

Hillgrove Resources Limited (ASX: HGO) report for the quarter ended 30 September 2019

SUMMARY

Operations

Operational focus was on the processing of stockpiles, with quarterly production of 2,272 tonnes of copper and 858 ounces of gold, which was in line with plan. The remaining 1.7 million tonnes of stockpiled low grade ore are expected to be processed over the next two quarters.

Cash Flow

Free cash flow from the processing of stockpiles enabled the:

- cash and trade receivables balances to increase to \$6M, and
- creditors and accruals balances to decrease to \$10M.

Cash is expected to continue to accumulate over the remaining ore stockpile processing period.

Underground Exploration and Development

The diamond drilling program of the down-dip extensions of a portion of the Central and East Kavanagh lode systems beneath the Giant open pit was completed during the quarter. Highly promising drill results led to the completion of a maiden underground Mineral Resource Estimate for a portion of these lodes (refer ASX announcements 10-Oct-19 and 30-Oct-19). The drilling shows the higher grade portion of the lode systems are open in all directions, providing further opportunities for extensions to the Mineral Resource Estimate. A drill program to test the Central Kavanagh lode extensions and to test the West Kavanagh lode system has been approved and will commence in November 2019.

The technical studies to evaluate the feasibility of an underground mining operation are in progress and the permit for underground mining will be lodged with the South Australian Government in November. Negotiations continue with AGL to reach agreement to maximise the mining period without adversely impacting the potential pumped hydro project. The Company also continues to advance funding options.

Pumped Hydro Energy Storage Project

Hillgrove continued to assist AGL to satisfy the conditions for the next milestone payment (\$4M). During the quarter the geotechnical drilling at the shaft location was completed and is under technical review, and the contamination study commenced. Three of the seven conditions have been satisfied and, although work continued, the progress has been slower than expected which may prevent satisfaction of all conditions within the December quarter as previously anticipated. As such the next milestone payment is expected to occur in the March 2020 quarter.

Other Growth Opportunities

Hillgrove released an Exploration Target¹ for South Hub of between 4 - 9 million tonnes with a target grade between 1.2% - 2.2% Cu, and 0.1 - 0.3 g/t Au (refer ASX announcement 27-Sep-19).

¹The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2012). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve



MANAGING DIRECTOR'S STATEMENT

I am pleased to report an injury free quarter which resulted in the reduction of the rolling 12-month total recordable injury frequency rate (TRIFR) to 8.1 injuries per million worked hours. This reduction comes despite a significant reduction in hours worked compared to the same quarter last year which would normally see the TRIFR rise.

With this being the first full quarter post the completion of mining, operations focussed on the processing of the low grade ore stockpiles. This has led to the significant reduction in operating cash costs and a further improvement in the balance sheet through increased cash and trade receivables balances and a reduction in creditors and accruals balances. A loose density study of the remaining low grade ore stocks completed during the quarter has resulted in the downward revision of the estimated remaining low grade ore inventory by 271k tonnes to 1.7 million tonnes. The stockpile inventory will continue to be monitored.

The reduced cash cost structure, along with the fixed pricing of 3,000 tonnes at an average copper price of \$8,675 per tonne and the pumped hydro proceeds, is expected to result in the ongoing accumulation of cash. This will position the Company to consider further returns to shareholders and prudently assess a number of growth opportunities available to it.

Activities ramped up this quarter to assess the viability of an underground mining operation at Kanmantoo to maximise value from existing infrastructure, including the low cost 3.6Mtpa processing plant and permitted tailings storage facility. The first phase of this strategy focusses on accessing the depth extensions of the orebody below the pit before the pumped hydro project prohibits access, using the 350m deep Giant Pit as a "quasi decline" to reduce the capital investment requirements.

A drilling program of a portion of the Central and East Kavanagh Cu-Au lode systems was completed in October with highly promising drilling results². An underground Mineral Resource Estimate was announced³, highlighting 957kt at 1.7% Cu and 0.14 g/t Au. The ore lodes are open both along strike to the north and south, and down dip, providing an opportunity to expand the underground resource with additional drilling.

A further drilling program is scheduled to commence in November 2019. The drilling program will target the Western Kavanagh lode system which drove the optimal shape of the open pit, and pending success, the strike extensions of the Central Kavanagh orebody. Incorporating Western Kavanagh and the strike extensions of the Eastern and Central Kavanagh lodes has the potential to optimise project value.

The next steps in the underground development project include:

- Incorporate new drilling program into feasibility study to determine project viability.
- Reaching agreement with AGL to maximise the mining period without adversely impacting the cost, schedule or risk of the potential pumped hydro project.
- Receiving the necessary approvals to commence the underground development. The request for approval and supporting documentation (PEPR) will be lodged in November 2019.
- Finalising funding. A number of viable pathways to funding have been determined which will be considered in more detail on completion of the next drilling program.

Previous guidance on 2019 copper and gold production, C1 cost, and capital expenditure remains unchanged. However, the additional drilling program commencing in November will require the guidance for exploration expenditure to increase from the \$1.5M - \$2.0M range to \$2.3 - \$2.7M.

