



# ASX ANNOUNCEMENT

## GOLD AND NICKEL EXPLORATION UPDATE

- Working towards maiden Bangemall Ni-Cu-Co-PGE drill campaign
- Targets outlined for RC drill testing at Gidji JV gold project north of Kalgoorlie
- New tenement application over 11 kilometre long aircore gold anomaly with similarities to +2Moz Invincible gold deposit

Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”) is pleased to provide an update on exploration programmes planned for its Eastern Goldfields and Gascoyne region projects.

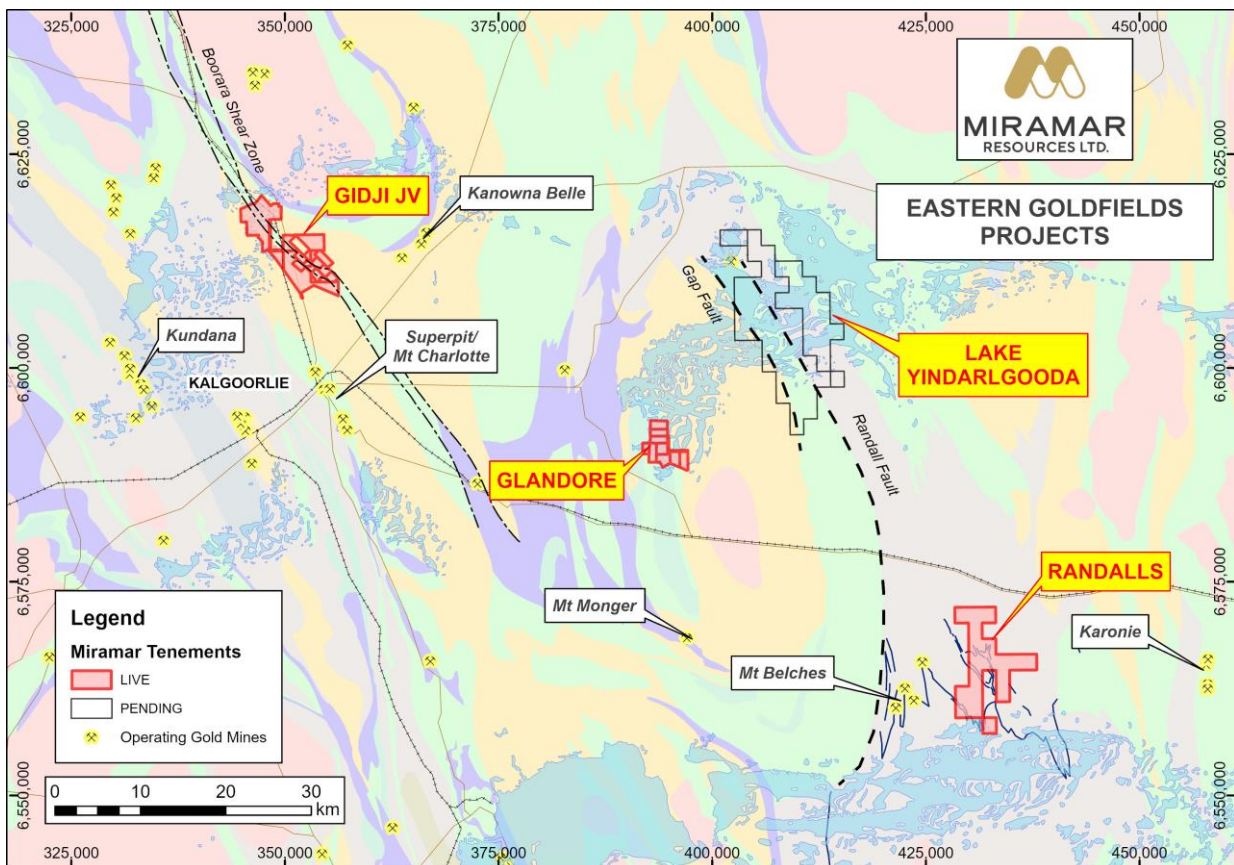
The Company is currently working toward the maiden drilling campaign within the Bangemall Ni-Cu-Co-PGE projects and has expanded its strategic 480 km<sup>2</sup> Eastern Goldfields tenement portfolio (Figure 1).

Miramar’s Executive Chairman, Mr Allan Kelly, said the Company’s Eastern Goldfields exploration project portfolio had significant value not recognised in the current share price.

