



ECHO RESOURCES
LIMITED
ACN: 108 513 113

7 April 2016

ASX Announcement

JULIUS GOLD DEPOSIT – INITIAL RESOURCE ESTIMATE

Julius Resource Estimate

Echo Resources Limited (the “Company”; ASX:EAR) is pleased to announce an initial Resource Estimate for the Julius Gold Deposit located in the Yandal greenstone belt of the North Eastern Goldfields of Western Australia.

The resource estimate was completed by Steve Hyland of Hyland Geological and Mining Consultants (HGMC) based on drilling completed at Julius comprising 225 reverse circulation holes for 27,203 metres, 32 aircore holes for 1,529 metres and 6 diamond holes for 1,260 metres. Nominal drill spacing over the deposit is approximately 20m x 20m with wider spacing to the north and at depth of the deposit.

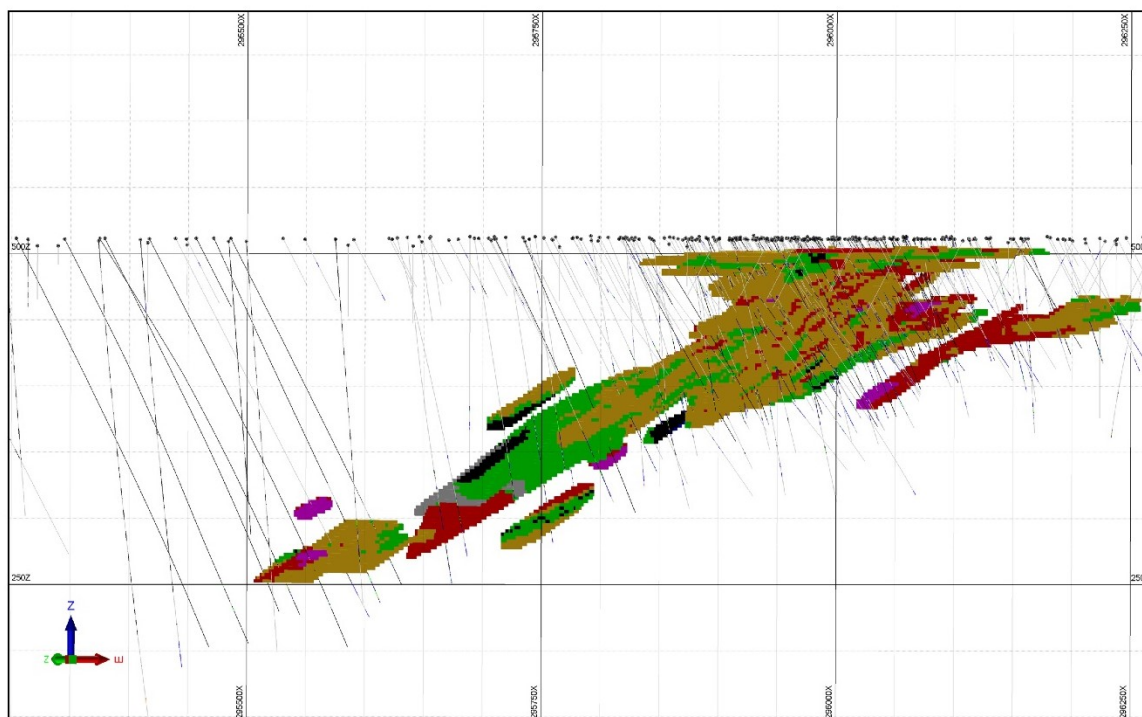
There are a large number of significant gold intersections at depth and along strike which are not fully closed off hence the potential to grow the Julius resource with further drilling is apparent. The resource estimate is summarised below at a zero cut off and a 1.0 g/t Au cut off.

