

**ASX ANNOUNCEMENT**

31 May 2022

# Mallina Gold Project Resource Statement - 2022

*Hemi Mineral Resource grows 25% to 8.5Moz*

*Global Mallina Gold Project increases to 10.6Moz*

*Global Measured & Indicated Resources grow 80% to 6.9Moz*

## Hemi Highlights

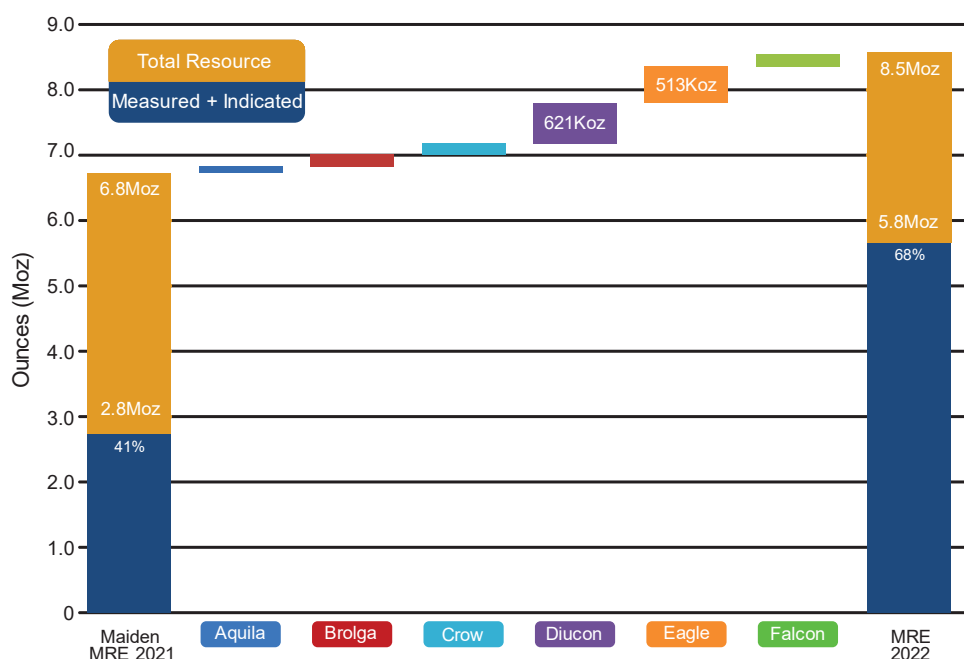
- **Hemi - Gold Mineral Resource grows 25% to 8.5Moz including 5.8Moz JORC Indicated category**

<b>Hemi Mineral Resource Estimate (JORC 2012)</b>	<b>213Mt @ 1.2g/t Au for 8.5Moz</b>
Indicated (68%)	139Mt @ 1.3g/t Au 5.8Moz
Inferred (32%)	74Mt @ 1.1g/t Au 2.7Moz

(0.3g/t Au Cut-off above 370m depth, 1.5g/t Au Cut-off below 370m depth, assays to 5 April 2022, rounding errors may occur)

- All Indicated resources fall within the Open Pit classification to 370m depth, with the main increases:
  - Diucon to **38Mt @ 1.3g/t for 1.6Moz**
  - Eagle to **26Mt @ 1.1g/t for 0.95Moz**
  - Indicated category increases from **2.8Moz to 5.8Moz**
- Inferred Resource discovery cost of \$10/oz and additional conversion cost to Indicated Resource of \$7/oz remain below industry average<sup>1</sup>.

**Figure 1 Change in Hemi Mineral Resource Estimate from June 2021 to May 2022.**



## Mallina Gold Project Highlights

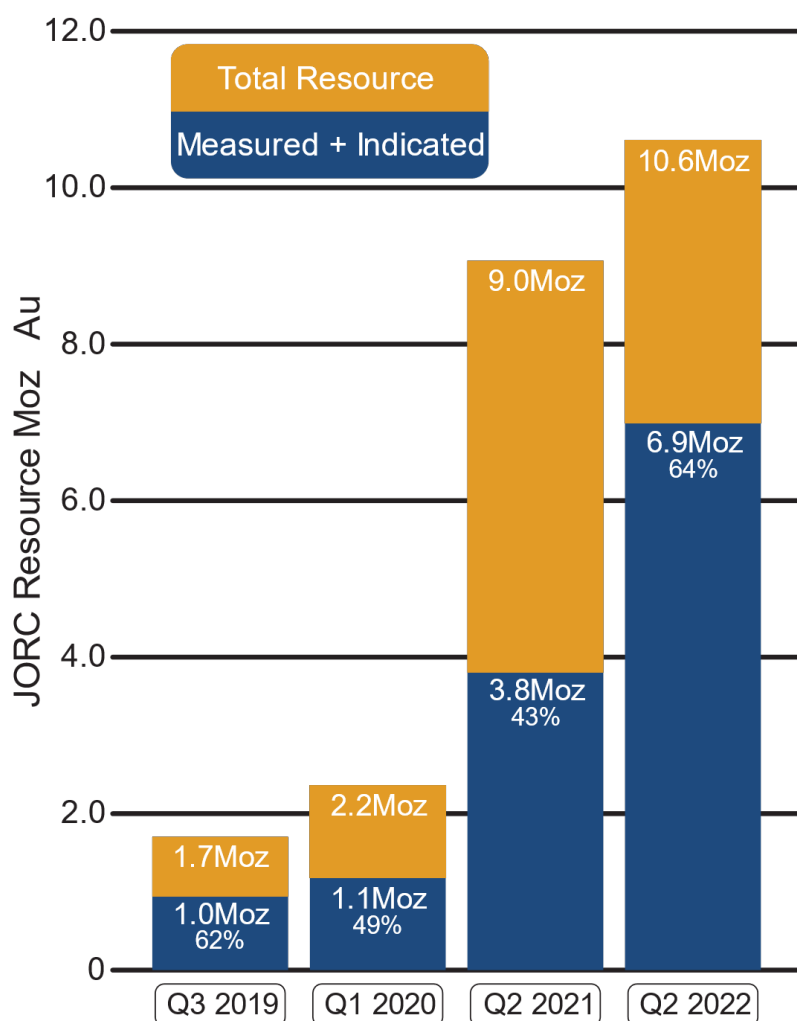
- **MGP - Global Gold Mineral Resource increases to 10.6Moz including 6.9Moz M&I**

MGP Mineral Resource Estimate (JORC 2012)	251Mt @ 1.3g/t Au for 10.6Moz
Measured (2%)	5Mt @ 1.7g/t Au for 0.3Moz
Indicated (62%)	153Mt @ 1.3g/t Au for 6.6Moz
Inferred (36%)	93Mt @ 1.3g/t Au for 3.8Moz

(0.3g/t Au Cut-off above 370m depth, 1.5g/t Au Cut-off below 370m depth, assays to 5 April 2022, rounding errors may occur, all regional deposits estimates remain unchanged)

- M&I Resource increase to 6.9Moz, with Hemi contributing 5.8Moz, providing a strong platform for the upcoming PFS and future Ore Reserve.
- All deposits remain open with resource extensional drilling at depth and along strike underway.
- Exploration drilling continues to test for discoveries within the Greater Hemi corridor and regional target areas with 10 rigs operating.

**Figure 2 Change in Mallina Gold Project Mineral Resource Estimate to May 2022.**



**De Grey Technical Director, Andy Beckwith, commented:**

*“Hemi continues to grow and is now Australia’s largest undeveloped open pit gold deposit.*

*RC and diamond drilling over the last 12 months has delivered on three key aspects:*

- 1. Extending the open pit mining potential, particularly Diucon and Eagle*
- 2. Infill drilling to convert Inferred to Indicated Resources to approximately 370m depth.*
- 3. Geotechnical and metallurgy drilling to enable the PFS economic study to advance.*

*The upgrade to 5.8Moz of Indicated Resources from the total of 8.5Moz since Hemi’s discovery in early 2020 now provides an increased baseline for the on-going PFS. Further resource upside is expected as drilling continues to show extensions at depth that have not been included in the resource update due to the April cutoff date.*

*The exploration focus over the next 12 months and beyond will now pivot back to resource growth through along strike and down dip extensions at Hemi and the high priority untested targets within the Greater Hemi region and large regional tenement package.”*

**De Grey Managing Director, Glenn Jardine, commented:**

*“The MRE update at Hemi provides an improved platform for the upcoming PFS and resultant Reserve and Production Target. The PFS, targeted for completion in the September Quarter 2022, aims to increase overall gold production, mine life and annual gold production rate relative to the October 2021 Scoping Study of 4.3Moz over 10 years.*

*Project studies, including metallurgy, geotechnical, mining, environmental, infrastructure and hydrogeology have continued in parallel with the resource extension and definition drilling. These studies will be incorporated into the PFS. The increase in Indicated resources and completion of the PFS are expected to provide a strong basis for project development and financing.*

*The Hemi footprint is approximately 3.5km east-west and 2.0km north-south. There is significant resource extension and discovery potential in areas adjacent to the existing footprint and at depth. Aircore and RC drilling is underway in the Greater Hemi area to test for, near surface mineralised intrusives The Company sees further growth to resources beyond the current 2022 MRE and upcoming PFS Production Target.”*

**An Investor Conference Call with De Grey Management is being held today, Tuesday 31 May at 7:00am WST / 9:00am EST.** Participants can register via the following link:

<https://s1.c-conf.com/diamondpass/10022409-am3nd4.html>

Refer to page 14 and 15 of this announcement for Competent Person disclosures and a disclaimer in relation to forward looking statements contained in this announcement. A summary of estimation techniques and modifying factors in contained in Appendix 2 of this announcement.

All references to the Scoping Study and its outcomes in this announcement relate to ASX announcement *Mallina Gold Project Scoping Study* dated 5 October 2021. All material assumptions and technical parameters used in the Scoping Study continue to apply and have not materially changed.

All references to the 2021 Mineral Resource Estimate in this announcement relate to ASX announcement *6.8Moz Hemi Maiden Mineral Resource drives MGP to 9.0Moz* dated 23 June 2021. Please refer to this announcement for full details and supporting information including JORC and Competent Person information.

<sup>1</sup>Resource discovery costs exclude regional exploration, study, corporate and administration costs.

De Grey Mining Limited (ASX: DEG, “De Grey” or the “Company”) is pleased to report that the Mallina Gold Project Mineral Resource Estimate (MRE) update has been completed by Cube Consulting Pty Ltd, based on additional drilling and assay results to 5 April 2022 at the Hemi gold deposit. The Regional gold deposit MREs remain unchanged from the April 2020 Mineral Resource statement.

Overall, the MRE increases include:

- **Hemi increased by 25% contained gold to 8.5Moz**
  - Diucon and Eagle (combined) increased by 78% contained gold to 2.6Moz
  - Hemi JORC Indicated category increases from 2.8Moz contained gold to 5.8Moz
- **Mallina Gold Project (MGP) increased 15% to 10.6Moz**
  - MGP JORC Measured and Indicated categories increased by 80% to 6.9Moz

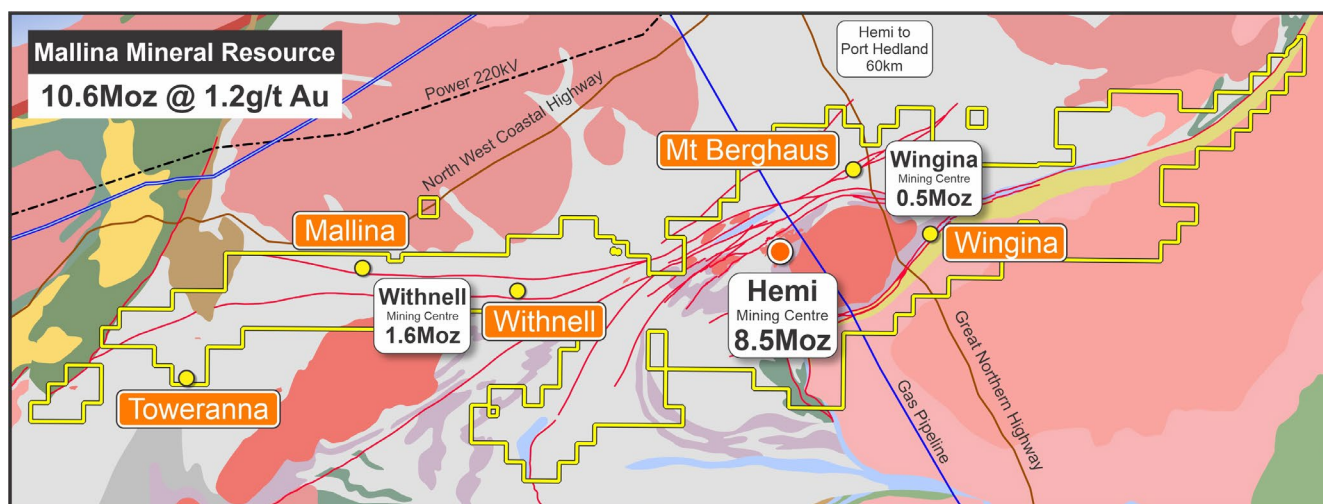
The MRE is based on 323 diamond drill holes for a total of 83,933m and 949 reverse circulation (RC) drill holes for 232,012m including pre-collars completed between February 2020 and the 5 April 2022 cut-off date.

The Pre-Feasibility Study (PFS) is well advanced and due in the September Quarter 2022. This PFS will provide an updated assessment of mineable resources, Ore Reserves and economics of the project.

### Hemi Mineral Resource Update

The Hemi gold deposit is located centrally within De Grey’s 1,500km<sup>2</sup> Mallina Gold Project (MGP) and immediately southwest of Port Hedland in the northern Pilbara region of Western Australia. The project benefits from close proximity to Port Hedland’s major infrastructure network, including major highways, port facilities, gas pipelines, overhead 220kV electrical powerlines and associated power stations.

**Figure 3 Mallina Gold Project showing main gold deposits and the Hemi Discovery.**



Hemi was first discovered by aircore drilling conducted in November 2019 and confirmed by RC drilling in February 2020. Extensive RC and diamond drilling continued during 2020 and 2021 leading to the maiden MRE of 6.8Moz for Hemi announced on 23 June 2021.

Additional drilling during 2021 and 2022 has focused on improving the density of drilling within, and resource extensions to, the maiden MRE. This has culminated in this MRE update based on assays to 5

April 2022. Drilling continues to test for extensions to the known deposits at Hemi and new discoveries within the Greater Hemi region.

Gold mineralisation at Hemi is hosted in a series of intermediate intrusions associated with sulphide (pyrite and arsenopyrite) stringers and disseminations within brecciated and altered quartz diorites that intrude into the surrounding Archaean aged Mallina Basin sediments. The Archaean basement is eroded and truncated by a 25m to 45m thick horizon of recent transported sediments that are barren of gold mineralisation. The Hemi style of mineralisation was previously unknown in the Pilbara region and shows a scale of gold mineralisation not previously seen in the Mallina Basin.

