



# ASX ANNOUNCEMENT

## GIDJI JV PROJECT - EXPLORATION UPDATE

- **Awaiting assays from December 2021 aircore drilling campaign**
- **RC drilling confirms Marylebone geology mirrors Paddington sequence**
- **Blackfriars and Highway aircore programmes to commence in April**
- **Modelling of geophysical data over “The Jog” highlights large new drill target**

**Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”)** is pleased to provide an update on exploration activities at its 80%-owned Gidji JV Project, in the Eastern Goldfields region of WA.

Miramar has been actively exploring at Gidji since listing on the ASX in October 2020 and believes there is potential for the discovery of one or more significant new gold deposits within its strategic 60 square kilometre land package located 15km north of Kalgoorlie.

### Marylebone RC Drilling

The Company is currently waiting on a substantial number of assay results from the extensive 10,000m aircore programme completed in December 2021.

In the meantime, the Company completed a number of RC holes over the Marylebone target. The primary aim of the drilling was to provide information about the bedrock geology of the Marylebone target.

The main component of the programme was a “fence” of 50 metre-spaced RC holes drilled across the Boorara Shear Zone in the centre of the Marylebone target (Figure 1).

The drilling confirmed that the local geology of the Marylebone target closely follows the geological sequence at the Paddington gold deposit, approximately 10km along strike to the northwest (Figure 2).

The Boorara Shear Zone appears as a zone of deeper weathering, and more abundant quartz veining, between holes GJRC012 and GJRC009. The gap between GJRC009 and GJRC011 is due to a pipeline.

Drilling intersected porphyritic basalt, equivalent to either the “Paddington Volcanics” or the “Victorious Basalt”, and a sequence of sedimentary and ultramafic rocks within the wider shear zone.

Gold assays have been received and, whilst they repeat the supergene gold anomalism seen in the aircore drilling, they did not intersect significant bedrock gold mineralisation on this cross section.

It appears both the “Paddington Dolerite” and “Panglo Mafic” mafic intrusive units are present, with **GJRC008** intersecting **3m @ 1.16g/t Au** directly above the Panglo unit, and quartz veining present at the contact between the interpreted Paddington Dolerite and the interpreted Mt Corlac Ultramafics.

The Company is waiting on multi-element results for this drilling (including pathfinder elements such as Ag, As and W) which, along with the outstanding aircore assays, will assist in further understanding the bedrock geology and help focus in on the bedrock source of the extensive regolith gold footprint.

Miramar’s Executive Chairman, Mr Allan Kelly, said that, given the many similarities between Marylebone and the Paddington deposit, the Company remained confident about the opportunity for a new gold discovery at Gidji, including at Marylebone.

*“At Marylebone, we have the right rocks, the right structures and lots of smoke in the form of aircore gold and pathfinder anomalism,” Mr Kelly said.*

*“Our task is to find the source of that smoke as cost effectively as possible,” he added.*

*“In addition to Marylebone we have also identified many other drill targets at Gidji including Blackfriars, Highway, Boorara North and The Jog, and look forward to systematically testing each of these,” he said.*

