

SOUTH COBAR PROJECT REGIONAL TECHNICAL UPDATE

SOUTH COBAR PROJECTS: BASE METALS GOLD TARGETS

- **Extensive *prospective target horizons* prospective for gold and base-metals delineated** over a cumulative 115 kilometre trend at the Cargelligo, Rast and Nyora exploration licences, now collectively called **the South Cobar Project**
- **The *prospective horizons* are along strike from recent major discoveries and significant mines in the central and southwestern Cobar Basin**, displaying many similar geological features and surface expressions
- **This exploration progress comes as AGC uses regional geophysics (magnetics), structural mapping and modelling to delineate target horizons**, with confirmation by field-based ground truthing
- **Each *prospective target horizon* is associated with reactivated regional scale basin-forming growth faults and volcanism (dated ~420-380 Ma)** analogous to the major mineral systems to the north
- Numerous areas of historic workings discovered such as Creamy Hills Gold Mine, which as recently reported¹ returned **rock chips to 24.4g/t gold**
- **Forward Pathway: An induced polarisation (IP) geophysics survey is now underway**, targeting potential mineralisation within the *prospective target horizons* at three separate prospects including Achilles, Hilltop and Planet

Australian Gold and Copper Ltd (ASX: AGC) (“AGC” or the “Company”) is pleased to provide an update on major advances at the Cargelligo and Rast tenements, along with the new Nyora exploration licences, now collectively referred to as the South Cobar Project in central NSW. Regional exploration work completed in Q4 2022 and Q1 2023 has delineated extensive ‘*prospective target horizons*’, which span over 115km in cumulative length.

AGC Managing Director, Glen Diemar said “*Our knowledge of the South Cobar Project has significantly advanced since IPO and recent discoveries in the central and southwestern Cobar basin continue to encourage us that the Basin is still very open. Each new discovery is found on large scale structures; they take a while to work out and understand but once they do they often provide numerous discoveries.*”

“Intracratonic basins such as and including the Cobar Basin are responsible for some of the world’s greatest copper-gold-silver-zinc-lead mines and we have been working hard to package this 120km-long prospective belt together in such long, strike-extensive

¹ Refer 2023 March 3 ASX AGC

favourable rock packages adjacent to major growth faults, which has never been done before in this area.”

“We are very encouraged by this next phase of growth. Pole-dipole induced polarisation surveys are very effective in defining drill targets as they aid to find zones of abundant mineralisation including copper sulphides. A great recent example is the discovery of the high-grade Federation deposit, where induced polarisation was the catalyst to the decision to drill in 2019.”

