

Hemi confirms potential for major discovery

- Substantial thick and high-grade gold mineralisation intersected on two sections 640m apart. Mineralisation open in all directions and at depth.
- Section A - 30m width @ 3.7g/t – 7.5g/t defined to 100m depth.
- Section B - +60m width, all holes ended in mineralisation.
- 50 holes from current program awaiting assay results.
- Step out aircore drilling continues. RC and DD rigs being mobilised.

Section A - 30m wide to 100m depth (oxide and fresh). Open in all directions

24m @ 7.5g/t Au from 126m in BWAC315, including 18m @ 8.6g/t (EOH)

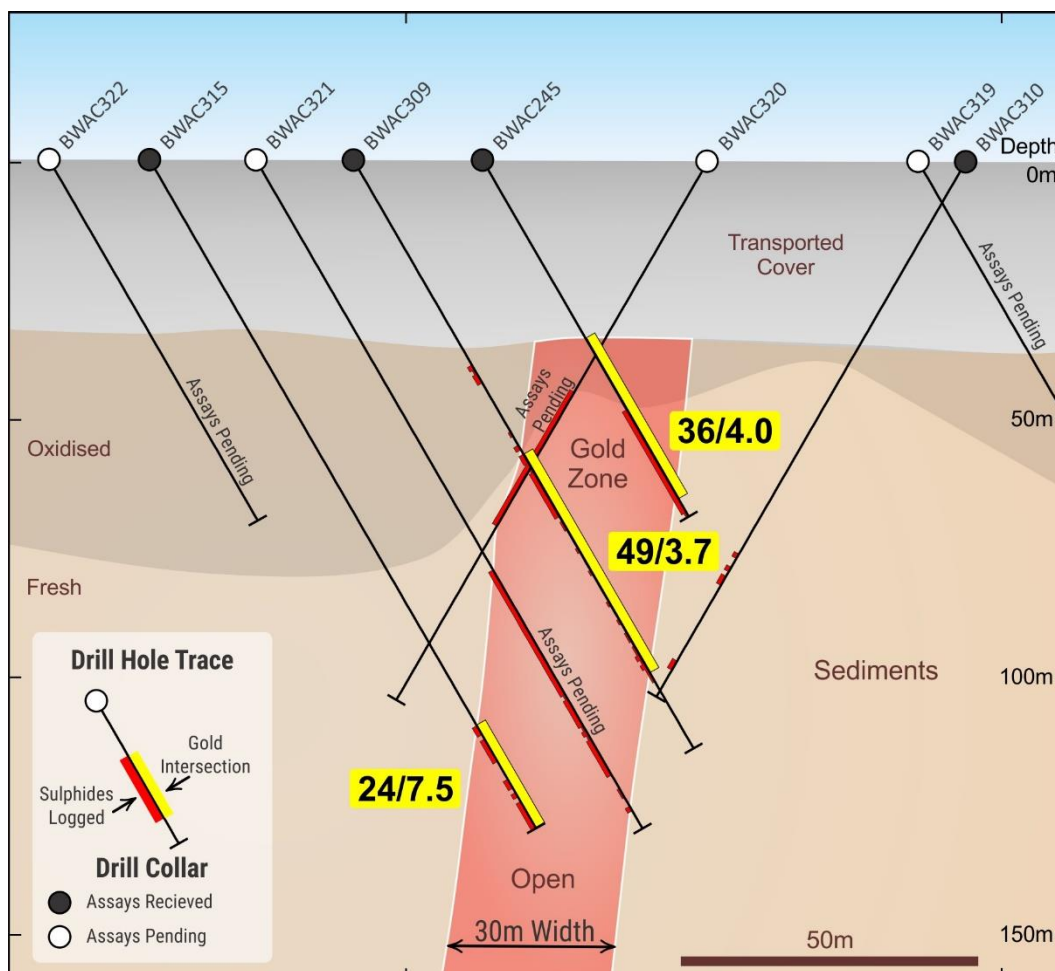
49m @ 3.7g/t Au from 65m in BWAC309, including 18m @ 6.6g/t

36m @ 4.0g/t from 39m in BWAC245, including 11m @ 8.9g/t

(BWAC245 is an updated intercept based on resampling on a 1m basis)

***Assays pending for 2 further holes on this immediate portion of Section A**

Figure 1 Hemi Prospect - Section A



Section B - +60m wide gold zone to 20m depth (oxide). Open in all directions.

