

# ASX ANNOUNCEMENT



## NICKEL SULPHIDE TARGETS IDENTIFIED AT GIDJI JV

- **New nickel sulphide targets identified in Highway Ultramafic**
- **Strongly anomalous Ni, Cu and “Kambalda Ratio” results from aircore drilling**
- **Awaiting final data from Mt Vernon EM survey (Bangemall Ni-Cu-PGE Project)**

**Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”)** advises that it has identified the potential for nickel sulphide mineralisation within its 80%-owned Gidji JV Project, in the Eastern Goldfields.

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.

### **New nickel sulphide targets identified**

The Company has recently conducted a review of new and historic data over the Gidji JV Project with a focus on the potential for nickel sulphide mineralisation.

The Gidji JV Project contains approximately 10km of strike of various ultramafic units, including the “Highway Ultramafic” which hosts the “Scotia” and “Saints” nickel sulphide deposits further to the north.

Outcrop of this highly prospective unit is minimal due the presence of transported overburden and the Gidji Paleochannel which crosscuts the Boorara Shear Zone in the vicinity of the Marylebone gold target (Figure 1). Historical drilling across this unit is sporadic, shallow and lacking in multi-element data.

In contrast, Miramar routinely analyses for a multi-element suite by aqua-regia and ICPMS as part of its aircore drilling, whilst bottom of hole samples are also analysed by a “total” digest.

A cluster of highly anomalous Ni and Cu results are seen where the magnetic signature of the Highway Ultramafic is strongest, which may indicate the thickest part of the sequence (Figure 2). This is despite the presence of approximately 50m of transported cover in this area. The highest Ni and Cu results also occur in an area of structural complexity where NE-trending faults crosscut the earlier stratigraphy.

Calculating the “Kambalda Ratio” for the same dataset highlights two >1km long parallel zones of strongly anomalous Ni and Cu when normalised against Cr and Zn respectively (Figure 3). The “Kambalda Ratio” is used to highlight potential nickel sulphides where higher values are indicative of mineralised ultramafics.

Plotting the maximum MgO in hole (converted from Mg assayed by aqua-regia) highlights the more magnetic (and thicker) eastern ultramafic unit as having the greater potential for the presence of cumulate textured ultramafics (Figure 4). Total analysis of Mg in end of hole samples confirms this observation.

