ASX ANNOUNCEMENT

MIRAMAR RESOURCES LTD.

BANGEMALL Ni-Cu-PGE EXPLORATION UPDATE

- **Fixed loop EM survey continues at Mount Vernon Project**
- **Evidence of differentiated sill and mafic cumulate rocks**
- **Shallow EM conductor confirmed at Trouble Bore Project**

Miramar Resources Limited (ASX:M2R, "Miramar" or "the Company") is pleased to provide an update on exploration activities within the Company's large 100%-owned Bangemall Project in the Gascoyne region of Western Australia.

Miramar is exploring for Norilsk-style nickel, copper and platinum group element (Ni-Cu-PGE) mineralisation related to 1070Ma aged Kulkatharra Dolerite sills, part of the Warakurna Large Igneous Province and the same age as the large Nebo-Babel Ni-Cu deposits in the West Musgraves.

The fixed loop electromagnetic (FLTEM) survey underway within the Mount Vernon project areas has recommenced after a short break due to extreme weather conditions throughout the Gascoyne region.

As discussed in the ASX release on 13 February 2024, the FLTEM survey at Mount Vernon has so far identified multiple late-time conductors at the first two targets tested to date (Figure 1), with modelling of the data indicating south-dipping conductive plates near the base of the dolerite sill where nickel-copper sulphides may have accumulated (Figure 2).

In addition to the EM results, evidence that the dolerite sill has undergone differentiation, and could therefore host Ni-Cu-PGE sulphide mineralisation, includes the following, as shown in Figure 2:

- Variation in grain size from very fine-grained chill margins at the extremities to coarser-grained gabbro in the centre of the sill.
- Increasing magnesium oxide (MgO), nickel and PGE results towards the bottom (northern margin) of the sill
- Nickel-chromium-titanium (Ni-Cr-Ti) ratios suggesting the presence of mafic cumulate rocks which are an important component of this style of mineralisation

The FLTEM survey will test two further targets within the Mount Vernon Project where strong late-time airborne EM anomalies are seen within and/or underneath the northernmost dolerite sill.

Miramar's Executive Chairman, Mr Allan Kelly, said the Company believed the Bangemall Project had the potential for a style of Ni-Cu-PGE mineralisation not previously seen in WA.

"We are the first company to explore for this style of mineralisation in the Bangemall region and are systematically progressing our targets towards the maiden drilling programme," he said.

"At Mount Vernon, we identified multiple targets from our airborne EM survey and have now confirmed two of these with ground EM surveys and rock chip sampling," he added.

"It is worth noting that, in contrast to many existing WA nickel deposits, the style of mineralisation we are looking for in the Bangemall occurs as large and very valuable orebodies that are basically immune to short-term swings in the nickel price," Mr Kelly said.

"Like the discovery of Nebo-Babel in 2000, or Nova-Bollinger in 2012, if we can show proof of concept of the Norilsk-style deposit model at Mount Vernon and/or Trouble Bore, it opens up the entire Bangemall region as a new nickel-copper province, one where we have built a dominant landholding," he added.

