# **ASX ANNOUNCEMENT**

23 September 2022



# FIRST PASS METALLURGICAL TESTWORK DELIVERS PROMISING RESULTS FOR ORLANDO

#### **KEY HIGHLIGHTS**

- First pass sighter metallurgical testwork has been completed on existing drill core, targeting oxide and transitional ore types within the Orlando deposit; the primary objective being to test the flotation response of the copper oxide ore.
- Oxide flotation testing delivered very encouraging first pass results for the recovery of copper:
  - o Copper recovery of 79.8% at a saleable concentrate (rougher) grade of 34.3% Cu.
- Transition flotation testing also demonstrated encouraging copper recovery, with upside anticipated with additional grinding and a flotation cleaning stage:
  - o Copper recovery of 90.6% with a concentrate (rougher) grade of 11.2% Cu.
- The results of the oxide flotation test demonstrate that a standard flotation circuit design could be utilised for oxide, transitional and primary copper mineralised ore sources, which would have positive implications for both the capital and operating costs of a processing plant.
- Indicatively high gold recoveries to concentrate for both oxide and transition composites, with the nuggety gold effect highlighting the need for additional test work to more accurately quantify gold recovery.
- The drilling program (RC and Diamond) completed in August provides additional core for the purpose
  of progressing a more comprehensive testwork program, which will be guided by the results of this
  preliminary sighter testwork.

CuFe Ltd (ASX: **CUF**) (**CuFe** or the **Company**) is pleased to provide an update on the preliminary "sighter" metallurgical test work completed on historical drill core from the Company's 60% owned Tennant Creek Copper / Gold project (**Orlando**).

CuFe Executive Director, Mark Hancock, commented "Given the primary objective of this initial work was to test the potential to float a concentrate from the copper oxides, these first pass results are very pleasing. Not only do the testwork results point to the potential to utilise standard flotation for the Orlando copper oxides but the grade of rougher concentrate in this initial test, at 34.3%, was also very encouraging."

"There is a strong consensus view amongst commodity forecasters that there will be significant increases in copper supply required to meet the demand growth that will come from global electrification. A project like Orlando, where the ore is planned to be accessed via a cut back to an existing open pit, is one of the simpler projects that can be part of this supply response. For this reason the Company will continue to focus on the work streams that are most relevant to the project's successful development. Further metallurgical testwork on the core we have just acquired through our recently completed drilling at Orlando will be a key part of that."

**ASX: CUF** 



## **Metallurgical Test Work Results**

The Company commissioned Independent Metallurgical Operations ("**IMO**") to undertake a program of "sighter" bench scale metallurgical test work on both oxide and transitional composites of historical diamond drill core from its Orlando Copper / Gold project. The primary objective of the work being to achieve a positive result with respect to the flotation of oxidised copper mineralisation through conventional oxide flotation, and to inform a more comprehensive metallurgical program.

## Copper Oxide Composite

Two tests were performed on the copper oxide composite, with the first test (FT01) designed to establish some basic operating parameters such that the second test (FT02) could provide a more realistic assessment of what might be achievable for oxide flotation. Results of FT02 showed the copper oxide responded exceptionally well, producing;

- Copper recovery to rougher concentrate of 79.8% Cu
- Rougher concentrate grade of 34.3% Cu

This is an outstanding result for copper oxide rougher stage flotation, highlighting that high saleable copper grades can be readily achieved.

Note that a 'rougher' concentrate represents that concentrate that is floated during the first stage of flotation. In practice this stage is typically followed by a 'cleaner' stage whereby the concentrate is subjected to further flotation (and possibly a re-grind stage between rougher and cleaner) for the purpose of achieving additional copper to concentrate recovery and an increase in the copper grade of the final concentrate. As stated above the purpose of this preliminary metallurgical testwork was to test the potential to float a concentrate from the copper oxides within the Orlando deposit and as such the testwork was constrained to the initial 'rougher' stage of flotation.

### Copper Transition Composite

The single test performed on the transition sample (higher sulphur content) responded well to a copper sulphide – copper oxide differential flotation flowsheet, with both the copper sulphide and copper oxide minerals responding well, and producing;

- Copper recovery to concentrate at 90.6%
- Rougher concentrate grade of 11.2% Cu, which is to be expected for high sulphur ore, with upside
  expected via subsequent regrinding and a flotation cleaner stage, to achieve a more typical
  saleable concentrate grade of over 20% Cu.

