

18 October 2024

## MAIDEN KANMANTOO UNDERGROUND ORE RESERVE AND 96% INCREASE IN COPPER MINERAL RESOURCE ENDOWMENT

Hillgrove Resources Limited (ASX: HGO) (“**Hillgrove**” or the “**Company**”) is pleased to report a substantial increase in its Mineral Resource Estimate (MRE) and a Maiden Ore Reserve at the Company’s 100% owned Kanmantoo Copper Mine in South Australia.

### HIGHLIGHTS

- Kanmantoo **2024 Maiden Ore Reserve** of **2.8Mt** grading **0.91% Cu** and **0.15g/t Au** containing 26kt of copper and 14koz of gold.
  - **Including 1.1Mt Proved at 1.01% Cu and 0.04g/t Au**
- Kanmantoo **2024 Mineral Resources Estimate** of **19.3Mt** grading **0.77% Cu** and **0.14g/t Au** containing 150kt of copper and 82koz of gold.
  - **A 96% increase in contained copper and 138% increase in contained gold** compared to the 2022 MRE<sup>1</sup>
  - Maiden Mineral Resource Estimates for Emily Star and North Kavanagh
  - Significant opportunities to grow Mineral Resources through extensional drilling

Commenting on the MROR update, Hillgrove CEO and Managing Director, Bob Fulker said:

*“This update clearly demonstrates the enormous opportunity we have in front of us at Kanmantoo.*

*The Maiden Ore Reserve provides a solid base for the mine plan. When combined with the 96% increase in contained copper in the Mineral Resources, it is clear that there is strong geological potential for the conversion of Mineral Resources to Ore Reserves which will extend the mine life at Kanmantoo.*

*The goal next year is to continue the drill program to convert additional Mineral Resources into Ore Reserves. Pleasingly, we are finding the grade improves as we improve the geological classification.*

*Our focus continues to be on reliable delivery, building cash, and earning the right to grow. We remain on track in these areas.”*

1. 2022 Mineral Resources Estimate 7.0Mt at 1.08% containing 75,900t Cu

## Mineral Resource Estimate

Resource definition and exploration drilling, in addition to a review of economic factors and model changes, have contributed to a substantial increase in the Kanmantoo Mineral Resource when compared to the prior 2022 Mineral Resource Estimate.

Mineral Resource changes are summarised below:

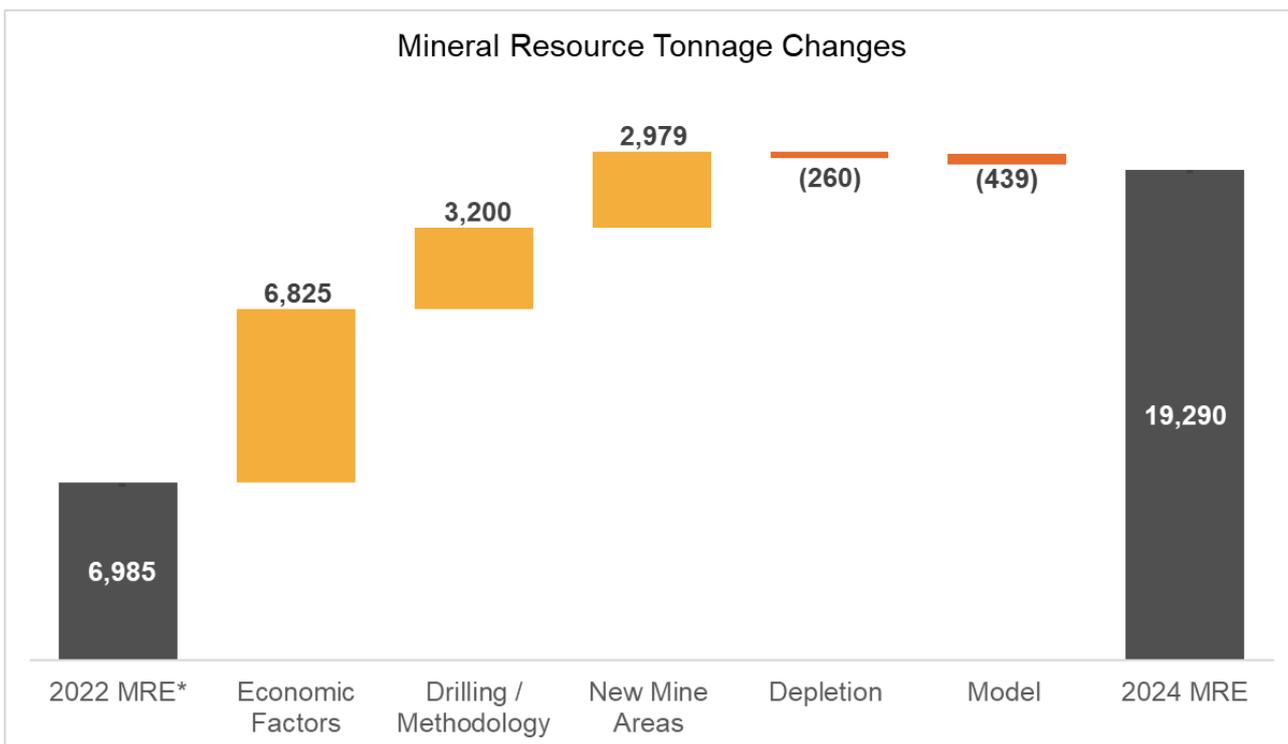
- A review of economic factors and updating copper price assumptions for current market condition has resulted in the lowering of the cut-off grade for the Mineral Resource – this led to an addition of 6,825kt
- Grade control / resource definition drilling and modelling methodology changes resulted in a 3,235kt increase
- The inclusion of Maiden Resources on North Kavanagh and Emily Star has provided a 2,979kt increase
- Resource tonnage decreased by 260kt as a result of mining depletion to 30 Jun 2024
- 439kt was removed due to model changes and reinterpretation at the Northern End of Kavanagh

**Table 1: Kanmantoo Mineral Resources as at 30 September 2024**

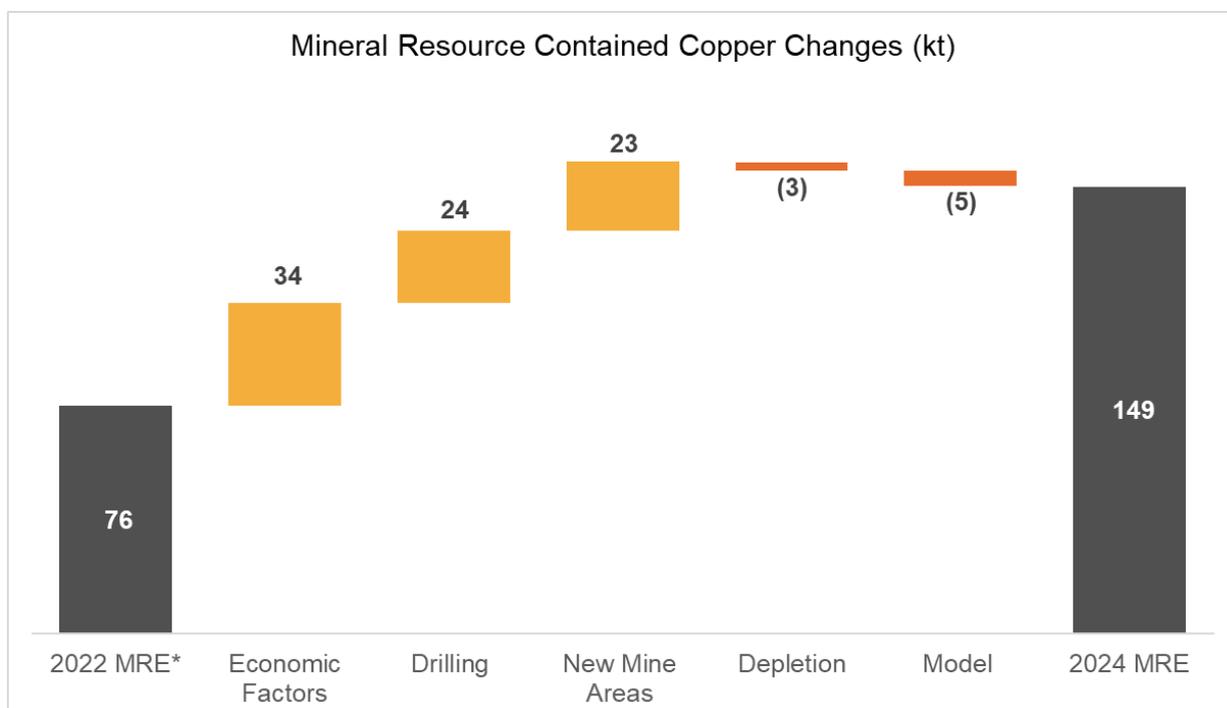
Mine Area	JORC Classification	Tonnage (kt)	Cu (%)	Au (g/t)	Ag (g/t)	Bi (ppm)	Cu Metal (kt)	Au Metal (koz)
Kavanagh (including Spitfire)	Measured	3,200	0.94	0.04	2.9	190	30	4
	Indicated	3,400	0.77	0.10	2.4	97	26	11
	Inferred	6,300	0.70	0.11	2.4	110	44	22
	<b>Sub-Total</b>	<b>13,000</b>	<b>0.78</b>	<b>0.09</b>	<b>2.5</b>	<b>130</b>	<b>100</b>	<b>37</b>
North Kavanagh	Measured	-	-	-	-	-	-	-
	Indicated	230	0.78	0.17	3.0	140	2	1
	Inferred	110	0.77	0.21	3.3	130	1	1
	<b>Sub-Total</b>	<b>340</b>	<b>0.78</b>	<b>0.18</b>	<b>3.1</b>	<b>140</b>	<b>3</b>	<b>2</b>
Nugent	Measured	-	-	-	-	-	-	-
	Indicated	2,300	0.74	0.36	1.7	66	17	26
	Inferred	1,100	0.71	0.35	1.6	40	8	13
	<b>Sub-Total</b>	<b>3,400</b>	<b>0.73</b>	<b>0.36</b>	<b>1.6</b>	<b>57</b>	<b>25</b>	<b>39</b>
Emily Star	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	2,600	0.77	0.08	1.6	110	20	7
	<b>Sub-Total</b>	<b>2,600</b>	<b>0.77</b>	<b>0.08</b>	<b>1.6</b>	<b>110</b>	<b>20</b>	<b>7</b>
<b>TOTAL</b>		<b>19,300</b>	<b>0.77</b>	<b>0.14</b>	<b>2.2</b>	<b>110</b>	<b>150</b>	<b>82</b>

Notes:

1. Due to effects of rounding, total numbers may not sum.
2. Tonnage and metal are rounded to the nearest 1,000 tonnes, grades are rounded to 2 significant figures.
3. Mineral Resource is Reported at a 0.4% Cu Cut Off Grade for all Mine Areas.
4. Mineral Resource is depleted for mining as at 30 June 2024.
5. Mine depletion refers to current Kavanagh UG operation, and historical Giant Pit, Nugent and Emily Star open pits



**Figure 1: Kanmantoo Mineral Resource tonnage changes (2022 to 2024)**



**Figure 2: Kanmantoo Mineral Resource contained copper changes (2022 to 2024)**

\*2022 Kavanagh + Nugent Mineral Resource Estimate

Ore Reserve

Table 2: Kanmantoo Ore Reserves as at 31<sup>st</sup> August 2024

Mine Area	JORC Classification	Tonnes (kt)	Cu (%)	Au (ppm)	Ag (ppm)	Bi (ppm)	Cu Metal (kt)	Au Metal (koz)
Kavanagh	Proved	1,100	1.01	0.04	2.82	220	12	1
	Probable	1,000	0.88	0.15	2.7	140	9	5
	<b>Proved + Probable Kavanagh Total</b>	<b>2,100</b>	<b>0.95</b>	<b>0.09</b>	<b>2.76</b>	<b>180</b>	<b>21</b>	<b>6</b>
Nugent	Proved	-	-	-	-	-	-	-
	Probable	670	0.76	0.33	1.44	79	5	7
	<b>Proved + Probable Nugent Total</b>	<b>670</b>	<b>0.76</b>	<b>0.33</b>	<b>1.44</b>	<b>79</b>	<b>5</b>	<b>7</b>
<b>Total Ore Reserve (Kavanagh + Nugent)</b>	Proved	1,200	1.01	0.04	2.82	220	12	1
	Probable	1,700	0.83	0.22	2.21	110	14	12
	<b>Proved + Probable</b>	<b>2,800</b>	<b>0.91</b>	<b>0.15</b>	<b>2.45</b>	<b>160</b>	<b>26</b>	<b>14</b>

Notes:

1. Dry metric tonnes.
2. 0.6% Copper (Cu) design cut-off grade.
3. No Probable Ore Reserve was derived from Measured Mineral Resource.
4. Minimum stope mining width 5.0m apparent.
5. Grades are rounded to two decimal places. Tonnages are rounded to two significant figures.
6. Any minor apparent discrepancies for sums in the table are related to rounding.
7. The period for economic extraction is from Sept 2024 until April 2027.
8. Ore Reserve converted from Mineral Resource is based on the October 2024 Mineral Resource report by Caitlin Rowett (Hillgrove Resources Limited) and Sonia Konopa (ERM) titled "Kavanagh, Nugent & North Kavanagh Underground Mineral Resource Estimate", as at 30th September 2024.
9. Competent Person: Tom Bailey MAusIMM (#206304).
10. Mining has commenced and observed ground conditions have been very good. Further geotechnical investigation is required to increase confidence in the stable mining spans.