A Scoping Study was completed in October 2021, which highlighted an open pit mining scenario and on-site processing based on a 10Mt annual throughput. The study showed initial potential production of:

- An average ~473,000ozpa at a grade of 1.6g/t Au over the first 5 years
- An average ~427,000ozpa at a grade of 1.4g/t Au over the 10 year study period

The Scoping Study provided strong and robust economics which are expected to be improved upon during the Pre-Feasibility Study (PFS) currently underway. The PFS is expected to be completed during the September Quarter 2022 and is based on this May 2022 MRE.

The May 2022 MRE for Hemi is summarised below by deposit and then by the depth breakdown for Open Pit (above 370m depth) and Underground (below 370m depth). A plan view of the various Hemi deposits is shown in Figure 4 and the relative JORC Indicated and Inferred portions are shown in Figure 5.

**Table 1 Hemi - Mineral Resource Estimate (JORC 2012) by Deposit, May 2022.**

Deposit	Indicated			Inferred			Total		
	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
<b>Aquila</b>	<b>12.9</b>	<b>1.5</b>	<b>610</b>	<b>7.6</b>	<b>1.3</b>	<b>311</b>	<b>20.5</b>	<b>1.4</b>	<b>921</b>
<b>Brolga</b>	<b>37.3</b>	<b>1.3</b>	<b>1,611</b>	<b>24.2</b>	<b>1.1</b>	<b>821</b>	<b>61.6</b>	<b>1.2</b>	<b>2,432</b>
<b>Crow</b>	<b>20.3</b>	<b>1.1</b>	<b>700</b>	<b>12.5</b>	<b>1.2</b>	<b>474</b>	<b>32.8</b>	<b>1.1</b>	<b>1,174</b>
<b>Diucon</b>	<b>29.4</b>	<b>1.4</b>	<b>1,311</b>	<b>8.6</b>	<b>1.2</b>	<b>325</b>	<b>37.9</b>	<b>1.3</b>	<b>1,635</b>
<b>Eagle</b>	<b>16.6</b>	<b>1.2</b>	<b>636</b>	<b>9.9</b>	<b>1.0</b>	<b>312</b>	<b>26.5</b>	<b>1.1</b>	<b>948</b>
<b>Falcon</b>	<b>22.7</b>	<b>1.3</b>	<b>937</b>	<b>11.4</b>	<b>1.2</b>	<b>422</b>	<b>34.1</b>	<b>1.2</b>	<b>1,359</b>
<b>Total Hemi</b>	<b>139.1</b>	<b>1.3</b>	<b>5,804</b>	<b>74.1</b>	<b>1.1</b>	<b>2,666</b>	<b>213.3</b>	<b>1.2</b>	<b>8,470</b>

Note: 0.3g/t Au Cut-off above 370m depth, 1.5g/t Au Cut-off below 370m depth, assays to 5 April 2022. Differences may occur due to rounding

**Table 2 Hemi - Mineral Resource Estimate (JORC 2012) by Depth, May 2022.**

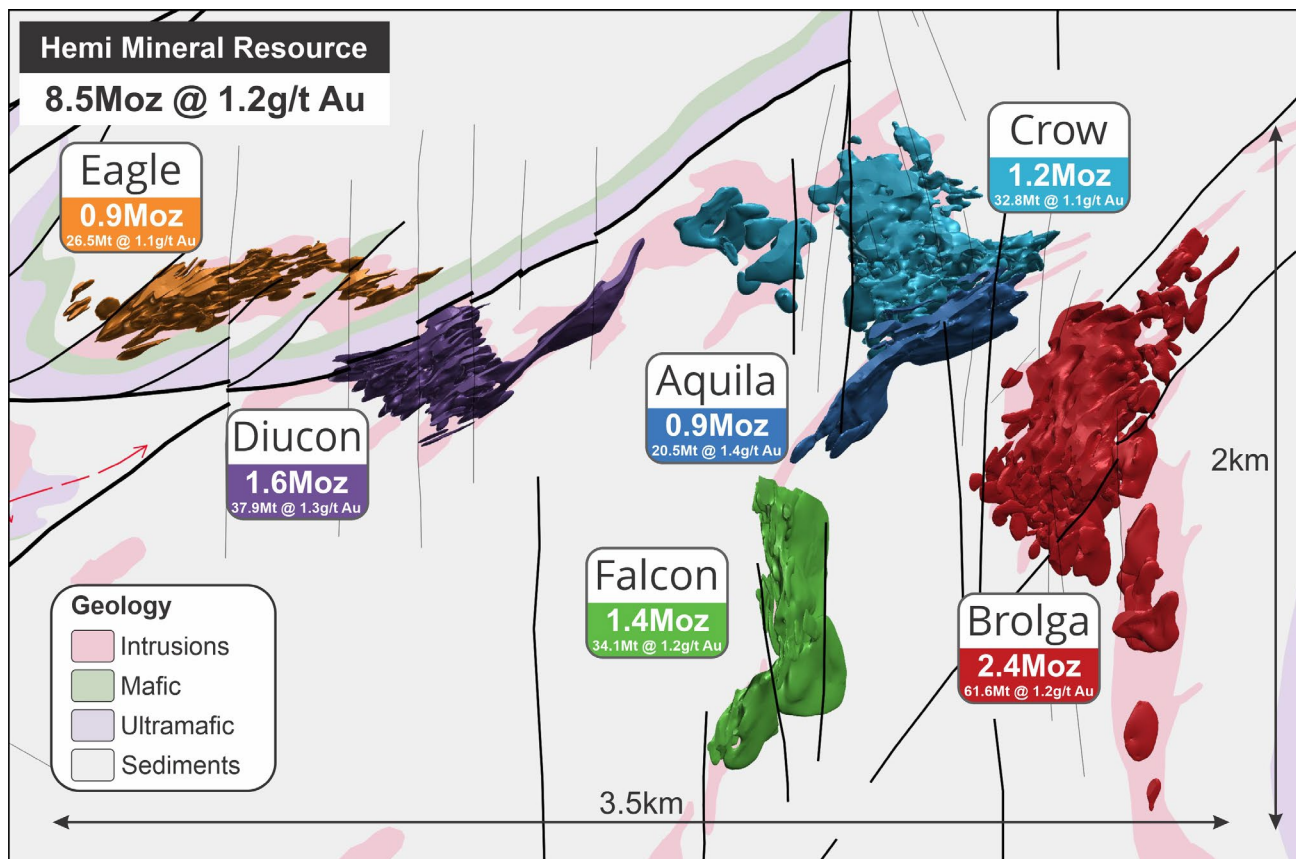
Depth	Indicated			Inferred			Total		
	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
<b>0 – 370m</b>	<b>139.1</b>	<b>1.3</b>	<b>5,804</b>	<b>68.9</b>	<b>1.0</b>	<b>2,251</b>	<b>208.0</b>	<b>1.2</b>	<b>8,053</b>
<b>Below 370m</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>5.2</b>	<b>2.5</b>	<b>417</b>	<b>5.2</b>	<b>2.5</b>	<b>417</b>
<b>Total Hemi</b>	<b>139.1</b>	<b>1.3</b>	<b>5,804</b>	<b>74.1</b>	<b>1.1</b>	<b>2,666</b>	<b>213.3</b>	<b>1.2</b>	<b>8,470</b>

Note: 0.3g/t Au Cut-off above 370m depth, 1.5g/t Au Cut-off below 370m depth, assays to 5 April 2022. Differences may occur due to rounding

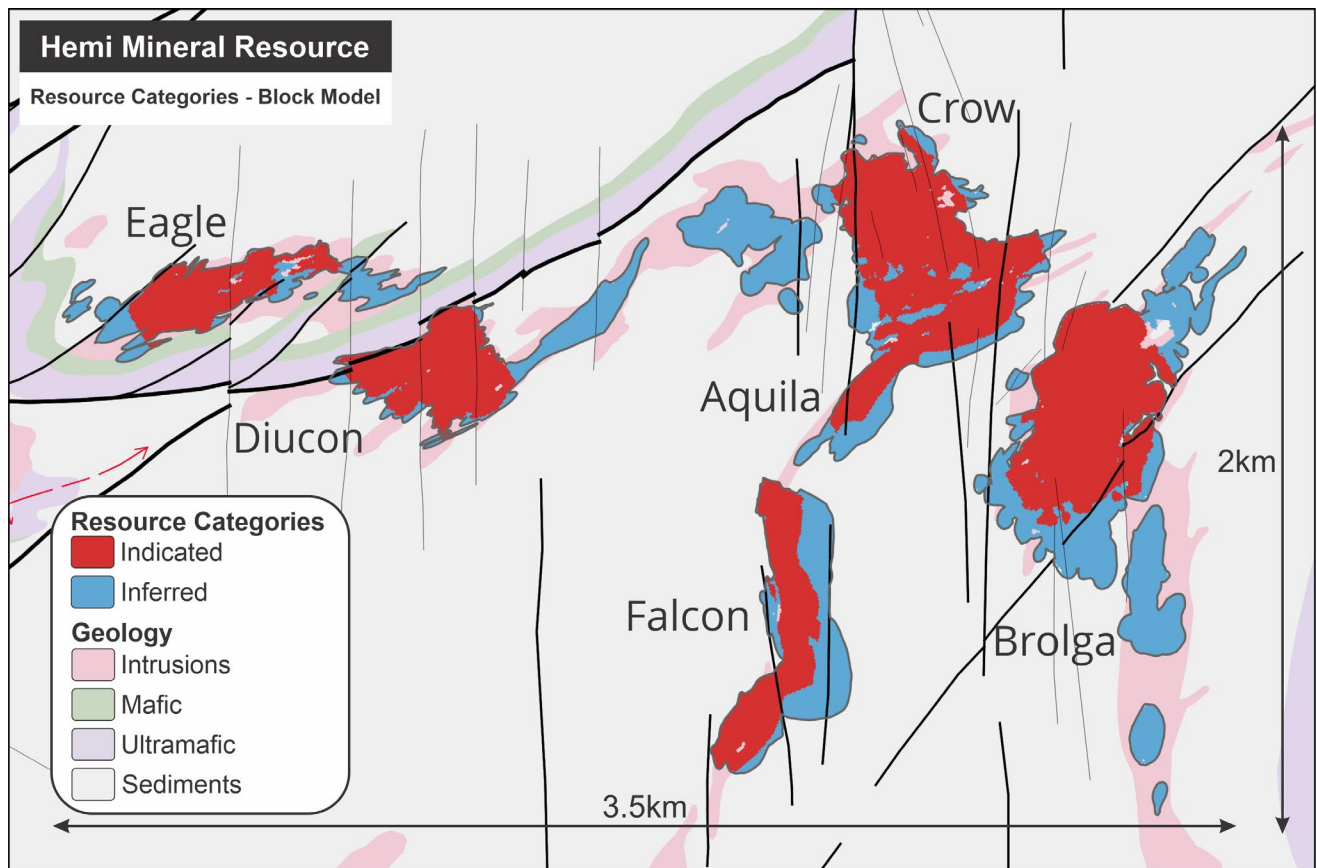
The Indicated resources of the Hemi MRE occurs within the Open Pit classification to a depth of 370m from surface. The 12 month infill drilling program concentrated on increasing the density of drilling within the previously defined Scoping Study pit shells. The aim of this infill drilling was to increase the Indicated resources for inclusion within the PFS, for potential conversion to reserves.

Extensional and discovery drilling is currently underway both laterally along strike and below the Hemi deposits which all remain open. Limited drilling has been conducted below 370m depth as drilling focussed on increasing the confidence of resources likely to be exploited by large scale Open Pit mining methods. This drilling has the potential to significantly increase gold endowment below 370m. Drilling of conceptual targets in the Greater Hemi region near surface and at depth also have the potential to discover new large scale intrusion deposits.

**Figure 4 Hemi gold deposits resource areas.**



**Figure 5 Hemi gold deposits resource showing JORC Indicated and Inferred areas.**



The robust nature of the Hemi May 2022 MRE is demonstrated in the following summary of higher cut off grades:

**Table 3 Hemi Project Mineral Resource at Various Cut-off grades.**

Cut-off Grade 0 – 370m (Au g/t)	Indicated			Inferred			Total		
	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
0.3	139.1	1.3	5,804	74.1	1.1	2,666	213.3	1.2	8,470
0.4	124.7	1.4	5,642	63.8	1.2	2,549	188.4	1.4	8,191
0.5	111.0	1.5	5,444	54.8	1.4	2,420	165.8	1.5	7,864
0.6	98.7	1.6	5,227	47.4	1.5	2,289	146.1	1.6	7,516
0.7	87.9	1.8	5,001	41.2	1.6	2,159	129.0	1.7	7,160

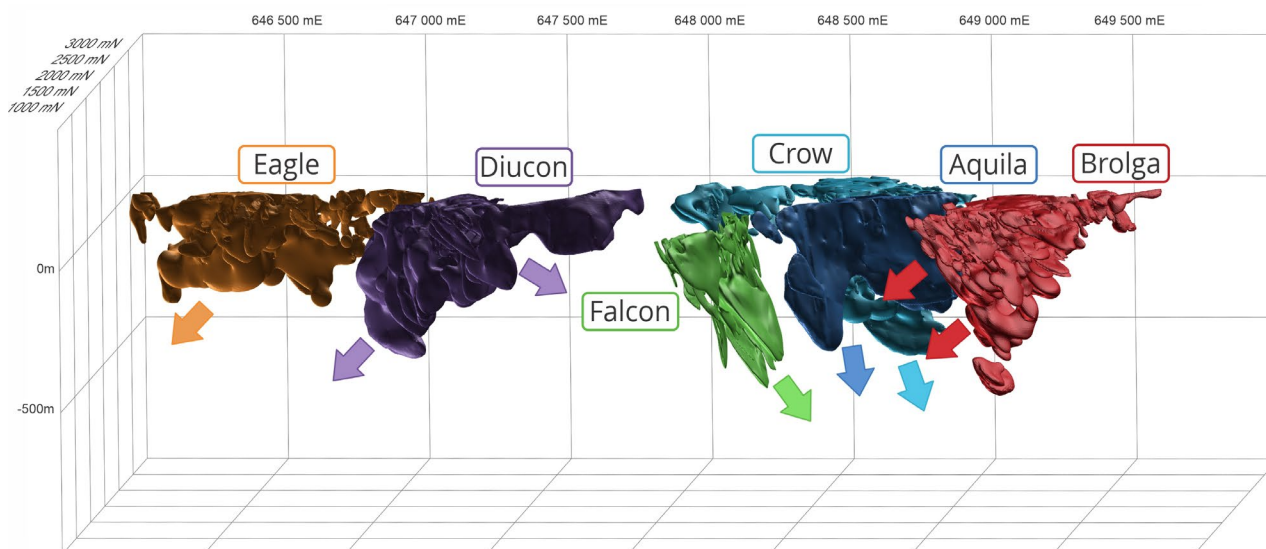
Note: Above 370m depth, cut-off grades as shown above. Below 370m depth a 1.5g/t cut-off was applied.

