

26 February 2020

ASX Release

Major extension of sulphide mineralisation at Hemi

- Section B –Sulphide zone expanded to over 160m wide and greater than 120m depth in RC drilling immediately below the known shallow gold mineralisation.
 - 97m of sulphide mineralisation (downhole) in HERC001; and
 - 45m of sulphide mineralisation (downhole) in HERC002.
 - New additional parallel sulphide zones increase scale potential with new zones of 19m and 15m (downhole) in HERC002 and HEDD001 precollar.
- Section A Intense sulphide mineralization intersected (up to 20%)
- Mineralisation now identified as "intrusion hosted" on both Sections A & B
- Aircore drilling recommenced with further encouraging gold results from previous widespaced program

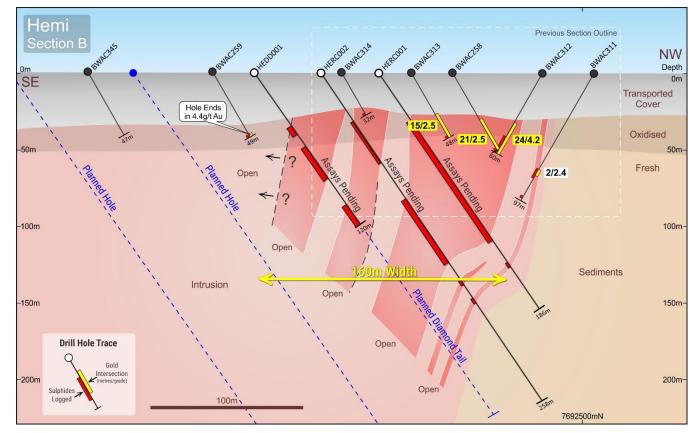


Figure 1 Section B showing new RC drill holes with extensive sulphide alteration below gold zone.

Technical Director, Andy Beckwith, commented:

"The significant sulphide zones beneath the high grade gold zones on Sections A and B are very encouraging. The large sulphide zones on Section B have the potential to significantly increase Hemi's scale. The genetic link between Sections A and B as intrusion hosted is exciting and increases the potential at Hemi. This is supported by the aircore drilling results to date that highlight every hole above the interpreted intrusions are anomalous in gold. The aircore and RC programs are continuing, and a diamond rig is expected on site later this week."

De Grey Mining Limited (ABN: 65 094 206 292)Level 3, 24-26/22 Railway RdPO Box 2023Subiaco WA 6008, AustraliaSubiaco WA 6904

T: +61 8 6117 9328 F: +61 8 6117 9330 ASX Code: DEG FRA Code: WKN 633879 E: admin@degreymining.com.au W: www.degreymining.com.au



De Grey Mining Limited (ASX: DEG, "De Grey", "Company") is pleased to report on very encouraging sulphide rich alteration observed over large widths and depths from initial RC holes drilled on Section B at the newly discovered Hemi Prospect (Figure 2). In addition, one RC drill hole has been completed on Section A, intersecting intense sulphide mineralisation at depth beneath the 30m wide high grade gold zone.

This release covers these geological observations in the new RC as well as the remaining aircore drilling results from the initial widespaced program, and which are considered material information to De Grey shareholders. All results remain pending.

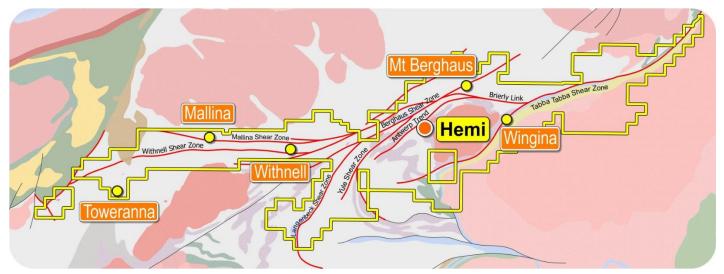


Figure 2 Mallina Gold Project showing main gold deposits and the new Hemi Discovery.

Hemi Background

Hemi is a new discovery under transported cover, with the first aircore drill results reported on 17 December 2019 and further encouraging high grade results subsequently reported on 6 and 11 February 2020. A 30m wide high grade gold zone (>5g/t) has been defined on Section A to 130m depth. A second high grade zone (>2.5g/t) has been outlined on Section B to 50m depth, 640m to the east. Additional step out aircore drilling on a nominal 160m x 40-80m basis is continuing within the 2.5km long prospective corridor.

Until the recent RC drilling, the controls on mineralisation were poorly understood due to only early stage aircore drilling having been completed. The gold mineralisation is intimately associated with extensive sulphide alteration (pyrite and arsenopyrite) in both sections and has recently been recognised as hosted in diorite to quartz diorite intrusion on both sections.

