








## Larger Copper System Mapped at Mountain Home

Initial field trip successful in expanding copper system in the Northern Territory

-  Initial reconnaissance exploration program highly successful with copper minerals mapped and sampled in outcrop.
-  The strike extent of previous outcropping copper minerals was expanded from 150m to 800m, with extensions to the north and south.
-  Fourteen Rock chip samples were taken, including eleven with visible copper minerals (malachite), with twenty-eight soil samples awaiting assay, with results expected within 6 weeks.
-  A Share Purchase Plan (SPP) is currently open with an offer to acquire E79 Gold shares at 3.5c per share, allowing eligible shareholders to take advantage of the Junior Mineral Exploration Incentive (JMEI) tax credits, equating to 1.05c per share applied for<sup>1</sup>.
-  Funds raised by the SPP will contribute to funding both for exploration at Mountain Home Copper-Gold Project and potentially an advanced project acquisition.

West Australian-based explorer E79 Gold Mines Limited (**ASX: E79**) ('E79 Gold' or 'the Company') is pleased to provide an update on exploration activities at the recently optioned Mountain Home Copper-Gold Project located in the Northern Territory.

**E79 Gold CEO, Ned Summerhayes, said:** *"It is a fantastic result to get out onto the Mountain Home Project so soon after securing an option to acquire the project. Our initial field trip was highly successful in identifying the copper mineral malachite over*

<sup>1</sup> See E79 Gold's ASX announcement dated 31 May 2024

### ASX Code: E79

Shares on issue: 81M  
Market capitalisation: \$2.7M  
Cash: \$1.97M (31 March 2024)  
ABN 34 124 782 038

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*an extended 800m strike length. We eagerly await the assay results, which should come through within six weeks.*

*Once these results are reviewed, our next exploration programme will be a detailed trip to look for further extensions to the current system and the possibility for parallel mineralised structures."*

### **Northern Territory Project**

#### **Mountain Home (EL32470 – NT Minerals Option), EL33886 and EL33886 (both under application - 100% E79)**

E79 Gold just completed an initial mapping and rock-chip / soil sampling program at the Mountain Home Project, which identified the distinctive copper mineral malachite further along strike from previously identified copper mineralisation (see Photo 1 and Figure 1).



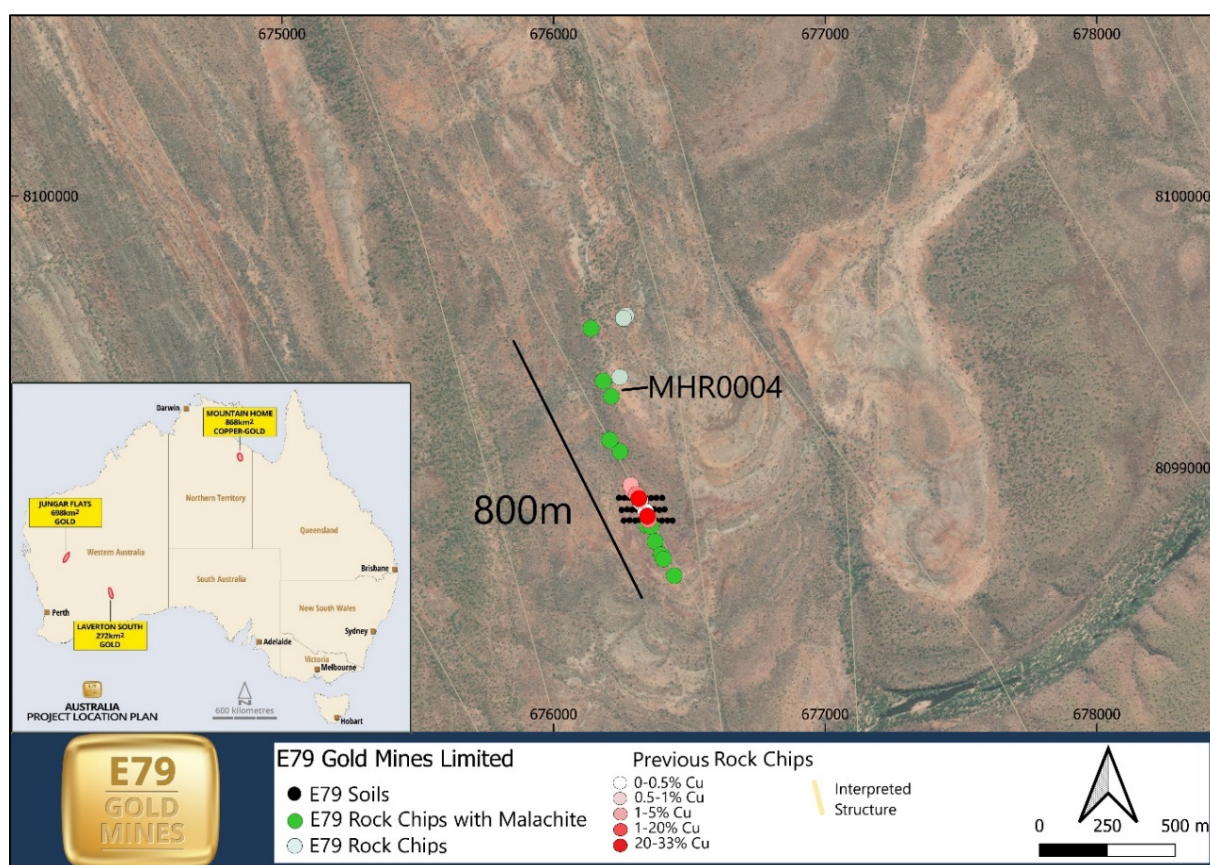
**Photo 1:** Sample MHR0004 showing copper mineralisation, located +300m north from the previously reported 150m strike length zone. Sample location is shown in Figure 1.

