



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.”

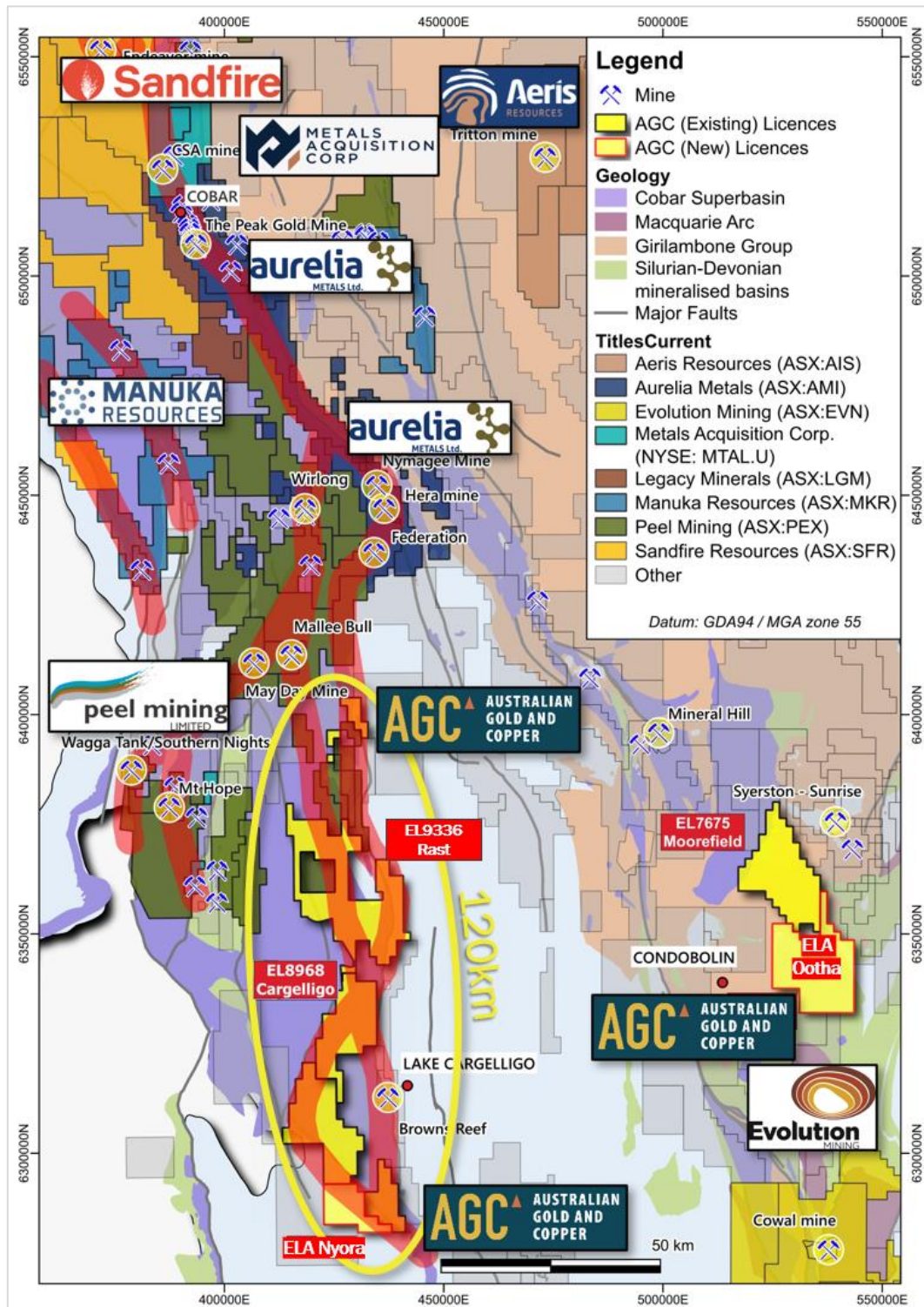


Figure 1: Cobar Basin geological map showing the recent major discoveries and mines. AGC exploration licences are highlighted in yellow with major fault and prospective trends in red.

