

Monday, 3 July 2023

CU-AU ZONES EXTENDED IN SOUTH HUB DRILLING

HIGHLIGHTS

• Four drill holes from surface at Kanmantoo into the Emily Star lode system were recently completed. Drilling continued to intersect strongly mineralised alteration zones, hosting higher grade Cu-Au breccia zones and include¹:

٠	KTDD239	71.7m @ 0.89% Cu including;
		9.7m @ 1.29% Cu, 0.14 g/t Au from 135.6m downhole
		4.0m @ 2.9% Cu, 0.61 g/t Au from 159.3m downhole
		20.2m @ 1.7% Cu, 0.69 g/t Au from 178.8m downhole
•	KTDD239	8.4m @ 0.96% Cu, 0.06 g/t Au from 277.2m downhole
•	KTDD240	68.75m @ 0.9% Cu including;
		4.8m @ 1.39% Cu, 0.09 g/t Au from 169.5m downhole
		35.1m @ 1.29% Cu, 0.08 g/t Au from 192.2m downhole
•	KTDD240	3.35m @ 0.97% Cu, 0.05 g/t Au from 297m downhole
•	KTDD241	4.3m @ 1.31% Cu, 0.03 g/t Au from 120.7m downhole

- The drilling indicates that the Emily Star Cu-Au system has wide zones of mineralisation within which higher grade copper-gold zones occur. This is similar to the Kavanagh lode system which is the primary focus of the Stage 1 Kanmantoo Underground development.
- The drill results demonstrate the potential to expand the mine life and annual copper production at Kanmantoo with underground development at Emily Star as part of a broader South Hub expansion. Additional drilling is planned to evaluate the mining potential of South Hub.
- With the Kanmantoo Underground fully funded and on track to first copper production in early 2024, these drilling results continue to illustrate the growth potential at Kanmantoo.

For a plan of the location of the drilling, see Figure 1 and for the list of all drill results in this release, see Table 1.

¹ Intercepts tabulated in the Highlights table are amalgamated over a minimum down hole length of 2m > 0.4% Cu with a maximum of 2m internal dilution < 0.4% Cu. No assays were cut before amalgamating for the intercept calculation.



Hillgrove Resources Limited (Hillgrove, the Company) (ASX:HGO) is pleased to provide the following drilling update at its Kanmantoo Mine Lease located at Kanmantoo 55kms southeast of Adelaide in South Australia. In total, four diamond holes have been drilled to the end of May 2023 for 1,395.2 metres of drilling. Figure 1 shows the locations of the 2023 drill holes. Drilling has now been completed and all assays received.

The Emily Star mineralisation is located approximately 600 metres west of the Nugent Cu-Au zone and has been previously mined by a shallow open pit by Hillgrove in 2013-2015. These drill results (KTDD239-242) affirm the down dip continuity of multiple Cu-Au zones previously mined at Emily Star open pit down to 1065m RL (~120 metres below natural surface) and justify further drilling to determine the down-dip and strike extent of these Cu breccia zones.

The deepest Emily Star drill holes are now the recently drilled KTDD239 and KTDD240 with zones of Cu-Au mineralisation over 71m and 68m downhole widths respectively (true widths around 60m and 55m respectively). The mineralised zones in these drill holes are at approximately 1000m RL (local grid), compared to the deepest mineralisation at Kavanagh which continues to 400m RL.

Note that the underground decline (now in active development on the Kavanagh lodes) is currently at 890m RL and is only 570 metres from KTDD239 and KTDD240, and 170 metres below the base of the Emily Star open pit. These drill holes indicate that the Emily Star Cu-Au mineralised zone has at least 100m strike length and is open to the north and down plunge.

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

"The success of the 2023 drilling at Emily Star confirms the copper mineralisation continues below the base of the open pit and remains open down plunge and to the north along strike. Emily Star is a subset of the broader South Hub complex which continues to be reviewed as a potential additional work area.

With the Stage 1 underground fully funded and on track for first copper production in early 2024, the drilling highlights growth potential beyond the initial mine plan. We continue to have an amazing exploration strike rate with 158 mineralised intersections from 136 drill holes since drilling for the underground resources commenced in 2019, with each drilling program resulting in a material increase to the mineral resource estimate. This recent drilling provides confidence that future drilling will continue to expand the mineralisation footprint around the Stage 1 underground development and provide opportunities to grow both the mine life and annual copper production profile."



