved to 80# or 177 microns, approximately 400g was collected and stored in a paper geochem bag.</p> <p>Helicopter Airborne Electromagnetic (AEM) surveying was completed by NRG Australia, utilising their 'Xcite' system. A total of approximately 250 square kilometres was surveyed. 1882 line kilometres were surveyed at a default line spacing of 200m across areas determined as high priority by Caspin staff.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p>Sampling has been carried out under Caspin protocols and QAQC procedures as per industry best practice.</p> <p>Soil sample locations were surveyed by handheld GPS units which have an accuracy to ±5 metres.</p>
	<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>Soil Samples were analysed by Labwest using the Ultrafine+ method. A 2g portion of the 2-micron fraction is extracted for assay.</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>	Not applicable as no drilling results reported
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable as no drilling results reported
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not applicable as no drilling results reported
	<i>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.</i>	Not applicable as no drilling results reported

Criteria	JORC Code explanation	Commentary
Logging	<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>	Notes were collected on the nature of the environment from which soil samples were collected.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Notes on the nature of the environment from which soil samples were collected are qualitative in nature.
	<i>The total length and percentage of the relevant intersections logged.</i>	Not applicable as no drilling results reported
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable as no drilling results reported
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Soil samples were sieved to 80# or 177 microns in the field. The lab extracted a 2g sample of the 2 micron (clay fraction) for assay.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Preparation techniques are laboratory standard and considered appropriate for the accuracy of assaying methods.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Caspin QC procedures for soil sampling involve the use of duplicates. The insertion rate of these average 1:50. Standard laboratory QA/QC was completed accordingly.
	<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>	The sampling of duplicates was completed for soil sampling.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate for the methods of sampling and stage of exploration.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	All soil samples were submitted to Labwest in Malaga for analysis using the UFF-PE.
	<i>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.</i>	Not applicable as results of geophysical surveys are not reported.
	<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 laboratory-certified reference material, and replicates as part of the in-house procedures. Repeat or duplicate analysis for samples did not highlight any issues.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable as no drilling results reported
	<i>The use of twinned holes.</i>	Not applicable as no drilling results reported
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Soil sampling coordinates and track data from handheld GPS devices and was converted to Excel spreadsheets and submitted to Geobase Australia for validation and compilation into a SQL

Criteria	JORC Code explanation	Commentary
		database server.
	<i>Discuss any adjustment to assay data.</i>	No assay data has been adjusted.
Location of data points	<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>	The location of all soil samples has been recorded using handheld GPS. The copper outcrop mineralisation described in this report was observed at 350152E 7098415N.
	<i>Specification of the grid system used.</i>	The grid system for the Mt Squires Project is GDA94 MGA Zone 52.
	<i>Quality and adequacy of topographic control.</i>	Topographic data was obtained from public download of the relevant 1:250,000 scale map sheets. The area exhibits subdued, low relief with undulating sand dunes and topographic representation is considered sufficiently controlled.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Soils samples were collected on a nominal 200 x 400m spaced grid. Infill of encouraging results have been completed on tighter infill spacings of 100 x 200m and 50 x 100m. Airborne EM flight lines were completed on a default 200m line spacing for a total of 253 lines for 1882 line kilometres.
	<i>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.</i>	Not applicable as reported results are not being used to establish a Mineral Resource
	<i>Whether sample compositing has been applied.</i>	No compositing was applied.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The current results represent early stage exploration. The relationship between mineralisation and structures is yet to be established.
	<i>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.</i>	Not applicable as no drilling was completed
Sample security	<i>The measures taken to ensure sample security.</i>	Sample chain of custody is managed by Caspin Resources. Ultrafine soils were transported from site to Labwest Perth.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	Company geologists continue to review the data, no external reviews have been completed.

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	<i>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.</i>	<p>The project area comprises two contiguous Exploration Licences, E69/3424 and E69/3425. Both Licences are held by Opis Resources Pty Ltd, a wholly owned subsidiary of Caspin Resources Limited.</p> <p>The tenements are located within Crown Reserve 17614, which is within the jurisdiction of the Ngaanyatjarra Land Council within Reserve 40783 for the Use and Benefit of Aboriginal Inhabitants.</p>
	<i>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.</i>	<p>Both tenements are currently live and in good standing. A Mineral Exploration and Land Access Agreement was signed with the Ngaanyatjarra Land Council in Feb 2017. No Mining Agreement has been negotiated.</p>
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>The Handpump Au anomaly was first identified by WMC in 1999 through the initial regional lag sampling in the West Musgraves, which also resulted in the discovery of the Nebo and Babel Deposits. The anomaly covered an area over 1.2km long and 400m wide with a maximum Au of 250ppb. WMC did not prioritise this target and there was no follow up work completed.</p> <p>In 2009, Beadell Resources drilled the Handpump anomaly with the best intersection being 15m @ 2.3 g/t Au from 31m. Two phases of follow-up RC drilling, both at the original Handpump Prospect and some of the newer prospects, were completed between 2009 and 2011, but no better results other than the original intersection were obtained.</p> <p>Additional work at the Mt Squires project included mostly surface geochemical sampling, which defined some additional prospects. Regional geochemical analysis by consultant Scott Halley defined an additional prospective target, Centrifical (renamed to Duchess), which has not yet been drill tested. Beadell withdrew from the project in 2013 and the ground was subsequently applied for by Cassini which demerged into Caspin Resources in 2020.</p> <p>Caspin reviewed all existing historical exploration data and has defined several additional targets which have been previously reported.</p> <p>Some of the areas presently covered by Mt Squires project were also explored by Anglo American and Traka Resources. The work mostly included geochemical sampling and auger and vacuum drilling, but no significant Au anomalies were identified.</p> <p>Caspin Resources completed Ultrafine Soil sampling in 2020 which further defined the Duchess prospect.</p>