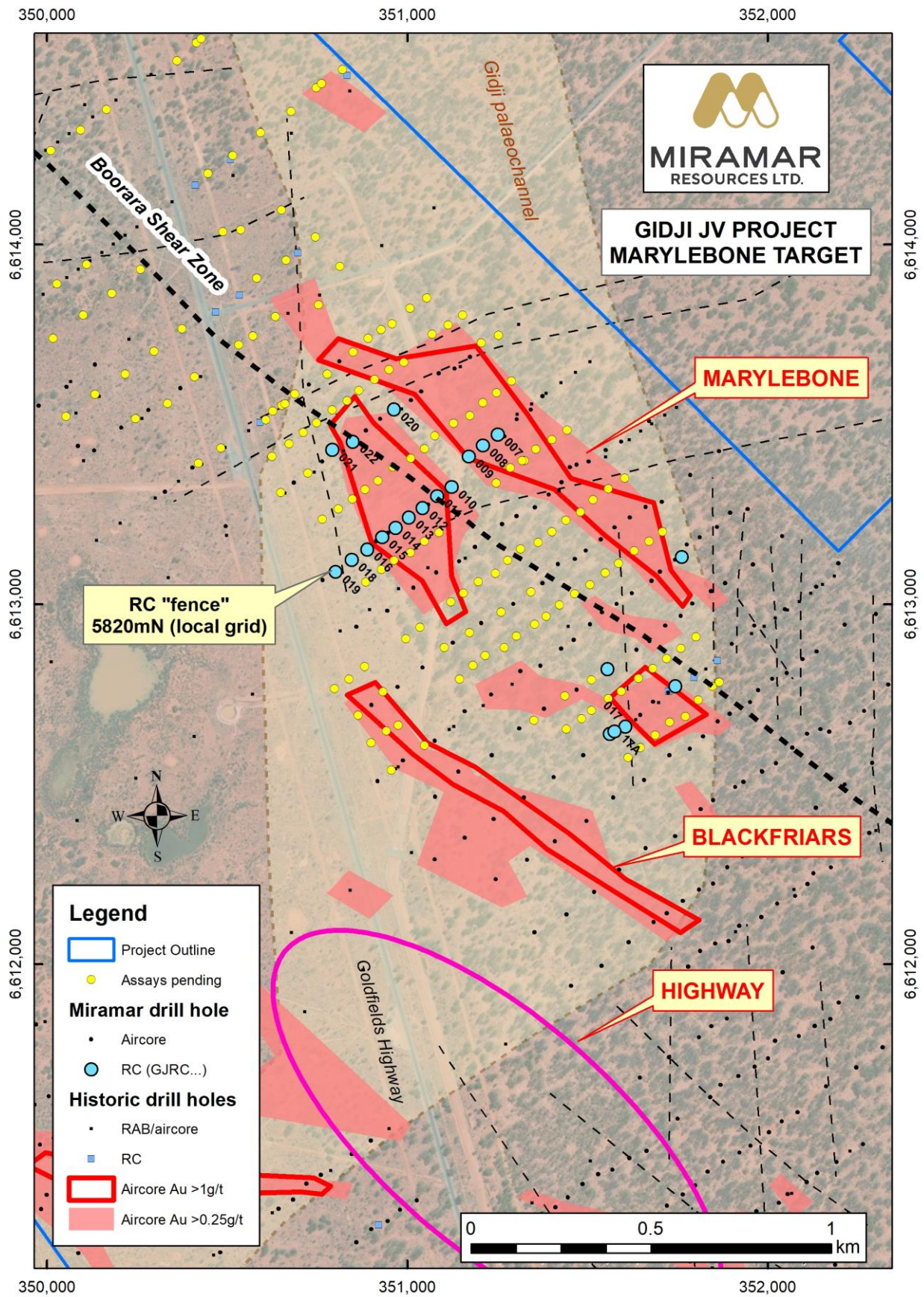
