

## Mt Berghaus Gold Resource Triples Increases by 98,000oz to 141,000oz

ASX Code DEG

ABN 65 094 206 292

### COMPANY DIRECTORS

Simon Lill  
Executive Chairman

Davide Bosio  
Non-executive Director

Steve Morris  
Non-executive Director

Craig Nelmes  
Company Secretary/CFO

### CONTACT DETAILS

Principal & Registered Office  
Level 2, Suite 9  
389 Oxford Street  
Mt Hawthorn WA 6016

PO Box 281  
Mt Hawthorn WA 6016

[www.degremining.com.au](http://www.degremining.com.au)

[admin@degremining.com.au](mailto:admin@degremining.com.au)

T +61 8 9381 4108  
F +61 8 9381 6761

### Highlights

- Mt Berghaus Mineral Resource increases by 227% to **3.5Mt at 1.2g/t Au for 141,000oz**
- Turner River Project Global Gold Resource climbs to **9.7Mt at 1.5g/t Au for 464,000oz**
- The Mt Berghaus resource increase is due to extensions to mineralisation and discovery of new mineralised zones at North Lode and West Berghaus Prospects
- Over 50,000oz of the Mineral Resource is oxidised mineralisation from surface
- Mineralisation defined in multiple stacked lodes associated with a major regional scale fold axis
- The newly discovered zones highlight the potential for additional mineralisation within the 3km of prospective strike length between West Berghaus and Mt Berghaus on similar structures and stratigraphy
- Mineralisation remains open in many areas along the 5km mineralised system – significant potential for further resource increases to be tested in 2<sup>nd</sup> Quarter 2017.

Geology Manager, Andy Beckwith commented

*“The Mt Berghaus gold system is over 5km long and our detailed drilling has only tested about 1.6km of this potential.*

*The more we drill - the more gold we discover, so we are very confident further drilling will expand this resource.”*

## Mt Berghaus– Resource Update

De Grey Mining Limited is pleased to announce an updated Mineral Resource for the Mt Berghaus Gold Prospect forming part of the 100% owned Turner River Project, located near Port Hedland in the Pilbara region of Western Australia.

The update was completed to include the results of RC drilling recently completed by De Grey. Modelling and estimation was completed by Payne Geological Services Pty Ltd, an external and independent mining consultancy.

The updated Mineral Resource is summarised below.

### Mt Berghaus January 2017 Mineral Resource Estimate

(0.5g/t Au Cut-off)

Zone	Indicated		Inferred		Total		
	Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Au Ounces
Mt Berghaus Central	0.21	1.8	2.33	1.2	<b>2.54</b>	<b>1.3</b>	<b>106,000</b>
North Lode			0.43	1.5	<b>0.43</b>	<b>1.5</b>	<b>21,000</b>
West Berghaus			0.54	0.8	<b>0.54</b>	<b>0.8</b>	<b>14,000</b>
<b>Total</b>	<b>0.21</b>	<b>1.8</b>	<b>3.30</b>	<b>1.2</b>	<b>3.52</b>	<b>1.2</b>	<b>141,000</b>

*Rounding discrepancies may occur*

**Previous Resource** - The previous resource estimate was 0.9Mt @ 1.4g/t for 43,000oz using a 0.5g/t cut-off. The new resource shows an overall 227% increase in reported ounces. This increase is due to the definition of extensions to the known mineralisation at Mt Berghaus and the discovery of new mineralised zones at North Lode and West Berghaus Prospects.

**Geology** - The Mt Berghaus Central, North Lode and Berghaus West deposits are controlled by the Mallina Shear Zone and occurs within deformed metasediments of Archean age. Mineralisation is developed within a NE-SW striking, sub-vertical zone with resource grade mineralisation defined to date in three separate areas. The Mt Berghaus zone has a strike extent of 1.4km while the North Lode and West Berghaus zones have strike extents of 160m and 350m respectively. All zones have been reported above a depth of 120m.

Gold mineralisation is associated with zones of quartz veining developed as multiple steep lodes within metasediments. The deposit has a typical depth of oxidation of 40m to 60m and over 50,000oz of the Mineral Resource lies within oxidised and transitional material.