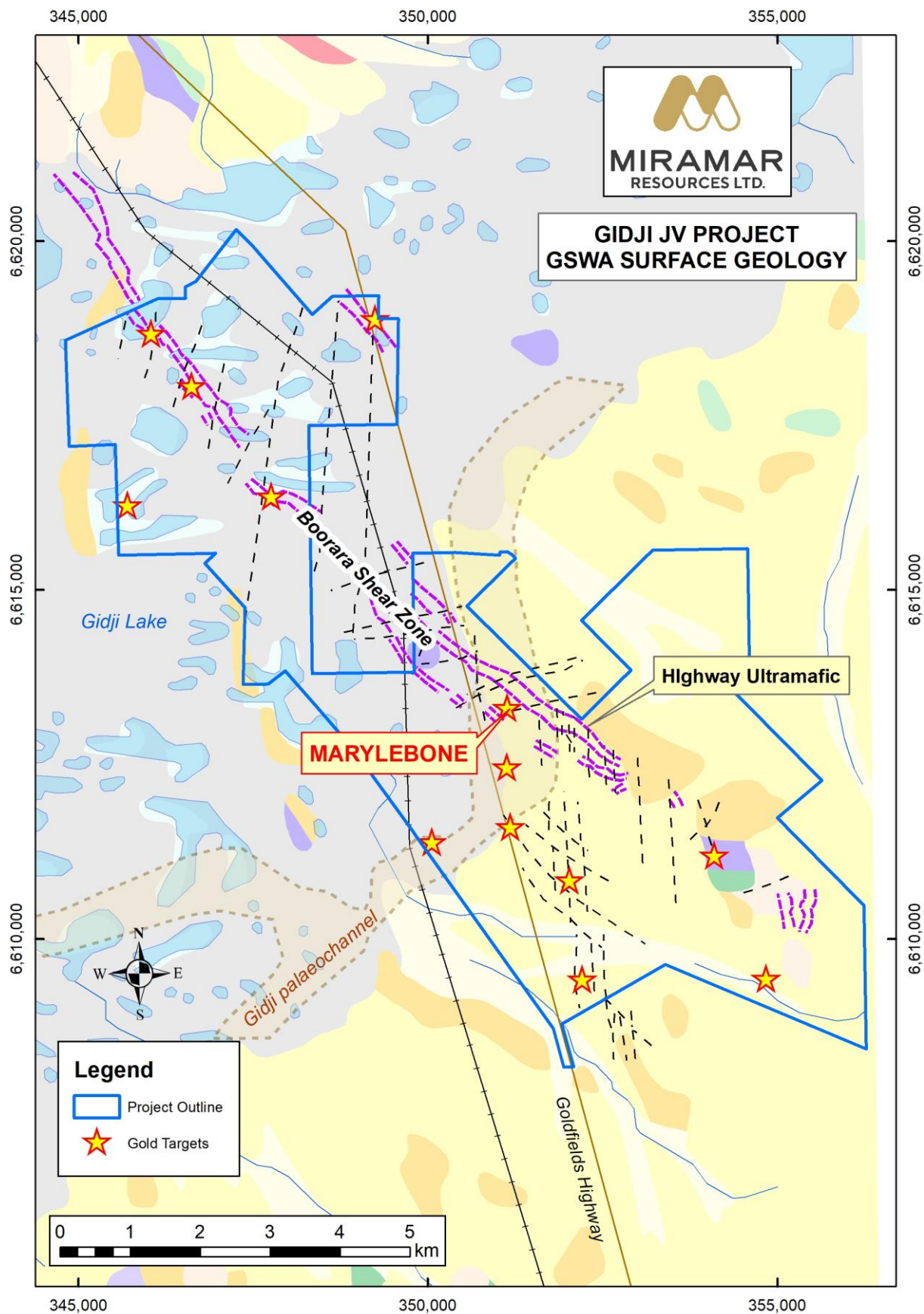
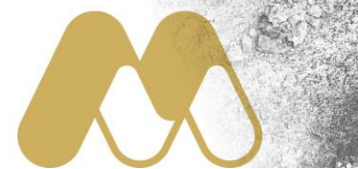
The Highway Ultramafic is located adjacent to the Scotia Basalt which forms the footwall sequence to the nickel sulphide mineralisation at Auroch Minerals Limited’s Saints nickel deposit further north.

Miramar’s Executive Chairman, Mr Allan Kelly, said the Company was excited about the potential for nickel sulphide mineralisation at Gidji alongside the many gold targets currently being explored.

