

Thursday, 06 May 2021

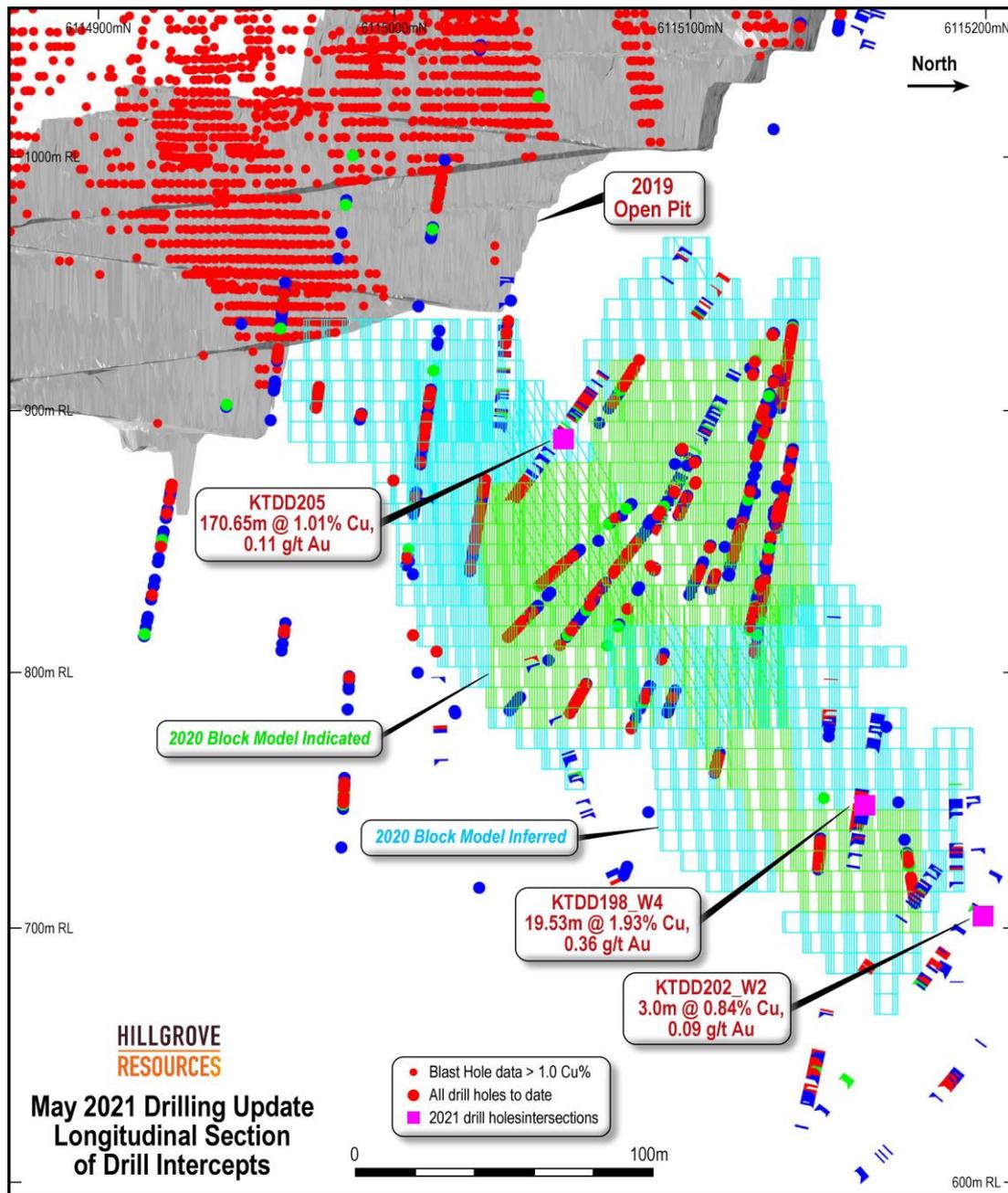
## HILLGROVE HITS 170M OF COPPER MINERALISATION AT KANMANTOO

### HIGHLIGHTS

- Assays for the next three drill holes have been received from recent diamond drilling of the Kavanagh Underground Cu-Au deposits at Kanmantoo, with all three drill holes intersecting Cu-Au mineralisation. The intersections clearly demonstrate the high copper grades of the Kavanagh Cu-Au lodes. Highlights from the Kavanagh drilling<sup>1</sup> include:
  - KTDD205 170.65m @ 1.01% Cu, 0.11 g/t Au from 339m downhole, including:**
    - 11.0m @ 1.65% Cu, 0.10 g/t Au, from 339.0m downhole, plus
    - 23.0m @ 2.48% Cu, 0.24 g/t Au, from 385.0m downhole, plus
    - 5.0m @ 1.86% Cu, 0.38 g/t Au, from 415.0m downhole, plus
    - 12.2m @ 1.89% Cu, 0.49 g/t Au, from 451.0m downhole, plus
    - 9.0m @ 1.94% Cu, 0.14 g/t Au, from 476.0m downhole, plus
    - 13.8m @ 2.06% Cu, 0.12 g/t Au, from 495.85m downhole
  - KTDD198\_W4 19.53m @ 1.93% Cu, 0.36 g/t Au from 463.0m downhole
  - KTDD202\_W2 3.00m @ 0.84% Cu, 0.09 g/t Au, from 530.0m downhole
- The multiple intersections in KTDD205 are structurally controlled. If internal low grade between each mineralised zone is included then the total mineralised envelope is 170.65m @ 1.01% Cu, 0.11 g/t Au from 339m downhole.
- In KTDD205, peak copper assay is 13.25% Cu over 1.05m from 495.85m downhole.
- The KTDD205 drill hole is dipping at -44deg to -38deg through the mineralised zones and true width is approximately 80% of the downhole lengths.
- The Cu-Au intersection in holes KTDD205 and KTDD198\_W4 are confirming and extending the widths of mineralisation classified as Inferred in the 2020 Mineral Resource Estimate.
- The drilling of the Kavanagh mineralisation is still in progress and further assays awaited.

<sup>1</sup> intersections at a 0.8% Cu cut-off grade over a minimum of 3m horizontal width.

Figure 1 Longitudinal section showing all Kavanagh drill hole intersections