Previous exploration had identified a 150m long zone of malachite bearing mineralised outcrop with results including<sup>2,3</sup>:

- 21RRX0197 – **32.73% Cu and 0.16g/t Au**
- 21RRX0187 – **25.20% Cu and 0.55g/t Au**
- 21RRX0180 – **15.69% Cu and 0.75g/t Au, and**
- 21RRX0188 – **9.81% Cu and 1.31g/t Au**

The previously defined zone of mineralisation was located along strike from the historic Mountain Home copper workings (Photo 2).

The current programme was successful in extending the strike extent of mineralised outcrop from 150m to 800m (see Figure 1). Copper mineral bearing rocks were associated with thin bands of brecciated sediments and quartz, where malachite was identified as both disseminations and fracture fill. This prospective zone sits within an interpreted structure that continues for ~5km.



**Figure 1:** Sample locations of E79 Gold rock and soil samples

The Company makes no representations as to the potential grade of the samples taken and cautions investors that there is no substitute for laboratory analysis in this regard. In any case, the malachite occurrences identified well beyond the

<sup>2</sup> Refer to NT Minerals Limited ASX Announcement 14 December 2023

<sup>3</sup> Refer to NT Minerals Limited ASX Announcement 3 March 2022



previously known strike extent of copper mineralisation is the key outcome of this initial reconnaissance.



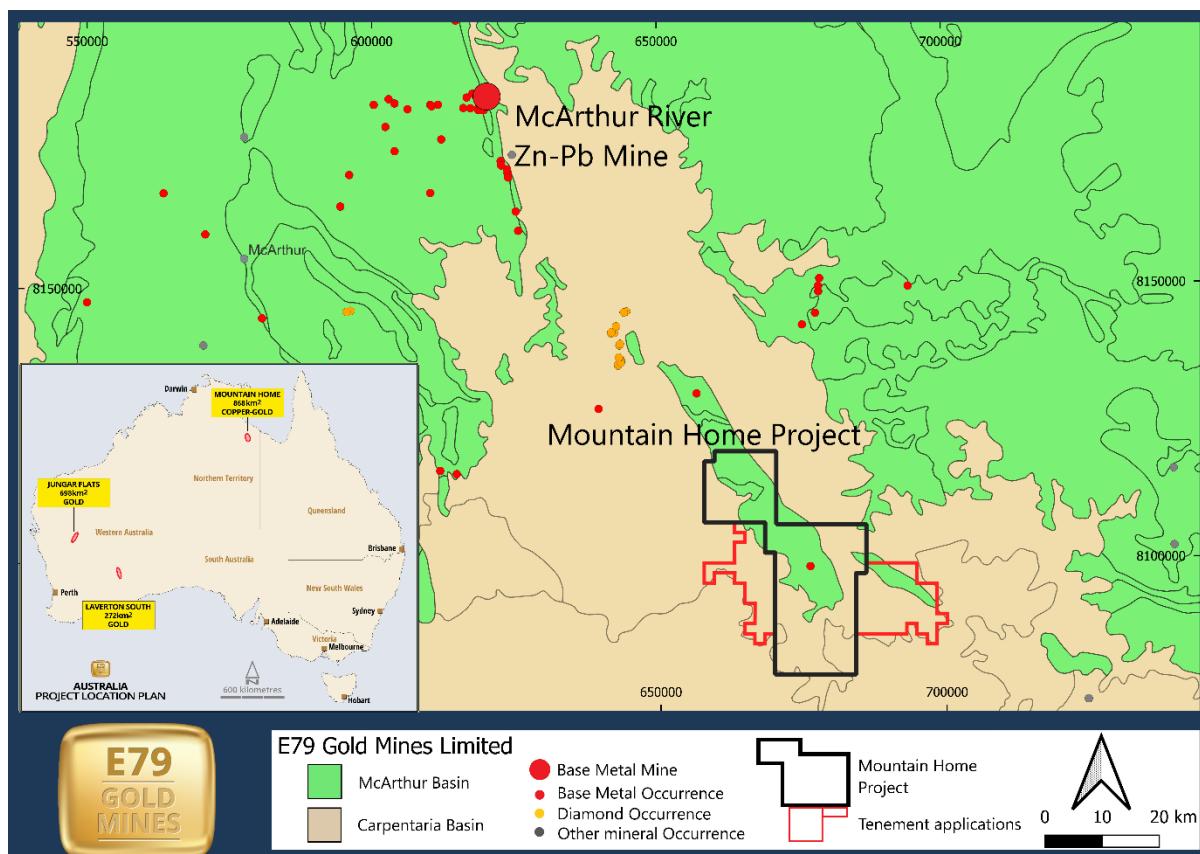
**Photo 2:** A drone image of the historic Mountain Home copper workings.