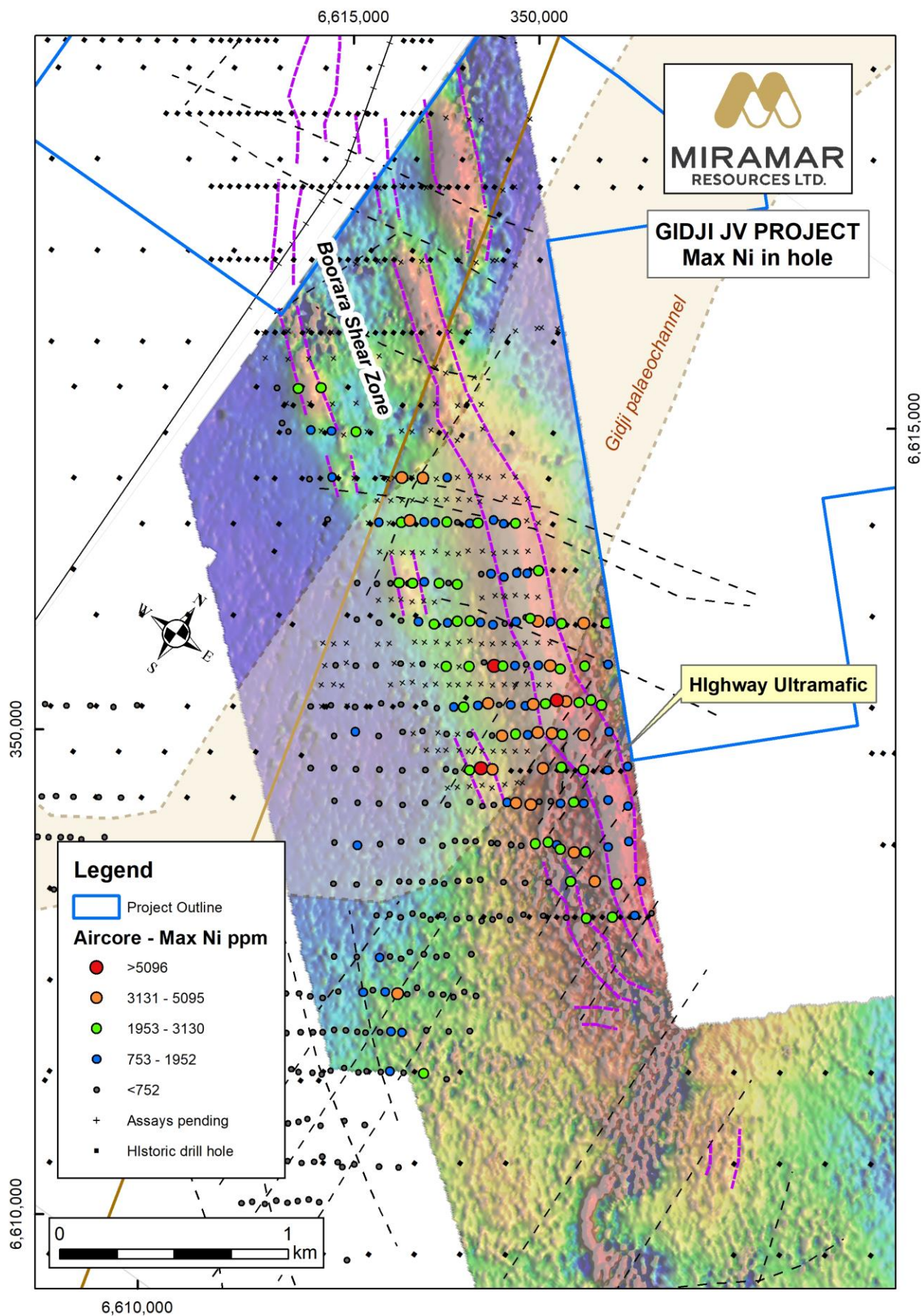
*“It’s well known that gold and nickel mineralisation occur in close proximity at many places within the Eastern Goldfields region,” Mr Kelly said.*

*“Although the Highway Ultramafic hosts nickel sulphide deposits in at least two locations along the Boorara Shear/Bardoc Tectonic Zone, there has been minimal targeted nickel exploration at Gidji,” he added.*