JORC Category	Deposit	Cut-off Au(g/t)	Tonnes	Au g/t	Ounces
Indicated	Julius	0.0	2,060,000	2.04	135,110
Inferred	Julius	0.0	2,100,000	1.35	91,147
Total Resource	Julius	0.0	4,160,000	1.69	226,257

Table One: Julius Resource Estimate, Global Tonnes and Grade

JORC Category	Deposit	Cut-off Au(g/t)	Tonnes	Au g/t	Ounces
Indicated	Julius	1.0	1,690,000	2.31	125,513
Inferred	Julius	1.0	1,260,000	1.78	72,108
Total Resource	Julius	1.0	2,950,000	2.08	197,621

Table Two: Julius Resource Estimate, 1.0 g/t Au Cut Off



Orthogonal View, Looking North

Julius Mineral Resources

Geology and Geological Interpretation

The Julius gold deposit is hosted on the contact of a shallow west dipping granite contact and predominantly ultramafic rocks within the Yandal Greenstone Belt. Gold mineralisation is developed in an upper flat lying laterite deposit located between 10-16 metres vertical depth and in supergene and fresh mineralisation in a west shallow dipping shear zone. The mineralisation trends NNE over a strike length of approximately 900 metres and dips shallowly at 25-30 degrees to the west. A number of high grade intersections at depth suggest excellent depth potential.

Sampling and Sub-sampling

The Julius deposit was sampled using reverse circulation (RC), aircore (AC) and diamond drill holes (DD) on a nominal 20m by 20m initial grid spacing to a maximum depth of 250 metres. A total of 225 reverse circulation holes for 27,203 metres, 32 aircore holes for 1,529 metres and 6 diamond holes for 1,260 metres have been drilled at Julius. For the majority of the RC drilling, 1m RC samples were obtained by cone splitter and were utilised for lithology logging and assaying. Diamond core was used to confirm the structures and interpretation. All drilling samples were dried, crushed and pulverised to achieve 85% passing 75µm.

Sample Analysis Method

The drilling samples were predominantly fire assayed using a 50g charge with some fire assay using a 40g charge at commercial laboratories. For historical drilling the samples were dried, crushed and pulverised to achieve 80% passing 75µm and were predominantly fire assayed using a 50g charge, with the 4m field composites assayed via aqua regia on 50g pulps using an AAS finish.

Drilling Techniques

In the resource area RC drilling with a 5 ¼ inch face sampling hammer was used for the vast majority of the drilling. The aircore was an 89mm diameter AC blade bit. Diamond drilling (comprising HQ) was used.

Estimation Methodology

The uniform block size in the Julius block model were set at 4.0m east x 5.0m north x 2.5m RL. No sub-blocks were used however a percentage (up to 100%) block proportion was used to correctly account for block volume as coded from wireframes. In total 120 block model benches were used to cover the elevation range of 220m to 520m RL containing observed gold mineralisation. The natural topographic surface is relatively flat at the Julius deposit area with surface elevation at approximately 510m-512m RL. Sample data utilized for modelling was first composited according to the main AU1 (Au g/t) item to a 1m down-hole length.

A nominal 0.50g Au/t cut-off was then used to interpret and delineate the mineralization wireframes. Drill hole composite sample data was flagged using validated 3D mineralisation domain wireframes and geological surfaces. A single search ellipsoid was used to interpolate each block.

MineSight® software was used to carry out ordinary kriging interpolation runs for each respective mineralisation zone and AREA domain. The resulting interpolated item – AUKR1 (Au g/t) was used to tabulate the reportable resource base for Julius according to a range of additional modifying factors incorporated into a RCAT resource classification code.

The influence of extreme grade values were examined utilising top cutting analysis tools (grade histograms, log probably plots and coefficients of variation). Grade continuity was measured using geostatistical techniques. Down-Hole and Directional variograms were modelled using traditional and normal score transformation semivariograms.

Oxidation surfaces approximating base of oxide and top of fresh were interpreted and assigned into the model to assign in situ bulk density (ISBD) volume to tonnage conversions and utilised an ISBD of 2.2 tonnes/cubic metre for the oxide, 2.4 tonnes/cubic metre for the transitional zone and 2.8 tonnes/cubic metre for the fresh (sulphide) zone. Further work to define these variables will be completed during the next drilling program at Julius.