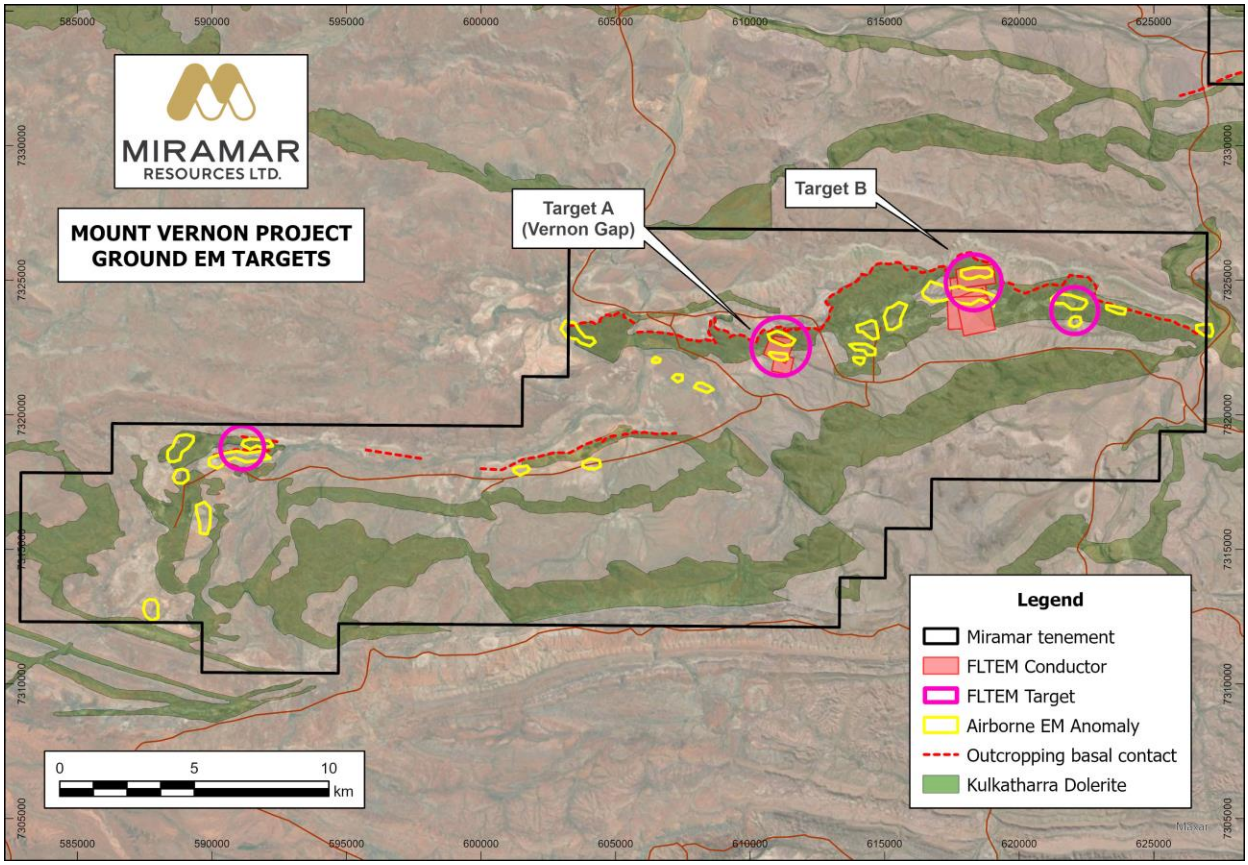

Figure 1. *Mount Vernon Project showing airborne EM anomalies and ground EM targets.*