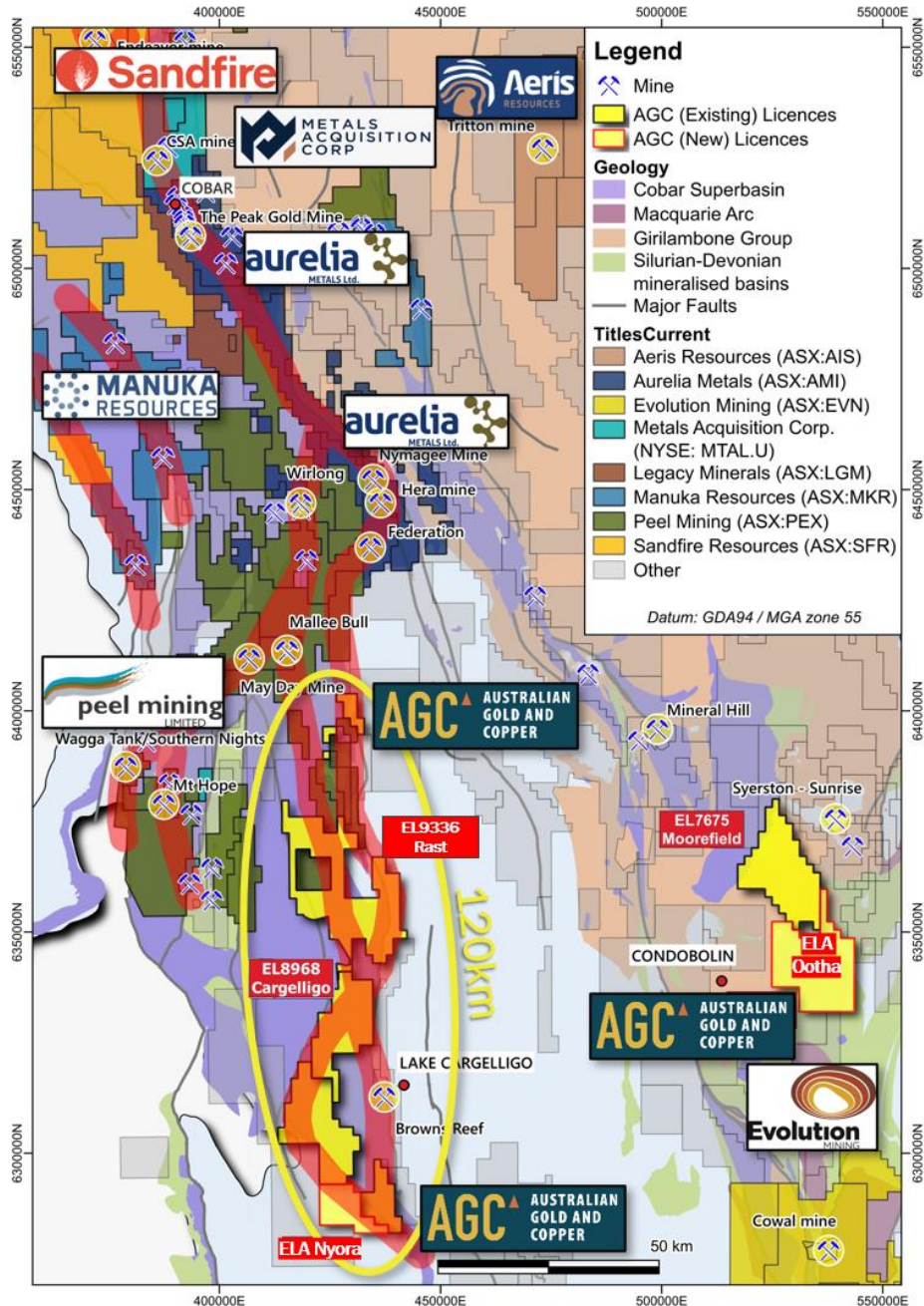


Figure 1: Cobar Basin geological map showing the recent major discoveries and mines. AGC exploration licences are highlighted in yellow with major fault and prospective trends in red.