24m @ 4.2g/t Au from 36m in BWAC312, including 10m @ 7.4g/t (EOH)

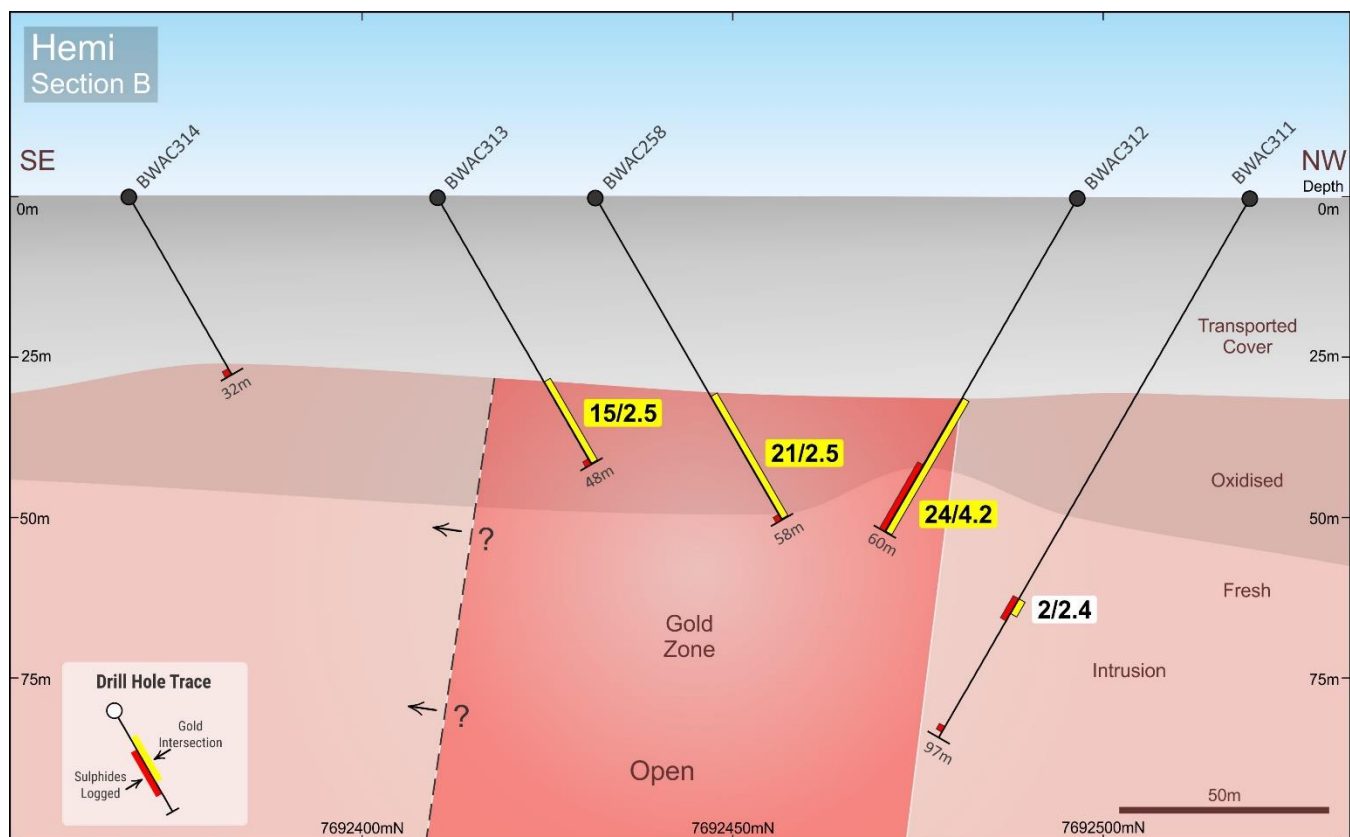
15m @ 2.5g/t Au from 33m in BWAC313 (EOH)

21m @ 2.5g/t from 36m in BWAC258 (EOH)

(BWAC258 is an updated intercept based on resampling on a 1m basis)

***All three holes finish in mineralisation**

Figure 2 Hemi Prospect - Section B



Andy Beckwith, Technical Director commented.