Resource Classification

The resource model uses a classification scheme based upon both block estimation parameters and other relevant modifying factors as determined by the Competent Person. The block estimation parameters initially used for classification guidance included Kriging Variance, number of composites in search ellipsoid informing the block cell and composite distance to block centroid.

These inputs were used to derive relative confidence levels or 'quality of estimate index' (QLTY item) within the block model) which has a range of 1 to 3, where QLTY=1, 2 or 3 represents high, medium or low confidence respectively. The QLTY item values were condensed and smoothed in conjunction with a range of other modifying factor considerations as identified by the Competent Person including the geological understanding of the Julius mineralisation zone geometries and the material types present. The ultimately derived a (RCAT) code was then used to guide resource reporting according to the guidelines for the JORC Code (2012 Edition).

Cut-off Grade

The cut-off grade of 0.5g/t for the stated Mineral Resource Estimate is determined from economic parameters and reflects the current and anticipated mining practices. The model is considered valid for reporting and open pit mine planning at a range of lower cut-off grades up to a lower cut-off grade of 1.0g/t Au.



Mining and Metallurgical Methods and Parameters and other modifying factors considered to date

The Mineral Resources utilise standardised operating parameters and assumes open cut mining practices with a moderate level of mining selectivity achieved during mining. It is also assumed that high quality grade control will be applied to ore/waste delineation processes.

The preliminary metallurgical characteristics of the deposit have been assessed via Leach Well testing of a variety of ore types and test work completed on a large oxide composite sample. Results to date have all been favourable with the main conclusions from the testwork as follows:

- Approximately 33.2 % of the total gold content was recovered via gravity separation and mercury amalgamation.
- A very high total gold recovery of 98.6%.
- The gold extraction was very fast with 95.4% of the gold recovered by gravity separation followed by only 2 hours of cyanide leaching.
- The concentrations of elements such as arsenic, mercury, cadmium, antimony, lead and organic carbon are below levels that might be expected to cause problems.

Additional metallurgical samples will be collected from the current drilling to confirm and further define expected metallurgical characteristics of the gold mineralisation at Julius.