#### **Metallurgical Test Work Details**

The Company submitted to IMO and its subsidiary laboratory Metallurgy Pty Ltd a total of 34kg of selected copper oxide intervals, comprised of nine (9) individual samples of cut diamond drill core, and 39kg of selected copper transition intervals, consisting of twelve (12) individual samples of cut diamond drill core, all taken from three historic drill hole cores recovered from the Tennent Creek Orlando core farm. Tabulated below are details of the composites in terms of the core intervals selected and their respective grades.

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement dated 26 July 2022



**Table 1: Sighter Testwork Composites** 

## Sighter Testwork Composites – Orlando Project

	Oxide				Transitional		
		Gold	Weight			Gold	Weight
	Copper %	gpt	kg.		Copper %	gpt	kg.
H208				H217			
Intersections				Intersections			
44-46	0.70	0.00	3.64	66-69	1.06	0.77	3.57
46-48	2.50	0.50	3.08	69-71	2.01	0.55	4.68
54-55	1.13	0.50	2.53	71-73	2.61	0.75	1.58
55-58	3.21	0.30	4.30	73-75	1.63	0.60	3.23
58-60	2.50	0.65	3.62	75-76	0.30	0.10	2.08
60-63	2.83	0.80	3.93	76-78	1.13	0.15	2.95
63-65	3.14	1.55	3.82	78-80	2.29	0.60	4.37
Average Grade H208	2.37	0.62		Average Grade H217	1.62	0.52	
Weight of Sample H208			24.92	Weight of Sample H217			22.45
H209				H208			
Intersections				Intersections			
59-62	0.63	1.40	4.35	65-69	1.47	1.88	4.59
62-65	1.04	5.20	3.82	69-71	2.84	4.25	3.17
				71-73	1.54	0.15	2.55
Average Grade H209	0.82	3.18		73-76	1.27	2.13	4.11
Weight of Sample H209			8.18	76-77	7.42	1.30	2.10
				Average Grade H208	2.45	2.06	
	, ,			Weight of Sample H208		•	16.51
Total Oxide Comp. (Est'd Grade)	1.99	1.25	33.1	Total Transitional Comp. (Est'd Grade)	1.97	1.17	38.96
Total Oxide (Head Assay Grade)	2.11	1.27	33.1	Total Transitional (Assay Grade)	1.80	1.11	38.96