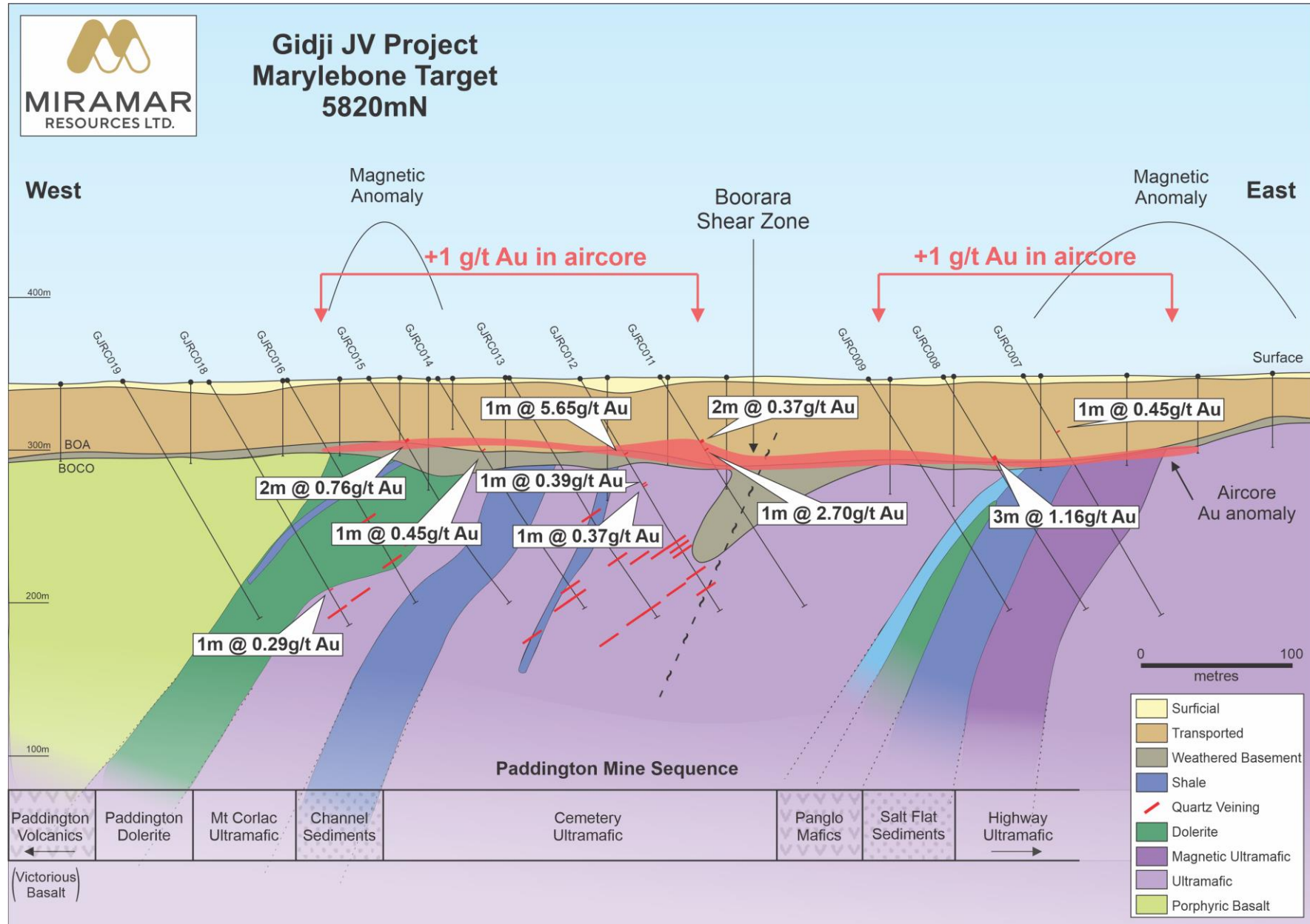