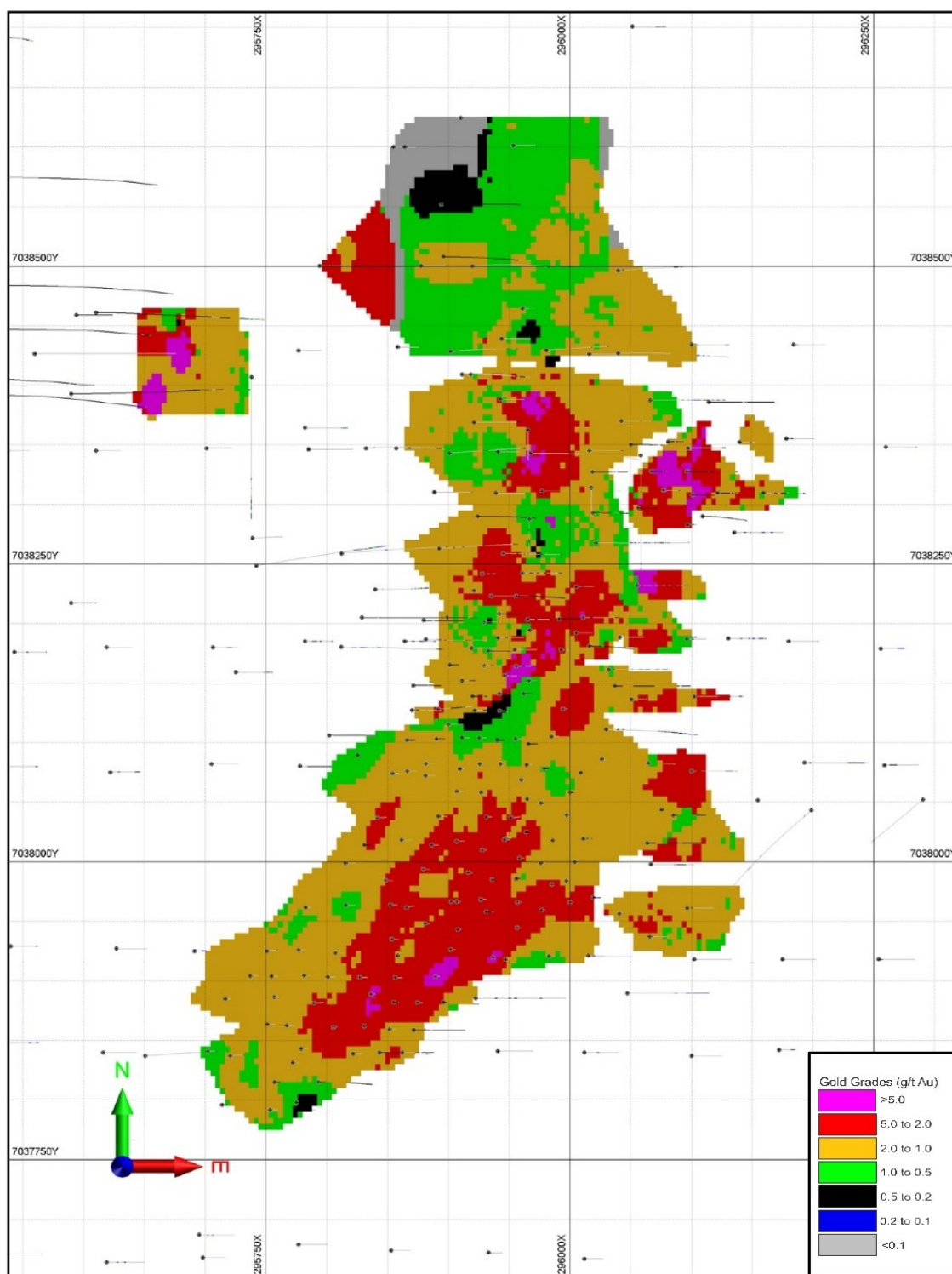
Future Work

An infill aircore drilling program at Julius has commenced comprising approximately 70 holes for 4,000 metres drilled to further define the gold mineralisation in the top 50-60 metres of the resource. It is noted that based on a subset of the block model resource lying within 80 metres of the surface a total resource 1.95mt @ 2.23 g/t Au is present. This would be an initial estimate of the material lying within an obvious open pit and the distribution of the gold in the flat extensive laterite resource situated between 10-16 metres vertical depth coupled to the high grade supergene gold blanket located between 30-50 metres vertical depth suggests a favourable economic scenario. The aircore drilling program is designed to increase the confidence level in the shallower mineralisation.

It is envisaged that on receipt of the results of the new drilling and integration with the database, an updated resource model will be generated. In addition, a reverse circulation drilling program to expand and further define the resource will follow when results of the current program are processed.