Figure 1 Plan of Sighter testwork hole locations

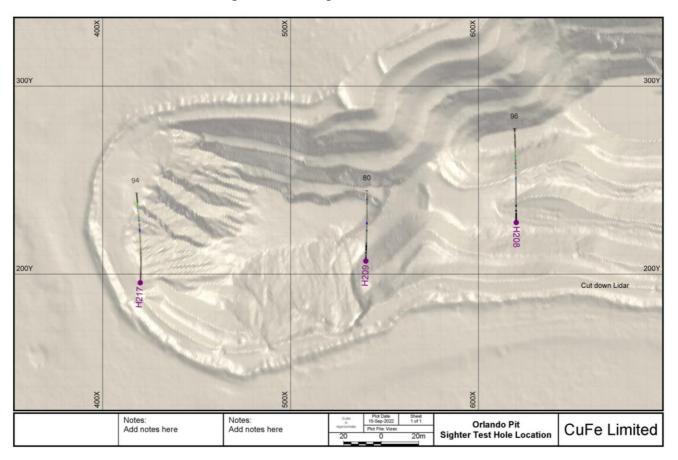


Figure 2 Hole H208 Cross Section

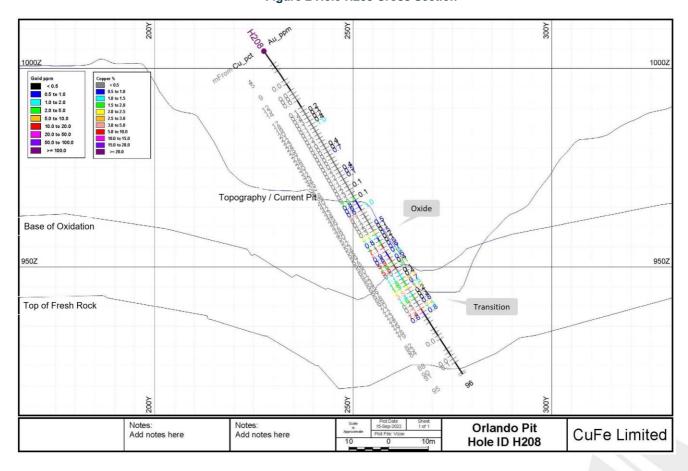




Figure 3 Hole H209 Cross Section

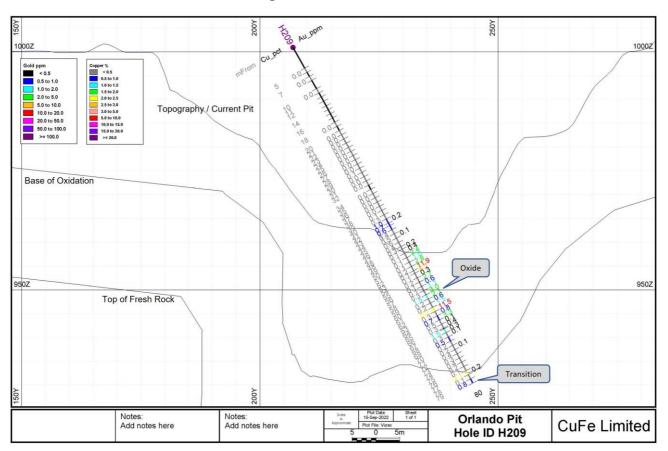
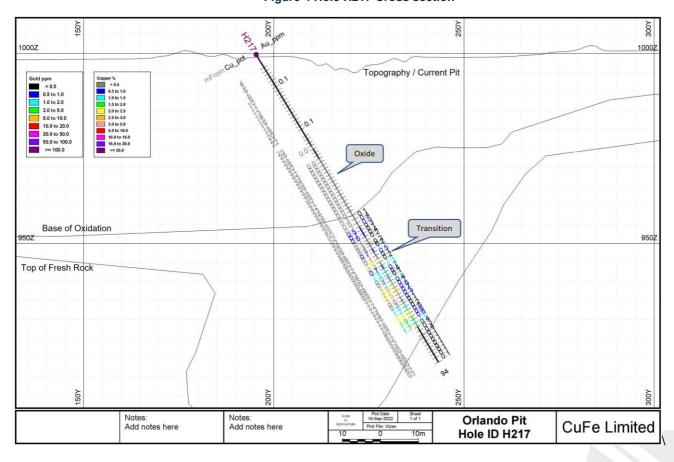


Figure 4 Hole H217 Cross section





The two (2) master composites were stage crushed, separately and in entirety to P100 <3.35mm. This was followed by splitting of the two (2) master composites, as required, to provide for the following;

- Head sample analysis via elemental assaying and speciation analysis
- Head sample mineralogical characterisation via QXRD and optical/SEM analysis, focusing on mineral associations and valuable mineral liberation sizes (work in progress)
- Flotation testwork

Separate copper oxide and copper transition flotation testwork has been performed as follows:

- Grind flotation test charges to target P80 75μm in Perth tap water, then transferred to a flotation cell, with more water added
- Copper oxide composite single-stage rougher flotation tests, which generated rougher kinetic concentrates and final copper concentrate of saleable grade
- Copper Transition composite single-stage rougher flotation tests, which generated rougher kinetic concentrates (further regrinding and cleaner flotation stage required to achieve final copper concentrate of saleable grade)
- Flotation test product samples dewatered using a fine filter press and oven dried at 70°C
- Depending on weight, samples either (i) pulverised, or (ii) homogenised, split and pulverised
- Samples dispatched for assay analysis

**Table 2** and **Table 3** below contain the results of the first (FT01) and second (FT02) oxide flotation tests respectively. The FT01 test established some basic operating parameters, while the second oxide flotation test (FT02) is viewed as the optimised test, therefore providing a more realistic assessment of what might be achievable for oxide flotation.