**Drilling** - Approximately half of the resource drill holes at the Mt Berghaus project were completed by DEG in 2016. Previous drilling was largely completed by DEG in 2004 and 2005. An additional nine diamond holes were drilled by a joint venture partner in 2014.

The main Mt Berghaus zone has now been drilled at 20m hole spacings on 40m spaced cross sections. The West Berghaus and North Lode mineralisation has been drilled with a small number of holes at 20m hole spacings on 80-100m spaced cross sections. A total of 114 RC holes and 10 diamond holes define the Mineral Resource.

**Sampling** - Samples in mineralised zones were collected at 1m intervals utilizing rig mounted splitters. The whole sample was then pulverised and analysed for gold using fire assay technique. QAQC protocols were in place for the various drilling programs and has confirmed the quality of the sampling and assaying.

**Estimation Methodology and cutoffs** - The deposit was estimated using inverse distance squared (“ID2”) grade interpolation of 1m composited data within wireframes prepared using 0.2g/t Au envelopes. Interpolation parameters were based on the geometry of the individual lodes making up each lode. A high grade cut of 15g/t was used in all domains. The resource has been reported at a 0.5g/t Au lower cut-off to reflect potential exploitation by open pit mining. The following table shows the Mt Berghaus resource at higher cutoff grades.

**Mt Berghaus Mineral Resource Estimate at various cutoff grades.**

Cut-off Grade Au g/t	Indicated		Inferred		Total		
	Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Au Ounces
0.5	0.21	1.8	3.3	1.2	3.52	1.2	141,000
0.75	0.17	2.1	2.3	1.4	2.51	1.5	120,000
1.0	0.14	2.4	1.6	1.7	1.73	1.8	99,000

*Rounding discrepancies may occur*

The block dimensions used in the model were 20m EW by 4m NS by 10m vertical with sub-cells of 5m by 1.0m by 2.5m.

Limited bulk density data is available for the deposit so assumed values were used, based on information from similar deposits. Bulk density values used in the resource estimate were 2.2t/m<sup>3</sup> for Oxide, 2.4t/m<sup>3</sup> for Transition and 2.6t/m<sup>3</sup> for Primary.

**Metallurgy** - No metallurgical test work has been completed for the Mt Berghaus deposit. The presence of visible gold in surface quartz veins, oxidised nature of bedrock within the oxidised domain and the relatively low level of sulphide minerals in the fresh bedrock suggests that metallurgical problems are unlikely, however preliminary metallurgical assessment remains to be carried out to confirm. Metallurgical sampling of the various lodes and domains is planned as part of ongoing exploration programs. No mining dilution or other modifying factors were considered in the Mineral Resource.

**Classification** - A portion of the Mt Berghaus zone resource defined by the 20m by 40m spaced drilling and displaying good continuity of mineralisation was classified as Indicated Mineral Resource. The remainder of the resource was classified as Inferred Mineral Resource due to either sparse drilling or poor continuity of mineralisation.