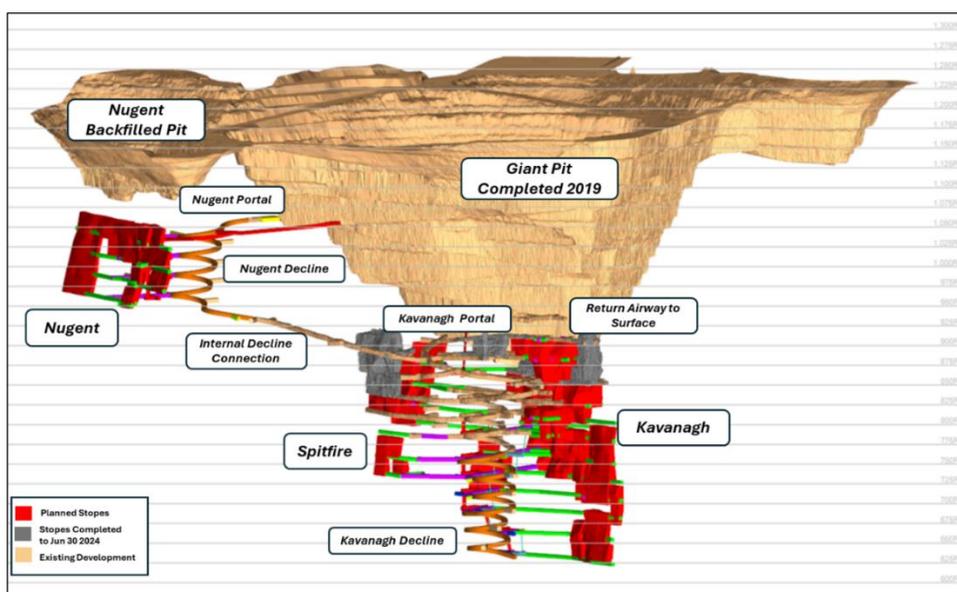


Figure 33: 2024 Ore Reserve Mine Plan

### **About Kanmantoo Copper Mine**

The Kanmantoo Copper Mine is located approximately 55km from Adelaide, South Australia. The mine operated as a series of open pits from 2010 to 2020, producing around 137kt of copper and over 55k oz of gold. The operation is fully permitted and has significant infrastructure including a 3.6Mtpa processing plant and a tailings storage facility with approximately 7.0Mt of permitted capacity. Operations restarted in 2023 with underground mining commencing in May 2023 and first copper production in February 2024.

### **Competent Person's Statement**

The information in this report that relates to Exploration Targets, Exploration Results, Historic Mineral Resources and all data inputs including domain models for the 2024 Mineral Resource Estimation is based on information compiled by Caitlin Rowett, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Caitlin Rowett is a full-time employee of the company. Caitlin Rowett has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Caitlin Rowett 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 the 2024 Mineral Resource Estimation for Kavanagh, North Kavanagh and Nugent is based on information compiled by Sonia Konopa, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Sonia Konopa is a full-time employee of ERM (and part of the ERM Sustainable Mining Services team) who were engaged to produce the Mineral Resource Estimate. Sonia Konopa has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Sonia Konopa 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 the 2024 Mineral Resource Estimation for Emily Star is based on information compiled by Matt Clark a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Matt Clark is a full-time employee of ERM (and part of the ERM Sustainable Mining Services team) who were engaged to produce the Mineral Resource Estimate. Matt Clark has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Matt Clark 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 the 2022 Mineral Resource Estimate for Nugent and Kavanagh were initially reported by the Company to the ASX on the 26 July 2022 (Nugent) & 11 May 2022 (Kavanagh). Further information is available on the Hillgrove Resources website at [www.hillgroveresources.com.au](http://www.hillgroveresources.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 announcement and that all material assumptions and technical parameters underpinning the estimates 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 announcement.

The information in the report to which this statement is attached that relates to Ore Reserves is based on information compiled by Tom Bailey a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Tom Bailey is employed by AMC Consultants and has been engaged to produce the Ore Reserve. Tom Bailey has sufficient experience that is relevant to the style of mineralisation and type of deposit under

consideration and to the activity being undertaken 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'. Tom Bailey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

### **Forward-looking statements**

This Announcement contains or may contain certain forward-looking statements and comments about future events, that are based on Hillgrove's beliefs, assumptions and expectations and on information currently available to management as at the date of this presentation. Often, but not always, forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "plan", "believes", "estimate", "anticipate", "outlook", and "guidance", or similar expressions, and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and production potential, financial forecasts, product quality estimates of future Mineral Resources and Ore Reserves. Such statements are only expectations or beliefs and are subject to inherent risks and uncertainties which could cause actual values, results or performance achievements to differ materially from those expressed or implied in this announcement. Where Hillgrove expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and on a reasonable basis. No representation or warranty, express or implied, is made by Hillgrove that the matters stated in this presentation will in fact be achieved or prove to be correct. Except as required by law, Hillgrove undertakes no obligation to provide any additional or updated information or update any forward-looking statements whether on a result of new information, future events, results or otherwise. Readers are cautioned against placing undue reliance on forward-looking statements. These forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of Hillgrove, the directors, and management of Hillgrove. These factors include, but are not limited to difficulties in forecasting expected production quantities, the potential that any of Hillgrove's projects may experience technical, geological, metallurgical and mechanical problems, changes in market prices and other risks not anticipated by Hillgrove, changes in exchange rate assumptions, changes in product pricing assumptions, major changes in mine plans and/or resources, changes in equipment life or capability, emergence of previously underestimated technical challenges, increased costs, and demand for production inputs.

**This announcement has been authorised for release by Hillgrove Resources Board of Directors.**

### **For more information contact:**

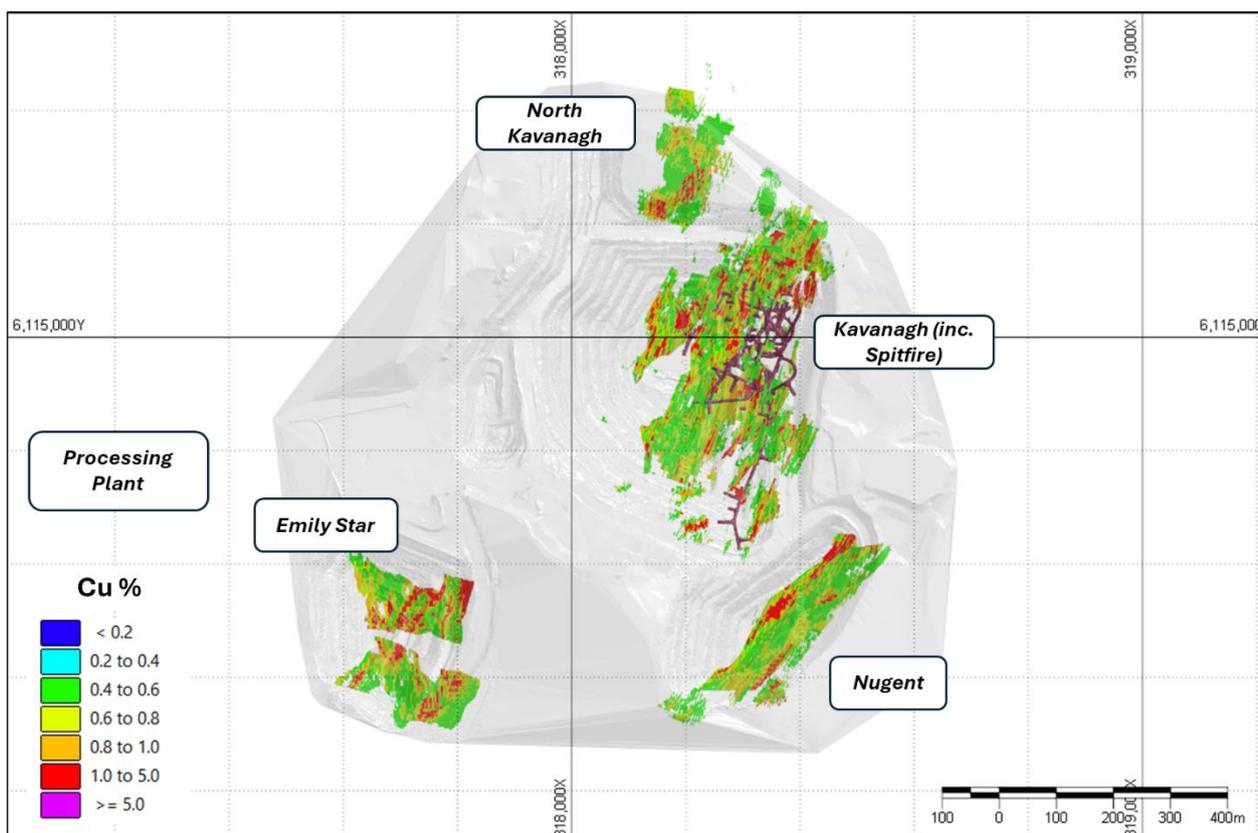
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## APPENDIX A SUMMARY OF THE MINERAL RESOURCE ESTIMATE

### 30 September 2024 Kanmantoo Mineral Resource Estimate (“MRE”)

Figure 4 below shows a plan view of the Cu-Au mine areas at Kanmantoo and their spatial location. Within the Kanmantoo mineralised system four mine areas now have Mineral Resource Estimates – Kavanagh, North Kavanagh, Nugent and Emily Star. The 2024 MRE includes North Kavanagh and Emily Star for the first time.



**Figure 4: Plan view showing the location of the Kanmantoo Mineral Resources in close proximity to the Processing Plant**

All mine areas reported in the 2024 MRE have been subjected to additional drilling since the 2022 MRE and include the down dip and along strike extensions of the Kavanagh Deposit, which includes the West, Central and East Kavanagh zones<sup>1</sup>, the Spitfire and the South-West Kavanagh zones<sup>2</sup> (all mined within the Giant Open Pit), the North Kavanagh deposit<sup>3</sup> (un-mined) and the Emily Star deposit<sup>4</sup> (mined by the small Emily Star open pit). In addition, underground diamond drilling results from 2022 – 2023<sup>5,6</sup> have also been included into the estimates for the Kavanagh deposit, including the Spitfire and South-West Kavanagh mineral zones. The 2022 Nugent MRE reported on 26 July 2022<sup>7</sup> has been updated following a geological reinterpretation and additional drill hole added

1 ASX release 27 February 2023 entitled “Updated Kanmantoo Economic Assessment Expands Mine Life”

2 ASX release 8 August 2022 and 28 August 2023 entitled “Spitfire Copper Gold Zone Drill Results” and 28 August 2023 entitled “100m Step Out Hole at Kavanagh Hits 45.4m @ 1.2% Copper”

3 ASX release 27 February 2023 entitled “Updated Kanmantoo Economic Assessment Expands Mine Life”

4 ASX release 27 February 2023 and 3 July 2023 entitled “Updated Kanmantoo Economic Assessment Expands Mine Life” and 3 July 2023 entitled “Emily Star Drilling Results”

5 ASX release 13 November 2023 entitled “Kanmantoo Underground Confirmation Drilling Results

6 ASX release 23 May 2024 entitled “Underground Drilling Extends Kanmantoo Mineralisation”

7 Refer ASX release of 26 July 2022 entitled “Updated Nugent Mineral Resources Estimate”

to the dataset within the Nugent area.

The Matthew, Valentine, Critchley, and Paringa Cu-Au deposits have not been drilled since 2019 and are not included within the 2024 Kanmantoo MRE.

The 2024 Kanmantoo MRE for Cu, Au and Ag for Kavanagh, Nugent, Emily Star and North Kavanagh and Emily Star have been estimated using an Ordinary Kriged (OK) method by experts from ERM (and part of the ERM Sustainable Mining Services team). The estimation process to assign the Cu, Au and Ag grades to a 3D grid of panels through the respective deposits from the data collected by sampling of RC percussion and diamond drill holes. All surface (diamond and reverse circulation) and underground grade control diamond drill holes drilled by HGO up until 14 July 2024 have been used to estimate the block grades in the MRE. No open pit grade control data have been used in the estimation of the spatial continuity or grade estimates but have been used to assist interpreting the general trends of the mineralised zones. Mapping and Spectral (IR) data collected from underground development has also been used to assist with the interpretation of the mineralised zones.

Specifically for the Kavanagh, Nugent, North Kavanagh and Emily Star deposit MRE:

- 1,183 drillholes have been utilised in the estimation
- The significant increase in the number of drill hole intervals included in the Kanmantoo 2024 MRE is a result of the
  - inclusion of the underground diamond drilling to 14 July 2024
  - additional Mine Areas included in the resource estimate (North Kavanagh and Emily Star)
  - additional surface exploration diamond drilling in 2022 and 2023; and
  - inclusion of the pre-2019 Hillgrove RC drilling at the transition of the open pit to the underground mining areas.
- Most of the underground drilling is infill drilling of the Kavanagh zones with some extensional exploration drilling along and down-dip of the Spitfire, South-West Kavanagh and Nugent trends.
- Of the assays used for the 2024 Kavanagh MRE, 18,604 are underground drill hole samples where the whole sample interval has been crushed to <2mm, rotary split, screened to <1mm and sub-split for copper assay by bench mounted Portable XRF (PXRF). There is no gold assay for these samples. Rigorous QA/QC of the PXRF copper assays against whole sample duplicates assayed by external laboratory with 4-acid digest and ICP-MS analysis verifies the accuracy and precision of the PXRF process for copper values.

Unsampled intervals have been assigned background Cu, Au, Ag, Bi, S and Fe values and then the drill hole samples composited to 1 metre downhole across all Mine Areas. The composite length selection was supported a review of length data. Residual retention was used so that no sampled intervals were omitted from the final composite datasets.