**Table 2: FT01 Copper Oxide Flotation Results** 

	Wei	Weight		Cu	
Product	(g)	(%)	Assay (%)	Recovery	
CuOx Ro Con 1	24.3	1.2%	47.5	28.2%	
CuOx Ro Con 2	12.7	0.6%	41.2	12.8%	
CuOx Ro Con 3	10.0	0.5%	31.9	7.8%	
CuOx Ro Con 4	8.1	0.4%	25.2	5.0%	
CuOx Ro Con 5	7.3	0.4%	15.4	2.8%	
Ro tail	1,943.6	96.9%	0.911	43.4%	
Total	2,005.9	100.0%		100.0%	
Calc'd Grade			2.03		
Assay Grade			2.11		
<u>CUMULATIVE</u>	_				
Cu Ox Ro Con 1	24.3	1.2%	47.5	28.2%	
Cu Ox Ro Con 1-2	36.9	1.8%	45.4	41.0%	
Cu Ox Ro Con 1-3	46.9	2.3%	42.5	48.8%	
Cu Ox Ro Con 1-4	55.0	2.7%	40.0	53.8%	
Cu Ox Ro Con 1-5	62.3	3.1%	37.1	56.6%	



**Table 3: FT02 Copper Oxide Flotation Results** 

5.1.4	Wei	Weight		Cu	
Product	(g)	(%)	Assay (%)	Recovery	
CuOx Ro Con 1	37.9	1.9%	47.2	43.2%	
CuOx Ro Con 2	30.2	1.5%	36.3	26.5%	
CuOx Ro Con 3	14.1	0.7%	21.3	7.2%	
CuOx Ro Con 4	6.7	0.3%	9.55	1.5%	
CuOx Ro Con 5	7.5	0.4%	7.23	1.3%	
Ro tail	1,910.0	95.2%	0.437	20.2%	
Total	2,006.4	100.0%		100.0%	
Calc'd Grade			2.06		
Assay Grade			2.11		
CUMULATIVE	_				
Cu Ox Ro Con 1	37.9	1.9%	47.2	43.2%	
Cu Ox Ro Con 1-2	68.1	3.4%	42.4	69.7%	
Cu Ox Ro Con 1-3	82.2	4.1%	38.7	77.0%	
Cu Ox Ro Con 1-4	88.9	4.4%	36.5	78.5%	
Cu Ox Ro Con 1-5	96.4	4.8%	34.3	79.8%	

**Figure 5 Oxide Ore Flotation Test** 



Figure 6 Oxide Concentrate





Table 4 contains results of the flotation test performed on transition ore (FT03).

**Table 4: FT03 Copper Transition Flotation Results** 

Product	We	Weight		Cu	
Product	(g)	(%)	Assay (%)	Recovery	
CuS Ro Con 1	52.2	2.6%	24.4	37.8%	
CuS Ro Con 2	103.6	5.2%	11.9	36.6%	
CuS Ro Con 3	50.4	2.5%	5.04	7.5%	
CuS Ro Con 4	14.8	0.7%	2.83	1.2%	
CuOx Ro Con 1	21.5	1.1%	7.48	4.8%	
CuOx Ro Con 2	15.4	0.8%	3.71	1.7%	
CuOx Ro Con 3	13.8	0.7%	2.50	1.0%	
Ro tail	1,727.0	86.4%	0.183	9.4%	
Total	1,998.6	100.0%		100.0%	
Calc'd Grade			1.68		
Assay Grade			1.80		
<u>CUMULATIVE</u>					
CuS Ro Con 1	52.2	2.6%	24.4	37.8%	
CuS Ro Con1-2	155.8	7.8%	16.1	74.4%	
CuS Ro Con1-3	206.2	10.3%	13.4	81.9%	
CuS Ro Con1-4	220.9	11.1%	12.7	83.1%	
CuS Ro Con1-4 + CuOx Ro Con 1	242.4	12.1%	12.2	87.9%	
CuS Ro Con1-4 + CuOx Ro Con 1-2	257.8	12.9%	11.7	89.6%	
CuS Ro Con1-4 + CuOx Ro Con 1-3	271.6	13.6%	11.2	90.6%	

**Figure 7 Transition Ore Flotation Test** 



**Figure 8 Transition Concentrate** 



Announcement released with authority of the CuFe Board of Directors.

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#### **COMPETENT PERSONS**

The information in this announcement that relates to Geological Data and Exploration Results is based on information compiled by Mr Olaf Frederickson. Mr Frederickson is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Frederickson consents to the inclusion in this report of the contained technical information in the form and context as it appears.