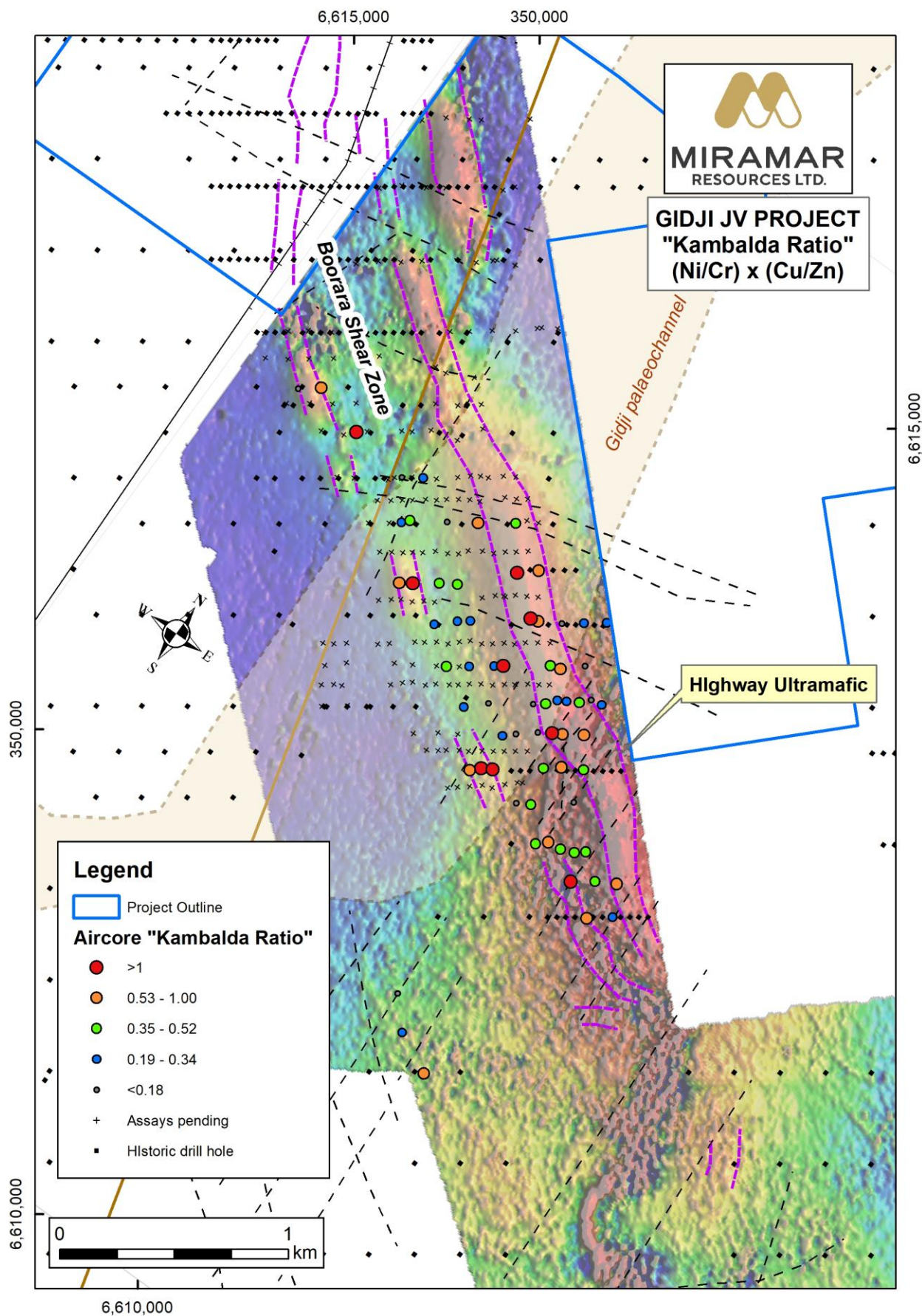
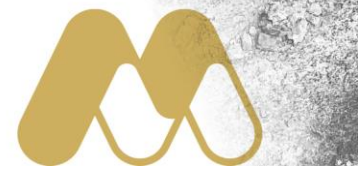
*“The new nickel sulphide targets we have identified again confirm how underexplored the Gidji Project is, not just for gold, but for other commodities as well,” he said.*