Geological domains are interpreted in 3D at each deposit by Hillgrove (HGO) Geologists based on the drill hole mineralisation and alteration boundaries and observations including mapping from the underground mine /open pits. The main difference for the Kavanagh deposit to the 2022 MRE has been the confirmation of the east-west striking 1066 Fault zone truncating the northern continuation of the mineralised Kavanagh zones. Analysis of grade distributions for Cu, Au, Ag, Bi, S and Fe were undertaken with reference to the various combinations of geological domains coded onto the sample files. Statistical analysis via cumulative distribution frequency plots and spatial analysis via contact plots and visual inspection of desurveyed drillholes coloured with grade values, were utilised to determine which variables and geological domains could reasonably be grouped together to create estimation domains for grade interpolation. A similar process was undertaken for the variable Density.

Variogram models were completed for the grade variables Cu, Au, Ag, Bi, S, Fe and Density within their

appropriate estimation domains. Estimation domains were combined for variogram evaluation in cases where either an insufficient number of samples were available for a reliable analysis, or the domains were volumetrically minor. Analysis and modelling were undertaken using Snowden Supervisor software. No weightings were applied to the variables before generation of the variogram models.

ERM adopted the following approach for variogram modelling of Kavanagh, Nugent and North Kavanagh:

- A Normal scores transform was applied to the original data distribution for each grade variable.
- Directions of continuity were established using variogram maps. Where clear directions of continuity were not able to be determined, the general orientation of the estimation domain in question was used for the variogram orientation.
- Downhole variograms were created to establish the nugget values.
- Directional variograms were then created and modelled using the principal directions established from the variogram maps and the nugget value obtained from the downhole variogram.
- The variogram models were subsequently back transformed into real data space.

To capture the significant Cu grade intersections in the 'waste' volume surrounding the Kavanagh, Nugent and North Kavanagh Mine Areas which have been identified in drilling, ERM has adopted a block modelling approach applied through Categorical Indicator Kriging (CIK). Indicator coding of assayed intervals falling outside of the wireframed mineralised zones have been used to construct a probability-based block model to define the 'un-wireframed' Cu mineralised zones outside of the interpreted and domained mineralisation zones. While ERM considers that the volume of additional Cu mineralisation defined through this process appears geologically reasonable, a certain degree of uncertainty is present surrounding the orientation of the additional volumes defined in the block model. The volumes defined should therefore be considered as indicative only, with areas of the model having larger volumes of additional mineralisation defined outside of the wireframed mineralised zones having a higher level of geological uncertainty.

For Emily Star the following approach for variogram modelling was used:

- Composites above and below the 0.1% Cu threshold were used to generate the Indicator variograms for the respective ESTDOMS
- Directions of continuity were established using variogram maps and the Cu Indicator composite data. The general orientation of the estimation domain was used for the variogram orientation.
- The variograms for the domains generally displayed a low nugget ranging from 0.18 to 0.23 and the longest range in the dip direction.

To capture the significant Cu grade intersections in the 'waste' volume which have been identified in drilling, ERM utilised a block modelling approach applied through Categorical Indicator Kriging (CIK). Composites below the 0.1% Cu threshold were flagged as low-grade internal 'waste' volume in domain 1001. Low grade volumes in domains 2001 and 3001 were insignificant therefore no CIK was applied to these domains. Composites with a Cu grade <0.1% Cu were flagged with a CIK grade indicator "0" and composites with a Cu grade > 0.1% were flagged with a CIK grade indicator "1". Four estimation domains (ESTDOM 1100, 1200, 2100 and 3100) were established from the analysis of the domain data.

For all Mine Areas a Quantitative Kriging Neighbourhood Analysis (QKNA) was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. The Kriging Efficiency (KE) and Slope of Regression (SOR) were determined for a range of each of block sizes, minimum/maximum samples and search size. The QKNA results were used in conjunction with the common drill grid spacings and the morphology of the mineralised zones to determine final estimation parameters. This allowed some generalisation of sample selection parameters to be used in estimation. For simplicity, grade variables other than the primary economic variable, Cu, utilized the Cu estimation parameters.

All the mineralisation is in fresh rock and bulk densities from drill samples was merged with the flagged drillhole file and composited downhole for analysis. Outlier values were evaluated on a estimation domain basis with upper and lower capping values applied as deemed appropriate. Density was subsequently assigned to the block model using a combination of assignment of average Density by estimation domain (average of 3.09 t/m<sup>3</sup> in mineralised domains in Kavanagh, Nugent and North Kavanagh and 3.00t/m<sup>3</sup> in Emily Star) and spatial estimation from Density determinations from de-surveyed drillholes when the data density allowed.

For the Kavanagh, Nugent and North Kavanagh Mine Areas grade interpolation was completed after determining dynamic anisotropy (DA) angles. Block grades were interpolated via Ordinary Kriging (OK), Inverse Distance (ID) and Nearest Neighbour (NN) for each variable, using the capped composite files within each estimation domain. For waste domains the 'coarse' block model prototype was used as the block model scheme for all OK and ID interpolated variables. For mineralised domains the 'fine' block model prototype was used as the block model scheme for all OK and ID interpolated variables. For the NN estimates the 'very high' resolution block model was used as the block model scheme, allowing the NN model to act as a proxy for a de-clustered reference grade distribution. All domain boundaries were treated as hard boundaries, as determined from analysis of contact plots, for grade estimation purposes and no soft or semi-soft boundaries are used. The model grades generated using OK were used as the final grades for all interpolated variables.

For Emily Star, grade was interpolated into all blocks using Ordinary Kriging for each variable, using the capped composite files within each estimation domain and the estimation parameters. All domains and sub-domain boundaries were treated as hard boundaries, as determined from analysis of contact plots. Ordinary Kriging (OK) was used to interpolate grades for Cu, Au, Ag, Bi, Fe, S using a three-pass search strategy with increasing search ellipse size. Discretisation was set to 2 (X) by 5 (Y) by 5 (Z). Pass 1 – 2/3 of the variogram maximum range, Pass 2 = 100% of the variogram maximum range & Pass 3 = 200% of the variogram maximum range.

Following estimation the Mineral Resource has been classified in accordance with guidelines contained in the JORC Code. The classification applied reflects the uncertainty that should be assigned to the Mineral Resources reported and utilised a combined approach using the distance from drilling and the slope of regression for Cu interpolation. This was then reviewed manually to ensure no inappropriate classifications occurred as a result of the classification rules. A detailed description of the classification approach (and all estimation parameters) is included in Appendix B. All resource estimations have been depleted for mining to the 30 June 2024.

To meet the Reasonable Prospects of Eventual Economic Extraction (RPEEE) requirement of the JORC Code once resource classification was completed, in-situ model volumes considered unviable due to distance from current underground development and infrastructure were subsequently excluded from the Mineral Resource for reporting purposes. The reportable resource volume was defined by a wireframe solid provided by HGO.

Below Figure 5 is an example of a cross section through the Central Kavanagh lode showing the model coloured by estimated Cu grade against the HGO drilling. The section indicates that the estimation method has modelled the Cu mineralisation and its spatial geometry appropriately.

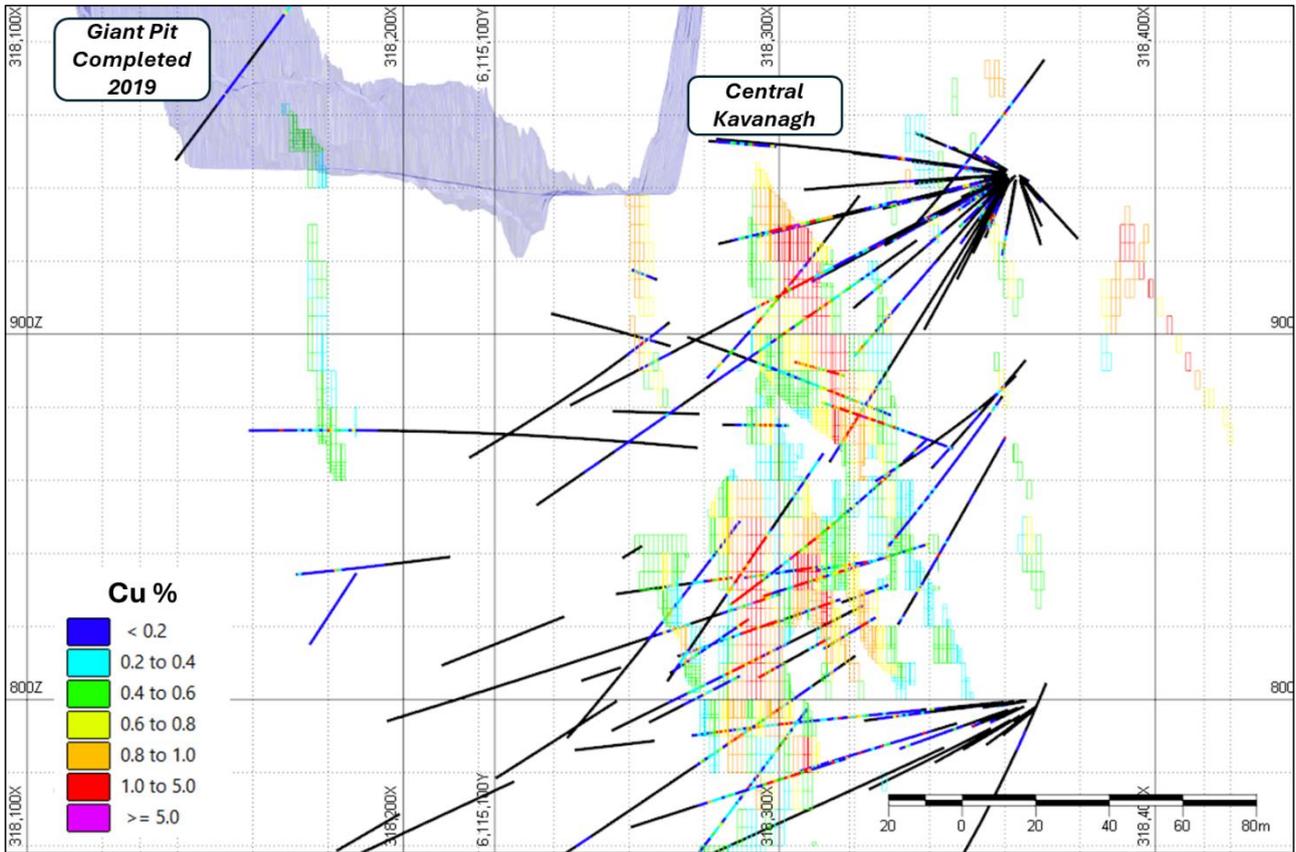
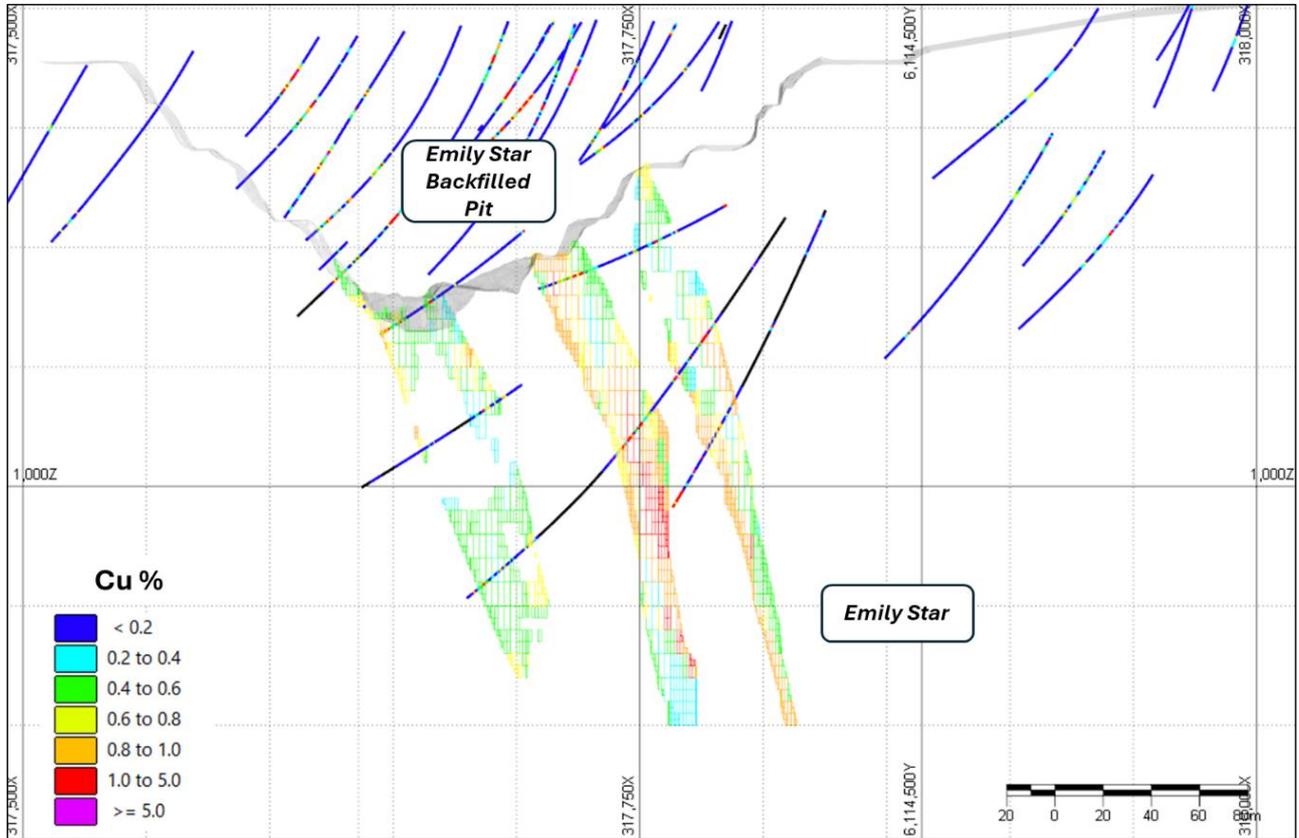


Figure 5: Cross section through Kavanagh Central deposit

Figure 6 is a cross-section through Emily Star showing the model coloured by estimated Cu grade against the HGO drilling and the section indicates that the estimation method is appropriate for this deposit.