*“Since listing in 2020 with a portfolio of highly prospective early-stage gold, nickel and copper projects in Western Australia, we have systematically advanced our key projects up the exploration value chain, added to our land position through strategic tenement applications and relinquished those tenements which lacked significant discovery potential,” Mr Kelly said.*

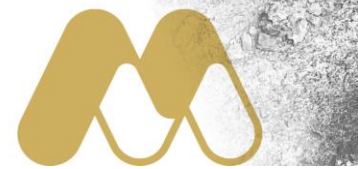
*“In a record gold price environment, the inherent value of our gold projects, including our flagship Gidji JV Project, where we have made multiple new gold discoveries immediately along strike from one of the richest patches of earth on the planet, is significant,” he added.*

*“We’ve also advanced our Bangemall Projects from the initial concept to high priority drill targets which could define a new style of nickel mineralisation in a new mineral province,” he said.*



**Figure 1. Miramar’s Eastern Goldfields projects in relation to existing gold mining operations.**





### Bangemall Ni-Cu-Co-PGE Projects

Miramar holds a strategic land position within the Edmund and Collier Basins where it is targeting nickel-copper-cobalt-PGE mineralisation related to Kulkatharra Dolerite sills, part of the Warakurna Large Igneous Province and the same age as the Giles Complex intrusions which host the large Nebo and Babel nickel-copper deposits in the West Musgraves of WA.

Miramar’s initial aim is to show “proof of concept” of its Norilsk-style deposit model by discovering Ni-Cu-Co-PGE sulphide mineralisation.

Over the previous 24 months, the Company has progressed from regional-scale area selection to collection of project-scale datasets and, more recently, to delineation of individual drill targets at the Mount Vernon and Trouble Bore Projects (Figure 2).

The Company is now working towards the first drill programme targeting this style of mineralisation within the region and has already received Programme of Work (POW) approval from the Department of Energy, Mines, industry Regulation and Safety (DMEIRS).

Upcoming work includes completion of a heritage survey, systematic rock chip sampling and/or further ground geophysics to help refine the initial RC drill targets.

Pending receipt of all relevant approvals, the Company hopes to complete the maiden drill programme during mid-2024.

