

11 July 2024

ASX: DEG

Hemi Regional Scoping Study

- The Hemi Regional Scoping Study (the "Study") is an initial evaluation of the potential development of the Hemi Regional deposits located to the east and west of the Hemi Gold Project ("Hemi")
- The Study presents a strong financial and technical case for the potential development of the Hemi Regional deposits within the first five years of operations at Hemi and would be funded from operating cashflows from Hemi. The Regional Project development would not be funded by the Company's existing cash reserves.
- The Company will continue targeted regional exploration seeking to add to De Grey's global Mineral Resource whilst enhancing the Study evaluation. It will also continue lower-level studies that will not distract the Company from its key Hemi development but will improve the status of the Regional Project.

Cautionary Statement

The Study referred to in this ASX release has been undertaken for the purpose of initial evaluation of a potential development of the Hemi Regional deposits within the Hemi Gold Project in the Pilbara region of Western Australia. It is a preliminary technical and economic study of the potential viability of mining and processing of certain Hemi Regional deposits. The Study outcomes, production target and forecast financial information referred to in this release are based on low accuracy level technical and economic assessments that are insufficient to support estimation of Ore Reserves. The Study has been completed to a level of accuracy of +/- 35% in line with a scoping level study accuracy. While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production target itself will be realised. Further exploration and evaluation work and appropriate studies are required before De Grey will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Study. Of the Mineral Resources scheduled for extraction in the Study production plan approximately 84% are classified as Measured and/or Indicated and 16% as Inferred during the 5.8 year life of mine in the Study. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The stated production target is based on the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

The Mineral Resource estimates underpinning the production target in the Study and this announcement have been prepared by a competent person in accordance with the requirements of the JORC Code (2012). For full details of the Mineral Resources estimate and the relevant announcements please refer to Appendix A. De Grey confirms that it is not aware of any new information or data that materially affects the information included in those releases. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed. This release contains a series of forward-looking statements. Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this release regarding De Grey's business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties, such as Mineral Resource estimates, market prices of gold, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, and statements that describe De Grey's future plans, objectives or goals, including words to the effect that De Grey or management expects a stated condition or result to occur. Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by De Grey, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forwardlooking statements, which speak only as of the date they are made.

De Grey has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that it will be able to fund the development of the Hemi Regional deposits upon successful delivery of key development milestones and when required. The detailed reasons for these conclusions are outlined throughout this ASX release (including the Funding section of this announcement). While De Grey considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Study will be achieved.

To achieve the range of outcomes indicated in the Study, pre-production funding estimated to be approximately A\$320M may be required. There is no certainty that De Grey will be able to source that amount of funding when required. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of De Grey's shares.

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the production target and forecast financial information are based have been included in this ASX release.

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De Grey Mining Limited (ASX: DEG, "**De Grey**" or "**Company**") is pleased to present the outcomes of its Hemi Regional Scoping Study (the "**Study**") for the mining and processing of the Hemi Regional deposits ("**Hemi Regional**" or "**Hemi Regional Project**") located to the east and west of its Hemi Gold Project ("**Hemi**" or "**Project**") in the Pilbara region of Western Australia. The Study presents an initial evaluation of the Hemi Regional deposits. Opportunities for improved Study outcomes include continued Regional exploration and Regional Mineral Resource extension drilling.

Study Highlights (all financials are in A\$ unless otherwise stated)

• Gold production of approximately 817koz averaging 142kozpa over an initial evaluation period of approximately 6 years



• Production from the Regional deposits and Hemi¹ could increase Global gold production from the Project area to approximately 700kozpa² from Year 4 of operations at Hemi

- Measured and Indicated Mineral Resources within the Study production profile represent approximately 84% of recovered gold with the balance in the Inferred category with the Hemi production profile (excluding Regional) represented by 99% Probable Reserves³
- Hemi Regional Mineral Resource Estimate is currently 41Mt at 1.7g/t Au for 2.2Moz⁴ total combined Measured, Indicated and Inferred resource
- AISC of approximately \$1,820/oz
- Forecast free cashflows of approximately \$400 million⁵ (pre-tax) over the initial evaluation period

¹ ASX Announcement 28 September 2023, Hemi Gold Project Definitive Feasibility Study

² Hemi project development as described in the I Hemi Gold Project Definitive Feasibility Study is not contingent upon the potential development of, and production from, the Hemi Regional deposits

³ ASX Announcement 28 September 2023, Hemi Gold Project Definitive Feasibility Study

⁴ ASX Announcement 15 June 2023, Mallina Gold Project Resource Statement - 2023

⁵ Gold price of A\$2,700/oz

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- NPV_{5%}⁶ (pre-tax) of approximately \$300 million, IRR (pre-tax) of approximately 43% and payback period (pre-tax) of approximately 3.5 years
- Hemi Regional Project initial capital cost of \$210M expected to be funded from operating cashflows at Hemi

De Grey Managing Director Glenn Jardine commented:

"Hemi represents a provincial scale exploration and production opportunity and the Company is actively assessing ways in which the long-term production profile of the Project can be enhanced over and above the Hemi DFS production profile outlined in September 2023. The Hemi Regional Scoping Study provides an important initial evaluation of part of this potential to both extend and increase the production profile.

"The proposed 10 million tonne per annum pressure oxidation circuit at Hemi is a regionally strategic asset that has the potential to treat additional oxide ores and gold concentrates from outside of the main Hemi deposits. The 2.2 million ounce Hemi Regional Mineral Resource is an obvious first source of additional feed and this initial Study outlines how an integrated development of the Hemi Regional deposits could be both technically and financially attractive.

"Flexibility exists in both the timing and sequencing of developing the Hemi Regional deposits, which will be further examined as part of additional studies. We will continue to conduct targeted exploration for new Hemi Regional discoveries and conduct Mineral Resource extension drilling at selected existing deposits to improve the initial scoping study outcomes.

"Our strategy is to time the development of the Hemi Regional Project utilising cashflow generated from the fully commissioned Hemi Project, while also bringing forward cashflows from the Hemi Regional deposits as soon as practicable. The Hemi Regional deposits will not displace any material from Hemi but aim to utilise the expected latent capacity within the front and back ends of the Hemi plant."



Introduction

The Company's 100% owned Hemi Regional Project is located in the Pilbara region of Western Australia (Figure 1). Exploration tenements stretch east to west for a distance of approximately 150km, covering an area of approximately 1,500km² with an additional approximately 1,000km² subject to an earn-in arrangement with Novo Resources Limited.

Figure 1: Hemi Gold Project Location Map



De Grey has undertaken a Study into the development of the Hemi Regional deposits. The Hemi Regional deposits (Figure 2) comprise mining centres located around Wingina to the east of Hemi (the "**Eastern Mining Centre**" or "**EMC**") and around Withnell to the west of Hemi (the "**Western Mining Centre**" or "**WMC**"). A Mineral Resource containing approximately 0.5Moz has been defined in the EMC deposits and approximately 1.7Moz in the WMC deposits for a total combined Measured, Indicated and Inferred Hemi Regional Mineral Resource of 41Mt at 1.7g/t Au for 2.2Moz.

The Wingina and Mt Berghaus deposits at the EMC are located on granted Mining Leases located approximately 15km east of Hemi. Production from these deposits in the Study is free milling oxide ore and is proposed to be hauled and processed through the Hemi processing facility, sharing Hemi infrastructure and personnel where possible.



The Study includes the establishment of a regional processing facility at Withnell, the Western Processing Hub ("**WPH**"), treating the WMC deposits. Withnell is located approximately 95km by road from Hemi following a route along the Great Northern Highway and North West Coastal Highway.



Figure 2 Mineral Resources at Hemi, the Withnell area (WMC) and the Wingina area (EMC)

The Study has considered and evaluated a range of scheduling and processing alternatives as part of an extensive options evaluation assessment. The Study reports on the outcomes of a 3Mtpa scenario, although it is apparent that sequencing flexibility exists for production and processing.

