

## 47.1% NIOBIUM and 9.01% TANTALUM IDENTIFIED IN COLUMBITE ROCK CHIP AT NORTH DAM

### HIGHLIGHTS

- Columbite Rock chip sample ND11 sourced from pegmatite returned significant results for **Niobium 47.1 % (Nb)** and **Tantalum 9.01% (Ta)** within the North Dam Project.
- This follows up from previously announced (22 August 2023) rock chips collected from a stream bed which returned results **43.93% Nb** and **14.53% Ta**.
- Anomalous Nb in soil geochemistry is coincident with out cropping pegmatites within the central area of E15/1495, **which will be drill tested in the upcoming RC drill program**.
- Preliminary **heritage survey report now received** and supports performing the planned activities, final report is expected this month, with drilling continuing to be targeted to commence in July.
- **Infill soil sampling has been completed in targeted zones** and results will be incorporated into the final drill hole plans as results are received.

CuFe Ltd (ASX: **CUF**) (**CuFe** or the **Company**) is pleased to provide an update on the following exploration activities within E15/1495 at North Dam.

CuFe Executive Director, Mark Hancock, commented "The recent work by the team at North Dam further illustrates the potential of the tenement and although the results are from a columbite chip it shows the potential of the pegmatites across the tenement to host critical minerals other than lithium. We are eager to start our maiden drilling program to further understand the potential of the region".

As per ASX announcement dated 28<sup>th</sup> May 2024 a soil geochemistry review, detailed pegmatite mapping and rock chip sampling was undertaken to identify the source pegmatites that have likely shed the columbite and tantalite rock chips along a 97m narrow stream bed which returned 43.93% Nb and 14.53% Ta from sample S254 (refer to ASX release dated 22<sup>nd</sup> August 2023). A recent rock chip sample ND11 of columbite was collected directly from an outcropping pegmatite located nearby the Niobium soil anomaly and 100m South East from S254.

The selective sample of columbite from weathered pegmatite is biased and does not represent the true concentration of the overall pegmatite but yielded a Niobium content of 47.1% and Tantalum 9.01% (see Figure 1 and Table 1).

Broader zones of anomalous Niobium (>15ppm and > 20ppm) from soil geochemistry have been interpreted (See Figure 2) and are coincident with outcropping pegmatites. These pegmatites to the West will both be mapped in detail for the presence of columbite and have drill holes planned to intersect them as part of the wider RC program, which is primarily targeting Li2O.

A preliminary report has been received for the recent heritage survey and supports performing the planned activities, with the final report expected this month. Following this, preparatory works can be executed prior to mobilisation of the drilling contractor, with drilling targeted to commence in July.