The high average gold endowment, shown as ounces per vertical metre (oz/Vm) for each Hemi deposit, provides strong support for the economic potential of open pit mining. The upper 200m portion of the Brolga resource equates to 10,700oz/Vm and is the reason the Brolga starter pit described in the Scoping Study is prioritised in the early stages of the development strategy and sequencing.

<b>Brolga</b>	<b>6,700oz/Vm</b> above 370m depth with <b>10,700oz/Vm</b> above 200m depth
<b>Aquila</b>	<b>2,450oz/Vm</b> above 370m depth
<b>Crow</b>	<b>3,100oz/Vm</b> above 370m depth
<b>Falcon</b>	<b>3,800oz/Vm</b> above 370m depth
<b>Diucon</b>	<b>4,700oz/Vm</b> above 370m depth
<b>Eagle</b>	<b>2,800oz/Vm</b> above 370m depth

All the deposits remain open at depth with step out extensional drilling currently underway. In particular, there is the potential to extend resources at Diucon and Eagle where drilling continues to intersect broad zones of mineralisation beyond the limits of the resource model (Figure 6). Similarly, the down plunge potential to the southwest of Brolga, down dip at Aquila and Falcon below 500m depth are examples of other high priority areas.

**Figure 6 Hemi showing potential resource extension target areas.**



Drilling during the next 12 months will aim to further test specific geophysical targets within the Greater Hemi region and extend the known deposits at depth and along strike. Figure 7 and 8 show the density of resource definition RC and diamond drilling from surface and then below 300m depth. Both diagrams show the limited detailed drilling beyond the known deposits and at depth.



Figure 7 Greater Hemi Region showing all drilling at surface to date.

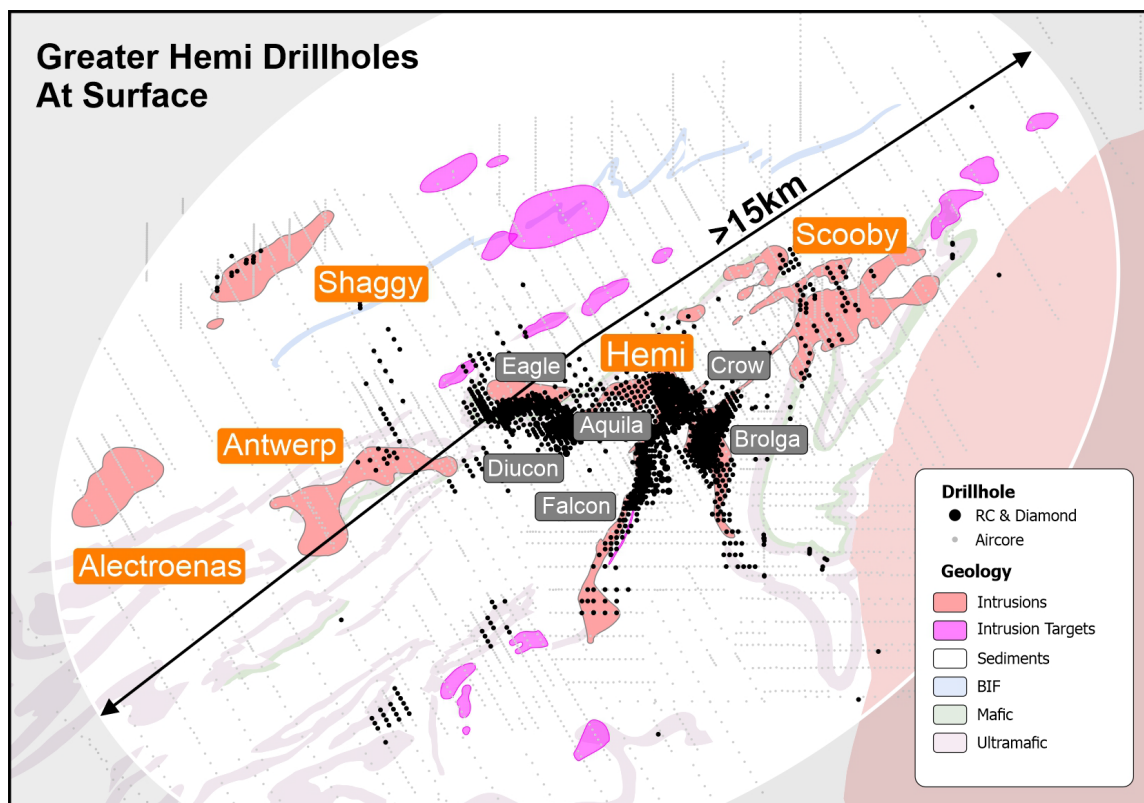
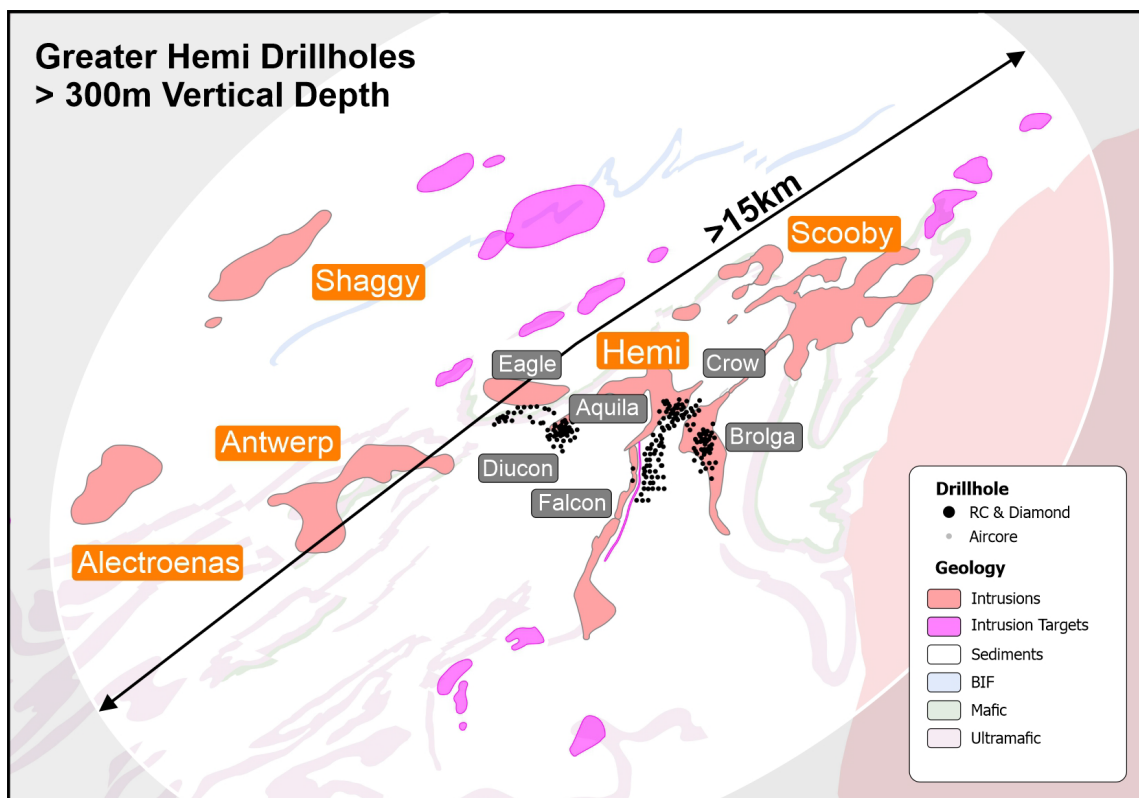


Figure 8 Greater Hemi Region showing all drilling below 300 metres depth.



## Future Mining Potential

As previously stated, an initial Scoping Study was completed in October 2021, which demonstrated the previous 2021 MRE (6.8Moz) was economic with a potential initial 10 year mining life at an average production rate of ~427,000ozpa at an average grade of 1.4g/t Au. The updated May 2022 MRE is currently the subject of a detailed PFS which is expected to be finalised during the September Quarter 2022. An improvement to the key metrics of the Scoping Study is being targeted in the PFS.

The Hemi MRE update process incorporated preliminary pit optimisations to define potential open pit mining depths. The following parameters were used: various gold prices, mining costs averaging A\$7.90 per BCM and processing costs of A\$31 per tonne for the fresh semi-refractory material.

The preliminary pit shells reached a maximum depth of 450m at Brolga (to the -380mRL) and an average depth for the other deposit areas of between 370m to 400m (-300mRL to -330mRL). These pit optimisations were used to verify the depth level to divide Open Pit from Underground resources.

Cube concluded that open pits to a depth of 370m below surface as being realistic for future possible Open Pit mining based on current drilling data. This is consistent with the previously used cut-off depth of 370m below surface used in the 2021 Maiden MRE. For comparison purposes, the following table shows the in-situ MRE within pit shell optimisations at Hemi conducted at various gold prices.

**Table 4 Hemi – Mineral Resources within 0.3g/t Au cut-off open pit optimisation shell at various gold prices**

Gold price (A\$/oz)	Indicated			Inferred			Total		
	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
2,100	128.6	1.3	5,489	15.4	1.2	616	144.0	1.3	6,105
2,300	132.5	1.3	5,618	20.8	1.2	799	153.3	1.3	6,417
2,500	133.6	1.3	5,651	26.9	1.1	988	160.5	1.3	6,639
2,700	135.5	1.3	5,708	31.8	1.1	1,149	167.3	1.3	6,857
2,900	136.3	1.3	5,729	36.9	1.1	1,319	173.1	1.3	7,049
3,100	136.9	1.3	5,746	46.2	1.1	1,613	183.1	1.2	7,359
3,300	137.7	1.3	5,766	49.9	1.1	1,739	187.5	1.2	7,505

Note: Only Open Pit resources reported from Hemi. Regional resources excluded.

The following table provides an overview of the contained resources within the A\$2,500/oz Open Pit optimisation shell showing the range of resources at various cut off grades. The table shows a range from 6.6Moz @ 1.3g/t (0.3g/t cut-off) to 5.7Moz @ 1.8g/t (0.7g/t cut-off). Importantly, all ranges show the Indicated category greater than 85% in all cases.

**Table 5 Hemi – Mineral Resources within a \$2,500/oz open pit optimisation shell at various cut off grades**

Cut-off grade (Au g/t)	Indicated			Inferred			Total			% Indicated
	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz	
0.3	133.6	1.3	5,651	26.9	1.1	988	160.5	1.3	6,639	85.1%
0.4	120.2	1.4	5,500	23.5	1.3	950	143.7	1.4	6,450	85.3%
0.5	107.4	1.5	5,315	20.4	1.4	905	127.8	1.5	6,220	85.4%
0.6	95.8	1.7	5,110	17.7	1.5	858	113.5	1.6	5,968	85.6%
0.7	85.5	1.8	4,895	15.4	1.6	810	100.9	1.8	5,705	85.8%

Note: Only Open Pit resources reported from Hemi. Regional resources excluded.

All deposits remain open at depth and along strike. Extension drilling aiming to expand the resources continues.

## Mallina Gold Project Resources

The overall global Mallina Gold Project (MGP) MRE (JORC 2012) has increased 15% to **251Mt @ 1.3g/t Au for 10.6Moz**. All the increases have occurred at Hemi with all other existing Regional resources within the Withnell and Wingina Mining centres remaining unchanged since the April 2020 MRE.

**Table 6 Mallina Gold Project - Mineral Resource Estimate (JORC 2012) by Mining Centre, May 2022.**

Mining Centre	Total		
	Mt	Au g/t	Koz
Hemi Mining Centre	213.3	1.2	8,470
Withnell Mining Centre	25.6	2.0	1,626
Wingina Mining Centre	11.9	1.4	538
<b>Total</b>	<b>250.7</b>	<b>1.3</b>	<b>10,634</b>

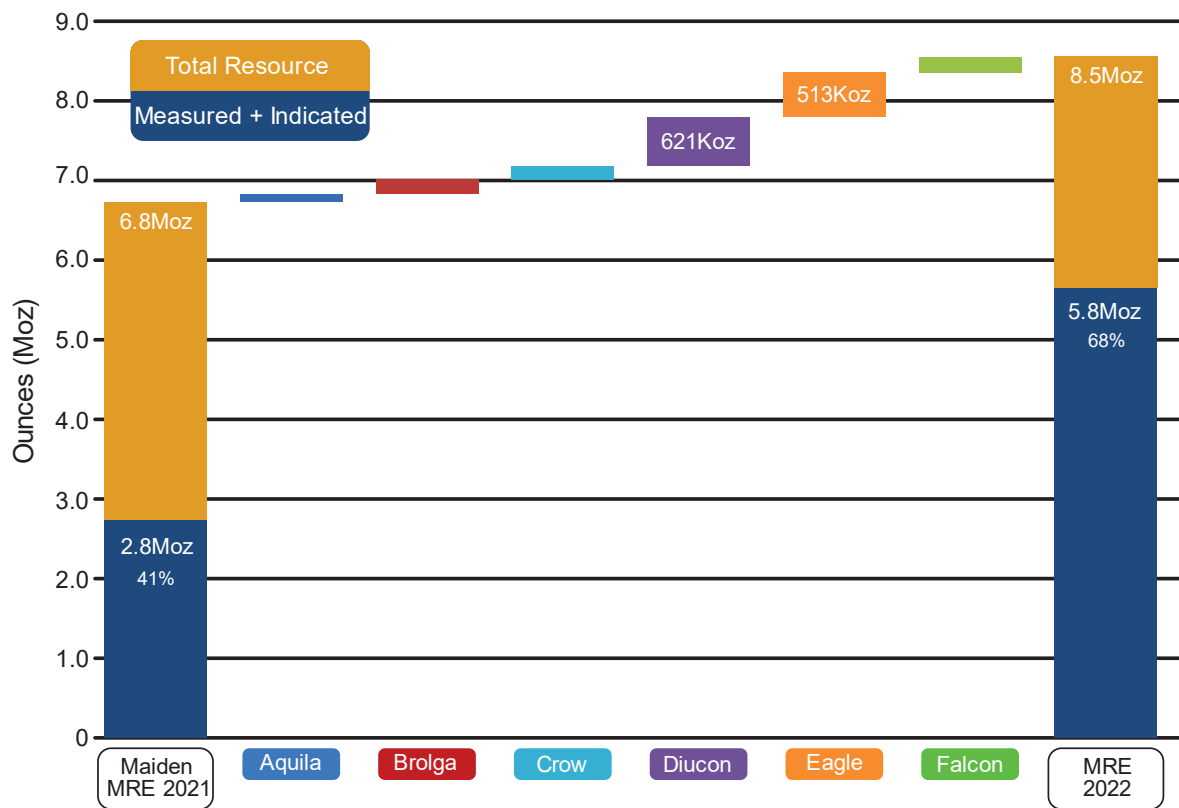
The MGP MRE has grown substantially since 2016 from approximately 0.3Moz in 2016 to 2.2Moz in early 2020 just prior to the discovery of the Hemi deposits. In just over two years since early 2020, Hemi has added a further 8.5Moz. Overall, the MGP resource since 2016 has increased by more than 30 times to 10.6Moz. Importantly, the Measured and Indicated portion of the MGP MRE represents 64% of the total resource.