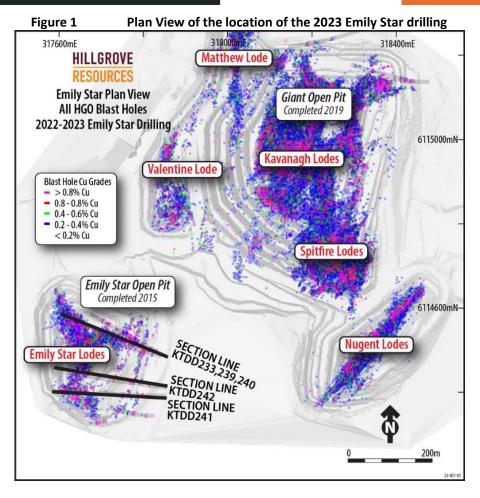


	Table 1	Table 1 List of drill intercepts in this release ²								
Hole ID	Ore Zone Target	Depth From	Depth To	Interval Length	Cu%	Au g/t				
KTDD239	Emily Star	132.7	204.4	71.7	0.89	0.26				
	incl	135.6	145.3	9.7	1.29	0.14				
	incl	159.3	163.3	4	2.9	0.61				
	incl	178.8	199	20.2	1.7	0.69				
KTDD239	Emily Star	277.2	285.6	8.4	0.96	0.06				
KTDD240	Emily Star	158.6	227.35	68.75	0.9	0.07				
	incl	158.6	161	2.4	3.1	0.42				
	incl	169.5	174.3	4.8	1.39	0.09				
	incl	192.2	227.35	35.1	1.29	0.08				
KTDD240	Emily Star	297	300.35	3.35	0.97	0.05				
KTDD241	Emily Star	120.7	125	4.3	1.31	0.03				
KTDD241	Emily Star	189.68	191.88	2.2	2.77	0.2				
KTDD242	Emily Star	160.25	161.31	1.38	4.5	0.27				
	-					1				

Table 1List of drill intercepts in this release2
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² Intercepts in Table 1 are amalgamated over a minimum down hole length of 2m > 0.4% Cu with a maximum of 2m internal dilution < 0.4% Cu. No assays were cut before amalgamating for the intercept calculation.

Hillgrove Resources Limited ACN 004 297 116



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.

The information in this report that relates to past Exploration and Drilling Results on the Kanmantoo project were initially reported by the Company to ASX on 26 May 2016, 10 October 2019, 3 September 2020, 3 May 2021, 6 May 2021, 24 June 2021, 26 August 2021, 1 September 2021, 21 March 2022, 6 May 2022 and 27 February 2023. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Exploration Results and the Resource Estimate in the relevant market announcement continue to apply and have not materially changed. 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.

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

Authorised for release by the Board of Hillgrove Resources Limited.

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APPENDIX A

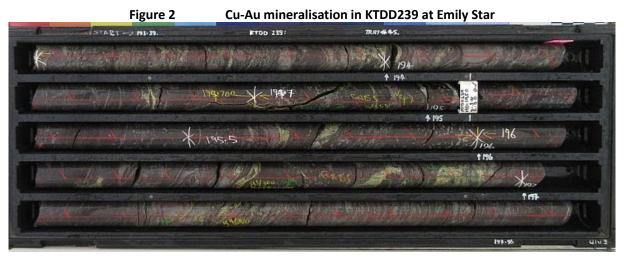
The 2022-23 diamond drilling program is being undertaken from within the Kanmantoo Mine Lease. All holes are collared and drilled using conventional HQ/NQ diamond drilling tools and navi-drilling as required to achieve the targets. Figure 1 shows a plan view of the locations of the drill holes.

Collar co-ordinates and downhole surveys of the holes reported in this release are provided in Table's 2 and 3 in Appendix B respectively. Appendix B also describes the drilling techniques and QA/QC processes.