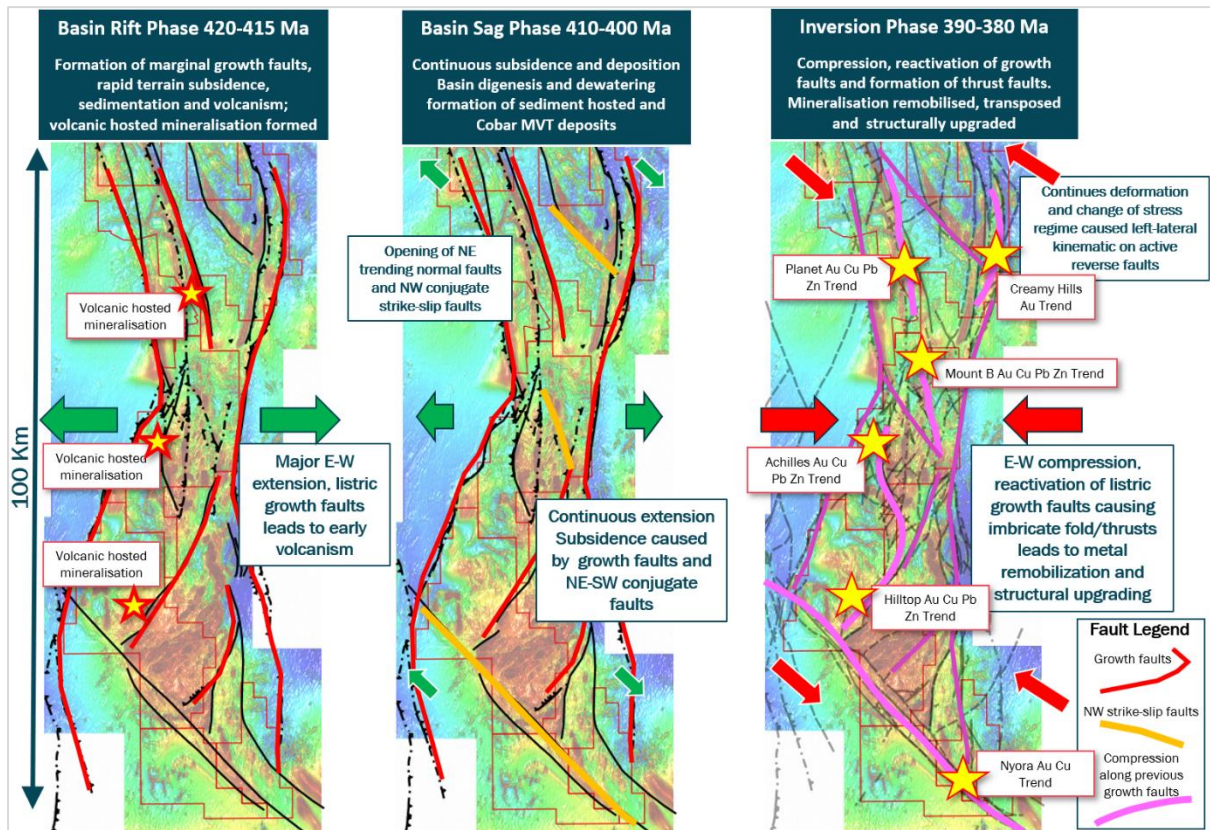


Figure 2: AGC's South Cobar Basin Project structural interpretation over the three time periods of basin and mineralisation formation. Background image is magnetic TMI RTP, with AGC's licences in thin red lines. Stars represent the 115 km prospective target horizons with known mineralisation being the focus for ongoing exploration; V. David 2006 and 2023, pers comm.

Structural Mapping and Modelling to Delineate Target Horizons

The southern Cobar Basin (the Rast Trough, Ural Volcanics, refer Bull, and McPhie, 2006) is a grossly underexplored part of the Cobar Basin that has potential to host major gold and base metal deposit styles, including volcanic hosted massive sulfide (VMS), Cobar-type and orogenic gold deposits (refer David, 2006, Fitzherbert and Downes, 2020).

The Cobar Basin has a complicated structural history that is defined by three main stages: basin rifting-extensional at ~420Ma, basin sag phase at 410-400Ma and basin inversion/compression at ~390Ma (see Figures 2 and 3).

During the initial rifting-extensional phase at 420Ma, north-south striking growth faults (red lines in Figure 2) developed by rapid east-west extension of the Lachlan Fold Belt, leading to sea-floor volcanism and initial VHMS-style mineralisation (David 2006; Fitzherbert and Downes, 2020).

Sag phase sedimentation and burial at 410-400Ma opened northwest-trending growth faults.

A later compressional event called the Tabberabberan contraction led to basin inversion/compression (~390Ma) and was a major driver of remobilizing low grade mineralisation into higher grade trap sites. This phase was responsible for the present-day geometries of mineralisation into high grade pods and shoots, characteristic of deposits being mined in the northern Cobar Basin today (David 2006; Fitzherbert and Downes, 2020).