A soil sample program was also undertaken, with three lines of samples taken over the mineralised outcrop, to gain an understanding of the underlying geology and mineralisation.

In total 14 rock chips, including 11 with visible copper minerals, and 28 soil samples were taken over the project with results expected to take 6 weeks to return.

The successful initial field program has demonstrated that the target area for a potential copper system is significantly larger than previously identified.

This mineralised structure sits within the highly prospective McArthur Basin, where E79 Gold now controls 868km<sup>2</sup> (see Figure 2), which hosts the world class McArthur River Zinc-Lead Mine, the Teena Zinc-Lead Deposit and numerous base metal prospects.



*Figure 2: Location map of the Mountain Home Project with McArthur and Carpentaria Basins*

## Upcoming Presentations

- **October 2024** Present at AMEC - Perth

Our motto: Money in the ground.

Yours sincerely,

**Ned Summerhayes**  
Chief Executive Officer



*The information in this report that relates to Exploration Results is based on information compiled by Mr Ned Summerhayes, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Summerhayes is a full-time employee, a shareholder and an option holder of the Company. Mr Summerhayes has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Summerhayes consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*Previously Reported Information: The information in this report that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website ([www.asx.com.au](http://www.asx.com.au)). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

Authorised for release by the CEO of E79 Gold Mines Limited.

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### ABOUT E79 GOLD MINES LIMITED (ASX: E79)

E79 Gold's Projects comprise ~1544km<sup>2</sup> of highly prospective ground including within the McArthur Basin of the Northern Territory, which is the world's largest accumulation of Zn-Pb-Ag and is prospective for copper, gold and diamonds, and within the Laverton Tectonic Zone and Murchison Goldfields, both of which are endowed with >30 million ounces of gold and located within the Yilgarn Craton of Western Australia.