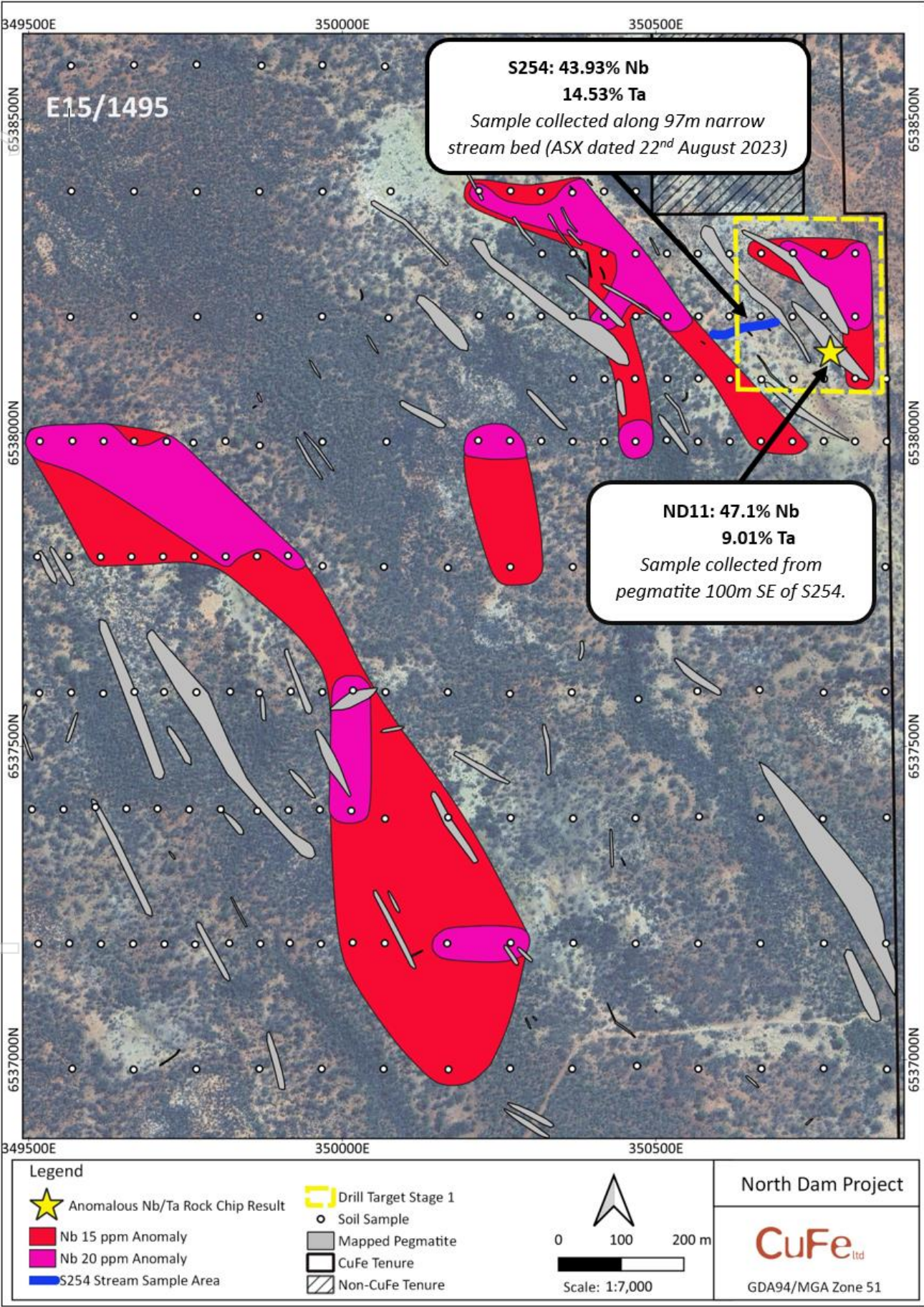
Infill soil sampling work to assist in definition of the priority drill holes has now been completed and results will be incorporated into the drill plans once received.



Figure 1: Photos columbite and source pegmatite

Sample ID	Easting	Northing	Nb (%)	Ta (%)
ND11	350778	6538128	47.1	9.01

Table 1: Sample ND11 rock chip niobium and tantalum chemistry.



**Figure 2:** Location of anomalous Nb rock chip sample and soil anomaly at the North Dam Projects

Released with the authority of the CuFe Board.

## COMPETENT PERSON

The information in this report that relates to geology is based on, and fairly represents, information which has been compiled by Matthew Ramsden, a Member of the Australasian Institute of Geoscientists and a full-time employee of CuFe Ltd. Matthew Ramsden has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken 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'. Matthew Ramsden consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

Table 2: Rock Chip Full Geochemistry.

Sample	Easting	Northing	Al <sub>2</sub> O <sub>3</sub> %	Ba ppm	Be ppm	Bi ppm	Ca %	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Dy ppm	Er ppm	Eu ppm	Fe %	Gd ppm	Ho ppm	K %	La ppm	Li ppm	Li <sub>2</sub> O %	Lu ppm	Mg %	Mn %
ND001	350544	6538032	32	123	30	23.1	0.24	15	10	183	33.2	7	1.71	0.69	0.16	7.55	1.81	0.29	1.94	5.1	148	0.0318	0.16	1.13	0.063
ND002	350544	6538032	39.3	105	10	21.7	0.13	120	10	242	31.9	5	1.82	0.87	0.84	6.42	3.44	0.27	1.7	84.8	162	0.0349	0.17	1.76	0.069
ND003	350544	6538032	19.6	148	5	1.3	0.22	4.2	3	5	10.1	7	1	0.57	0.1	0.91	0.62	0.15	1.37	2.1	37.7	0.0081	0.11	0.08	0.054
ND004	350544	6538032	18	137	5	1.7	0.08	8.9	2	2	11.7	6	0.91	0.46	0.09	0.49	0.64	0.16	1.91	10.1	36.4	0.0078	0.1	0.09	0.044
ND005	350625	6538161	25.5	28	65	0.4	0.09	3.5	2	11	5.8	6	0.23	0.11	0.12	3.93	0.3	X	0.77	5.1	61.3	0.0132	X	0.68	0.077
ND006	350778	6538229	14.3	342	4	2.6	0.15	2.7	3	10	14.5	11	0.54	0.25	0.09	0.67	0.46	0.14	1.32	1.3	105	0.0225	X	0.08	0.07
ND007	350756	6538207	16.4	243	25	0.2	0.2	32.1	5	7	3.5	12	0.59	0.22	0.34	0.64	0.85	0.05	0.18	28.6	96.2	0.0207	X	0.03	0.085
ND008	350810	6538160	1.85	26	X	X	X	0.2	X	37	79	X	X	X	X	0.58	X	X	0.05	0.3	37.4	0.0081	X	X	0.01
ND009	350783	6538137	26.4	68	11	18.5	0.03	12.7	10	195	18.7	8	1.79	1.19	0.27	4.7	1.51	0.34	0.77	6.9	104	0.0224	0.21	1.35	0.048
ND010	350779	6538128	33.3	101	7	18	0.04	37	11	224	28.8	9	1.34	1.05	0.4	6.15	1.76	0.31	0.99	55	124	0.0266	0.2	1.6	0.061
ND011	350778	6538128	1.9	238	2	184	0.03	15.1	18	34	8.7	14	20.3	1.79	0.16	6.82	20.5	1.33	0.06	9.6	25.8	0.0056	0.09	0.03	5.96