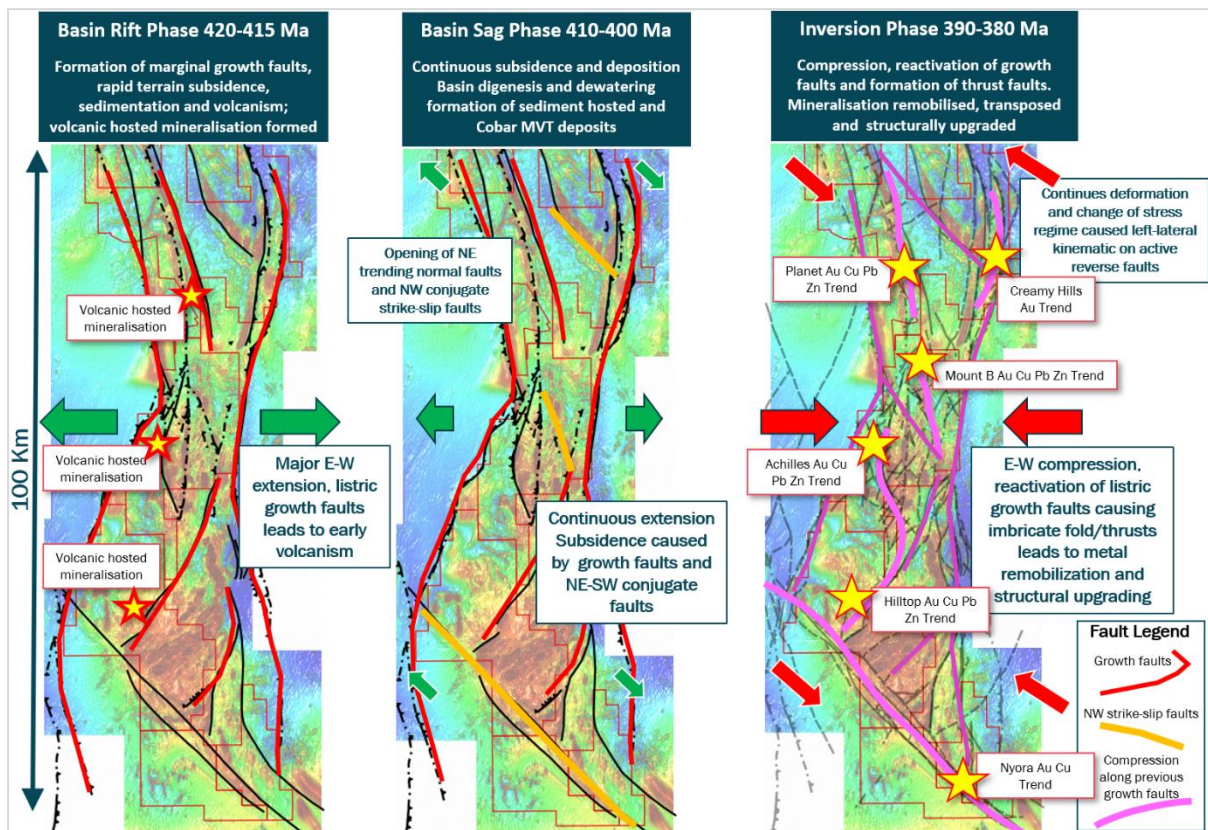


Figure 2: AGC's South Cobar Basin Project structural interpretation over the three time periods of basin and mineralisation formation. Background image is magnetics TMI RTP, with AGC's licences in thin red lines. Stars represent the 115 km prospective target horizons with known mineralisation being the 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).

