



## ASX ANNOUNCEMENT

HIGH-GRADE COPPER, LEAD AND SILVER RESULTS FROM  
NEW GASCOYNE PROJECT

- High-grade copper, lead and silver results from “Joy Helen” prospect
- Assay results up to 5.48% Cu, 54.5% Pb and 73.48g/t Ag
- Non-Renounceable Entitlement Offer closing 5:00pm (WST) Thursday, 18 July

Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”) is pleased to announce high-grade results from sampling completed during an initial reconnaissance field trip to the Company’s new “Chain Pool” Project, in the Gascoyne region of Western Australia.

Samples collected from around the “Joy Helen” prospect returned high-grade results including:

- 5.49% Cu, 42.0% Pb and 73.48g/t Ag (CP003)
- 5.43% Cu, 36.7% Pb, 36g/t Ag and 0.27% Zn (CP002)

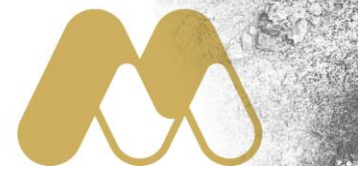
Miramar’s Executive Chairman, Mr Allan Kelly, said the Company’s Gascoyne region projects had potential for various commodities and deposit types but have been under-explored previously.

“For example, there has not been any modern and/or systematic exploration or drilling at the Joy Helen Prospect despite the presence of high-grade base metal mineralisation,” he said.

“We look forward to getting this tenement granted and uncovering the potential of the Project,” he added.



**Figure 1.** Sample CP003 (5.49% Cu, 42%Pb, 73.48g/t Ag) showing malachite (green), galena (shiny grey) and sphalerite (grey-brown).



## Joy Helen

The “Joy Helen” Cu-Pb-Zn-Ag occurrence is located approximately 275km northeast of Carnarvon in the Gascoyne region of Western Australia, and contains historic workings and costeans over a strike length of approximately 400 metres.

Mineralisation is hosted in fine-grained dolomite of the Irregularly Formation, towards the base of the Proterozoic Edmund Basin, and is interpreted to be sub-horizontal.

The mineralisation-style is interpreted to be “Mississippi Valley Type” with similarities to the Abra Pb-Zn-Ag deposit, which is also hosted in the Irregularly Formation.

There is no outcrop and the geology and structure of the Joy Helen occurrence is therefore not well understood.

There has been no modern and/or systematic exploration of this prospect.

Historic drilling completed in the 1960’s intersected lead and copper mineralisation, including 1.5m @ 13.7% Pb and 1.6% Cu, however the locations of the drill holes are not recorded (*WAMEX report a567*).

In the 1990’s, CRA Exploration collected a limited number of rock chip samples around the workings and completed a regional stream sediment sampling programme further to the northeast, in the area now covered by the Barlee Range Nature Reserve.

In the period 2006-2009, Quadrio Resources Pty Ltd, a subsidiary of Dominion Mining Limited, conducted exploration for SEDEX gold and base metal mineralisation within their “Edmund Project” which covered the area now held as E08/3676 (*WAMEX Reports a075044, a077849 and a081694*).

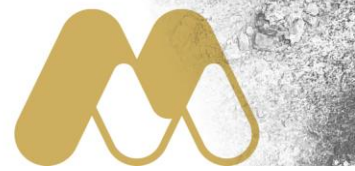
Quadrio collected rock chip samples, including around the Joy Helen workings which returned significant copper, lead and silver results.

Miramar recently conducted a brief site visit to the Joy Helen prospect as part of a wider Gascoyne field trip and collected a limited number of samples from amongst the workings which contained varying amounts of malachite, azurite, galena, sphalerite, cerussite and possibly also barite.