Figure 1. Marylebone target highlighting RC drilling in relation to aircore gold anomalism.



**Figure 2.** Marylebone cross section 5820mN showing RC drilling, interpreted geology and significant results.

### Blackfriars and Highway aircore drilling

The Company is finalising plans for aircore drilling over the large Blackfriars and Highway targets parallel to the Marylebone target (Figure 1).

Drilling at Blackfriars will infill a 1km long +1g/t aircore gold anomaly at the contact between the Black Flag Beds and the porphyritic basalt, similar to Ardea Resources Ltd's recent "Aphrodite North" gold discovery.

The drilling at Highway will test the 1km long historic auger gold and arsenic anomaly for the first time.

The programme is expected to commence in early April and take approximately 3 weeks to complete.

### Boorara North

The Company has planned a drone magnetic survey over the 4km long Boorara North target which is due to be completed within the next 2 weeks. The new magnetic data will be used to refine the first pass aircore drilling of this target following receipt of all approvals.

### The Jog

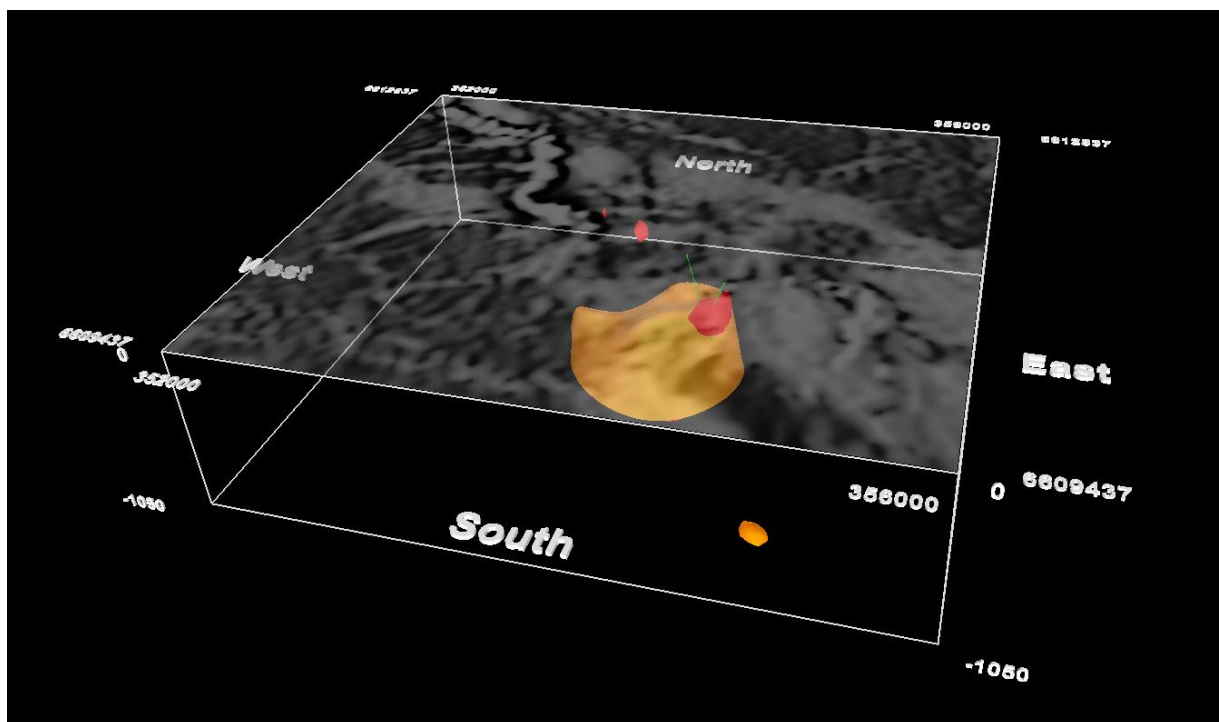
The Company has recently received the results of modelling of geophysical data over "The Jog" target which is located at the southern end of the Gidji JV Project.

The Jog is characterised by a large flexure within the Boorara Shear Zone, interpreted to represent a major dilational jog. Magnetite destruction within the mafic and ultramafic rocks of the Boorara Shear Zone is coincident with an obvious gravity anomaly interpreted to represent an intrusive body at depth.

The Jog target has never been drilled.

The model, constructed by Core Geophysics from open file gravity data, shows a 3.5mgal anomaly caused by a dense body approximately 1km x 600m in size and coming to within 150m of the surface (Figure 3).

The Company will submit an EIS application to test this target with a series of RC and/or diamond holes.