Prospective Target Horizons Being Explored by AGC

Structural mapping and modelling to delineating target horizons was followed by field-based ground truthing. The prospective target horizons, at all target locations in AGC's South Cobar tenement package, are extensive and characterised by fine grained, intensely foliated, volcano-sedimentary rocks displaying characteristically strong hydrothermal alteration and gossanous textures (oxidation and weathering of sulphide minerals in outcropping rocks), as shown in figures 8-9.

Importantly, the gossanous zones are typically situated on the contacts between sheared volcanoclastic rocks and coherent rhyolites. AGC believes this is an ideal setting to host a potential mineral deposit, similar to the high-grade Perseverance and Peak mines further north (David, 2006, Fitzherbert and Downes, 2020).

Photographs from field-based activities including various rock photos and descriptions demonstrating the above are shown in figures 7-11.

Forward Pathway

Three extensive induced polarisation (IP) geophysics surveys are underway targeting gold and base metal deposits adjacent to major fault structures at the Achilles, Hilltop and Planet prospects. IP is a geophysical technique used to locate sulphide minerals in the ground including copper, lead and zinc bearing sulphides.

AGC's extensive landholding within the Rast Trough of the Southern Cobar Basin has never been effectively explored with this structural model in mind. Numerous potential trap sites have been identified within 115 km of prospective target horizons at the Achilles, Hilltop, Planet, Creamy Hills, Mount B and Nyora trends, refer figure 2.

Ongoing exploration is proving highly successful in these areas, including rock chips to 24.4g/t gold and 9.4g/t gold from mine tailings at the Creamy Hills historic gold mines (ASX AGC 3 March 2023).