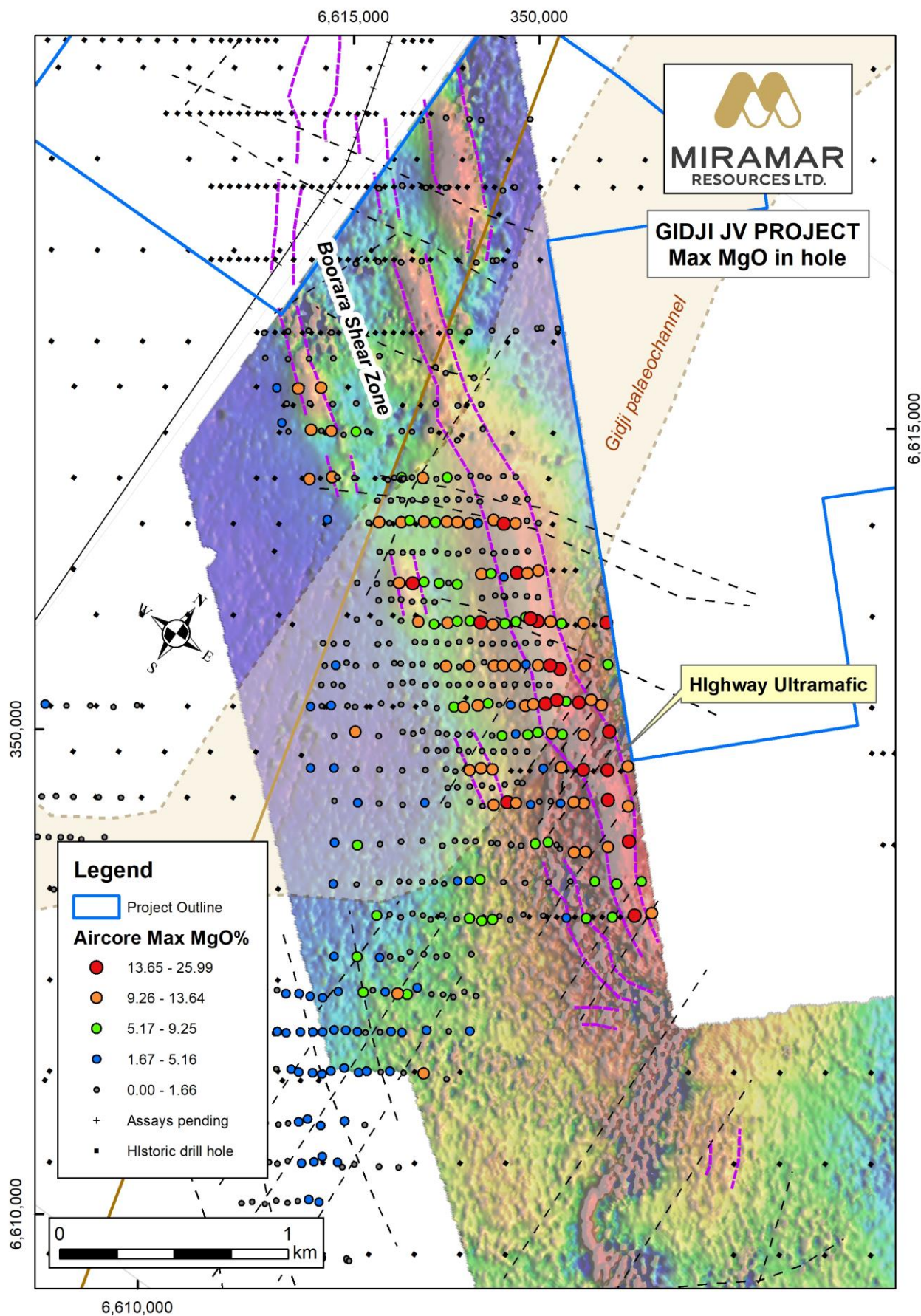
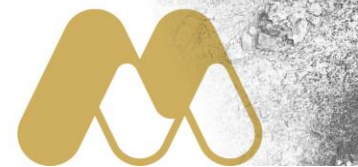
**Figure 1.** Gidji JV Project showing surface geology and location of the Highway Ultramafic unit.



**Figure 2.** Max Nickel in aircore holes over ground magnetic image (TMI-RTP over 1VD).



**Figure 3.** "Kambalda Ratio" results over ground magnetic image (TMI-RTP over 1VD).



**Figure 4.** Maximum MgO in hole (from aqua-regia Mg ppm) over ground magnetic image.



## Upcoming Work

Miramar is currently waiting on a substantial number of assay results, including multi-element data, from the December 2021 aircore drilling programme and from the recent RC drilling.

There is a general lack of multi-element data over most of the Project, apart from Miramar's recent drilling, and the obvious 4km long magnetic anomaly under Gidji Lake has been poorly tested.

Potential for nickel sulphide mineralisation will be tested as part of the Company's upcoming Boorara North aircore programme.

