

27 May 2020 ASX Release

Significant Extensions at HEMI (Aquila)

HEMI continues to grow into a very large gold system with further wide, high grade intervals at Aquila, where mineralisation remains open at depth along the 850m strike.

Drilling to date shows the overall scale and dimensions of the shallow gold mineralisation across the combined Aquila, Brolga and Crow gold system remains open and currently extends over 1000m in width, 850m in strike and 300m in depth (Figure 1).

Stepout extension drilling continues across all three deposits to extend the limits of mineralisation and to assess the potential for a large tonnage, low strip ratio open pit mining scenario.

AQUILA - Significant results (>20gm*m) include:

139.5m @ 0.7g/t# from 103.89m in HERC030D

113m @ 0.8g/t# from 70m in HERC070

27m @ 2.7g/t from 152m in HERC039D

13.4m @ 3.5g/t Au from 266.67m in HERC041DW1

32m @ 2.5g/t Au from 168m in HERC042D

22m @ 2.4g/t Au from 131m in HERC069

BROLGA - Drilling results update expected next week

<u>CROW</u> - Approximately 40% of initial 5000m RC program completed, results pending

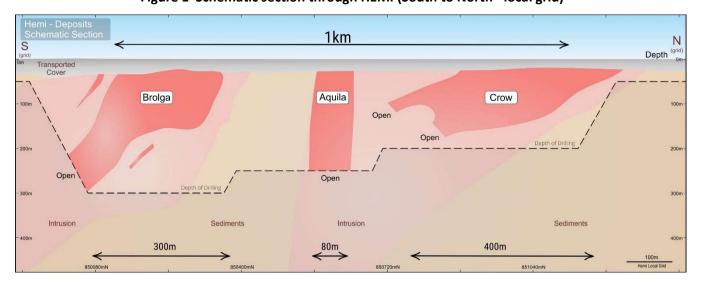


Figure 1 Schematic section through HEMI (South to North - local grid)

De Grey Mining Technical Director, Andy Beckwith, commented

"The scale and dimensions of the near surface mineralisation at Hemi continues to impress. The size of Hemi continues to grow with every drill program and we are also confident that additional new discoveries will be made along this prospective corridor.

Western Australia is a Tier 1 mining jurisdiction, the project is surrounded by first class infrastructure close to Port Hedland and the project has the potential to be a world class discovery."



De Grey Mining Limited (ASX: DEG, "De Grey", "Company") is pleased to provide this drilling and results update for the Aquila Zone within the Hemi Discovery, located within 60km of Port Hedland, Western Australia.

Hemi is a new major gold discovery, where gold mineralisation is hosted in a series of intrusions associated with stringer and disseminated sulphide rich zones. The style of mineralisation is new to the Pilbara region and shows a scale of mineralisation not seen in the project previously.

RC and diamond drilling, commenced in February 2020, testing three large gold zones at Aquila, Brolga and Crow (Figure 2) within the overall Hemi gold system. Drilling to date shows the overall scale and dimensions of the shallow gold mineralisation across the combined Aquila Brolga, and Crow gold system that remains open and currently extends over 1000m in wide, 850m in strike and 300m in depth (Figure 1).

Stepout extension drilling, on a nominal 80m x 80m basis, continues across all three deposits to extend the limits of mineralisation and to assess the potential for a future large tonnage, low strip ratio open pit mining scenario.

This release covers the latest diamond and RC results at the Aquila Zone as of 25 May 2020. Full gold intercepts (>2gm *m) discussed in this report are listed in Table 1.