“For an exploration geologist, these results are both satisfying and exciting. Hemi’s shallow high grade gold zones provide an excellent opportunity to increase resources and further derisk our path to production.

The individual assays down hole are very robust creating solid high grade gold zones over considerable thicknesses which we expect to continue at greater depth. On Section A, drilling has defined a subvertical to south dipping 30m wide gold zone hosted in sediments. Section B shows a potential +60m wide gold zone in an intrusive with drilling yet to be completed below the oxide zone.

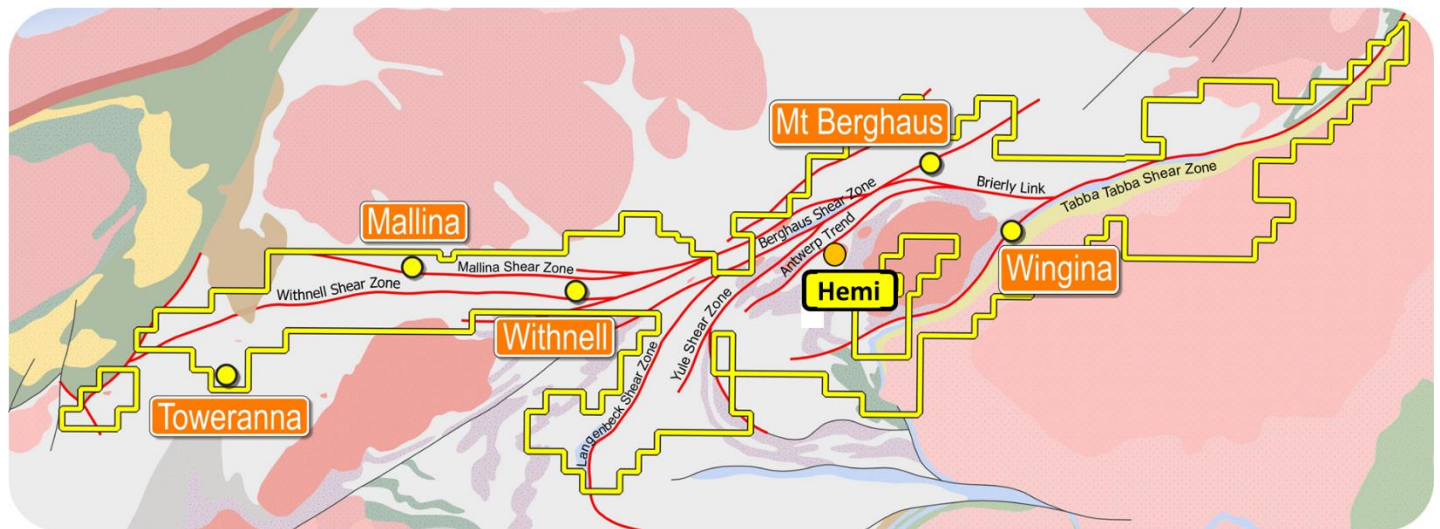
We currently interpret that the two mineralised zones are structurally related, suggesting we could be drilling a major new gold discovery. Aircore drilling will continue to define the lateral extent, orientation and potential scale of the mineralised system. Follow-up RC and diamond drilling will commence shortly with a view to establishing an initial inferred resource.”.

De Grey Mining Limited (ASX: DEG, “De Grey”, “Company”) is pleased to advise outstanding initial results from follow up aircore drilling at the newly discovered Hemi Prospect (Figure 3). The aircore drilling program is aimed at better defining the recent high grade gold mineralisation (**43m @ 3.7g/t Au and 25m @ 2.7g/t Au***), on the 640m spaced sections as well as infilling lines to establish 320m x 80m spaced drilling.

This report covers initial results from the first 7 holes completed on the two initial discovery Sections A and B. The aircore program remains ongoing with a total of 57 new holes (BWAC309 to BWAC365) completed for a total of 4709m to date. Further results remain pending for 50 holes including on the original Section A and step out lines along strike.

* ASX release “New Gold Discoveries at Hemi and Antwerp”, dated 17 December 2019

Figure 3 Mallina Gold Project showing main gold deposits and areas of discussion.