The information in this release that relates to metallurgy and metallurgical test work has been reviewed by Dr Andrew Dowling. Dr Dowling is not an employee of the Company but is employed by Independent Metallurgical Operations (IMO) who are providing services as a consultant. Dr Dowling is a fellow of the AusIMM and has sufficient experience with the style of processing response and type of deposit under consideration, and to the activities undertaken, to qualify as a competent person as defined in the 2012 edition of the "Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code). Dr Dowling consents to the inclusion in this report of the contained technical information in the form and context as it appears.



JORC Table 1 – Orlando, Tennant creek Section 1 Sampling Techniques and Data

	npling Techniques and Data	Commentary		
Criteria	JORC Code explanation	Commentary		
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>2012/13 reverse circulation and diamond drilling was used to obtain samples generally over a length of 1 m.</li> <li>Reverse circulation samples were composited over 3 m intervals.</li> <li>Generally half core samples from diamond drilling were crushed, sub-sampled and pulverised to produce a 50 g charge for analysis.</li> <li>The majority of the data is from RC and diamond drilling carried out prior to 1980. This was generally samples over 1 m intervals.</li> </ul>		
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Reverse circulation and diamond drilling with HQ, NQ and PQ core diameter.		
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>	<ul> <li>Sample recovery for 2012/13 drilling is included in RQD logging of diamond core.</li> <li>Sample weights from 2012/13 RC drillholes are recorded and a recovery determined.</li> <li>Results indicate good to moderate sample recovery.</li> </ul>		
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>	<ul> <li>Standard operating procedures have been used by Emmerson (ERM) at Orlando for logging RC and diamond core samples.</li> <li>All drillhole samples are geologically logged.</li> <li>Standardised codes have been used for lithology, oxidation, alteration and presence of sulphide minerals.</li> <li>Structural logging of all diamond drill core records orientation of veins, fractures and lithological contacts.</li> <li>RQD logging records core lengths, recovery, hardness and weathering (not at Goanna).</li> <li>All drill core is photographed.</li> <li>Representative RC chips are stored in trays.</li> </ul>		



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Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation  Quality of assay data and laboratory tests	<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> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Standard operating procedures have been used by ERM at all projects for sampling RC and diamond core samples, corresponding to industry accepted practice.</li> <li>RC samples were riffle split at the drill site if dry to obtain a 3 to 5 kg sample.</li> <li>Half core samples were submitted for analysis, unless a field duplicate was required, in which case quarter core samples were submitted. The majority of diamond assays are from half core, mainly NQ.</li> <li>QAQC analysis of field duplicate samples indicates moderate precision.</li> <li>Standard analysis procedures were used for gold and total copper, along with bismuth, iron, lead and zinc. Copper was mainly assayed using assay digest followed by ICP-OES, with gold mainly being assayed using fire assay followed by AAS.</li> <li>QAQC protocols consist of the insertion of blanks at a rate of approximately one in every 40 samples, insertion of standards at a rate of approximately one in every 20 samples and duplicate field sample analysis of at a rate of approximately one in every 20 samples.</li> </ul>
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>	<ul> <li>The resource data was managed using Microsoft Access software. This data was exported to successive owners of the project.</li> <li>The most recent drilling data at all projects was received in digital format and uploaded directly to the database.</li> <li>Original data sheets and files have been retained and are used to validate the contents of the database against the original logging.</li> <li>There are issues with the validation of historical data requiring validation and cross-checking with original laboratory data to determine assay units, especially for copper.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole 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>Drillhole survey measurements were taken using a mixture of single shot downhole surveys, and multiple shot (Reflex) surveys.</li> <li>The co-ordinate system is a mixture of local mine grid and MGA_94 (Zone 53). MGA_94 co-ordinates were used at Goanna. At Orlando mine co-ordinates were used in the block model and at</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Gecko MGA co-ordinates were used. All drillhole collars have been reported in MGA co-ordinates.</li> <li>The topography measurements are from a detailed survey. Information regarding the nature of the survey is not available.</li> </ul>
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>Mineralisation within Lenses 2 and 7 has been defined by drillholes on a section spacing of 10 m to 20 m with an average on-section spacing of 20 m to 30 m.</li> <li>RC sampling is on 1 m intervals.</li> <li>Core sampling is generally on 1 m intervals and controlled by alteration and lithological boundaries.</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>	<ul> <li>Exploration drilling is at a high angle to the mineralised lodes.</li> <li>No degree of sampling bias is believed to have been introduced through the relationship between the orientation of the drilling and the orientation of the mineralised structures.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>In the most recent drilling programmes, samples were selected, bagged and labelled by site geologists. The samples were placed in secure containers for transport to the assay laboratory.</li> <li>The assay laboratory confirmed that all samples have been received and that the containers were not compromised.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Optiro reviewed the standard operating procedures for RC and diamond core sampling used at all projects. The SOPs accord with good industry practice. Drilling prior to ERM's involvement may not have been carried out to the same standards.</li> <li>CUF carried out due diligence reviews of sampling and data quality prior to its acquisition of the Tennant Creek projects described herein.</li> </ul>