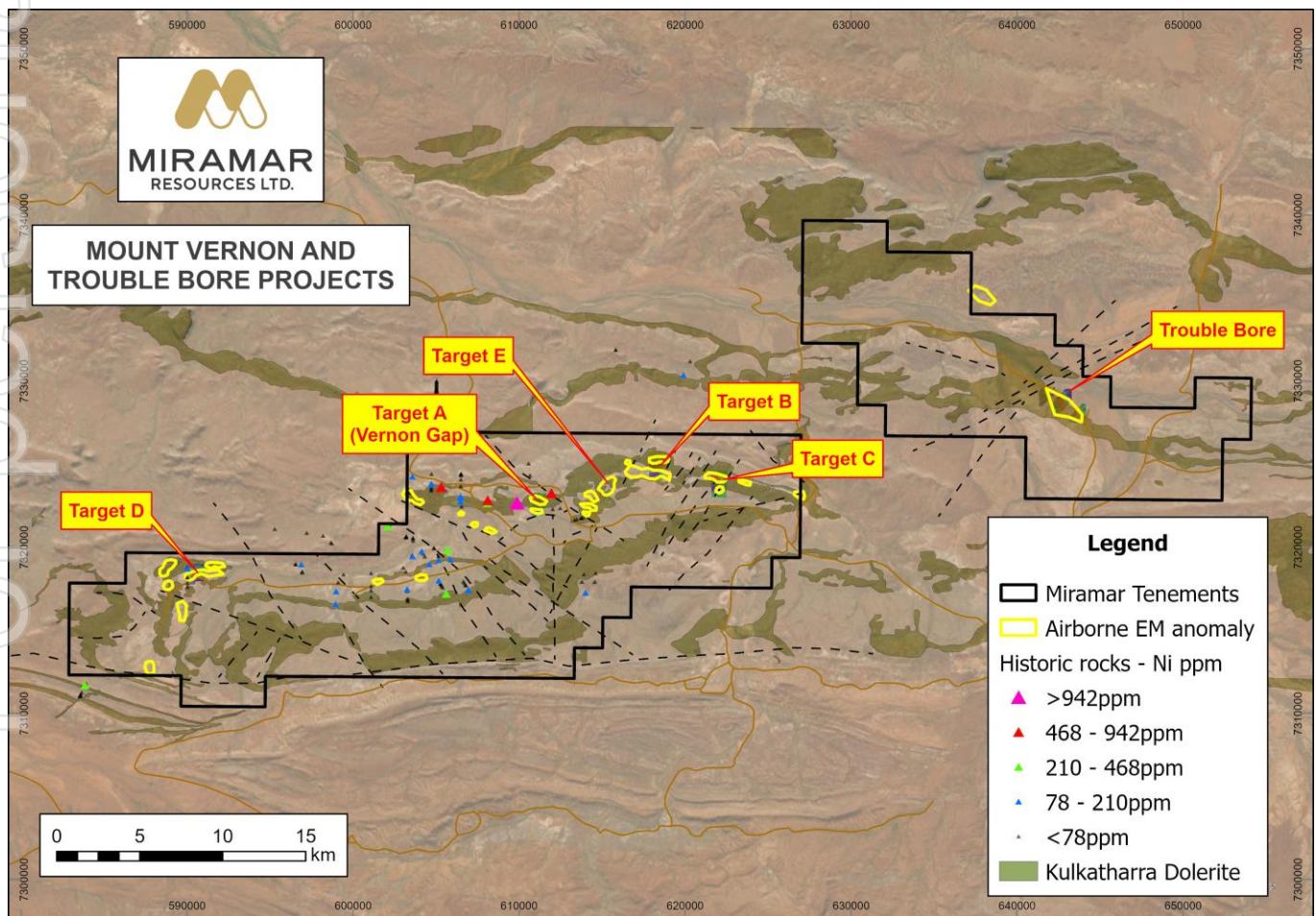


Figure 2. Mount Vernon and Trouble Bore Projects showing proposed drill targets.



## Gidji JV (Miramar 80%)

The Gidji JV Project is located within the Boorara Shear Zone, approximately 15 kilometres north of Kalgoorlie (Figure 1) but is relatively underexplored due to the presence of transported material and the Gidji Palaeochannel which covers the most prospective geology.

The Company believes there is potential for the discovery of a new gold camp, with multiple new gold deposits, close to several existing gold mining and/or processing operations.

Since listing on the ASX in October 2020, Miramar has made several new gold discoveries at Gidji through systematic aircore drilling of structural targets identified in regional and project-scale geophysical data.

At least two of the new discoveries have not been closed off along strike and significant bedrock aircore gold intersections are yet to be followed up with deeper RC and/or diamond drilling (Figure 3).

For example, at the Blackfriars target, **GJAC627**, at the contact between sediments of the Black Flag Group and mafic rocks, returned an intersection of **1m @ 11.8g/t Au** and **6g/t Ag** at the end of the hole, with elevated pathfinders indicating that this is related to bedrock gold mineralisation.

Similarly, one of the later aircore holes at the northern end of the Marylebone target, **GJAC562**, intersected fresh sulphides in shale and returned an intersection of **6m @ 2.2g/t Au**, including **4m @ 3.0g/t Au and 13.4g/t Ag**, indicating that this is also bedrock gold mineralisation that requires follow-up.

Miramar has a plan to reprocess regional and project-scale geophysical data to help refine the structural interpretation of the Project, followed by RC drilling of selected targets.

## Lake Yindarlgooda

The Company has submitted a new Exploration Licence Application over a large 11 kilometre long aircore gold anomaly on Lake Yindarlgooda, approximately 50 kilometres east of Kalgoorlie (Figure 1).

The new 100%-owned project shares geological and structural similarities to the +2 million ounce “Invincible” gold deposit within the St Ives gold camp, near Kambalda, WA.

At Invincible, a major NNW-trending regional fault, the Speedway Shear, is offset by a later NE-trending fault, the Alpha Island Fault, which displaces and juxtaposes a sequence of sediments and volcanoclastic rocks of the Black Fag Beds. Gold mineralisation is hosted in a mudstone unit along this contact.

Under Lake Yindarlgooda, two major regional structures, the Randalls Fault and the Gap Fault, define contacts between sedimentary and volcanic rocks. Similar to Invincible, the two major structures are cross-cut by a number of late NE-trending cross faults.

Sporadic historic drilling prior to 2019 indicated the presence of widespread gold anomalism and the potential for significant bedrock gold mineralisation under the lake.

In early 2019, whilst employed by Riversgold Limited, Miramar’s Executive Chairman, Mr Allan Kelly, implemented a first-pass lake aircore drilling programme covering approximately 11 kilometres of strike at a nominal drill spacing of 800m x 200m.

As reported to the ASX by Riversgold in February 2019, the drilling outlined significant aircore gold results over the entire 11 kilometres of strike including several holes ending in gold mineralisation (Figure 4).

The results were significant, especially when compared with published data from the discovery of Invincible. Despite this, no further exploration was carried out and the tenements were ultimately surrendered by Riversgold in March 2024.

There is no drilling within the Gap Fault for over 13 kilometres and an additional 6 kilometres of the Randalls Fault is present south of the lake that has never been drilled.