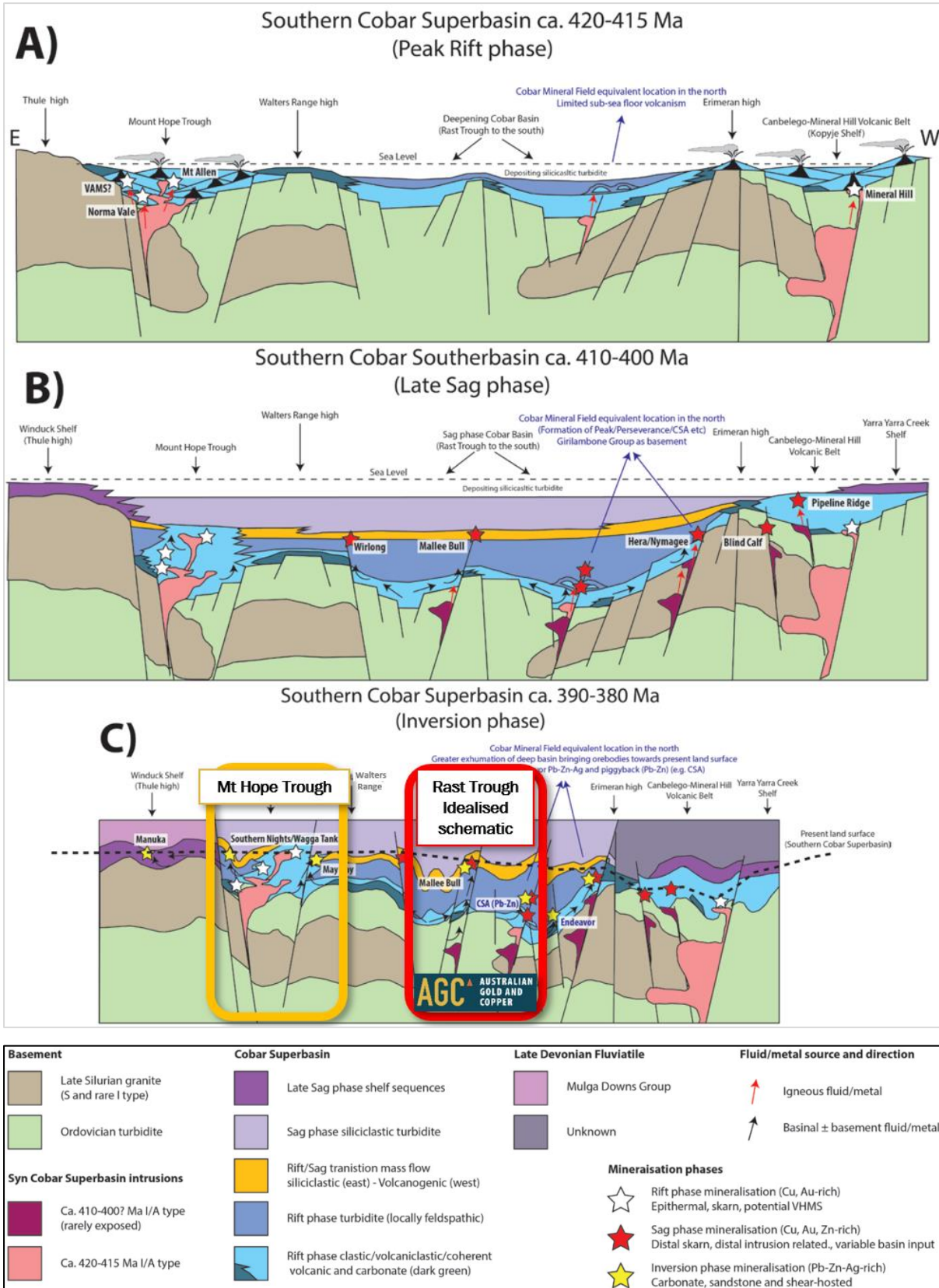


Figure 3: Schematic cross sections through the Cobar Basin showing the three phases of formation and timing of mineralisation, modified from Fitzherbert and Downes, 2020