Emily Star Drilling

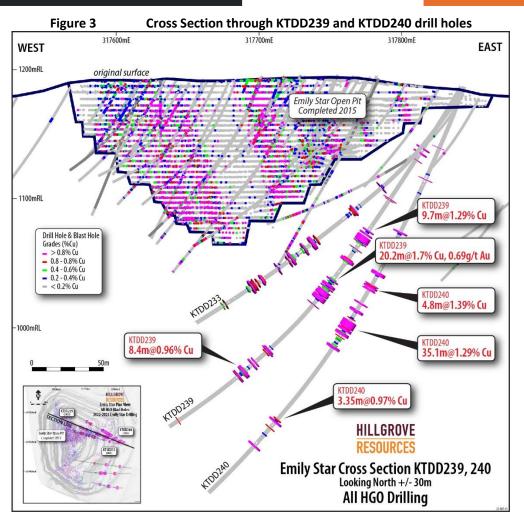
The 2023 Emily Star (KTDD239 to 242) drilling is successfully demonstrating the continuation of the Emily Star zones as intersected in the 2022-23 drilling and reported on 27 February 2023. The drill results continue to indicate that a significant zone of mineralisation continues down-dip from the previously mined Emily Star open pit (closed 2015) and these Cu-Au zones continue to justify further drilling to assess their significance to profitably contribute to the Kanmantoo underground mine plan. The Emily Star area is a significant key to the possible establishment of a South Hub underground mining operation and these drill holes confirm HGO's interest in this area.

Figure 2 provides an example of the Cu-Au breccia zone in KTDD239 at Emily Star from a downhole depth of 193.39m. The vein-breccia chalcopyrite-pyrrhotite is hosted in a biotite-garnet-chlorite schist. Note the excellent core recovery. Figures 3 to 5 are cross sections through these four drill holes and Figure 6 a long section.



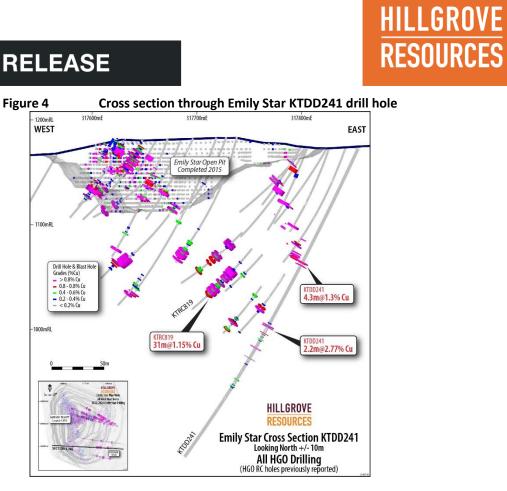
The interval 193.39 to 197.96m shown in this photo is an average of 4.57m @ 2.64% Cu, 0.20 g/t Au.



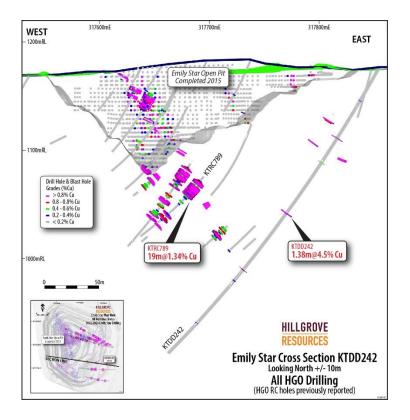


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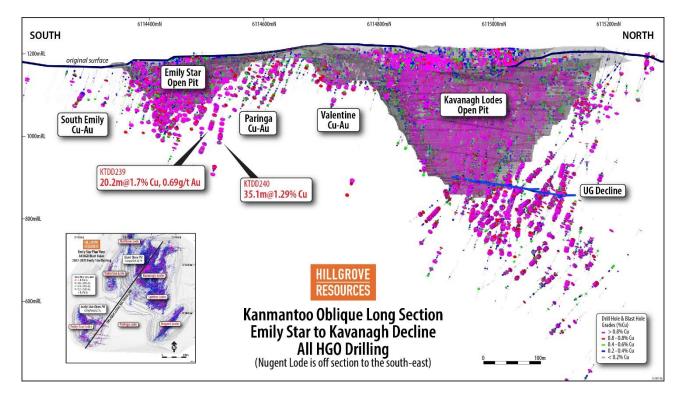


Figure 6 Longitudinal section of Emily Star drilling

Summary

These drilling results, as experienced in every drill program since 2018, continue to demonstrate that drilling is continuing to increase the footprint of the Cu-Au zones at Kanmantoo in preparation for expanding the opportunity for increasing copper production at Kanmantoo.