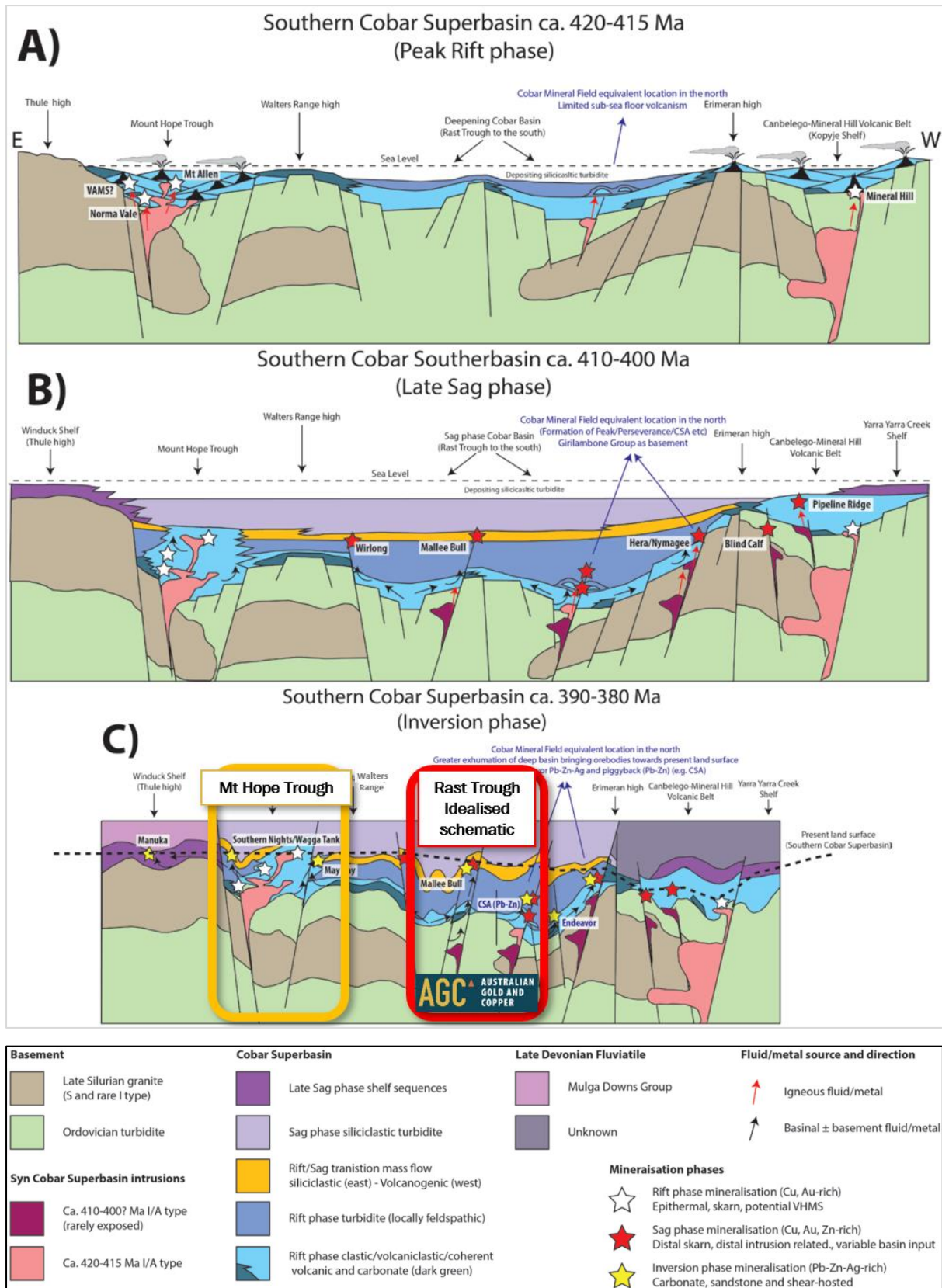


Figure 3: Schematic cross sections through the Cobar Basin showing the three phases of formation and timing of mineralisation, modified from Fitzherbert and Downes, 2020