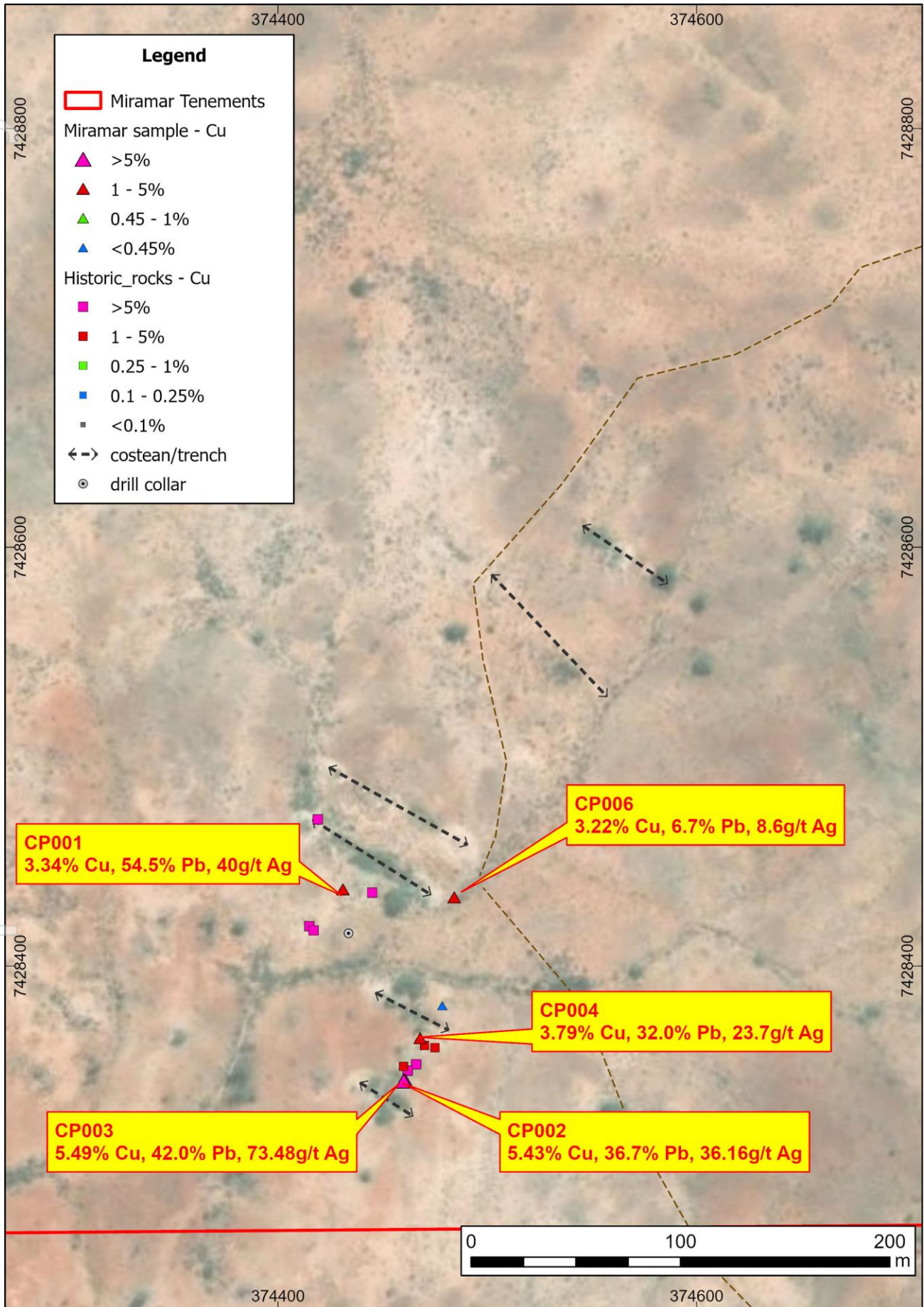
The results of this sampling are shown in Table 1.

**Table 1.** Assay results from Joy Helen reconnaissance sampling

Sample ID	Easting	Northing	Cu %	Pb %	Ag g/t	Zn ppm	Ba ppm	Description
CP001	374431	7428437	3.34	54.5	40.3	405	2,793	dark black/brown fe-rich sediments with malachite. mullock at W end of costean
CP002	374460	7428346	5.43	36.7	36.2	2,659	1,278	spoil next to trench, fe rich sediments with malachite, galena and Pb carbonate?
CP003	374460	7428346	5.49	42.0	73.5	925	293	Fine grained dolomite with blocky fe-rich material with malachite and massive galena
CP004	374467	7428366	3.79	32.0	23.7	398	2,517	Fine grained dolomite with blocky fe-rich material with malachite, galena and lead carbonate
CP005	374478	7428381	0.45	29.7	34.5	3,913	3,607	“rocky road” texture fe-rich material and lead carbonate in fine grained pale green dolomite
CP006	374484	7428433	3.22	6.7	8.6	521	1,223	pale green malachite in fine grained white dolomite



For personal use only



**Figure 2.** Plan view of Joy Helen prospect with historic (squares) and Miramar (triangles) sampling.



### Next Steps

The Company is currently focussed on preparing for the maiden drilling programme at the Mount Vernon and Trouble Bore Projects, part of Miramar's 100%-owned Bangemall Ni-Cu-Co-PGE Project portfolio in the Gascoyne region of WA.