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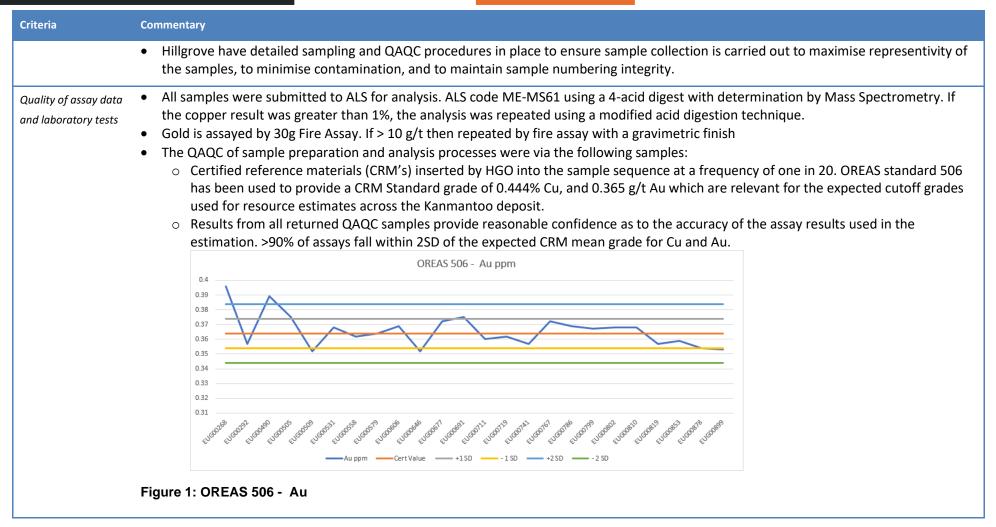


APPENDIX B – JORC Table 1

Section 1 Sar	npling Techniques and Data
Criteria	Commentary
Sampling techniques	 The 2023 Emily Star Diamond Drill Hole (DDH) sampling was conducted as per the Hillgrove Resources procedures and QAQC protocols. Sample intervals from 1.65m to 0.27m 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. Samples were prepared by ALS Adelaide with each sample being wholly pulverised to >85% passing <75µm.
Drilling techniques	• All drilling undertaken by external drilling contractor, DRC Drilling. Using HQ for collars to a maximum of 100m downhole and NQ drilling thereafter for all drilling holes. NQ Core size is 47.6mm in diameter.
Drill sample recovery	• 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 >98%. There is no correlation between sample recovery and copper grades in this DDH drill program.
Logging	 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. High quality photographs of all drill core before being sampled were taken under controlled light at the HGO core yard at Kanmantoo. All drill core is stored at Hillgrove's Kanmantoo core yard facility. All geological logging is recorded into LogChief (a database product from Maxwell Geosciences) templates and visually validated before being imported into the Hillgrove drill hole database. Additional validation is conducted automatically on import. In addition, a structural log of all drill core is recorded utilising the "base of core" orientation mark collected during diamond drilling to assist in understanding the local controls on the mineralisation. A geotechnical log of all drill core for UG mine planning is also recorded. RQD is 98-100%
Sub-sampling techniques and sample preparation	• 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.

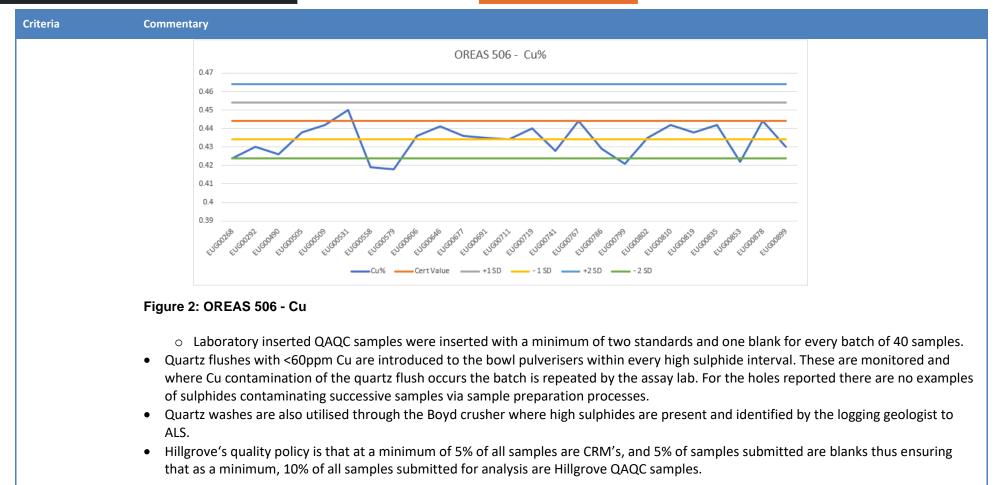
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Criteria	Commentary									
Verification of sampling and assaying	Sample data sheets are prepared in Log Chief and printed for technicians use. All core is marked for sampling and confirmed by the logging geologist. Sample Sheets also include the 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.									
Location of data points	All drill hale collers were surround with a Trimble surrou station. The assuracy of this instrument is 0.01m. All nick we were reported in									
	Hole_ID Max_Depth NAT_Grid_ID NAT_East NAT_North NAT_RL Local_RL									
	KTDD239 351 MGA94_54 317844 6114488 187 1187									
	KTDD240 375.1 MGA94_54 317847 6114489 187 1187									
	KTDD241 339.1 MGA94_54 317854 6114393 173 1173									
	KTDD242 330 MGA94_54 317856 6114411 178 1178									
	Table 3 Downhole survey data for the drill holes reported in this document (Azimuth is MGA94 Grid)									