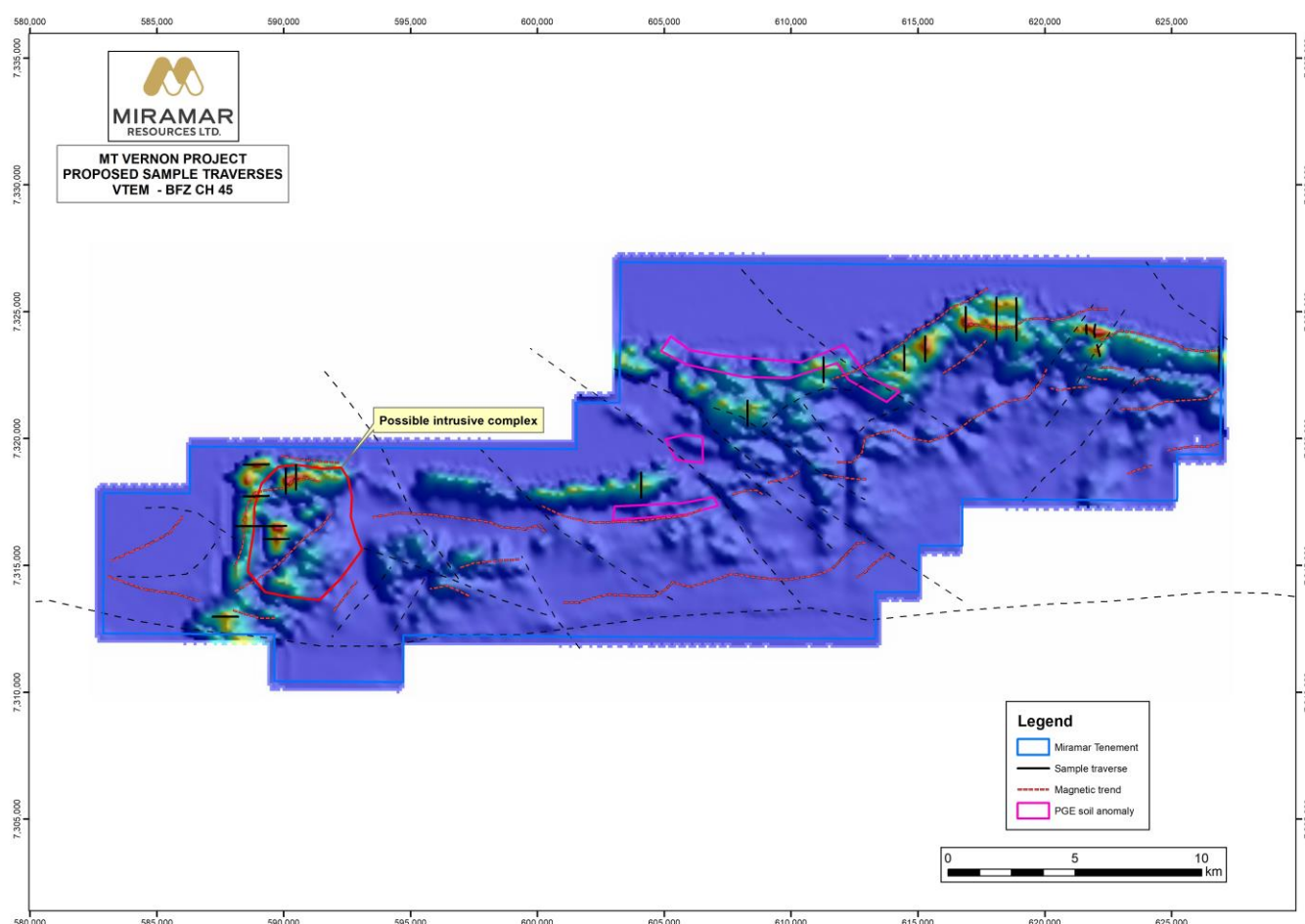
There is also currently no useful EM data over the Gidji JV Project area.

Once the Company has received all outstanding multi-element assay results, it will investigate the opportunity to conduct an EM survey over one or more of the new nickel sulphide targets.

## Bangemall Ni-Cu-PGE Projects

The Company advises that it is waiting on the final EM data from the recent VTEM-Max survey recently completed over the 100%-owned Mt Vernon Prospect in the Gascoyne region of WA (see ASX Release dated 3 Feb 2022).

In the meantime, planning for series of soil and rock chip sampling traverses over the main EM anomalies has commenced, with the locations of the traverses to be confirmed once the final EM data is received and modelled (Figure 5).