The total strike length of the prospective structures within the Project is approximately 17km, which is a similar scale to the multi-million ounce St Ives gold camp.

Miramar will work towards grant of the tenement and follow-up aircore drilling once all relevant approvals are obtained.



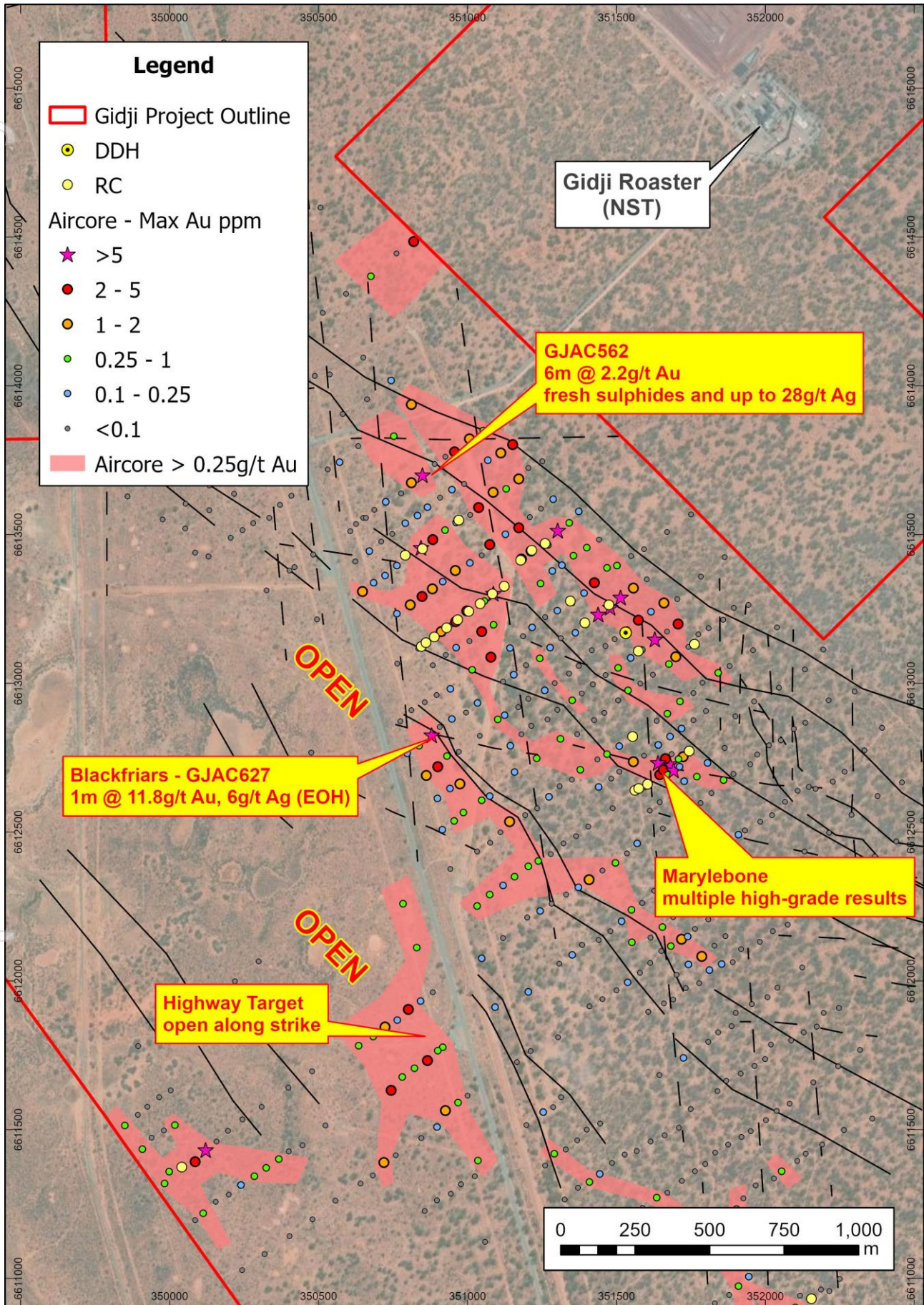


Figure 3. Southern part of Gidji JV Project showing aircore results and RC drill targets