X = Below detection limit

Sample	Easting	Northing	Mo ppm	Nb ppm	Nd ppm	Ni ppm	P %	Pb ppm	Pr ppm	Rb ppm	S %	Sc ppm	SiO <sub>2</sub> %	Sm ppm	Sn ppm	Ta ppm	Tb ppm	Th ppm	Ti %	Tm ppm	U ppm	W ppm	Y ppm	Yb ppm
ND001	350544	6538032	6	9	5.6	81	0.03	10	1.78	501	0.04	10	51.6	1.7	55.4	11.2	0.33	15.4	0.14	0.16	5.04	7	10.6	1.1
ND002	350544	6538032	2	63	50.7	46	0.04	8	11	503	0.05	10	61.9	5.8	49.7	15	0.51	14.1	0.2	0.11	4.73	7	14.2	1
ND003	350544	6538032	2	25	1.5	9	0.05	9	0.61	328	0.03	10	51.7	0.5	13.1	5.13	0.12	3.7	0.01	0.08	1.71	3	9.1	0.7
ND004	350544	6538032	1	18	5	X	0.02	7	1.04	398	0.02	X	81.1	0.7	15.2	3.99	0.08	3.6	X	0.07	1.23	3	4.8	0.8
ND005	350625	6538161	X	35	2.1	X	0.03	7	0.88	203	0.03	X	96	0.4	19.5	5.56	X	1	0.02	X	0.76	2	6.5	0.2
ND006	350778	6538229	1	41	1	17	0.03	7	0.37	496	0.02	16	80.9	0.6	24	4.44	0.09	2.1	0.01	X	1.07	6	4.8	0.3
ND007	350756	6538207	X	53	11.5	9	0.06	6	2.68	28	0.02	19	77.6	1.3	2.6	26.7	0.09	2	X	X	1.27	X	8	0.1
ND008	350810	6538160	1	20	0.1	11	0.04	X	0.14	262	0.02	18	93.9	X	31.2	2.19	X	0.1	X	X	0.59	X	1.2	X
ND009	350783	6538137	1	43	3.9	42	0.05	6	2.7	215	X	X	66.5	2	30.5	7.7	0.3	15.1	0.13	0.16	2.94	3	16.2	1.6
ND010	350779	6538128	2	26	20.1	52	X	5	5.68	298	0.02	12	54.4	2.4	41.3	5.83	0.27	16.5	0.15	0.14	3.6	4	13.1	1.3
ND011	350778	6538128	3	471000	6.3	19	0.06	90	2.84	14	X	59	7.75	7.4	1030	90100	5.62	60	0.59	0.16	776	7150	55.5	0.9