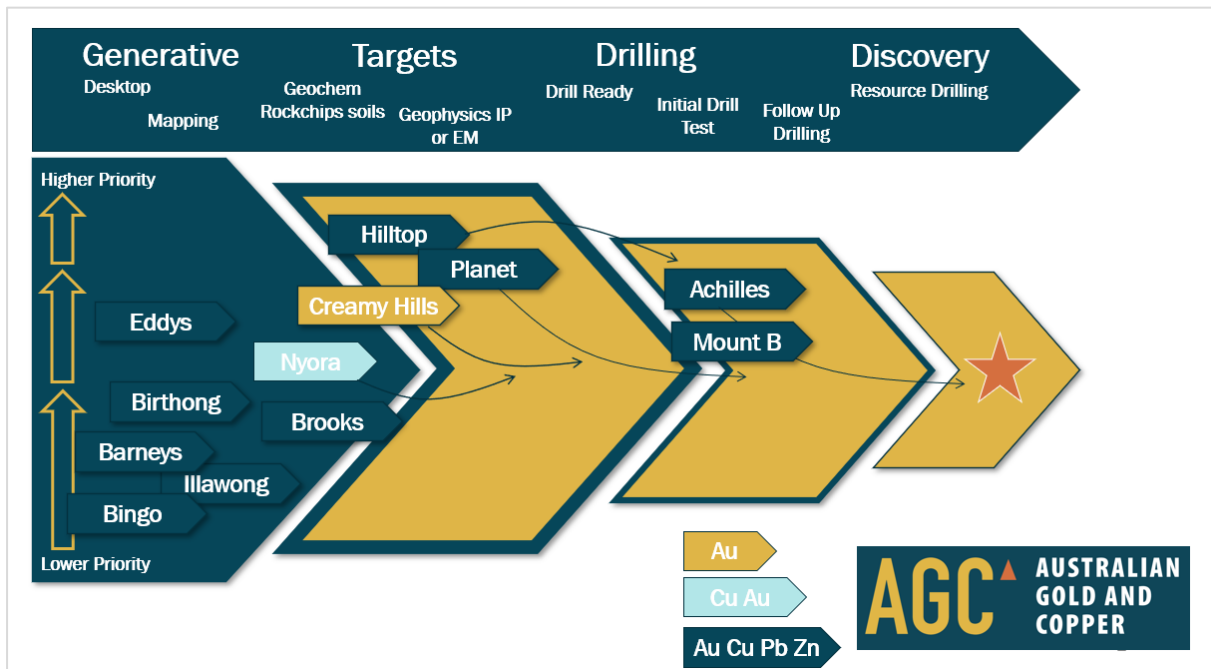


Figure 4: South Cobar Project target pipeline showing where each AGC target is ranked and its future pathway.