Section 2 Reporting of Exploration Results

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>	CUF has acquired the following tenements:     Refer Appendix 1. List of Tenements.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The underground workings were started by Peko Mines NL in the 1960s and closed in 1975 due to low copper prices and poor ground conditions.



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Criteria	JORC Code explanation	Commentary
		<ul> <li>Open pit mining followed under the ownership of Normandy Mining Limited (Normandy).</li> <li>The pit was mined over 14 months and completed in October 1997.</li> <li>A resource model and scoping study was developed by Giants Reef Mining in 2004.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The mineralisation is hosted by secondary haematite-kaolin-chlorite altered lenses within two east-southeast trending shear zones.
Drillhole 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 drillholes:         <ul> <li>easting and northing of the drillhole collar</li> <li>elevation or RL of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	Mineral Resources have been defined for Orlando, Gecko and Goanna (refer CUF ASX announcement dated 26 July 2022, thus it is not appropriate to report individual intercepts.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>It is not relevant to report individual intercepts:         Mineral Resources have been defined for all projects.</li> <li>The in situ gold equivalent values quoted by CUF have been calculated using metal prices of U\$\$1363oz for gold and U\$\$3.31/lb for total copper, metallurgical recoveries have been assumed as 92% for gold and 86% for copper.</li> </ul>
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 drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</li> </ul>	The relationships between mineralisation widths and intercept lengths is not relevant as two of the deposits (Orlando and Gecko) have been exposed in open pit and underground; furthermore, the mineralisation at Goanna (not yet exposed) has been clearly defined across multiple drillholes.
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 drillhole collar locations and appropriate sectional views.	The inclusion of appropriate plan and section views of the mineralisation is included in the main body of this 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	Balanced reporting of intersections is not applicable as Mineral Resources at all three projects have been defined and are being reported.