The latest resource increase has occurred at Hemi with an additional 1.7Moz added since the June 2021 Maiden Mineral Resource Estimate. Figure 9 shows the resource additions at each of the individual deposits within Hemi.

The exploration activities are currently focused on increasing resources across all existing deposits and new target areas including:

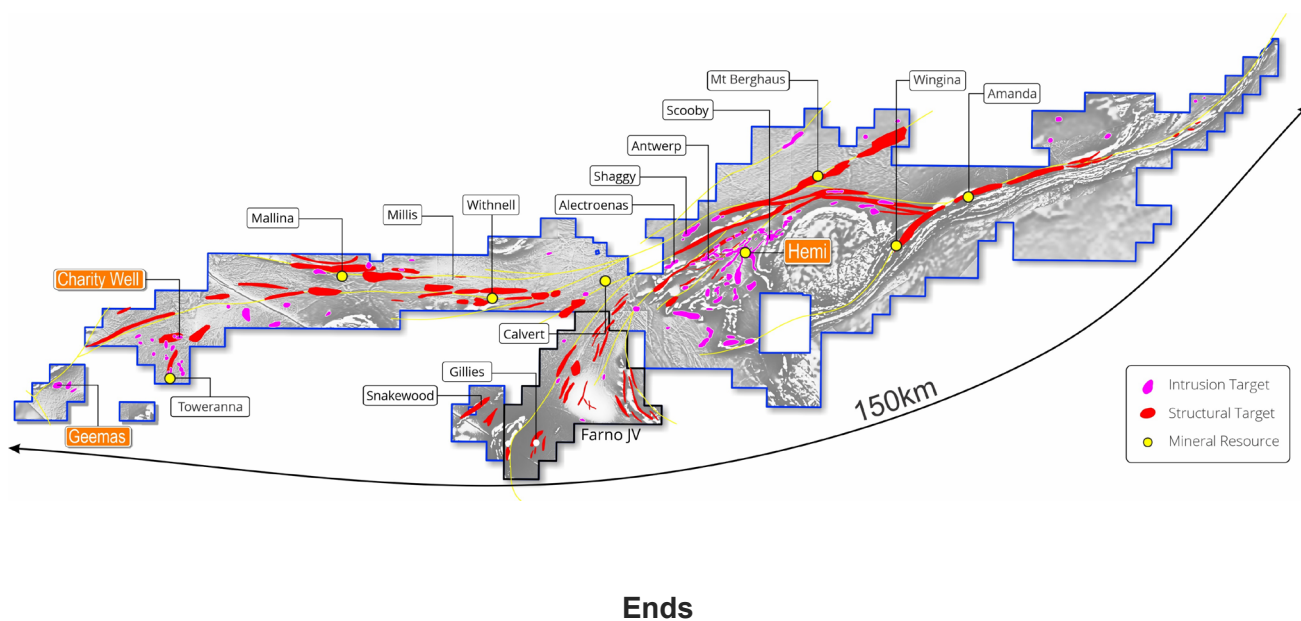
- Resource extensions at Hemi;
- Discovery of new intrusion style mineralisation in the Greater Hemi region;
- Resource extensions at Withnell and the other regional shear hosted deposits;
- Toweranna and Charity Well corridor; and
- Application of growing in-house geological knowledge to discover new deposits within the large tenement portfolio (Figure 10).

**Figure 9 Hemi – Resource additions since June 2021.**



Note: substantial increase in Indicated Category to 68% and 1.7Moz additional ounces

**Figure 10 Mallina Gold Project – Large 150km scale landholding.**



**This announcement has been authorised for release by the De Grey Board.**

**For further information, please contact:**

**Glenn Jardine**  
**Managing Director**  
+61 8 6117 9328  
admin@degreymining.com.au

**Andy Beckwith**  
**Technical Director/Operations  
Manager**  
+61 8 6117 9328  
admin@degreymining.com.au

**Michael Vaughan**  
**(Media enquiries)**  
Fivemark Partners  
+61 422 602 720  
michael.vaughan@fivemark.com.au

### Competent Person's Statement

#### Exploration Results

The information in this report that relates to **Exploration Results** is based on, and fairly represents information and supporting documentation prepared by Mr. Phil Tornatora, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr. Tornatora is an employee of De Grey Mining Limited. Mr. Tornatora 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 Resource and Ore Reserves". Mr. Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### Mineral Resources - Regional

The Information in this report that relates to **Wingina and Withnell Mining Centre Mineral Resources** is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne 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". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Mineral Resources - Hemi

The Information in this report that relates to **Hemi Mining Centre Mineral Resources** is based on information compiled by Mr. Michael Job, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Job is a full-time employee of Cube Consulting. Mr Job 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". Mr Job 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

These materials prepared by De Grey Mining Limited (or the “Company”) include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

**Previously released ASX Material References** *that relates to Mallina Gold Project Resources includes:*

- *6.8Moz Hemi Maiden Mineral Resource drives MGP to 9.0Moz, 23 June 2021*
- *Total Gold Mineral Resource increases to 2.2Moz, 2 April 2020*
- *Total Gold Mineral Resource - 21 % increase to 1.7Moz, 16 July 2019*
- *Total Gold Mineral Resource increases to 1.4Moz, 3 October 2018*
- *Pilbara Gold Project 20% increase in Resources to over 1.2Moz, 28 September 2017*

## Appendix 1: Mallina Gold Project Global Mineral Resource Estimate Summary

### Mallina Gold Project - Global Mineral Resource Estimate, May 2022

Mining Centre	Measured			Indicated			Inferred			Total		
	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
Hemi Mining Centre				139.1	1.3	5,804	74.1	1.1	2,666	213.3	1.2	8,470
Withnell Mining Centre	1.6	1.8	92	11.7	1.8	664	12.2	2.2	870	25.6	2	1,626
Wingina Mining Centre	3.1	1.7	173	2.5	1.5	122	6.3	1.2	243	11.9	1.4	538
<b>Total</b>	<b>4.7</b>	<b>1.7</b>	<b>265</b>	<b>153.4</b>	<b>1.3</b>	<b>6,590</b>	<b>92.6</b>	<b>1.3</b>	<b>3,779</b>	<b>250.7</b>	<b>1.3</b>	<b>10,634</b>

Note: The Regional resource estimates at the Withnell and Wingina Mining Centres have not changed since the April 2020 statement.

## Mallina Gold Project – Global Mineral Resource Estimate by Type, May 2022

Mining Centre	Type	Measured			Indicated			Inferred			Total		
		Mt	Au g/t	Au KOz	Mt	Au g/t	Au KOz	Mt	Au g/t	Au KOz	Mt	Au g/t	Au KOz
Hemi Mining Centre	Oxide				6.7	1.5	324	1.4	0.9	41	8.1	1.4	365
	Sulphide				132.4	1.3	5,480	72.7	1.1	2,624	205.1	1.2	8,105
	<b>Total</b>				<b>139.1</b>	<b>1.3</b>	<b>5,804</b>	<b>74.1</b>	<b>1.1</b>	<b>2,666</b>	<b>213.3</b>	<b>1.2</b>	<b>8,470</b>
Withnell Mining Centre	Oxide	1.0	1.8	58	2.7	1.3	113	1.7	1.4	74	5.4	1.4	245
	Sulphide	0.7	1.7	35	9.0	1.9	550	10.5	2.4	796	20.2	2.1	1,381
	<b>Total</b>	<b>1.6</b>	<b>1.8</b>	<b>92</b>	<b>11.7</b>	<b>1.8</b>	<b>664</b>	<b>12.2</b>	<b>2.2</b>	<b>870</b>	<b>25.6</b>	<b>2.0</b>	<b>1,626</b>
Wingina Mining Centre	Oxide	2.7	1.8	152	1.8	1.5	88	2.2	1.1	75	6.7	1.5	315
	Sulphide	0.4	1.6	21	0.7	1.6	35	4.0	1.3	168	5.1	1.4	224
	<b>Total</b>	<b>3.1</b>	<b>1.7</b>	<b>173</b>	<b>2.5</b>	<b>1.5</b>	<b>122</b>	<b>6.3</b>	<b>1.2</b>	<b>243</b>	<b>11.9</b>	<b>1.4</b>	<b>538</b>
<b>Total</b>	Oxide	3.7	1.8	210	11.2	1.5	525	5.3	1.1	190	20.2	1.4	925
	Sulphide	1.1	1.6	55	142.1	1.3	6,065	87.3	1.3	3,589	230.5	1.3	9,709
	<b>Total</b>	<b>4.7</b>	<b>1.7</b>	<b>265</b>	<b>153.4</b>	<b>1.3</b>	<b>6,590</b>	<b>92.6</b>	<b>1.3</b>	<b>3,779</b>	<b>250.7</b>	<b>1.3</b>	<b>10,634</b>



## Mallina Gold Project – Mineral Resource Estimate by Mining Centre and Deposit, May 2022

### Hemi Mining Centre

Deposit	Type	Measured			Indicated			Inferred			Total		
		Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
Aquila	Oxide				1.3	1.4	56	0.1	0.5	2	1.4	1.3	58
	Sulphide				11.6	1.5	554	7.5	1.3	309	19.1	1.4	863
	Total				12.9	1.5	610	7.6	1.3	311	20.5	1.4	921
Brolga	Oxide				2.2	1.5	107	1.0	0.9	28	3.2	1.3	136
	Sulphide				35.1	1.3	1,503	23.3	1.1	793	58.4	1.2	2,296
	Total				37.3	1.3	1,611	24.2	1.1	821	61.6	1.2	2,432
Crow	Oxide				1.0	1.0	33	0.2	0.7	4	1.2	1.0	37
	Sulphide				19.2	1.1	667	12.4	1.2	471	31.6	1.1	1,137
	Total				20.3	1.1	700	12.5	1.2	474	32.8	1.1	1,174
Diucon	Oxide				0.2	1.9	13	0.2	1.2	7	0.4	1.6	20
	Sulphide				29.2	1.4	1,298	8.4	1.2	318	37.5	1.3	1,616
	Total				29.4	1.4	1,311	8.6	1.2	325	37.9	1.3	1,635
Eagle	Oxide				0.1	1.9	9	0.0	0.6	0	0.2	1.8	9
	Sulphide				16.5	1.2	627	9.9	1.0	312	26.3	1.1	939
	Total				16.6	1.2	636	9.9	1.0	312	26.5	1.1	948
Falcon	Oxide				1.8	1.8	106	0.0	0.0	0	1.8	1.8	106
	Sulphide				20.9	1.2	831	11.4	1.2	422	32.3	1.2	1,253
	Total				22.7	1.3	937	11.4	1.2	422	34.1	1.2	1,359
Hemi Mining Centre	Oxide				6.7	1.5	324	1.4	0.9	41	8.1	1.4	365
	Sulphide				132.4	1.3	5,480	72.7	1.1	2,624	205.1	1.2	8,105
	Total				139.1	1.3	5,804	74.1	1.1	2,666	213.3	1.2	8,470

## Withnell Mining Centre

Deposit	Type	Measured			Indicated			Inferred			Total		
		Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
Withnell OP	Oxide	0.6	1.4	29	0.4	1.2	14	0.2	1.1	5	1.1	1.3	48
	Sulphide	0.6	1.6	33	2.7	1.9	164	0.5	2.2	38	3.8	1.9	235
	Total	1.3	1.5	62	3	1.8	178	0.7	2	43	5	1.8	283
Withnell UG	Oxide							0	2.5	0	0	2.5	0
	Sulphide				0.1	4.3	16	2.4	3.9	301	2.5	3.9	317
	Total				0.1	4.3	16	2.4	3.9	301	2.5	3.9	317
Mallina	Oxide				0.5	1.3	20	1.2	1.4	53	1.7	1.3	73
	Sulphide				1.1	1.2	44	3.9	1.5	190	5.1	1.4	235
	Total				1.6	1.2	64	5.1	1.5	243	6.8	1.4	307
Toweranna OP	Oxide				0	3.1	5	0	2.2	4	0.1	2.6	8
	Sulphide				4.3	2.1	289	2.4	2.1	163	6.7	2.1	451
	Total				4.3	2.1	293	2.5	2.1	166	6.8	2.1	460
Toweranna UG	Oxide												
	Sulphide							0.6	3.6	65	0.6	3.6	65
	Total							0.6	3.6	65	0.6	3.6	65
Camel	Oxide	0.2	2.8	16	0.3	2.6	27	0	1.1	2	0.5	2.6	45
	Sulphide	0	2.1	1	0.1	1.4	7	0.1	1.8	9	0.3	1.7	16
	Total	0.2	2.8	17	0.5	2.2	33	0.2	1.7	10	0.8	2.2	60
Calvert	Oxide				0.4	1.3	18	0.1	0.8	1	0.5	1.3	19
	Sulphide				0.6	1.3	24	0.2	1.2	9	0.8	1.3	33
	Total				1	1.3	42	0.3	1.2	11	1.3	1.3	52
Roe	Oxide	0.1	2.7	6	0.1	1.5	6	0.1	1.6	6	0.3	1.8	17
	Sulphide	0	2.5	1	0.1	2.3	5	0.2	2.2	15	0.3	2.2	21
	Total	0.1	2.7	7	0.2	1.8	11	0.3	2	21	0.6	2	38
Dromedary	Oxide	0.1	2.2	7	0	1.6	1	0	1.6	2	0.2	1.9	11
	Sulphide				0	1.6	2	0.1	1.8	5	0.1	1.7	6
	Total	0.1	2.2	7	0.1	1.6	3	0.1	1.7	7	0.3	1.9	17
Leach Pad	Oxide				0.9	0.7	19				0.9	0.7	19
	Sulphide												
	Total				0.9	0.7	19				0.9	0.7	19
Hester	Oxide				0	2.1	3	0	1.3	1	0.1	1.8	4
	Sulphide				0	2.1	1	0	1.4	2	0.1	1.6	3
	Total				0.1	2.1	4	0.1	1.4	3	0.1	1.7	7
Withnell Mining Centre	Oxide	1	1.8	58	2.7	1.3	113	1.7	1.4	74	5.4	1.4	245
	Sulphide	0.7	1.7	35	9	1.9	550	10.5	2.4	796	20.2	2.1	1,381
	Total	1.6	1.8	92	11.7	1.8	664	12.2	2.2	870	25.6	2	1,626

