30 March 2022

# **Sulphides Continue at Depth Below T5**

#### **HIGHLIGHTS**

- → CBDD067 intersects basal contact nickel-copper sulphide mineralisation 700m below surface at T5 (Figure 1)
  - Cumulative 17.5m of disseminated and blebby sulphides intersected (Table 1)
  - Sulphides closely associated with silica-sulphide plume material
  - Hole cased successfully and DHEM scheduled to begin shortly
- → CBDD068 collared at new Mossgiel Prospect
- > New diamond drill rig due at site shortly, supplied by Topdrive Drillers Australia



Figure 1: Diamond core with globular nickel-copper sulphides at approximately 802m downhole in CBDD067.

Estrella Resources Limited (ASX: ESR) (Estrella or the Company) is pleased to announce a broad ~24m wide zone containing a cumulative 17.5m wide Ni-Cu sulphide intersection below the T5 nickel discovery in the 946m deep downhole electromagnetic (DHEM) platform hole CBDD067.

The intersection occurred between ~782m-806m on the T5 Basal Contact, 80m south and 150m below the massive sulphide discovered in CBDD042A<sup>1</sup> which until now has been the deepest intersection informing the known T5 mineralisation (Figure 2).

The drillhole was designed to intersect the basal contact underneath a set of flat faults that have been inferred from geological studies on previous drilling. DHEM will be used down this hole to explore a large vertical section of the basal contact for additional massive sulphides often seen associated with the silicasulphide plume material identified in CBDD067 (Figure 3). This method of establishing deep DHEM

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<sup>&</sup>lt;sup>1</sup> Refer to ASX announcement dated 9<sup>th</sup> April 2021



platform holes was used successfully by Estrella in 2020 to discover the T5 mineralisation along the basal contact of the Carr Boyd Intrusion.

Estrella Managing Director Chris Daws commented:

"Making further sulphide discoveries at depth is very encouraging as this is the deepest intersection of T5 mineralisation drilled to date by Estrella, further highlighting the continuing expansion of T5 mineralisation. Through methodical drill testing, we are gaining a better understanding of the geological setting at T5.

CBDD067 will allow our teams to undertake a DHTEM survey to further test the surrounds for possible massive sulphide accumulations. There is still a very large area of highly prospective basal contact at the Carr Boyd intrusion yet to be fully tested and we look forward to the second new diamond rig arriving on site to expedite the exploration activities."

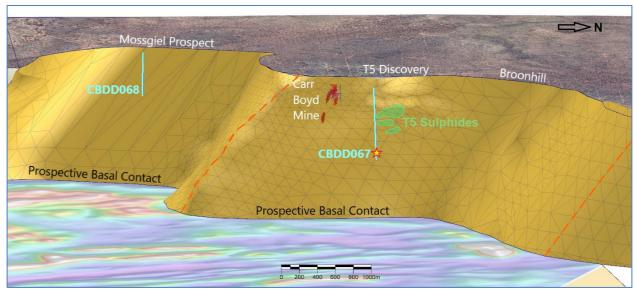


Figure 2: 3D rendering of the Carr Boyd Igneous Complex basal contact showing the location of CBDD067 with respect to the known T5 mineralisation.

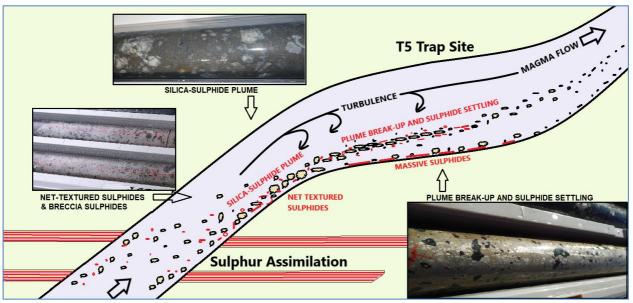


Figure 3: T5 mineralisation model showing the role of the silica-sulphide plume material in the formation of the T5 massive sulphides.