riteria	Comment	tary														
	Hole_ID	Depth	Dip	NAT Azimuth	Hole ID	Depth	Dip	NAT Azim	Hole ID	Depth	Dip	NAT Azim	Hole ID	Depth	Dip	NAT_Azir
	KTDD239	0		-	KTDD240	0			KTDD241	0	-65		KTDD242	0		278.5
	KTDD239	3	-59.73		KTDD240	3	-69.79		KTDD241	3	-65.43	268.55	KTDD242	3	-60.76	277.1
	KTDD239	12	-59.58	291.25	KTDD240	12	-69.31	297.28	KTDD241	15	-64.85	269.32	KTDD242	12	-60.46	277.0
	KTDD239	24	-58.45	291.36	KTDD240	24	-68.26	297.9	KTDD241	27	-64.66	269.33	KTDD242	27	-59.82	277.3
	KTDD239	36	-57.91	291.17	KTDD240	33	-67.15	297.56	KTDD241	39	-64.46	269.57	KTDD242	36	-59.5	277.9
	KTDD239	48	-57.33	290.49	KTDD240	36	-66.88	296.55	KTDD241	51	-64.08	269.92	KTDD242	48	-59.02	278.3
	KTDD239	60	-56.97	291.24	KTDD240	42	-66.86	296.89	KTDD241	63	-63.79	269.78	KTDD242	60	-58.49	277.8
	KTDD239	72	-56.86	291.08	KTDD240	48	-66.69	296.52	KTDD241	75	-63.49	270.55	KTDD242	72	-57.85	277.9
	KTDD239	84	-56.73	291.05	KTDD240	51	-66.73	296.88	KTDD241	87	-63.2	269.36	KTDD242	84	-57.56	277.0
	KTDD239	96	-56.44	291.11	KTDD240	63	-66.26	297.09	KTDD241	99	-63.07	271.05	KTDD242	96	-57.03	278.6
	KTDD239	102	-56.35	291.6	KTDD240	75	-65.72	297.91	KTDD241	111	-62.81	270.32	KTDD242	108	-56.69	277.8
	KTDD239	114	-55.96	291.27	KTDD240	87	-65.13	298.3	KTDD241	123	-62.59	270.39	KTDD242	120	-55.82	278.1
	KTDD239	126	-55.43	290.87	KTDD240	99	-64.48	298.82	KTDD241	135	-62.27	271.86	KTDD242	132	-55.19	278.0
	KTDD239	138	-54.56	290.43	KTDD240	111	-63.89	299.85	KTDD241	147	-61.94	272.12	KTDD242	144	-54.58	277.
	KTDD239	150	-54.42	291.08	KTDD240	123	-63.41	299.38	KTDD241	159	-61.63	272.78	KTDD242	156	-54.04	277.7
	KTDD239	162	-53.85	290.78	KTDD240	135	-62.46	300.27	KTDD241	171	-61.23	272.2	KTDD242	168	-53.68	277.3
	KTDD239	174	-53.04	290.21	KTDD240	147	-61.43	300.85	KTDD241	183	-61.23	271.21	KTDD242	180	-53.36	277.2
	KTDD239	186	-52.18	290.99	KTDD240	159	-60.29	300.85	KTDD241	195	-60.56	271.99	KTDD242	192	-52.77	277.6
	KTDD239	198	-50.6	290.77	KTDD240	171	-59.91	300.96	KTDD241	207	-60.02	272.67	KTDD242	204	-52.15	277.8
	KTDD239	210	-49.38	290.92	KTDD240	183	-59.15	301.26	KTDD241	219	-59.55	272.93	KTDD242	210	-51.78	277.7
	KTDD239	222	-46.55	291.51	KTDD240	195	-58.23	300.35	KTDD241	231	-59.05	273.48	KTDD242	219	-51.44	278.1
	KTDD239	231	-44.75	291.03	KTDD240	207	-57.36	300	KTDD241	243	-58.44	274.85	KTDD242	225	-50.83	277.3
	KTDD239	243	-43.22	290.81	KTDD240	219	-56.62	300.13	KTDD241	246	-58.28	274.58	KTDD242	240	-50.06	277.
	KTDD239	255	-42.11	291.06	KTDD240	231	-55.7	299.46	KTDD241	258	-57.78	273.08	KTDD242	252	-49.35	278.
	KTDD239	267	-40.86	291.24	KTDD240	243	-54.11	299.97	KTDD241	270	-57.09	275.42	KTDD242	264	-48.62	279.
	KTDD239	279	-39.86	290.73	KTDD240	255	-53.24	298.88	KTDD241	282	-56.42	275.95	KTDD242	282	-48.62	279.
	KTDD239	291	-38.89	290.37	KTDD240	267	-51.76	300.18	KTDD241	294	-55.71	275.6	KTDD242	297	-46.93	279.4
	KTDD239	303	-37.39	291.5	KTDD240	279	-50.02	298.84	KTDD241	306	-55.71	276.74	KTDD242	309	-46.3	281.7
	KTDD239	315	-35.94	292.92	KTDD240	291	-49.57	300.29	KTDD241	318	-54.89	277.34	KTDD242	321	-45.49	279.3
	KTDD239	327	-35.27	292.35	KTDD240	303	-49.17	299.16	KTDD241	330	-54.43	276.97				
	KTDD239	339	-34.28	293.07	KTDD240	315	-48.52	299.8								
	KTDD239	348	-33.42	291.85	KTDD240	327	-47.51	299.55								
					KTDD240	342	-46.34	301.13								
					KTDD240	351	-45.62	299.98								
					KTDD240											