**Figure 5.** Mt Vernon Prospect showing proposed soil traverses over VTEM data (Channel 45).



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:

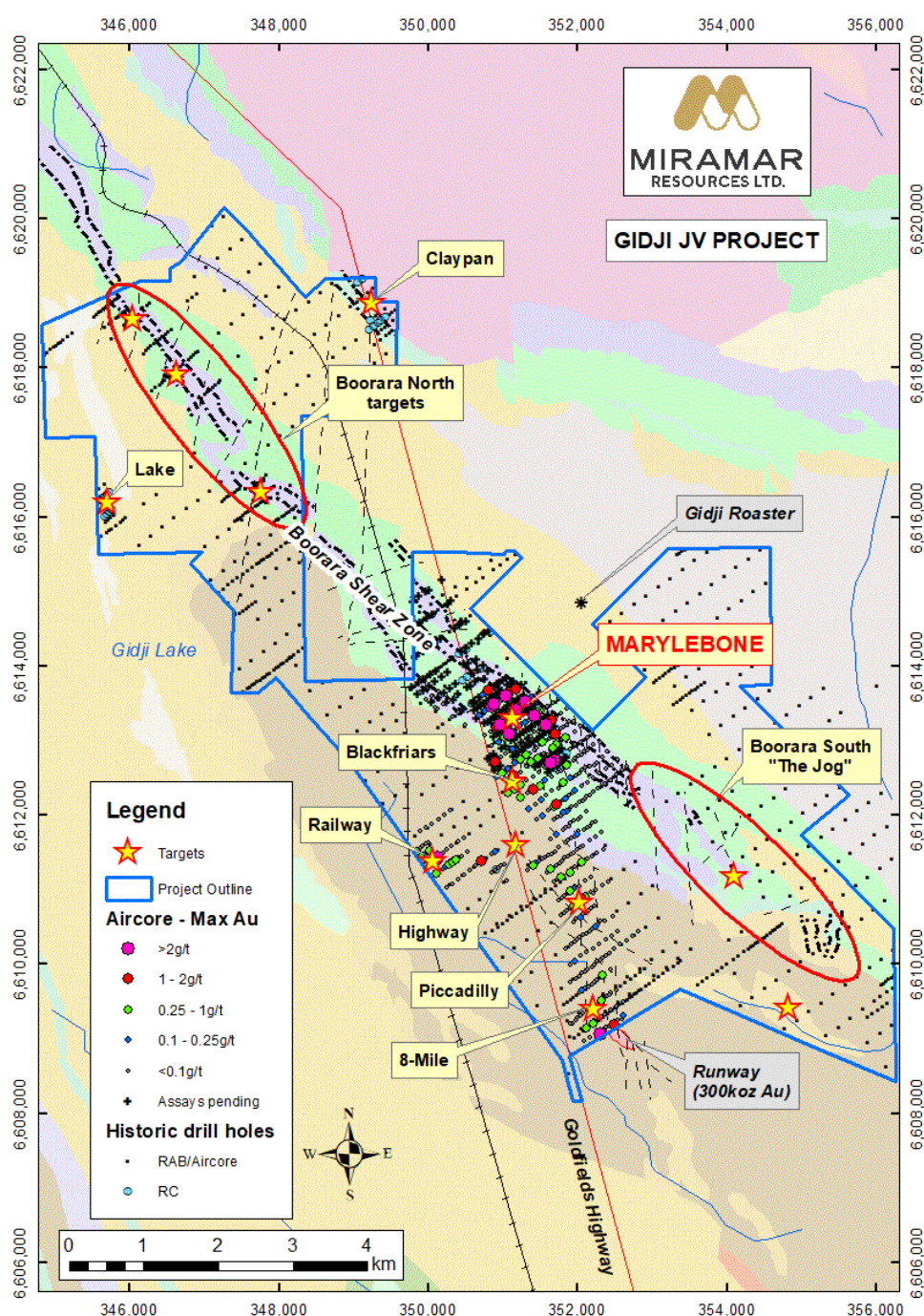
- 1/2/2022 *RC Drilling Underway at Marylebone*
- 10/1/2022 *New Target at Gidji JV Increases Camp-Scale Potential*
- 22/12/2021 *Gidji drilling results indicate potential new gold camp*
- 25/11/2021 *Gidji JV Exploration Update*
- 7/10/2021 *Significant Gold Results from Gidji JV Drilling*
- 23/09/2021 *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*



## 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 to 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 (ASX:M2R)** is an active WA-focused mineral exploration company exploring for gold, IOCG and Ni-Cu-PGE deposits in the Eastern Goldfields, Murchison and Gascoyne regions of Western Australia.

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.