### **Regional Exploration**

The Phase 5 regional program continues with the diamond drill rig moving back to Mossgiel to continue a series of DHEM platform holes, the latest of which is CBDD068 (Figure 2). Phase 5 involves drilling a series of holes where previous RC and diamond drilling has located nickel sulphides in pyroxenites on the basal contact (Figure 4).

Some 12km of fertile basal contact has been mapped to date, comprising three main prospects; Mossgiel, T5-Broonhill and Gossan Hill. Scout drilling at all three prospects had proven that the rocks in these positions are fertile, containing nickel-copper sulphides.

Phase 5 is aimed at systematically covering a cross-section of the contact with diamond drilling and DHEM so as to locate additional massive sulphides. To assist in timely exploration, a second diamond drill rig is expected on site shortly to assist in completing a series of exploration holes between T5 and Broonhill.

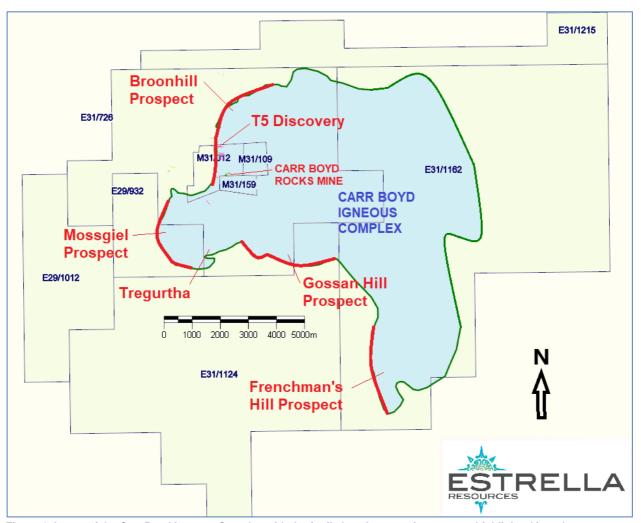


Figure 4: Image of the Carr Boyd Igneous Complex with the fertile basal pyroxenite contacts highlighted in red.



The Board has authorised for this announcement to be released to the ASX.

#### **FURTHER INFORMATION CONTACT**

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## **Competent Person Statement**

The information in this announcement relating to Exploration Results is based on information compiled by Steve Warriner, who is the Exploration Manager of Estrella Resources, and a member of The Australasian Institute of Geoscientists. Mr. Warriner has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity 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 Resource and Ore Reserves". Mr. Warriner consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Table 1: Visual Sulphide Intersection Details for CBDD067

Hole ID	Depth From	Depth To	Interval	Rock Type	Sulphide Texture	Visual Sulphide Estimation	Visual Pentlandite Estimation	Visual Chalcopyrite Estimation
	781.95	782.46	0.51	Pyroxenite	Cloud	0.1	Tr	Tr
	782.46	782.66	0.2	Pyroxenite	Disseminated	2	0.25	0.5
	782.66	785.5	2.84	Pyroxenite	Cloud	0.1	Tr	Tr
	785.5	786.3	0.8	Pyroxenite	Disseminated	2	0.25	0.5
	786.3	788.65	2.35	Pyroxenite	Disseminated	5	1	1
	788.65	790.55	1.45	Pyroxenite	Disseminated	2	0.5	0.25
	790.55	792.2	0.55	Dolerite Dyke				
CBDD067	792.2	793.3	1.1	Pyroxenite	Disseminated	2	0.5	0.25
	793.3	794.25	0.95	Pyroxenite				
	794.25	795.41	1.16	Pyroxenite	Blebby	2	0.25	0.25
	795.41	799.9	4.49	Pyroxenite	Blebby	0.5	0.1	0.1
	799.9	804.2	4.3	Pyroxenite	Blebby	1.5	0.25	0.25
	804.2	806	1.8	Pyroxenite	Disseminated	3	0.5	0.5
	806	813.2	7.2	Pyroxenite				
	813.2	946.2		Footwall Basalt & Seds				

In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of mineralisation. The Company will update the market when laboratory analytical results become available.

