# **QUARTERLY REPORT**

# HILLGROVE RESOURCES

Hillgrove Resources Limited (ASX: HGO) report for the quarter ended 30 June 2022

# SUMMARY

#### **Kanmantoo Development**

- Following the successful drilling campaigns in Nugent and Kavanagh, updated Mineral Resource Estimates (MRE) have been compiled in both areas, increasing total copper metal at Kanmantoo by 13.4kt (21%) to 75.9kt.
- The proportion of Resources classified as Indicated and Measured increased from 67% to 76%.
- The updated MRE is expected to increase the mining inventory and geological confidence within the Stage 1 mine plan<sup>1</sup>.
- The underground development decline advanced to the first underground drill platform position.
- A further drilling campaign into the Spitfire lode from the underground drilling platform was completed during the quarter and will be released once assays have been returned.
- The underground mining equipment, including the Komatsu continuous miner, have been demobilised. The remaining \$1.2m of grant funding for the continuous miner trial was received from the South Australian Government during the quarter. In total \$2.0m of grant funding was received for the project, enabling the development of two portals, a portion of the exploration decline and the first drilling platform for modest cash outflow.
- Funding discussions for the Kanmantoo Underground restart remain ongoing. The Board is paying close attention to the recent volatility of the copper price and will consider the impact on the project economics in any investment decision.

Deposit	JORC 2012 Classification	Tonnage (kt)	Cu (%)	Au (g/t)	Cu Metal (kt)
	Measured	780	1.28	0.1	9.9
Kavanagh 2022	Indicated	3,640	1.03	0.06	38
(0.6% Cu COG)	Inferred	1,300	1	0.1	13
	Sub-Total	5,750	1.1	0.1	61
	Indicated	865	1.19	0.64	10.3
Nugent 2022 (0.7% Cu COG)	Inferred	400	1.1	0.3	5
(0.7% Cu COG)	Total	1,270	1.18	0.54	15
	Measured	780	1.28	0.1	9.9
Totals	Indicated	4,505	1.06	0.2	48
	Inferred	1,700	1	0.1	15
	Total	6,985	1.08	0.16	75.9

# Updated Mineral Resource Estimate<sup>2,3</sup>

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement 14 Dec 2021 Kanmantoo Underground Stage 1 Economic Assessment confirms outstanding potential

<sup>&</sup>lt;sup>2</sup> Refer ASX Announcement 11 May 2022 Updated Kavanagh Underground Mineral Resource Estimate

<sup>&</sup>lt;sup>3</sup> Refer ASX Announcement 26 Jul 2022 Updated Nugent Mineral Resource Estimate

### MANAGING DIRECTOR'S STATEMENT

"The opportunity at Kanmantoo continued to grow with the compilation of the Kavanagh and Nugent drilling programs which added a further 1.3M tonnes to the Resource base. As this information is brought into the mine plan it is expected that the mining inventory in the Stage 1 Mine Plan will increase. Furthermore, over 5.2Mt of resources are now classified as either Indicated or Measured (up from 3.7Mt), which materially improves the geological confidence of the resource estimate that underpins the Stage 1 Mine Plan.

The mineral resource estimates in both areas remain limited by the extent of the drilling and remain open along strike and down dip. Importantly, Kavanagh and Nugent are only two of nine deposits that have either been drilled or mined on the permitted mining lease. The next planned stage of exploration includes depth and strike extension drilling of the Kavanagh and Nugent lodes as immediate extensions of the plan, and to commence exploration on five of the other lodes within the permitted lease. Pending exploration success, we will seek to bring these lodes into the mine plan as additional work areas to increase annual throughput. The latent capacity in the process plant and tailings dam enables this to occur, without further processing capital expenditure or permitting.

The Komatsu continuous mining trial has been completed. Although we would have liked to see the technology cut more in the time it was on site, the underground development has been largely underwritten by the \$2m government grant and Komatsu, enabling us to get a better look at the geotechnical conditions, establish services at the portals, and commence early stope definition drilling, all of which de-risks the project and further reduces what is a very quick and low cost capital development. During the quarter, the Spitfire lode was drilled from the underground exploration drilling platform and I look forward to releasing these results once all assays have been returned.