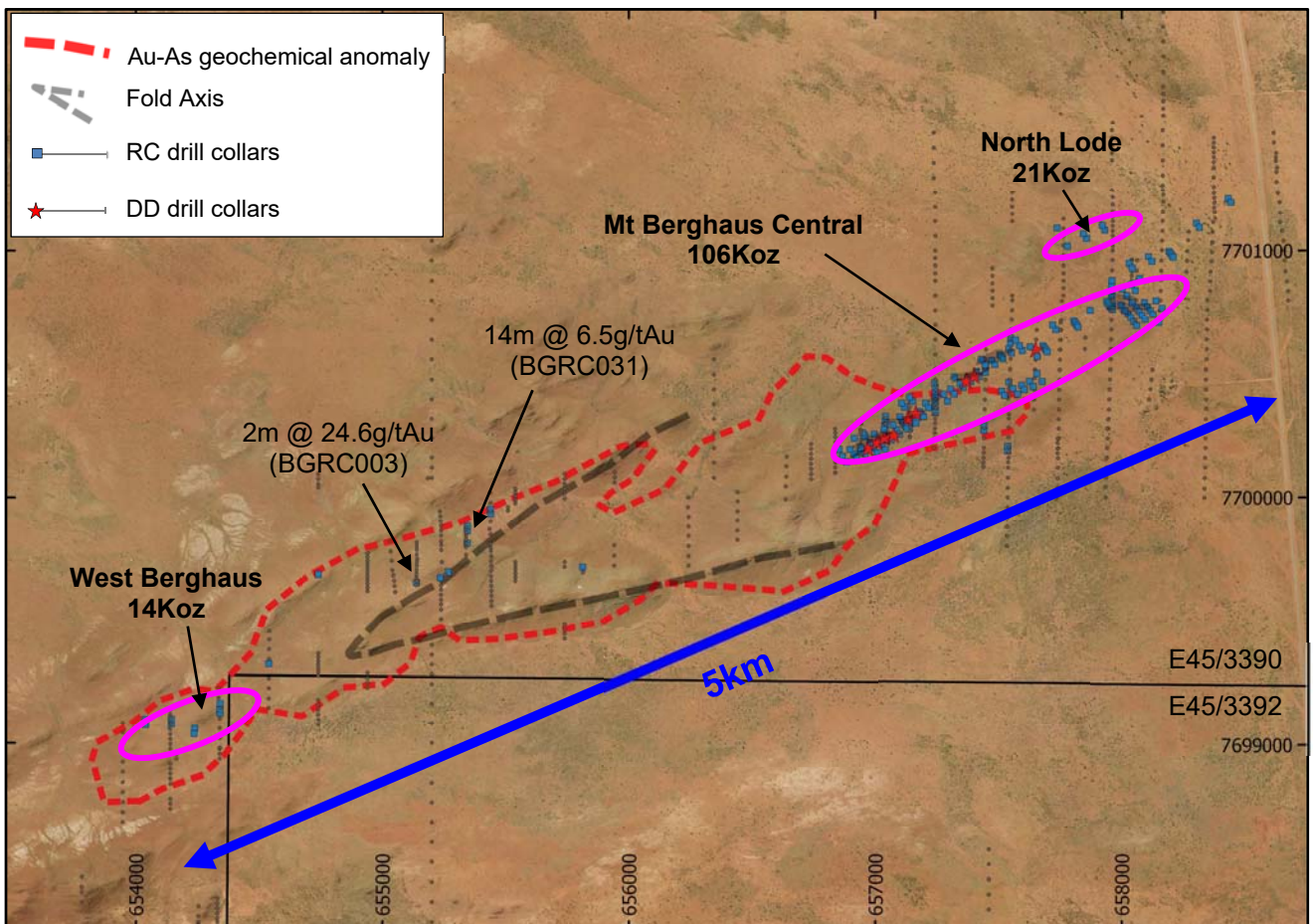
The deposit is open down dip and along strike in many areas and excellent potential exists to identify additional Mineral Resources with further drilling.

## Exploration Upside

Figure 1 shows the current resource areas which lie along a fold axis within the metasediments. A large gold-arsenic geochemical anomaly defined by soil sampling extends along the fold axis. Drilling within much of this area is limited mainly to widely spaced lines of RAB/Aircore holes. Mineralised zones identified in early De Grey drilling remain to be followed up. These include intersections of **14m @ 6.5g/t Au** and **2m @ 24.6g/t Au** in limited previous RC drilling along the corridor (Figure 1)

Follow up work is planned along this prospective corridor during 2<sup>nd</sup> Quarter 2017.

**Figure 1 Mt Berghaus drill collar plan showing potential exploration upside**



## Turner River Project

The Turner River Project is located in an infrastructure rich area, about 50km south of Port Hedland in the Pilbara region of Western Australia, with excellent main arterial access via dominantly bitumen roads. Port Hedland hosts excellent support facilities with a deep port, international airport and mining related businesses.

The overall project currently hosts three JORC 2012 gold resources at the flagship Wingina, Mount Berghaus and Amanda deposits for a total of 464,000oz.

Resource updates have recently been completed at the Wingina and Mt Berghaus deposits, with the Amanda deposit planned to be assessed and updated next. As each of the three gold deposits are assessed, additional drilling completed and resource models are upgraded, open pit optimisations will be carried out to determine potential open pit mining scenarios. From this information, the company will determine the timing of a more detailed feasibility study. A simple CIL processing plant, typical of many gold mines in Western Australia, with ore sourced from several open pit deposits is the preferred processing option.