29680E 29840E 30320E 30640E 30800E 30960E 31120E 30000E 30160E 30480E Legend Intrusion Outline Crow 851200N Mineralisation Contour Drillholes RC & Diamond 851040N 851040N Drilled Planned O Planned Metallurgy Aircore Ŏ 850880N Ö 850720N 850720N 850560N П 350400N 850400N 850240N Brolga 850080N 1000m 320m Hemi Local Grid 30160E 30320E 30480E 30640E 30800E 30960E 31120E Results as of 17-05-2020

Figure 2 Major aircore anomalies showing interpreted intrusion, RC and DD drill collar locations (local grid)



AQUILA

Aquila is a parallel gold-sulphide zone to the immediate north of the Brolga zone and adjacent to the new Crow zone to the north. Recent RC and diamond drilling has established significant gold mineralisation over a strike of 850m, up to 80m width and to a maximum depth at this point of approximately 250m. Importantly mineralisation remains open.

Further RC and diamond drilling continues across all three deposits on nominal 80m x 80m spacing with the aim to delineate the overall extent of gold mineralisation prior to an initial Inferred resource estimation.

Drill holes reported in this report are listed in Table 1.

Significant new intercepts (>5gm*m) on section include:

<u>Section</u>	<u>Intercept</u>
30,000E	13.42m @ 3.5g/t Au from 266.67m in HERC041DW1
30,050E	32m @ 2.5g/t Au from 168m in HERC042D
30,160E	14m @ 1.1g/t Au from 50m in HERC081 (ended in mineralisation)
	17m @ 1.2g/t Au from 151m in HERC082D (ended in mineralisation)
30,320E	139.5 @ 0.7g/t # from 89.5m in HERC030D
	113m @ 0.8g/t # from 50m in HERC070
30,400E	7m @ 2g/t Au from 199m in HERC007D
30,480E	27m @ 2.7g/t Au from 152m in HERC039D
30,560E	22m @ 2.4g/t Au from 131m in HERC069

ONGOING OPERATIONS

RC and diamond core drilling is currently ongoing with 3 rigs operating between Aquila Brolga, and Crow testing for extensions of the gold mineralisation on a nominal 80m x 80m basis.

The aircore rig has commenced to the immediate south and south west of Brolga targeting extensions of the intrusion and associated sulphide-gold mineralisation. Drilling to date has intersected further intrusion with variable weathered sulphide zones.

The Crow RC program is 40% completed. - The remaining 60% is expected to be completed during late May and into early June. All results remain pending.



Figure 3 Aquila Drilling Plan (local grid) showing drilling locations and new drilling results.