Aircore Results

The 2020 aircore drilling program commenced in mid-January with initial drilling focused on deeper holes to refusal to determine the dip of the high grade gold mineralisation. Following this, additional infill and step out lines spaced at 320m x 80m commenced, including infilling the two existing lines to 80m spaced collars. Ongoing drilling continues, targeting 320m x 80m spaced holes along 2.5km of the prospective corridor at Hemi. Significant results (>2gm*m) are provided in Table 1.

Section A

On Section A (Figures 1, 4 and 5), infill aircore drilling has been completed with initial results received for priority holes BWAC309, 310 and 315. Additional 1m resampling has been completed on the original discovery hole BWAC245. Results for holes BWAC319-323 on this section are yet to be received.

The results to date define a substantial steeply south dipping zone of high grade gold mineralisation. All intercepts grade >3.7g/t over substantial intervals and define an apparent sectional width of approximately 30m. The true width definition requires further drilling to determine strike orientation. Importantly, the deepest hole BWAC315 has intersected the highest grade to date of **+24m @ 7.5g/t** finishing within the gold zone. Significant results to date include:

24m @ 7.5g/t Au from 126m in BWAC315, including 18m @ 8.6g/t (EOH)
49m @ 3.7g/t Au from 65m in BWAC309, including 18m @ 6.6g/t
36m @ 4.0g/t from 39m in BWAC245, including 11m @ 8.9g/t
(BWAC245 is an updated intercept based on resampling on a 1m basis)

Geological logging indicates the gold mineralisation is hosted in a sequence of highly leached fine grained sediments with abundant disseminated sulphides and only minor quartz veining. The mineralisation occurs immediately beneath 30m of transported material. Weathering of the bedrock has produced an oxide horizon approximately 20m thick transitioning into fresh sulphides below. Drilling has defined the gold zone to approximately 130m below surface providing over 100m of vertical extent in bedrock. Mineralisation remains open along strike and is expected to continue at depth.

Drill hole BWAC315 is the deepest hole drilled at Hemi to date and show strong mineralisation evident at 130m below surface. This depth is at the limit of penetration for the aircore rig, hence the hole finished within the gold zone. A handful of samples in the mineralised zone at the bottom of this hole are of lower volume due to water influx. Larger capacity RC drilling is now required to test deeper.

Figure 4 is a zoomed in portion of the drilling on Section A. This clearly shows the robust and consistent nature of the individual 1m gold assays throughout the zone. Encouragingly, there is an apparent higher grade margin (>5g/t) along the southern margin which provides added scope that typical underground mining methods maybe applicable at depth beyond an initial open pit.

Assay results for BWAC320 and 321 remain pending. Geological logging indicates similar style and intensity of alteration in both holes within the interpreted gold zone. Further encouragement is seen elsewhere with additional alteration zones logged in the wider spaced aircore drilling, with assay results pending.

Figure 4 Hemi Prospect - Section A (zoomed) showing individual gold assays and robust gold mineralisation