### Turner River Project – Global Total Gold Mineral Resources

(JORC 2012) 0.5g/t Au Cut-off Grade

Deposit	Zone	Measured		Indicated		Inferred		Total		
		Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Tonnes Mt	Au g/t	Au Ounces
Wingina Well <sup>1</sup>	Lode	0.78	4.1	0.12	3.8	0.2	4.1	1.10	4.1	144,000
	Halo	2.30	0.9	0.86	1.0	1.2	1.2	4.39	1.0	144,000
	<b>Subtotal</b>	<b>3.08</b>	<b>1.7</b>	<b>0.99</b>	<b>1.4</b>	<b>1.4</b>	<b>1.6</b>	<b>5.49</b>	<b>1.6</b>	<b>288,000</b>
Mount Berghaus <sup>2</sup>				0.21	1.8	3.3	1.2	3.52	1.2	141,000
Amanda <sup>3</sup>						0.7	1.6	0.7	1.6	35,000
<b>Turner River Project</b>	<b>Total</b>	<b>3.08</b>	<b>1.7</b>	<b>1.20</b>	<b>1.5</b>	<b>5.4</b>	<b>1.4</b>	<b>9.71</b>	<b>1.5</b>	<b>464,000</b>

Errors in totals due to rounding

Tonnes, grade and ounces rounded to reflect accuracy of estimates

<sup>1</sup> Resources Statement by De Grey Mining Limited as reported to the ASX on October 28 2016

<sup>2</sup> Resources Statement by De Grey Mining Limited as reported to the ASX on January 25 2017

<sup>3</sup> Resources Statement by De Grey Mining Limited as reported to the ASX on June 23 2016

Mt = Million tonnes

g/t = grams/tonne

Au = Gold

*NB: Resource statement does not include gold resources contained in the Discovery deposit which was reported separately in an updated resource statement on De Grey's Base Metals project (ASX release 8 November 2016).*

## Mallina Shear Zone

The Mallina Shear Zone is major regional structure that hosts the 5km long Mt Berghaus gold system. This structure also hosts the Indee Gold Mine (pre-mining resources of 539,000 ounces owned by Indee Gold Pty Ltd) to the west plus the Cookes Hill deposit (50,000 ounces, owned by Haoma Mining NL) to the east. This major gold structure is parallel and to the north of the other major regional Tabba Tabba Thrust which hosts the Wingina Well and Amanda deposits plus extensive zones of anomalous gold targets. Importantly, De Grey controls approximately 40km strike length of the Mallina Shear Zone and 60km of the Tabba Tabba Thrust, providing excellent long term potential.

De Grey is confident the Mt Berghaus deposit and large exploration upside will enable the Company to build upon and surpass target total of 500,000oz within a short timeframe. De Grey expects to update the market on its other exploration targets during February 2017.

**For further information:**

**Simon Lill (Executive Chairman) or Andy Beckwith (Manager - Geology)**

De Grey Mining Ltd  
Phone +61 8 9381 4108  
[admin@degreymining.com.au](mailto:admin@degreymining.com.au)

## **COMPETENT PERSONS 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 a consultant to 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.*

*The Information in this report that relates to Mineral Resources is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