**Figure 3.** 3D model of "The Jog" showing greyscale 1VD magnetic image over gravity inversion model (red and orange object). Proposed drill holes are shown in green with the top of the body approximately 150m below surface

For more information on Miramar Resources Limited, please visit the company's website at [www.miramarresources.com.au](http://www.miramarresources.com.au) or contact:

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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.

Historical exploration results for the Gidji JV Project, including JORC Table 1 and 2 information, is included in the Miramar Prospectus dated 4 September 2020.

JORC Table 1 and 2 information for recent exploration results at the Gidji JV Project is contained in the following ASX Announcements:

- 1/2/2022 *RC Drilling Underway at Marylebone*
- 10/1/2022 *New Target at Gidji JV Increases Camp-Scale Potential*
- 22/12/2021 *Gidji drilling results indicate potential new gold camp*
- 25/11/2021 *Gidji JV Exploration Update*
- 7/10/2021 *Significant Gold Results from Gidji JV Drilling*
- 23/09/2021 *Multiple High-Grade Gold Results from Marylebone*
- 13/09/2021 *Gidji JV Tenements Granted*
- 2/08/2021 *Aircore Drilling Grows Marylebone*
- 29/06/2021 *New Aircore Results Upgrade Gidji Targets*
- 3/06/2021 *RC and Aircore Drilling Underway at Gidji JV*
- 11/05/2021 *Aircore Drilling Extends and Upgrades Marylebone*
- 6/05/2021 *Gidji JV Project Exploration Update*
- 15/04/2021 *Gidji Diamond Drilling - Additional Information*
- 12/04/2021 *Gidji Drilling Extends Runway and Hits Visible Gold*
- 16/03/2021 *Drilling Underway at Gidji*
- 11/02/2021 *High-grade gold at Gidji upgrades targets*
- 1/02/2021 *Gidji drilling intersects visible gold and outlines multiple targets*

**Table 1. Results >0.25g/t Au from Gidji JV RC drilling.**

Hole ID	East	North	RL	Max Depth	From	To	Interval	Au (g/t)	Comments
GJRC007	351251	6613472	346	182	42	43	1	0.45	Paleochannel clays
GJRC008	<b>351209</b>	<b>6613442</b>	<b>345</b>	<b>178</b>	<b>61</b>	<b>64</b>	<b>3</b>	<b>1.16</b>	<b>Base of paleochannel above "Panglo mafic"</b>
GJRC009	351170	6613411	345	178				NSR	
<i>GJRC010</i>	<i>351123</i>	<i>6613326</i>	<i>347</i>	<i>4</i>					<i>not completed</i>
GJRC011	351083	6613301	347	178	49	51	2	0.37	Paleochannel clays
					61	62	1	2.70	Paleochannel clays
GJRC012	351042	6613268	346	178	54	55	1	0.26	Paleochannel sands
					<b>57</b>	<b>58</b>	<b>1</b>	<b>5.65</b>	<b>Weathered U/M</b>
					60	62	2	0.58	
					64	66	2	0.27	
					80	81	1	0.39	Ultramafic
					84	85	1	0.37	
GJRC013	351004	6613242	346	184				NSR	
GJRC014	350967	6613213	345	178	55	56	1	0.45	Weathered U/M
GJRC015	350930	6613187	345	173	47	48	2	0.76	Weathered U/M
GJRC016	350889	6613153	344	168				NSR	
GJRC018	350845	6613124	344	184	161	162	1	0.29	Ultramafic
GJRC019	350801	6613090	344	178				NSR	
<i>GJRC017</i>	<i>351605</i>	<i>6612661</i>	<i>351</i>	<i>18</i>					<i>Not completed</i>
GJRC017A	351575	6612647	351	178				NSR	
<i>GJRC020</i>	<i>350963</i>	<i>6613542</i>	<i>345</i>	<i>31</i>					<i>Not completed</i>
GJRC021	350791	6613430	345	190	53	54	1	0.59	Weathered U/M
					57	58	1	0.30	
GJRC022	350849	6613453	345	136	52	53	1	0.26	Weathered U/M