In addition to the Kavanagh underground project, Hillgrove continues to identify opportunities to increase shareholder value through the utilisation of existing assets. This includes South Hub Exploration Target⁴, nearby exploration opportunities such as Stella and Northwest, and the broader South East exploration tenements, on which Hillgrove continues to undertake low cost exploration to further demonstrate the iron oxide copper gold (IOCG) / porphyry prospectivity of the region.

Parties continue to work cooperatively to advance the pumped hydro energy storage project, however the progress has been slower than expected which may prevent satisfaction of all conditions within the December quarter as previously anticipated. As such the next payment is expected to occur in the March 2020 quarter.

This is an exciting time for Hillgrove as we consider the potential underground and exploration opportunities, and look forward to cash generation through open pit stockpiles and potential pumped hydro milestone payments.

² ASX Release, 10-Oct-19, *Excellent Drill Results from Kanmantoo Cu-Au Deposit*.

³ ASX Release, 30-Oct-19, *Maiden Kavanagh Underground Mineral Resource Estimate*.

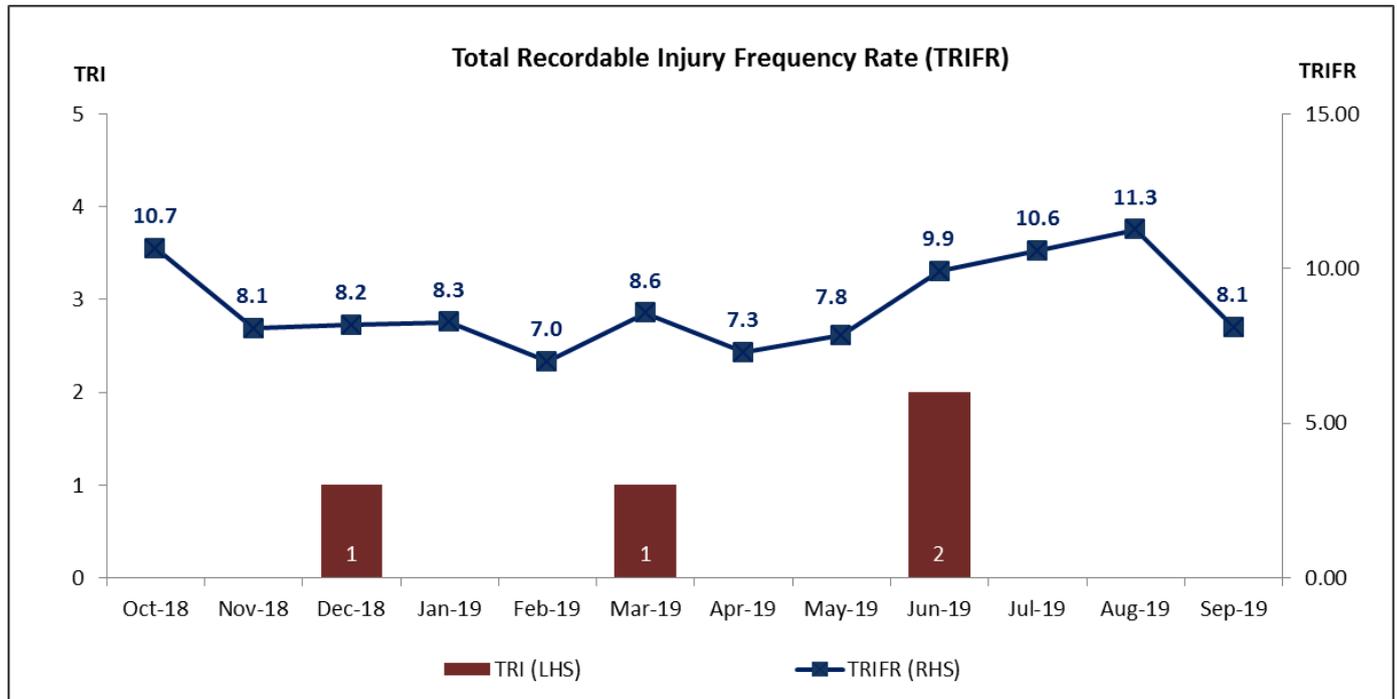
⁴ ASX Release, 27-Sep-19, *Kanmantoo South Hub Cu-Au Growth Opportunity*

CURRENT OPERATIONS
Kanmantoo Open Pit (Hillgrove 100%)

Safety

There were no recordable injuries during the quarter. As a result, the TRIFR decreased from 9.9 to 8.1 at quarter end. Please refer to **Figure 1** below.

FIGURE 1. TOTAL RECORDABLE INJURY FREQUENCY RATE (TRIFR)



Note to Figure 1: TRIFR is calculated per million hours worked

Operations Overview

With the completion of mining, there has been a significant reduction in cash costs with regards to equipment hire, diesel, staffing and contractors.

Mill throughput for the quarter was 902k tonnes at a 94.3% mill run-time. The throughput rate increased relative to previous quarters due to the characteristics of the low grade stockpiled ore processed for the entirety of the quarter. The copper feed grade for the quarter was 0.29% with a copper recovery rate of 86.6%. The feed grade and recovery rate were in line with expectations from the low grade stockpiled ore.