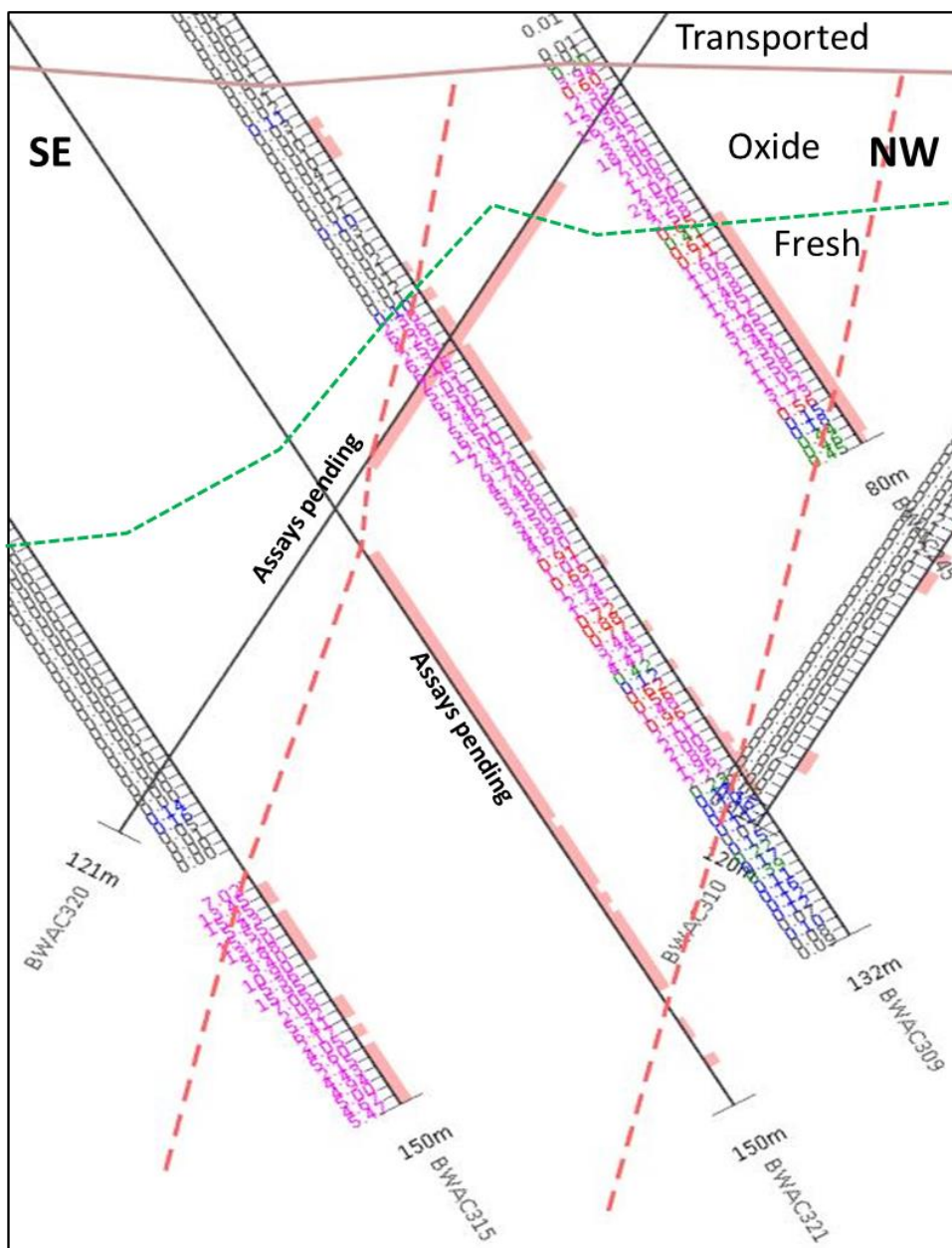