## Wingina Mining Centre

Deposit	Type	Measured			Indicated			Inferred			Total		
		Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz	Mt	Au g/t	Koz
Wingina	Oxide	2.7	1.8	152	0.6	1.3	27	0.3	1.3	14	3.7	1.6	194
	Sulphide	0.4	1.6	21	0.3	1.5	16	1.1	1.7	57	1.8	1.6	94
	<b>Total</b>	<b>3.1</b>	<b>1.7</b>	<b>173</b>	<b>1</b>	<b>1.4</b>	<b>43</b>	<b>1.4</b>	<b>1.6</b>	<b>72</b>	<b>5.5</b>	<b>1.6</b>	<b>288</b>
Mt Berghaus	Oxide				0.7	1.8	39	1	1.1	36	1.7	1.4	75
	Sulphide				0.3	1.7	14	2.4	1.2	92	2.7	1.2	106
	<b>Total</b>				<b>1</b>	<b>1.7</b>	<b>53</b>	<b>3.4</b>	<b>1.2</b>	<b>128</b>	<b>4.3</b>	<b>1.3</b>	<b>181</b>
Amanda	Oxide				0.5	1.3	22	0.9	0.9	25	1.4	1	46
	Sulphide				0.1	1.8	4	0.6	1.1	19	0.6	1.2	23
	<b>Total</b>				<b>0.6</b>	<b>1.4</b>	<b>26</b>	<b>1.4</b>	<b>0.9</b>	<b>44</b>	<b>2</b>	<b>1.1</b>	<b>70</b>
Wingina Mining Centre	Oxide	2.7	1.8	152	1.8	1.5	88	2.2	1.1	75	6.7	1.5	315
	Sulphide	0.4	1.6	21	0.7	1.6	35	4	1.3	168	5.1	1.4	224
	<b>Total</b>	<b>3.1</b>	<b>1.7</b>	<b>173</b>	<b>2.5</b>	<b>1.5</b>	<b>123</b>	<b>6.3</b>	<b>1.2</b>	<b>243</b>	<b>11.9</b>	<b>1.4</b>	<b>538</b>

## Appendix 2: Hemi Mineral Resource Estimate Summary

### Geology

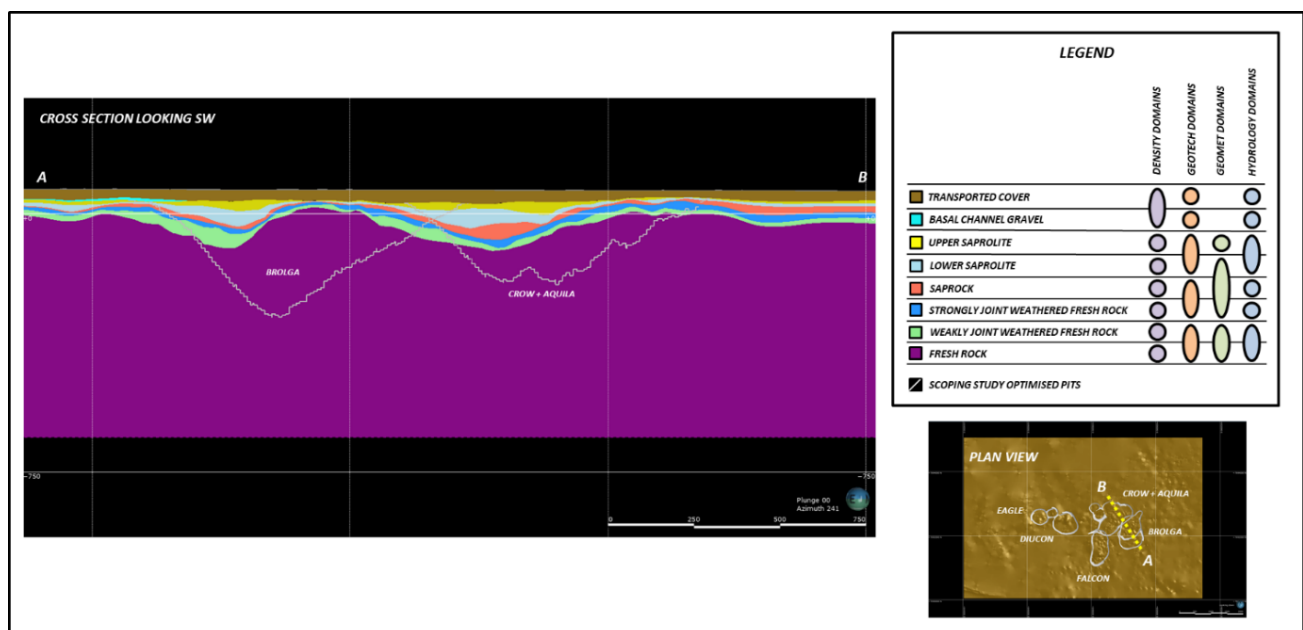
The Hemi discovery comprises a series of gold deposits hosted within predominately diorite to quartz diorite intrusions and sills that have been emplaced within the Mallina Basin. The gold deposits comprise of Aquila, Brolga, Crow, Falcon, Diucon and Eagle, with the latter two straddling the locally important Diucon Thrust and the former four being situated to the south of the Diucon Thrust.

The intrusions in the Hemi area were emplaced into a sequence of sedimentary rocks that form part of the Mallina Formation and locally comprise greywacke, siltstones, sandstones, shale and black shale. There are mafic-ultramafic sills of the Langenbeck Suite within the area, which help to map the interpreted folding and faulting within the region around the Hemi discovery amongst the otherwise poorly-outcropping and non-magnetic sediments of the Mallina Formation. The sediments immediately enclosing the intrusions have been hornfelsed, expressed by locally developed hardening and biotitic alteration related to the heat of the intrusions.

The rock sequence at Hemi has undergone a complex deformation history commencing in extension during basin development, basin inversion during a compression event that resulted in SW-NE striking folding and brittle-ductile shear zone development. The area was subject to a locally less significant compression event that has resulted NW-SE striking folding and small faulting. The SW-NE striking folding and brittle-ductile shear zone development has resulted in dislocation, truncation and repetition of the lithostratigraphy. Current studies are ongoing but the brittle-ductile shear zones occur as imbricate thrust fault fans and are important constraints on the lithostratigraphy and mineralisation.

At Hemi the deposits are covered by 20m to 45m thick horizon of barren transported material and the upper portion of the bedrock is weathered to varying degrees of saprolite, saprock, joint weathered fresh rock, and fresh bedrock (Figure 1).

**Figure 1** Cross-section to display the different regolith models at the Hemi Project.

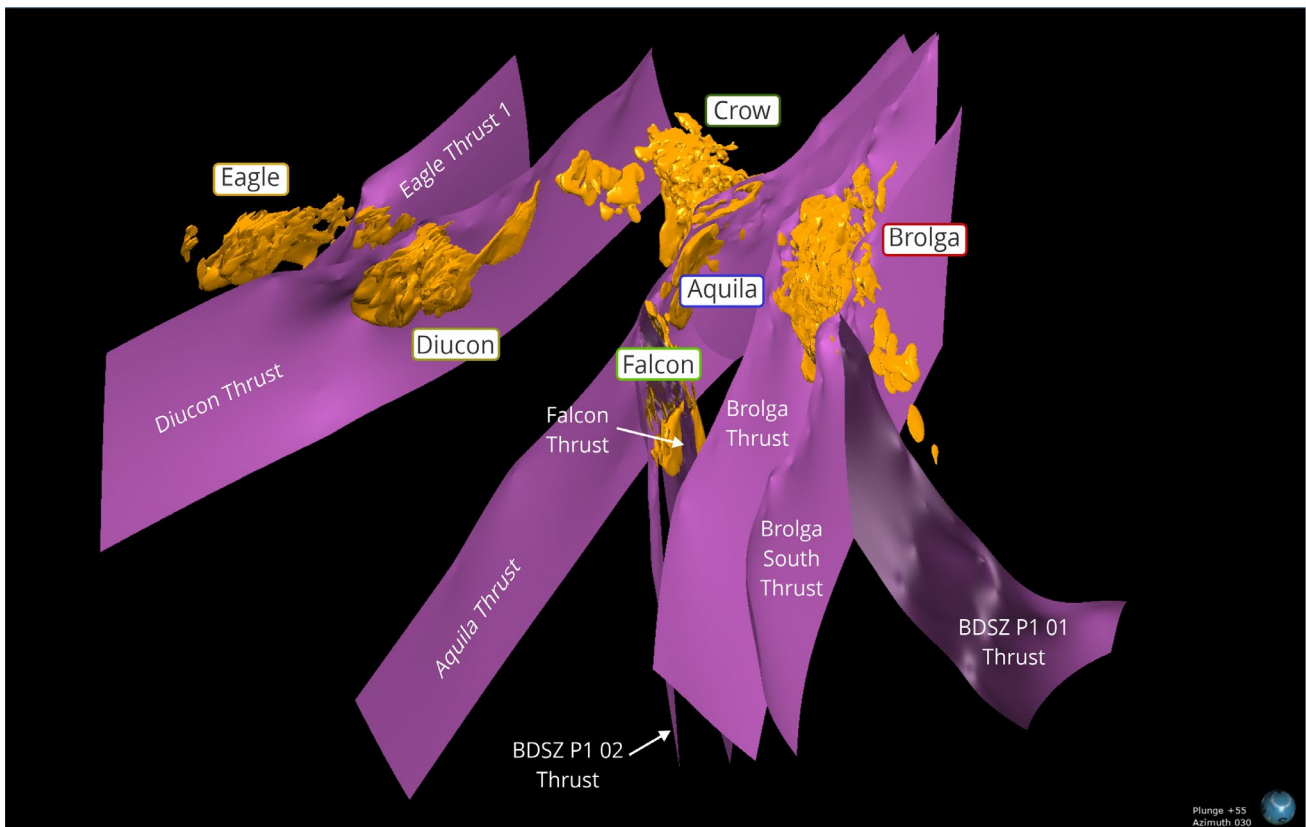


## Alteration and Mineralisation

The alteration in the country rock/waste rock units away from the intrusions is typified by regional metamorphic chlorite (possibly with calcite) alteration. The intrusions have caused biotite hornfels metamorphism.

There are two main deposit alteration and mineralisation styles, informally named as the Brolga-type and the Diucon-type. The Brolga-type all occur south of the Diucon Thrust and Diucon and Eagle type straddle the Diucon Thrust (Figure 2). The Aquila, Brolga South, Crow and Falcon deposits are interpreted as Brolga-type and Diucon and Eagle are interpreted as Diucon-type.

**Figure 2** Isometric view looking northeast of the Hemi deposit gold resource wireframes (gold) and the current brittle-ductile shear zone architecture (purple).



There is volumetrically minor chlorite-albite-sulphide alteration within the sediments that occur proximal to the intrusions. Unmineralised intrusions adjacent to the deposits are characterised by reduced sulphide levels, lower to no albite and increased chlorite and/or carbonate.

At the Brolga-type, strong albite-chlorite-sulphide alteration occurs within the intrusions and this alteration is intimately associated with a stockwork of quartz veins and chlorite-sulphide carbonate-quartz veins and small and localised brittle-ductile shear zones. Rare sericite and later chlorite alteration and veins are also observed.

At the Diucon-type a similar assemblage of alteration minerals is present with the exception of an initial development of sericite and albite alteration and smoky quartz veining. Later brittle-ductile shear zones exploit the alteration and veining, where later chlorite-carbonate-talc alteration and sulphide-gold mineralisation is observed.

Sulphide abundance in the mineralised intrusions typically ranges from 2.5% to 10%, whilst marginal alteration zones peripheral to the gold mineralised zones comprise sulphide contents that typically range from 0.5% to 1%. The ore mineralogy is fairly consistent in type but not content across the different deposits and consists of dominantly sulphides – arsenopyrite and pyrite. Native gold is typically constrained to the Diucon and Eagle deposits. Away from the gold mineralised zones the arsenopyrite content drops off rapidly to <0.5% and pyrite is the main sulphide mineral. Arsenopyrite is generally absent within the country rock away from mineralisation.

## Drilling

The Hemi deposit was discovered by De Grey in 2019 and therefore there is no historical drilling by other companies.

The Hemi drilling database includes 4,972 drill holes of varying drill types including air core (AC), reverse circulation (RC) and diamond (DD). Aircore holes were drilled with an 83mm diameter blade bit, RC holes were drilled with a 5.5-inch bit and face sampling hammer, and diamond core diameters are NQ2 (51mm), HQ3 (61mm), and PQ (85mm).

All DD and RC holes used for the Mineral Resource Estimate were drilled between 2020 and 2022, with details of this drilling in the immediate area of Hemi deposit shown in Table 1

**Table 1 Listing of holes at Hemi.**

Hole Type	Year	No. Holes	Metres	Hole ID Series
DD	2020	102	26,540	HEDD, HERC_D
	2021	181	47,413	HEDD, HERC_D, HMRC_D
	2022	40	9,980	HEDD, HERC_D, HMRC_D
RC	2020	323	81,025	HERC, HMB
	2021	534	128,156	HERC, HMRC
	2022	92	22,831	HMRC
<b>Total</b>	<b>2020 - 2022</b>	<b>1,272</b>	<b>315,945</b>	

## Sampling and Sub-Sampling Techniques

For RC drilling, samples were obtained using a rig mounted cone splitter. Samples were typically collected at 1m intervals targeting a sample weight between 2.5kg and 3.0kg. Through the transported cover sequence, the holes were either unsampled, or sampled using 4m composite samples.

For diamond drilling, sampling boundaries are geologically defined and commonly one metre in length unless a significant geological feature warrants a change from this standard unit. Core was cut to preserve the alignment line and the same side of the core was sent for assay using half core from NQ and HQ holes and quarter core from PQ holes and selected metallurgical HQ holes.

Geological logging is completed for all holes by the Company geological team. The major rock unit (colour, grain size, texture), weathering, alteration (style and intensity), mineralisation (type), interpreted origin of mineralisation, estimation of % sulphides/oxides, and veining (type, style, origin, intensity) are logged following De Grey Mining standard procedure. Diamond core is photographed for future reference.

## Sample Analysis Method

Sample preparation and assaying was carried out at the ALS facility in Perth. Samples were crushed (core) then the full sample pulverised (RC and core) before splitting to provide a sub-sample for analysis.

In addition to the gold assay, every 5th sample from the Hemi drilling have been analysed using a four-acid digest and an ICP AES/MS analysis, providing key pathfinders, major elements and trace element data. The ALS ME-MS61 procedure was used which analyses a 48-element suite. For these samples that were in mineralised zones, they were also analysed via bottle roll, a cyanide extraction technique, to provide an indication of the proportion of the gold that would be recoverable via conventional processing using cyanide extraction. Except for some of the early drilling in 2020, the intervening four samples were also analysed using a four-acid digestion and an ICP-AES finish which provided key pathfinders and major element data.

A comprehensive 'Best Practice' QAQC monitoring system. Certified Reference Materials, Blanks and Field Duplicates are inserted within batches of samples to ensure ongoing quality control. Standards, Blanks, and Field Duplicates are inserted at a minimum of 2% frequency rate.

## Resource Estimation Methodology

The Mineral Resource was estimated using Localised Uniform Conditioning ("LUC") grade interpolation of 2m composited data within wireframes prepared using nominal 0.2g/t Au envelopes. High grade cuts ranging between 10g/t and 18g/t gold were determined by statistical analysis and applied to the composite data per lode. Due to the general lack of high-grade outliers throughout the Hemi mineralisation, the effect of the high-grade cut was minimal other than in portions of the Crow deposit where erratic high-grade mineralisation occurs.