Miramar staff have recently been on site at Mount Vernon and Trouble Bore to arrange site preparation in anticipation of commencing drilling within the current Quarter.

Once the Exploration Licence, E08/3676, over Joy Helen is granted, the Company will conduct systematic rock chip sampling and a grid soil survey to determine the potential strike extent of the mineralisation under cover.



*Figure 3. Preparing drill sites at the Mount Vernon Project.*

### Non-Renounceable Rights Issue

The Company reminds Shareholders that the Closing Date for the non-renounceable entitlement issue was extended to **5:00pm (WST) on Thursday, 18 July 2024**.

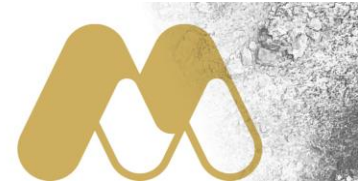
Eligible Shareholders can subscribe for 1 new fully paid ordinary share per Share held (together with one free attaching option to acquire one Share exercisable at \$0.018 on or before the date that is three years from the issue date) at an issue price of \$0.008, as set out in the Prospectus dated 21 June 2024.

**For more information on Miramar Resources Limited, please visit the company's website at [www.miramarresources.com.au](http://www.miramarresources.com.au), follow the Company on social media (Twitter @MiramarRes and LinkedIn @Miramar Resources Ltd) or contact:**

Allan Kelly  
Executive Chairman  
info@miramarresources.com.au

Margie Livingston  
Ignite Communications  
margie@ignitecommunications.com.au

This announcement has been authorised for release by Mr Allan Kelly, Executive Chairman, on behalf of the Board of Miramar Resources Limited.



## COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Allan Kelly, a “Competent Person” who is a Member of The Australian Institute of Geoscientists. Mr Kelly is the Executive Chairman of Miramar Resources Ltd. He is a full-time employee of Miramar Resources Ltd and holds shares and options in the company.

Mr Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits 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 Kelly consents to the inclusion in this Announcement of the matters based on his information and in the form and context in which it appears.