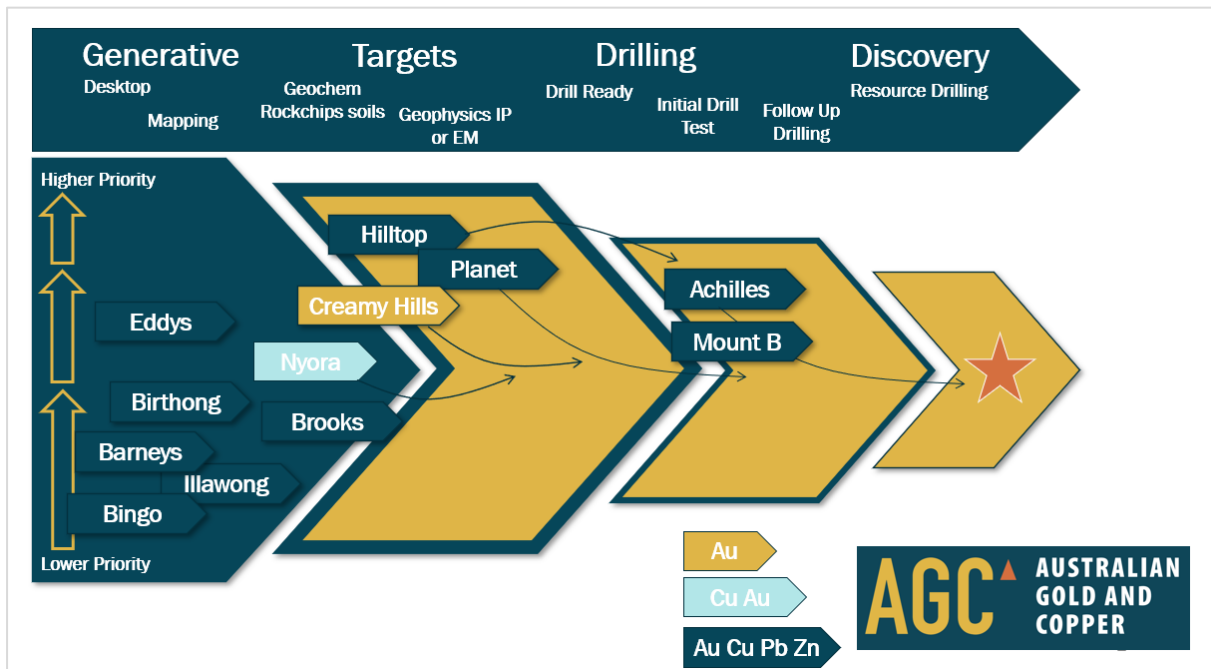


Figure 4: South Cobar Project target pipeline showing where each AGC target is ranked and its future pathway.

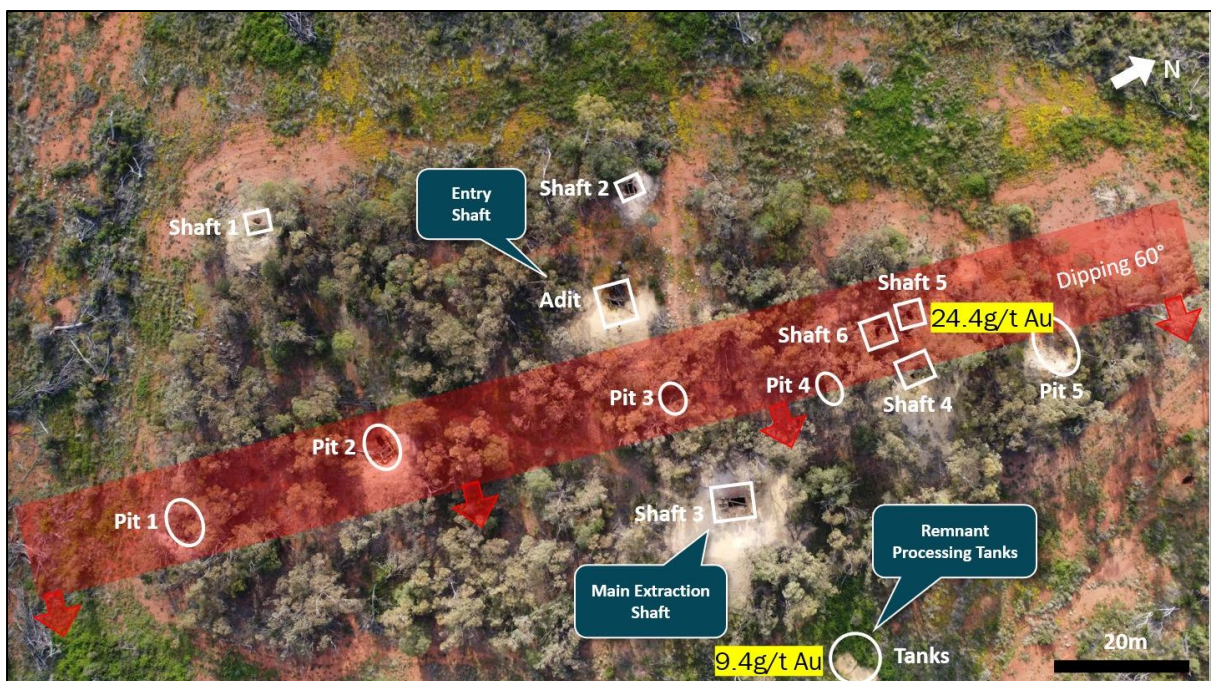


Figure 5: Drone photograph with annotated notes of mine workings with the potential gold zone projected to surface and the locations of the highest grade gold samples at Creamy Hills refer 2023 March 3 ASX AGC.



Figure 6: Prolific historic workings at the Creamy Hills Gold Mine, refer 2023 March 3 ASX AGC.