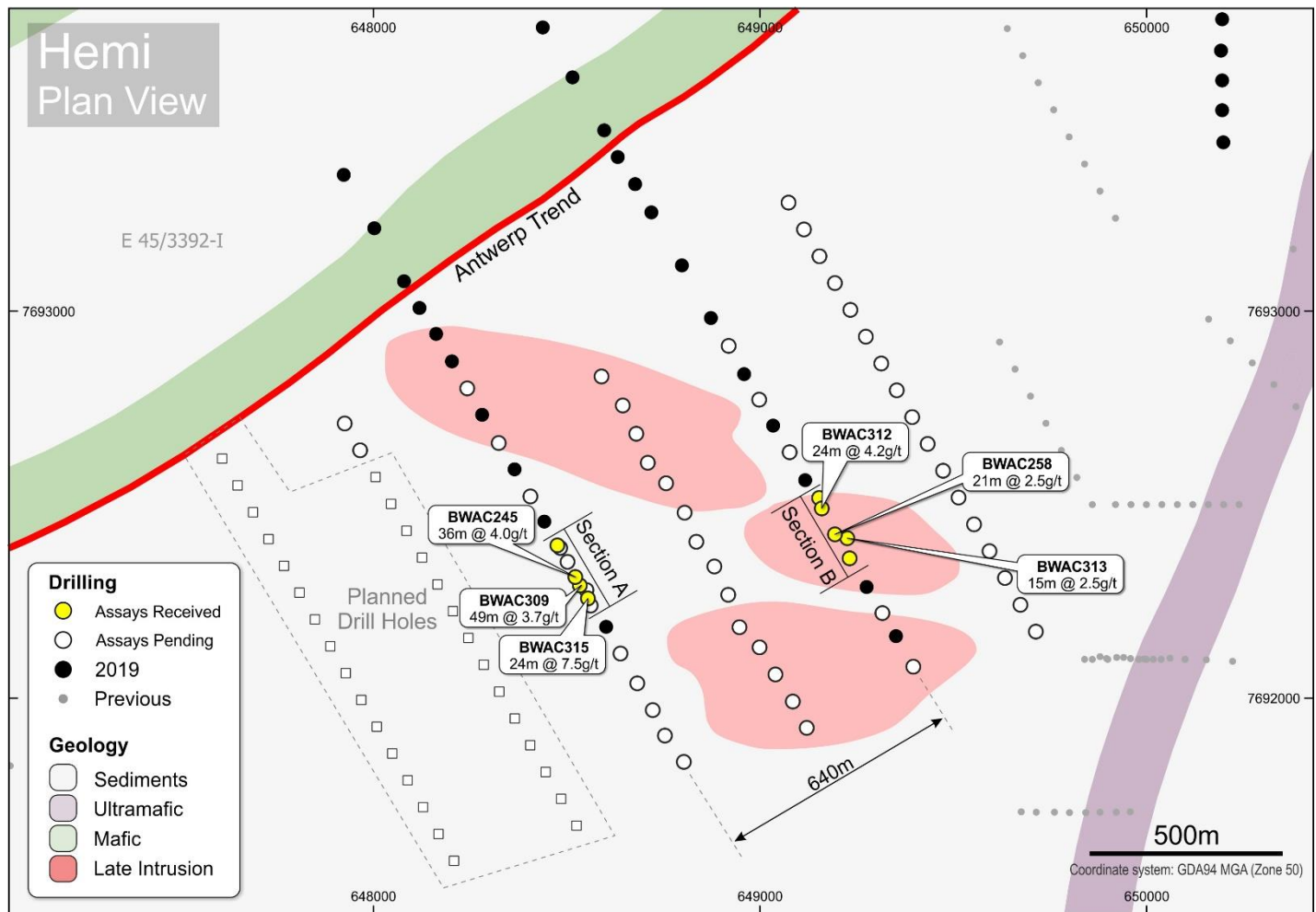