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Criteria	Commentary
Data spacing and distribution	• See Table's 2 and 3 above and Figures 1 to 8 in the body of the text for drill hole locations.
Orientation of data in relation to geological structure	 All holes are angled drill holes, dipping between -69 to -33deg. All holes are oriented towards 270-301deg (MGA Grid North). All down hole surveys are by Reflex or Axis Gyro All core is oriented with a Reflex orientation tool where possible to do so. Dominant mineralisation trends as measured from in-pit mapping are strike 015deg and dip -75deg to east. It is important to note that current drill holes are all at various strike and dip angles to section, and that the true width varies for each intersection.
Sample security	 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. 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. 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. 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.
Audits or reviews	• There has not been an external review of this DDH drilling program. Previous audits of the Hillgrove sampling methods were reviewed by independent consultant and were considered to be of a very high standard.



Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	 The Kanmantoo Cu-Au mine is situated on Mining Lease ML6345 and is owned 100% by Hillgrove Resources Limited (HGO). HGO owns the land covered by the Mining Lease.
Exploration done by other parties	• 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.
Geology	 Mineralisation occurs as an epigenetic 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 re-activated.
Drill hole Information	Drill collars, surveys, intercepts are reported in the body of this release.
Data aggregation methods	 Intercepts tabulated in the body of the report are amalgamated over a minimum down hole length of 2m > 0.4% Cu with a maximum of 2m internal dilution < 0.4% Cu. No assays were cut before amalgamating for the intercept calculation. A Cu cutoff grade of 0.4% Cu is used in this release for reporting drill results as a result of the conclusions of the Economic Assessment Study (ASX release of 27 February 2023).
Mineralisation widths	Table of downhole mineralised intercepts is reported in the body of this release.
Diagrams	Diagrams that are relevant to this release have been included in the body of the release.
Balanced reporting	All drill holes have been reported.
Other exploration data	 Insitu rock density has been measured by wet immersion method. The results indicate that the bulk rock density of 3.1t/m3 as used at the Kavanagh mine site is still a reasonable representation of bulk density for all mineralisation.
Further work	Geological interpretation of the geology and assays to estimate a resource suitable for underground evaluation studies.

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