**Table JORC Code, 2012 Edition**
**Section 1 Sampling Techniques and Data**

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

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All drilling and sampling was undertaken in an industry standard manner</li> <li>All holes sampled on both a 1m and nominal 4m basis over the entire length of the hole. 1m samples were submitted for analysis for mineralised zones based on the geologist's interpretation, with 4m composite samples submitted for analysis for all other intervals. Where assays over 0.1g/t Au were received for 4m composite sample results, 1m samples were then submitted for these zones.</li> <li>Both the 4m and 1m samples were taken from a cone splitter mounted on the drill rig cyclone. The cyclone was calibrated to provide a continuous sample volume accordingly to sample length</li> <li>Each 4m and 1m sample ranges from a typical 2.5-3.5kg</li> <li>The independent laboratory then takes the sample and pulverises the entire sample for analysis as described below</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes are Reverse Circulation(RC) with a 5 1/2-inch bit and face sampling hammer.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were visually assessed for recovery.</li> <li>Samples are considered representative with good recoveries. Only a small percentage of samples were considered low recovery primarily due to change of rods when a small amount of wet sample occurred.</li> <li>No sample bias is observed</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Company geologist logged each hole and supervised all sampling.</li> <li>The sample results are appropriate for a resource estimation. The 1m sample results are considered the preferred sample to use in the resource estimation for more accurate definition of lodes</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• .</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• The sampling of the RC sample was carried out by a cone splitter on the rig cyclone and drill cuttings were sampled on a 1m and 4m composite basis.</li> <li>• Duplicate samples were taken approximately every 95 samples and independent standards were inserted approximately every 30 samples</li> <li>• The samples are considered representative and appropriate for this type of drilling and for use in a future resource estimate.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• The samples were submitted to a commercial independent laboratory in Perth, Australia.</li> <li>• Each sample was dried, crushed and pulverised.</li> <li>• Au was analysed by a 50gm charge Fire assay fusion technique with a AAS finish</li> <li>• The techniques are considered quantitative in nature.</li> <li>• As discussed previously standards and duplicates samples were inserted by the Company and the laboratory also carries out internal standards in individual batches</li> <li>• The standards and duplicates were considered satisfactory</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Sample results have been entered and then checked by a second company geologist</li> <li>• Results have been uploaded into the company database, checked and verified</li> <li>• No adjustments have been made to the assay data.</li> <li>• Results are reported on a length weighted basis</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole collar locations are derived using RTK GPS Surveying Methods, and are accurate to +0.05m.</li> <li>• Locations are given in Mount Berghaus local grid coordinates in addition to GDA94 zone 50</li> <li>• Diagrams and location table are provided in the report</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The RC drilling is on a nominal 40m x 40m or 80m-100m x 40m grid.</li> <li>All holes have been geologically logged and provide a strong basis for geological control and continuity of mineralisation</li> <li>Sample result and logging will provide strong support for the results to be used in a resource estimate</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling is approximately perpendicular to the strike of mineralisation and therefore the sampling is considered representative of the mineralised zone.</li> <li>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 will be allowed for in resource estimates when geological interpretations are completed.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits have been completed. Review of QAQC data has been carried out by company geologists</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling is on E45/3390 which is located approximately 50km south of Port Hedland and is 100% owned De Grey Mining (or its 100% owned subsidiaries)</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Mount Berghaus deposit has had previous drilling undertaken over a period of 12 years. The large proportion of the holes were completed by De Grey Mining between 2003-2008. A joint venture party completed several diamond holes in 2014/15.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation targeted is hydrothermally emplaced and sediment/quartz hosted gold mineralisation within a shear zone and is similar in style to many other Western Australian gold deposits.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole location and directional information provide in the report.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Results are reported to a minimum cutoff grade of 0.3g/t gold with an internal dilution of 4m maximum. Intervals over 0.5g/t Au are reported.</li> <li>Intercepts are length weighted averaged.</li> <li>No maximum cuts have been made to reported intercepts.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>The drill holes are interpreted to be approximately perpendicular to the strike of mineralisation.</li> <li>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.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Plans are provided in the report..</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>The report is considered balanced and provided in context.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density,</li> </ul>	<ul style="list-style-type: none"> <li>The Mount Berghaus Gold deposit has an existing 2012 JORC gold resource (43,000oz) previously reported by De Grey.</li> </ul>

Criteria	JORC Code explanation	Commentary
	groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical testwork to determine possible recoveries is planned</li> <li>Follow up drilling to test extensions to known mineralisation and follow up geochemical anomalies will be completed in future.</li> </ul>