Figure 5 Hemi Prospect drilling plan showing new aircore holes and planned holes



Section B

On Section B (Figures 2, 5 and 6), infill aircore drilling has been completed with initial results received for priority holes BWAC311 -314. Additional 1m resampling has been completed on the original discovery hole BWAC258. Significant results include:

24m @ 4.2g/t Au from 36m in BWAC312, including 10m @ 7.4g/t (EOH)

15m @ 2.5g/t Au from 33m in BWAC313 (EOH)

21m @ 2.5g/t from 36m in BWAC258 (EOH)

(BWAC258 is an updated intercept based on resampling on a 1m basis)

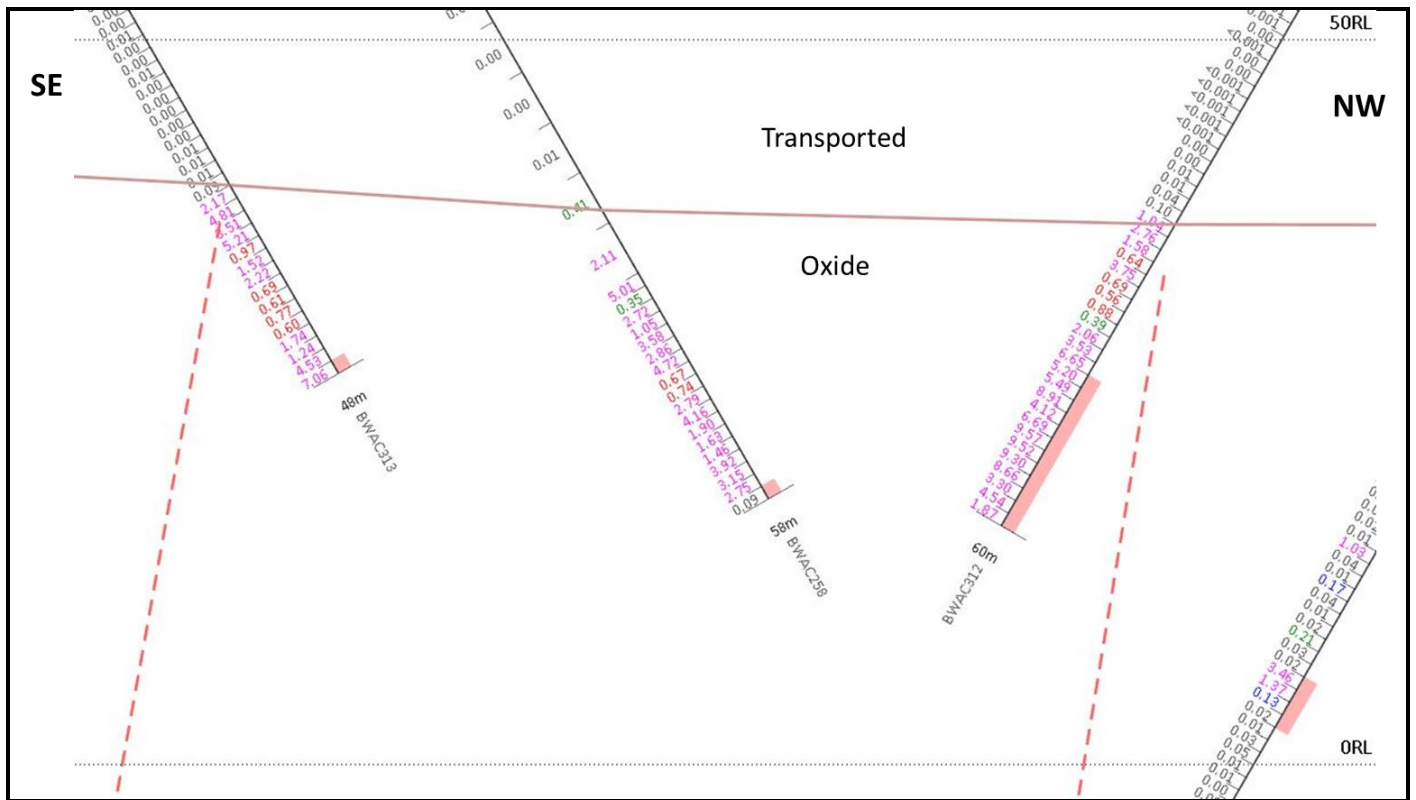
The results to date define a broad zone of gold mineralisation over at least 60m in apparent width in holes BWAC258, 312 and 313 with intercept grades ranging from 2.2g/t to 4.3g/t. The drilling defines a zone of oxide mineralisation approximately 20m thick immediately beneath 30m of transported cover. The aircore drilling could not penetrate any deeper as the intrusive is harder in fresh rock. Hence the gold zone remains untested and entirely open at depth and potentially to the SW (hanging wall) of hole BWAC313.

Geological logging indicates the broad zone of gold mineralisation is hosted in an altered intrusion with abundant sulphide development. The high grade, broad and robust nature of the gold mineralisation (Figure 6) provides scope to define a substantial resource with further drilling.

At this stage, the interpretation is that the two zones are structurally related and that Section A and Section B are linked. However several mineralised structures could exist.

Figure 6 is a zoomed in portion of the drilling on Section B. The robust nature and consistent high grades is also evident within the oxide zone.

Figure 6 Hemi Prospect - Section B (zoomed) showing individual gold assays and robust gold mineralisation



DRILLING PROGRAM

De Grey's regional and wide spaced aircore program aims to systematically test the various large prospective corridors throughout the project for new large scale gold deposits. The positive drill results at Hemi now provide a key focus for near term resource definition drilling. Accordingly, an RC and diamond rig are being mobilized to site to commence this deeper and more detailed drilling. This drilling will look to test deeper on the known sections and then step out on parallel sections 80m part.

Aircore drilling will continue to test along the Scooby to Antwerp Structural Trend (SAST) during the March quarter to define additional resource drilling targets. Phase 1 of this drilling is nearing completion and will provide 320m x 80m coverage over a 2.5km strike length at Hemi. The phase 2 aircore drilling program will then aim to extend this drilling a further 1.5km SW towards the Antwerp Prospect where other encouraging shallow gold mineralisation has been previously intersected.