Criteria	JORC Code explanation	Commentary
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Mt Squires Project is located in the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt.</p> <p>The Giles Event in the West Musgrave Province included emplacement and eruption of mafic to felsic magmas, all of which are grouped into Warakurna Supersuite. Bimodal volcanic rocks form the main component of the Bentley Supergroup.</p> <p>The Mt Squires Project area is south and southeast of the Mt Palgrave Intrusive Complex. The project is dominated by the bimodal Bentley Supergroup rhyolites, basalts and siliciclastic and volcanoclastic rocks, all of which were unconformably deposited on the amphibolite to granulite facies pre-Giles basement rocks. The Mt Palgrave Group is stratigraphically the lowest preserved unit of the Bentley Supergroup.</p> <p>The style of mineralisation is interpreted to be either epithermal or intrusion-related Au hosted within Bentley Supergroup.</p>
Drill hole Information	<p><i>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:</i></p> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> • <i>dip and azimuth of the hole</i> • <i>down hole length and interception depth</i> • <i>hole length.</i> 	<p>Not applicable as no drilling results reported</p>
Data aggregation methods	<p><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></p>	<p>Minimum detection limits as per the Labwest UFF-PE method. UFF assays methods</p>
Relationship between mineralisation	<p><i>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</i></p>	<p>Results of the full element suite are not tabulated. The relationship between elements not listed and their relationship to listed elements is currently unknown and not considered material in nature.</p> <p>No aggregated results are reported.</p> <p>No metal equivalent values are reported.</p>



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	<i>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>	
Diagrams	<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 plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to Figures in body of text.
Balanced reporting	<i>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.</i>	Anomalism described in this report is the result of analysis of all soil sampling assay results received to date.
Other substantive exploration data	<i>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.</i>	All relevant exploration data is detailed in text, figures and in Annexure 1.
Further work	<i>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.</i>	Caspin has completed field programs for 2022, but is planning on further mapping, sampling and drilling programs in 2023, subject to budget conditions and permitting.

Section 3 – Xcite AEM Survey Specifications

Electromagnetic System	
Type	Xcite™
Sensor Configuration	Coincident Tx-Rx
Weight	~450kg
Structure	Fully inflatable frame
Aircraft Type	AS350B Series
Engine Type	Turbine
Fuel Type	JetA1
Transmitter	
Diameter	18.4m
Number of turns	4
Current	280A
Dipole Moment	300,000 NIA
Base Frequency	25Hz
Waveform	Nominal square wave – typically 5.4 mS ontime
Receiver	
Diameter	0.613m (effective) (X), 1.0m (Z)
Number of turns	200 (X), 100 (Z)
Orientation	X & Z axis
Configuration	Concentric to Tx
Recording	Digitally at 625 kbps
Time gates	Extracted from streamed data – Typically 24gates
Time gate windows	0.04ms to >11ms
Measurements	dB/dT & integrated B-field
Acquisition System	
Type	NRG RDAS II
CPU	Dual Core ARM 1.5Ghz
Operation Temperature	-10 to 65 Degrees C
Standard Sampling Rate	20 Hz (capable of >1kHz)
GPS Positioning	
Type	Novatel DL-V3L1L2
Differential Correction	Yes
Code Tracked	C/A
Number of Satellites	12
Recording Rate	20 Hz

Magnetometer Counter	
Type	NRG RDAC II
Internal System Noise	<0.0001 nT
Adc Inputs	24
Magnetometer Inputs	4
Recording Rate	20 Hz (capable of >1kHz)
Magnetometer Sensor	
Type	Single Sensor Scintrex CS3
Measurement Range	15 000 – 105 000 nT
Gradient Tolerance	40 000 nT/m
Operating Temperature	-40 to +50 Degrees C
Recording Rate	20 Hz (capable of >1kHz)
Laser Altimeter	
Type	SF11/C (Loop) and SF00(Helli)
Range	0 – 60 m and 0 – 250m
Resolution	1cm
Recording rate	20 Hz (capable of >1kHz)
Base Station Magnetometer	
Type	NRG VER 2
Manufacturer	NRG Engineering
Range	15 000 to 105 000nT
Sensitivity Recording Rate	0.0006 nT $\sqrt{\text{Hz}}$ RMS 1Hz
Field Data Verification System	
Processing Software Platforms	Geosoft Oasis Montaj and Proprietary Software