**Figure 6: Cross section through Emily Star deposit**

Figure 7 and 8 show example cross-sections through North Kavanagh and Nugent. These sections also show that the estimation methods have modelled the Cu mineralisation grade distribution and geometry appropriately for each mine area estimated. Grade control reconciliation has not yet been completed against the 2024 Kanmantoo MRE but is planned as underground mining continues.

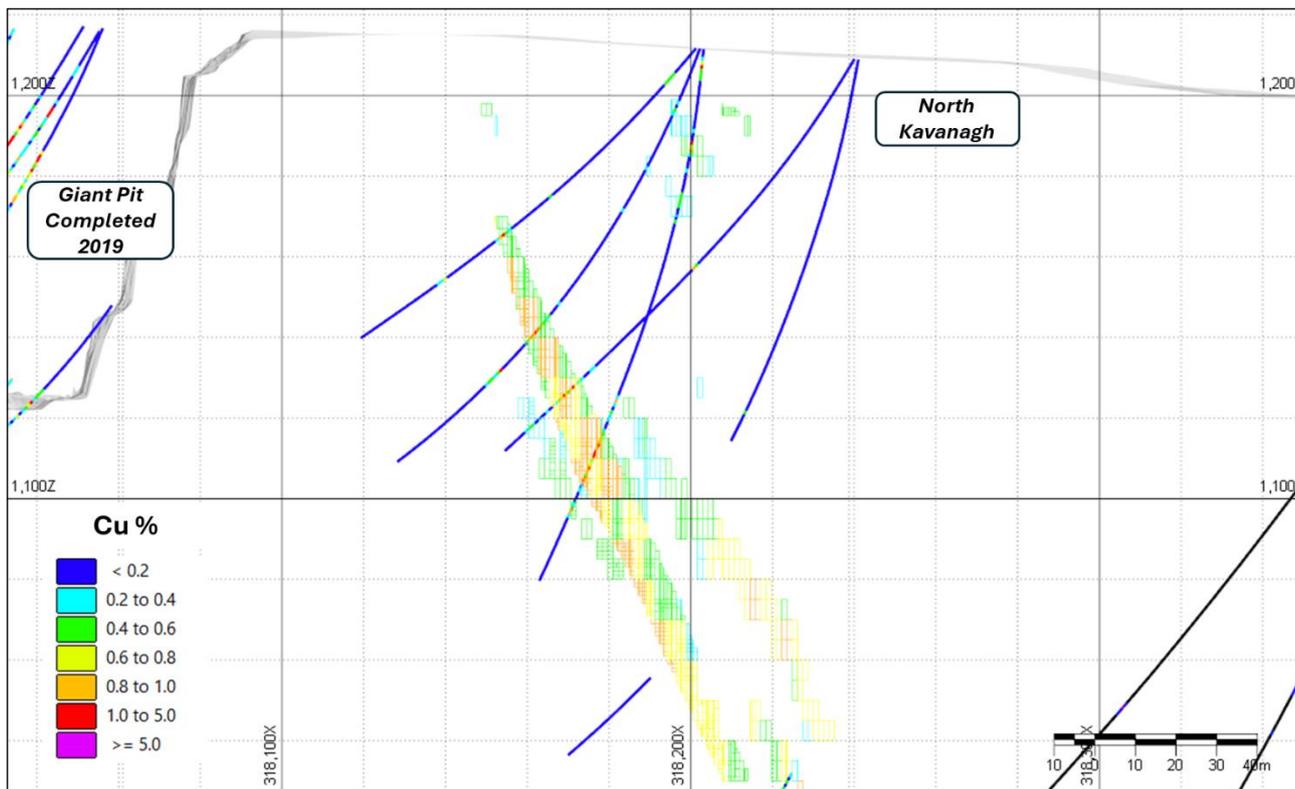


Figure 7: Cross section through North Kavanagh deposit

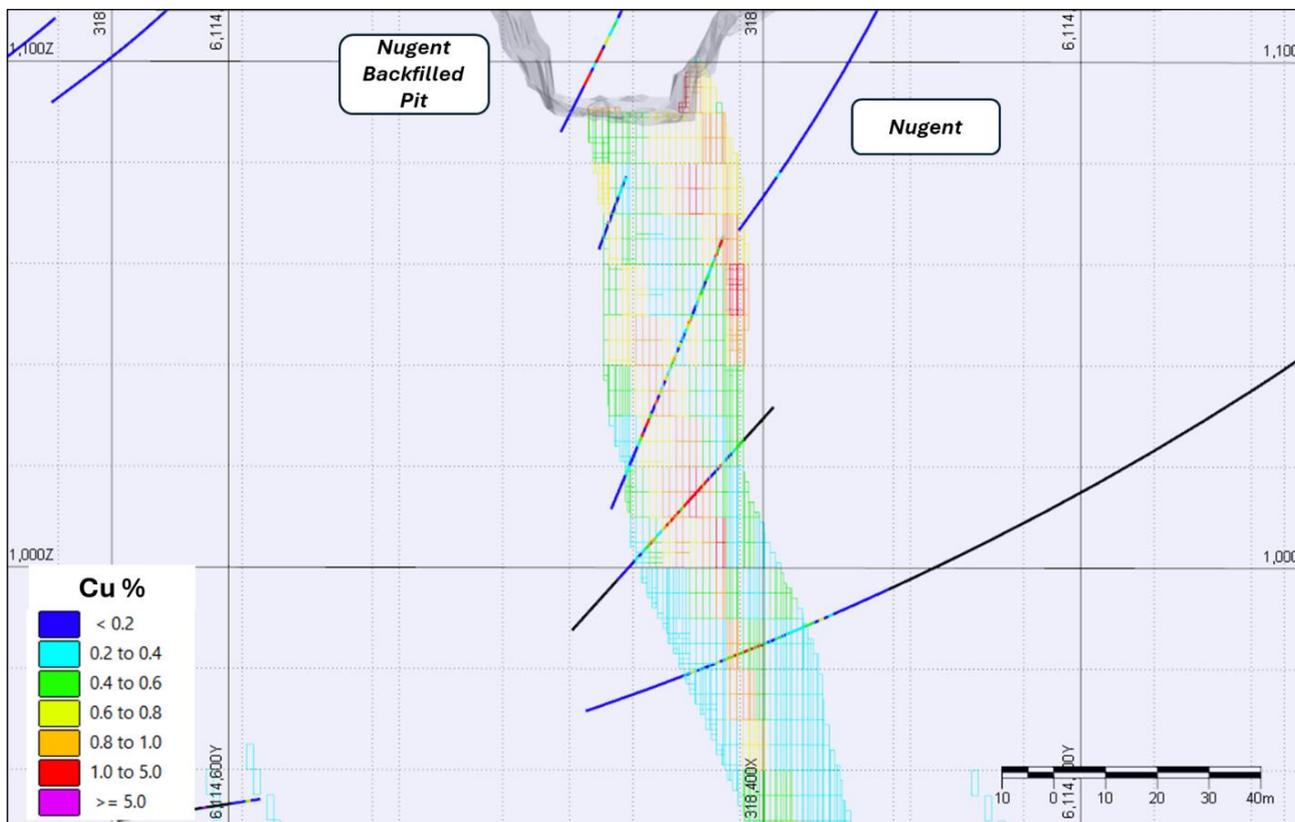


Figure 8: Cross section through Nugent deposit

Figure 9 shows a longitudinal section of the >0.2% Cu grade domains for all lodes in the Kanmantoo deposit. The section shows the spatial proximity of the lodes and demonstrates that the modelled geometry is consistent with the structural data.

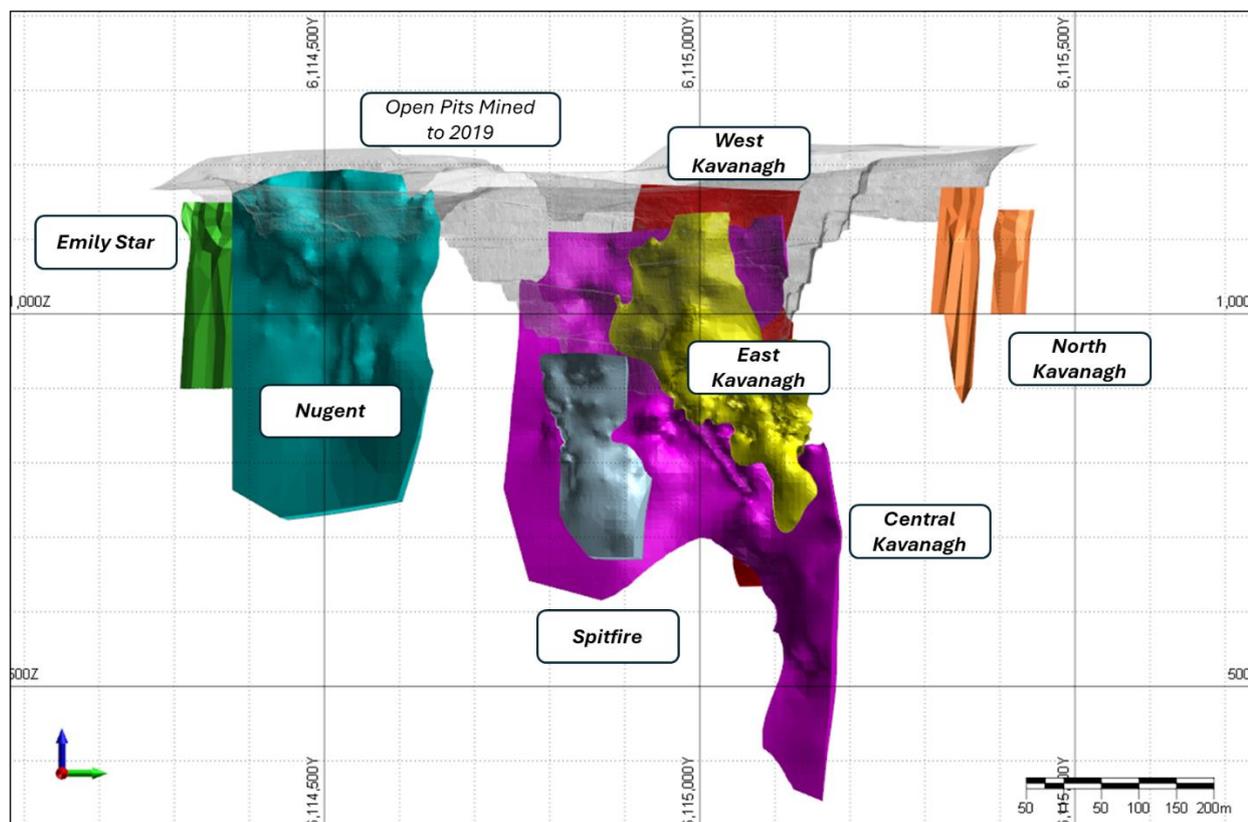
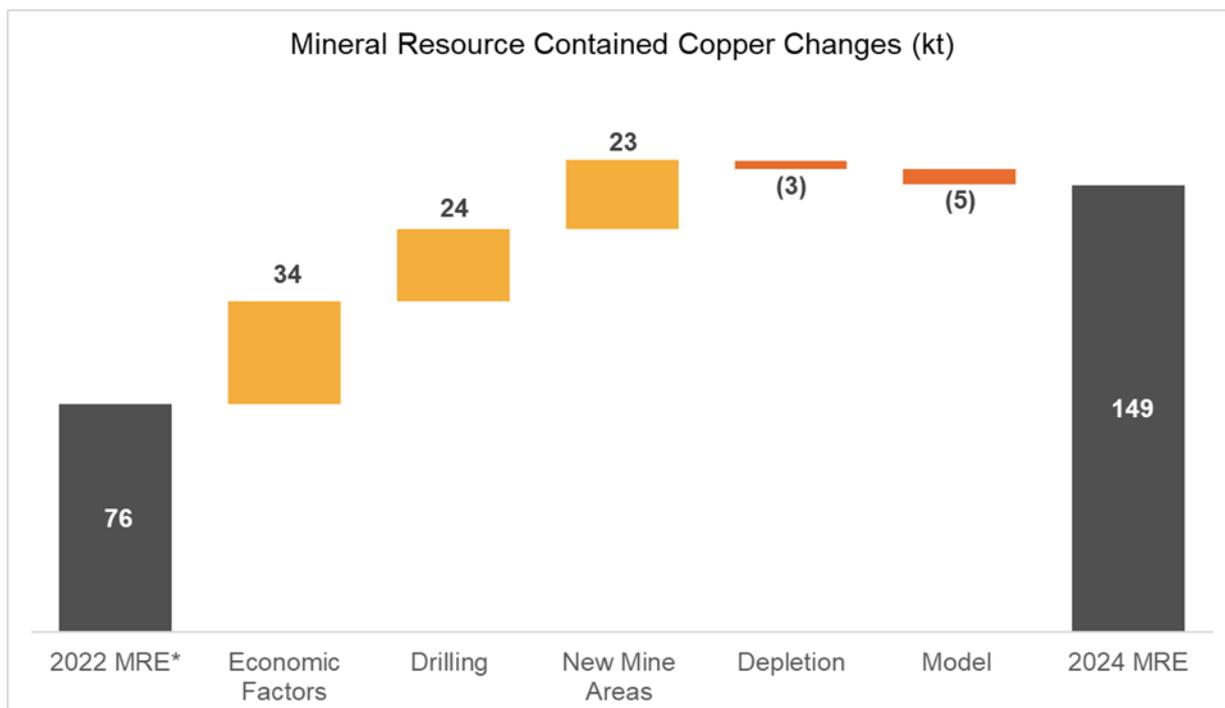


Figure 9: Long section of Kavanagh deposit showing 0.2% Domain Shells

#### Comparison of the 2024 MRE to the 2022 MRE

The key differences between the 2024 MRE of the Kavanagh deposit as tabulated in Table 1 and the previously released 2022 Kavanagh MRE (released to the ASX on 11 May 2022) and 2022 Nugent MRE (released to the ASX on 26 July 2022) are:

1. Inclusion of maiden Mineral Resources for North Kavanagh and Emily Star
2. A review of the economic factors resulting in a lowering of the Cu cutoff grade for the MRE from 0.6% (Kavanagh) and 0.7% (Nugent) Cu to 0.4% Cu
3. Change of modelling method to Ordinary Kriging (from Multiple Indicator Kriging)
4. Inclusion of additional drilling information including assays from infill drill holes from underground diamond drilling
5. Revision of the controlling geological domains as a result of the drilling since 2022 and the observation of mineralised structures in underground development
6. Interpretation of a cross-cutting fault (1066 Fault) at the northern end of the Kavanagh mineralisation that truncates the mineralised domains at that elevation
7. Depletion as a result of underground mining operations to 30<sup>th</sup> June 2024



**Figure 10: Copper metal waterfall chart showing variances between the 2022 Kavanagh & Nugent MRE and the 2024 Kanmantoo MRE**

**Summary**

Continued infill and extensional diamond drilling have reduced the uncertainty in the resource and has resulted in a substantial increase in the size of the Kanmantoo Mineral Resource. In addition, the estimation methodology changes, and a review of the economic factors have resulted in a robust model which is consistent with the geological observations made in the underground mine.