A single block model was constructed to include all six deposits at Hemi. The model was rotated to 050° with panel block dimensions of 20mE by 20mN by 5mRL with a selective mining unit (SMU) block size of 5mE by 5mN by 5mRL. The panel block size dimension was selected from the results obtained from Kriging Neighbourhood Analysis ("KNA") and also considered drill hole spacing throughout the deposits. The Mineral Resource block model was created and estimated in Datamine software.

Variography was performed on capped data transformed to normal scores, and the variogram models were back-transformed to original units. Variography was performed separately for each deposit area. The variogram models had low to moderate nugget effects (25 to 35% of the total sill), with maximum ranges of ~150m along strike and ~90m down dip for all deposit areas.

Panel estimation (via Ordinary Kriging (OK) – a necessary precursor step for UC) used a minimum of 8 and maximum of 20 composites, with a search ellipse radius similar to the variogram ranges (160m x 80m x 40m).

Up to two search passes were used for each estimation domain, with the second pass twice the size of the first pass. The number of samples required was the same for both searches. The second pass was only required for 1% of blocks for most deposit areas, except for Brolga where the second pass was required for 5% of the blocks.

A locally varying ellipsoid orientation was used to account for the subtle changes in estimation domain orientation along strike and down dip. The local dips and dip directions were calculated from the orientation of specially constructed 'trend surfaces' for each deposit area.

The UC process applies a Change of Support correction (discrete Gaussian model) based on the composite sample distribution and variogram model, conditioned to the Panel grade estimate, to predict the likely grade tonnage distribution at the SMU selectivity.

To account for the higher grades that had been capped, a localised OK estimate using uncapped grades was made into SMU sized blocks in the immediate area (5m) of these higher grades. These grades superseded the LUC grades.

Estimates of Au grades were validated against the composited drill hole data by extensive visual checking in cross-section, plan and on screen in 3D, by global (per shoot) comparisons of input data and model, and by semi-local statistical methods (swath plots). All methods showed satisfactory results.

## Bulk Density

Bulk densities applied to the model were based on an extensive dataset of density determinations carried out on drill core. More than 22,500 bulk density determinations have been made at Hemi, using the water immersion method on drill core. The values assigned to the block model are summarised in Table 2.

**Table 2 Density values assigned to the block model.**

Material Type	TYPE_N Code	Density Assigned (t/m <sup>3</sup> )
Transported Cover	6	1.7
Upper Saprolite	5	1.7
Lower Saprolite	4	1.8
Saprock	3	2.1
Fresh with strong weathering on joints	2	2.6
Fresh with weak weathering on joints	1	2.7
Fresh (primary sulphide)	0	2.78

## Mineral Resource Classification

The Mineral Resource has been classified and reported in accordance with the 2012 JORC Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code).

Classification of Mineral Resources uses two main criteria as follows:

1. Confidence in the Au estimate
2. Reasonable prospects for eventual economic extraction.

Assessment of confidence in the estimate of gold included guidelines as outlined in JORC (2012):

- Drill data quality and quantity
- Geological domaining (for mineralised domains)
- The spatial continuity of Au mineralisation
- Geostatistical measures of Au estimate quality.

In summary, the more quantitative criteria relating to these guidelines include data density and kriging metrics are as follows:

- The Indicated Mineral Resource is the material within the mineralised domains having a drill spacing of 40mN x 40mE and where the kriging slope of regression for the panel estimates is



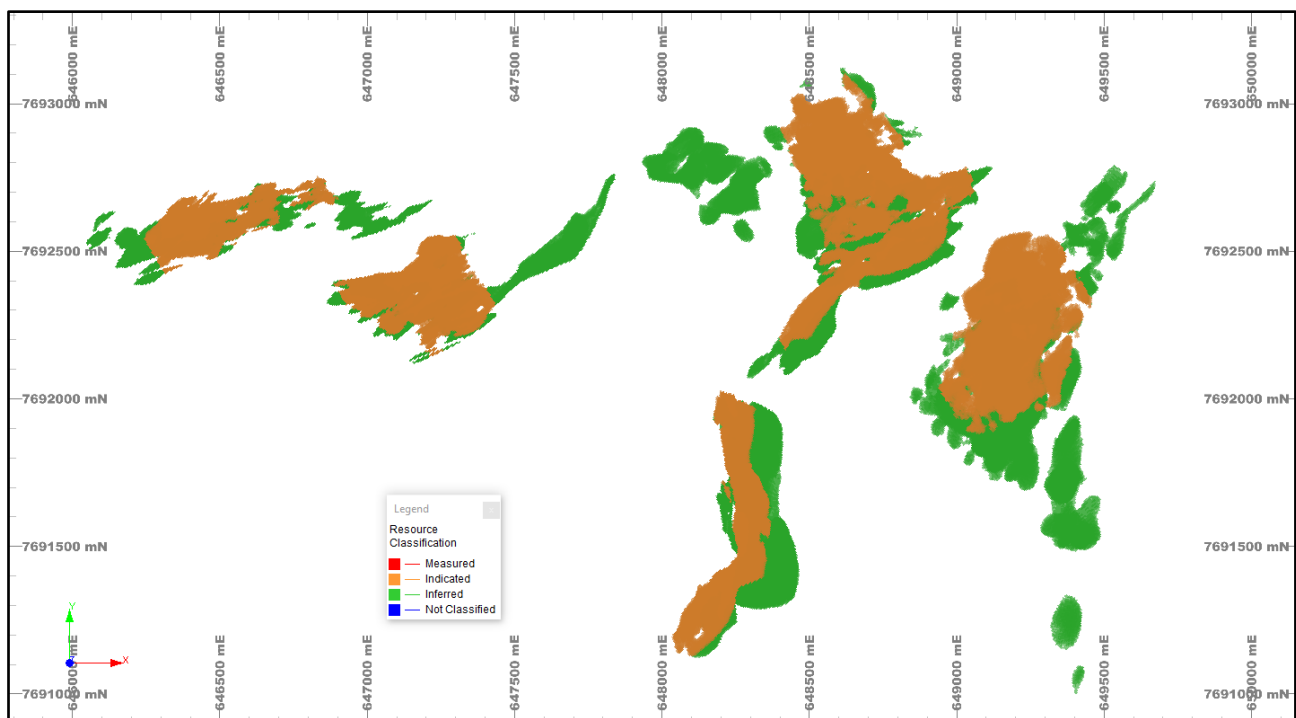
greater than about 0.7. In a very few instances where the mineralisation showed clear continuity into areas of 80m by 40m drill hole spacing, the resource was classified as Indicated.

- The Inferred Mineral Resource is material within the mineralised domains, with a drill hole spacing of 80m by 80m and with slopes of regression for the panel estimates less than 0.7.

Extrapolation of the mineralisation was generally limited to 60m along strike and down dip of drill hole intersections. Extrapolation of up to 100m down dip was used where the strongest mineralisation remained open and untested.

The resource classification is shown in plan view (Figure 3).

**Figure 3 MRE classification plan view.**



To assist in defining reasonable prospects for eventual economic extraction (RPEEE) for Hemi, pit optimisation work has been undertaken by Cube on the block model, and the resulting shells have been used to guide the constraints for the declared resource.

The optimisations were run at a gold prices between A\$2,100 and A\$3,300 per ounce, with mining costs varying with depth, but averaging A\$7.90/BCM for ore and A\$7.80/BCM for waste (down to the -250 mRL)

A fixed residual of 0.1 ppm Au after processing was assumed, rather than an overall processing recovery. Processing costs (including G&A) of A\$23.80 per tonne for free milling oxide and A\$31.20 per tonne for semi refractory transitional and primary sulphide material were used.

Wall angles used are based on detailed geotechnical analysis of the wall rocks at Hemi and vary based on the rock type and oxidation type.

Spot gold price in mid-May 2022 was A\$2,650 per ounce, so an assumed optimistic gold price of A\$3,000 per ounce (13% above spot) is reasonable. The optimised pit shells at Broilga reached a maximum depth of 450m below surface (-380 mRL), and the average depths for the shells for the other deposits was 370m to 400m below surface (-300 to -330 mRL).

Therefore the -300 mRL (370m below surface) was selected as the level dividing open cut from underground resources. This is also consistent with the open cut/underground level used for the June 2021 MRE.

### Cut-off Grades

Gold grade caps for the estimate were chosen for each estimation domain, based primarily on examination of the gold distribution for each, (i.e. noting the point at which the upper tail of the distribution loses support), and also taking into account the variability of the domain.

The grade caps and relevant statistics are listed in Table 3.

**Table 3 Gold grade caps (ppm Au) chosen based on all 2m composites per domain.**

Domain	Top Cap	No. Capped	Uncapped Mean	Capped Mean	% Reduction Mean	Uncapped CoV	Capped CoV	% Reduction CoV
Aquila	16	5	1.27	1.25	1.6%	1.69	1.46	13.6%
Brolga	18	14	1.11	1.09	1.8%	1.88	1.43	23.9%
Crow	10	56	0.92	0.76	17.4%	4.51	1.79	60.3%
Diucon	10	93	1.37	1.13	17.5%	2.86	1.61	43.7%
Eagle	10	42	1.23	0.95	22.8%	3.81	1.59	58.3%
Falcon	15	6	1.22	1.18	3.3%	1.86	1.25	32.8%

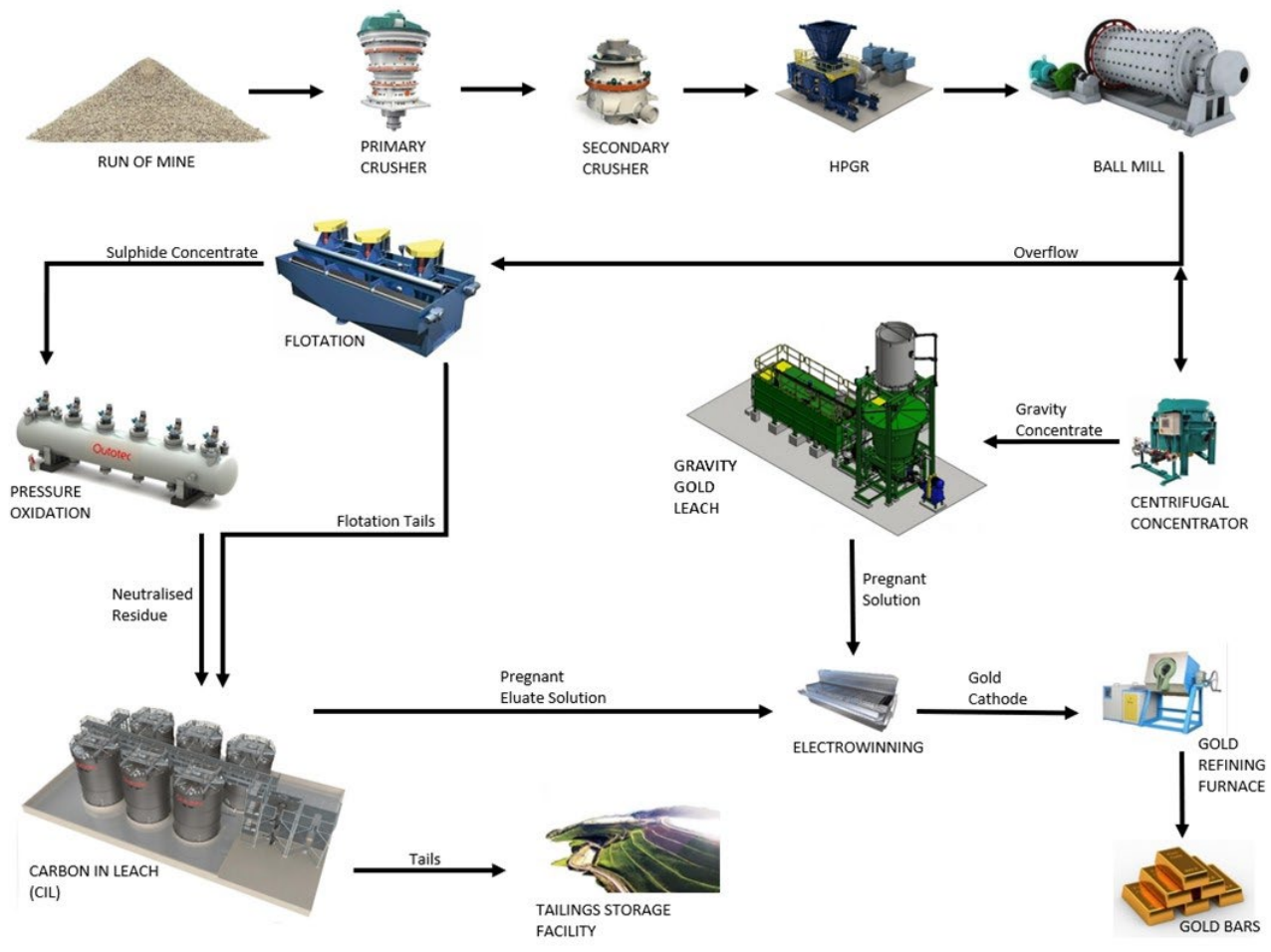
### Metallurgy

Extensive metallurgical test work has been undertaken at Hemi, with similar mineralogy and metallurgical characteristics noted across all deposits tested thus far. Testwork on the Diucon and Eagle orebodies is in progress.

Detailed metallurgical results have been reported for the Brolga, Aquila, Falcon and Crow mineralisation. The oxide mineralisation is free milling with recoveries of 93-95% with processing via a standard CIL plant. For transitional and fresh mineralisation, overall gold recoveries of 92-96% have been achieved.

The transitional and fresh mineralisation is semi-refractory, and a flowsheet combining the conventional processing technologies of crushing, milling, sulphide flotation, oxidation, and cyanide leaching has been tested thoroughly, and has proven successful in achieving the high recoveries (see Figure 4).

**Figure 4 Metallurgical flowsheet.**



### Modifying Factors

No modifying factors were applied to the reported Mineral Resource estimate. Parameters reflecting mining dilution, ore loss and metallurgical recoveries will be considered during the planned mining evaluation of the project.

### Comparison to Previous Mineral Resource Estimate

The Maiden MRE for Hemi was completed in June 2021 and estimated 6.4Moz above -300mRL (370m below surface) and 0.4Moz below -300mRL for a total of 6.8Moz. Comparisons of the June 2021 and May 2022 Mineral Resource Estimates are provided in Table 4 and Table 5.