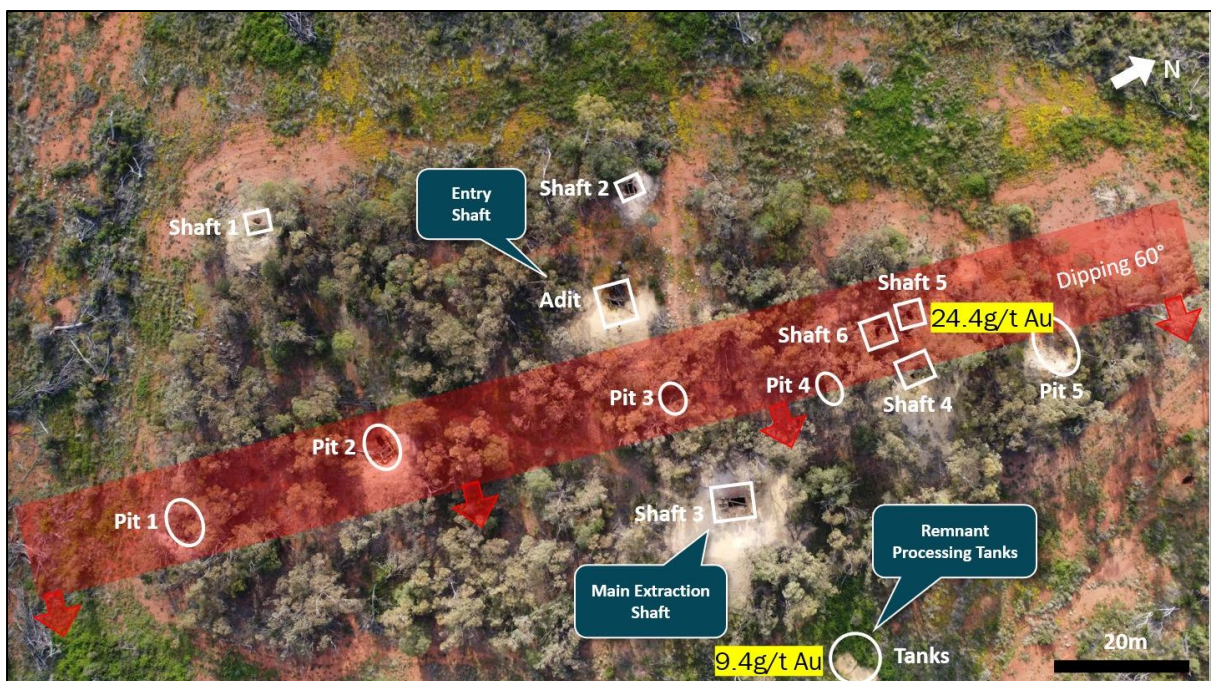


Figure 5: Drone photograph with annotated notes of mine workings with the potential gold zone projected to surface and the locations of the highest grade gold samples at Creamy Hills refer 2023 March 3 ASX AGC.



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

The rocks depicted in Figures 7 to 9, are photographs of rocks outcropping in the field on the Company’s exploration licences within the South Cobar Project and the photographs are not representative of the entire licence area and so caution is given around sample representivity. The rocks in the field in the photos are considered to contain negligible economic minerals. The rock specimens in the photographs are relatively small and indicative only, however appropriate for first pass exploration and in the aid to explain the geological setting being explored

Cautionary Note: Visual estimates of mineralisation

In relation to the photographs in figures 7 to 9, the rocks in the photographs are not being sampled or sent to a laboratory for analysis, they are included to aid in describing the geological observations and setting being explored. Minerals in these photographs are not considered economic minerals as they contain no economic elements such as copper or gold. Visual estimates of the abundances of these minerals are given however they are not deemed economic minerals, are not in drill core and are not representative of mineralisation.

We note any photographs of rocks may however be deemed a visual estimate of mineralisation. The Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the grade of the visible mineralisation reported. The Company will update the market when laboratory analytical results become available from other exploration activities conducted within the project.



Figure 7: Flow banded felsic volcanic rocks from outcrop (left and lower right 428025E, 6327588N) near the Achilles target showing 50% quartz (white) 49% chlorite (dark green) banding with 1% volatile mineral fluorite (purple) in a quartz vein. Top right photo (427562E, 6329036N) displaying squashed vesicles (air bubbles) filled with the iron sulphide mineral pyrrhotite 2% and alteration mineral chlorite 8% in grey quartz feldspar aphanitic groundmass. These uneconomic elements in fluorite and pyrrhotite are considered important in transporting mineralisation in hydrous magmas as they contain volatile elements and hence demonstrate the fertile nature of these volcanic magmas refer Blevin, 2004



Figure 8: Photographs of outcrop (top 429875E, 6346627N; lower 429854E, 6346609N) of strongly sericite-chlorite altered marine siltstones (Dssa) within volcanosedimentary rocks at the Planet trend. Top photo shows ex-pyrite in veins to 5%. Pyrite is not a mineral of economic interest, rather in this setting it is a mineral indicating the presence of hydrothermal activity.



Figure 9: Photographs of outcrop (top 429877E, 6346640N; lower 429874E, 6346629N) with strongly sericite-chlorite altered marine siltstones (Dssa) within volcanosedimentary rocks along the Planet trend. Both exhibit boxworks after pyrite 5% has oxidised out. Pyrite is not a mineral of economic interest, rather in this setting it is a mineral indicating the presence of hydrothermal activity.



Figure 10 Photograph of AGC Geologists examining outcrops in a farmer's 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.