## APPENDIX B JORC TABLE 1

### Section 1: Sampling Techniques and Data

*(Criteria in this section apply to all succeeding sections)*

Criteria	JORC Code explanation	Commentary
<p><b>Sampling techniques, drilling techniques, and drill sample recovery</b></p>	<p><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>The Kanmantoo Underground Mineral Resource Estimate has three main drill hole datasets available for resource estimates, all datasets were reviewed for this 2024 estimation update.</p> <ul style="list-style-type: none"> <li>• Resource Drilling – Reverse Circulation (KTRC001 to 1018) and diamond (KTDD001 to 186, KTRCD072 to 399) drilling undertaken by HGO prior to 2019</li> <li>• Resource Drilling – Diamond drilling undertaken by HGO from 2019 onwards (KTDD187 to 244)</li> <li>• Underground Drilling - Diamond drilling from underground platforms by HGO from 2022 to current (22KVUG*, 23KVUG* and 24KVUG*)</li> </ul> <p>The 2022-23 Diamond Drill Hole (DDH) sampling was conducted as per the Hillgrove Resources procedures and QAQC protocols.</p> <p>Sample intervals from 1.0m to 0.30m as determined by geology through visibly mineralised zones were split from the drill core, with resource drill core sawn in half with a diamond core saw, underground grade control drilling is whole core sampled.</p> <p>Samples were prepared by ALS Adelaide with each sample being wholly pulverised to &gt;85% passing &lt;75µm.</p> <p>All drilling undertaken by external drilling contractor, DRC Drilling. Using HQ for surface collars to a maximum of 100m downhole and NQ drilling thereafter. All underground drill core is drilled as NQ core. NQ Core size is 47.6mm in diameter.</p> <p>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.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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></p> <p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><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></p>	
<b>Logging</b>	<p><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></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>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.</p> <p>High quality photographs of all drill core before being sampled were taken under controlled light at the HGO core yard at Kanmantoo.</p> <p>All drill core is stored at Hillgrove's Kanmantoo core yard facility.</p> <p>All geological logging is recorded into Geobank Field Teams (a database product from Micromine) and visually validated before being imported into the Hillgrove Geobank drill hole database. Additional validation is conducted automatically on import.</p> <p>In addition, when drilled 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.</p> <p>A geotechnical log of all drill core for UG mine planning is also recorded. RQD is 98-100%</p>
<b>Subsampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></p>	<p>For the intervals despatched to ALS the core is sawn in half and the half core despatched to ALS for each sample interval and the entire half-core sample then crushed and 1kg rotary split from the crushed mass and the 1kg sub-sample then pulverised to 85% &lt; 75µm. A sub-split of 200 grams of the pulverised material is then split by ALS and retained, and the reject pulverised material returned to Hillgrove. From the 200 gram sub-split a 2 gram aliquot is</p>

Criteria	JORC Code explanation	Commentary
	<p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all subsampling stages to maximise representativity of samples.</i></p> <p><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></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>scooped and weighed by ALS for 4-acid digestion.</p> <p>For the intervals retained on-site for the onsite XRF laboratory, the core is not sawn in half. The entire core from the marked sample interval is crushed in a crusher and 1kg riffle rotary split from the crushed mass. The remaining crushed material is bagged and retained. The 1kg of crushed material is then screened to &lt; 1mm and only the fines retained. A sub-split of 10 grams of the fines material is scooped and pelletised and presented to the Olympus Vanta VMR XRF instrument.</p> <p>Hillgrove have detailed sampling and QAQC procedures in place to ensure sample collection is carried out to maximise representivity of the samples, to minimise contamination, and to maintain sample numbering integrity.</p>
<p><b>Quality of assay data and laboratory tests</b></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></p>	<p>For the samples 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.</p> <p>For the samples submitted to ALS, Gold is assayed by 30g Fire Assay. If &gt; 10 g/t then repeated by fire assay with a gravimetric finish.</p> <p>For the samples submitted to the Hillgrove on-site laboratory, the pelletised fines samples are presented to the Olympus XRF instrument and energised for 40 sec. The results are automatically recorded to a database.</p> <p>The QAQC of sample preparation and analysis processes were via the following samples:</p> <ul style="list-style-type: none"> <li>• Certified reference materials (CRM's) inserted by HGO into the sample sequence at a frequency of one in 20. OREAS standard 506 has been used to provide a CRM Standard grade of 0.444% Cu, and 0.365 g/t Au which are relevant for the expected cutoff grades used for resource estimates across the Kanmantoo deposit.</li> <li>• Results from all returned QAQC samples provide reasonable confidence as to the accuracy of the assay results used in the estimation. &gt;90% of assays fall within 2SD of the expected CRM mean grade for Cu and Au.</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>

Criteria	JORC Code explanation	Commentary
		<p>Quartz flushes with &lt;60ppm Cu are introduced to the crushers and bowl pulverisers within every high sulphide interval. These are monitored and where Cu contamination of the quartz flush occurs the batch is repeated. For the holes reported there are no examples of sulphides contaminating successive samples via sample preparation processes.</p> <p>Quartz washes are also utilised through the OM100 crusher where high sulphides are present and identified by the logging geologist.</p> <p>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.</p>
<b>Verification of sampling and assaying</b>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Sample data sheets are prepared in Geobank Field Teams 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 Geobank. 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.</p>
<b>Location of data points</b>	<p><i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>The map projection of Map Grid of Australia 1994 - Zone 54, (MGA94-54) is used for all work undertaken for this drilling.</p> <p>All drill hole collars are surveyed with a Leica survey station. The accuracy of this instrument is 0.01m. All pick-ups were reported in MGA94-54 coordinate system.</p> <p>The UG rigs set ups are aligned by qualified surveyors setting up the drill rigs in the UG drill access.</p> <p>Downhole surveys were determined using a gyro survey instrument at 12m intervals and recorded in Grid North.</p>
<b>Data spacing and distribution</b>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><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></p>	<p>UG drilling aims to have drill holes on a 15m x 10m pattern where possible for UG design and planning</p>

Criteria	JORC Code explanation	Commentary
	<i>Whether sample compositing has been applied.</i>	
<b>Orientation of data in relation to geological structure</b>	<p><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></p> <p><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></p>	<p>All holes are angled drill holes, dipping between -53 to +25deg. Kavanagh holes are oriented towards the west from 237deg to 353deg (MGA Grid North) and Spitfire holes are oriented to the east from 073deg to 168deg.</p> <p>All down hole surveys are by Reflex or Axis Gyro. There is no oriented UG drill core.</p> <p>Dominant mineralisation trends as measured from in-pit mapping are strike 015deg and dip -75deg to east.</p> <p>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.</p>
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	<p>A Hillgrove employee is responsible for collecting and organising the samples ready for assay. Hillgrove has a detailed sample collection/submission procedure in place to ensure sample security.</p> <p>Drill core is transported from the UG drill site to Hillgrove's core yard at Kanmantoo under the supervision of Hillgrove staff.</p> <p>Transport of the half-sawn drill core samples for ALS assaying is by dedicated road transport to the Adelaide sample preparation facility. All samples are transported in sealed plastic bags and are accompanied by a detailed sample submission form.</p> <p>At ALS, 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.</p>
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<p>Previous audits of the Hillgrove sampling methods were reviewed by independent consultant and were considered to be of a very high standard.</p>

### Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, also apply to this section)

Criteria	JORC Code explanation	Commentary
<p><b>Database integrity</b></p>	<p><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></p> <p><i>Data validation procedures used.</i></p>	<p>Hillgrove Resources utilise an SQL database system (Geobank) which is managed by the Database Geologist assisted by the Senior Geologist.</p> <p>Primary data is collected electronically into Geobank Field Teams templates with lookup tables and fixed formatting to aid validation. Data from Field teams is synchronised to Geobank managed SQL server database using detailed data entry standards and database import tools.</p> <p>Data is visually checked and validated prior to being imported into the SQL database and additional validation is performed on import via a number of embedded validation rules within the SQL database system. This automatic validation is configured through the use of library tables, triggers and stored procedures designed to ensure data integrity with respect to a number of fundamental quality essentials. Any data which violates these rules is rejected and quarantined until the errors are corrected.</p> <p>Data tables were exported from the SQL database as comma separated files (CSV's) using export tools embedded with the database and imported into SURPAC and Micromine, and Datamine software for visualisation.</p>
<p><b>Site visits</b></p>	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The HGO Competent Person with responsibility for sampling techniques and data, Caitlin Rowett works at the Kanmantoo Copper mine and is involved with the recent drilling and data collection processes. The Competent Person has also viewed all of the older diamond core and all of the recent diamond core. The Competent Person has also been involved in the open pit daily grade control processes and therefore has an understanding of the spatial continuity of the mineralised ore zones in 3D.</p> <p>The ERM Competent Persons for the MRE's have not undertaken a site visit but have relied on discussions with the Hillgrove Competent Person, and their direct and relevant experience with the geology, mineralisation and mine operations, to inform their confidence in taking Competent Person responsibility for the Mineral Resource. Additionally, a ERM Resource consultant has previously visited the site, and the ERM Competent Persons have also relied on discussions with this consultant to inform their confidence.</p>

Criteria	JORC Code explanation	Commentary
<b>Geological interpretation</b>	<p><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p> <p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<p>Structural studies conducted by Hillgrove denote that the main controls on mineralisation are the north-south striking anastomosing shear zones and the north-east to north-north-east striking cross-shears and tension veins. This strong structural control is evident throughout the entire Kavanagh deposit.</p> <p>The dip of the Kavanagh mineralisation is generally steeply dipping (70° to 80°) towards the East.</p> <p>Geologic domains of the alteration envelope were predominately modelled on chlorite, sulphur and copper content with a moderate influence from structural knowledge gained during mining.</p> <p>The three-dimensional alteration envelope wireframes were completed using Micromine 2024 and Leapfrog 2024.2. Wireframe model of the mineralisation domains were generated using a 0.2% Cu threshold and Sulphur % for alteration intensity. The use of drill hole logging to check for the mineralisation boundaries enabled a robust and confident interpretation.</p>
<b>Dimensions</b>	<p><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<p>The Kanmantoo MRE has a north-south strike length of 500 metres, over a zone approx. 200m wide and over a depth of 500 metres below the Giant and Nugent Open Pits .</p> <p>Emily Star has a north-east strike length of about 350 metres, over a zone approx. 30m wide and a depth of 180 metres below the open pit. The NE and HW mineralisation domains each have a NW strike of about 200 m, 30 m width and between 160- 200 m below the open pit .</p> <p>All zones are open to depth and along strike</p>
<b>Estimation and modelling techniques</b>	<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p>	<p>Geological modelling was undertaken by HGO in Leapfrog Geo software (version 2023.2). Data flagging, data coding, block model creation, grade interpolation and model validation were undertaken by ERM in Datamine Studio RM software (version 2.0.66.0). For Kavanagh, Nugent and North Kavanagh statistical and geostatistical analysis were undertaken using Datamine Studio RM software (version 2.0.66.0). For Emily Star statistical and geostatistical analysis were undertaken using Surpac. Variography was undertaken in Snowden's Supervisor software (Version 8.15.2) for all Mine Areas.</p>

Criteria	JORC Code explanation	Commentary																					
	<p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i></p>	<p>ERM reviewed the HGO interpretations prior to accepting them for use in the resource estimation process. The Emily Star interpretations were modified by ERM based on original shapes provided by HGO.</p> <p>Prior to estimation below detection limit assays were assigned a positive value of half of the detection limit for the relevant grade variable. Intentionally unsampled intervals were then assigned background values as shown below:</p> <table data-bbox="1176 539 1585 794"> <thead> <tr> <th>VARIABLE</th> <th>BACKGROUND VALUE</th> <th>UNITS</th> </tr> </thead> <tbody> <tr> <td>CU_PCT</td> <td>0.001</td> <td>%</td> </tr> <tr> <td>BI_PPM</td> <td>0.03</td> <td>ppm</td> </tr> <tr> <td>FE_PCT</td> <td>10</td> <td>%</td> </tr> <tr> <td>AU_PPM</td> <td>0.0025</td> <td>ppm</td> </tr> <tr> <td>AG_PPM</td> <td>0.005</td> <td>ppm</td> </tr> <tr> <td>S_PCT</td> <td>0.0012</td> <td>%</td> </tr> </tbody> </table> <p><b>Kavanagh, Nugent &amp; North Kavanagh</b></p> <p>Drillhole samples were flagged according to the geological domain interpretations provided by HGO. In order to capture the significant amount of Cu grade intercepts lying outside of the mineralised zone 'ore' wireframe interpretations a grade based a Categorical Indicator Kriging (CIK) process was implemented by ERM to define additional mineralised zone domain codes in the 'waste' material. A 0.2% Cu grade indicator value was chosen to correspond with the nominal mineralised zone wireframe COG adopted by HGO.</p> <p>Sample populations were subsequently statistically analysed to derive estimation domain groupings for Cu, Bi, Fe, Au, Ag, S and density based on the geological domains. Statistical analysis included comparison of global grade distributions, derivation of statistical correlations between grade variables and contact analysis of grade variables across the various geological domains.</p>	VARIABLE	BACKGROUND VALUE	UNITS	CU_PCT	0.001	%	BI_PPM	0.03	ppm	FE_PCT	10	%	AU_PPM	0.0025	ppm	AG_PPM	0.005	ppm	S_PCT	0.0012	%
VARIABLE	BACKGROUND VALUE	UNITS																					
CU_PCT	0.001	%																					
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Criteria	JORC Code explanation	Commentary
		<p>Samples were composited to a 1m length to correspond to the nominal sample length in the sample database within the estimation domains. Grade capping analysis of the composited samples was completed to determine grade capping values as appropriate for each variable to be estimated.</p> <p>Variograms were modelled from the capped composite data for each of the variables. A normal scores transform was applied for variogram modelling, with a back-transform to real space applied before using the variogram models in grade estimation. Quantitative kriging neighbourhood analysis (QKNA) was undertaken on the capped composites to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. Kriging efficiency and slope of regression were determined for a range of block sizes, minimum/maximum samples, search dimensions and discretisation grids. The QKNA results were used in conjunction with the common drill grid spacings and the morphology of the mineralised zones to determine final estimation parameters. This allowed some generalisation of sample selection parameters to be used in estimation. For simplicity, grade variables other than the primary economic variable, Cu, utilized the Cu estimation parameters.</p> <p>Estimation for Cu, Bi, Fe, Au, Ag, S and density was undertaken via Ordinary Kriging (OK), Inverse Distance (ID) and Nearest Neighbour (NN) for each variable, using the capped composite files within each estimation domain. All grade variables employ a three-pass search strategy, based on an expanding search ellipse. A variable search ellipse orientation strategy was implemented via Datamine Studio's DA functionality during grade estimation to honour the local undulations in the mineralisation orientation. Density utilises a similar sample selection strategy but is restricted to two search passes due to the limited nature of the sampling for this variable.</p> <p>For waste domains a 'coarse' block model prototype was used (5mE by 20mN by 20mZ) as the block model for all OK and ID interpolated variables. For mineralised domains a 'fine' block model prototype was used (2.5mE by 10mN by 10mZ) as the block model for all OK and ID interpolated variables. For the NN estimates a 'very high' resolution block model was used (1.25mE by 5mN by 5mZ) as the block model, allowing the NN model to act as a proxy for a de-clustered reference grade distribution.</p> <p>Each estimation domain was interpolated separately with all estimation domain boundaries treated as hard boundaries, as determined from analysis of contact plots and CDF plots. The model</p>

Criteria	JORC Code explanation	Commentary																																			
		<p>grades from the OK estimate were used as the final grades for all interpolated variables. The ID grade estimates have been used for model check estimate purposes only and are not reported. To fully populate the block model with grade values, un-estimated blocks for Cu, Bi, Fe, Au, Ag, S were assigned the same default grades as for unassayed drillhole samples.</p> <p>Final block values were validated by way of visual review of plans and cross sections (block model and drill samples presented with same colour legend), swath plots, and comparison of estimation domain mean grades with the input grade distribution data and the declustered grade distributions represented by the NN block model.</p> <p><b>Emily Star</b></p> <p>Wireframe interpretations developed from geological modelling were used to select drillhole samples from the estimation drillhole dataset for each model area. These were used as domains in the estimation process. Samples were then flagged with appropriate values to represent the modelled feature. Analysis was then undertaken on the flagged drillhole file to determine estimation parameters.</p> <p>Top cuts were selected following statistical analysis of the domain data. Top cuts were assigned based on changes in the slope of the log-probability plots typically close to the 99th percentile. Topcuts were selected that reduced the CV of the composite data while minimizing any reductions in the mean, and are shown below.</p> <table border="1" data-bbox="1182 906 1758 1061"> <thead> <tr> <th>ESTDOM</th> <th>Cu_pct</th> <th>Au_ppm</th> <th>Ag_ppm</th> <th>Bi_ppm</th> <th>Fe_pct</th> <th>S_pct</th> </tr> </thead> <tbody> <tr> <td>1100 (HG)</td> <td>6</td> <td>0.8</td> <td>12</td> <td>1800</td> <td>-</td> <td>-</td> </tr> <tr> <td>1200 (LG)</td> <td>2</td> <td>-</td> <td>-</td> <td>400</td> <td>-</td> <td>3</td> </tr> <tr> <td>2100</td> <td>6</td> <td>1</td> <td>15</td> <td>1000</td> <td>-</td> <td>10</td> </tr> <tr> <td>3100</td> <td>5</td> <td>1</td> <td>10</td> <td>1000</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>Multiple populations were identified in Domain 1001 and a 0.1% Cu threshold was used to capture data below and above the threshold value. To suitably capture the lower vs higher grade populations, ERM utilised a block modelling approach applied through Categorical Indicator Kriging (CIK). Composites below the 0.1% Cu threshold were flagged as low-grade internal 'waste' volume in domain 1001. Composites with a Cu grade &lt;0.1% Cu were flagged with a CIK grade indicator "0" and composites with a Cu grade &gt;0.1% were flagged with a CIK grade indicator "1".</p> <p>Low grade volumes in domains 2001 and 3001 were insignificant therefore no CIK was applied to these domains.</p>	ESTDOM	Cu_pct	Au_ppm	Ag_ppm	Bi_ppm	Fe_pct	S_pct	1100 (HG)	6	0.8	12	1800	-	-	1200 (LG)	2	-	-	400	-	3	2100	6	1	15	1000	-	10	3100	5	1	10	1000	-	-
ESTDOM	Cu_pct	Au_ppm	Ag_ppm	Bi_ppm	Fe_pct	S_pct																															
1100 (HG)	6	0.8	12	1800	-	-																															
1200 (LG)	2	-	-	400	-	3																															
2100	6	1	15	1000	-	10																															
3100	5	1	10	1000	-	-																															

Criteria	JORC Code explanation	Commentary
		<p>Four estimation domains (ESTDOM 1100, 1200, 2100 and 3100) were established from the analysis of the domain data.</p> <p>Quantitative kriging neighbourhood analysis (QKNA) was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. Kriging efficiency (KE) and slope of regression (SOR) were determined for a range of block sizes, minimum/maximum samples, search dimensions and discretisation grids.</p> <p>A 2.5 m(E) x 10 m(N) x 10 m(RL) parent cell size was used to honour wireframe boundaries. The drillhole data spacing is variable throughout the deposit from 10 m along strike by 10 m across strike to 20 m along strike by 50 m across strike. Most of the area has a spacing approximating 10 m along strike by 10 m across strike. Sampling has been completed largely on 1 m intervals. The selected block size represents the full drill spacing in the easting and northing directions in areas that have reasonable drill coverage.</p> <p>A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not be met.</p> <p>Ordinary kriging was adopted to interpolate grades into cells, with variogram rotations consistent with the search ellipse rotations.</p> <p>All interpolated grades variable utilise the search and sample selection plan obtained from the QKNA of the Cu estimation domains. A minimum of 16 and maximum of 28 samples per estimate used for estimation domain 1100 in the first and second search pass while the third search pass used a minimum of 10 and maximum of 12 samples. A minimum of 10 and maximum of 20 samples per estimate used for estimation domain 1200, 2100, 3100 in the first and second search pass and a minimum of 6 and maximum of 12 samples were used for the third search pass.</p> <p>Emily Star has been depleted for historical open pit mining in the reported Mineral Resources. from reporting.</p>
<b>Moisture</b>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages are estimated on a dry basis. No moisture data is available.
<b>Cut-off parameters</b>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The OK estimate is reported at 0.4% Cu Cut-off grade based on an economic review using \$4.21USD per lb and an exchange rate at \$0.65 AUD

Criteria	JORC Code explanation	Commentary
<b>Mining factors or assumptions</b>	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	<p>The MRE is within Mining Lease 6345 + 6436 which are fully permitted and approved for underground mining and ore processing.</p> <p>Mining Method is assumed to continue as per current underground mining, utilising Long Hole open stoping and lateral jumbo development</p> <p>The estimated resource extends from below the historical mined pit surfaces and to depth as per drilling extents.</p> <p>It is assumed that the haul road to pit base at 380m below surface will be used as access to the UG development.</p> <p>UCS measurements were collected from 59 samples across the Kavanagh zone and waste areas to assist with developing the mining method.</p>
<b>Metallurgical factors or assumptions</b>	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	<p>No metallurgical assumptions have been included in the resource.</p> <p>The Kanmantoo Copper Mine Processing Plant has been processing the Kanmantoo Ore for approximately 8 years with recoveries for copper of 90-94%, gold of 40–60% and silver of ~50%.</p> <p>All material in the resource is fresh rock and is the continuation of the previously mined and processed mine areas.</p>
<b>Environmental factors or assumptions</b>	<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i>	<p>Waste dumping areas and tailing storage facilities (TSFs) are already approved and constructed within the current mining lease.</p> <p>Both the mine and processing plant are under full regulatory approved environmental licences and permit.</p>

Criteria	JORC Code explanation	Commentary
<b>Bulk density</b>	<p><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <p><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i></p> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<p>Density was measured on core samples from the 2019-2024 drilling using the wet immersion method on NQ and NQ half core samples.</p> <p>Historical 2004-2010 collected wax-coated Archimedes method density sample results were reviewed for this Mineral Resource. The density results for 444 half core samples (a mixture of NQ and HQ in size) from pre-2019 drilling were used in the density calculation.</p> <p>The density data results were divided by lithology and the datasets were investigated for outliers and/or suspect values. The mean of the relevant ore type dataset was then calculated and assigned to the model once the estimation process was complete.</p> <p>This density was aligned with the Bulk Density values that were used during mining of the pit and reconciled against mine production and milling.</p> <p>Density was assigned to the block model using a combination of assignment of average Density by estimation domain, and spatial estimation from Density determinations from de-surveyed drillholes. A nominal density value of 2.00 t/m<sup>3</sup> was applied for surface fill material where no density determinations were available.</p> <p>Model tonnages are subsequently estimated on a dry basis.</p>
<b>Classification</b>	<p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p> <p><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>The Mineral Resource has been classified in accordance with guidelines contained in the JORC Code. The classification applied reflects the Competent Person's view of the confidence that should be assigned to the Mineral Resources reported.</p> <p>The following approach was adopted when classifying the Mineral Resource For Kavanagh, Nugent and North Kavanagh:</p> <ul style="list-style-type: none"> <li>Initially data quality was assessed. ERM considers that data quality of the modern data is of suitable standard to allow the delineation of Measured, Indicated and Inferred resources. Model areas informed by a larger proportion of historical data are largely mined out and are not relevant to the current MRE.</li> <li>Geological continuity was assessed. Given the geometry of the mineralisation, and geological complexity of the deposit, ERM considers that a drill spacing of approximately 80m along strike by 80m down-dip is required to enable the broad architecture of the deposit to be discerned prior to development of preliminary mine designs.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Inferred resources were defined as material contained within the wireframe volume on the basis that extrapolation from the nearest drillhole intercept was typically in the order of 80m. Classification was applied via direct coding of the model cells based on this logic.</li> <li>• For the mineralisation domains defined by the unconstrained indicator model, a more conservative approach was adopted whereby Inferred resources were restricted to blocks informed by 2 drillholes within 80m, and the distance to nearest drillhole is less than 40m. Classification was applied to the model cells based on this logic.</li> <li>• Indicated resources were defined as areas within the mineralisation domains where 2 drillholes were consistently found within 40m and slope of regression for Cu interpolation was consistently greater than 0.3. This was applied by digitising strings in a plane oriented approximately parallel to each mineralised structure and constructing a wireframe solid to define the classification volume. Model cells within the classification wireframes were flagged with the resource classification value. No Indicated resources were defined in the indicator model volume due to the poorly constrained nature of this material.</li> <li>• Measured resources were defined as areas within the mineralisation domains where 3 drillholes were consistently found within 20m and slope of regression for Cu interpolation was consistently greater than 0.6. This was applied by digitising strings in a plane oriented approximately parallel to each mineralised structure and constructing a wireframe solid to define the classification volume. Model cells within the classification wireframes were flagged with the resource classification value. No Measured resources were defined in the indicator model volume due to the poorly constrained nature of this material.</li> <li>• All depleted material, from both open pit and underground mining, has been assigned as “Unclassified”.</li> </ul> <p>The following approach was adopted when classifying the Emily Star Mineral Resource:</p> <ul style="list-style-type: none"> <li>• Initially data quality was assessed. ERM considers that data quality of the modern data is of suitable standard to allow the delineation of Inferred resources.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Geological continuity was assessed. Given the geometry of the mineralisation, and geological complexity of the deposit, ERM considers that a drill spacing of approximately 80m along strike by 80m down dip is required to enable the broad architecture of the deposit to be discerned prior to development of preliminary mine designs.</li> <li>• Inferred resources were defined as material contained within the mineralisation volume on the basis that extrapolation from the nearest drillhole intercept was typically in the order of 80m. Wireframe volumes at depth were generated to constrain the extrapolation down dip of Mineral Resources within the mineralisation domains that are currently not adequately supported by drilling. Classification was applied based on this logic.</li> <li>• All depleted material, from both open pit and underground mining, has been excluded from reporting.</li> <li>• All depleted material, from both open pit and underground mining, has been assigned as “Unclassified”.</li> </ul> <p>Appropriate account has been taken of all relevant criteria including data integrity, data quantity, geological continuity, and grade continuity</p> <p>Appropriate account has been taken of all relevant criteria including data integrity, data quantity, geological continuity, and grade continuity</p> <p>Once resource classification was completed in-situ model volumes deemed as being unviable due to distance from the current underground development and infrastructure were subsequently excluded from the Mineral Resource for reporting purposes. The reportable resource volume was defined by a wireframe solid provided by HGO</p>
<b>Audits or reviews</b>	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	<p>Internal reviews were completed by ERM and HGO which verified the technical inputs, methodology, parameters and results of the estimate. Both parties verified the technical inputs, methodology, parameters and results of the estimate.</p> <p>As part of the generation of the 2024 Ore Reserve the Kavanagh, Nugent and North Kavanagh estimates have been reviewed by AMC.</p>