Maiden RC drilling has recently commenced that aims to test the known gold zones at depth and along strike. As highlighted in this report, significant and multiple new lateral and depth extensions of the sulphide rich alteration are evident in the new RC drilling.

The relationship of the known shallow gold mineralisation to the extensive sulphide alteration and the genetic link to the host intrusion is significant as the three interpreted large intrusions at Hemi show elevated gold in every aircore hole within the intrusions (Figure 7).

Current RC drilling program

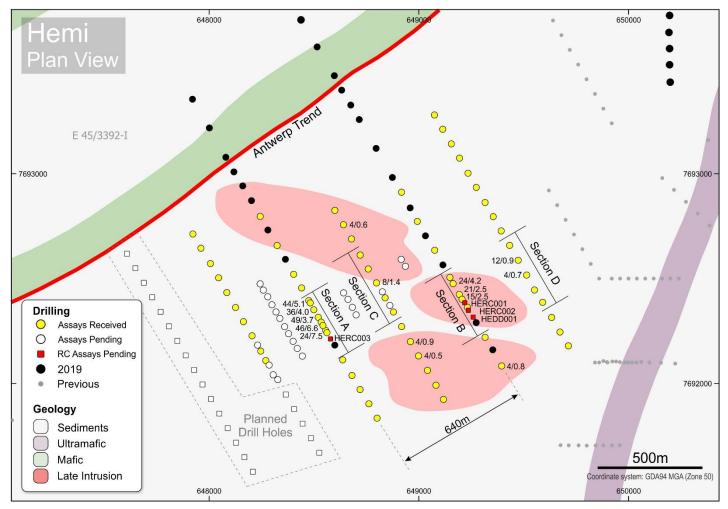
The maiden RC drilling program commenced on Section B followed by drilling on Section A, Friday 21 February 2020. Strong sulphide alteration is observed in the RC drilling on both Sections A & B and is described below. The geological logging and observations of each hole has been undertaken on a 1m basis.

The scale of sulphide development on Section B has increased significantly:

- Increased depth extent, with sulphide mineralisation defined to 120m below surface;
- Multiple new parallel sulphide zones to the south on section, remaining open with the next aircore hole to the south finishing with a 4g/t intersection at the bottom of hole.



The RC drilling program is ongoing and aims to test priority aircore targets with greater detail and depth extensions. Table 2 provides an estimate of the sulphide intervals in the RC and RC precollars. All assay results remain pending for all new RC drilling.





Section B

Two RC holes (HERC001 and HERC002) and a third RC precollar(HEDD001) have been completed on Section B (Figure 1) testing below and to the south of the previous shallow aircore drilling results of 24m @ 4.2g/t Au, 15m @ 2.5g/t Au and 21m @ 2.5g/t. Extensive sulphide mineralisation is observed immediately below the known gold mineralisation and in new parallel sulphide zones to the south on section, which increase the potential to +160m wide to 120m below surface. The sulphide zones and potential remain open in all directions.

The alteration assemblage comprises quartz-sericite-sulphides (pyrite and arsenopyrite) with the sulphides hosted in fine sheeted veins and disseminated in the matrix (Figure 4) and ranging from approximately 5% to 10% of the rock mass. The fine grained nature of the sulphide mineralisation makes accurate percentage estimates difficult and full assays results and detailed diamond core are expected to provide further definition of alteration and sulphide percentages.

The host rock is a massive medium grained differentiated intrusive body ranging from felsic to mafic. The strongest sulphide development appears to correlate with a more felsic to intermediate component of the intrusion. There is no obvious structural fabric in the rock mass.

Further drilling is currently planned to include an initial diamond core extension to precollar HEDD001 and two planned RC holes to the south as depicted on Figure 1 prior to step out drilling along strike. All assay results remain pending.



Figure 4 Quartz-sericite-sulphide alteration in RC drill chips (field of view ~10cm)



Section A

The maiden RC hole drilled on Section A (Figure 5), targeted a 50m vertical depth extension to the previously reported shallow high grade gold mineralisation of 36m @ 4.0g/t, 49m @ 3.7g/t, 44m @ 5.1g/t, 46m @ 6.6g/t and 24m @ 7.5g/t.

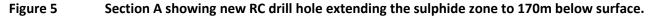
The hole intersected fresh and intense sulphide mineralisation from 192m (downhole) to 204m where the drilling rods have become bogged and drilling had to cease. A diamond core extension is now planned to complete this hole. The sulphide zone was intersected as anticipated with a sharp contact and provides a +50m depth extension to the known sulphide mineralisation that hosts the high grade gold mineralisation directly above. The sulphide mineralisation is now defined as an apparent thickness of 30m wide and extends to 170m below surface. The intense sulphide mineralisation comprises pyrite and arsenopyrite ranging from a combined 5-10% on average and to a maximum of at least 20% of the rock mass. The sulphides form fine sheeted veins and are also disseminated in the matrix like the mineralisation seen on Section B (Figure 4).