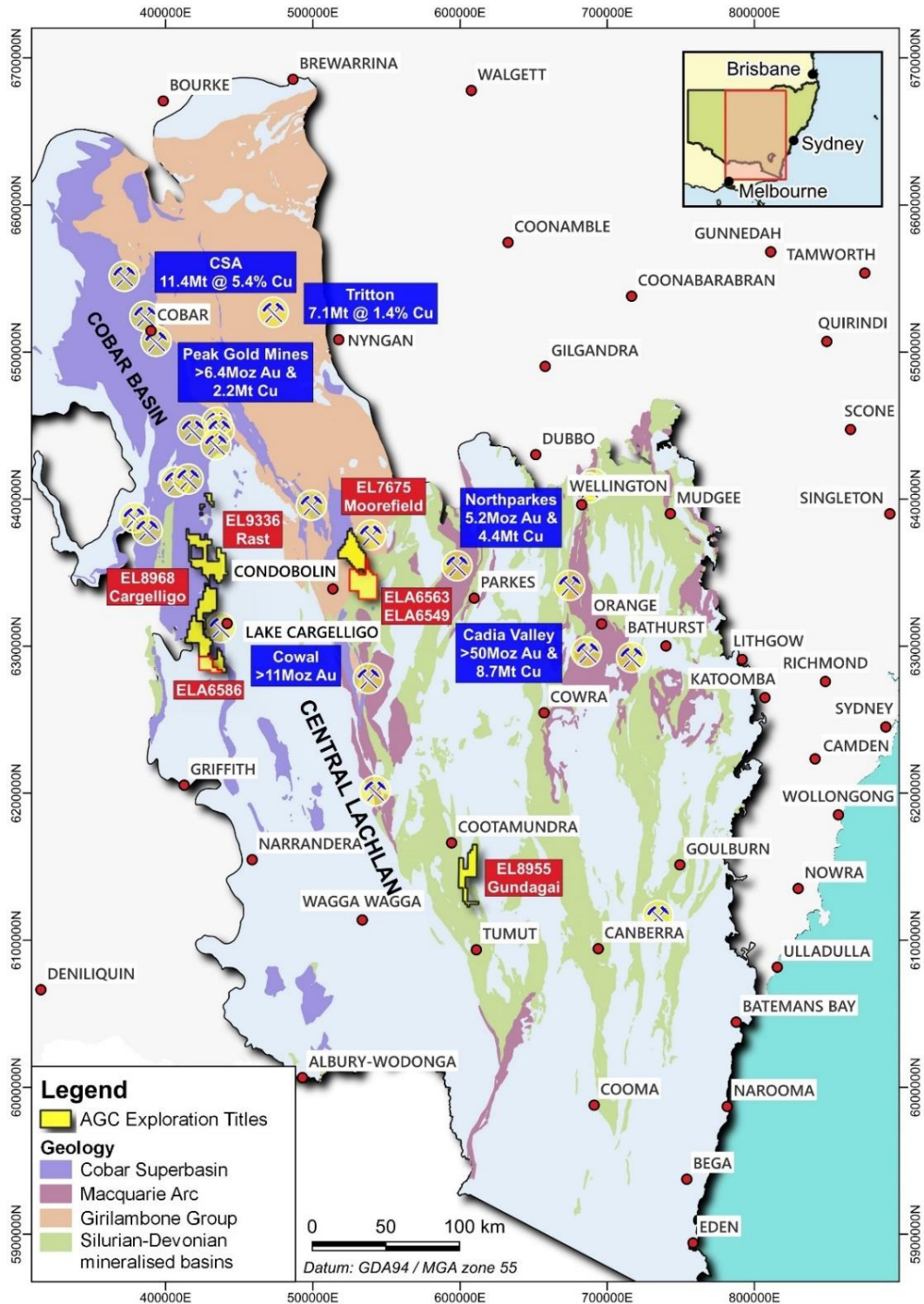


Figure 12. Location of the Cargelligo, Moorefield and Gundagai Projects in relation to major mines and deposits within the Lachlan Fold Belt., see p100 AGC ASX prospectus lodged 18th November 2020.

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.

ENDS

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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”.