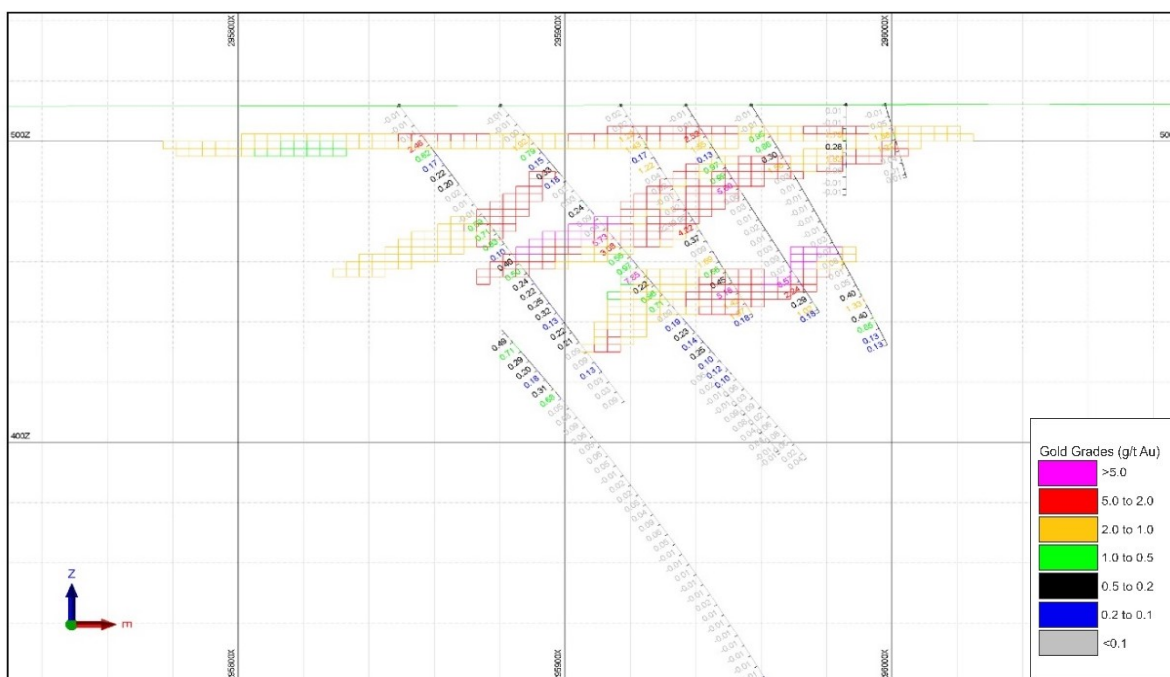
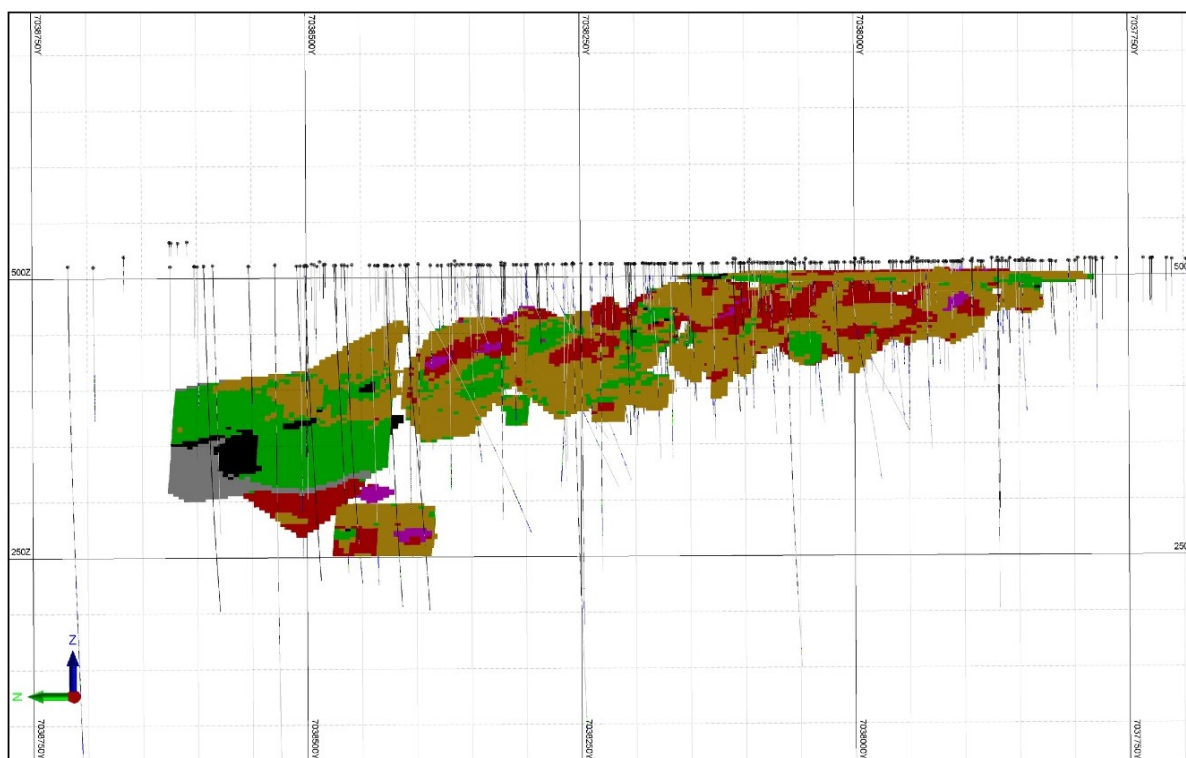
A number of plans and sections are presented below illustrating pertinent aspects of the block model.