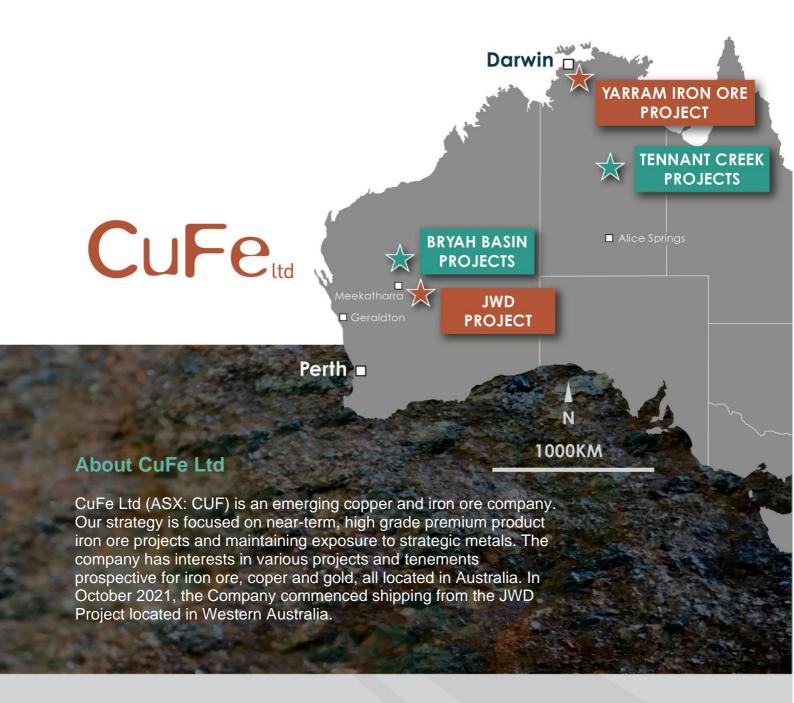


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Criteria	JORC Code explanation	Commentary			
	avoid misleading reporting of Exploration Results.				
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological 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>While there is exploration and brownfields upside at Orlando and Goanna, it is not necessary to report additional exploration information as CuFe Ltd's intended means of further exploration will be via drilling. Significant geophysical exploration has been carried out by previous owners.</li> <li>Sighter metallurgical test work was undertaken on approximately 34kg of oxide and 39kg of transitional material from drill core sourced from drill holes H208, H209 and H217 and submitted to an independent laboratory, Metallurgy Pty in Perth, Western Australia.</li> </ul>			
		<ul> <li>The primary objective of the work being to achieve a positive result with respect to the flotation of oxidised copper mineralisation through conventional oxide flotation, and to inform a more comprehensive metallurgical program.</li> </ul>			
		<ul> <li>Test work included compiling two master composites (oxide and transitional) crushing, screening, splitting, head sample analysis, mineralogical characterisation and flotation testwork.</li> </ul>			
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>A more comprehensive metallurgical test program will be designed and caried out in due course for use in feasibility and mining studies going forward.</li> <li>An updated resource estimate will also be conducted for the same purpose in due course.</li> </ul>			



# Appendix 1. List of Tenements

	Status	Granted	Expiry	Holder	Area	Area
ID		Date	Date		Units	Measure
EL26595	Current	2008-07-07	2020-07-06	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	2	SBKS
EL28777	Current	2011-09-14	2019-09-13	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	27	SBKS
EL28913	Current	2011-12-23	2019-12-22	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	1	SBKS
EL29012	Current	2012-04-03	2020-04-02	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	1	SBKS
EL29488	Renewal Pending	2013-05-01	2019-04-30	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	9	SBKS
EL30488	Current	2014-09-19	2020-09-18	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	9	SBKS
EL30614	Current	2015-10-06	2021-10-05	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	3	SBKS
EL31249	Current	2016-06-01	2022-05-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	2	SBKS
EL32001	Current	2019-05-15	2025-05-14	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	14	SBKS
ML23969	Current	2009-03-17	2034-03-16	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	15	HECT
ML29917	Current	2013-10-01	2023-09-30	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	201.4	HECT
ML29919	Current	2013-10-01	2023-09-30	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	436.2	HECT
ML30714	Current	2015-03-18	2020-03-17	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	40	HECT
ML30745	Current	2015-02-17	2020-02-16	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	80	HECT
ML30783	Current	2015-04-10	2020-04-09	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	20	HECT
ML30873	Current	2015-08-18	2020-08-17	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	60	HECT
ML31021	Current	2015-10-19	2020-10-18	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	13.04	HECT
ML31023	Current	2015-11-27	2020-11-26	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	148.46	HECT
ML31075	Current	2015-12-08	2020-12-07	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	20.8	HECT
MLC21	Current	1958-09-23	2020-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	17	HECT
MLC323	Current	1976-04-22	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC324	Current	1976-04-22	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC325	Current	1976-04-22	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	13	HECT
MLC326	Current	1976-04-22	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	15	HECT
MLC327	Current	1976-04-22	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	9	HECT
MLC506	Current	1941-08-02	2027-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	7	HECT
MLC69	Current	1968-01-31	2023-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC70	Current	1968-01-31	2023-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC78	Current	1968-03-14	2023-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC85	Current	1970-10-19	2020-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	15.89	HECT
MLC86	Current	1970-10-19	2020-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	15.81	HECT
MLC87	Current	1970-10-19	2020-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	14.12	HECT
MLC88	Current	1971-04-29	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC89	Current	1971-04-29	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC90	Current	1971-04-29	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC96	Current	1971-07-30	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT
MLC97	Current	1971-07-30	2022-12-31	Gecko Mining Company Pty Ltd / Cufe Tennant Creek Pty Ltd	16	HECT



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