It is proposed to develop and operate a nominal 3Mtpa processing facility located on granted Mining Leases at Withnell comprising primary and secondary crushing, milling and pebble crushing, gravity concentration, flotation, concentrate filtration, carbon-in-leach ("**CIL**") pre-treatment blanking circuit, and a CIL leaching circuit.

Free milling ores will be treated wholly on-site at the WPH, producing gold doré, whereas refractory ores will be treated via flotation, with the flotation concentrate being filtered and transported to the Hemi processing facility for further treatment to produce gold doré at Hemi. Concentrate storage and repulping facilities at Hemi are included within the Study capital cost estimate. Beyond this, no further capital costs have been included at Hemi in the Study for the direct processing of free milling Eastern deposits or for downstream processing of WPH concentrate through the pressure oxidation circuit at Hemi.

The EMC mining rate has been limited to 1Mtpa based on the assumption that debottlenecking over the first three years of production at Hemi will achieve increased throughput of at least 10% based on Hemi Definitive Feasibility Study (**"DFS"**) design conservatism and with some plant equipment at Hemi (primary crusher and high-pressure grinding rolls) being sized to process 15Mtpa. Ore from the EMC will be scheduled and integrated within the Hemi production schedule.



An additional benefit is that the Eastern deposits are free milling oxide and demonstrate good recoveries at a grind size of 106 micron, whereas the Hemi DFS assumes a grind size of 75 micron. A similar assumption has been made for the pressure oxidation circuit at Hemi when treating concentrate from the WPH commencing in Year 7 of production at Hemi. If necessary, concentrate from the WPH that cannot be treated at Hemi could be sold via an offtake agreement. If additional autoclave capacity is required, those costs may be offset by treatment at Hemi of additional feed from Hemi underground ore, the Ashburton project, third-party offtake agreements and/or additional regional discoveries.

Study Team

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The Study Team comprised De Grey personnel plus experienced external technical consultants, the majority of which contributed to the successful Hemi DFS (September 2023), Pre-Feasibility Study (September 2022) and Hemi Scoping Study (October 2021).

The external technical consultants were able to leverage the accumulated knowledge base from participating in the Hemi studies and positively contribute to the outcomes of this Study. The Study assessed the development of a standalone Western Processing Hub, the development of the Wingina Mining Centre Deposits and included the collective technical, metallurgical processing, environmental impacts, community interaction and financial robustness of the Project. The Study team comprised:

- Study Compilation De Grey
- Geology De Grey
- Resource Estimation
 Cube Consulting*/De Grey
- Geotechnical MineGeoTech*
- Geochemical SRK Consulting*
- Hydrogeological SRK Consulting*/GeoWater*
- Hydrological AQ2 Pty Ltd/SRK Consulting/Surface Water Solutions*
- Mining Engineering
 Cube Consulting*/De Grey
- Mining Costing
 De Grey/Mining Contractor RFPs
 - Metallurgy De Grey/Various Met Labs*
 - Metallurgical Testwork De Grey/GRES/ALS Australia* and others
- Process Engineering Mintrex
- Capital Cost Estimate Mintrex/De Grey
- Tailings Storage CMW Geosciences*
- Power Supply ECG Engineering*
- Infrastructure External haulage contractors
- Environmental/ESG RPM Advisory Services*
- Heritage and Native Title De Grey and RPM Advisory Services*
- Social and Community De Grey and Umwelt Consulting*
- Financial Modelling De Grey
- Risk Assessment
 De Grey

*External Technical Consultants previously engaged by De Grey for the Hemi DFS, PFS and Scoping Study.



Key Outcomes and Assumptions

The Study confirms that development of the Hemi Regional deposits presents a potentially commercially viable opportunity, with production upside from targeted Regional exploration and Regional Mineral Resource extension drilling. A summary of the initial physical and financial evaluation of the Project at a 3Mtpa throughput rate is shown in Table 1 with additional details provided in this Study announcement.

 Table 1: Scoping Study Approximate Physical and Financial Outcomes and Key Assumptions

Item	Unit	Eastern	WPH	Total
Key Production Statistics				
Total Material Mined (Mass)	Mt	32.3	145.3	177.5
Ore Mined	Mt	3.0	13.6	16.6
Au Grade	Au g/t	1.8	1.7	1.7
Strip Ratio	waste:ore (t:t)	9.7	9.7	9.7
Evaluation Period/Life of Mine	Years	3.0	5.8	5.8
Total Ore Processed	Mt	3.0	13.6	16.6
Mill Throughput	Mtpa	Inc In Hemi	3.0	3.0
Gold Production – Free Milling Ore	koz	158.8	389.5	548.3
Gold Production – Semi Refractory Ore	koz	-	268.8	268.8
Gold Production – Total LOM	koz	158.8	658.3	817.0
Processing Recovery (Overall)	%	93.2	90.2	90.8
Average Annual Gold Production	koz pa LOM	52.9	114.5	142.1
Total Cash Operating Costs	\$/t ore milled	88.6	90.2	89.9
Capital Cost				
Upfront Capital Cost	\$M	14.0	196.1	210.1
Deferred Capital Cost	\$M	-	106.8	106.8
Total Development Capital Cost	\$M	14.0	302.9	316.9
Financial Metrics				
Gold Price	\$/oz	2,700	2,700	2,700
AISC	\$/oz	1,683	1,858	1,824
Free cash flow (pre-tax)	\$M	147	249	396
NPV _{5%} (pre-tax)	\$M	129	197	296
IRR (pre-tax)	%	350	24	43
Payback Period (pre-tax)	Years	0.25	3.00	3.50



The Study demonstrates potential additional production to the Hemi DFS from the Hemi Regional deposits of approximately 140kozpa over 6 years at an average operating cost just above \$1,800/oz. Assuming production from the Hemi Regional deposits commences in Year 4 of production at Hemi, overall production would approach approximately 700kozpa from Years 4 to Year 7 (inclusive) and approximately 600kozpa for Years 8 and 9 at Hemi.

The provincial scale opportunity of the overall Hemi Regional Project can deliver additional value to the Hemi Project. The Study itself has significant upside through additional mine life from new discoveries and Mineral Resource extensions. For example, one additional year of average Study gold production would increase the Study NPV by approximately \$85M (or approximately 30%) from \$295M to \$380M.

The Project has been demonstrated to be financially robust with a short payback period and strong cashflows.

A gold price of A\$2,700/oz has been assumed in the Study financial analysis. This is approximately 30% lower than the current spot gold price of approximately A\$3,500/oz. A 5% discount rate has been assumed in the Study's financial analysis. This is considered reasonable for a gold project of this nature and jurisdiction. The Project has been tested for sensitivity to changes to key input parameters such as gold price, grade, AISC, discount rate and metallurgical recoveries and found to be robust with reasonable variations to financial model inputs with the project remaining NPV positive to changes up to 10% in head grade and gold price. A tornado graph of the Project NPV based on changes to the key inputs is presented in Figure 3.



Figure 3: Sensitivity Analysis



Future Exploration and Production Upside

The Study has demonstrated a compelling value proposition and a good starting point to capitalise on potential Mineral Resource upside particularly associated with the Withnell-Calvert trend and a solid base upon which to follow up historical exploration data to increase the existing Regional Mineral Resource base.

The Withnell trend extends from west of Dromedary to east of Withnell over 6km of prospective strike (Figure 4). The trend includes existing deposits of Withnell, Camel Roe and Dromedary.

At the Withnell deposit, new lodes have recently been discovered at Withnell South, in addition to potential extensions to some Central Withnell lodes. This mineralisation has not been included in this Study but will be incorporated into an updated Mineral Resource Estimate ("**MRE**") which is planned to be completed during the calendar year 2024. There are other areas where the Withnell deposit may be open at depth or along strike and follow up work is planned. A concept study completed in 2019 showed potential for a future underground operation at Withnell, which could be included in future studies.