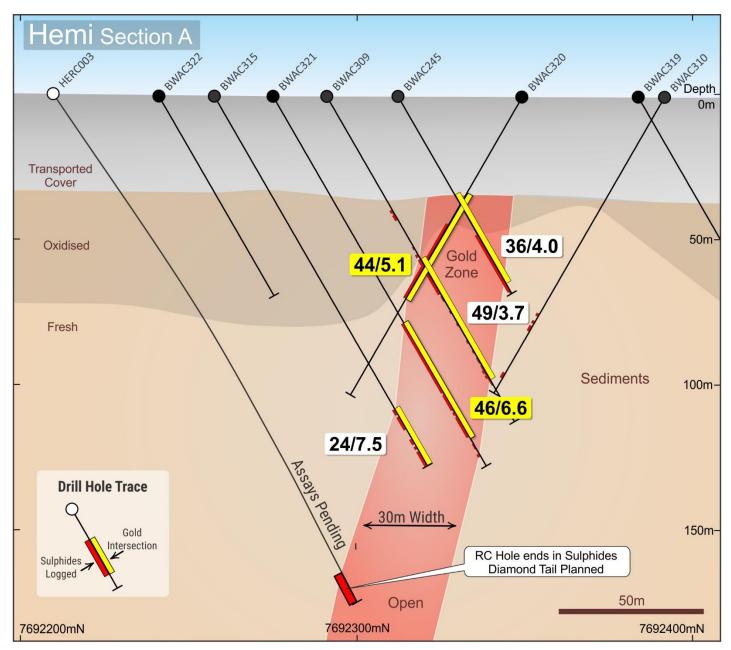
Most importantly, the host rock is a similar medium grained intrusion, not a shear zone as previously interpreted in the shallower and more oxidised aircore drilling above. The genetic link to intrusion hosted gold mineralisation similar to Section B, clearly adds to the potential of the Hemi Prospect

Further drilling is currently planned to include a deeper diamond core to extend mineralisation at depth. Additional RC and aircore drilling are currently in progress and testing for along strike extensions of the mineralisation.



All RC assay results remain pending.





Aircore drilling

Section D

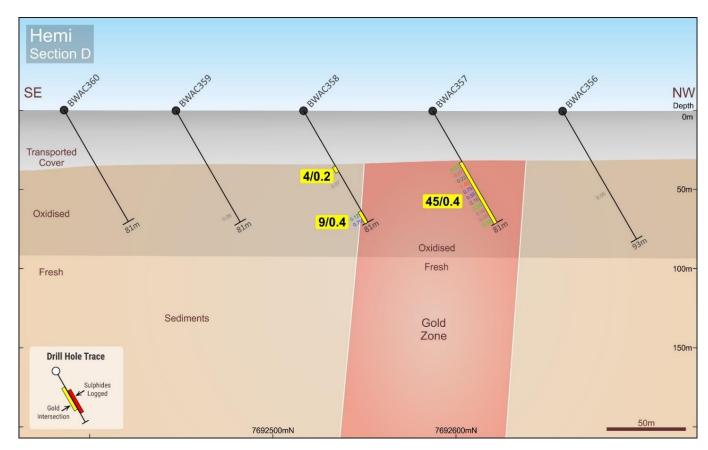
Further encouraging gold results have been received from the original 320m x 160m spaced aircore drilling program completed prior to Cyclone Damien. Significant results include: **45m @ 0.4g/t from 36m including 12m @ 0.9g/t in BWAC357** on Section D (Figure 6). Full results are provided in Table 1 and locations shown in Figure 3.

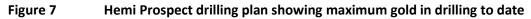
The maximum gold in each hole is presented in Figure 7 and now shows anomalous gold in every hole above the interpreted intrusions, adding to the potential at the Hemi Prospect. Additional aircore drilling has recommenced targeting strike extensions of the known mineralisation on 160m x 40-80m spaced holes.

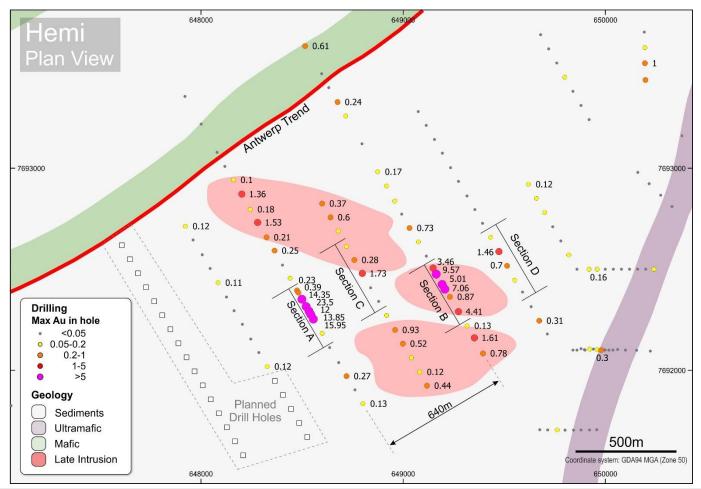
Encouraging alteration is evident in a number of new step out aircore holes with further information to be provided once assay results are finalised.