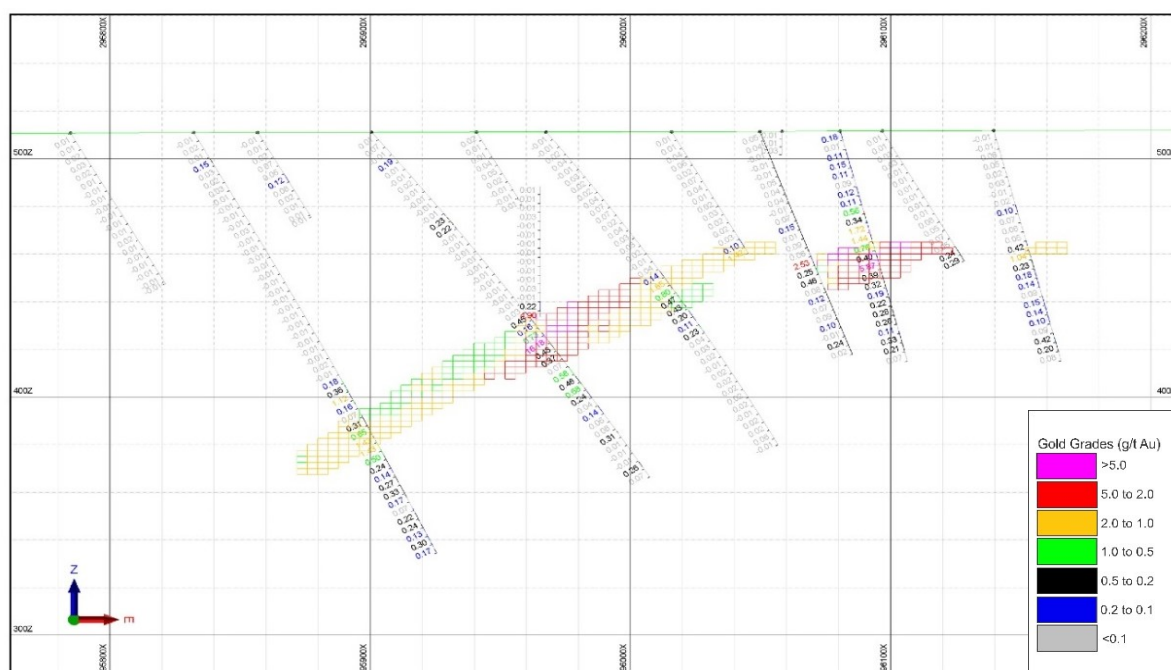




OBM Plan Display







Cross Section: 7038345 N

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Competent Persons' Declarations

The information in this report relating to Resource Estimation is based on information compiled by Mr Steve Hyland, a consultant of Echo Resources Limited, who is a member of the Australasian Institute of Mining and Metallurgy. The information in this announcement that relates to Exploration Results and metallurgical considerations is based on information compiled by Simon Coxhell, a Director of Echo Resources and a member of the Australasian Institute of Mining and Metallurgy. Both have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are undertaking 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 Hyland and Mr Coxhell consents to the inclusion in the report of the matters based on the information in the form and context in which it appears