**Table 4 Hemi - Mineral Resource statement comparison for resources above -300 mRL (> 0.3 ppm Au).**

Category	May 2022			June 2021			Difference		
	Mt	Au ppm	Au koz	Mt	Au ppm	Au koz	Mt	Au ppm	Au koz
<b>Measured</b>									
<b>Indicated</b>	139	1.30	5,801	65	1.32	2,779	114%	-2%	109%
<b>Inferred</b>	69	1.02	2,252	122	0.92	3,612	-43%	11%	-38%
<b>TOTAL</b>	<b>208</b>	<b>1.2</b>	<b>8,053</b>	<b>188</b>	<b>1.1</b>	<b>6,391</b>	<b>11%</b>	<b>13%</b>	<b>26%</b>

**Table 5 Hemi - Mineral Resource statement comparison for underground resource below -300 mRL (>1.5 ppm Au).**

Category	May 2022			June 2021			Difference		
	Mt	Au ppm	Au koz	Mt	Au ppm	Au koz	Mt	Au ppm	Au koz
<b>Measured</b>									
<b>Indicated</b>									
<b>Inferred</b>	5.2	2.49	417	4.4	2.9	414	18%	-14%	1%
<b>TOTAL</b>	<b>5.2</b>	<b>2.5</b>	<b>417</b>	<b>4.4</b>	<b>2.9</b>	<b>414</b>	<b>18%</b>	<b>-14%</b>	<b>1%</b>

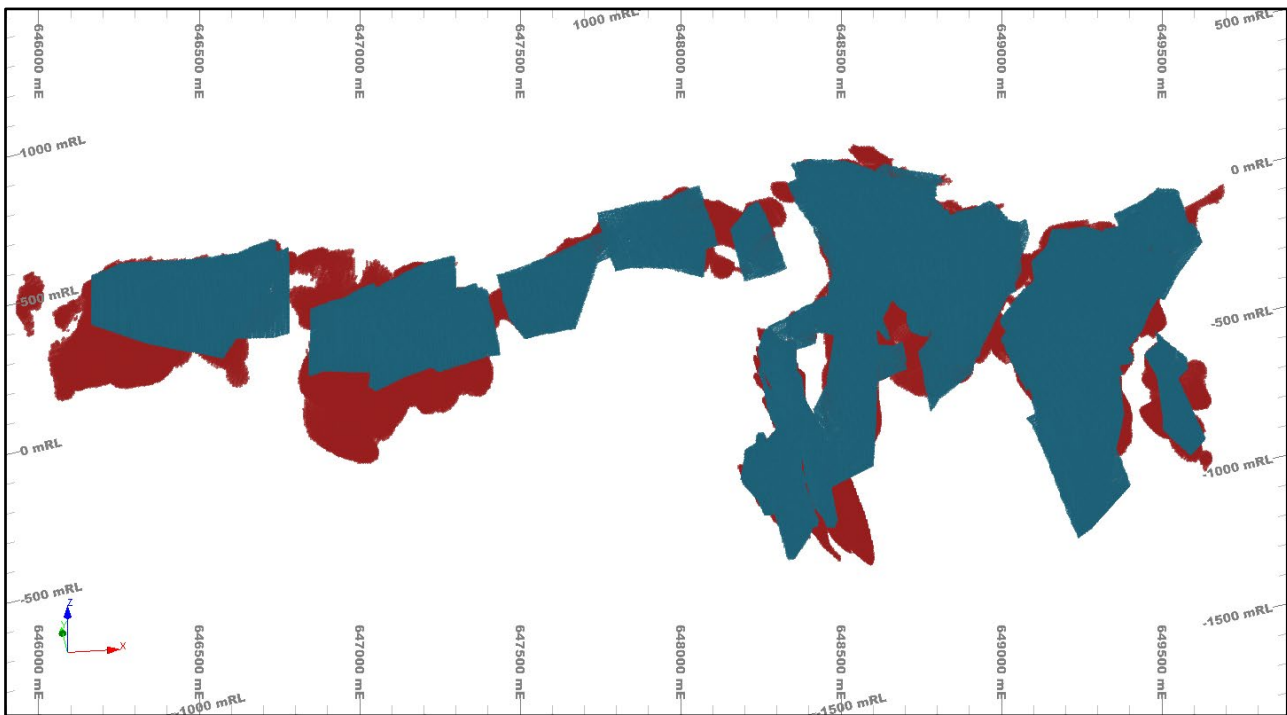
*Note that the insignificant amount of Indicated resources below -300 mRL for the May 2022 model have been included in Inferred in Table 5.*

The most obvious difference is the very significant increase in tonnage and ounces in the Indicated classification for open cut resources. This is an expected result, as much the drilling in late 2021 and early 2022 was 40m x 40m infill, designed specifically to increase confidence in the resource. However, there was also extensional drilling that increase the overall footprint of the resource.

The amount of Inferred has reduced, as it has been converted to Indicated. Overall, for the open cut resources, there has been an increase of 11% in tonnes and 26% in contained ounces. For the underground part of the resource, the tonnages are slightly higher in 2022, with a reduction in grade for approximately the same ounces.

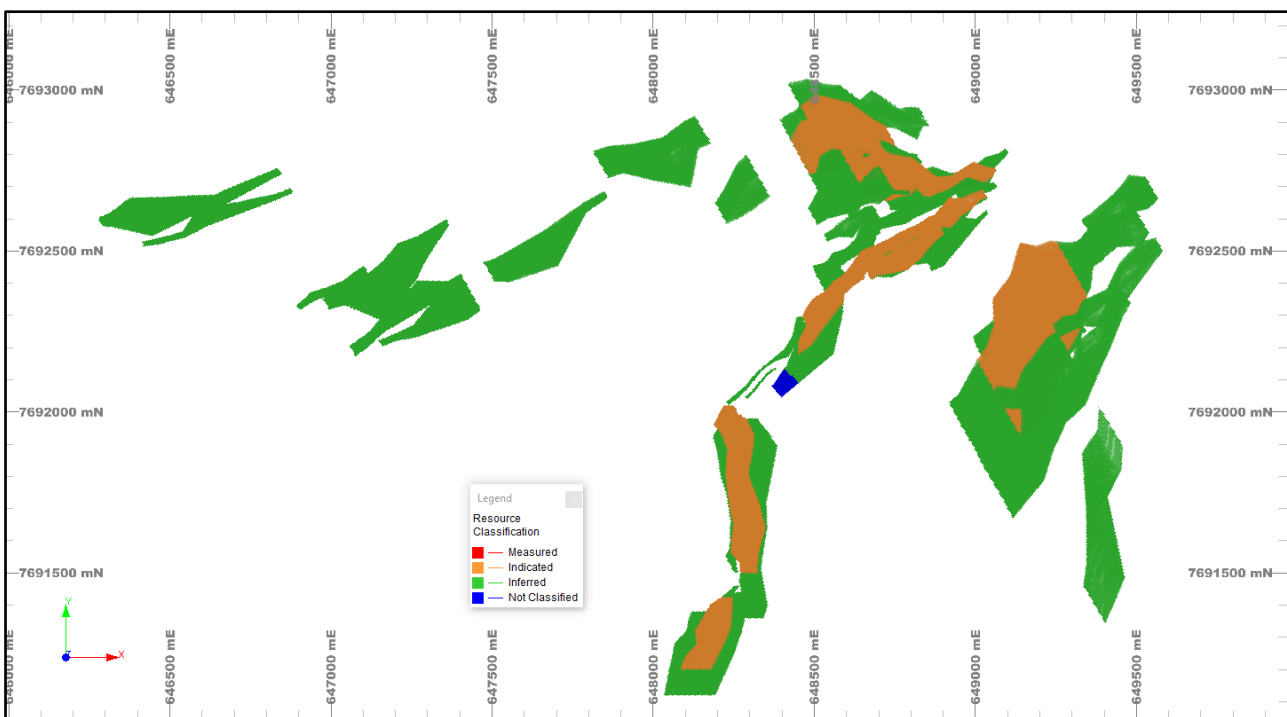
The increase in overall tonnages can be seen in the oblique view in Figure 5 – the June 2021 MRE is in blue, May 2022 in red. The extensional drilling has increased most around Diucon and Eagle (western most deposit areas).

**Figure 5 Comparison of mineralised domains for June 2021 MRE (blue) and May 2022 MRE (red).**

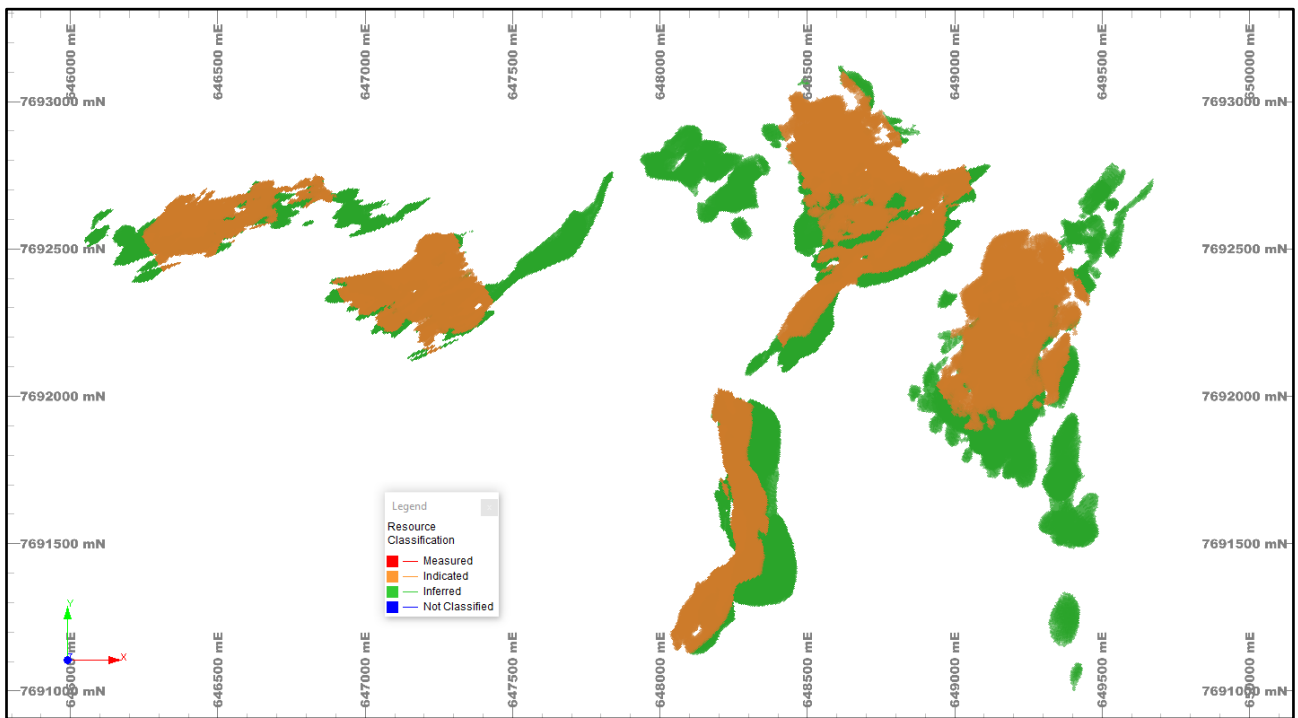


The classification for the June 2021 MRE is shown in Figure 6 – the classification for the May 2022 MRE for comparison is in Figure 7. The amount of Indicated is now much greater at all deposit areas, including at Diucon and Eagle which was all previously classified as Inferred.

**Figure 6 Mineral Resource classification for June 2021 MRE.**



**Figure 7 Mineral Resource classification for May 2022 MRE.**



## Appendix 3: JORC Code, 2012 Edition – Table 1

### Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• <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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report. 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 3kg was pulverised to produce a 30g 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></li> </ul>	<ul style="list-style-type: none"> <li>• All drilling and sampling was undertaken in an industry standard manner.</li> <li>• Core samples were collected with a diamond rig drilling mainly NQ2 diameter core.</li> <li>• After logging and photographing, NQ2 drill core was cut in half, with one half sent to the laboratory for assay and the other half retained. HQ and PQ core was quartered, with one quarter sent for assay. Holes were sampled over mineralised intervals to geological boundaries on a nominal 1m basis.</li> <li>• Sample weights ranged from 2-4kg.</li> <li>• RC holes were sampled on a 1m basis with samples collected from a cone splitter mounted on the drill rig cyclone. The 1m samples typically ranged in weight from 2.5kg to 3.5kg.</li> <li>• Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Samples for selected holes were collected on a 1m basis by spear from 1m sample piles. Sample weights ranges from around 1kg to 3kg. Aircore results have not been used in the resource estimate.</li> <li>• Commercially prepared certified reference material (“CRM”) and course blank was inserted at a minimum rate of 2%.</li> <li>• Field duplicates were selected on a routine basis to verify the representivity of the sampling methods.</li> <li>• Sample preparation is completed at an independent laboratory where samples are dried, split, crushed and pulverized prior to analysis as described below.</li> <li>• Sample sizes are considered appropriate for the material sampled.</li> <li>• The samples are considered representative and appropriate for this type of drilling. Diamond core and RC samples are appropriate for use in the Mineral Resource estimate.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <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</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core diameters are - NQ2 (51mm), HQ3 (61mm), PQ (85mm).</li> <li>• Reverse Circulation (RC) holes were drilled with a 5 1/2-inch bit and face</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>what method, etc).</i>	<p>sampling hammer.</p> <ul style="list-style-type: none"> <li>Aircore holes were drilled with an 83mm diameter blade bit.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Core recovery is measured for each drilling run by the driller and then checked by the Company geological team during the mark up and logging process.</li> <li>RC and aircore samples were visually assessed for recovery.</li> <li>Samples are considered representative with generally good recovery. Deeper RC and aircore holes encountered water, with some intervals having less than optimal recovery and possible contamination.</li> <li>No sample bias is observed.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li><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></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>The entire holes have been geologically logged and core was photographed by Company geologists, with systematic sampling undertaken based on rock type and alteration observed.</li> <li>RC and diamond sample results are appropriate for use in a resource estimation.</li> <li>The aircore results provide a good indication of mineralisation but are not used in resource estimation.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>All core was logged and photographed.</li> <li>NQ2 drill core was cut in half, with one half sent to the laboratory for assay and the other half retained. HQ and PQ core was quartered, with one quarter sent for assay. Holes were sampled over mineralised intervals to geological boundaries on a nominal 1m basis.</li> <li>RC sampling was carried out by a cone splitter on the rig cyclone and drill cuttings were sampled on a 1m basis in bedrock and 4m composite basis in cover.</li> <li>Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Samples for selected holes were collected on a 1m basis by spear from 1m sample piles.</li> <li>Each sample was dried, split, crushed and pulverised to 85% passing 75µm.</li> <li>Sample sizes are considered appropriate for the material sampled.</li> <li>The samples are considered representative and appropriate for this type of drilling.</li> <li>Core and RC samples are appropriate for use in a resource estimate.</li> <li>Aircore samples are generally of good</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><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></li> <li><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></li> </ul>	<p>quality and appropriate for delineation of geochemical trends but were not used in the Mineral Resource estimate.</p> <ul style="list-style-type: none"> <li>The samples were submitted to a commercial independent laboratory in Perth, Australia.</li> <li>For diamond core and RC samples Au was analysed by a 50g charge Fire assay fusion technique with an AAS finish.</li> <li>Aircore samples were analysed for Au using 25g aqua regia extraction with ICPMS finish.</li> <li>All aircore samples and at least every fifth RC and DD sample were analysed with ALS procedure MS61 which comprises a four acid digest and reports a 48 element analysis by ICPAES and ICPMS.</li> <li>The techniques are considered quantitative in nature.</li> <li>A comprehensive QAQC protocol including the use of CRM, field duplicates and umpire assay at a second commercial laboratory has confirmed the reliability of the assay method.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>A number of significant intersections were visually field verified by the Competent Person.</li> <li>Two twin holes were completed. The diamond twins verify grade tenor and mineralisation thickness of RC holes.</li> <li>Sample results have been merged by the company's database consultants.</li> <li>Results have been uploaded into the company database, checked and verified.</li> <li>No adjustments have been made to the assay data.</li> <li>Results are reported on a length weighted basis.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Diamond and RC drill hole collar locations are located by DGPS to an accuracy of +/-10cm.</li> <li>Aircore hole collar locations are located by DGPS to an accuracy of +/-10cm., or by handheld GPS to an accuracy of 3m.</li> <li>Locations are recorded in GDA94 zone 50 projection</li> <li>Diagrams and location tables have been provided in numerous releases to the ASX.</li> <li>Topographic control is by detailed georeferenced airphoto and Differential GPS data.</li> <li>Down hole surveys were conducted for all RC and DD holes using a north seeking</li> </ul>