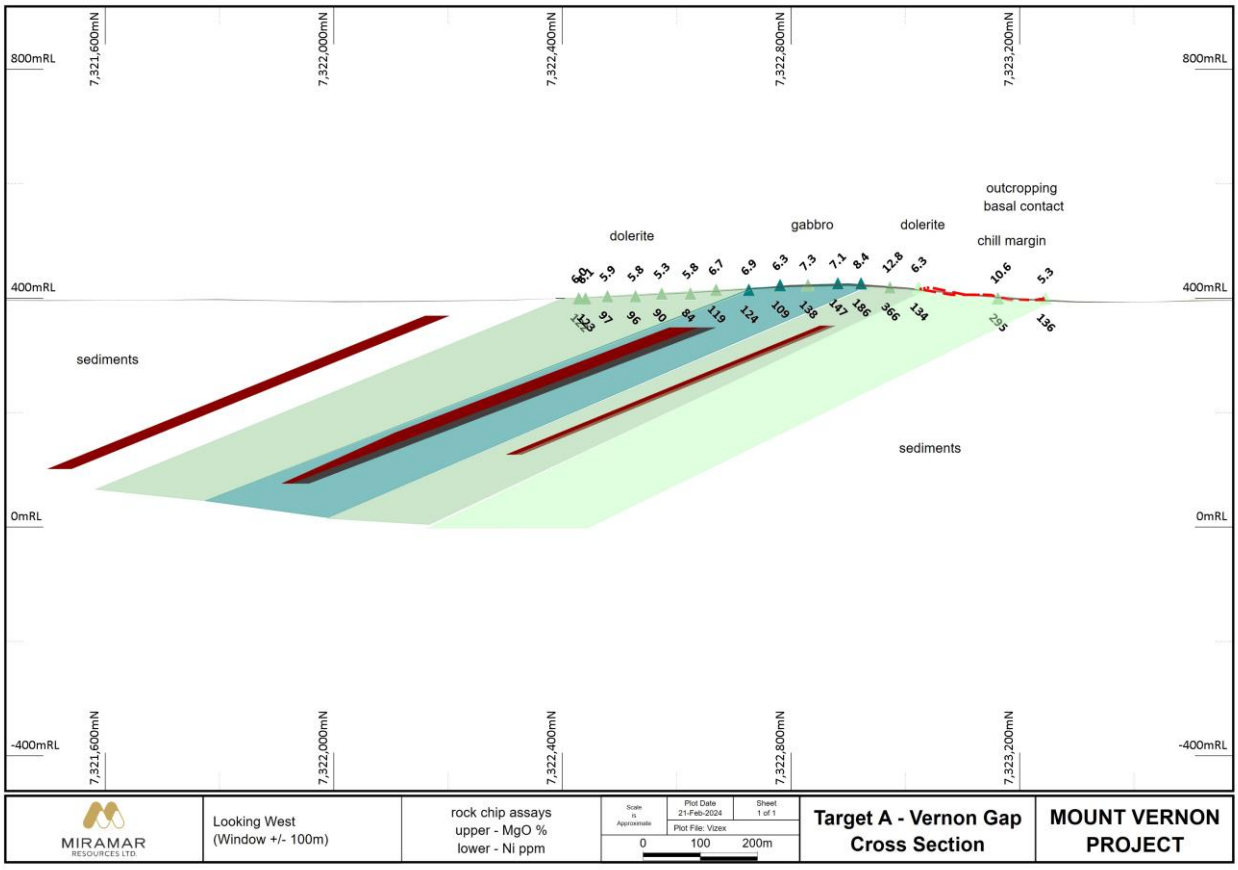

Figure 2. *Target A cross section showing modelled EM plates (red) and rock chip results.*

Trouble Bore

Prior to taking a short break due to extreme weather conditions in the region, the geophysical contractors completed a reconnaissance moving loop electromagnetic (MLEM) survey over the 3 kilometre long historic late-time SkyTEM anomaly at the recently granted Trouble Bore Target.

The SkyTEM anomaly occurs at the intersection of a dolerite sill and a potential N-S trending feeder dyke both of which are mostly buried beneath later sediments (Figure 3).

Evidence of the dolerite sill is seen in outcrop along strike in either direction.

A single historic RC hole drilled in 2013 targeted channel iron deposits and did not intersect the dolerite sill or test the SkyTEM anomaly. There is no recorded historical geochemical sampling in the area.

The recent MLEM survey confirmed the historic SkyTEM anomaly, with subsequent modelling suggesting a shallow, sub-horizontal conductor with a moderate conductance of approximately 200 Siemens.

Given the interpreted geological setting of the EM anomaly compared with known Ni-Cu-PGE deposits, especially step 2 of Figure 4, Miramar has submitted a Program of Work (POW) application for drilling at Trouble Bore.

The Company already has POW approval for drilling at Mount Vernon and will apply for co-funding under the WA Government's Exploration Incentive Scheme (EIS) for drilling at both Mount Vernon and Trouble Bore.