Numerous mineralised intercepts and targets within this 6km trend warrant follow-up work, with good potential to add to the current MRE.



Figure 4: Deposits along the Withnell trend showing target areas and previous drilling

The Calvert deposit (around 10km east of Withnell) is open at depth, and drilling in 2021 returned intersections including 14m @ 3.15g/t Au from 128m in MWRC0001 (see DEG ASX release dated 13 October 2021) which extends mineralisation by over 200m down dip. This has not been incorporated into the current Mineral Resource model and represents an upside to the current Calvert MRE with further drilling.

The Mallina deposit has undergone RC drilling since the latest MRE with this drilling likely to show incremental increases to the current MRE. Mallina is open along strike and at depth, with further drilling having strong potential to increase the current Mallina MRE. Mallina lies within a 7km – 8km plus zone of geochemical anomalism, which is relatively poorly explored and has potential for further discoveries.

At the Eastern deposits, Mount Berghaus has only been tested to shallow depths, with most drilling testing less than 100m deep, and is open at depth. Mount Berghaus also has potential for extensions



along strike, within a 5km corridor containing mineralisation and anomalous intercepts in widely spaced drilling. Recent aircore drilling on a separate trend north of Mount Berghaus (Mount Berghaus Proper), identified in aeromagnetic and gravity data, has returned anomalous gold values over a strike of around 6km and has the potential to host additional deposits. There is also potential for further mineralisation along the Tabba Tabba Shear which hosts the Wingina deposit, although access is currently limited due to heritage issues.

De Grey holds a large province-scale tenement package in the Pilbara. The recent addition of $\sim 1,000 \text{km}^2$ of tenements through a Joint Venture agreement with Novo Resources Limited (the "**Egina JV**") has increased De Grey's tenement holding to $>2,500 \text{km}^2$. Regional exploration is active on De Grey's tenements in addition to the JV tenements, with numerous early-stage targets being followed up. These have the potential for new discoveries which could add to either the WMC or EMC Mineral Resource inventory. Additional oxide deposit Mineral Resource extensions or new discoveries in the Greater Hemi area (e.g. Mount Berghaus/Proper) that can be fed directly into the Hemi plant following the processing of the EMC deposits would also significantly improve the NPV of the Hemi Regional Project.

Project Area and Tenement Status

De Grey has 100% ownership of the tenements across the broader Hemi Gold Project, which includes Hemi and the Hemi Regional deposits of Toweranna, Withnell, Camel Roe, Calvert Mallina, Mt Berghaus, Amanda and Wingina. The full tenement package relating to the Hemi Regional tenements totals 49 tenements as at June 2024 including 7 granted Mining Leases and 2 Mining Lease Applications covering the Regional 2.2Moz MRE as shown in Table 2.

Lease	Lease Type	Deposit	Status	Mining Centre
M45/1294	Mining Lease	Mt Berghaus	Granted	EMC
M45/1295	Mining Lease	Wingina	Granted	EMC
M45/1299	Mining Lease	Amanda	Granted	EMC
M47/480	Mining Lease	Calvert	Granted	WMC
M47/477	Mining Lease	Withnell	Granted	WMC
M47/476	Mining Lease	Withnell	Granted	WMC
M47/475	Mining Lease	Withnell	Granted	WMC
M47/474	Mining Lease	Camel	Granted	WMC
M47/473	Mining Lease	Dromedary	Granted	WMC
M47/1640	Mining Lease	North Calvert	Application	WMC
M47/1627	Mining Lease	Toweranna	Application	WMC
M47/1626	Mining Lease	Mallina	Granted	WMC

Table 2: Granted Mining Leases and applications across the Hemi Regional Deposits

Regional Geology

The Hemi Regional Gold Project is located on the western side of the Pilbara Craton, Western Australia. The project area is dominated by a broadly ENE-WSW trending Archaean greenstone and metasediment sequences that have been complexly folded and structurally deformed by the regional deformation and the emplacement of granitic batholiths and smaller localised intrusions shown in Figure 5.





The Pilbara Craton is subdivided into three main terranes, the West Pilbara Superterrane, the East Pilbara Terrane ("**EPT**") and the Kurrana Terrane (Figure 6). The De Grey Superbasin occurs around the margins of the EPT and contains the Central Pilbara Tectonic Zone ("**CPTZ**") to the west and the Mosquito Creek Basin to the east.

The Project occurs within the CPTZ of the De Grey Superbasin. The western De Grey Supergroup of the supracrustal De Grey Superbasin is comprised of the Mallina Basin rift depository. This basin is divided into the underlying Constantine Formation and the overlying Mallina Formation. The Warrawoona Group and Cleaverville Formation form the basement rocks to the De Grey Supergroup.

The basal Constantine Formation comprises conglomerate, arkose sandstone and shale and the Mallina Formation is comprised of shales, siltstones, wackestones and turbiditic sedimentary rocks sequences. The Constantine Formation can form topographic highs whereas the Mallina Formation typically outcrops very poorly and is predominantly covered by Tertiary to Quaternary alluvium and colluvium.

The Mallina Basin was intruded by mafic-ultramafic sills of the Indee, Langenbeck and Millindinna Suites during basin development. These intrusions are present as extensive, thin sills in the lower half of the basin. Later intermediate to felsic granitoid bodies intruded the basin and its margins and, within the Mallina Basin, are interpreted to be syn- to post-deformational in the timing of their emplacement. A suite of Sanukitoids, grouped with the Sisters Supersuite, also intruded the Mallina Basin. It is interpreted that the location and emplacement of the Sanukitoids is associated with major, translithospheric structures. The spatial distribution of the Sanukitoids is interpreted to help delineate structural corridors that are considered prospective for gold mineralisation.





Figure 6 Simplified Geology of the Pilbara Craton

Reference: Simplified Geology Map of the Pilbara Craton, showing terranes and major structures (Van Kranendonk et al., 2007)

Local Geology

Toweranna

The Toweranna deposit is hosted by an intrusion within the Mallina basin. The intrusion is situated in the sheared axial region of the north-trending Croydon Anticline. The mineralisation is hosted in steep and shallow dipping quartz veins and primarily occurs as free gold and pyrite. The weathering profile comprises a veneer of calcrete or transported sands. The mineralisation and host rocks are weakly weathered to a depth of up to 50m.

Withnell, Hester Camel, Roe and Dromedary

The Withnell Trend is hosted and dominated by a sequence of deformed Archaean metasediments. Gold mineralisation at Withnell, adjacent Hester Camel, Roe and Dromedary deposits is >7.5km in length and locally 500m wide, with potential for growth along strike and north and south of the known gold mineralisation. Mineralised zones are east-west striking and typically occur as sub-vertical, dipping steeply to the north or south.



Mineralisation typically comprises quartz-carbonate veins, silicification, disseminated sulphides of arsenian-pyrite, pyrite and arsenopyrite and weak, pervasive sericite-ankerite alteration. The unweathered gold mineralisation is considered a mixture of double refractory, semi-refractory and free milling.

The weathering profile comprises a veneer of calcrete or transported sands. The mineralisation and host rocks are weakly weathered to a depth of up to 50m.

Mallina

The Mallina deposit is hosted and dominated by a sequence of deformed Archaean siliciclastic rocks. Later quartz -feldspar porphyries intrude the siliciclastic rock sequence. The trend of the gold mineralisation has a known cumulative strike of >2km in length and locally ~100m wide, with potential for growth along strike and north and south of the known gold mineralisation. Mineralised zones are typically east-west striking and occur as sub-vertical, dipping steeply to the north or south.

Mineralisation typically comprises disseminated sulphides of pyrite and arsenopyrite and weak, pervasive sericite-ankerite alteration. The unweathered gold mineralisation is considered refractory.

The weathering profile comprises a veneer of calcrete or transported sands. Mineralisation and bedrock are weathered up to a depth of 80m.