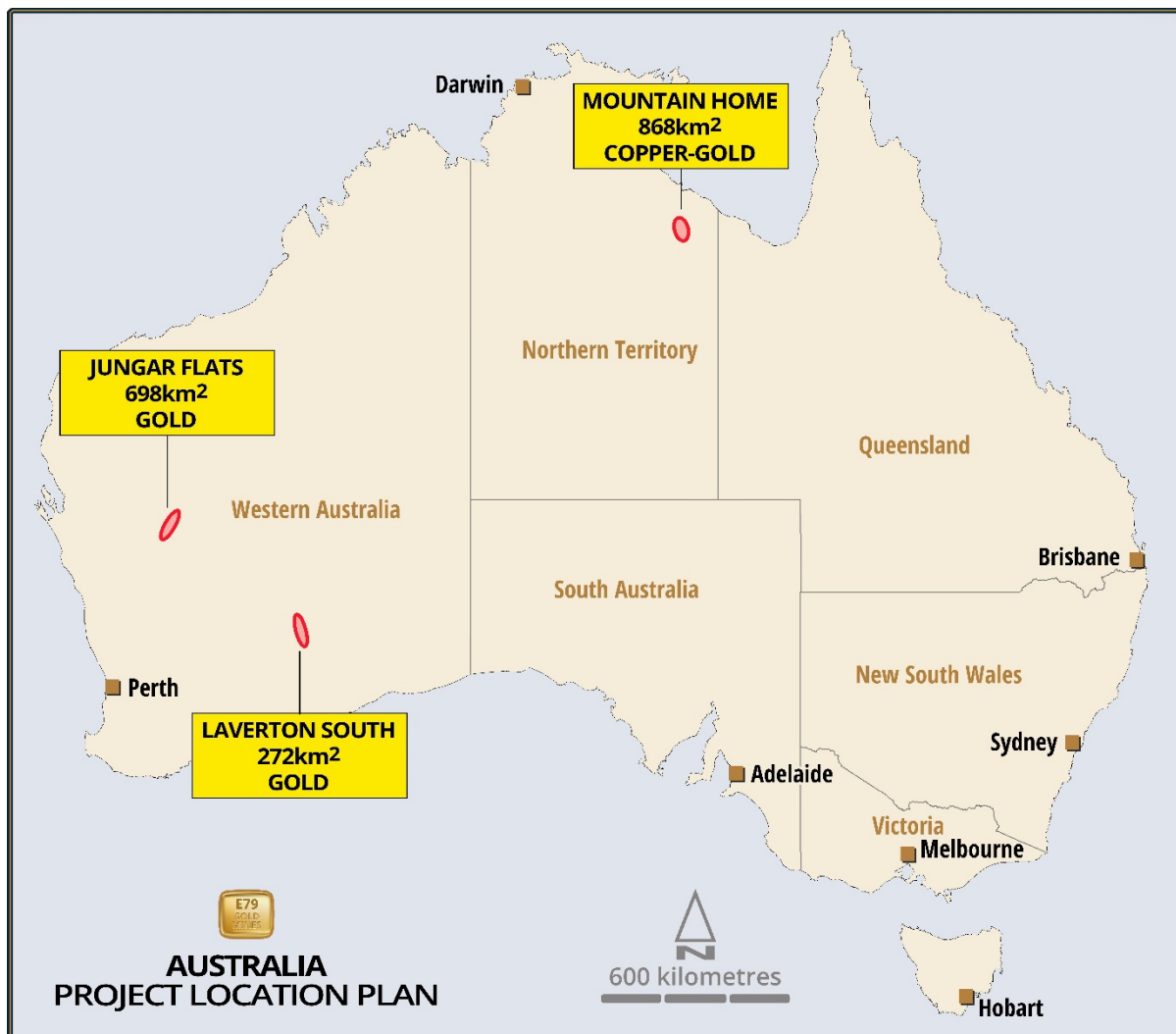


Figure 3: Map of E79 Gold's exploration projects



**Table 1: Soil sample locations, assays pending**

Sample ID	East	North	RL	Depth (cm)
MHS0001	676258	8098806	185	15
MHS0002	676280	8098807	186	15
MHS0003	676300	8098806	186	15
MHS0004	676318	8098807	186	10
MHS0005	676338	8098808	185	10
MHS0006	676358	8098806	185	10
MHS0007	676377	8098806	187	5
MHS0008	676399	8098806	185	5
MHS0009	676419	8098806	184	10
MHS0010	676437	8098806	183	10
MHS0011	676408	8098847	184	5
MHS0012	676389	8098845	186	10
MHS0013	676370	8098847	185	5
MHS0014	676349	8098848	185	10
MHS0015	676329	8098846	185	5
MHS0016	676307	8098846	187	10
MHS0017	676289	8098846	186	15
MHS0018	676270	8098847	185	10
MHS0019	676250	8098845	184	10
MHS0020	676241	8098890	184	10
MHS0021	676260	8098889	184	10
MHS0022	676279	8098890	184	10
MHS0023	676300	8098892	184	5
MHS0024	676319	8098889	185	10
MHS0025	676342	8098888	182	10
MHS0026	676359	8098889	182	5
MHS0027	676378	8098889	181	10
MHS0028	676400	8098889	181	5

**Table 2: Rock chip sample locations, awaiting assay**

Sample ID	East	North	RL	Comments
MHR0001	676245	8099060	182	Malachite logged
MHR0002	676207	8099102	180	Malachite logged
MHR0003	676243	8099334	178	Trace Malachite logged
MHR0004	676212	8099263	182	Malachite logged
MHR0005	676183	8099319	176	Malachite logged
MHR0006	676137	8099513	174	Malachite logged
MHR0007	676266	8099560	179	No Malachite logged
MHR0008	676257	8099551	178	No Malachite logged
MHR0009	676344	8098787	189	Malachite logged
MHR0010	676359	8098785	184	Malachite logged
MHR0011	676374	8098729	188	Malachite logged
MHR0012	676396	8098680	187	Malachite logged
MHR0013	676444	8098603	187	Malachite logged
MHR0014	676404	8098664	186	Malachite logged