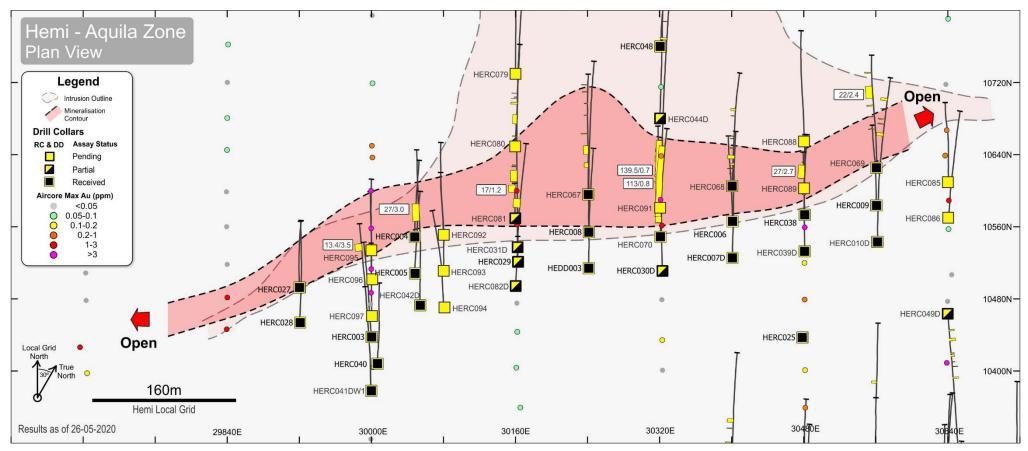




Figure 4 Aquila Zone - Section 30,050E

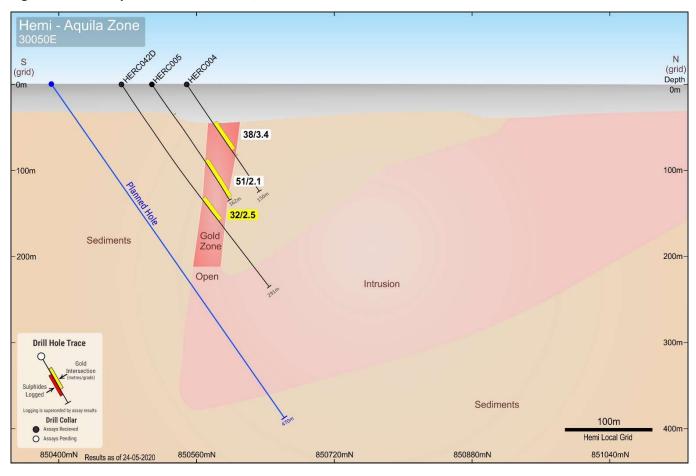


Figure 5 Aquila Zone - Section 30,320E

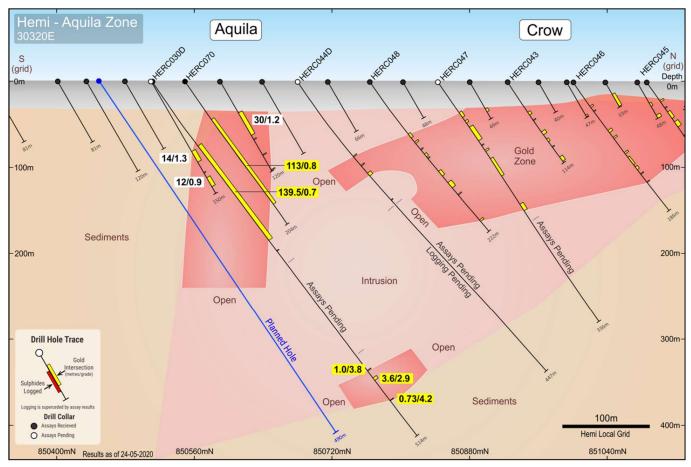
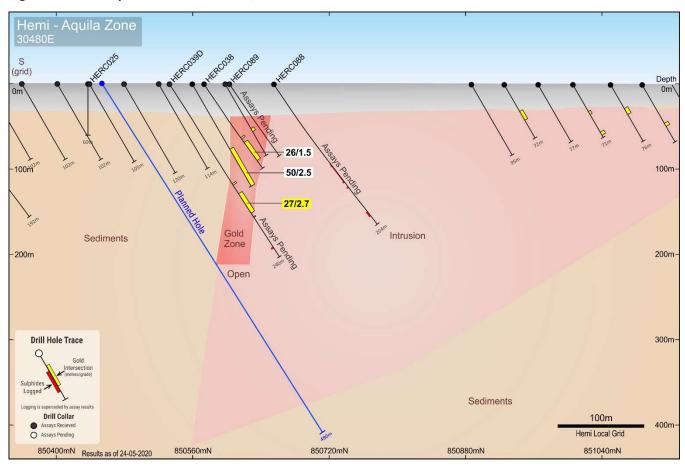




Figure 6 Aquila Zone - Section 30,480E





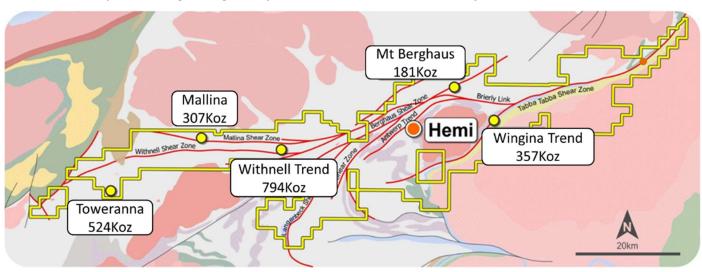
Mallina Gold Project Background

De Grey owns 100% of the global 2.2Moz gold resources already defined within the Mallina Gold Project and the new discovery at Hemi is set to increase this total resource significantly. Hemi is a new discovery located only 60km from the mining centre of Port Hedland, with major infrastructure within close proximity.