Calvert

The Calvert deposit is hosted and dominated by a sequence of deformed Archaean siliciclastic rocks. A later intrusion intrudes the earlier siliciclastic rock sequence. The trend of the gold mineralisation has a known cumulative strike of >500m in length and is locally 50m wide, with potential for growth along strike of the known gold mineralisation. Mineralised zones strike north-south and typically occurs as shallow dipping structures that dip to the west.

Mineralisation typically comprises disseminated sulphides of pyrite and arsenopyrite and weak, pervasive chlorite-sericite-ankerite alteration. The unweathered gold mineralisation is considered semi-refractory.

The weathering profile comprises a veneer of transported sands and minor calcrete/silcrete. Mineralisation and bedrock are weathered up to a depth of 80m.

Wingina

The Wingina deposit is hosted in a sequence of deformed Archaean siliciclastic rocks, ultramafic and felsic volcanics. The trend of the gold mineralisation has a known cumulative strike of >1.4km in length and locally 75m wide, with potential for growth along strike of the known gold mineralisation. Mineralised zones are typically northeast-southwest striking and occur as sub-vertical, steeply dipping structures to the southeast.

Mineralisation is largely constrained to strongly weathered bedrock. Where drilling has intersected unweathered mineralisation, it comprises quartz veining, pyrrhotite and pyrite. The gold mineralisation is considered free milling.

The weathering profile comprises a veneer of calcrete or transported sands. Mineralisation and bedrock are weathered up to a depth of 240m but generally around 100m.



Mt Berghaus

The Mt Berghaus deposit is hosted in a sequence of deformed Archaean siliciclastic rocks. Later quartz -feldspar porphyries intrude the siliciclastic rock sequence. The trend of the gold mineralisation has a known cumulative strike of ~2km in length and locally 25m wide, with potential for growth along strike of the known gold mineralisation. Mineralised zones are typically east-northeast-west-southwest striking and occur as sub-vertical, steeply dipping structures to the south-southeast.

Mineralisation is largely constrained to strongly weathered bedrock. Where drilling has intersected unweathered mineralisation, it comprises quartz veining and pyrite. The unweathered gold mineralisation is considered free milling.

The weathering profile comprises a veneer of calcrete or transported sands. Mineralisation and bedrock are weathered up to a depth of 60m.

Mineral Resource Estimates

The Hemi Regional deposits consist of nine areas geographically separated by up to 150km and have separate MRE completed in accordance with the JORC Code (2012). A summary of the Regional Mining Centres Mineral Resource is outlined in Table 3. Mineralisation within the Hemi Regional deposits comprise a combination of free milling oxide, semi-refractory and refractory ores.

	Ν	leasure	d	h	ndicate	d	l	nferre	d		Total	
Mining Centre	Mt	Au g/t	koz	Mt	Au g/t	koz	Mt	Au g/t	koz	Mt	Au g/t	koz
Hemi				165.8	1.3	6,878	88.8	1.3	3,577	254.5	1.3	10,456
Western	1.6	1.8	92	15.6	1.6	792	11.9	2.1	797	29.1	1.8	1,681
Eastern	3.1	1.7	173	2.5	1.5	122	6.3	1.2	243	11.9	1.4	538
Total	4.7	1.7	265	183.9	1.3	7,793	106.9	1.3	4,617	295.5	1.3	12,675

Table 3: Hemi and Hemi Regional Mineral Resource Estimate⁷ by Mining Centre, 21 November 2023

A summary of the combined Eastern and Western Mining Centres MRE is outlined in Table 4.

Table 4: Regional Mining Centre Mineral Resource Estimate⁸, 15 June 2023

	I	ndicated			Inferred			Total	
Deposit	Tonnes Mt	Au g/t	Au Moz	Tonnes Mt	Au g/t	Au Moz	Tonnes Mt	Au g/t	Au Moz
Withnell ¹	4.3	1.7	0.24	3.1	3.5	0.34	7.5	2.5	0.60
Camel ^{1 3}	0.7	2.4	0.05	0.2	1.7	0.01	0.8	2.2	0.06
Roe ¹³	0.3	2.0	0.02	0.3	2.0	0.02	0.6	2.0	0.04
Dromedary ^{1 3}	0.2	2.0	0.01	0.1	1.7	0.01	0.3	1.9	0.02
Calvert	1.0	1.3	0.04	0.3	1.2	0.01	1.3	1.3	0.05

⁷ ASX Announcement 21 November 2023, Hemi Gold Project Resource Update – November 2023
 ⁸ ASX Announcement 15 June 2023, Mallina Gold Project Resource Statement – 2023

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	I	ndicated			Inferred			Total	
Deposit	Tonnes Mt	Au g/t	Au Moz	Tonnes Mt	Au g/t	Au Moz	Tonnes Mt	Au g/t	Au Moz
Mallina	1.6	1.2	0.06	5.1	1.5	0.24	6.8	1.4	0.31
Toweranna ²	8.2	1.6	0.42	2.7	1.8	0.16	10.9	1.7	0.58
Wingina ¹	4.1	1.7	0.22	1.4	1.6	0.07	5.5	1.6	0.29
Amanda	0.6	1.4	0.03	1.4	0.9	0.04	2.0	1.1	0.07
Mt Berghaus	1.0	1.7	0.05	3.4	1.2	0.13	4.3	1.3	0.18
Hester	0.1	2.1	0.00	0.1	1.4	0.00	0.1	1.7	0.01
Leach Pad	0.9	0.7	0.02				0.9	0.7	0.02
Total	22.8	1.6	1.18	18.2	1.8	1.04	41.0	1.7	2.22

Note

1: The measured category proportions are included in the indicated category

2: Toweranna MRE update June 2023

3: Camel, Roe and Dromedary are combined into CamelRoe for scheduling

Geotechnical

The geotechnical assessment for the Hemi Regional deposits was separated into the Eastern and Western mining centres. Geotechnical studies have been completed to a Preliminary Feasibility Study ("**PFS**") level for Withnell and Toweranna and to a Scoping Study level for the remaining deposits (excluding Dromedary). The PFS level assessment at Withnell and Toweranna included:

- Design of data collection programmes to characterise the geotechnical environment
- Analysis of geotechnical core logging data
- Rockmass classification and domaining
- Laboratory material strength testing and analysis
- Analysis of structural data from manual core logging and acoustic televiewer survey
- Kinematic analysis of structural data for batter design purposes
- Berm width analysis for rockfall protection
- 2D finite-element modelling for soil-like material where material strength governs slope performance
- 2D finite-element modelling of the proposed bench configurations to assess the stability of the bench at the agreed acceptance criteria via Strength Reduction Factor analysis



Geotechnical Design Domain	BFA (m)	Bench Height (degrees)	Berm Width (m)	Inter Ramp Angle (degrees)							
Withnell Mining Centre - Withnell Depo	osit										
Saprock	65.0	10.0	5.0	46.0							
Transitional Sedimentary Rock	66.8	10.0	5.7	45.1							
Fresh Sedimentary Rock	73.0	20.0	8.1	54.5							
Withnell Mining Centre - Toweranna De	Withnell Mining Centre - Toweranna Deposit										
Saprolite	65.0	10.0	5.0	46.0							
Transitional Sedimentary Rock	74.0	10.0	5.8	49.0							
Fresh Sedimentary Rock	80.3	20.0	8.3	59.8							
Fresh Diorite Rock	78.1	20.0	8.3	58.2							
Wingina Mining Centre - Wingina Depo	osit										
Ultramafic – Oxide	50.0	10.0	6.0	35.0							
Ultramafic – Transitional	65.0	10.0	7.0	41.0							
Ultramafic – Fresh	65.0	15.0	7.0	47.0							
Sedimentary Rock – Oxide	50.0	10.0	6.0	35.0							
Sedimentary Rock – Transitional	65.0	10.0	7.0	41.0							
Sedimentary Rock – Fresh	75.0	20.0	8.0	56.0							
Withnell and Wingina Mining Centres - Remaining Deposits											
Oxides	50.0	10.0	6.0	35.0							
Transitional	65.0	10.0	7.0	41.0							
Fresh	75.0	20.0	8.0	56.0							

Table 5: Geotechnical Design Parameters by Deposit and Domain

Geochemical

Geological logging was used to assist with the identification of lithology, structure, mineralisation and weathering across the Hemi Regional deposits, which are at various stages of definition.