### JORC Table Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Data was captured electronically to prevent transcription errors.</li> <li>Validation included comparison of gold results to logged geology to verify mineralised intervals.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>A site visit was undertaken by the Competent Person in 2016 to examine geological features in outcrop, locate drill collars from historic drilling and confirm that no obvious impediments to future project exploration or development were present.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The confidence in the geological interpretation is considered to be low to moderate, with numerous discontinuous mineralised structures lying along a broad east-west trend.</li> <li>The interpretation was based largely on good quality RC drilling, with a number of diamond holes</li> <li>The deposit consists of steeply dipping mineralised lodes which have been interpreted based largely on assay data from samples taken at regular intervals from angled drill holes.</li> <li>An alternative interpretation is possible and this will be clarified with infill drilling in the future</li> <li>Mineralisation is conformable with observed zones of quartz veining and porphyry dykes.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The Mt Berghaus Mineral Resource occurs in three zones. The Main Zone has a strike extent of 1.4km and a vertical extent of 120m</li> <li>West Zone is 2.7m to the west and has a strike extent of 350m and a depth extent of 115m</li> <li>North Zone lies 300m north of Main zone and has a strike extent of 160m and a depth extent of 120m.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-</li> </ul>	<ul style="list-style-type: none"> <li>Inverse distance squared (ID2) was used to estimate average block grades within the deposit.</li> <li>Surpac software was used for the estimation.</li> <li>Samples were composited to 1m intervals and a high grade cut of 15g/t was applied to all zones.</li> <li>The parent block dimensions used were 4 NS by 20m EW by 10m vertical with sub-cells of 1.0m by 5m by 2.5m. The parent block size was selected on the basis of being approximately 50% of the average drill hole spacing in the well drilled portion of the deposit.</li> <li>Previous resource estimates have been completed. The new estimate is much larger due to the definition of two new mineralised zones and extension of the Main Zone</li> <li>No assumptions have been made regarding recovery of by-products.</li> <li>No estimation of deleterious elements was carried out. Only</li> </ul>

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	<p><i>grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></p> <ul style="list-style-type: none"> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>Au was interpolated into the block model.</p> <ul style="list-style-type: none"> <li>An orientated ellipsoid search was used to select data and was based on drill hole spacing and geometry of mineralisation.</li> <li>An initial interpolation pass was used with a maximum range of 60m which filled 75% of blocks. A second pass radius of 90m filled 23% of the blocks and a third pass range of 150m filled the remaining 2% of blocks.</li> <li>A minimum of 10 and a maximum of 24 samples were used, reducing to a minimum of 4 samples for pass 2, and 2 samples for pass 3.</li> <li>Selective mining units were not modelled in the Mineral Resource model. The block size used in the model was based on drill sample spacing and lode orientation.</li> <li>Only Au assay data was available, therefore correlation analysis was not possible.</li> <li>The deposit mineralisation was constrained by wireframes constructed using a 0.2g/t Au cut-off grade in association with logged geology. The wireframes were applied as hard boundaries in the estimate.</li> <li>For validation, trend analysis was completed by comparing the interpolated blocks to the sample composite data within 40m easting intervals and by 10m vertical intervals.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been reported at a 0.5g/t Au cut-off based on assumptions about economic cut-off grades for open pit mining.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Based on the shallow, outcropping nature of the mineralisation and the proximity to other substantial deposits, it is assumed that open pit mining is possible at the project if demonstrated to be economically viable.</li> <li>No mining parameters or modifying factors have been applied to the Mineral Resource.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical test-work has not been carried out.</li> <li>Much of the gold occurs as fine particles in quartz veins and it is assumed that there will not be any metallurgical problems</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental</i></li> </ul>	<ul style="list-style-type: none"> <li>The area is not known to be environmentally sensitive and there is no reason to think that proposals for development including the dumping of waste would not be approved.</li> <li>The area surrounding the Mt Berghaus deposit is generally flat and uninhabited with no obvious impediments to the construction of dumps and other mine infrastructure.</li> </ul>

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	<p><i>impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Bulk density values were assumed.</li> <li>• Bulk density values used in the resource were 2.2t/m<sup>3</sup>, 2.4t/m<sup>3</sup> and 2.6t/m<sup>3</sup> for oxide, transitional and fresh mineralisation respectively.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). The Mineral Resource was classified as Indicated and Inferred Mineral Resource on the basis of data quality, sample spacing, and lode continuity.</li> <li>• The portion of the resource defined by the 40m spaced drilling and displaying good continuity of mineralisation was classified as Indicated Mineral Resource.</li> <li>• The peripheral and sparsely drilled portions of the lodes were classified as Inferred Mineral Resource due to the sparse drilling.</li> <li>• The definition of mineralised zones is based on assumptions of geological controls producing a grade based model of mineralised domains.</li> <li>• The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A documented internal audit of the Mineral Resource estimate was completed by the consulting company responsible for the estimate.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mt Berghaus Mineral Resource estimate is considered to be reported with a degree of confidence consistent with the classification. The data quality is good and the drill holes have detailed logs produced by qualified geologists.</li> <li>• The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>• There has been no previous mining at the deposit so no production records exist.</li> </ul>