Figure 7: Flow banded felsic volcanic rocks from outcrop near the Achilles target showing quartz (white) chlorite (dark green) banding with volatile mineral fluorite (purple) in a quartz vein and squashed vesicles (air bubbles) filled with the sulphide mineral pyrrhotite and alteration mineral chlorite. These minerals demonstrate the fertile nature of these volcanic magmas refer Blevin, 2004.



Figure 8: Photographs of outcrop of strongly sericite-chlorite altered marine siltstones (Dssa) within volcanosedimentary rocks at the Planet trend. Top photo shows ex-pyrite in veins.



Figure 9: Photographs of outcrop with strongly sericite-chlorite altered marine siltstones (Dssa) within volcanosedimentary rocks along the Planet trend. Both exhibit boxworks after pyrite has oxidised out.



Figure 10 Photograph of AGC Geologists examining outcrops in a farmers excavation, Achilles trend (upper) and sampling dump material from an 80m deep haulage shaft at Creamy Hills Gold Mine (lower).



Figure 11 Photographs of the 350m long Round Hill rhyolite quarry open pit which is in AGC's Rast exploration licence EL9336 (upper and lower).

AGC Projects Overview

AGC's portfolio located in the Central Lachlan Fold Belt of NSW includes the Moorefield gold project exploring for multi-million ounce orogenic gold deposits, the Cargelligo copper-gold/base-metal project in the southern Cobar Super-Basin exploring for Hera and Federation style deposits, and the Gundagai gold project, exploring for multi-million ounce McPhillamy's type gold deposits.