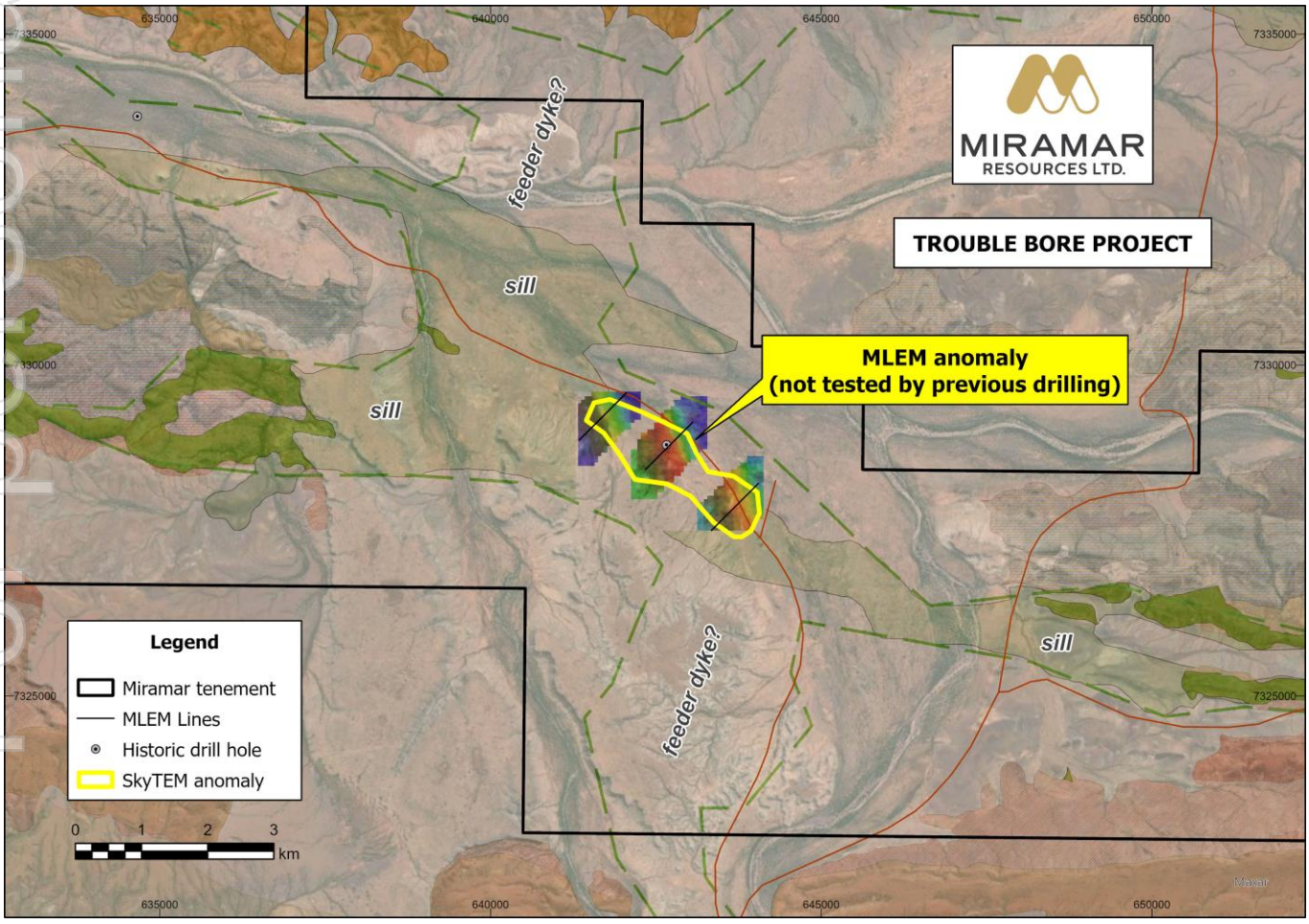

Figure 3. *Trouble Bore Target showing SkyTEM and MLEM anomalies at intersection of dolerite sill and interpreted feeder dyke under cover.*

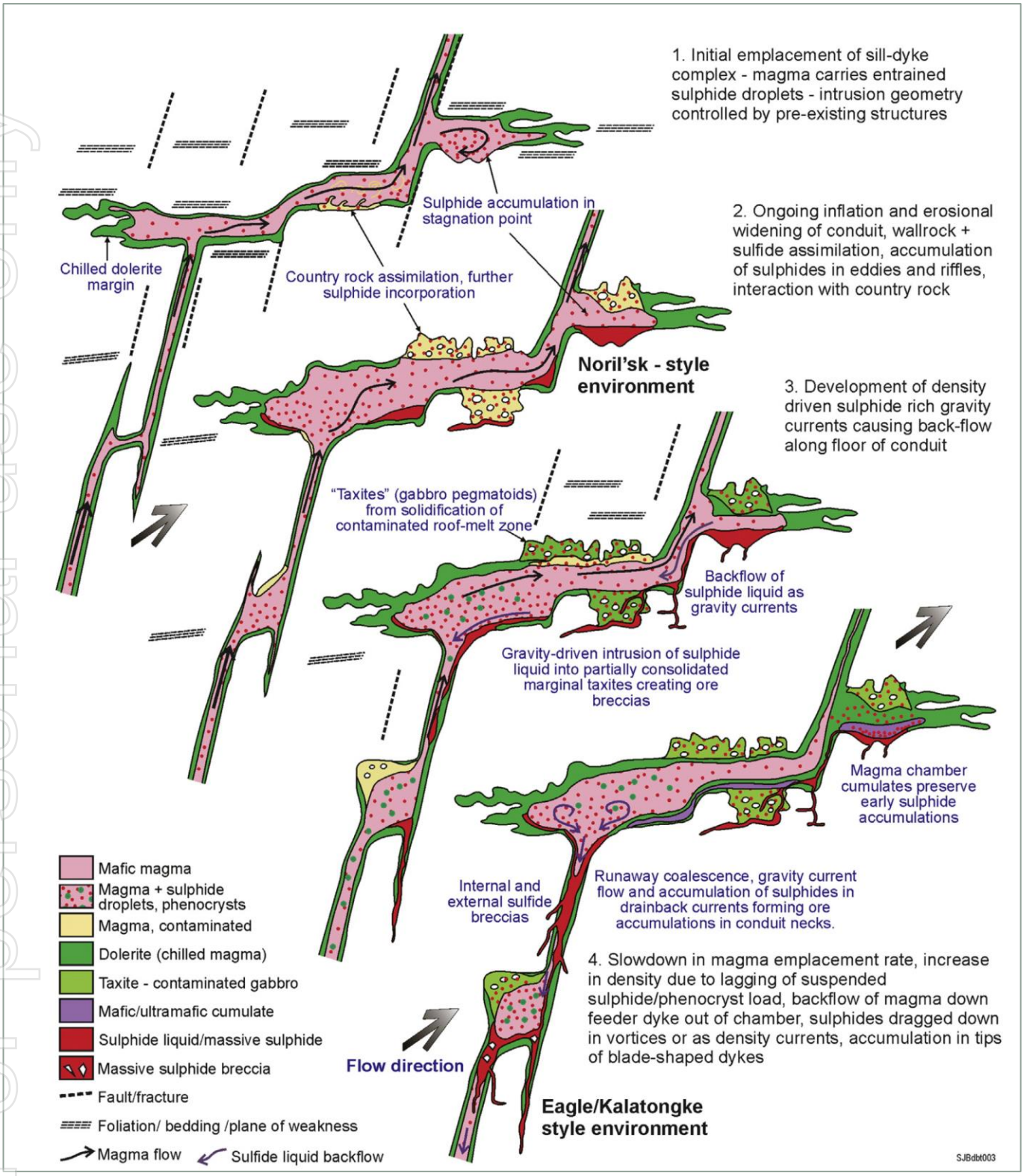

Figure 4. *Schematic diagram showing stages in the development of an intrusion-hosted Ni–Cu–Co sulphide system (Barnes et al, 2015).*