Further to the announcement on 3 May 2021, Hillgrove Resources Limited (Hillgrove, the Company) (ASX:HGO) is pleased to provide the following Kanmantoo Underground drilling update, located 55kms southeast of Adelaide in South Australia and hosted within the Delamerian Orogen, host to the Stavelly porphyry Cu-Au mineral system.

A total of 26 diamond drill holes have been planned to be drilled into the Kavanagh Cu-Au mineralisation. To date, assays have been received for sixteen drill holes, for which assays for thirteen holes were reported on 3<sup>rd</sup> May and assay results for a further three holes are reported herein. A longitudinal section showing the location of these three intersections is presented in Figure 1, showing all Hillgrove diamond drill holes, and the Giant open pit blast hole data (at >1% Cu).

## HILLGROVE RESOURCES LIMITED

The exceptional number of copper-gold zones intersected in KTDD205 with extensive widths of lower grade copper mineralisation between the zones is a feature of the mineralisation in the Kavanagh area being drilled and has been noted in previous drill holes. The Company is investigating the impact of these zones and their attendant lower grade envelopes on grade-tonnage relationships and alternative underground mining opportunities.

Further details of the drilling are provided in Appendices A and B.

Commenting on the drilling results, Hillgrove CEO and Managing Director, Lachlan Wallace said:

*“The multiple high grade Cu-Au intersections in hole KTDD205 which aggregate to over 170m at 1.01% are an exciting development which, coupled with the rising copper price, provide opportunities to consider lowering cut-off grades to expand the potential mining inventory and optimise the existing plant and tailings storage capacity at the Kanmantoo site.”*

The next steps for the evaluation of the Kanmantoo underground Cu-Au mineralisation are as follows:

- Completion of the planned drilling program and receipt of all assays therefrom,
- Evaluation of the drill results for additional Cu-Au mineralisation opportunities,
- Completion of an updated mineral resource estimate, and
- Completion of gold metallurgical test work to increase gold recoveries.