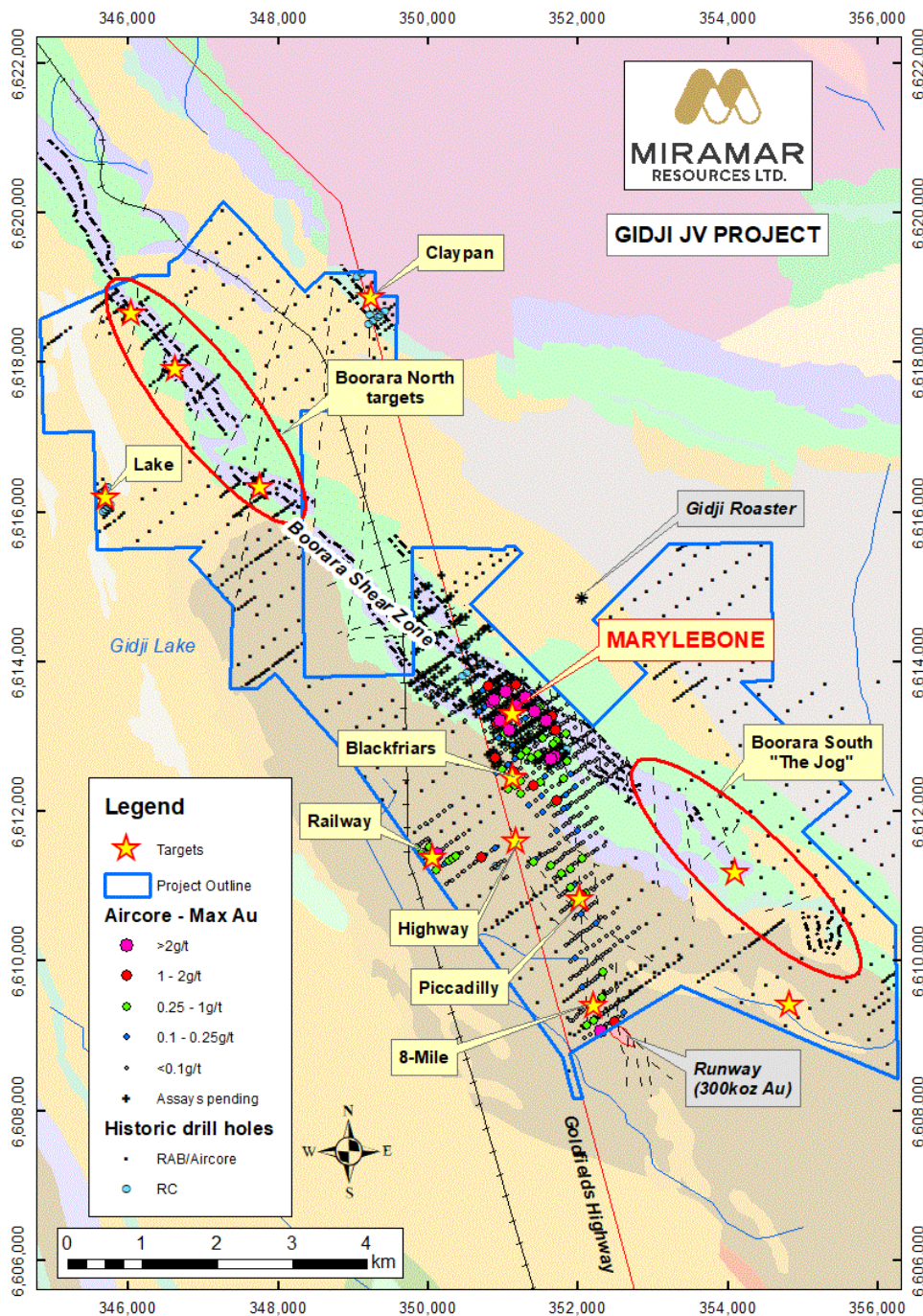
**Notes:**

- All holes oriented -60 dip towards "grid east" (054 degrees magnetic)
- Coordinates in MGA Zone 51S
- Intervals reported above 0.25g/t Au lower cut-off with maximum 1 sample internal dilution
- NSR – no significant results