Finally, as you will be aware, the copper price has decreased markedly in recent months and is yet to stabilise. Like all copper mining projects, we acknowledge current market conditions may affect financial and operational decisions. Even at the current prices the Kanmantoo Underground project remains robust due in large part to the established and permitted infrastructure which keeps the capital development very low relative to other copper projects. However, the copper price does impact the project economics and will be a key consideration in any investment decision."

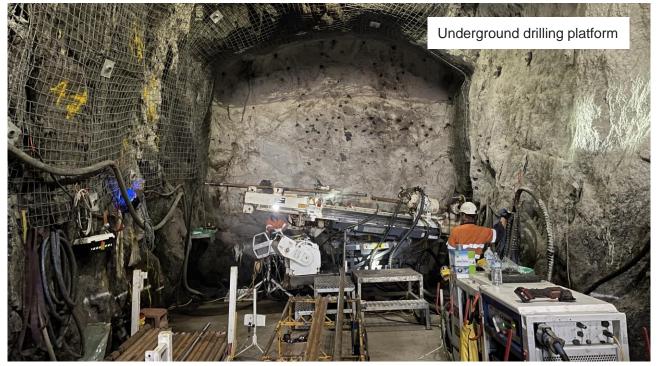


# **UNDERGROUND EXPLORATION & DEVELOPMENT**

#### Kanmantoo Underground Decline

The decline advanced to the first drilling platform and the initial 13m of the ventilation drive was completed during the quarter. The mining equipment, including the Komatsu MC51, was demobilised from site. The remaining \$1.2m of grant funding for the continuous miner trial was received from the South Australian Government during the quarter. In total \$2.0m of grant funding was received for the project, enabling the development of two portals, a portion of the exploration decline and the first drilling platform for modest cash outflow.





### **Nugent Resource Drilling**

The Nugent surface drilling program was completed, and assays received during the quarter, with 23 of 24 holes intersecting the Nugent Cu-Au lode system and demonstrating the continuity and Cu-Au endowment of the system.

Highlights include:

•	KTDD230	14.5m @ 1.60% Cu, 0.34 g/t Au from 175m downhole		
	Including	3.0m @ 5.17% Cu, 1.27 g/t Au from 175m, and		
		14.8m @ 0.87% Cu 0.69 g/t Au from 252.2m		

- KTDD224 16.55m @ 1.22% Cu, 0.43 g/t Au from 229.05m
- KTDD231 9.15m @ 1.4% Cu, 1.09 g/t Au from 289m downhole
- KTDD215 9.2m @ 1.44% Cu, 0.81 g/t Au from 209m downhole
- KTDD221 4.9m @ 1.11% Cu, 0.52 g/t Au from 370.1m downhole

The Nugent system is now drilled over 280m in strike length and:

- extends over 200m below the previously mined Nugent open pit, and
- is still open to depth and along strike to the south-east.

The 2021-2022 drilling has successfully infilled the drill density across the 2020 Inferred Resources and extended the mineralisation beyond the limit of the previous Inferred Resources.

#### Nugent Resource Estimate

The completion of the Nugent surface drilling program enabled an updated Nugent Mineral Resource Estimate to be undertaken and reported post quarter end.

The updated 2022 Nugent MRE has:

- a 70% increase in the estimated total copper metal compared to the 2020 Nugent resource.
- 68% of the Nugent Resources now classified as Indicated, compared to 31% classified as Indicated in the 2020 Nugent MRE.
- There are significant Cu-Au intercepts that have not been included in the 2022 resource estimate due to uncertainty on their geologic controls and continuity. For example, 14.5m @ 1.60% Cu, 0.34 g/t Au from 175m downhole in KTDD230 which continue to offer upside to the resource estimate.
- The resource estimates are still constrained by the extent of the drilling and not by the geology, in both the along-strike and down-dip directions.

#### Kavanagh Resource Estimate Update

The Kavanagh deposit Mineral Resource estimate was updated with the previously announced drill results from 2021-2022. The updated MRE has:

- A 13% increase in the estimated total copper metal compared to the 2021 Kavanagh resource.
- 77% of the Kavanagh Resources are now classified as Measured and Indicated, including 14% of the Mineral Resource now classified as Measured.
- The resource estimates are still constrained by the extent of the drilling and not by the geology, in both the along-strike and down-dip directions.