For more information contact:

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## ABOUT HILLGROVE

Hillgrove is an Australian mining company listed on the Australian Securities Exchange (ASX: HGO) and focused on underground development at the Kanmantoo Copper Mine in South Australia and mineral exploration in the south-east of South Australia. The Kanmantoo Copper Mine is located less than 55 kilometres from Adelaide in South Australia.

### Competent Person's Statement

The information in this release that relates to the Exploration Results is based upon information compiled by Mr Peter Rolley, who is a Member of The Australian Institute of Geoscientists. Mr Rolley is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration 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 (JORC Code)'. Mr Rolley has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

**APPENDIX A**

The Kanmantoo diamond drilling program is being undertaken from the natural surface at a location near to the north-east end of the Giant open pit.

The three Kavanagh drill intersections reported herein were drilled from three different parent holes, from three different drill rigs, utilising conventional wedges and directional drilling techniques to achieve the desired intersection depths and targets.

It is important to note that the past and the current drill holes are all at various angles to section, and that the mineralisation strikes at ~015deg, dips at ~ -75deg east, and plunges at ~-70deg northeast.

Collar co-ordinates of the parent hole and of the hole lengths are provided in Table 1. Refer to Figure 1 for a location diagram.

**Table 1 Collars of reported drill holes (MGA94\_Zone 54)**

	East	North	Local Elevation	ASL Elevation	Total Depth	Wedge Start	Drill Length	Target Zone
KTDD198_W4	318482	6115142	1187.6	187.6	546.8	198.4	348.4	Confirm Inferred at 740RL
KTDD202_W2	318607	6115215	1180.0	180.0	661.1	361.6	299.5	Test north edge at 700RL
KTDD205	318481	6115141	1187.6	187.6	546.9	0.0	546.9	Confirm Inferred at 900RL
TOTAL (m's)							1194.8	

The diamond drilling is successfully intersecting the ore zones, with the use of navi-drilling to intersect the Cu-Au mineralisation within 10m laterally of target and within 20m vertically. Drilling rates are up to 72m of NQ2 per 12 hour shift, and core recovery is >99% and RQD is 98-100%. All core is being structurally logged to assist in understanding the local controls on the mineralisation. In addition, the core is logged for geotechnical quality to assist with future underground assessments.

Various samples will also be collected for metallurgical assessment, in particular to assess the possibility of improving the gold recoveries.



## Summary

The diamond drilling of the Kavanagh Cu-Au mineralisation is proceeding according to plan and budget. Drill results are currently consistent with previous drilling in the vicinity and are expected to enable updated mineral resource estimates to be undertaken at the completion of the full drill program.

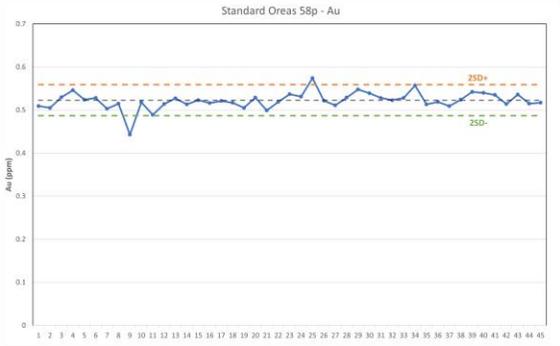
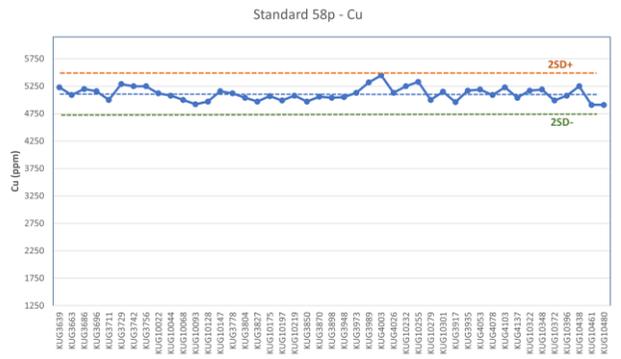
The wide higher grade copper intersections in drill holes of KTDD205 and KTDD198\_W4 show strong Cu-Au mineralisation and indicate that the mineralisation previously classified as Inferred can be confirmed.