Drilling to date shows the large overall scale and dimensions of the shallow gold mineralisation across the combined Brolga, Aquila and Crow gold system and remains open and currently extends over 1000m in width, 850m in strike and 300m in depth. The gold mineralisation is intimately associated with strong and extensive sulphide alteration, comprising of pyrite and arsenopyrite, hosted in a stockwork within felsic to mafic phases of the intrusions.

Stepout extension drilling, on a nominal 80m x 80m basis, continues across all three deposits to define the limits of mineralisation to assess the potential for a large tonnage low strip ratio open pit mining scenario.

Mallina Gold Project showing main gold deposits and the new Hemi Discovery.





This ASX report is authorised for release by the De Grey Board.

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Competent Person Statements

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr. Philip Tornatora, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. 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.

Previously Released ASX Material References

The recent information in this report that relates to Hemi Prospect and the general Berghaus West area that has been previously released includes;

Resources:

2020 Mallina Gold Project Resource update, 2 April 2020.

Exploration:

- Multiple new targets increase exploration potential, 2 July 2019;
- New Gold Discoveries at Hemi and Antwerp, 17 December 2019;
- Hemi confirms potential for major discovery, 6 February 2020;
- Further impressive thick and high grade gold at Hemi, 11 February 2020;
- Major extension of sulphide mineralisation at Hemi, 26 February 2020;
- RC drilling confirms large scale gold system at Hemi, 5 March 2020;
- Continuing extensive sulphide mineralisation intersected at Hemi, 10 March 2020;
- Hemi continues to grow, 17 March 2020;
- Major Gold Extensions defined at BROLGA, 25 March 2020.
- Brolga Continues to grow, 9 April 2020
- Aircore Drilling defines third large gold zone at Hemi, 17 April 2020
- Brolga and Aquila drilling update, 22 April 2020
- Large gold system defined at Crow, 1 May 2020
- Exploration update,20 May 2020



Table 1 Significant new Drill Intersections (>2 gram x m Au)