Overall, as with all HGO's previous drill programs at Kavanagh and Nugent, these drill programs have again resulted in an increase in the resources at Kavanagh and Nugent and a conversion of Inferred Resources to lower risk classification categories.

# **EXPLORATION**

Hillgrove has a strong pipeline of exploration opportunities over more than 6,100km<sup>2</sup> of tenements.

These tenements comprise three project areas, the Mine Lease Exploration, Near Mine Exploration (within 10 kms of Hillgrove's processing plant) and the Regional Exploration areas within the south-east Delamerian Magmatic Cu-Au province.

#### **Mine Lease Exploration**

The Cu-Au targets within the Kanmantoo Mine lease within 1 km of Hillgrove's processing plant includes the previously mined Emily Star, Paringa, and Critchley Cu-Au deposits south of the Kavanagh underground Cu-Au development, and the Coopers and North Kavanagh Cu-Au deposits north of the Kavanagh underground development. These Mine Lease Cu-Au targets have been confirmed by past Hillgrove shallow RC drill holes, including;

- > 17m @ 3.6% Cu, 0.6 g/t Au from 144m downhole at Paringa (KTRC954)
- 14m @ 2.8% Cu, 0.3 g/t Au from 123m downhole at Paringa (KTRC866)
- 11m @ 2.0% Cu, 0.2 g/t Au from 82m downhole at Emily (KTRC833)
- 6m @ 1.9% Cu, 0.4 g/t Au from 144m downhole at Emily (KTDD127)
- 11m @ 1.6% Cu, 0.2 g/t Au from 102m downhole at Nth Kavanagh (KTRC942)
- 9m @ 2.1% Cu, 0.7 g/t Au from 104m downhole at Nth Kavanagh (KTRC945)

The following cross sections of past drilling on the deposits demonstrate the spatial location and copper-gold endowment.

Compilation of these exploration opportunities is in progress for drill hole prioritisation.

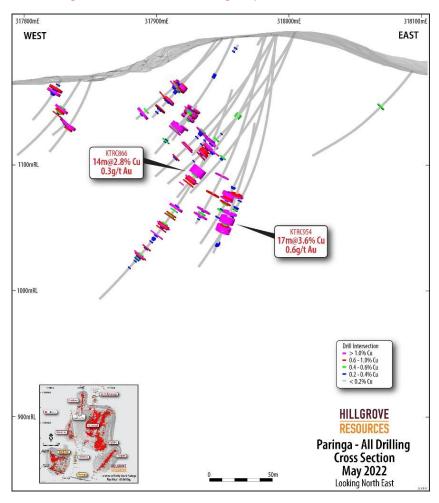
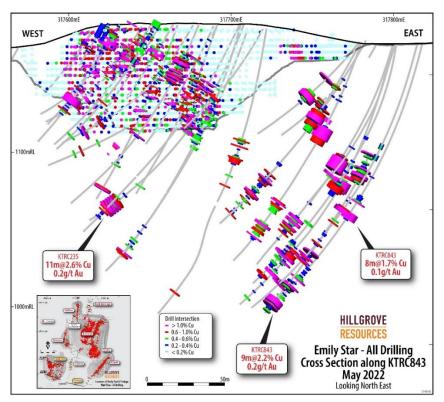
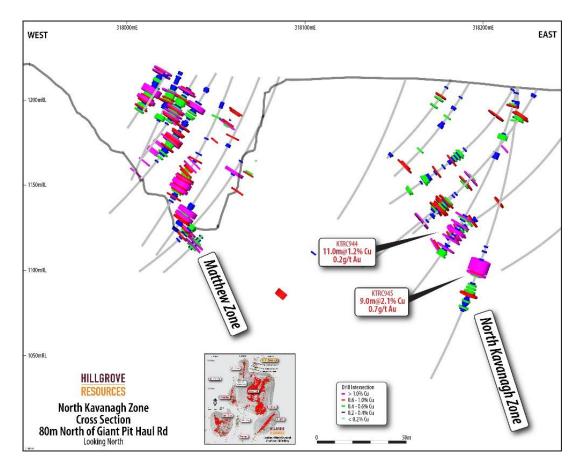


Figure 1 Cross section at Paringa deposit in South Hub zone

Figure 2 Cross section through numerous Emily Star lodes in the South Hub zone



#### Figure 3 Cross section through the North Kavanagh deposit in the North Hub zone



#### **Near Mine Exploration**

The Cu-Au targets within 10 kms of the Kanmantoo processing plant includes the Stella, Mullewa and North West Kanmantoo geochemical and geophysical targets.