For personal use only



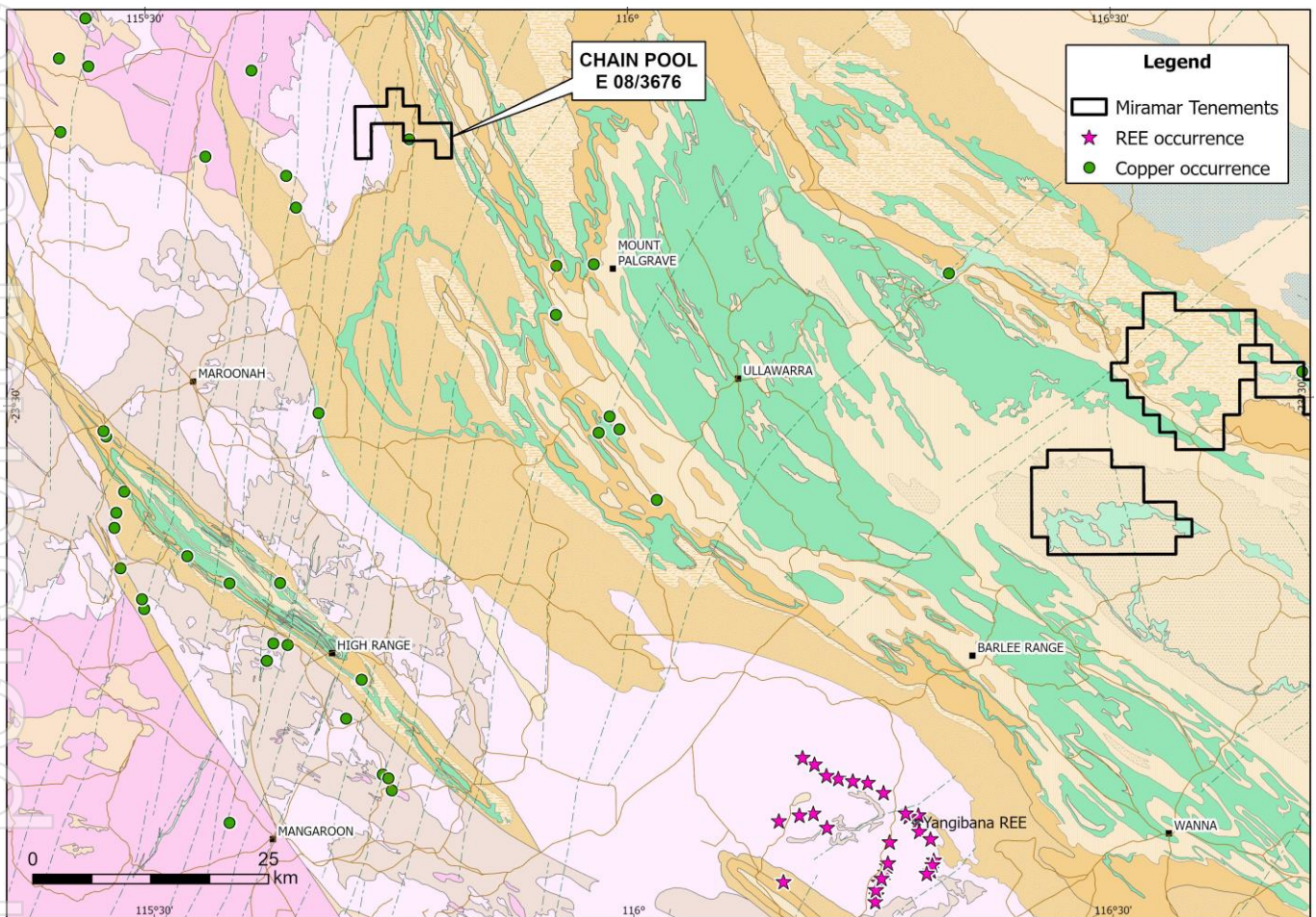
### About the Chain Pool Project

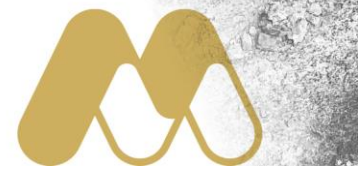
Miramar's 100%-owned Chain Pool Project straddles the boundary between the Gascoyne Province and the Edmund Basin and comprises one Exploration Licence application, E08/3676.

The western half of the tenement covers a granitoid intrusion of the Durlacher Supersuite, which is the same unit that hosts the Yangibana and YIN REE deposits further south.

The eastern half of the tenement covers sediments and 1465Ma dolerite sills of the Edmund Basin and includes the historic Joy Helen Cu-Pb-Zn-Ag occurrence.

Both geological sequences are crosscut by later dolerite dykes of the 750Ma Mundine Well Suite.