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

For further information: Simon Lill (Executive Chairman) or Andy Beckwith (Technical Director and Operations Manager)

De Grey Mining Ltd Phone +61 8 6117 9328

admin@degreymining.com.au

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

Resources:

- Pilbara Gold Project increases gold resources by >20% to over 1.2Moz, 28 September 2017;
- 2018 Total Gold Mineral Resource increases to 1.4Moz, 3 October 2018; and
- 2019 Total Gold Mineral Resource 21% increase to 1.7Moz, 16 July 2019.

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



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)
BWAC337	44.00	48.00	4.00	0.6	648960	7692199	69	-60	330	81
BWAC337	56.00	60.00	4.00	0.9	648960	7692199	69	-60	330	81
BWAC338	36.00	40.00	4.00	0.5	648998	7692132	68	-60	330	72
BWAC346	76.00	80.00	4.00	0.8	649395	7692084	69	-60	330	81
BWAC357	48.00	60.00	12.00	0.9	649474	7692587	68	-60	330	81
BWAC358	76.00	80.00	4.00	0.7	649514	7692517	68	-60	330	81

Table 1Significant Drill Intersections (>2 gram x m) based on 4m composites

Table 2Sulphide zones logged in RC and diamond hole (precollar).

HoleID	Collar East (GDA94)	Collar North (GDA94)	Collar RL (GDA94)	Dip (degrees)	Azimuth (GDA94)	Hole Depth (m)	Sulphide Interval (m)
HEDD001	649260	7692316	68.797	-55.36	327.751	120	28-47
							105-120
HERC001	649220.6	7692384	68.64	-55.31	330.311	186	35-132
HERC002	649240.6	7692349	68.68	-55.18	328.741	258	33-78
							192-204
HERC003	648580.9	7692211	68.507	-55.44	324.889	204	(EoH)

Cautionary Note: The sulphide zones listed in Table 2 are based on 1m geological logging of the drill samples at the rig. The geologist logs the rock type, alteration and determines an estimate of the sulphide abundance based on training and standardised techniques. The intervals are based on average sulphide percentages approximating >5%, however it is noted that due to the fine grained nature of the mineralisation there is an inherent difficulty in the accuracy of the estimate. The intervals remain to be assayed which will provide a more accurate sulphide abundance.



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 RC holes were sampled on a 1m basis with samples collected from a cone splitter mounted on the drill rig cyclone. 1m sample ranges from a typical 2.5-3.5kg
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.). 	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. 	 RC and aircore samples were visually assessed for recovery. Samples are considered representative with generally good recovery. Deeper holes encountered water in some cases, with some intervals having less than optimal recovery and possible contamination. No sample bias is observed.
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. 	RC sample results are appropriate for use in a resource estimation



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. 	 drill cuttings were sampled on a 1m and 4m composite basis. Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Industry prepared independent standards are inserted approximately 1 in 20 samples. Each sample was dried, split, crushed and pulverised.
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. 	 laboratory in Perth, Australia. For RC samples Au will be analysed by a 50g charge Fire assay fusion technique with an AAS finish. 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. No adjustments have been made to the assay data. Results are reported on a length weighted basis.
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. 	10cm.
Data spacing and distribution	 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. 	 Drill spacing varies from 160m x 40m to 320m x 80m. All holes have been geologically logged and provide a strong basis for geological control and continuity of mineralisation. Data spacing and distribution of RC drilling is 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
Orientation of data in relation to geological structure Sample security	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. The measures taken to ensure sample security. 	 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 structures and as such true widths are less than downhole widths. This is allowed for when geological interpretations are completed.
Sumple security	• The measures taken to ensure sample security.	 Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.



Criteria	JORC Code explanation	Commentary			
Audits or reviews	• The results of any audits or reviews of sampling	• No audits have been completed. Review of QAQC data has been			
	techniques and data.	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. Airborne 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 intrusive rocks intruding Mallina Basin metasediments. Style is similar to 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. 	• Drill hole location and directional information provide in the report.
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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	at a 5g/t Au lower cut.Intercepts are length weighted averaged.



Criteria	JORC Code explanation	Commentary
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 drill holes are interpreted to be approximately perpendicular to the strike of mineralisation. Drilling is not always perpendicular to the dip of mineralisation and true widths are less than downhole widths. Estimates of true widths will only be possible when all results are received, and final geological interpretations have been completed.
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 very wide 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 or will commence shortly.