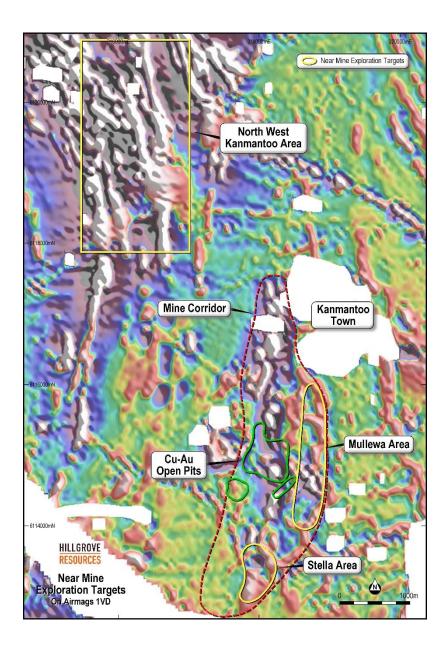
#### **Stella**

Drilling by Hillgrove in 2021 confirmed Stella as a new Cu-Au target near the Kanmantoo infrastructure. The main mineralised zone intersected in SLDD001 is characterised as an Fe-Au-Cu-Bi Zone similar in style and texture to the Kanmantoo mineralisation mined by Hillgrove from 2011 to 2019.

• SLDD001 0.6m @ 16.85 g/t Au, 10.1% Cu, 44.8 g/t Ag from 344m downhole Within 3m @ 3.53 g/t Au, 2.76% Cu, 11.9 g/t Ag from 343m downhole.

This high-grade Au-Cu intercept is part of an 82.35m zone of Cu veining from 315m downhole.

Further drill hole planning is in progress.



# **Regional Exploration**

The regional area comprises 5,652km<sup>2</sup> of exploration licences in the south-east of South Australia, within the Delamerian Orogen. The Delamerian Orogen is now being investigated by the Geological Survey of South Australia and MINEX-CRC for its magmatic arc related copper-gold endowment as a consequence of the discoveries on the Stavely Belt in western Victoria, which is also within the Delamerian Orogen.

The Company was also successful in being granted funds under the South Australian Government's ADI scheme to empirically test various soil geochemical sampling/analyses techniques that have showed some great promise in early trials in the South-East.

Historic drilling within the tenement area is reported as intersecting 1.0m @ 6.13% Cu, 18 g/t Ag at 101.5m downhole (SHR008)<sup>4</sup> at a skarn prospect called Sherlock.

Drill targeting is in progress.

<sup>&</sup>lt;sup>4</sup> SARIG Envelope 9015 by Pasminco Exploration, dated January 1996

#### **Competent Persons Statement**

The information in this report that relates to the 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, and 6 May 2022. 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.

The information in this release that relates to the 2022 Mineral Resource Estimates for the Nugent and Kavanagh underground areas are 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.

# HILLGROVE CORPORATE

The Company continues to be prudent with cash burn, through cost reduction initiatives. However, to maintain the processing plant for a quick restart, costs are incurred for site care and maintenance, water recirculation, and regulatory obligations.

For the quarter, the Company incurred the following exploration and development expenditures:

- Exploration of \$0.2 million; and
- Development of \$1.9 million.

CORPORATE INFORMATION				
Issued Share Capital at 30 June 2022				
Ordinary shares	1,174,289,057			
Unlisted Options	34,000,000			
Employee Performance Rights	30,000,000			
Share price activity for the Quarter				
High	0.093			
Low	0.053			
Last (30 June 2022)	0.057			

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