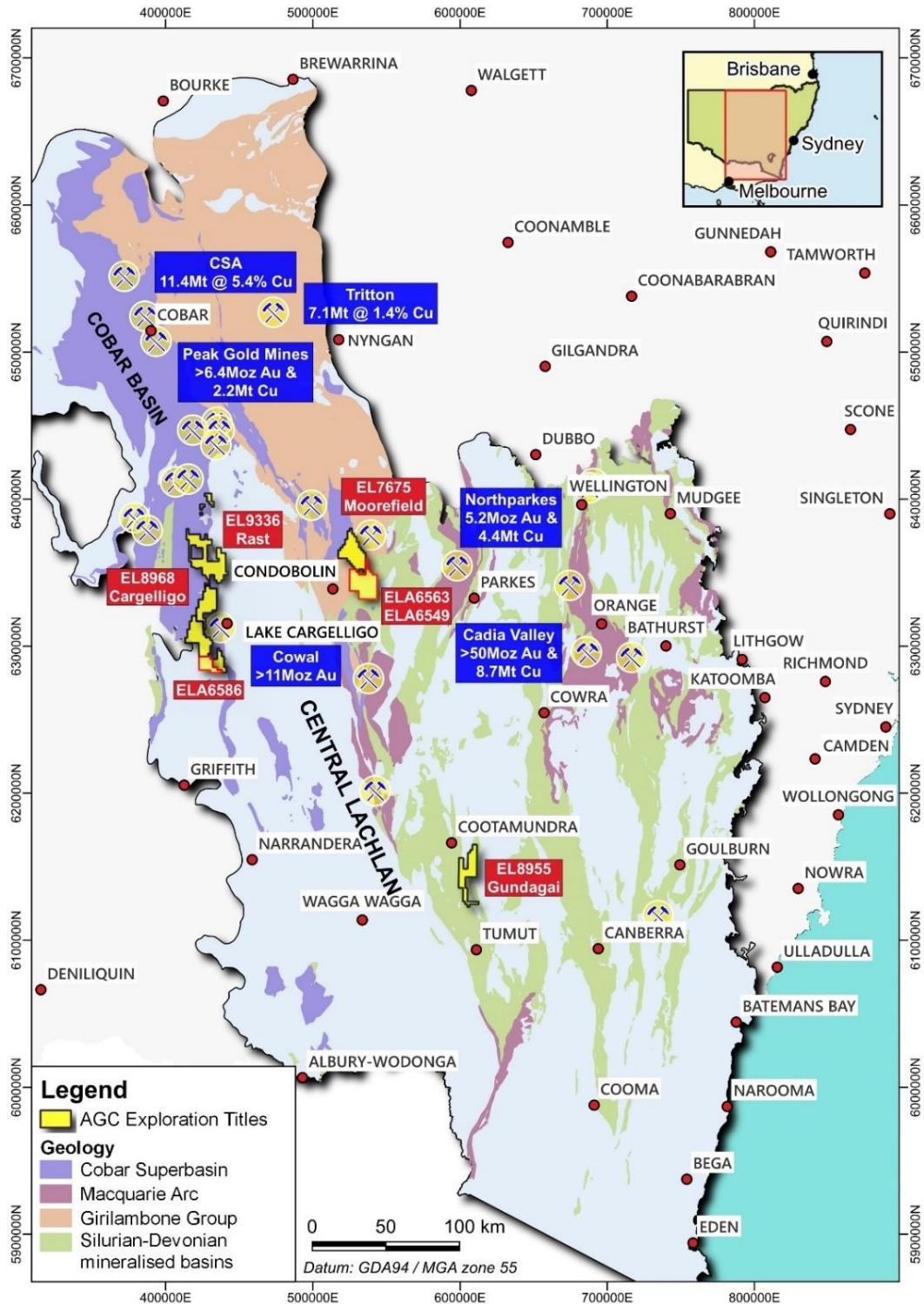


Figure 12. Location of the Cargelligo, Moorefield and Gundagai Projects in relation to major mines and deposits within the Lachlan Fold Belt., see p100 AGC ASX prospectus lodged 18th November 2020.

References

AGC ASX *Prospectus* lodged 18th November 2020 and appendixes within

AGC ASX 3 March 2023 *High grade historic gold mines discovered at South Cobar*

Blevin, P. 2004, *Chemistry of Igneous Rock Units on the Cargelligo* 1:250 000 Sheet, NSW. Geological Survey of New South Wales. Available at <https://search.geoscience.nsw.gov.au/report/R00048393>

Bull, K.F. and McPhie, J. 2006 *Facies architecture of the Early Devonian Ural Volcanics, New South Wales*, Australian Journal of Earth Sciences, 53(6), pp. 919–945. Available at: <https://doi.org/10.1080/08120090600686835>

David V., 2006 *Structural setting of mineral deposits in the Cobar Basin*, Doctor of Philosophy, Univ. of New England.

[Fitzherbert J. A., Downes, P. M., 2020, A mineral systems model for Cu-Au-Pb-Zn-Ag systems of the Cobar Basin, central Lachlan Orogen, New South Wales, GS2021/0042, R00034714, Dept. Regional NSW](#)

This announcement has been approved for release by the Board of AGC.

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Forward-Looking Statements

This announcement contains “forward-looking statements.” All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and based upon information currently available to the company and believed to have a reasonable basis. Although the company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and no assurance can be given that these expectations will prove to be correct as actual results or developments may differ materially from those projected in the forward-looking statements. Forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper, gold, and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. Readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. The forward-looking statements contained in this press release are made as of the date of this press release and except as may otherwise be required pursuant to applicable laws, the Company does not undertake any obligation to release publicly any revisions to any “forward-looking statement”.

Competent Persons Statement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Glen Diemar who is a member of the Australian Institute of Geoscientists. Mr Diemar is a full-time employee of Australian Gold and Copper Limited, and is a shareholder, however Mr Diemar believes this shareholding does not create a conflict of interest, and Mr Diemar has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Diemar consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

Previously Reported Information

The information in this report that references previously reported exploration results is extracted from the Company's ASX IPO Prospectus released on the date noted in the body of the text where that reference appears. The ASX IPO Prospectus is available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement