Australian Gold and Copper Ltd ACN 633 936 526



# Successful Maiden Drilling at Mount Boorithumble Southern Cobar Basin

**ASX ANNOUNCEMENT** 

19 March 2021

- Another drill program completed at Cargelligo Project, at the Mt Boorithumble gold base-metal target, the third of seven, high priority, drill ready, gold and base metal targets in AGC's portfolio
- Drilling intersected multiple encouraging Cobar-style shear zones with alteration and weak base-metal sulphides observed, assays pending
- 1,075m RC drilled across six holes
- Mineralisation open along strike towards untested ground EM conductor
- Company is well-funded to deliver significant follow up drill programs across the Moorfield Project including Boxdale and Carlisle Reefs gold.

Australian Gold and Copper Ltd (ASX: AGC) ("AGC" or the "Company") is pleased to announce the completion of the Company's third Reverse Circulation (RC) drilling program since IPO. The drilling campaign was at the Cargelligo Project, testing the Mt Boorithumble gold and base-metal target with 1,075m drilled across six holes.

The drilling intersected multiple encouraging zones of alteration and weak base-metal sulphides hosted by shearing of volcanics and sediments. One of these zones was intersected along strike from a large ground EM conductor which is planned to be targeted in a second phase of drilling.

RC drill samples have been submitted to the laboratory in Orange NSW and will be reported upon once received.

Results from previous drilling at Pattons and Achilles 3 are also pending and expected in the coming weeks.

### **About Mount Boorithumble**

Mount Boorithumble is one of three "Hera/Federation style" targets within the Cargelligo licence (EL8968) which include Achilles 2, Achilles 3 and Mount Boorithumble, and are located in the Southern Cobar Basin, south of the recent Federation discovery and Hera mine along the eastern margin of the Cobar Basin (Figure 1), see *p100-117 AGC ASX prospectus lodged 18<sup>th</sup> November 2020*. These targets lie along a north striking shear zone.

As per the AGC ASX prospectus lodged 18<sup>th</sup> November 2020, AGC's near term plan is to move the rig as quickly as possible from discovery focused target to target with RC drilling of seven near surface gold and copper targets.





Figure 1. Location of the Cargelligo Project in relation to the Company's Moorefield Project and major mines and deposits within the Central Lachlan Fold Belt., see p100 AGC ASX prospectus lodged 18<sup>th</sup> November 2020.

Hole ID	Туре	End of Hole (m)	East	North	RL	Dip	Az
MBRC001	RC	150	429469	6337336	164	-60°	270°
MBRC002	RC	156	429310	6337427	165	-60°	270°
MBRC003	RC	210	429589	6337354	172	-70°	90°
MBRC004	RC	211	429581	6337352	169	-60°	280°
MBRC005	RC	198	429997	6337314	190	-60°	270°
MBRC006	RC	150	429323	6337584	168	-70°	260°

Table 1: Mt Boorithumble RC drill collar details for MBRC001-MBRC006 (	(WGS84)	1
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**References:** 

AGC ASX prospectus lodged 18th November 2020

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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 forwardlooking statements contain 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 announcements.

## Appendix I – JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	1m samples were collected via reverse circulation (RC) drilling using a cyclone splitter. Samples were mostly dry and sample loss was minimal. Sample weights were recorded on site using digital scales for each calico sample. Reference chips for each meter were stored in chip trays. Magnetic susceptibility was recorded from the calico bag for each meter by a KT-10 mag sus meter.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Standards and duplicates were inserted every 50 meters
	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.	Mineralisation is visually reported but is not yet determined by laboratory analysis. However the holes were geologically logged and the magnetic susceptibility was recorded from the calico bag for each meter by a KT-10 mag sus meter. Samples have however been sent to a laboratory and will be reported upon once results are received.
Drilling techniques	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).	5.5 inch reverse circulation (RC) drilling,
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample weights were recorded on site using digital scales for each calico sample. Recoveries were generally good however a small number of samples were wet and recorded poorer recoveries. The start of every 6m run also records a small sample loss due to removing water from the hole while drilling.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Sample sizes were monitored and the cyclone was regularly agitated to reduce the potential for sample contamination

### Section 1 Sampling Techniques and Data: Cargelligo Project, Mt Boorithumble RC Drilling, reporting geology only, no assays.