Table 2: Drill hole collar details

Hole ID	Final Depth	Easting	Northing	RL	Dip	Azimuth	Status
CBDD067	946.2	367637	6673412	429.6	-65	270	Completed
CBDD068	TBA	365563	6670955	434.5	-84	270	Ongoing

# APPENDIX 1 JORC TABLE 1 - JORC CODE, 2012 EDITION - TABLE 1

# Section 1 Sampling Techniques and Data

Criteria		ection apply to all succeeding sections.)  ORC Code explanation	Commentary
Sampling techniques		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.	<ul> <li>DD core samples have been half cut with an automatic core saw.</li> <li>0.25m-1.1m samples are collected from the core trays as marked out by the supervising geologist.</li> <li>A handheld XRF tool was used to verify the mineralisation with samples reporting &gt;0.3% Ni in disseminated zones and &gt;1% Ni in the matrix sulphide zones.</li> <li>XRF results have not been reported and are used as a logging/sampling verification tool only.</li> </ul>
	•	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul> <li>Core is cut and sampled to ensure the sample is representative and no bias is introduced. Cutting of specific, banded or stringer sulphide zoned core is done orthogonal to the banding to ensure there is no bias.</li> </ul>
	•	Aspects of the determination of mineralisation that are material to the Public Report.	Determination of mineralisation has been based on geological logging, visual sulphide estimates and confirmation using a pXRF machine. Samples were dispatched to an accredited laboratory for multi-element analysis.
	•	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 30g 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	<ul> <li>Diamond core drilling was used to obtain 3m length samples from the core barrel which are then marked in one meter intervals, based on core block measurements.</li> <li>Samples are selected based on geological logging boundaries or on nominal meter marks.</li> <li>Collected samples weigh a nominal 2-3 kg (depending on sample length).</li> <li>Samples have been dispatched to an accredited commercial laboratory in Perth for analysis.</li> <li>Samples are being analysed using a 4-acid digest, ME-ICP for 33 elements and ore zone samples are also being tested for Au &amp; PGE elements using ICP analysis.</li> </ul>
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).	<ul> <li>Drilling was undertaken using NQ2 sized drill core.</li> <li>Holes have been collared with mud rotary from surface, HQ rough cored to top of fresh rock then NQ2 cored to EOH.</li> </ul>
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	<ul> <li>Core recovery was recorded by the field crew and verified by the geologist.</li> <li>RQD measurements were digitally recorded to ensure recovery details were captured.</li> <li>Sample recovery in all mineralised zones is high with negligible core loss observed.</li> <li>Diamond core drilling is the highest standard and no relationship has been established between sample recovery and reported grade as the core is in very good condition.</li> </ul>

fine/coarse material.