Diamond drilling continues to test the down dip and lateral extensions of the Kavanagh mineralisation.

## APPENDIX B – JORC Table 1

## Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>The 2021 Diamond Drill Hole (DDH) sampling at Kanmantoo was conducted as per the Hillgrove Resources procedures and QAQC protocols.</li> <li>Sample intervals from 1.0m to 0.30m as determined by geology through visibly mineralised zones were split from the drill core, with the drill core sawn in half with a diamond core saw.</li> <li>Samples were prepared by ALS Adelaide with each sample being wholly pulverised to &gt;85% passing &lt;75µm.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>All drilling undertaken by external drilling contractor. HQ core as a precollar. Thence NQ drilling for all subsequent daughter holes at Kavanagh.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Recovered drill core metres were measured and compared to length of drill hole advance to calculate core recovery for every core run. On average sample recovery is &gt;98%. There is no correlation between sample recovery and copper grades in this DDH drill program.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>All drill core was logged for lithology, alteration, weathering and mineralisation by Hillgrove geologists in accordance with Hillgrove's Core Logging Procedure. Colour and any additional qualitative comments were also recorded.</li> <li>High quality photographs of all drill core before being sampled were taken under controlled light at the HGO core yard at Kanmantoo.</li> <li>All drill core is stored at Hillgrove's Kanmantoo core yard facility.</li> <li>All geological logging is recorded into Excel spread sheet templates and visually validated before being imported into the Hillgrove drill hole database. Additional validation is conducted automatically on import.</li> <li>In addition a structural log is recorded utilising the "base of core" orientation mark collected during diamond drilling.</li> <li>A geotechnical log is also recorded.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>For selected intervals the core was sawn in half and the half core despatched to ALS for each sample interval and the entire sample then crushed and 1kg riffle split from the crushed mass and the 1kg sub-sample then pulverised. A sub-split of 200 grams was then split by ALS and retained, and the reject pulverised material returned to Hillgrove. From the 200 gram sub-split a 2 gram aliquot was scooped and weighed by ALS for 4-acid digestion.</li> <li>Hillgrove have detailed sampling and QAQC procedures in place to ensure sample collection is carried out to maximise representivity of</li> </ul>

Criteria	Commentary
	the samples and minimise contamination, and maintain sample numbering integrity.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• All samples were submitted to ALS for analysis. ALS code ME-MS61 using a 4-acid digest with determination by Mass Spectrometry. If the copper result was greater than 1%, the analysis was repeated using a modified acid digestion technique.</li> <li>• Gold is assayed by 30g Fire Assay.</li> <li>• The QAQC of sample preparation and analysis processes were via the following samples:               <ul style="list-style-type: none"> <li>○ Certified reference materials (CRM's) inserted into the sample sequence at a frequency of one in 20. OREAS standards 58P, 504b, and 502b have been used to provide a grade range from 0.511 - 1.1% Cu, 2.09 - 3.07 Ag and 0.495 - 1.6 g/t Au. Examples of charts for OREAS 58B for Cu and Au are shown.</li> </ul> </li> </ul> <div style="display: flex; justify-content: space-around; align-items: flex-start;">   </div> <ul style="list-style-type: none"> <li>○ Results from all returned QAQC samples provide reasonable confidence as to the accuracy of the assay results used in the estimation. All CRM results all fall within the expected ranges.</li> <li>○ Laboratory inserted QAQC samples were inserted with a minimum of two standards and one blank for every batch of 40 samples.</li> </ul> <ul style="list-style-type: none"> <li>• Quartz flushes were introduced to the bowl pulverisers within every high sulphide interval and the flush material assayed. These are monitored and where Cu contamination of the quartz flush occurs the batch is repeated by the assay lab. For the holes reported there are no examples of sulphides contaminating successive samples via sample preparation processes.</li> <li>• Hillgrove's quality policy is that at a minimum of 5% of all samples are CRM's, and 5% of samples submitted are blanks thus ensuring that as a minimum, 10% of all samples submitted for analysis are Hillgrove QAQC samples.</li> </ul>
<i>Verification of</i>	<ul style="list-style-type: none"> <li>• Sample data sheets are prepared in Excel and printed for technicians use. All core is marked for sampling and confirmed by the logging</li> </ul>