Following the completion of a study during the quarter, the loose density assumption applied to the remaining ore stockpiles has changed from 2.53 t/m³ to 2.30 t/m³. This reduces the estimated remaining stockpiled ore inventory by 271k tonnes to 1.7 million tonnes. The loose density will continue to be monitored.

Figure 2 illustrates the shaping of the waste landforms continues ahead of the next planting season in March 2020 in line with the rehabilitation schedule. **Figure 3** shows the rehabilitation of the tailings storage facility (TSF) following the seeding in March 2019.

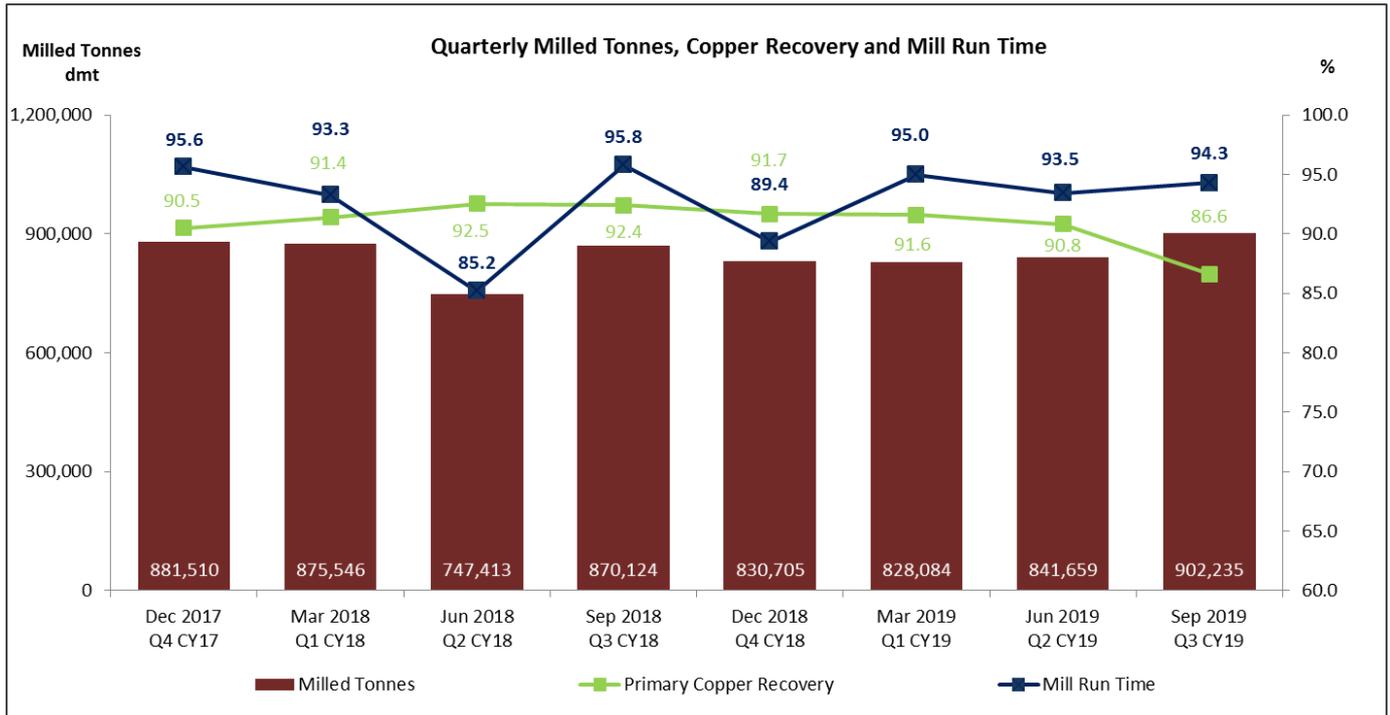


FIGURE 2. LOW GRADE ORE STOCKPILE & LANDFORM SHAPING



FIGURE 3. REHABILITATION – TSF EMBANKMENTS SEEDED IN MARCH 2019



FIGURE 4. KANMANTOO QUARTERLY PROCESSING PERFORMANCE


Total production for the quarter was 10,268 DMT of concentrate, containing 2,272 tonnes of copper metal and 858 ounces of gold (refer **Table 1**).