# 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>• <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></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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></li> </ul>	<ul style="list-style-type: none"> <li>• E79 Gold has recently undertaken rock chip and soil sampling activities within the Mountain Home Project</li> <li>• Rock chip samples were collected by hand and soil samples were taken from ~10cm deep holes and sieved to 1mm.</li> <li>• Samples have not yet been assayed by will undergo 4 acid multi-element analysis for the rock chips and Ultrafine+ analysis for the soil samples.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Soils holes were hand dug to a depth of ~10cm</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling occurred</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	
<p><i>Logging</i></p>	<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>• Soil sample location and depth were recorded</li> </ul>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<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>• Samples have not yet been analysed but rock chip samples will undergo industry standard sample preparation techniques consisting of crushing and grinding.</li> <li>• Soil samples will be sieved to 1mm in the field, with no further sample prep required</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<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 (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></li> </ul>	<ul style="list-style-type: none"> <li>• All soil samples will be analysed using LabWest's UltraFine+™ technique, whereby the sub 2 micro clay fraction is separated and analysed with the latest microwave technique and ICP-MS or ICP_OES machines.</li> <li>• Samples will be digested using an UltraFine+™ Technique followed by analysis of gold by ICPMS with lower detection limit of 0.5ppb Au. 50 multi-elements analysed by ICPMS/ICPOES and include;</li> </ul> <p>Ag, Al, As, Au, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Hg, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Nb, Nd, Ni, Pb, Pd, Pr, Pt, Rb,</p>

Criteria	JORC Code explanation	Commentary
		<p>Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr</p> <ul style="list-style-type: none"> <li>No external standards were used</li> <li>Rock chips will be analysed using ALS 4 acid digest with ICP-MS or ICP_OES finish. 48 Elements were analysed including;</li> </ul> <p>Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr</p> <ul style="list-style-type: none"> <li>In the rock chips Gold will be analysed using a Fire assay with a 50gm charge.</li> </ul>
<p>Verification of sampling and assaying</p>	<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>Data is logged onto paper in the field and entered into excel to go to a centralised database.</li> </ul>
<p>Location of data points</p>	<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>Sample locations were recorded with a handheld GPS in MGA94 Zone 53S.</li> <li>RL was also recorded with handheld GPS but accuracy is variable.</li> </ul>
<p>Data spacing and distribution</p>	<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>Soil sample spacing is 20m along lines and ~50m between lines.</li> <li>Rock chips were taken in an uneven distribution based on rock outcrops</li> </ul>
<p>Orientation of data in relation to geological structure</p>	<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</li> </ul>	<ul style="list-style-type: none"> <li>Soil sample lines were completed on an east west pattern, roughly perpendicular to the trend of the main geological units.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>type.</i></p> <ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Rock chips were taken generally along strike of known mineralisation</li> </ul>
Sample security	<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 stored on site and taken directly to the laboratory by via a freight company</li> </ul>
Audits or reviews	<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 or reviews have been undertaken.</li> </ul>

## 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	<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>The sampling program occurred on tenement EL32470, under control of E79 Gold Mines</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>Limited exploration has occurred on EL32470, in part due to the remote location of the project.</p> <p>From 1966-1968 undertook stream sediment samples, mapping soil samplings and IP surveys with copper found in samples around old workings.</p> <p>From 1990-1992 CRA undertook diamond exploration via stream sediment sampling, gravel sampling and rock chip sampling.</p> <p>More recently, NT Minerals undertook broad spaced soil sampling and rock chip sampling.</p>
Geology	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>To date there is not enough information to determine deposit type. Geological setting of the Mountain Home and adjoining areas is dominated by fault bounded lithologies of lower</p>



Criteria	JORC Code explanation	Commentary
		McArthur Basin Stratigraphy (Paleoproterozoic aged units of the Tawallah Group) exposed as a series of inliers surrounded by younger (Cambrian Age) Bukalara Sandstone.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <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> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling reported.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling reported.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</i>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate maps are included within the body of this report.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling reported.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Relevant geological observations are included in this report.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>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></li> </ul>	<ul style="list-style-type: none"> <li>• Additional geochemical surveys may be carried out in the future in order to assist in the delineation of drilling targets.</li> </ul>