Planned work

Miramar's initial aim is to show "proof of concept" of the Company's Bangemall Ni-Cu-PGE deposit model by identifying Ni-Cu sulphide mineralisation.

Work planned includes:

- Completion of ground EM surveys over selected airborne EM anomalies at Mount Vernon and Trouble Bore - underway
- Application for funding under the WA government's Exploration Incentive Scheme (EIS)
- Submitting Program of Work application for drilling at Trouble Bore
- Systematic rock chip sampling of outcropping dolerite sills
- RC drill testing
- Progressing existing tenement applications to grant
- Identifying other prospective areas to peg and/or acquire
- Discussions with potential Joint Venture partners

For more information on Miramar Resources Limited, visit the Company's website at www.miramarresources.com.au, follow the Company on social media (Twitter @MiramarRes and LinkedIn @Miramar Resources Ltd) 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.

References

Barnes, S.J., Cruden, A.R., Arndt, N. and Saumur, B. 2015, The mineral system approach applied to magmatic Ni-Cu-PGE sulphide deposits. Ore Geology Reviews 76(94).

Barnes, S.J., 2023, Lithogeochemistry in exploration for intrusion-hosted magmatic Ni–Cu–Co deposits. Geochemistry: Exploration, Environment, Analysis, Volume 23.

Morris, P. A., and Pirajno, F., 2005, Mesoproterozoic Sill Complexes of the Bangemall Supergroup in Western Australia: Geology, Geochemistry and Mineralisation Potential. GSWA Report 99.

APPENDIX

The Bangemall Project and the Norilsk Ni-Cu-PGE model

Miramar's 100%-owned Bangemall Project comprises granted Exploration Licences and Applications covering approximately 2,190 km^2 within the Gascoyne region of Western Australia (Figure A).

The Proterozoic Edmund and Collier Basins have been intruded by numerous 1070Ma aged Kulkatharra Dolerite sills, part of the Warakurna Large Igneous Province, and the same age as the Giles Complex which hosts the large Nebo and Babel Ni-Cu deposits in the West Musgraves.

The region has been identified by both the Geological Survey of Western Australia and Geoscience Australia as having high prospectivity for Ni-Cu-PGE mineralisation associated with the Kulkatharra Dolerite sills, similar to the giant Norilsk-Talnakh Ni-Cu-PGE deposits in Russia (Figure B).

Since 2020, Miramar has built a strategic land position in the Bangemall region, focussing on areas containing key ingredients and/or regional-scale indicators for Proterozoic Ni-Cu-PGE mineralisation:

- Kulkatharra Dolerite sills – source of Ni, Cu +/- PGE's
- Proximity to major crustal-scale faults (+/- cross faults) - potential plumbing systems +/- traps
- Sulphidic sediments - potential sulphur source
- Regional-scale geochemical anomalism (GSWA regional geochemistry)
- Regional-scale EM anomalism (2013 Capricorn AEM Survey)

At the Mount Vernon Project, Miramar identified multiple late-time VTEM anomalies associated with strongly elevated Ni, Cu and PGE results in historic rock chip samples and is conducting ground EM surveys with the aim of defining targets for drill testing.