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 information in this report that relates to Hemi Prospect and 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*

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

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)
BWAC242	36.00	38.00	2.00	1.4	648281	7692732	67	-60	332	45
BWAC245	39.00	75.00	36.00	4.0	648520	7692315	69	-60	332	80
incl	42	53	11	8.9	648520	7692315	69	-60	332	80
BWAC258	36.00	57.00	21.00	2.5	649193	7692425	69	-60	332	58
BWAC259	48.00	49.00	1.00	4.4	649274	7692290	69	-60	332	49
BWAC260	49.00	52.00	3.00	0.9	649352	7692160	69	-60	332	54
BWAC309	65.00	114.00	49.00	3.7	648534	7692292	69	-60	332	132
incl	66	84	18	6.6	648534	7692292	69	-60	332	132
BWAC311	35.00	36.00	1.00	3.1	649148	7692506	68	-60	152	96
BWAC311	42.00	46.00	4.00	0.6	649148	7692506	68	-60	152	96
BWAC311	72.00	74.00	2.00	2.4	649148	7692506	68	-60	152	96
BWAC312	36	60	24	4.2	649164	7692476	68	-60	152	60
incl	47	57	10	7.4	649164	7692476	68	-60	152	60
BWAC313	33	48	15	2.5	649206	7692401	69	-60	332	48
BWAC315	126	150	24	7.5	648556	7692253	69	-60	332	150
incl	126	144	18	8.6	648556	7692253	69	-60	332	150

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All drilling and sampling was undertaken in an industry standard manner. Aircore samples were collected on a 1m basis by spear from 1m sample piles. Sample weights ranges from around 1-3kg. The independent laboratory pulverises the entire sample for analysis as described below.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> Aircore holes were drilled with an 83mm diameter blade bit.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. Follow up RC drilling is planned for resource estimation definition. No sample bias is observed.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The entire hole has been geologically logged by Company geologists. The aircore results provide a good indication of mineralisation but are not used in resource estimation.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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 sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is 	<ul style="list-style-type: none"> Aircore samples were collected on a 1m basis by spear from 1m sample piles. Industry prepared independent standards are inserted approximately 1 in 30 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. Aircore samples are generally of good quality and appropriate for delineation of geochemical trends but are not generally used in resource estimates.

Criteria	JORC Code explanation	Commentary
	<p><i>representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> • <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • The samples were submitted to a commercial independent laboratory in Perth, Australia. • 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. • As discussed previously certified reference standards were inserted by the Company and the laboratory also carries out internal standards in individual batches. • The standards and duplicates were considered satisfactory.
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Aircore hole collar locations are located by DGPS to an accuracy of +/-10cm., or by handheld GPS to an accuracy of 3m. • Locations are given in GDA94 zone 50 projection. • Diagrams and location table are provided in the report. • Topographic control is by detailed airphoto and Differential GPS data.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Reported results are from drill lines spaced 640m apart. Holes are spaced at 80m apart along lines, and in some zones 20-40m apart. • All holes have been geologically logged and provide a strong basis for geological control and continuity of mineralisation. • Aircore data supports interpretations but are not used in resource estimates. • 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	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • The drilling is believed to be approximately perpendicular to the 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.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drilling occurs on tenement E45/3392 held by Last Crusade Pty Ltd, which is a 100% subsidiary of De Grey Mining Ltd. The tenements are located approximately 80km south of Port Hedland.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The mineralisation targeted is hydrothermally emplaced gold mineralisation within a shear zone. Host rocks comprise Mallina Basin metasediments and intrusive rocks and is similar in style to many other Western Australian gold deposits.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill hole location and directional information provide in the report.
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Results are reported to a minimum cutoff grade of 0.5g/t gold with an internal dilution of 2m maximum. Higher grade intervals included in the above intercepts are reported at a 5g/t Au lower cut. Intercepts are length weighted averaged. No maximum cuts have been made.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and 	<ul style="list-style-type: none"> Plans and sections are provided in the report.

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	
Balanced reporting	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • All significant results are provided in this report. • The report is considered balanced and provided in context.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Drilling is currently very wide spaced and further details will be reported in future releases when data is available.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • 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 will be planned based on aircore results.