Waste characterisation studies in the WMC are most advanced for the Toweranna deposit and show that waste should not pose a risk of acid and metalliferous drainage. A series of RC drill holes were interpreted to inform waste rock geochemistry to define the geochemical characteristics of mined waste rock in order to develop strategies for any potential impact mitigation and longer term mine closure planning.

Ore from the EMC deposits and WPH concentrate produced from the WMC will be hauled and processed at Hemi. Tailings from this material will be stored at Hemi. The Hemi tailings storage facility



has been designed to ensure that long-term geochemical and physical stability can be achieved. The Hemi Regional material is not expected to impact this stability.

Additional geotechnical drilling, testwork and geochemical characterisation studies will be included as part of the PFS.

Hydrogeology

SRK has carried out an initial desktop study of the Hemi Regional deposits including a review of available data. A groundwater monitoring visit was carried out in July 2022 and field data was collected from various locations at the Hemi Regional Project to complete an initial groundwater impact assessment.

It is anticipated that there will be significant depth to groundwater in the fractured bedrock aquifer and that any risks to the aquatic or terrestrial groundwater dependent ecosystems identified from dewatering activities related to the Withnell, Mallina and Toweranna pits are negligible.

SRK has also developed a preliminary model for dewatering inflows and drawdown estimates suitable for an initial conceptual assessment. The estimated dewatering requirements for the deposits are considered manageable within the scale of the proposed operation with dewatering requirements and process water likely to balance out the overall dewatering values for an overall water balance equilibrium.

Further information on groundwater inflow and aquifer parameters will be obtained to make more optimal assessments for overall volumes and drawdowns associated with the proposed pits as part of the PFS. This will include bore target development, drilling and aquifer testing, groundwater sampling to inform updates to groundwater impact assessments and dewatering.

Hydrology

AQ2 Pty Ltd was engaged to prepare a Surface Water Management Plan and conduct a hydrogeological review and assessment of eight Hemi Regional deposits. The review was aimed at defining local catchment areas and flood risks around the proposed pits and infrastructure and identifying areas where surface water management may be required.

The AQ2 assessment concludes that parts of the Hemi Regional development had potential to affect existing surface water drainage features and that these risks are considered both moderate and in line with other mine sites in the Pilbara. Proposed mitigation measures include the construction of diversion bunds or drainage around seven pits, floodway crossing where major drainage features cross proposed haul roads and containment bunds around waste dumps.

Further surface water 2D modelling will be conducted as part of the PFS.

Mining

Cube Consulting Pty Ltd was engaged to undertake mining engineering studies to a scoping study level on the Hemi Regional deposits. The scope of work included collation of input parameters, open pit optimisation studies and pit production and process feed scheduling. Specific input parameters were for deposits west of Hemi and east of Hemi. These parameters included processing, operating, fixed, mining costs, and metallurgical recoveries. These inputs were used to inform the open pit optimisations.



Assumptions of a 5% mining dilution at zero gold grade and 5% mining recovery were applied to the in-situ Mineral Resource models to simulate practical mining conditions. Discussions and requests for pricing with mining contractors facilitated estimates of load, haul costs, drill and blast costs.

Process plant feed cut-off grade calculations considered processing costs, metal prices, royalties, recovery rates, and mining dilution, resulting in cut-off grades ranging from 0.54g/t Au to 0.73g/t Au.

Treatment plant breakeven cutoff grade was calculated to demonstrate a theoretical break-even point within the resources. Cutoff grades were determined as follows:

C	utoff Grade(a/t) = -		Treatment Plant Costs
	$(y_{1},y_{2},y_{3},y_{$	Met	tal Price * (1 – Royalty) * Recovery * (1 – Dilution))
Where:	Treatment Plant Costs	5 =	Processing and all ore related costs (\$/t)
	Metal Price	=	Gold price (\$2,500/oz)
	Royalty	=	State royalty plus land title royalty
	Recovery	=	Metallurgical Recovery
	Dilution	=	Mining dilution

The calculated breakeven cut-off grade, based on the input parameters provided above, ranged from 0.54g/t Au to 0.73g/t Au. Individual cut-off grades for each deposit and material type are shown in in Table 6.

	Oxide (g/t)	Transitional (g/t)	Free milling Fresh (g/t)	Sulphides-oxidation & CIL (including k-py material) (g/t)
Toweranna	0.63	0.63	0.63	0.63
Withnell	0.54	0.54	0.54	0.54
Mallina	0.66	0.65	0.65	0.65
Calvert	0.61	0.73	0.73	0.73
Camel Roe	0.61	0.61	0.61	0.61
Wingina	0.58	0.60	0.60	0.60
Mt Berghaus	0.63	0.58	0.58	0.58

Table 6: Cut-Off Grade Estimate for each Regional Deposit

Open pit optimisations were conducted for all deposits individually, resulting in nested pit shells corresponding to a range of gold prices. Pit shells for each deposit were selected individually following an evaluation and trade-off between gold production, material movement and operating costs. Pit shells were individually selected for each deposit due to different characteristics and inflection points between the key metrics. Pit optimisations were run at A\$2,500/oz for consistency with the DFS, economic analysis was run at A\$2,700/oz for consistency with the Hemi DFS.



The selection of shells was influenced by economic considerations and results served as the basis for determining economic mining limits. In order to simulate the conversion from shells to practical designs, the waste tonnages were factored up by 10%. This factor is also assumed to accommodate the impact of ramps within the design. Geotechnical studies were conducted for each deposit, providing recommendations for bench configurations. Bench configurations were customised to suit the geological characteristics of each deposit, taking into account factors such as rock mass properties and potential failure.

A conventional contractor load and haul open pit mining method has been selected for the development of the Hemi Regional deposits. Mining costs have been estimated based on use of two mining fleets comprising a 200t and 100t diesel hydraulic excavators and 100t – 150t truck fleets and auxiliary equipment capable of moving approximately 25Mt of rock mass per annum.

All mining is proposed to take place 24 hours per day, 7 days per week using conventional drill and blast, excavation and trucking. Ore will be mined in 5m benches for grade and selectivity considerations. The ore boundaries will be determined by grade control drilling.

Metallurgy and Processing

Metallurgical testwork has been completed to a minimum Scoping Study level across all the Hemi Regional deposits with some deposits more advanced than others. Table 7 provides a metallurgical summary of the Hemi Regional deposits. Further metallurgical testwork will be completed across all deposits going forward.

Deposit		Free Milling	Ore Hardness	CIL Recovery	CIL Recovery	Recovery For Mine Optimisation
				without oxidation	with oxidation	
	Oxide	Yes	Soft	92.6%		92.6%
Toweranna	Transition	Yes	Moderate	92.6%		92.6%
	Fresh	Yes	Moderate	92.6%		92.6%
	Oxide	Yes	Soft	89%		89%
Withnell	Transition	No	Moderate	86%		87.6%
	Fresh	No	Hard	45-85%	85-90%	87.6%
Camel / Roe	Oxide	Yes	Moderate	95%		95%
Colucert ⁹	Oxide	Yes	Soft	95%		95%
Calvert	Fresh	No	Hard	14%	67-81%	80%
Mt Borghous	Oxide	Yes	Soft	87%		87%
wit bergilaus	Fresh	Yes	Moderate	95%		95%

Table 7: Metallurgical characteristics and recoveries of the Hemi Regional deposits

⁹ Calvert oxidation tested both BIOX, POx, Albion Leaching and atmospheric leaching with BIOX returning the highest recovery. Further POX testwork planned for next phase of studies.