Criteria	JORC Code explanation	Commentary
		gyro tool with measurements at 10m down hole intervals.
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><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></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Within the limits of the Mineral Resource, the drill hole spacing varies from 40m by 40m spacing to 80m by 80m spacing.</li> <li>The extensive drilling programs have demonstrated that the mineralised domains have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code.</li> <li>Samples have been composited to 2m lengths in mineralised lodes using best fit techniques prior to estimation.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><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></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>The drilling is approximately perpendicular to the strike of mineralisation. The holes are generally angled at -55o which provides good intersection angles into the mineralisation which ranges from vertical to -45o dip.</li> <li>The sampling is considered representative of the mineralised zones.</li> <li>Where drilling is not orthogonal to the dip of mineralised structures, true widths are less than downhole widths.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>QAQC data has been both internally and externally reviewed.</li> </ul>

## Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The entire Hemi Mineral Resource lies within exploration licence E45/3392-I. The tenement is held 100% by Last Crusade Pty Ltd, a wholly owned subsidiary of De Grey Mining Limited.</li> <li>The Hemi Prospect is approximately 60km SSW of Port Hedland.</li> <li>The tenements are in good standing as at the time of this report.</li> <li>There are no known impediments to operating in the area.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>No detailed exploration is known to have occurred on the tenement prior to De Grey Mining. Prior to the Hemi discovery, De Grey completed programs of airborne</li> </ul>

Criteria	JORC Code explanation	Commentary
		aeromagnetics/radiometrics, surface geochemical sampling and wide spaced aircore and RAB drilling. Limited previous RC drilling was carried out at the Scooby Prospect approximately 2km NE of the Brologa deposit at Hemi.
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The mineralisation style is new to the Pilbara region and is interpreted to be hydrothermally emplaced gold mineralisation within intermediate intrusions that have intruded into the older Archaean Mallina basin sediments.</li> <li>• Host rocks comprise igneous rocks of quartz diorite composition.</li> <li>• The gold mineralisation is intimately associated with sulphide stringer and disseminations.</li> <li>• The sulphide minerals are dominantly arsenopyrite and pyrite.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>- <i>easting and northing of the drill hole collar</i></li> <li>- <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>- <i>dip and azimuth of the hole</i></li> <li>- <i>down hole length and interception depth</i></li> <li>- <i>hole length</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All exploration results have previously been communicated in various ASX releases.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Exploration results are not being reported.</li> <li>• Not applicable, as a Mineral Resource is being reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not</i></li> </ul>	<ul style="list-style-type: none"> <li>• The drill holes are interpreted to be approximately perpendicular to the strike of mineralisation.</li> <li>• Where drilling is not perpendicular to the dip of mineralisation the true widths are less than downhole widths.</li> </ul>

Criteria	JORC Code explanation	Commentary
	known”).	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Relevant diagrams have been included in numerous ASX releases.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All drilling used in the Mineral Resource estimate has been accurately located using DGPS for collar locations and gyroscopic downhole directional surveys.</li> <li>Exploration results are not being reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Extensive metallurgical, groundwater, and geotechnical studies have commenced as part of the economic assessment of the project.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration drilling is ongoing at the project.</li> <li>Further infill drilling will be conducted prior to commencement of mining.</li> <li>Refer to diagrams in the body of this and previous ASX releases.</li> </ul>

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

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>All drilling data in the Mineral Resource estimate has been generated by DEG since 2019. It has been systematically recorded and stored using industry best practice for data management.</li> <li>The database is hosted and managed by Expedito, using their customised SQL data storage system.</li> <li>Data was geologically logged electronically using the Expedito Ocris Mobile Logger; collar and downhole surveys were also received electronically</li> </ul>

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		<p>as were the laboratory analysis results.</p> <ul style="list-style-type: none"> <li>The SQL server database is configured for optimal validation through constraints, library tables, triggers and stored procedures. Data that fails these rules on import is rejected or quarantined until it is corrected. Some of the automatic triggers on assay import are listed below.               <ul style="list-style-type: none"> <li>CRM results &gt; +/- 3 standard deviations</li> <li>CRM weight &gt; 200g</li> <li>Blank results &gt; 10 x detection limit</li> <li>Blank weight &lt; 400g</li> <li>Grind size &lt; 85% passing 75µm</li> </ul> </li> <li>Data extracted from the database were validated visually in Datamine and Seequent Leapfrog software. Also, when loading the data, any errors such as missing values and sample/logging overlaps are highlighted.</li> <li>In summary the database is of high quality, consisting only of very recent drilling with no significant errors due to data corruption or transcription.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person visited site on 15 and 16 December 2021, and personally inspected active diamond core drilling and geological logging at the core logging facility. Core recovery and logging was of a very high standard.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li><i>Nature of the data used and of any assumptions made.</i></li> <li><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li><i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>The confidence in the underlying geological interpretation is considered to be high and is based on extensive RC and core drilling. The entire project area is overlain by 25 m to 45 m of transported cover, so no outcrop is present.</li> <li>Six discrete deposit areas have been defined within the Hemi project. These are: Aquila, Broga, Crow, Diucon, Eagle and Falcon.</li> <li>Geochemistry and geological logging have been used to assist with identification of lithology, mineralisation and weathering.</li> <li>The deposit consists of broad zones of gold mineralisation within well-defined intrusive lithologies. Gold is associated with pyrite and arsenopyrite with sericite and silica alteration of the host rocks.</li> <li>The controlling lithologies are well defined and lithology boundaries commonly coincide with mineralisation boundaries.</li> <li>The overall dip and dip direction of the intrusives varies between each deposit</li> </ul>

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		area: <ul style="list-style-type: none"> <li>- Aquila 70° towards the southeast</li> <li>- Brolga 50° towards the southeast</li> <li>- Crow 40° to 60° towards the southeast</li> <li>- Diucon 70° to 80° towards the southeast</li> <li>- Eagle 80° towards the southeast</li> <li>- Falcon 50° to 70° towards the east.</li> </ul> <ul style="list-style-type: none"> <li>• Infill drilling has confirmed geological and grade continuity in most areas of the deposit.</li> <li>• The estimation domains were constrained by wireframes constructed in Leapfrog software using an approximate 0.2g/t Au cut-off grade, with the domain orientation consistent with the geological interpretation.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The Hemi Mineral Resource area extends over a north-south strike length of 2,000m, and an east-west extent of 3,600m. It has been drilled and interpreted to a maximum vertical interval of 670m from surface at 70 mRL to -600 mRL.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Estimation of the mineral resource was by the non-linear geostatistical method Localised Uniform Conditioning (LUC) using Datamine software. The LUC estimation process was as follows:</li> <li>• Drill hole data was selected within mineralised domains for each deposit area and composited to 2 m downhole intervals in Datamine software.</li> <li>• The composited data was imported into Supervisor software for statistical and geostatistical analysis. The statistical analysis</li> <li>• Top-caps were applied based on examination of histograms and Au grade distribution analysis. The caps per deposit area ranged from 10 to 18 ppm Au.</li> <li>• Contact analysis of samples within the estimation domains and those outside ('background' domain) showed that hard domain boundaries were suitable.</li> <li>• Variography was performed on capped data transformed to normal scores, and the variogram models were back-transformed to original units. Variography was performed separately for each deposit area.</li> <li>• The variogram models had low to moderate nugget effects (25 to 35% of the total sill), with maximum ranges of ~150m</li> </ul>

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		<p>along strike and ~90m down dip for all deposit areas.</p> <ul style="list-style-type: none"> <li>• Estimation (via Ordinary Kriging (OK) – a necessary precursor step for UC) was into a block model that was rotated +50° from the MGA94 grid. The panel block size of 20mE x 20mN x 5mRL is half the average drill spacing in the main well-drilled part of the deposit</li> <li>• A minimum of 8 and maximum of 20 (2m composite) samples per panel estimate was used, with a search ellipse radius similar to the variogram ranges (160m x 80m x 40m).</li> <li>• Up to two search passes were used for each estimation domain, with the second pass twice the size of the first pass. The number of samples required was the same for both searches. The second pass was only required for 1% of blocks for most deposit areas, except for Brolga where the second pass was required for 5% of the blocks.</li> <li>• A locally varying ellipsoid orientation was used to account for the subtle changes in estimation domain orientation along strike and down dip. The variogram models did not use locally varying orientations in order to be consistent with the Change of Support correction.</li> <li>• The UC process applies a Change of Support correction (discrete Gaussian model) based on the composite sample distribution and variogram model, conditioned to the Panel grade estimate, to predict the likely grade tonnage distribution at the SMU selectivity.</li> <li>• Localisation of the grades was into Selective Mining Units (SMU) block of 5mE x 5mN x 5mRL (16 SMUs per panel). The SMU size is appropriate given the likely mining method (open-cut) and equipment selection.</li> <li>• To account for the higher grades that had been capped, a localised OK estimate using uncapped grades was made into SMU sized blocks in the immediate area (5m) of these higher grades. These grades superseded the LUC grades.</li> <li>• Estimates of Au grades were validated against the composited drill hole data by extensive visual checking in cross-section, plan and on screen in 3D, by global (per shoot) comparisons of input data and model, and by semi-local statistical methods (swath plots). All methods showed satisfactory results.</li> </ul>

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		<ul style="list-style-type: none"> <li>No recovery of by-products is anticipated.</li> <li>In addition to gold, sulphur, calcium and arsenic were estimated in the model to provide information for metallurgical evaluation.</li> <li>S, Ca and As were estimated by ordinary kriging into the panel-sized blocks.</li> <li>Moderate correlation was determined between Au and S and Au and As. Strong correlation was determined between S and As. No assumptions about correlation were made in the estimate.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades were estimated on a dry in situ basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been reported at a cut-off 0.3g/t Au for mineralisation above 370m vertical depth (-300mRL), and 1.5g/t Au cut-off below 370m from surface.</li> <li>The reporting cut-off parameters were selected based on economic evaluation of the Hemi deposit to PFS level.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The majority of the Hemi deposit would be mined by open pit extraction. Recent pit optimisation work was undertaken using gold prices of between \$2,100 and \$3,300 per ounce, with mining costs averaging \$7.90 per BCM and, processing costs of \$31 per tonne for the semi refractory material.</li> <li>The \$3,000 per ounce pit shells reached a maximum depth of 450m at Brolga (to the -380mRL) and an average depth for the other deposit areas of 370 to 400m (-300 to -330mRL).</li> <li>Therefore the -300mRL was selected as the level to divide open cut from underground resources.</li> <li>Higher grade zones below the -300mRL within the deposit show potential for large scale underground mining.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Extensive metallurgical test work has been undertaken at Hemi, with similar mineralogy and metallurgical characteristics noted across all deposits tested thus far. The gold mineralisation is semi-refractory, and a flowsheet combining the conventional processing technologies of crushing, milling, sulphide flotation, concentrate pressure oxidation, and cyanide leaching has been tested thoroughly, and has proven successful in achieving high recoveries.</li> <li>For transitional and fresh mineralisation,</li> </ul>



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		<p>overall gold recoveries of 95% have been achieved on samples from Brolga, Falcon, and Crow, and 94% on samples from Aquila. Testwork on the Diucon and Eagle orebodies is in progress.</p> <ul style="list-style-type: none"> <li>For oxide mineralisation at Aquila, the test work has demonstrated that gold recovery of 95% can be achieved through conventional cyanide leaching</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>There are no known environmental issues, with a number of operational and closed open cut mines (copper, lithium, iron ore) within 50km of Hemi, in similar physical geographical settings.</li> <li>DEG will work to mitigate environmental impacts as a result of any future mining or mineral processing.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li><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></li> <li><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></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>Bulk density values applied to the Mineral Resource were based on a substantial number of density determinations on drill core.</li> <li>The bulk density values were assigned based on oxidation/weathering as follows:           <ul style="list-style-type: none"> <li>Upper Saprolite 1.7 t/m<sup>3</sup></li> <li>Lower Saprolite 1.8 t/m<sup>3</sup></li> <li>Saprock 2.1 t/m<sup>3</sup></li> <li>Fresh with weathering along joints 2.6 to 2.7 t/m<sup>3</sup></li> <li>Fresh (primary sulphide) 2.78 t/m<sup>3</sup></li> </ul> </li> <li>The transported cover material was assigned an assumed density value of 1.7 t/m<sup>3</sup>.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><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></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate is reported in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC).</li> <li>The Hemi Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and geological and grade continuity and kriging metrics of the panel estimates.</li> <li>The Indicated Mineral Resource has a drill spacing of 40m x 40m and where the kriging slope of regression is greater than about 0.7. In a very few instances where the mineralisation showed clear continuity</li> </ul>

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		<p>into areas of 80m by 40m drill hole spacing, the resource was classified as Indicated.</p> <ul style="list-style-type: none"> <li>• Wireframes were constructed to delineate the Indicated Mineral Resource i.e. the classification was not defined on a block-by-block basis.</li> <li>• The Inferred Mineral Resource has been defined with a drill hole spacing of 80m by 80m and with slopes of regression for the panel estimates less than 0.7.</li> <li>• Extrapolation of the mineralisation was generally limited to 60m along strike and down dip of drill hole intersections. Extrapolation of up to 100m down dip was used where the strongest mineralisation remained open and untested.</li> <li>• The input data is on a regular drilling grid and has not been concentrated on higher-grade zones. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains.</li> <li>• The classification of the Mineral Resource Estimate appropriately reflects the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Cube Consulting have completed internal peer review of the estimate.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The deposit geometry and continuity has been adequately interpreted to reflect the classification applied to the Mineral Resource.</li> <li>• The data quality is excellent and the drill holes have detailed logs produced by qualified geologists. An independent commercial laboratory has been used for all analyses.</li> <li>• The Mineral Resource statement relates to global estimates of tonnes and grade.</li> </ul>