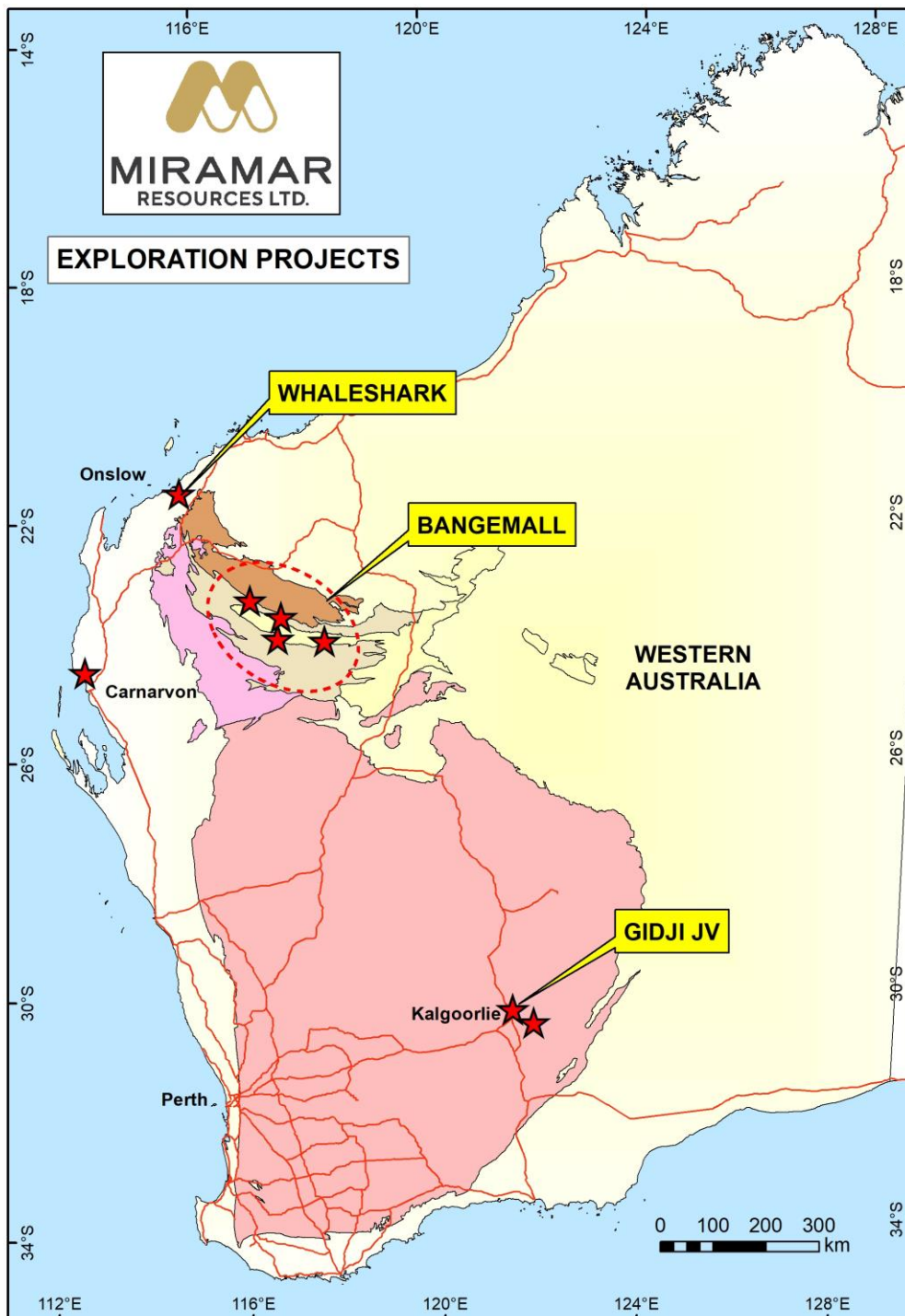




### About Miramar Resources Limited

Miramar Resources Limited is an active, WA-focused mineral exploration company exploring for gold, copper and Ni-Cu-PGE deposits in the Eastern Goldfields and Gascoyne regions of WA.

Miramar's Board has a track record of discovery, development and production within Australia, Africa, and North America, and aims to create shareholder value through discovery of high-quality mineral deposits.





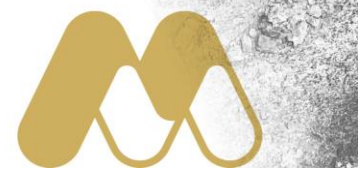
## JORC 2012 Table 1 – Chain Pool rock chip sampling

### Section 1 Sampling Techniques and Data

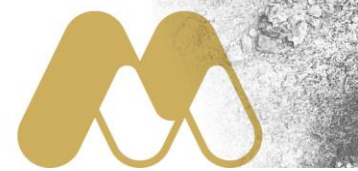
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</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>Samples totaling approximately 2kg were collected at each site</li> </ul>
<b>Drilling techniques</b>	<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 data provided</li> </ul>
<b>Drill sample recovery</b>	<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 and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling data provided</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>No drilling data provided</li> </ul>





Criteria	JORC Code explanation	Commentary
	<i>relevant intersections logged.</i>	
<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>• No drilling data provided</li> <li>• Each sample was crushed and pulverized to -75um in its entirety</li> <li>• No sub-sampling</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, spectrometres, 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 (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were analysed by 5-acid digest followed by ICPMS</li> <li>• Samples with over range Cu and Pb were re-assayed by ore grade analysis</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No verification completed</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample locations recorded using handheld GPS and recorded in MGA Zone 50S</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample spacing suitable for initial reconnaissance</li> </ul>

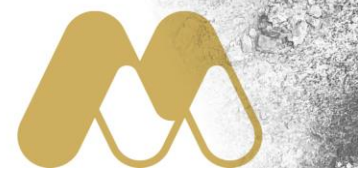


Criteria	JORC Code explanation	Commentary
	<i>applied.</i>	
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the 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>No assumptions can be made</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All samples transported from site to the laboratory by Miramar staff</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits 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
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Application E08/3676 is 100% owned by MQ Minerals Pty Ltd, a 100% owned subsidiary of Miramar Resources Limited</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration conducted by CRA, Herald Resources and Dominion Mining Limited comprised limited rock chip sampling</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Potentially Mississippi Valley Type Pb-Zn-Ag-Cu mineralisation</li> </ul>
<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 data presented</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>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.</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>No aggregation conducted</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<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 down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling data presented</li> </ul>
<b>Diagrams</b>	<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>Figure 2 shows location of all recent and historic sampling in relation to historic workings</li> </ul>
<b>Balanced reporting</b>	<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>All samples shown with results for Cu, Pb, Zn and Ag</li> </ul>
<b>Other substantive exploration data</b>	<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>No other relevant data</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg 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>Once granted, further rock chip sampling and soil sampling will be completed</li> </ul>