Deposit		Free Milling	Ore Hardness	CIL Recovery	CIL Recovery	Recovery For Mine Optimisation
				without oxidation	with oxidation	
M - 11: 10	Oxide	Yes	Soft	88%		88%
Mailina'°	Fresh	No	Hard	11%	85-91%	90%
	Oxide	Yes	Soft	95-99%		95%
Wingina ¹¹	Transition/ Fresh	Yes	Moderate	92-95%		92%

The WPH process plant is proposed to be constructed as separable portions where the crushing plant and the free milling plant will be constructed initially to treat the free milling ore, following which a refractory plant will be constructed at a later upgrade.

The process flowsheet includes primary and secondary crushing, ball milling, gravity separation, CIL pre-treatment blanking circuit, pre-leach thickening and a CIL circuit. The refractory processing upgrade will involve the addition of flotation and concentrate filtration circuits.

A range of processing capacities were evaluated with 3Mtpa selected for the Study.

Infrastructure

Infrastructure included as part of the development of the Hemi Regional Project include the 3Mtpa WPH process plant and supporting infrastructure including access roads, village accommodation, mining infrastructure facilities and power generation facilities.

Infrastructure supporting the haulage of EMC ores involve the construction of unsealed all-weather roads from Mt Berghaus to Hemi and Wingina to Indee Road which connects with Hemi.

The only additional infrastructure at Hemi included in the Study are concentrate storage and repulping facilities. This can be used for concentrate hauled from the WPH or third-party concentrates.

Native Title, Heritage and Social

A Native Title Agreement is currently in place with the Kariyarra Aboriginal Corporation relating to Hemi, the WMC deposits of Withnell, Calvert and Camel Roe and each the Eastern Mining Centre deposits. The agreement calls for the Company to engage with the Kariyarra people on new developments.

A Native Title Mining Agreement is currently being negotiated with Ngarluma Aboriginal Corporation, the group whose Native Title determination sits across De Grey's Toweranna deposit.

De Grey is working with the knowledge holders for the Mallina area on all Aboriginal cultural heritage matters (including heritage surveys).

¹⁰ Mallina oxidation tested both BIOX, POx, with POx returning the highest recovery. Further POX testwork planned for next phase of studies. ¹¹ Wingina testwork was conducted in 2005

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The Company will continue to work with knowledge holders across all areas incorporated in the proposed Hemi Regional Project development to ensure areas of cultural importance are appropriately considered.

Umwelt (Australia) Pty Ltd was engaged by to prepare a Social Impact Assessment ("**SIA**") for the Hemi Gold Project for the PFS and the DFS in order to identify and manage the social implications and impacts of the proposed Hemi development and to advise on stakeholder engagement strategies, social impact management plans, and social performance monitoring.

The SIA recommended the preparation and implementation of a social impact management planning framework for the Project that includes the following key components:

- A Stakeholder Engagement Strategy including a dedicated Aboriginal Engagement Plan
- A Social Investment Programme, including an Aboriginal Partnership Plan
- Workforce Accommodation Plan and
- An Employment and Procurement Strategy, which should contain discreet plans for Aboriginal participation and local participation.

To date the Company's focus has been on local impacts of the Hemi Project development. The Hemi Regional focussed SIA is currently in progress and is expected to take approximately 6 months to complete and will be reported in the PFS.

Environmental Permitting

The Hemi Regional deposits will be required to be approved under various legislative processes dependent on the environmental impacts of each operation. Information relating to the disturbance footprints, associated infrastructure requirements, processing methodology (including location of processing activities where known) and haulage routes to a main road or gazetted road with an access agreement would be required to further define the approval processes and requirements.

Production Profile

Production from the EMC is scheduled to occur prior to production from the WMC and construction of the WPH process plant. Ore production from the EMC has been capped at 1Mtpa for the purposes of the Study. Ore production and processing at the WMC and WPH are modelled at 3Mtpa.

A key feature of the Study is the flexibility in the Regional production schedule and the potential integration with Hemi production. The Figures below outline potential integration with the Hemi DFS production schedule from Hemi processing in Year 4, however this can be changed depending on operational circumstances and exploration success.

Figure 7 outlines the production profile of the Hemi Regional Project by deposit, with development occurring in Year 1.





Figure 7: Hemi Regional production by deposit

Of the production shown in Figure 7, approximately 84% is sourced from JORC Measured and Indicated Resources with approximately 16% sourced from JORC Inferred Resources¹². Figure 8 shows annual gold production from the Hemi Regional deposits by Mineral Resource classification. Cumulative production from Measured and Indicated Mineral Resources remains above 90% to the end of year 5.



Figure 8: Hemi Regional annual gold production by resource classification



Figure 9 integrates production from the Hemi Regional deposits with the Hemi Project. Development of the Hemi Regional deposits is currently scheduled to commence at the start of Year 3 of the Hemi Project with production commencing in Year 4. By this time full commissioning and debottlenecking of the Hemi plant and consistent production should be achieved. It will allow for sufficient operational cashflows to fund the Hemi Regional development and construction of the WPH.

The impact of production from the Hemi Regional deposits lifts annual production to approximately 700koz in Year 5 of Hemi production and prior to any additional potential production upside from a cutback at Eagle, future exploration success, underground and third-party feed .



Figure 9: Hemi Project DFS production integrated with production from the Hemi Regional Project

Capital Cost Estimate

Initial pre-production capital of approximately \$210M will be required in Year 1 of the Hemi Regional Project for the construction of haul roads for the EMC of approximately \$14M and approximately \$196M for the construction of a process plant at the WPH capable of processing free milling WMC ore to produce gold doré.

Additional capital of approximately \$107M will be required in Year 4 of the Hemi Regional Project to add circuits to the WPH capable of processing semi-refractory sulphide.

The WPH capital estimate was principally compiled by Mintrex and is based on an Engineering, Procurement, Construction and Management approach for the processing plant, haul road construction and other related project infrastructure. The total construction schedule is estimated at 12 months for the WPH free milling circuit and associated infrastructure.



The EMC haul roads estimate was principally compiled by De Grey based on third-party provided rates for all weather gravel haul roads.

Table 8: Capital Cost Estimate Summary

Item	\$M
Year 1 Construction of the EMC haul roads	14.0
Year 1 Construction of the WPH free milling circuit and associated infrastructure	196.1
Initial Capital Cost	210.1
Year 4 Construction of the WPH flotation, filter press, blacking and thickening circuits and Hemi concentrate receival and repulp facilities	106.8
Total Capital Cost	316.9

Operating Cost Estimate

The Hemi Regional All-In Sustaining Cost ("**AISC**") estimate of \$1,824/oz places the project in the second quartile of Australian gold producers. The estimated operating cost has been developed based on the following (Table 9):

- EMC free milling oxide ores mined and hauled to the Hemi processing facility and treated to produce gold doré for the first three years from Year 4 of the Hemi production schedule
- WMC free milling ores mined, hauled and processed through the WPH for three years from Year
 4 Year 6 to produce gold doré at the WPH
- WMC free milling and semi-refractory ores mined, hauled and processed through the WPH from Year 7 to produce gold doré from free milling ores at Withnell and produce gold concentrate from semi-refractory ores that is hauled to Hemi for further treatment to produce gold doré at Hemi
- Combined physical values from the EMC and WMC deposits and the WPH of:
 - Material mined volume 71Mbcm
 - Material mined mass 178Mt
 - Ore mined 16.6Mt
 - Gold production 817koz



	norating	cost (octimato	ovorviow	(includos	rounding	of sub-	totals)
Table 9. U	perating	COSLE	esumate	over view	(includes	rounding	or sup-	(Utais)

Area	Total LOM	\$/tonne	A\$/oz Produced	% of AISC
	\$Million	milled	LOM	LOM
Mining	797	48.07	975	53.5%
Ore Haulage Costs	114	6.89	140	7.7%
Processing Costs	384	23.19	471	25.8%
Concentrate Haulage Costs To Hemi	8	0.48	10	0.5%
Processing Costs Concentrate - At Hemi	6	0.34	7	0.4%
Administration	63	3.78	77	4.2%
Cash Operating Costs	1,372	82.75	1,679	92.0%
Non-Production Costs	25	1.50	30	1.7%
Royalties	55	3.33	68	3.7%
Sustaining Capital	17	1.05	21	1.2%
Tailings Dam Wall Lifts	5	0.30	6	0.3%
Rehabilitation	16	0.97	20	1.1%
Total Regional AISC	1,490	89.90	1,824	100.0%
AISC - EMC	267	88.63	1,683	
AISC - WPH	1,223	90.17	1,858	

Indicative Timetable

The development of the Hemi Regional deposits will be scheduled to balance capital requirements and the financial returns from the enhanced Hemi production profile. The Company is proposing to use cash flows generated from the Hemi operation to finance the development of the Hemi Regional Project.