**About the Gidji JV Project**

The Gidji JV Project is located approximately 15km north of Kalgoorlie and in close proximity to a number of gold mining and processing operations. Despite this, the Project is underexplored due an extensive layer of transported material over the most prospective geology.

Miramar purchased an 80% interest in a number of tenements along the Boorara Shear Zone, as part of the October 2020 IPO and ASX listing, and has been actively exploring the project resulting in the discovery of several new targets including the Marylebone target which has similar geology, structure and scale to the nearby Paddington deposit.

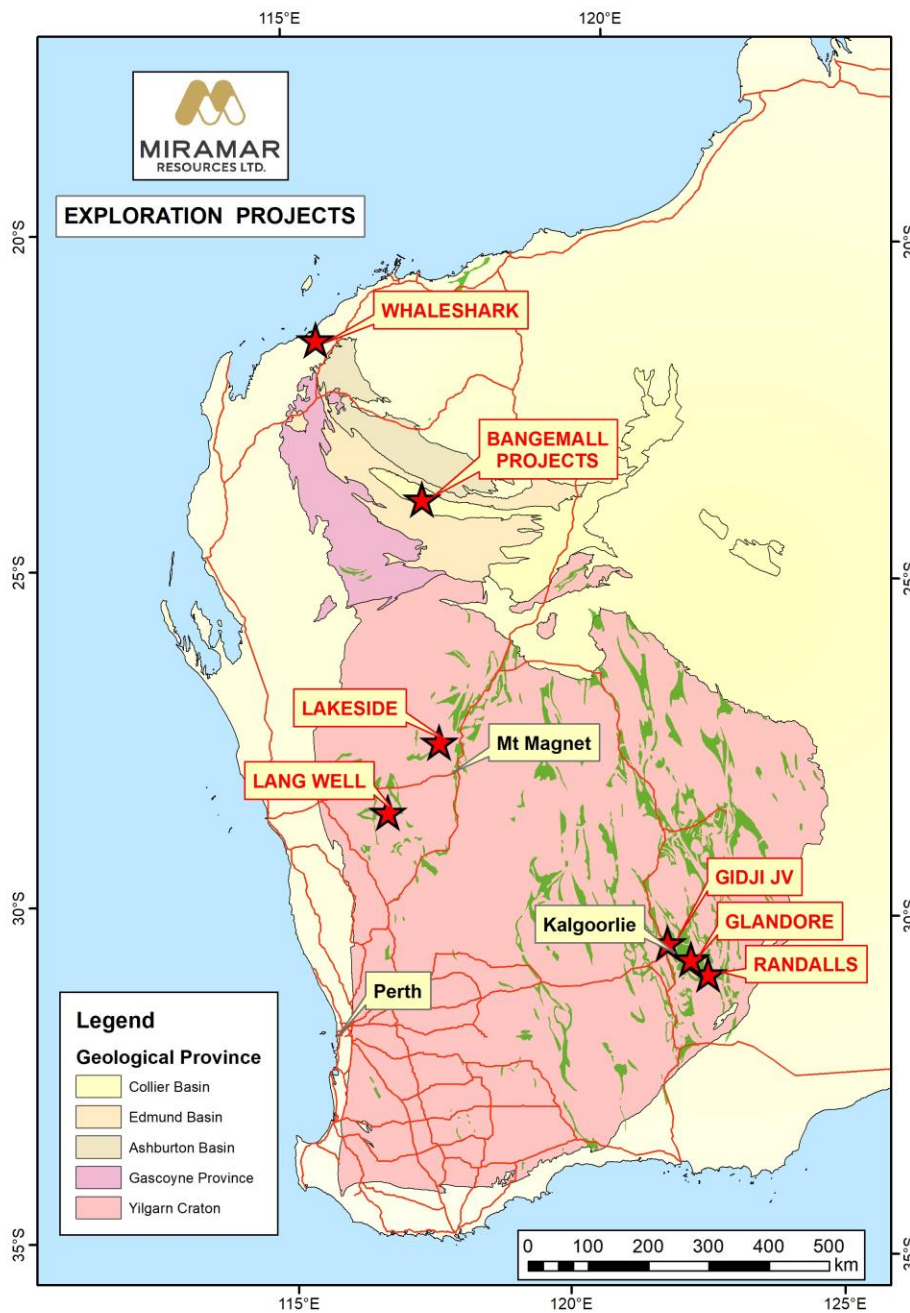


**About Miramar Resources Limited**

Miramar Resources Limited is a WA-focused mineral exploration company with exploration projects in the Eastern Goldfields, Murchison and Gascoyne regions and listed on the ASX in October 2020, following a heavily oversubscribed \$8 million IPO.

The Company is currently focussed on exploring its two underexplored projects in the Eastern Goldfields of WA: the Gidji JV and Glandore Projects.

Miramar’s Board has a track record of successful 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 – Gidji JV RC Drilling

### 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>Approximately 25kg of sample was recovered from each meter via a riffle splitter</li> <li>A 2.5-3kg sub-samples was collected in a calico bag directly off the side of the splitter</li> <li>The entire sample was sent for gold analysis by 50g fire assay, and multi-element analysis by 4-acid digest followed by ICPMS, which are both industry standard techniques for this type of sample.</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>RC drilling</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>Sample recovery was recorded where applicable.</li> <li>Recovery was generally excellent except through the overlying paleochannel clays</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>Samples were logged for colour, weathering, grain size, geology, alteration and mineralisation where possible</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>• Samples collected for each meter drilled</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 (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were assayed for gold by fire assay of 50g samples with 0.01ppm lower detection limit</li> <li>• Samples will also be analysed for a