TABLE 1. KANMANTOO COPPER MINE PRODUCTION STATISTICS

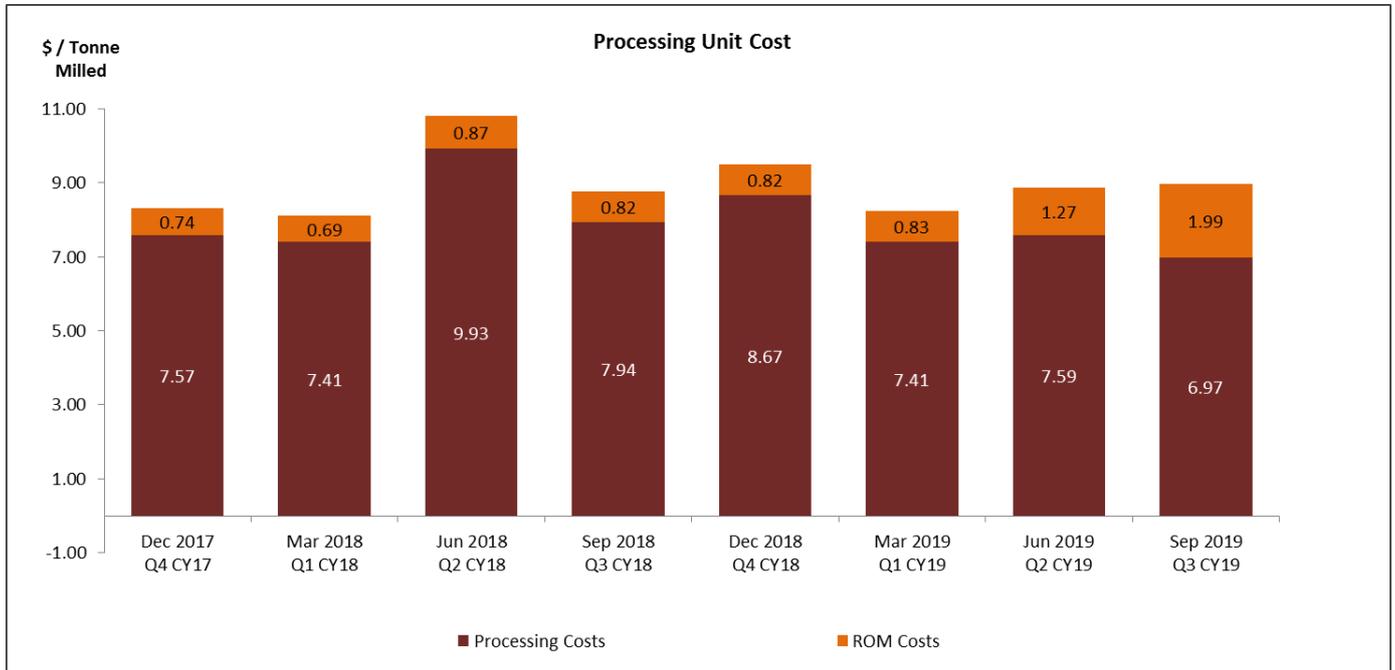
		MAR-19 QTR 3 MTHS	JUN-19 QTR 3 MTHS	SEP-19 QTR 3 MTHS	CY19 YTD 9 MTHS
Ore to ROM from Pit	kt	1,059	515	-	1,574
Mined Waste	kt	739	116	-	855
Total Tonnes Mined	kt	1,797	631	-	2,428
Strip Ratio	W:O	0.7:1	0.2:1	-	0.5:1
Closing Ore Stocks⁵	kt	3,128	2,846	1,673	1,673
Mining Grade	%	0.60	0.61	-	0.60
Ore Milled	kt	828	842	902	2,572
Milled Grade - Cu	%	0.65	0.55	0.29	0.49
- Au	g/t	0.06	0.06	0.06	0.06
Recovery - Cu	%	91.6	90.8	86.6	90.3
- Au	%	56.3	53.1	51.5	53.6
Cu Concentrate Produced	Dry mt	20,821	17,701	10,268	48,790
Concentrate Grade - Cu	%	23.8	23.9	22.1	23.5
- Au	g/t	1.4	1.4	2.6	1.7
Contained Metal in Con. - Cu	t	4,963	4,223	2,272	11,459
- Au	oz	961	801	858	2,619
- Ag	oz	37,034	30,140	17,828	85,002
Total Concentrate Sold	Dry mt	20,189	18,536	10,565	49,290

⁵ Stockpile estimate for Sep-19 quarter is now based on loose density of 2.30 t/m³ derived from a study carried out during the September 2019 quarter. The previous quarters in Table 1 have not been changed for consistency and used a density of 2.53 t/m³.

Costs

The processing unit cost of \$6.97 per tonne (refer **Figure 5**) was lower than those experienced in previous quarters, largely due to the increased throughput and the ore characteristics of the low grade ore. ROM costs increased as per expectations for the movement of ore from the low grade stockpile to the ROM pad which commenced in June.

FIGURE 5. KANMANTOO QUARTERLY PROCESSING UNIT COSTS



C1 unit cost for the September 2019 quarter was US\$2.69/lb (refer **Table 2**). With the completion of mining and the consumption of ore stockpiles, there are no longer any mining costs. Ore Inventory Adjustments now capture the past expenditure incurred in mining and stockpiling the ore. These past costs are now booked as an expense when that ore is processed into saleable product.

TABLE 2. KANMANTOO COPPER MINE COSTS (USC/lb at AUD/USD of 0.686 for the Sep-19 Quarter)

US cents per lb	MAR-19 QTR	JUN-19 QTR	SEP-19 QTR	CY19 YTD
	3 MTHS	3 MTHS	3 MTHS	9 MTHS
Total Mining Cost	107	50	-	65
Deferred Mining ⁶	45	11	-	23
Ore Inventory Adjustment ⁷	-19	30	125	28
Mining Costs	133	91	125	116
Processing Costs	42	55	116	61
Other Direct Cash Costs	8	9	15	10
Total Onsite Costs	183	155	256	187
Transport & Shipping	13	13	15	13
Treatment, Refining & Smelter Charges	26	27	27	27
Total Offsite Costs	39	40	42	40
Precious Metals Credits	-16	-15	-29	-18
Total Direct Operating Costs (C1 Costs)	206	180	269	209
Royalties	13	13	13	13
D&A	28	36	30	31
TOTAL COSTS	247	229	312	253

⁶ Within each pit, the cost of higher waste benches, proportional to the copper contained in the ore, is normalised for the impact of strip ratios and copper grades over the life of specific pits

⁷ Mining costs per tonne of ore added to (-'ve) or processed from (+'ve) long term stockpiles.

DEVELOPMENT PROJECTS

Hillgrove aims to utilise and maximise the value from the existing Kanmantoo Open Pit and other infrastructure (which includes the low cost 3.6Mtpa processing plant and permitted tailings storage facility) to continue processing ore from the mining lease.

This would be undertaken under a staged approach and subject to successful exploration and drilling results.

Kavanagh Underground

Drilling

The first phase of drilling centred on the depth extensions of the Central and East Kavanagh orebodies directly below the Giant open pit before the pumped hydro project prohibits access. This includes utilising the 350m deep open pit haul road as a “quasi decline” to be able to access the ore below, with a relatively low capital intensity underground mining development.

Diamond drilling to confirm the grade and tonnes of the Central and East Kavanagh targets commenced in June 2019 and concluded during the quarter. Post quarter end, on 10 October, the Company announced the results of the 12 hole diamond drilling program (refer **Table 3** below for summary).

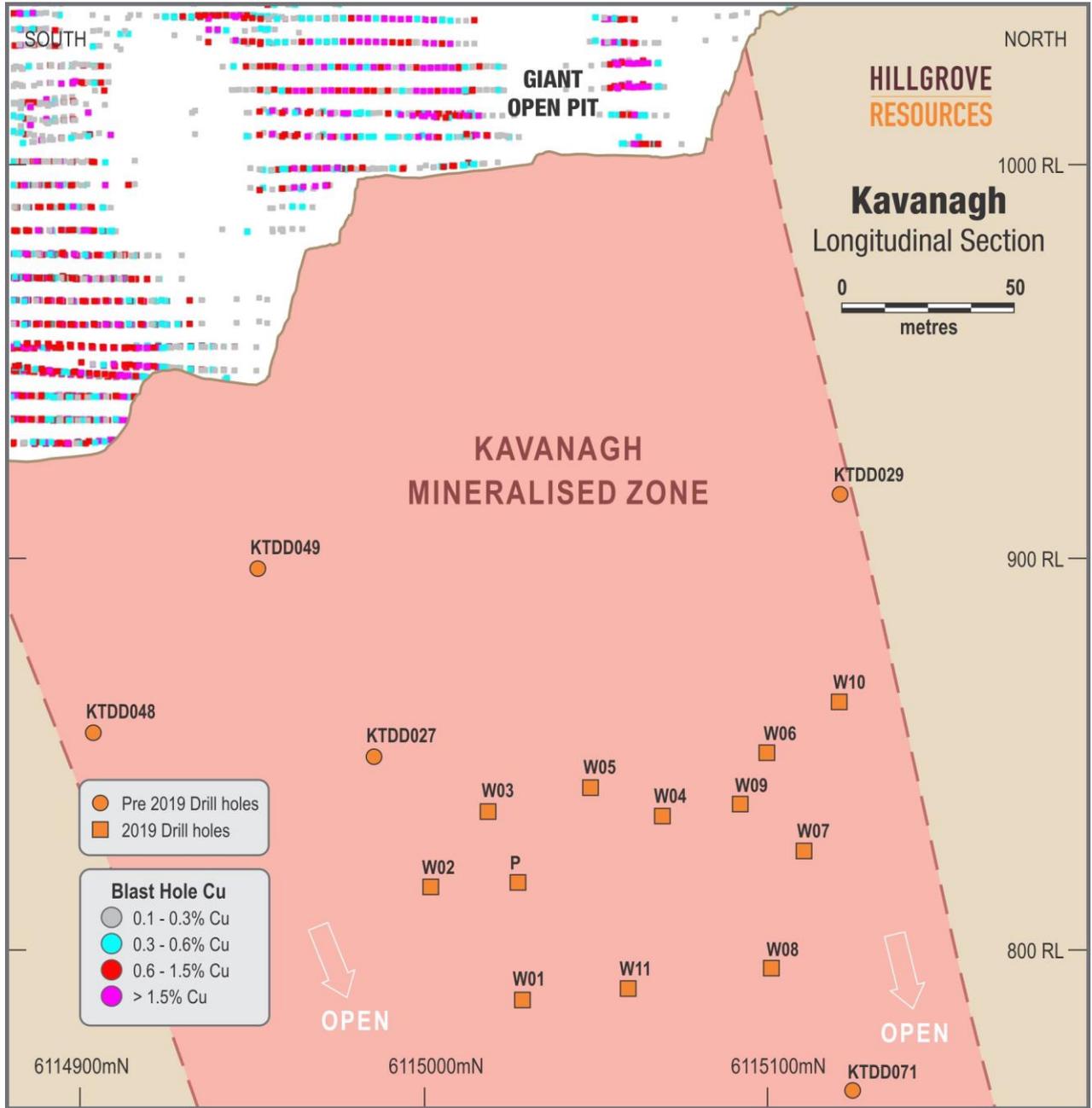
TABLE 3. DRILL HOLE RESULTS

Hole Name	Length Downhole (m)	Depth Downhole From (m)	Cu (pct)	Au (g/t)	Ag (g/t)
KTDD187_P	6	429	0.80	0.04	2.0
KTDD187_W1	14.55	442.45	1.88	0.08	4.4
KTDD187_W2	16.37	434.73	3.00	0.21	7.8
KTDD187_W3	20	421	2.14	0.26	6.8
KTDD187_W3	9	507	1.58	0.14	3.9
KTDD187_W3	16	529	1.15	0.08	2.8
KTDD187_W5	6	371	1.30	0.14	4.4
KTDD187_W5	20.15	393.25	1.52	0.10	4.1
KTDD187_W5	14	420	2.44	0.32	6.7
KTDD187_W6	22.5	372	2.46	0.11	6.9
KTDD187_W7	10.3	390.7	2.71	0.27	8.1
KTDD187_W7	9.5	424.5	2.14	0.61	9.4
KTDD187_W8	10	346	1.39	0.20	7.7
KTDD187_W8	14.5	389	0.93	0.09	4.2
KTDD187_W8	7.45	461	1.87	0.53	5.6
KTDD187_W9	11.6	319	1.17	0.10	1.8
KTDD187_W10	18	367	2.34	0.16	7.8
KTDD187_W11	6.1	382	1.66	0.10	4.3

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



FIGURE 6. LONGITUDINAL SECTION SHOWING ALL DRILL HOLE INTERESECTIONS



Central and East Kavanagh Mineral Resource Estimate

The drilling results from the 12 drill holes have enabled a maiden Mineral Resource Estimate to be published for the area. This was also announced post quarter end on 30 October. **Table 4** presents a summary of the resource estimate, appropriately rounded to reflect the resource category.

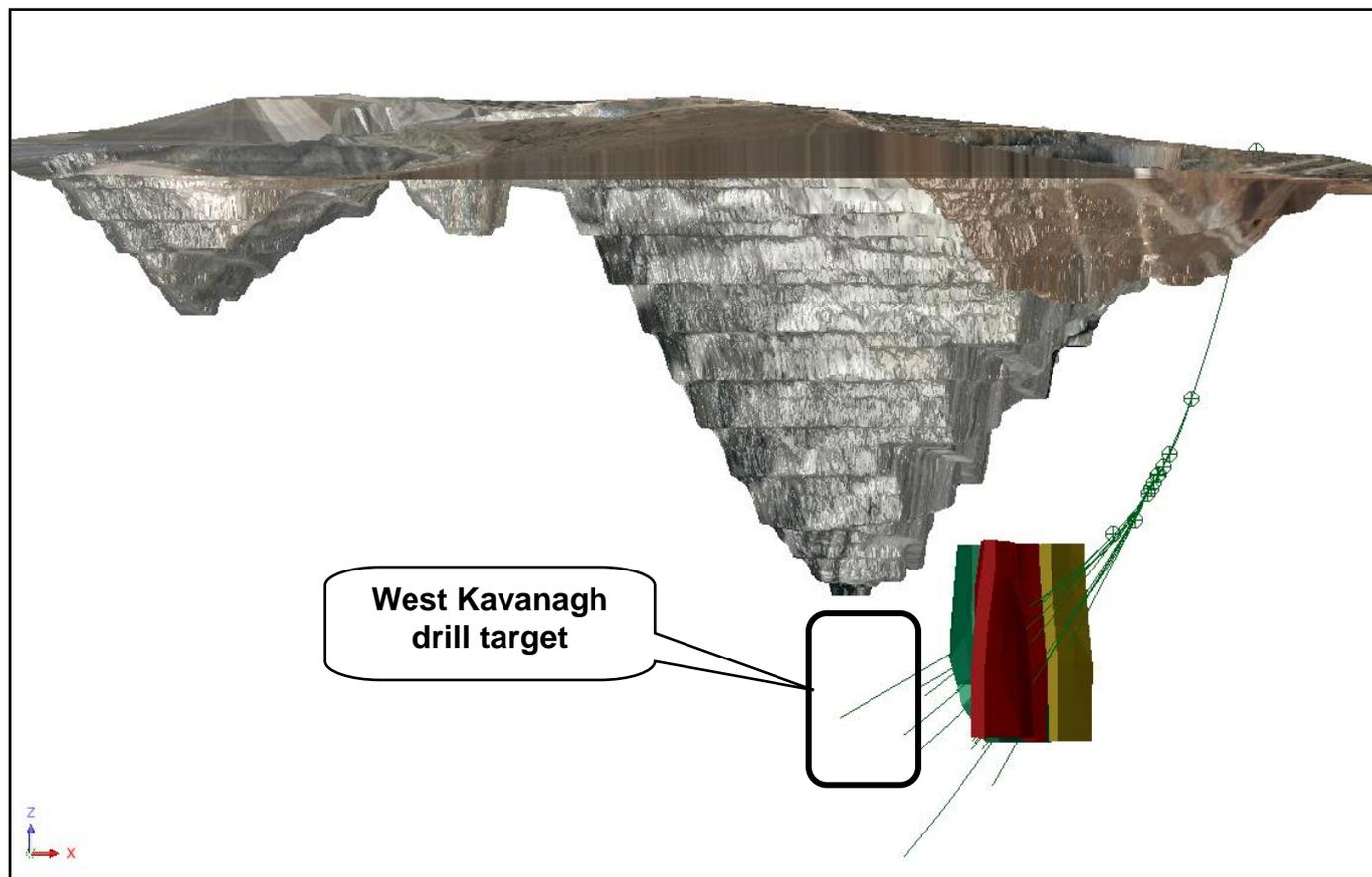
TABLE 4. KAVANAGH MINERAL RESOURCE ESTIMATE

Kavanagh Mineral Resource Estimate (900 – 750 RL) 0.6% Cu Cut-Off Grade					
	Tonnes	Cu (%)	Au (g/t)	Ag (g/t)	Cu Metal Tonnes
Indicated	646,000	1.63	0.1	3.6	10,500
Inferred	310,000	1.83	0.2	4.2	6,000
Total	957,000	1.70	0.1	3.8	16,200

As a result of the success of the drilling program and the high grade tenor of the copper mineralisation intersected for the Central and East Kavanagh mineralisation, the Company has decided to drill the down dip extensions of the West Kavanagh mineralisation. **Figure 7** shows the location of the East and Central Kavanagh drilling already completed and the location of the West Kavanagh exploration target.

The Giant open pit's greatest depths were centred on the high grade West Kavanagh zone and any subsequent mineral resource on this mineralisation can be combined with the Central and East Kavanagh mineral resource estimates to inform any subsequent engineering studies on the viability of underground mining beneath the Giant open pit.

FIGURE 7. WEST KAVANAGH DRILL TARGET



South Hub

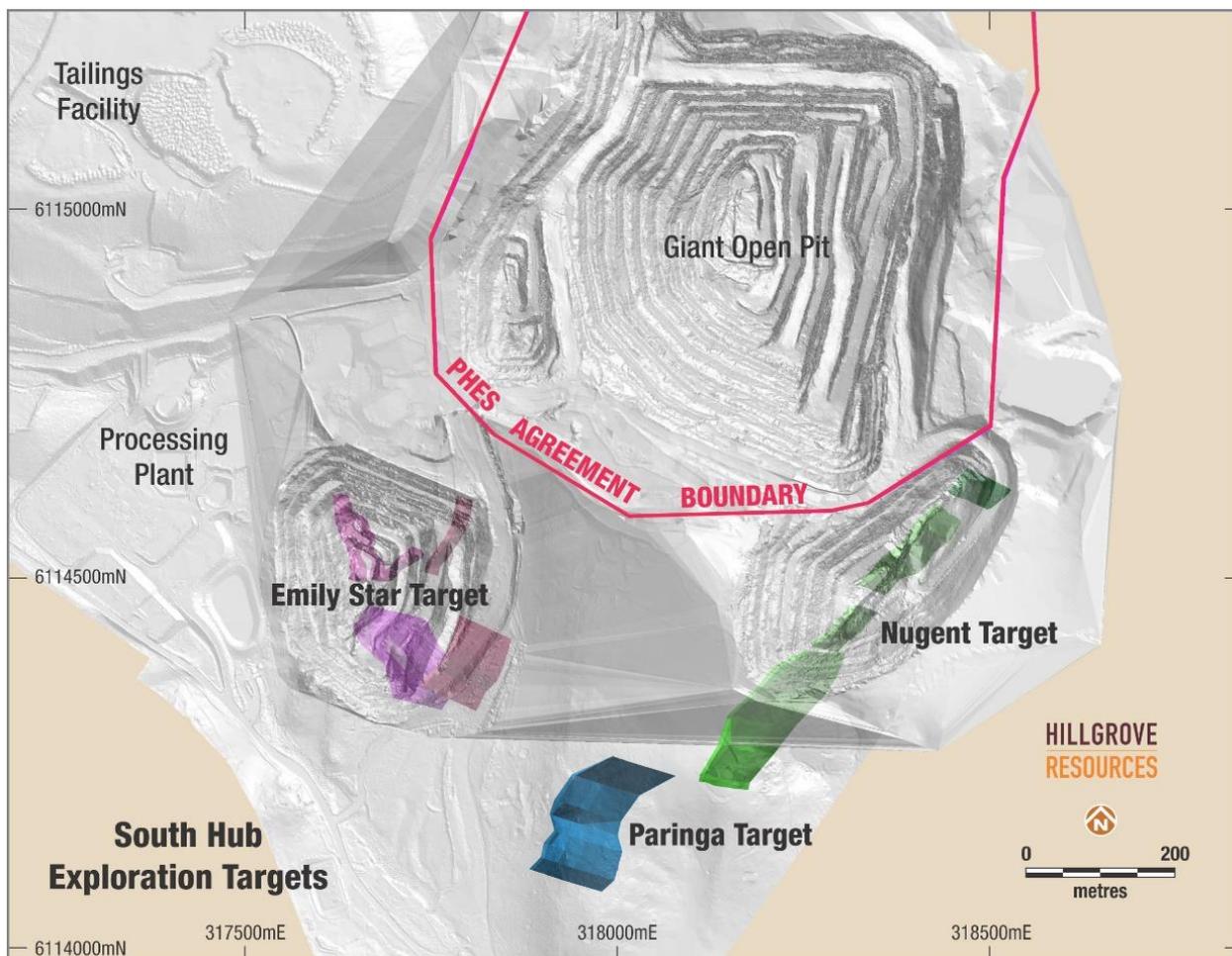
An opportunity for near-term growth, as previously announced, is to assess the down dip and along strike continuation of the higher grade Cu-Au orebodies that have been mined from the Emily Star and Nugent open pits and their near-vicinity, in areas that are not subject to the AGL option agreement. These targets are collectively known as South Hub and present an opportunity for long term production.