JORC Code, 2012 Edition

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 (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Drilling at Julius has comprised a total of 225 RC holes for 27,203 metres, 32 aircore holes for 1,529 meters and 6 diamond holes for 1,262 metres. The majority of the drilling at Julius was carried out with a Reverse Circulation (RC) drill rig which was used to collect 1m, cone-split samples of pulverized rock material (typically 1kg–4kg in weight) for geochemical analysis. <p>At the laboratory, the samples were dried in kilns and then pulverized. A 25-30g charge of the pulverized material was prepared for gold fire assay analysis with AAS finish (0.01ppm Au detection limit). Given the nature of the mineralization being drilled, coarse gold may be present in some samples which may result in assay variability.</p>
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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"> Nominal RC size was 5¼ inch face sampling hammer, Aircore is 4 inch and the diamond drilling was a combination of NQ and HQ core.
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"> The contractor and onsite geologist monitored recoveries, via visual examination of sample returns. In general recoveries are good and there are no significant sample recovery problems. Some wet samples were noted during the drilling. Insufficient testwork has been completed to determine any relationship between sample recovery and grade. It is unclear if there is any potential sample bias, however diamond drilling has returned similar gold values over similar widths compared to the RC drilling.
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 	<ul style="list-style-type: none"> Logging is conducted on all drill holes. Information on lithology, mineralisation and oxidation state is collected and transferred to an electronic database. The data is believed to be of an appropriate level of detail to support resource estimation.



Criteria	JORC Code explanation	Commentary
	<p><i>quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Logging is qualitative. All intervals have been logged.
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 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. 	<ul style="list-style-type: none"> Core was cut with quarter core samples collected All non-core was either riffle spilt or cone split. During the RC and aircore drilling a subsample from each sample metre was collected comprising approximately 10-12 % of the total sample. A number of field duplicates have been collected and the company is currently awaiting provision of this important QA/QC data. Preliminary examination of available suggests no significant problems. The sample size is considered appropriate to the grain size sampled, but additional work is required to confirm.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> The sample preparation for all samples follows industry best practice and was undertaken by Nagrom Perth, where they were crushed, dried and pulverised to produce a sub sample for analysis. Sample preparation involving oven drying, coarse crushing, followed by total pulverisation LM2 grinding mills to a grind size of 85% passing 75 microns. Internal lab controls and results OK, waiting on the provision of QA/QC data from previous management.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Company's Geologist has visually verified anomalous intersections with rock chips collected. No Twin holes drilled. Primary data was collected using a set of company standard Excel templates and re-entered into laptop computers. No adjustments to assay data.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All holes DGPS collar survey, downhole surveys of all RC and diamond holes at nominal 30 metre intervals. Grid System is AGD 84. Topographic control based on DGPS drill hole pick up.

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<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"> • Drilling is conducted on a hole by hole basis in areas of outcrop, geochemical anomalism or geophysical targets. A nominal grid spacing of 20-40 metres along sections lines 20 metres apart. • Data spacing is considered sufficient for geological and grade continuity. • No sample compositing unless noted.
<i>Orientation of data in relation to geological structure</i>	<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 orientation of the drilling/sampling is considered normal to the overall trend of the gold mineralisation which follows a contact zone between mafic/ultramafic rock and granite contact.
<i>Sample security</i>	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Samples are transported by the company to the laboratory.
<i>Audits or reviews</i>	<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 reviews or audits carried out.



Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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 licence to operate in the area. 	<ul style="list-style-type: none"> The Julius Gold Deposit is located within E53/1042, which is 100% owned by Echo Resources Ltd. The tenement is located in the Wiluna Native Title Claim Group (WC99/24). Newmont Yandal Operations has the right to buy back a 60% interest in any gold discovery containing aggregate Inferred Mineral Resources of at least 2 million ounces of gold. A net smelter royalty of 1.5% applies in respect of all minerals produced from the tenement.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Newmont initially discovered the deposit via RAB drilling techniques. Echo followed up with RC drilling which revealed the extent of the deposit.
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The gold mineralisation at Julius is structurally controlled and localised along a mafic/granite contact. A gold rich laterite sits underneath 10-12 metres of barren silts and sands, a strong weathering profile has resulted in a substantial supergene weathered high grade laterally continuous zone underlain by gold in the fresh bedrock.
<i>Drill hole Information</i>	<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"> All Intercepts that form the basis of this announcement have been previously released to the market. Appropriate maps and plans relevant to this release also accompany this announcement.
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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 	<ul style="list-style-type: none"> All exploration results previously released were a combination of either 4 metre composite samples, or the one metre re-splits. All previous reporting used a nominal 1.0 g/t Au cut off to delineate significant intersections.