Based on these assumptions, construction activities relating to the EMC, including haul roads, would commence in the middle of the third year of operations at Hemi. Ore processing from the EMC would be incorporated into the Hemi schedule during the fourth year of Hemi operations.

Construction of the Western Processing Hub would commence at the start of the third year of operations at Hemi, with free milling ore from the WMC processed locally for three years. A flotation circuit would be installed at the WPH in year six of operations at Hemi to allow the haulage of a semi-refractory concentrate to Hemi for processing during the seventh year of Hemi operations.



Table 10: Indicative development timetable

Milestone	Target Date
Board approval of additional studies	H2 CY2024
Commence construction – EMC haul roads	Hemi processing Year 3
Commence hauling from EMC operations	Hemi processing Year 4
Commence construction – WPH free milling circuit and supporting infrastructure	Hemi processing Year 3
Commence processing free milling ore from the WPH	Hemi processing Year 4
Commence construction of the WPH flotation circuit and Hemi concentrate storage facility	Hemi processing Year 6
Commence processing semi-refractory ore at the WPH	Hemi processing Year 7

Conclusion and Next Steps

The Hemi Regional Project has been demonstrated to be economically attractive based on the Study inputs and assumptions. The Project's strong pre-tax NPV, internal rate of return, self-funding capability, short payback period and low AISC provide a compelling case for future development consideration and funding.

Based on the compelling metrics, the De Grey Board has approved additional project optimisation, exploration and technical studies to advance the Hemi Regional Project prior to first gold production at Hemi. This work program will be undertaken by a dedicated team in parallel with the Hemi Project development.

Other workstreams required to a level required to support submission of applications for environmental and other permits for Project development are also proposed to be undertaken during the PFS. In that respect, the submission of a Mining Proposal for a mining and processing facility at Withnell is currently considered the shortest route to the approval of a production facility. Withnell is located on a granted Mining Lease, has granted Miscellaneous Licences connecting it with the North West Coastal Highway, is located on Kariyarra country and has seen prior mining and processing.

Obtaining approval for a production facility at Withnell could be pursued in parallel with the PFS.

Reasonable Basis for Funding Assumptions

The Hemi Gold Project is at an advanced stage for a development project. The Company has completed DFS, which provides a strong technical and economic basis from which to proceed through the construction, commissioning and operations phases. The DFS indicates Hemi has the potential to be an operation in the top five of Australian gold mines based on production and in the lowest operating cost quartile for mines producing more than 200kozpa ounces per annum.

The Company is well advanced on its financing of Hemi. In May 2024, the Company completed an equity capital raising which netted \$600 million before costs. This has put De Grey in a strong financial position with more than \$850 million cash available at the time of this announcement.



Discussions with a number of commercial lenders and government credit agencies in relation to debt financing for the Hemi Project are also progressing well. On 28 June 2024 the Company announced that it had received Credit Approved Term Sheets for a proposed \$1.0 billion debt facility and \$130 million cost overrun facility. This debt financing package, combined with the Company's existing cash on hand, is expected to fully fund the Hemi Gold Project.

As outlined in the Study, De Grey's strategy is to fund the total \$316.9 million capital cost of the development of the EMC and WMC, including the proposed WPH processing facility, through operational cash flows from Hemi and available cash on hand.

The Board and Management of the Company also have a successful track record of being able to fund exploration and project development activities as and when required.

On this basis, De Grey has formed the view that there is a reasonable basis to believe that requisite future funding for the development of the Hemi Region Project will be available when required.

There is, however, no certainty that De Grey will be able to source funding as and when required.

This announcement has been authorised for release by Managing Director, Glenn Jardine.

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ADDITIONAL INFORMATION

Forward looking statements disclaimer

This announcement includes 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 the outcome and effects of the Equity Raising and the use of proceeds, expectations in respect to funding, indications of, and guidance or outlook on, future earnings or financial position or performance, 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, the ability to obtain debt finance on appropriate terms, obtaining environmental approvals and the time and conditions attached to the same, changes in commodity prices, foreign exchange fluctuations and general economic factors, increased capital costs and operating costs, the speculative nature of exploration and project development (including the risks of obtaining necessary licenses and permits, diminishing quantities or grades of reserves and the ability to exploit successful discoveries), general mining and development operation risks, closure and rehabilitation risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, geological and geotechnical events, and environmental issues, and the recruitment and retention of key 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 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.



Appendix A: Reasonable basis for forward looking statements

The information in this release that relates to the Toweranna Mineral Resource and the Eastern and Western Mining Centre Mineral Resources is based on information previously disclosed in the following Company ASX Announcements:

- 2 April 2020, Malina Gold Project Resource Update
- 15 June 2023, Mallina Gold Project Resource Statement

The information in this release that relates to Mineral Resource Estimates and Ore Reserve Estimates for the Hemi Project is based on information previously disclosed in the following Company ASX Announcements:

- 28 September 2023, Hemi Gold Project DFS Outstanding Financial Metrics
- 21 November 2023, Hemi Gold Project Resource Update November 2023

The information in this release that relates to Exploration Results for the Calvert deposit is based on information previously disclosed in the Company's ASX Announcement dated 13 October 2021, *Positive Regional Results at Withnell Calvert and Gillies.*

The Company confirms that it is not aware of any new information as at the date of this release that materially affects the information included in this release and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

The information in this release that relates to a production target for the Hemi Project and forecast financial information derived from the production target is based on information previously disclosed in the Company's 28 September 2023 announcement, *Hemi Gold Project – DFS Outstanding Financial Metrics*. The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production target in the initial public report released on 28 September 2023 continue to apply and have not materially changed.

All of these ASX Announcements are available on the Company's website and the ASX website (<u>www.asx.com.au</u>) under the Company's ticker code "DEG".

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	 Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	 No Ore Reserve has been declared as part of the scoping study. The Mineral Resource estimate on which the Study is based was separately and previously announced on <i>Malina Gold Project Resource</i> <i>Update</i> dated 2 April 2020 for all regional deposits except Toweranna and <i>Mallina Gold</i> <i>Project Resource Statement</i> dated 15 June 2023 for Toweranna
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Site visit information and commentary pertaining to the Mineral Resource estimate are provided in the Mineral Resource estimate announcement of Malina Gold Project Resource Update dated 2 April 2020
Study status	 The type and level of study undertaken to enable Mineral 	 No Ore Reserves has been declared.