Criteria	JORC Code explanation	Commentary
<p><b>Discussion of relative accuracy/confidence</b></p>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource. The Resource has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach.</p> <p>All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this table.</p> <p>The model has been reviewed in both section and plan for consistency against the drill hole data.</p> <p>The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.</p>

## Section 4: Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section)

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<p><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></p> <p><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></p>	<ul style="list-style-type: none"> <li>The Mineral Resources for mine areas Kavanagh, including Spitfire, and Nugent, defined by the Mineral Resource Datamine block model "md_mre_kanmantoo_240906_final.dm" at a 0.4% Cu cut-off and contains:</li> <li>Measured 3.245Mt at 0.94% Cu; 0.04ppm Au; 2.86ppm Ag</li> <li>Indicated 5.940Mt at 0.76% Cu; 0.20ppm Au; 2.15ppm Ag</li> <li>Inferred 7.505Mt at 0.71% Cu; 0.14ppm Au; 2.29ppm Ag</li> <li>The Mineral Resource is inclusive of those Mineral Resources converted to the Ore Reserve.</li> </ul>
<b>Site visits</b>	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The Competent Person visited site on the 23<sup>rd</sup> of July 2024 for a general site familiarisation purposes, to understand underground mining conditions, to ascertain planning parameters and modifying factors adopted in planning work and to understand adequacy of surface and underground facilities. The Competent Person considered most matters to be fair-and-reasonable.</p>
<b>Study status</b>	<p><i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></p> <p><i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></p>	<ul style="list-style-type: none"> <li>A Pre-feasibility study has not been completed for the Kanmantoo underground mine area, yet the underground mine has been operating for more than 6 months. A compilation of reports and operating data has gathered, reviewed and assessed to be to a PFS standard.</li> <li>The Kanmantoo Mine Area has been in operation since circa 2012 and has well established mining practices and knowledge of the lode and rock mass conditions. Inputs for the Ore Reserve estimate are generally in alignment with current operating practices and experience.</li> <li>The conversion of Mineral Resources to Ore Reserves is based on a life-of-mine (LOM) design and schedule completed by AMC Consultants Limited that has taken into consideration the Modifying Factors for mining, metallurgical, social, environmental, infrastructure, marketing, statutory and financial aspects of the Mine Area Project and is considered to be at pre-feasibility study level.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The level of confidence in the geotechnical data is to a PFS standard, however improvements can be made in the way the geotechnical data has been applied to support underground mining. The Competent Person considers for the operating mine that the geotechnical data is to PFS level accuracy down and that there is an expectation that further information will become progressively available to upgrade lower-confidence data.</li> <li>Appropriate budget is provided for in Hillgrove's CY2024 budget to improve numerical modelling work to confirm empirical predictions of factor-of-safety for extraction ratios, regional pillar requirements and closure sequence rock mass behaviour. The Competent Person considers the possible changes in overall geotechnical conditions are unlikely to have a material impact on the Ore Reserve.</li> </ul>
<b>Cut-off parameters</b>	<i>The basis of the cut-off grade(s) or quality parameters applied.</i>	<ul style="list-style-type: none"> <li>The cut-off grade is based on the contained copper which is the primary economic mineral of the deposit. The principle for applying a cut-off grade to estimate the Ore Reserve is based on the economic concept that processing mineralized material above the nominated cut-off grade returns enough revenue to cover all mining, processing and site-based administration costs and sustaining capital determined on an AUD\$/tonne basis.</li> <li>The basis for cut-off grade by mine method is 2024 May-Aug actual production cost data for circa 340kt of ore. LOM costs have also been reviewed and deemed appropriate.</li> <li>A cut-off of 0.6% Cu was applied during conversion from Mineral Resource to Ore Reserve.</li> </ul>
<b>Mining factors or assumptions</b>	<p><i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i></p> <p><i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></p> <p><i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</i></p>	<ul style="list-style-type: none"> <li>The Mineral Resource Datamine block model used for determining the Ore Reserves was "md_mre_kanmantoo_240906_final.dm".</li> <li>The mining method of sub level open stoping is appropriate to the nature of the deposit being a massive, steeply dipping sulphide orebody at depth, in competent ground.</li> <li>Infrastructure required for the mining method is available and the mine is in production. This includes development and plant necessary for material handling and processing, mine ventilation, dewatering, electrical reticulation and other mine services.</li> <li>Stopes consist of up to 4 sub levels, each of approximately 25m in height, and a maximum of 50m along strike. Maximum stope width is approximately 30m, with an average width of approximately 13m.</li> <li>Loose rock backfill is intended to be used only on an opportune basis to remove excess waste from the mine as required. Rib pillars of 15m length are to be left between stopes along strike to provide stability</li> </ul>

Criteria	JORC Code explanation	Commentary																				
	<p><i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></p> <p><i>The mining dilution factors used.</i></p> <p><i>The mining recovery factors used.</i></p> <p><i>Any minimum mining widths used.</i></p> <p><i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></p> <p><i>The infrastructure requirements of the selected mining methods.</i></p>	<p>during and after mining. Sill pillars of minimum 10m vertical thickness are planned to be left between stopes in the vertical plane. A crown pillar of approximately 25m is to be left below the open pits.</p> <ul style="list-style-type: none"> <li>• Stope designs were created using Deswik Stope Optimiser. The optimised stope shapes were adjusted and depleted to create minable stope shapes, and those shapes form the basis of the mine development and infrastructure design.</li> <li>• Design shapes in ore do not include any Inferred Mineral Resource or any other non classified material, except where such inclusions are unavoidable to design a minable shape. There is approximately 4.5% (by mass) of Inferred Mineral Resource or otherwise unclassified material included in designed extraction shapes in ore. Such material is not reported as part of this Ore Reserve estimate.</li> <li>• The MA is accessed via a decline and portal from the open pit to the Kavanagh mining area. A second portal and decline is being established to the Nugent orebody, with an internal decline being mined to join the two accesses.</li> <li>• Primary ventilation is provided by negative pressure surface fans located in the open pit and connected to the mine workings via return air tunnels. Primary fresh air flow is via the portal and main decline. A system of emergency egress ladderways has been planned. The ventilation circuit is considered to be optimal for the MA.</li> <li>• Production from the MA has only commenced recently, and current modifying factors are estimates based on available knowledge of ground conditions and other mining and ore processing parameters. Continued reconciliation of production and further testing of geotechnical and geological assumptions will improve the confidence in modifying factors in future.</li> <li>• Summary of mine modifying factors and assumptions as follows:</li> </ul> <table border="1" data-bbox="1025 1026 2029 1321"> <thead> <tr> <th data-bbox="1025 1026 1301 1070">Modifying Factors</th> <th data-bbox="1301 1026 1435 1070">Unit</th> <th data-bbox="1435 1026 1599 1070">Value</th> <th data-bbox="1599 1026 2029 1070">Comment</th> </tr> </thead> <tbody> <tr> <td colspan="4" data-bbox="1025 1070 2029 1115"><b>Density</b></td> </tr> <tr> <td data-bbox="1025 1115 1301 1160">In Situ Ore</td> <td data-bbox="1301 1115 1435 1160">t/m<sup>3</sup></td> <td data-bbox="1435 1115 1599 1160">Variable</td> <td data-bbox="1599 1115 2029 1160">Modelled ore density</td> </tr> <tr> <td data-bbox="1025 1160 1301 1275">In Situ Waste</td> <td data-bbox="1301 1160 1435 1275">t/m<sup>3</sup></td> <td data-bbox="1435 1160 1599 1275">2.2</td> <td data-bbox="1599 1160 2029 1275">Modelled waste density is used as available, with default constant of 2.2 t/m<sup>3</sup> where modelling is unavailable.</td> </tr> <tr> <td colspan="4" data-bbox="1025 1275 2029 1321"><b>Production</b></td> </tr> </tbody> </table>	Modifying Factors	Unit	Value	Comment	<b>Density</b>				In Situ Ore	t/m <sup>3</sup>	Variable	Modelled ore density	In Situ Waste	t/m <sup>3</sup>	2.2	Modelled waste density is used as available, with default constant of 2.2 t/m <sup>3</sup> where modelling is unavailable.	<b>Production</b>			
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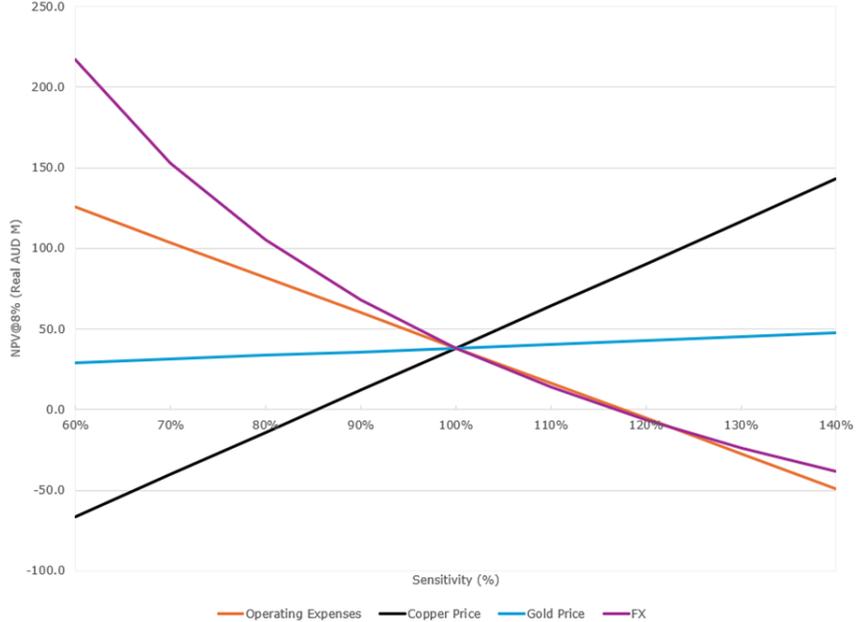
Criteria	JORC Code explanation	Commentary			
		Minimum Mine Width	m	5.0	Average mine width 12.6m (with ELOS), range 5.1 m to 31.9m.
		Overbreak HW Dilution	m ELOS	0.5	0.5 m skin for all MSO shapes.
		Overbreak FW Dilution	m ELOS	0.5	0.5 m skin for all MSO shapes.
		Operational Recovery	%	95	Estimated operational ore mucking recovery under remote mucking condition with open void.
		<b>Development</b>			
		<b>Ore Development</b>			
		Profile	m2	23.3	5.0 m width x 5.0 m height.
		Overbreak	m ELOS Skin	0.0	No overbreak skin for drive backs (overbreak is within stope shape ore horizon).
		Operational Recovery	%	95	Estimated operational mucking recovery using standard mucking up against face.
		<b>Other Development</b>			
		Decline Profile	m2	28.4	5.2 m width x 5.8 m height.
		Return airway profile	m2	23.3	5.0 m width x 5.0 m height.
		Level access profile	m2	28.4	5.2 m width x 5.8 m height.
<b>Metallurgical factors or assumptions</b>	<p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></p> <p><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></p> <p><i>The nature, amount and representativeness of metallurgical testwork undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></p>	<ul style="list-style-type: none"> <li>• The metallurgical factors have been derived from the operation of the existing concentrator.</li> <li>• Hillgrove utilises a conventional flotation concentrator to process sulfide copper ores. The processing plant consists of crushing, grinding, flotation and dewatering processes. A single product (copper concentrate) is produced with a grade of approximately 24% copper, and contains gold and silver credits. The processing plant was built to process ore from the open pit which ceased operations in 2019. The plant is capable of annual throughput in excess of 3.4 million tonnes of primary ore. The plant will be 40-45% utilised for the underground operation. The processing plant will be operated for 14-18 days per month at a daily throughput rate of around 8,500 tonnes per day. Hillgrove's copper</li> </ul>			