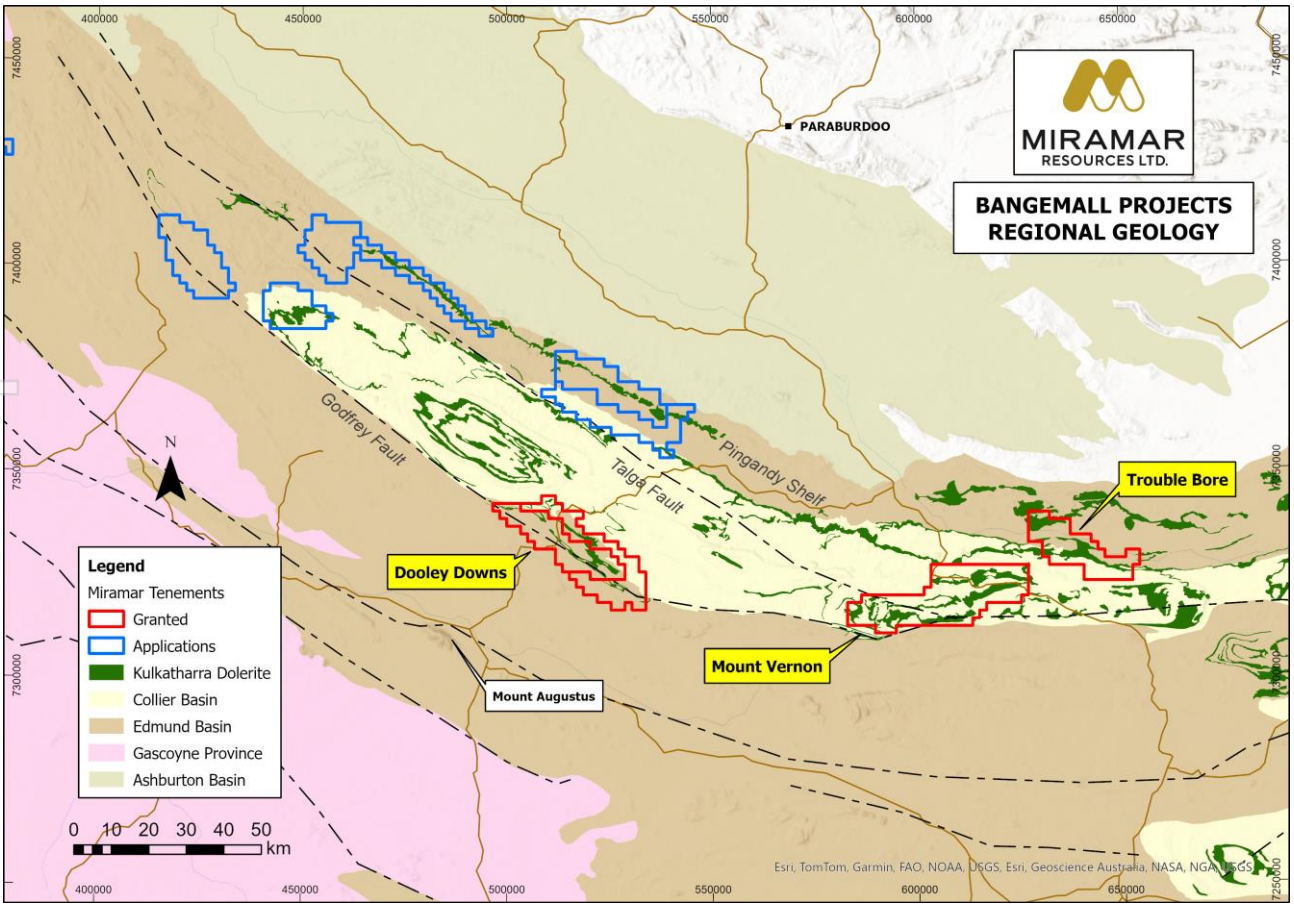


Figure A. *Bangemall Projects showing Kulkatharra Dolerite sills and major crustal-scale faults.*