Cautionary Note: Visual estimates of mineralisation

In relation to the photographs in Figures 7 to 9, the rocks in the photographs are not being sampled or sent to a laboratory for analysis, they are included to aid in describing the geological observations and setting being explored. Minerals in these photographs are not considered economic minerals as they contain no economic elements such as copper or gold. Visual estimates of the abundances of these minerals are given however they are not deemed economic minerals, are not in drill core and are not representative of mineralisation.

We note that any photographs of rocks may however may be deemed a visual estimate of mineralisation. The Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the grade of the visible mineralisation reported. The Company will update the market when laboratory analytical results become available from other exploration activities conducted within the project.

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

Appendix 1 – JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data: **South Cobar Project, reporting photograph of field rocks only, no assays, no economic minerals.**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg 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.</i>	Photographs of rocks in the field which are considered to contain no economic minerals. The rocks were not being sampled, nor are they being sent to a laboratory. They are being described in order to inform the reader of the geological setting.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	The rocks were outcropping in the field on the Companies exploration licences within the South Cobar Project. The photographs are not representative of the entire licence area and caution is given around sample representivity. They are not calibrated.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. 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.</i>	The rocks in the field in the photos are considered to contain negligible economic minerals. Visual estimates of grade cannot be given for minerals containing negligible economic elements.
Drilling techniques	<i>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).</i>	No drilling was completed.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No drilling was completed.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No drilling was completed.

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	No drilling was completed
Logging	<i>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.</i>	No drilling was completed
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	The rocks were described qualitatively (discretionary)
	<i>The total length and percentage of the relevant intersections logged.</i>	No drilling was completed
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No drilling was completed
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Laboratory sampling was not completed
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Laboratory sampling was not undertaken
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Laboratory sampling was not undertaken
	<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>	Sampling was not undertaken
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The rock specimens in the photographs are relatively small and indicative only however appropriate for first pass exploration and in the aid to explain the geological setting being explored.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Not applicable: Lab data not being reported
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make</i>	None being reported

Criteria	JORC Code explanation	Commentary
	<i>and model, reading times, calibrations factors applied and their derivation, etc.</i>	
	<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>	Assays not reported
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	NA – Lab assays not reported
	<i>The use of twinned holes.</i>	Nil
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	NA – Lab assays not reported
	<i>Discuss any adjustment to assay data.</i>	No adjustments made
Location of data points	<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>	Not applicable
	<i>Specification of the grid system used.</i>	Map Grid of Australia 1994 Zone 55.
	<i>Quality and adequacy of topographic control.</i>	No topographic data used
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Not applicable
	<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>	Not applicable
	<i>Whether sample compositing has been applied.</i>	Not applicable, samples not taken or reported
Orientation of data in relation	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	NA – Lab assays not reported

Criteria	JORC Code explanation	Commentary
<i>to geological structure</i>	<i>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.</i>	No drilling was completed
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	NA – Lab assays not reported
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or review are warranted at this stage

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<p><i>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.</i></p> <p><i>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.</i></p>	See body of text
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Not applicable
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	See body of text including the cautionary statements
<i>Drill hole Information</i>	<p><i>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:</i></p> <ul style="list-style-type: none"> <i>• easting and northing of the drill hole collar</i> <i>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>• dip and azimuth of the hole</i> <i>• down hole length and interception depth</i> <i>• hole length.</i> 	No drilling or laboratory analysis was completed
	<i>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</i>	Not applicable

Criteria	JORC Code explanation	Commentary
	<i>understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<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>	Not applicable due to no laboratory assays announced.
	<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>	Not applicable, no laboratory assays announced
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable, no laboratory assays announced
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not applicable, no laboratory assays announced
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Not applicable, mineralisation is not being reported
	<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>	Not applicable, no laboratory assays announced
Diagrams	<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>	See body of report
Balanced reporting	<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>	Not applicable, no laboratory assays announced
Other substantive exploration data	<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>	Meaningful and material geological observations, as well as ideas and interpretations are the main concepts being given in the body of the report, the report is not reporting on mineralisation

Criteria	JORC Code explanation	Commentary
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	See body of report
	<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>	Maps are given as the major topic of this report