On 27 September, Hillgrove announced that they have approximated an Exploration Target at the Kanmantoo South Hub area (refer **Table 5 and Figure 8**) of between four and nine million tonnes with a target grade of between 1.2% and 2.2% Cu and 0.1 g/t to 0.3 g/t Au. The main target areas are beneath the previously mined open pits of Nugent and Emily Star, and Paringa (not previously mined).

TABLE 5. SUMMARY OF THE EXPLORATION TARGET BY ZONE

South Hub Exploration Target			
	Tonnage Range (Mt)	Grade Range Cu%	Grade Range Au g/t
Nugent	1.5 - 2.5	1.3 - 2.2	0.2 - 0.6
Paringa	0.5 - 1.5	1.1 - 2.2	0.1 - 0.2
Emily Star	2.0 - 4.5	1.2 - 2.2	0.1 - 0.3
Total	4 - 9	1.2 - 2.2	0.1 - 0.3

FIGURE 8. PLAN VIEW OF THE SOUTH HUB EXPLORATION TARGET BY ZONE



EXPLORATION

Hillgrove holds, or has under application 6,145 square kms of exploration licences in south-east South Australia. The exploration activities utilises the knowledge from Kanmantoo in an attempt to discover large magmatic Cu-Au deposits in the wider south-east South Australia region, employing low cost exploration techniques not used before in the region.

With a number of exciting targets identified, Hillgrove is considering exploration funding options, which may include the introduction of JV partners or a spin-off of these assets.

FIGURE 9. PLAN VIEW OF THE LOCATION OF HGO EXPLORATION PROJECTS IN SOUTH AUSTRALIA





PUMPED HYDRO ENERGY STORAGE

The sale to AGL of the rights to develop, own and operate the Kanmantoo Pumped Hydro Energy Storage (PHES) project for \$31 million, payable in staged payments and subject to completion of certain conditions over an estimated 18-36 month period, was completed during April 2019 (refer ASX announcement dated 16 April 2019 for further details).

The initial \$1.0M payable on the signing of the agreements has been paid by AGL.

The next \$4.0M will be payable by AGL on the completion of a number of conditions precedent, primarily relating to site environmental management, site contamination, and ground stability confirmation where the proposed shaft is located. Three of the seven conditions have been satisfied and, although work continued, the progress has been slower than expected which may prevent satisfaction of all conditions within the December quarter as previously anticipated. As such the next milestone is expected to occur in the March 2020 quarter.

HILLGROVE CORPORATE

Cash Flow (Unaudited)

With the completion of mining and the subsequent reduction in the cash costs of operations, working capital has further improved during the September 2019 quarter – with a cash and trade receivables balance of \$6.0M and creditors and accruals balance of \$10.0M.

Fixed Pricing

The Company continues to actively manage its Australian Dollar copper price exposure through fixed pricing contracts, which underpin revenues for the remaining copper production from the Kanmantoo Open Pit. As at the end of the quarter, it had 3,000 tonnes of future sales priced at an average copper price of \$8,675 per tonne.

Revenue

Gross revenue for the quarter (including precious metals credits) was \$21.8M, with the average realised price for copper metal sold being \$8,752 per tonne.

Guidance

Previous guidance on 2019 copper and gold production, C1 cost, and capital expenditure remains unchanged. However, the additional drilling program commencing in November will require the guidance for exploration expenditure to increase from the \$1.5M - \$2.0M range to \$2.3 - \$2.7M.

INDONESIAN GOLD AND GOLD/COPPER ASSETS

The Company is continuing to progress its withdrawal from Indonesia.

The Indonesian projects have been on care and maintenance since 2013 and the carrying value of both projects were fully impaired in 2015.

**CORPORATE INFORMATION****Issued Share Capital at 30 September 2019**

Ordinary shares	585,588,518
Employee Performance Rights	18,875,000

Share price activity for the Quarter

High	0.076
Low	0.061
Last (30 September 2019)	0.064

SHARE REGISTRY

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