multi-element suite by 4-acid digest followed by ICPMS analysis</li> <li>• Analytical technique is suitable for this style of exploration with the caveat that the sample size is relatively small if coarse gold is encountered</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 undertaken at this stage</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>• Hole collar locations were recorded with a handheld GPS in MGA Zone 51S</li> <li>• RL was also recorded with handheld GPS but accuracy is variable</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>• Drilling is limited and not suitable for resource estimation</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>Drill holes were designed at right angles to the prevailing strike of the local geology</li> <li>The dip of prospective geology and/or mineralisation is unknown at this stage</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>Samples were transported from site directly 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>The exploration was conducted on E26/214 and P26/4221 which are owned 80% by Miramar Goldfields Pty Ltd and 20% by Thunder Metals Pty Ltd</li> <li>Miramar Goldfields Pty Ltd is a wholly owned subsidiary of Miramar Resources Limited</li> <li>Miramar has an exploration JV with Thunder Metals Pty Ltd</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>Exploration has been previously completed by other companies including Goldfields and KCGM, and included auger drilling, RAB, aircore and limited RC drilling.</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>The target is Archaean greenstone-hosted mesothermal gold 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>See Table 1 for all hole locations and significant results &gt;0.25g/t Au</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>Intervals reported over 0.25g/t Au with maximum of 1 sample of internal dilution</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 assumptions about true width or orientation of mineralisation can be made from the current programme</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 1 shows all drill holes</li> <li>Figure 2 shows a cross section of 11 holes</li> <li>Table 1 lists all significant results</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>Table 1 lists significant results</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>Awaiting multi-element assays before planning further work on this target</li> </ul>