Criteria	JORC Code explanation	Commentary
Logging  Sub-	<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> <li>If core, whether cut or sawn and</li> </ul>	<ul> <li>Detailed industry standard of collecting core in core trays, marking meter intervals &amp; drawing core orientation lines was undertaken.</li> <li>Core trays were photographed wet and dry prior to sampling.</li> <li>Drill hole logs are recorded in Excel spread sheets and validated in Micromine Software as the drilling progresses.</li> <li>The entire length of all holes is logged.</li> <li>Core is half cut using an automatic core saw to achieve a</li> </ul>
sampling techniques and sample preparation	<ul> <li>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 sub-sampling 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>	<ul> <li>Core is half cut using all automatic core saw to achieve a half-core sample for laboratory submission.</li> <li>The sample preparation technique is considered industry best standard practice.</li> <li>No field duplicates have been collected in this program. Field duplicates will be collected once initial results are returned and resampling of the mineralised zones is warranted.</li> <li>Sample sizes are appropriate to the grain size of the mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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>	<ul> <li>No handheld XRF results are reported however the tool was used to verify the mineralisation with reporting &gt;0.3% Ni in disseminated zones and &gt;1% Ni in the matrix sulphide zones.</li> <li>DHTEM parameters are as follows; <ul> <li>Tx Loop size: 500 x 800 m</li> <li>Transmitter: GAP HPTX-70</li> <li>Receiver: EMIT SMARTem24</li> <li>Sensor: EMIT DigiAtlantis</li> <li>Station spacing: 2m to 10m</li> <li>Tx Freq: 0.5 Hz</li> <li>Duty cycle: 50%</li> <li>Current: ~130 Amp</li> <li>Stacks: 32-64</li> <li>Readings: 2-3 repeatable readings per station</li> </ul> </li> </ul>
Verification of sampling and	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	Results verified internally by Company personnel
assaying	The use of twinned holes.	<ul> <li>Hole CBDD0028 is twinning hole CBP042. No other twinning is warranted at this stage.</li> </ul>
	<ul> <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>	<ul> <li>The data was collected and logged using Excel spreadsheets and validated using Micromine Software. The data will be loaded into an externally hosted and managed database.</li> <li>No adjustments have been made to the assay data other</li> </ul>
		than length weighted averaging.
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</li> </ul>	<ul> <li>The holes were pegged using a hand-held GPS ± 3m</li> <li>The rig was setup over the nominated hole position and final GPS pickup occurred at the completion of the hole.</li> </ul>



Criteria	JORC Code explanation	Commentary
	other locations used in Mineral Resource estimation.	<ul> <li>Holes are progressively surveyed by DGPS on a batch basis.</li> </ul>
	<ul> <li>Specification of the grid system used.</li> </ul>	• MGA94_51
	<ul> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Topography is relatively flat and control is more than adequate given the early stage of the project. A 3D drone ortho-photographic survey had been used to create a DTM of the project area.</li> </ul>
Data spacing	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	Refer to Cross Sections and Plans included
and distribution	<ul> <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> </ul>	Not applicable, no Mineral Resource is being stated.
	Whether sample compositing has been applied	<ul> <li>No compositing has been applied. Intercepts are quoted as length weighted intervals.</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>	The drill hole orientation does not introduce a sample bias.
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Samples are in the possession of Estrella's personnel from field collection to laboratory submission.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews have been conducted for this release given the early stage of the project.</li> </ul>



		RESOURCES
Section 2 Per	porting of Exploration Results	*
_	the preceding section also apply to this s	ection.)
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Carr Boyd Nickel Pty Ltd (a wholly owned subsidiary of ESR) holds a 100% interest in the nickel and base metarights to the project.</li> <li>There are no known impediments to operate in the area</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Carr Boyd Rocks deposit was discovered by Grea Boulder Mines, in a joint venture with North Kalgurli Lt in 1968. The deposit was mined between 1972 an 1975, during which time they explored for additional breccia pipe occurrences near the mine.</li> <li>WMC acquired Great Boulder Mines Ltd in 1975, brieff reopening the mine in 1977 before closing it permanent shortly thereafter due to a collapse in the nickel price. The mine had produced 210,000t at 1.44% Ni and 0.46% Cu before its closure.</li> <li>From 1968 Pacminex Pty Ltd held most of the groundover the CBLC outside of the immediate mine area Between 1968 and 1971 they conducted extensive exploration programs searching for large basal contact and/or stratabound Ni-Cu deposits. It was during this time that most of the disseminated and cloud sulphid occurrences such as those at Tregurtha, West Tregurth and Gossan Hill were discovered.</li> <li>Defiance Mining acquired the regional tenements from Pacminex in 1987 and focused on exploration for PG deposits between 1987 and 1990. In 1990 Defiance purchased the Carr Boyd Rocks mine from WMC an switched focus to the mine area between 1990 and 2000 leaving many PGE targets untested.</li> <li>From 1990 Defiance dewatered the mine to conduct testwork and feasibility studies on the remnar mineralisation. Metallurgical testwork, Mineral Resource estimations, and scoping studies were completed Around 1996 the focus shifted again to regional exploration for large tonnage basal contact deposits.</li> <li>In 2001 Titan Resources Ltd (Titan) acquired the project and recommenced economic evaluations of the remnar material at Carr Boyd Rocks before embarking of another regional exploration program focusing on the basal contact. An aeromagnetic survey, airborne El reprocessing, and several programs of RAB and Ridilling were completed.</li> </ul>