HoleID	Depth From (m)	Depth To (m)	Downhole Width (m)	Au (g/t)	Collar East (GDA94)	Collar North (GDA94)	Collar RL (GDA94)	Dip (degrees)	Azimuth (GDA94)	Hole Depth (m)	Hole Type	Comments
HERC007D	179.0	180.0	1.0	9.9	648884	7692487	68	-55	331	252	DD	
HERC007D	186.5	190.0	3.6	0.6	648884	7692487	68	-55	331	252	DD	
HERC007D	199.0	206.0	7.0	2.0	648884	7692487	68	-55	331	252	DD	
incl	199.5	200.0	0.5	5.1	648884	7692487	68	-55	331	252	DD	
HERC010D	209.0	215.4	6.4	2.5	649014	7692583	68	-55	331	324	DD	
incl	214.8	215.4	0.6	25.1	649014	7692583	68	-55	331	324	DD	
HERC010D	232.9	234.0	1.1	1.9	649014	7692583	68	-55	331	324	DD	
HERC010D	242.0	244.0	2.0	1.1	649014	7692583	68	-55	331	324	DD	
HERC010D	280.0	285.0	5.0	1.5	649014	7692583	68	-55	331	324	DD	
incl	284.1	285.0	0.9	4.6	649014	7692583	68	-55	331	324	DD	
HERC030D	103.9	105.1	1.2	9.0	648824	7692436	68	-56	327	514	DD	
HERC030D	111.0	127.0	16.0	0.6	648824	7692436	68	-56	327	514	DD	
HERC030D	135.0	158.4	23.4	0.8	648824	7692436	68	-56	327	514	DD	
HERC030D	165.6	168.9	3.3	1.8	648824	7692436	68	-56	327	514	DD	
HERC030D	177.7	181.7	4.1	2.8	648824	7692436	68	-56	327	514	DD	
HERC030D	186.0	194.3	8.3	0.9	648824	7692436	68	-56	327	514	DD	
HERC030D	205.9	215.0	9.1	1.0	648824	7692436	68	-56	327	514	DD	
incl	212.0	212.9	0.9	5.5	648824	7692436	68	-56	327	514	DD	
HERC030D	223.5	229.0	5.6	1.8	648824	7692436	68	-56	327	514	DD	
HERC030D	419.1	420.0	1.0	3.8	648824	7692436	68	-56	327	514	DD	
HERC030D	430.0	433.6	3.6	2.9	648824	7692436	68	-56	327	514	DD	
HERC030D	462.7	463.4	0.7	34.2	648824	7692436	68	-56	327	514	DD	
HERC039D	152.0	179.0	27.0	2.7	648950	7692533	68	-56	330	240	DD	
incl	162.2	164.4	2.2	13.9	648950	7692533	68	-56	330	240	DD	
incl	176.2	179.0	2.8	5.9	648950	7692533	68	-56	330	240	DD	
HERC041DW1	266.7	280.1	13.4	3.5	648610	7692159	69	-56	327	315	DD	
HERC042D	163.0	195.0	32.0	2.5	648610	7692268	69	-57	329	291	DD	
HERC067	51.0	59.0	8.0	0.6	648710	7692468	68	-55	330	216	RC	
HERC067	74.0	89.0	15.0	0.7	648710	7692468	68	-55	330	216	RC	
HERC068	138.0	142.0	4.0	0.7	648844	7692556	68	-56	332	204	RC	
HERC069	74.0	75.0	1.0	2.1	648972	7692654	68	-55	329	204	RC	
HERC069	117.0	119.0	2.0	1.1	648972	7692654	68	-55	329	204	RC	
HERC069	131.0	153.0	22.0	2.4	648972	7692654	68	-55	329	204	RC	
incl	143.0	146.0	3.0	8.6	648972	7692654	68	-55	329	204	RC	
HERC069	175.0	177.0	2.0	1.2	648972	7692654	68	-55	329	204	RC	
HERC070	54.0	63.0	9.0	0.8	648803	7692468	68	-56	330	204	RC	
HERC070	80.0	85.0	5.0	0.5	648803	7692468	68	-56	330	204	RC	
HERC070	103.0	126.0	23.0	0.9	648803	7692468	68	-56	330	204	RC	
HERC070	137.0	147.0	10.0	3.9	648803	7692468	68	-56	330	204	RC	
incl	138.0	144.0	6.0	5.6	648803	7692468	68	-56	330	204	RC	
HERC070	156.0	162.0	6.0	1.4	648803	7692468	68	-56	330	204	RC	
HERCO80	44.0	62.0	18.0	0.6	648613	7692474	68	-55	333	204	RC	
		02.0	25.0	0.0	0.0010	,0327/7	30	33	555			Ended in
HERCO81	50.0	64.0	14.0	1.1	648653	7692405	68	-55	330	66	RC	mineralisation Ended in
HERC082D	151.0	168.0	17.0	1.2	648691	7692340	68	-55	333	273	RC	mineralisation
incl	76.0	77.0	1.0 cutoff grade	4.0	648253	7692780 C030D and HERCO	67	-55	330	204	RC	

Intercepts in Table 1 are calculated on a 0.3g/t cutoff grade

(# Intercepts for HERC030D and HERC070 in report are calculated on a 0.3g/t cutoff grade)