Criteria	Commentary
<i>sampling and assaying</i>	geologist. Sample Sheets also include the sample number sequence and the sample numbers to be assigned to the QAQC samples. Sample intervals input from the excel spreadsheet into an SQL database via Datashed. Data was visually checked by the Geologist prior to import and additional validation was carried out by the database upon import. Copper results were reported in ppm units from the laboratories and then converted to a % value within the database.
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>The map projection of Map Grid of Australia 1994 - Zone 54, (MGA94-54) was used for all work undertaken for this drilling.</li> <li>All drill hole collars were surveyed with a Trimble survey station. The accuracy of this instrument is 0.01m. All pick-ups were reported in MGA94-54 coordinate system. Downhole surveys were determined using a gyro survey instrument at 30m intervals. All holes were repeat surveyed for verification.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>See Tables 1 and 2, Figures 1 and 2 in the body of the text for drill hole locations.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>All holes are angled drill holes, dipping at -29 to -70deg towards 250 – 280deg (true). This is approximately normal to the observed strike of the mineralisation from in-pit mapping,</li> <li>Dominant mineralisation trends as measured from in-pit mapping are strike 015deg and dip -75deg to east.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>A Hillgrove employee is present for the collection of core trays from the DDH rig and is also responsible for collecting and organising the samples ready for assay. Hillgrove has a detailed sample collection/submission procedure in place to ensure sample security.</li> <li>Drill core is transported in covered trays from the drill site to Hillgrove’s core yard at Kanmantoo in Hillgrove vehicles under the supervision of Hillgrove staff.</li> <li>Transport of the half-sawn drill core samples is by dedicated road transport to the Adelaide sample preparation facility. All samples are transported in sealed plastic bags and are accompanied by (either paper form or by email) a detailed sample submission form.</li> <li>On receiving a batch of samples, the receiving laboratory checks received samples against a sample dispatch sheet supplied by Hillgrove personnel. On completion of this check a sample reconciliation report is provided for each batch received.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>There has not been an external review of this DDH drilling program. Previous audits of the Hillgrove sampling methods were reviewed by independent consultant in 2008 and were considered to be of a very high standard.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Kanmantoo Cu-Au mine is situated 55kms south-east of Adelaide on Mining Lease ML6345 and is owned 100% by Hillgrove Resources Limited (HGO).</li> <li>HGO owns the land covered by the Mining Lease.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Hillgrove Resources commenced exploration drilling in 2004 and since then has completed a number of exploration sampling and mapping campaigns which have resulted in defining the drill targets. The Table 1 of the 2019 and 2020 Kanmantoo drilling was reported on 10 October 2019 and 3 September 2020 respectively.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Mineralisation occurs as a complex system of structurally controlled veins and disseminations of chalcopyrite, pyrrhotite, pyrite, magnetite, within a quartz + biotite + andalusite ± garnet ± chlorite +/- staurolite schist host rock. Structural studies suggest the mineralisation is within brittle structures that have been multiply re-activated.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Drill collars, surveys, intercepts are reported in the body of this release.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Intercepts tabulated in the body of the report are amalgamated over a minimum down hole length of 3.5m &gt; 0.8% Cu with a maximum of 2m internal dilution &lt; 0.6% Cu. No assays were cut before amalgamating for the intercept calculation.</li> <li>No metal equivalent values have been reported.</li> </ul>
<i>Mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Table of downhole mineralised intercepts is reported in the body of this release.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams that are relevant to this release have been included in the body of the release.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>All drill holes have been reported.</li> </ul>
<i>Other exploration data</i>	<ul style="list-style-type: none"> <li>In situ rock density has been measured by wet immersion method to assess if there is a correlation between Cu grade and rock density. The results indicate that the bulk rock density of 3.09t/m<sup>3</sup> as used by the mine site for the past 8 years is still a reasonable representation of bulk density for all mineralisation.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Geological interpretation of the geology and assays to estimate a resource suitable for underground evaluation studies.</li> </ul>