- From 2005 Yilgarn Mining entered a JV with Titan and continued with some regional exploration but focused most attention in and around the Carr Boyd Rocks mine.
- In 2007 Titan was acquired by Consolidated Minerals Ltd (Consmin). Consmin conducted IP surveys and detailed gravity surveys but did not drill any targets before selling the project to Salt Lake Mining (SLM) in 2013. SLM completed limited drilling to meet expenditure commitments, before selling the project to Apollo Phoenix Resources in 2016.
- Apollo sold the project to ESR in 2018.



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Carr Boyd project lies within the Achaean Yilgarn Craton in a 700km belt of elongate deformed and folded mafic, ultramafic rocks and volcanic sediments intruded by granitoids which is referred to as the Norseman-Wiluna Belt. The belt has been divided into several geological distinct terranes, with the project area lying at the northern end of the Gindalbie terrane (Swager, 1996).</li> <li>The geology of the Carr Boyd area is dominated by the Carr Boyd mafic-ultramafic intrusive complex (CBIC).</li> <li>Several distinctive styles of Ni and Ni-Cu mineralisation have been identified within the CBIC. At the Carr Boyd Rocks Nickel Mine Ni-Cu mineralisation is hosted within several 20 - 60m diameter brecciated pipe-like bodies that appear to be discordant to the magmatic stratigraphy. Mineralisation is hosted by a matrix of sulphides (pyrrhotite, pentlandite, pyrite and chalcopyrite) within brecciated Bronzite and altered country rock clasts.</li> <li>Stratiform Ni-Cu-PGE mineralisation has been identified at several different locations within the layered magmatic complex.</li> <li>Estrella is in the process of re-mapping and reclassifying the Carr Boyd Igneous Complex. Previous "Layered Intrusive" models are misleading as the complex is made up of many overprinted and juxtaposed, smaller layered and non-layered intrusives that have progressed from Ultramafic to Mafic over time. The complex is better described as a magma feeder zone, where the earliest melts passing through the Morelands Formation have assimilated graphitic sulphidic shales, reached sulphur saturation and deposited nickel sulphides along basal contacts.</li> <li>These basal contacts are not restricted to the base of the complex, but can form within the complex, wherever access was gained by these earlier flows.</li> <li>The complex has then been intruded and inflated over time by progressively more mafic, barren magmas to produce what we see today.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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</li> </ul>	<ul> <li>All relevant drillhole information can be found in the Tables and sections within the announcement.</li> <li>No information is excluded.</li> </ul>



Criteria	JORC Code explanation	Commentary
Ontena	explain why this is the case.	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Intersections are reported on a 0.5% Ni cut-off with SG and length weighted intervals.</li> <li>All intercepts are reported using SG and length weighted intervals.</li> </ul>
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No metal equivalents have been stated
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>	True widths have not been stated. The variable orientation of mineralisation within magma feeders combined with a structural overprint and steep drill angles make true width calculations highly misleading.
Diagrams	<ul> <li>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.</li> </ul>	Maps and sections with drill hole locations are included in the announcement.
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.	All new drillhole information within this announcement is 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.	<ul> <li>Everything meaningful and material is disclosed in the body of the report.</li> <li>Geological observations are included in the report.</li> <li>No bulk samples, metallurgical, bulk density, groundwater, geotechnical and/or rock characteristics test were carried out.</li> <li>There are no known potential deleterious or contaminating substances.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or</li> </ul>	<ul> <li>Diamond drilling and DHTEM geophysical testing is continuing.</li> </ul>



Criteria	JORC Code explanation	Commentary
- Ciliana	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.	