Criteria	JORC Code explanation	Commentary
	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.	Not applicable: Geochemical assays not yet reported
Logging	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.	Chip samples were geologically logged for lithology, mineralisation, veining and alteration. Structure could not be logged.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging was generally qualitative except for % sulphides estimates. Photographs taken as records.
	The total length and percentage of the relevant intersections logged.	All samples were logged
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were separated and collected via a cyclone splitter on the rig.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Mag sus was recorded on site directly on the 2-3kg calico sample bag as this was the most homogenous sample. The calico was submitted to the laboratory for assays.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicates were sampled approximately every 50m
	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.	Duplicates were sampled approximately every 50m
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The samples sizes of around 3kg per meter were appropriate for the fine grain nature of the volcanic and sedimentary material being sampled
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable: Lab data not being reported
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make	Magnetic susceptibility was recorded from the calico bag for each meter by a Terraplus KT-10 magnetic susceptibility meter.

Criteria	JORC Code explanation	Commentary
	and model, reading times, calibrations factors applied and their derivation, etc.	
	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.	Appropriate standards and duplicates were inserted into the sample stream. Magnetic susceptibility readings were taken in isolation away from any other material. Acceptable levels of accuracy for the magsus readings were established and readings were consistent or repeated if not.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The raw magsus data was reviewed by numerous company personal however was not warranted being reported in this report. Assays will be reported on once received.
	The use of twinned holes.	Twinned holes were not completed.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Magsus data was recorded onto a hand held device and downloaded into a field laptop. Logging was completed directly into a field computer. Visual validation as well as numerical validation was completed by two or more geologists. A pXRF was used on selected intervals to validate field observations, particularly where base-metals sulphides were observed.
	Discuss any adjustment to assay data.	No adjustments made
Location of data points	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.	A handheld Garmin GPSmap was used to pick up collars with an averaged accuracy of 1m.
	Specification of the grid system used.	Coordinates picked up using WGS84 and transformed into Map Grid of Australia 1994 Zone 55.
	Quality and adequacy of topographic control.	Using government data topography and 2017 DTM data
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill holes were preferentially located to most prospective areas.
	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.	Not applicable: Mineralisation yet to be determined
	Whether sample compositing has been applied.	Νο

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of sampling was designed to achieve relatively unbiased sampling. Holes were designed to drill across stratigraphy and faulting to best gain true widths.
Structure	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.	Most drilling dipped at 60° towards west and the targeted horizon is interpreted to be near vertical or steeply to the east. Holes were designed to intercept as close to perpendicular to mineralisation to best gain near true widths.
Sample security	The measures taken to ensure sample security.	Calicos were weighed on site during the logging and sampling process. This weight will be compared with the laboratory weights as a method to check sample security and integrity. Five calicos were placed into each polyweave bag and zip tied. Samples were driven to the lab by full time and contracted field staff only.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or review are warranted at this stage

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	EL8968 Cargelligo licence is located 20km north of Lake Cargelligo NSW. The tenement is held by Australian Gold and Copper Ltd. Ground activity and security of tenure are governed by the NSW State government via the Mining Act 1992. Land access was granted.
	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.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The RC drilling was planned by Australian Gold and Copper exploration staff in consultation with our geophysical Consultant Peter Gidley of Eureka Geophysics Pty Ltd, Kate Hine of Mitre Geophysics and drilling contractor Durock Drilling. Previous to AGC, private explorer New South Resources developed the concepts of the targets and ground truthed by compiling quality work completed by previous explorers Thomson Resources and WPG Resources.
Geology	Deposit type, geological setting and style of mineralisation.	See body of report and ASX AGC IPO prospectus.
Drill hole Information	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:	See table 1 in the body of the article

Criteria	JORC Code explanation	Commentary
	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul>	
	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 understanding of the report, the Competent Person should clearly explain why this is the case.	Not applicable
Data aggregation methods	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.	Not applicable due to no laboratory assays announced.
	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.	Not applicable, no laboratory assays announced
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable, no laboratory assays announced
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	Not applicable, no laboratory assays announced
widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Most drilling dipped at 60° towards west and the targeted horizon is interpreted to be near vertical or steeply to the east. Holes were designed to intercept as close to perpendicular to mineralisation to best gain near true widths, however assays not yet reported.
	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').	Not applicable, no laboratory assays announced
Diagrams	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.	Not applicable, no laboratory assays announced

Criteria	JORC Code explanation	Commentary
Balanced reporting	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.	Not applicable, no laboratory assays announced
Other substantive exploration data	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.	The geological results are discussed in the body of the report and are not reporting mineralisation.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	See body of report.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable, no laboratory assays announced