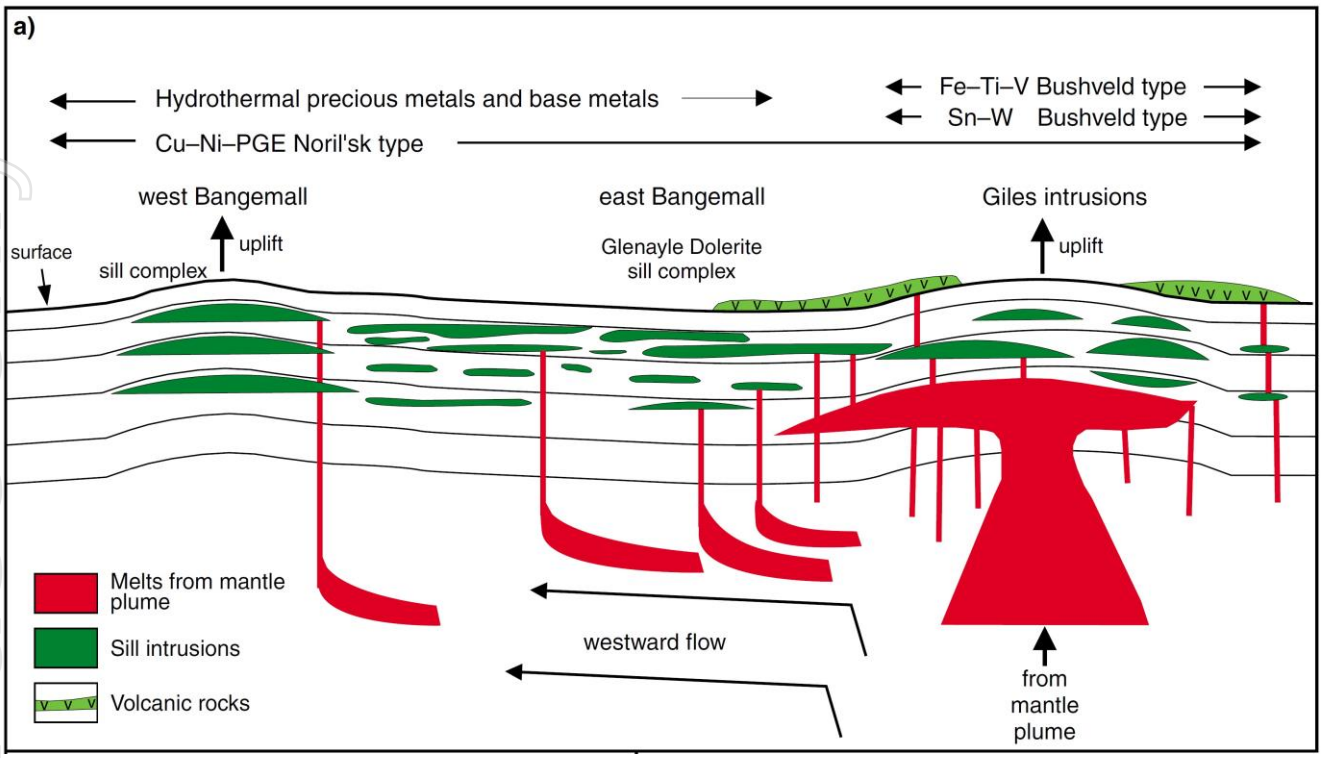


Figure B. *Schematic long section of the Warakurna Large Igneous Province showing mafic rocks and potential mineralisation styles (Morris and Pirajno, 2005).*

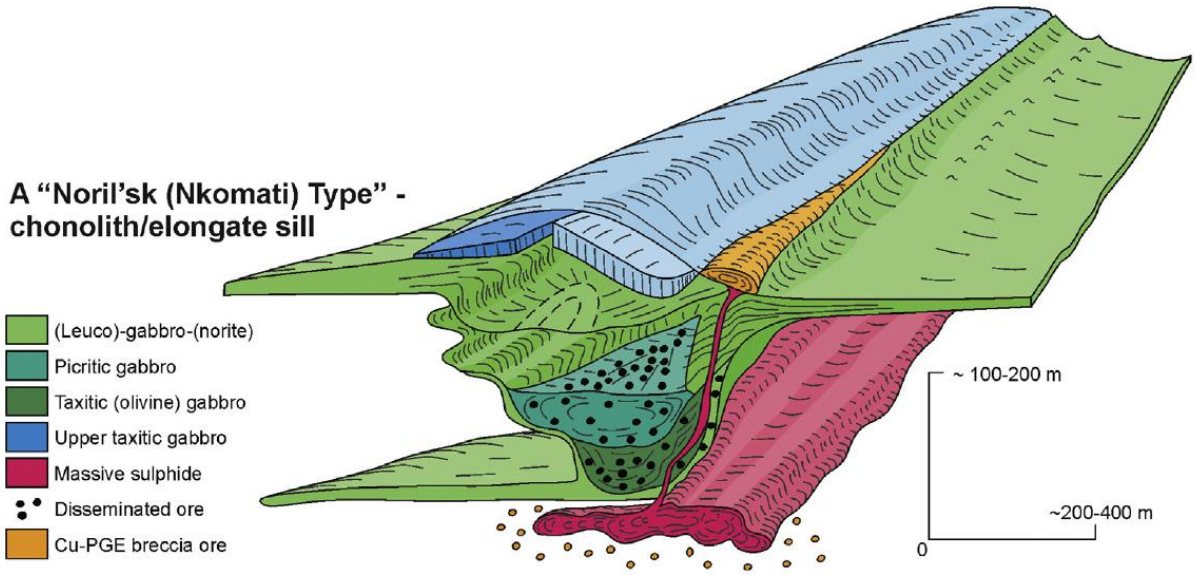
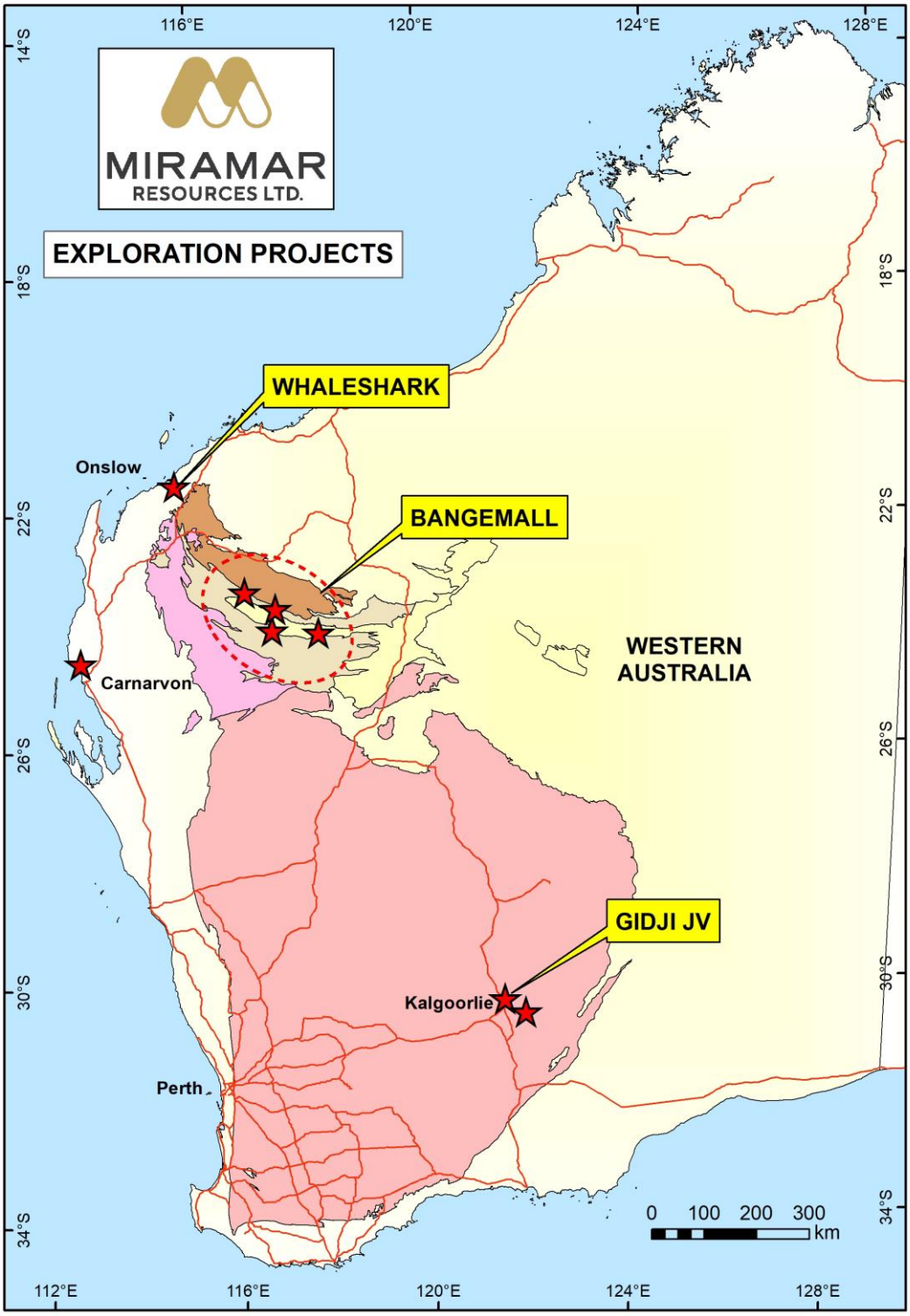