Criteria	JORC Code explanation	Commentary
	<p><i>Any assumptions or allowances made for deleterious elements.</i></p> <p><i>The existence of any bulk sample or pilot scale testwork and the degree to which such samples are considered representative of the orebody as a whole.</i></p> <p><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>concentrate is transported to Port Adelaide in South Australia. Copper concentrate sale agreements are in place.</p> <ul style="list-style-type: none"> <li>• Metallurgical recovery factors have been derived from actual operating performance of the concentrator for the most recent months of operation and represent the range of grades processed by the concentrator and specifically the impact of variations in both metal content.</li> <li>• The flotation recovery of copper is grade dependent. Empirical relationships have been developed to predict the recovery of Copper at the MA. Average Copper recovery over the LIM is 92.6%.</li> <li>• The Ore Reserve contains Bismuth which penalties in the final concentrate when greater than 250g/t. Factors have been determined based on monthly concentrate grades to account for penalties.</li> </ul>
<b>Environmental</b>	<p><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<ul style="list-style-type: none"> <li>• The Program of Environmental Protection and Rehabilitation (PEPR) defines the environmental impacts of operations which have been permitted and compliant to date, and the foreseen variances with underground operations.</li> <li>• The post mining land-use is defined with associated rehabilitation planning in place, flora and fauna surveys completed with domain success criteria and Landscape Function Analysis monitoring progress.</li> <li>• The existing surface disturbance footprint being utilized is permitted with little/no new impacts to the open pit closure plan established for pit, roads, or surface infrastructure.</li> <li>• PAF material is identified, and underground development waste that is to be dumped in-pit will be in a controlled location with encapsulation.</li> <li>• The tailings storage facility design for increased volume is assessed and signed off by competent persons, associated risk are tabulated with closure measures for the facility outlined.</li> <li>• Rehabilitation liability is estimated at \$4.57M with a \$9.2M bond (as of Sept 2019) in place, reducing to \$5.26M based on the government calculator.</li> </ul> <p>Hillgrove considers that there are not likely to be any environmental impediments to the extraction of the Ore Reserve.</p>
<b>Infrastructure</b>	<p><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.</i></p>	<ul style="list-style-type: none"> <li>• The Hillgrove operation has been in operation since circa 2012 and has appropriate established infrastructure to support the mining operations.</li> <li>• Concentrate transport and mine supplies are reliant on road access which is readily accessible and of high quality paved dual carriage way.</li> <li>• Most of the workforce lives locally. The mine is located near densely populated centres with world class</li> </ul>

Criteria	JORC Code explanation	Commentary																									
		facilities.																									
<b>Costs</b>	<p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p> <p><i>The methodology used to estimate operating costs.</i></p> <p><i>Allowances made for the content of deleterious elements.</i></p> <p><i>The source of exchange rates used in the study.</i></p> <p><i>Derivation of transportation charges.</i></p> <p><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></p> <p><i>The allowances made for royalties payable, both Government and private.</i></p>	<ul style="list-style-type: none"> <li>The Mineral Resource contains bismuth which incurs penalties in the final concentrate. Penalties have been assessed based on operational concentrate grades achieved in 2024.</li> <li>Allowances for penalties are based on a take off agreement between Freepoint Metals &amp; Concentrates LLC and Hillgrove.</li> <li>Bi penalty:</li> <li>&gt;800ppm \$10/dmt of conc.</li> <li>&gt;600ppm ~\$5/dmt of conc.</li> <li>&lt;250ppm - zero penalty</li> <li>Capital and operating costs have been determined from the current CY2024 budget operating cost base.</li> </ul>																									
<b>Revenue factors</b>	<p><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<ul style="list-style-type: none"> <li>Revenue is based on commercial contracts in place with the Freepoint Metals &amp; Concentrates LLC, dated the 22nd August 2016.</li> <li>Royalty of 5% on gross and increasing to 5.25% after 12 months of continuous operation.</li> <li>Price forecasts are as follows:</li> </ul> <table border="1"> <thead> <tr> <th>Metal Price</th> <th>Basis</th> <th>Price</th> <th>Modified Basis</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>Copper (Cu)</td> <td>USD/lb</td> <td>\$3.85</td> <td>AUD/tonne</td> <td>\$12,857</td> </tr> <tr> <td>Gold (Au)</td> <td>USD/oz</td> <td>\$2,680</td> <td>AUD/g</td> <td>\$130.55</td> </tr> <tr> <td>Silver (Ag)</td> <td>USD/oz</td> <td>\$31.91</td> <td>AUD/g</td> <td>\$1.55</td> </tr> <tr> <td>Exchange Rate</td> <td>AUD:US</td> <td>0.66</td> <td></td> <td></td> </tr> </tbody> </table> <p>Notes:</p>	Metal Price	Basis	Price	Modified Basis	Price	Copper (Cu)	USD/lb	\$3.85	AUD/tonne	\$12,857	Gold (Au)	USD/oz	\$2,680	AUD/g	\$130.55	Silver (Ag)	USD/oz	\$31.91	AUD/g	\$1.55	Exchange Rate	AUD:US	0.66		
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		<ol style="list-style-type: none"> <li>1. Au and Ag are based on 2024 spot prices.</li> <li>2. Cu is based on forecast analysis.</li> </ol>														
<b>Market assessment</b>	<p><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></p> <p><i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></p> <p><i>Price and volume forecasts and the basis for these forecasts.</i></p> <p><i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></p>	<ul style="list-style-type: none"> <li>• Copper is a traded in large volumes in the global market and is a key industrial material.</li> </ul> <p>Commercial contracts for copper product are in place as described above.</p>														
<b>Economic</b>	<p><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></p> <p><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></p>	<p>The key inputs and assumptions are summarised below. Based on the economic assumptions the project has a Net Present Value of \$38M AUD.</p> <table border="1" data-bbox="1025 858 2033 1345"> <thead> <tr> <th data-bbox="1025 858 1216 930">Economic Input</th> <th data-bbox="1216 858 2033 930">Assumption</th> </tr> </thead> <tbody> <tr> <td data-bbox="1025 930 1216 1002">Copper Price</td> <td data-bbox="1216 930 2033 1002">US\$3.85/lb. The basis for the selected metal price is Hillgrove's internal long-term price forecast which takes into consideration broker consensus forecasts.</td> </tr> <tr> <td data-bbox="1025 1002 1216 1074">Gold Price</td> <td data-bbox="1216 1002 2033 1074">US\$2680/oz, based on the spot gold price at the time of compiling the report (17 October 2024)</td> </tr> <tr> <td data-bbox="1025 1074 1216 1145">Silver Price</td> <td data-bbox="1216 1074 2033 1145">US\$31.91/oz, based on the spot gold price at the time of compiling the report (17 October 2024)</td> </tr> <tr> <td data-bbox="1025 1145 1216 1217">Mineral Royalty</td> <td data-bbox="1216 1145 2033 1217">A Royalty of 5% on gross revenue and increasing to 5.25% after 12 months of continuous operation is exacted (first commercial product month February 2024).</td> </tr> <tr> <td data-bbox="1025 1217 1216 1265">Discount Rate</td> <td data-bbox="1216 1217 2033 1265">8% real term weighted average cost of capital applied.</td> </tr> <tr> <td data-bbox="1025 1265 1216 1345">Basis of Estimate</td> <td data-bbox="1216 1265 2033 1345">The basis of estimate is Hillgrove's CY2024 budget for capital (sustaining and stay-in-business) and operating detailed. These were used for future cost forecasts and reflect a</td> </tr> </tbody> </table>	Economic Input	Assumption	Copper Price	US\$3.85/lb. The basis for the selected metal price is Hillgrove's internal long-term price forecast which takes into consideration broker consensus forecasts.	Gold Price	US\$2680/oz, based on the spot gold price at the time of compiling the report (17 October 2024)	Silver Price	US\$31.91/oz, based on the spot gold price at the time of compiling the report (17 October 2024)	Mineral Royalty	A Royalty of 5% on gross revenue and increasing to 5.25% after 12 months of continuous operation is exacted (first commercial product month February 2024).	Discount Rate	8% real term weighted average cost of capital applied.	Basis of Estimate	The basis of estimate is Hillgrove's CY2024 budget for capital (sustaining and stay-in-business) and operating detailed. These were used for future cost forecasts and reflect a
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			<p>first principles approach. Cost inputs are predominantly from Hillgrove which have been supplemented with AMC benchmark estimates where required.</p> <p>Nominal cost terms were applied from CY2024.</p>
		Concentrate Offtake	<p>Concentrate marketing terms applied over the life of mine reflect existing contracted terms with currently operating in-country smelters.</p>
		Cost efficiency factors	<p>During the final 8 years of the life of mine, production averages 45kt/month, which is less than 50% of the LOM average. G&amp;A costs have been reduced by 40% during this period. Processing labour costs have been reduced by 40%. Mining costs reduce in line with reduced development and production requirements.</p>
		Economic Cut-off Year	<p>Production during the final 8 years has a zero NPV. Optimisation of the operation and schedule during this period will likely result in a positive NPV.</p>
		Sensitivity Analysis:	

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		 <p>The chart displays the sensitivity of NPV@8% (Real AUD M) to various factors. The x-axis represents Sensitivity (%) from 60% to 140%, and the y-axis represents NPV@8% (Real AUD M) from -100.0 to 250.0. The legend includes Operating Expenses (orange), Copper Price (black), Gold Price (blue), and FX (purple). All factors intersect at 100% sensitivity with an NPV of approximately 40.0. Copper Price and FX show the steepest slopes, indicating the highest sensitivity.</p> <table border="1"> <caption>Table 1.9 Life of Mine Unit Costs (AUD)</caption> <thead> <tr> <th>Activity Cost</th> <th>Unit of Measure</th> <th>LOM Average</th> </tr> </thead> <tbody> <tr> <td>Mining</td> <td>\$/t-milled</td> <td>60.62</td> </tr> <tr> <td>Processing</td> <td>\$/t-milled</td> <td>14.96</td> </tr> <tr> <td>General &amp; Administration</td> <td>\$/t-milled</td> <td>3.70</td> </tr> <tr> <td>*Other</td> <td>\$/t-milled</td> <td>5.44</td> </tr> <tr> <td><b>Total On-Mine Costs</b></td> <td><b>\$/t-milled</b></td> <td><b>84.73</b></td> </tr> </tbody> </table> <p>Notes:</p>	Activity Cost	Unit of Measure	LOM Average	Mining	\$/t-milled	60.62	Processing	\$/t-milled	14.96	General & Administration	\$/t-milled	3.70	*Other	\$/t-milled	5.44	<b>Total On-Mine Costs</b>	<b>\$/t-milled</b>	<b>84.73</b>
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		<ol style="list-style-type: none"> <li>1. Mining cost includes Engineering (for all cost activities), Technical Services, and Capitalised Development.</li> <li>2. Aug 2024 to May 2027</li> <li>3. *Other includes compulsory exploration and corporate costs</li> </ol>
<b>Social</b>	<p><i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></p>	<ul style="list-style-type: none"> <li>• All necessary Government permits have been granted and the project is supported by the local community. Hillgrove has an extremely active community development plan being implemented, which was developed in conjunction with the local communities.</li> <li>• Hillgrove considers that there are not likely to be any social impediments to extracting the Ore Reserves included in this statement.</li> </ul>
<b>Other</b>	<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p> <ul style="list-style-type: none"> <li>▪ Any identified material naturally occurring risks.</li> <li>▪ The status of material legal agreements and marketing arrangements.</li> <li>▪ The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul style="list-style-type: none"> <li>• Hillgrove holds Mining Lease (ML) 6345 + ML6436 and is owned 100 % by Hillgrove Resources Limited (HGO). ML 6345 is 436.02 hectares and ML6436 is 1.96 hectares both are situated within Exploration Licence (EL) 6526, a lease of approximately 489 km<sup>2</sup> of which HGO also have 100% interest and which is granted to 16 December 2024 and able to be renewed to 16 December 2030</li> </ul>
<b>Classification</b>	<p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<ul style="list-style-type: none"> <li>• The Ore Reserve classification results appropriately reflects the view of the Competent Person.</li> <li>• Proved Ore Reserve are derived from Measured Mineral Resource.</li> <li>• Probable Ore Reserve are derived from Indicated Mineral Resource.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	<ul style="list-style-type: none"> <li>No Probable Ore Reserve was derived from Measured Mineral Resource</li> </ul>
<p><b>Audits or reviews</b></p>	<p><i>The results of any audits or reviews of Ore Reserve estimates.</i></p>	<ul style="list-style-type: none"> <li>No external audit of the Ore Reserve conducted.</li> <li>The Ore Reserve and associated LOM plan were subjected to an internal AMC peer review process. No critical flaws were identified.</li> <li>AMC's review of the end-August Mineral Resource was able to replicate the same Mineral Resource tonnes and grade as reported by the Mineral Resources Competent Person.</li> </ul>
<p><b>Discussion of relative accuracy/confidence</b></p>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <p><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<ul style="list-style-type: none"> <li>The mine planning estimates are most accurate adjacent to current mining areas and less accurate elsewhere with less infill drilling to accurately define the positions of the lodes and adverse structural features such as faults. This may increase capital development estimates and/or over-estimate lode payable extents.</li> <li>The mine modifying factors are considered by AMC to be reasonable given the style of mining and orebody characteristics. Ongoing reconciliation of production outcomes will improve the accuracy of modifying factor estimates.</li> <li>The geotechnical data for Ore Reserve is low to moderate confidence. The Competent Person considers for the operating mine that the geotechnical information is to PFS level accuracy. As an operating mine there is an expectation that improvement of data confidence will be achieved by the time it is required.</li> <li>Consultant geotechnical reports need to be updated to provide clear outlines of the design profiles to enable comparisons between empirical and numerical modelled stope dimensions and layouts.</li> <li>Modelling work was completed on a preliminary design in September 2024. This modelling needs to be updated, based on the final ore reserve design.</li> <li>The 10 m sill pillars, in the final ore reserve design, between stoping blocks pose a high risk of failure and air blast, and the design should be updated.</li> <li>An alternative sill pillar arrangement could be to leave a two-stope height sill pillar with development in between. At the end of the mine life, mass blasting of the stopes could be undertaken to recover the sill pillar. Such an arrangement would reduce risk whilst maintaining total resource recovery.</li> <li>The maximum stope height in Kavanagh needs to be evaluated in greater detail.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"><li data-bbox="1088 284 1973 339">• The current estimates for mine closure costs seem low due to escalated inflationary pricing post COVID-19 and should be re-assessed.</li></ul>