X = Below detection limit

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 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 (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 style="list-style-type: none"> <li>11 Rock chip samples was collected by CuFe Geologist across E15/1495.</li> <li>Rock chips are random and inherently subject to bias and often not representative of the typical widths required for economic consideration. They are difficult to duplicate in any form of precision and or accuracy.</li> <li>Sample ND11 is a small rock chip of columbite and does not contain host rock composition (pegmatite) and as a result is biased.</li> <li>Samples were collected into pre-numbered calico bags and assayed for lithium and rare earth element (REE) suite by Labwest Laboratory in Perth using sodium peroxide fusion technique with ICPOES and ICP-MS finish.</li> <li>Samples was collected from observed pegmatites across E15/1495.</li> <li>Labwest laboratory used internal standards, blanks, duplicates and repeats to ensure quality control.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was undertaken by CuFe Ltd across tenure.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was undertaken by CuFe Ltd across tenure.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	
<b>Logging</b>	<ul style="list-style-type: none"> <li><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></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples were logged upon collection with brief geological description and photographed.</li> <li>The presence of columbite has been identified by geochemistry and has not been confirmed by other quantitative techniques.</li> <li>No drilling was undertaken.</li> <li>Rock chip samples results do not support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples were collected in the field from outcrop using a geological pick hammer.</li> <li>Samples were collected by qualified CuFe Geologist across observed pegmatite outcrops.</li> <li>Rock chip samples ranged in weight 0.1 &lt;1kg and were collected for preparation and analysis by Labwest Minerals Analysis in Perth.</li> <li>Sample ND11 is a sample of columbite from pegmatite and does not represent the grade of the full pegmatite.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><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></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples were submitted to Labwest in Perth and assayed 45 element suites including Nb, Ta &amp; lithium suite by sodium peroxide fusion.</li> <li>Samples were dried, crushed and pulverized to 85% passing &lt;75um.</li> <li>Labwest included internal standards, repeats, blanks and duplicates.</li> <li>Acceptable accuracy levels of the rock samples were achieved.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Rock chip samples locations were recorded in the field by qualified geologists using a Garmin GPS.</li> <li>Rock chip field observations were recorded where relevant.</li> <li>Assay results were recorded into company databases.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All rock chip sample locations were recorded by handheld Garmin GPS with an accuracy of +/- 5m.</li> <li>GDA94 datum and MGA zone 51 grid system was used.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Data spacing and distribution were dependent on outcrops of pegmatite dykes/sills.</li> <li>The works carried out are considered early-stage exploration, rock chip results are not suitable for Mineral Resource estimation.</li> <li>No sample compositing.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Rock chip sampling is controlled by the material available and the nature of the outcrop and as a results the grade of mineralisation is not representative.</li> <li>No drilling was undertaken therefore orientation of structures are unknown.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples were dispatched immediately to Labwest in Perth via courier with chain of custody managed by CuFe personnel.</li> <li>High level of security of the samples were carried out by CuFe personnel.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits carried out.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><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></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Heritage Protection Agreement signed on the 27/3/2024 with the Marlinyu Ghoorlie Native Title Group.</li> <li>Preliminary advice received for the Archaeological and Ethnographic Survey undertaken in May 2024.</li> <li>E15/1495 - A \$300,000 milestone payment payable in the event production occurs in the future from the tenure, and a 1% gross sales royalty. The vendor retains rights to gemstones on the Tenement.</li> <li>M15/1841 – a 1% royalty on the FOB sales price for material sourced from within M15/1841.</li> <li>The presence of priority flora is recognised on E15/1495 recorded in the north-east of the tenement.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Historical exploration was undertaken by numerous parties mainly for gold with little focus on lithium and REE exploration.</li> <li>Between 2005-2007 Ramelius Resources Ltd conducted numerous auger sampling across the mid-southern portion of E15/1495 targeting gold (WAMEX reports A072453 and A075421)</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The project area consists of numerous pegmatites intruding the</li> </ul>

Criteria	JORC Code explanation	Commentary
		siliciclastic of the Black Flag Group within E15/1495. The majority of M15/1893 composes of mafics from the greenstone belt intruded by pegmatites.
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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</li> <li>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 explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was undertaken across the tenure by CuFe.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No data aggregation methods were used.</li> <li>No metal equivalents have been reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No mineralisation widths have been reported.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Included within body of the text.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The accompanying document is a balanced report with a suitable cautionary note.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Included within body of text.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Further mapping, rock chip sampling, soil sampling/surface geochemistry, and RC drilling.</li> </ul>

**CuFe** ltd



## About CuFe Ltd

CuFe Ltd (ASX: CUF) is a producer and explorer, focused on near-term, high grade premium product iron ore projects and exposure to key strategic metals; Copper and Lithium. The Company has diversified commodity interests in various projects and tenements prospective for copper, lithium, REEs, gold and iron ore, located in world-class mineral provinces of Australia. Our experienced team have demonstrated their ability to execute rapid, flexible, low capex, iron ore projects.

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