Consideration of Modifying Factors (in the form of Section 4 of the JORC Code (2012) Table 1

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Criteria	JORC Code explanation	Commentary	
	 Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. 	 The study presented is a scoping study and accordingly, no Ore Reserve has been declared. 	
Cutoff parameters	 The basis of the cutoff grade(s) or quality parameters applied. 	 Cut-off grade parameters for each deposit and material type have been adjusted from the MRE based on input parameters and ranged from 0.54 g/t Au to 0.73 g/t Au. A summary of the cut-off grade establishment methodology and cut-offs for each deposit by material types is presented in the Mining section. 	
Mining factors or assumptions	 The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). 	 No Ore Reserve has been declared. 	
	 The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. 	 The mining method selected in the Study is open cut mining utilising conventional excavator and truck fleets appropriate to the geology of the deposits. Refer to the Mining section 	
	 The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and 	 Geotechnical recommendations made by independent consultants have been applied in the pit optimisation. Refer to Geotechnical and Geochemical section for detail. 	
	 Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. 	 The Mineral Resource Models used for the pit optimisation were ordinary kriging models. A blanket of 5% mining dilution and 5% ore loss have been applied to the in-situ tonnes and grades. This blanket assumption is intended to reflect the fact that detailed work on these 	
	 Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion 	 Inferred Mineral Resources are included in the second science of the second	
	 The infrastructure requirements of the selected mining methods. 	and represent approximately 16% of the Study production. The JORC Indicated portion of the potential production is approximately 84%. The Company has a demonstrated history of converting JORC Inferred Resources to Indicated Resources with additional drilling. Additional drilling to convert Inferred Resources to Indicated Resources would be conducted at a prefeasibility study stage.	



Criteria	JORC Code explanation	Commentary	
		 Infrastructure requirements are described in the Infrastructure and Capital Cost Estimate sections. 	
Metallurgical factors or assumptions	 The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	 No Ore Reserve has been declared in the scoping study The proposed processing methodology has been tested at numerous other mining/processing operations and is considered to be robust. The use of CIL processing for free milling ores is standard across the industry. The use of flotation followed by pressure oxidation is typical of refractory ores where gold occurs in sulphides. EMC: Free milling ore from the EMC will be processed through the Hemi processing facility WMC: primary and secondary crushing, milling and pebble crushing, gravity concentration, flotation, CIL blanking, and a leaching circuit to recover free milling ore and a flotation and blanking circuit to treat the refractory ore which will be floated, filter pressed and the concentrate trucked to Hemi for further processing No deleterious elements were identified through testwork Comprehensive scoping level metallurgical test workwork has been completed on each of the Regional deposits for optimisation parameter inputs and financial modelling The end product of processing will be gold doré, as opposed to a bulk commodity where deleterious elements can have material financial implications. This is not the case for the gold doré to be produced. 	
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	 Environmental baseline studies have been completed and on ground surveys are in progress. These studies include but are not limited to air quality, noise, visual amenity, flora, fauna, hydrogeology, heritage, social and economic. These study results along with any further work where necessary will be incorporated into an Environmental Impact Assessment (EIA). This EIA will form a submission to the WA Environmental Protection Authority (EPA), and or Department of Mines, Industry Regulation and Safety (DMIRS) who will assess the project for approval status. There is no fatal flaw identified on groundwater assessment. Further information on groundwater inflow and aquifer parameters need be obtained to make more optimal assessments for overall volumes and drawdowns. 	
Infrastructure	 The existence of appropriate infrastructure: availability of land for plant development, power, water, 	 Infrastructure requirements are discussed in the Infrastructure and Capital Cost Estimate sections. The end product of processing is 	



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	transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	proposed to be gold doré (gold bars) not requiring bulk road, port or shipping transport infrastructure or a bulk commodity offtake arrangements.	
Costs	 The derivation of, or assumptions made, regarding projected capital costs in the PFS. 	 The Study is a scoping study, not a PFS in which a reserve would be declared. A reserve is not being declared. 	
	 The methodology used to estimate operating costs. 	 The majority of the capital costs for the project are accounted for in the processing facility. All 	
	 Allowances made for the content of deleterious elements. 	capital and operating costs have been estimated to Scoping level of confidence and are described in the Capital Cost Estimate	
	 The source of exchange rates used in the study. 	 Mining costs have been estimated based on 	
	 Derivation of transportation charges. 	completed mine schedules using first	
	 The basis for forecasting or source of treatment and refining charges, penalties for failure to meet 	principle costing methods and requests for budget pricing quotations and are described in the Operating Cost Estimate Section.	
	 specification, etc. The allowances made for royalties payable, both Government and private. 	 Treatment costs are based on metallurgical testwork coupled with estimated labour, consumables and power costs to PFS level of confidence and included treatment costs through the Hemi processing facility to a DFS level of confidence. 	
		 The product from processing will be gold doré and allowance for deleterious elements is not applicable. 	
		 Transport charges have been estimated from requests for quotation as described in the Operating Cost Estimate section 	
		 The product will be gold doré. 	
		 State Government and traditional owner royalties have been included in the financial analysis. No other royalties apply to the deposits. The deposits are 100% owned by De Grey. 	
Revenue factors	 The derivation of, or assumptions made regarding revenue factors including head grade, metal or 	 Royalties include payments to the West Australian State Government and traditional owners. 	
	commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	 A gold price of A\$2,500/oz has been used in the pit shell optimisations. Cutoff grade calculations are described for each deposit in the Mining section. Revenue factors within 	
	 The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	the optimisation process were used to produce a range of nested optimisation shells to assist in the analysis and shell selection for pit designs, ore and waste volumes.	
		 The product to be sold is gold in the form of doré produced on site(s) and to be sold on the spot market. 	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	 N/A, there is a transparent quoted derivative market for the sale of gold. 	



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	 A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	
Economic	 The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	 The Project has been evaluated using a detailed financial model prepared on a quarterly basis over the life of mine. Key economic inputs to the financial model include a gold price of \$2,700 per ounce of gold and at a discount rate of 5% to estimate the pre-tax project net present value (NPV) and payback period. All operating and capital costs as well as revenue factors were included in the financial model. The estimation methods and capital and operating cost estimates are detailed in the Capital and Operating Cost sections. This process has demonstrated the estimated that the Project has a positive economic value. The project has been tested for sensitivity to key input parameters such as gold price, metallurgical recoveries, and discount rate and found to be robust.
		and is included in the Sensitivity Analysis section. The sensitivity analysis was conducted on the financial model inputs including gold price, discount rate, capital cost, operating cost and mined grade. The sensitivity analysis showed that the Project was most sensitive to the gold price and least sensitive to capital costs.
Social	 The status of agreements with key stakeholders and matters leading to social licence to operate. 	 A Native Title Agreement is currently in place with the Kariyarra Aboriginal Corporation (KAC) relating to the deposits of Withnell, Calvert and Camel Roe deposits and the Eastern Mining Centre deposits
		 A Native Title Mining Agreement is currently being negotiated with Ngarluma Aboriginal Corporation, the group whose Native Title determination sits across De Grey's Toweranna deposit.
		 Heritage surveys are ongoing across the western section of the tenements.
		 A Hemi DFS Social Impact Assessment and a Toweranna social constraints analysis have been undertaken to identify potential social risks and opportunities that may result from the construction and operation of the Project.
		 Preliminary assessment suggests that with appropriate action, negative social impacts can be reasonably mitigated, while positive impacts can be increased in significance.



Criteria	JORC Code explanation	Commentary	
Criteria Other	 JORC Code explanation To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or 	 Commentary De Grey has not identified any fatal flaws with respect to naturally occurring materials. No marketing agreements are required as gold doré will be produced on site. The Project will be referred and approved under various legislative processes dependent on the environmental impacts of each operation. Information relating to the disturbance footprints, associated infrastructure requirements, processing methodology (including location of processing activities where known) and haulage routes to a main road, or gazetted road with an access agreement would be required to further define the approval processes and requirements. 	
	Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.		
Classification	 The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result energy into the 	No Ore Reserve has been declared	
	reflects the Competent Person's view of the deposit.	 No Ore Reserve has been declared. 	
	 The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	 No Ore Reserve has been declared 	
Audits or reviews	 The results of any audits or reviews of Ore Reserve estimates. 	 No Ore Reserve has been declared 	
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local 	 No Ore Reserve has been declared. The level of accuracy of the scoping study has been provided in the Cautionary Statement at page 1 as being +/-35%. No Ore Reserve has been declared 	
	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.		



Criteria	JORC Code explanation	Commentary
	 Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. 	 No Ore Reserve has been declared
	 It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 No Ore Reserve has been declared