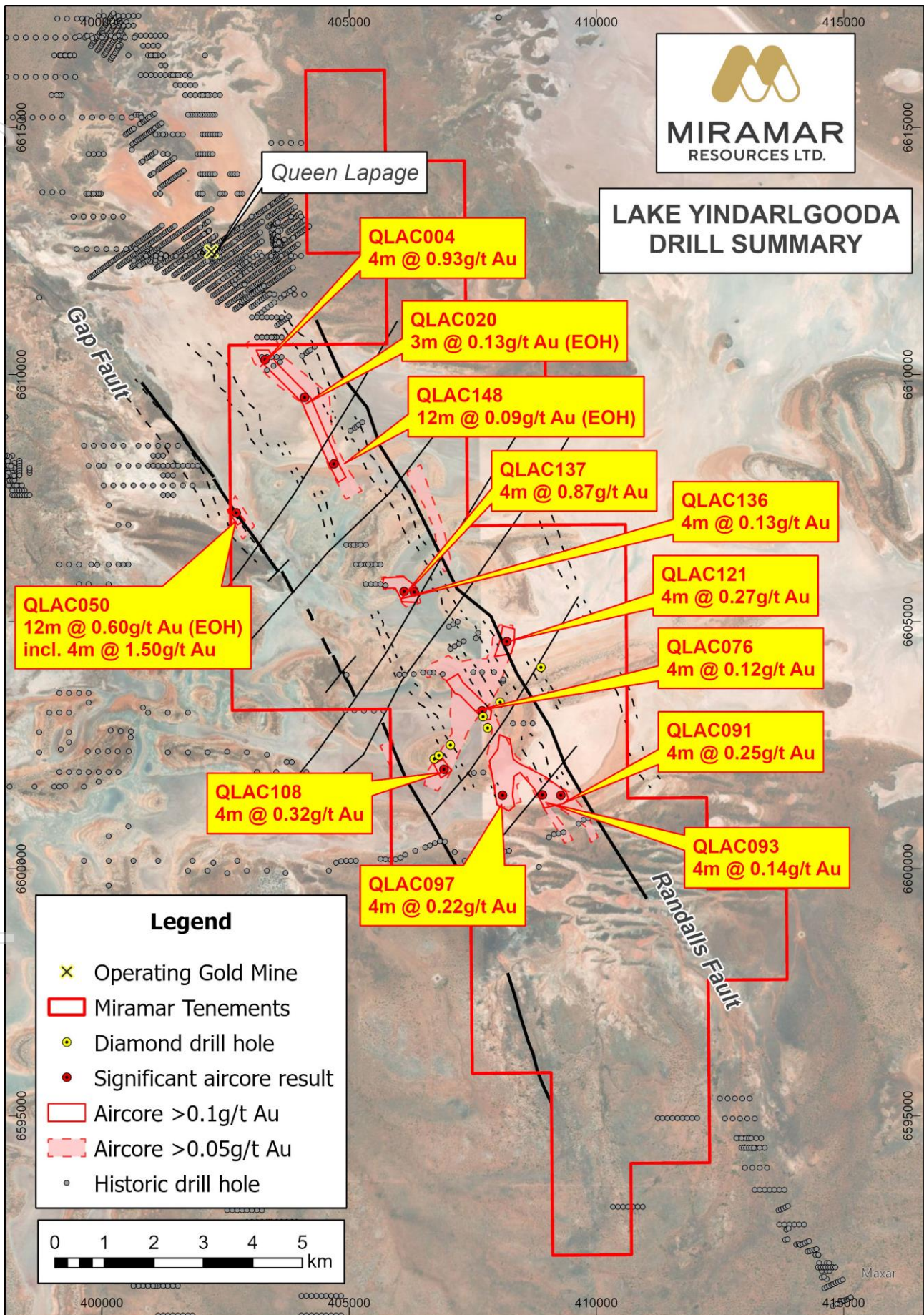
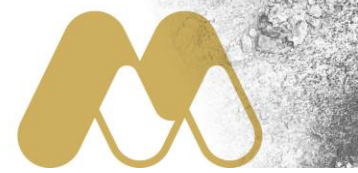


Figure 4. Lake Yindarlgooda showing significant aircore results in relation to major structures.



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.

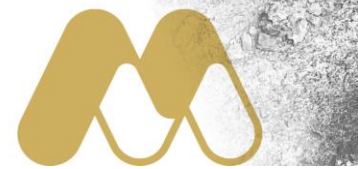
Mr Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to Qualify as a "Competent Person" as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources 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 Lake Yindarlgooda aircore drilling, including JORC Table 1 and 2 information, were included in the following ASX announcements released by Riversgold Limited in 2019 in which Mr Kelly was the Competent Person at the time:

- 14 February 2019 – *"Large New Gold Targets Outlined by Queen Lapage Drilling"*
- 28 February 2019 – *"Drilling Outlines Very Large Gold System at Queen Lapage"*





**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.

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