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
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 manner Core samples were collected with a diamond rig drilling mainly NQ2 diameter core.
Drilling techniques	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	Reverse Circulation(RC) holes were drilled with a 5 1/2-inch bit and face sampling hammer.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 checked by the Company geological team during the mark up and logging process. RC and aircore samples were visually assessed for recovery. Samples are considered representative with generally good recovery. Deeper RC and aircore holes encountered water, with some intervals
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 photographed by Company geologists, with systematic sampling undertaken based on rock type and alteration observed RC and diamond sample results are appropriate for use in a resource estimation, except where sample recovery is poor. The aircore results provide a good indication of mineralisation but



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Core samples were collected with a diamond drill rig drilling HQ or NQ2 diameter core. 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. Holes were sampled over mineralised intervals to geological boundaries on a nominal 1m basis. 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. 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. Industry prepared independent standards are inserted approximately 1 in 20 samples. Each sample was dried, split, crushed and pulverised. Sample sizes are considered appropriate for the material sampled. The samples are considered representative and appropriate for this type of drilling Core and RC samples are appropriate for use in a resource estimate. Aircore samples are generally of good quality and appropriate for delineation of geochemical trends but are not generally used in resource estimates.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	 The samples were submitted to a commercial independent laboratory in Perth, Australia. For diamond core and RC samples Au was analysed by a 50g charge Fire assay fusion technique with an AAS finish and multi-elements by ICPAES and ICPMS Aircore samples were analysed for Au using 25g aqua regia extraction with ICPMS finish and multi-elements by ICPAES and ICPMS using aqua regia digestion The techniques are considered quantitative in nature.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Sample results have been merged by the company's database consultants. Results have been uploaded into the company database, checked and verified.
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	accuracy of +/-10cm.
Data spacing and distribution Orientation of data in relation	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. Whether the orientation of sampling achieves unhinsed sampling of possible structures and the 	 geological control and continuity of mineralisation. Data spacing and distribution of RC drilling is not yet sufficient to provide support for the results to be used in a resource estimate. Sample compositing has not been applied except in reporting of drill intercepts, as described in this Table The drilling is believed to be approximately perpendicular to the
data in relation to geological structure	unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	 strike of mineralisation where known and therefore the sampling is considered representative of the mineralised zone. In some cases, drilling is not at right angles to the dip of mineralised



Criteria	JORC Code explanation	Commentary
	• 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.	structures and as such true widths are less than downhole widths. This is allowed for when geological interpretations are completed.
Sample security	The measures taken to ensure sample security.	• Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits have been completed. Review of QAQC data has been carried out by database consultants and company geologists.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. 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. 	which is a 100% subsidiary of De Grey Mining Ltd.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 The tenement has had some previous surface geochemical sampling and wide spaced aircore and RAB drilling by De Grey Mining. Limited previous RC drilling was carried out at the Scooby Prospect. Airborned aeromagnetics/radiometrics has been flown previously.
Geology	 Deposit type, geological setting and style of mineralisation. 	 The mineralisation style is not well understood to date but is thought to be hydrothermally emplaced gold mineralisation within structures and intrusions. Host rocks comprise igneous rocks intruding Mallina Basin metasediments. Style is similar to some other Western Australian gold deposits.
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	
Data aggregation methods	 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. 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. 	 an internal dilution of 4m maximum. Higher grade intervals included in the above intercepts are reported at a 3g/t Au lower cut with an internal dilution of 2m maximum. Intercepts are length weighted averaged.



Criteria	JORC Code explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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 known'). 	the strike of mineralisation.
Diagrams	 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. 	Plans and sections are provided in the report.
Balanced reporting	 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. 	are provided in this report.
Other substantive exploration data	 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. 	Drilling is currently widely spaced and further details will be reported in future releases when data is available.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Follow up aircore drilling will be undertaken to test for strike extensions to mineralisation. Programs of follow up RC and diamond drilling aimed at extending resources at depth and laterally are underway.