Figure C. *Schematic diagram of a Norilsk-type chonolith (Barnes et al 2015)).*

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.



COMPETENT PERSON STATEMENT

The information in this report that relates to 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 Bangemall 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 within the Bangemall Project is contained in the following ASX Announcements:

- *13 February 2024 – "Multiple EM Conductors Outlined at Mount Vernon"*
- *8 February 2024, "Multiple Large Uranium Targets in Bangemall"*
- *5 February 2024 – "Bangemall Exploration Update"*
- *15 January 2024 – "Ground EM Survey Underway at Mount Vernon"*
- *2 January 2024 – "Tenement Grant Expands Bangemall Project"*
- *24 July 2023 – "Approval Received for Mount Vernon Drilling"*
- *17 July 2023 – "Gascoyne Projects Update"*
- *21 June 2023 – Gascoyne Projects Funded Following Capital Raising"*
- *25 May 2023 – "High-Priority Ni-Cu-PGE Targets Identified at Mt Vernon"*
- *14 March 2023 – "Gascoyne Plans Finalised Following Capital Raising"*
- *9 March 2023 – "Gascoyne Region Exploration Update"*
- *17 January 2023 – "Multiple Large REE Targets Identified at Dooley Downs"*
- *"14 November 2022 – "Large REE Targets Identified at Dooley Downs"*
- *3 October 2022 – "Diamond occurrence & uranium targets identified at Bangemall"*
- *12 June 2022 – "New Ni-Cu-PGE targets identified at Bangemall"*
- *3 February 2022 – "Multiple Large EM Anomalies Identified at Mt Vernon"*
- *25 January 2022 – "EM Survey Commenced at Bangemall Ni-Cu-PGE Target"*
- *1 September 2021 – "Multiple EM Conductors Identified within Bangemall Project"*