Criteria	JORC Code explanation	Commentary
	<p><i>shown in detail.</i></p> <ul style="list-style-type: none"> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> The previous exploration results which were released to the market are thought to have been an accurate representation of true thickness.
<i>Diagrams</i>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Appropriate plans and sections have been included either in this announcement or in previous releases made.
<i>Balanced reporting</i>	<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 results previously reported.
<i>Other substantive exploration data</i>	<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"> Metallurgical test work completed has illustrated a free milling ore with high gravity recoveries (35%) and fast kinetics. Groundwater is known in the area and further work to quantify is required. The down plunge component of the gold mineralisation is unclear however a number of significant high grade intersections at depth suggest clear underground potential.
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg 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"> Further infill aircore and RC drilling is planned to confirm and expand the known gold resource. Additional metallurgical test work to confirm the previous excellent results is planned. The deposit is open along strike and down dip and further drilling is likely to expand the current known gold resource.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> 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. Data validation procedures used. 	<ul style="list-style-type: none"> Data was provided as a validated Micromine Database and was digitally imported into Minesight® software. Validation routines were run to confirm validity of all data. Analytical results have all been electronically merged to avoid any transcription errors.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> No site visit has been undertaken by the Competent Person, as little relevant information is available on site and the Competent Person is familiar with the type of gold deposit under consideration, having previously worked for Eagle Mining exploring and developing gold resources in the Yandal Greenstone belt. Drilling techniques and methods have however been reviewed.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> The confidence in the geological interpretation is reasonable, structural offsets are apparent and infill drilling should allow a more detailed interpretation. Geological logging and interpretation allows extrapolation of drill intersections between adjacent sections. Alternative interpretations would result in similar tonnage and grade estimation techniques. Geological boundaries are determined by the spatial locations of the various mineralised structures. Flat lying laterite gold mineralisation confined to individual wireframes, supergene and fresh material individually assessed. Oxidation profiles established and assigned into the model.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The lateral dimensions of the resources at Julius are shown in the diagram in the body of this release. The mineralisation dips shallowly (maximum 30-45°) but variably to the west as shown in diagrams in the body of this release, and ranges from 6m to 30m thick. A shallow plunge to the northwest is suggested based on drilling to date. The resource extends over approximately 850 metres of strike and extends to a vertical depth of 220 metres.
Estimation and modelling techniques	<ul style="list-style-type: none"> 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes 	<ul style="list-style-type: none"> Grade estimation using Ordinary Kriging methodology has been applied to all Resources. A series of wireframes has been used to subset and constrain the data points used in the interpolation and only individual grades from individual wireframes were used. The block models were constructed using a 4m (E) by 5m (N) by 2.5m (Z) block size, constrained by a series of individual wireframes. Geological interpretation of consistent, generally shallow-dipping mineralised structures with 1-12m true thickness. No deleterious elements have been identified. No assumptions regarding recovery of byproducts has been made. Block sizes of 4m (E) and 5m (N) and 2.5m (Z) has been



Criteria	JORC Code explanation	Commentary
	<p><i>appropriate account of such data.</i></p> <ul style="list-style-type: none"> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <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> 	<p>adopted.</p> <ul style="list-style-type: none"> A search ellipse parallel to the dominant shallow westerly dip and extending to double the section spacing has been used. Different search ellipsoids were used to estimate each block during interpolation process according designated mineralization orientation AREA domain. Sample data utilised was first composited according to the main AU1 (Au g/t) item to a 1m down-hole composite length. Any un-interpolated blocks not within range of composites as per the search ellipsoid designation were left 'as is' and not used for resource estimation. The geological interpretation follows a shallow dipping contact zone between a granite to the east and an ultramafic/mafic to the west. Strong shearing accompanies the contact and gold mineralisation. Gold grades were not cut, but the high grades, were restricted in their spacial extent by the kriging used for the interpolation. Composites distribution statistics from Log Probability plots using the 1.0m composites contained within the ZON1=1&2 domains were examined at approximately the 98th or 99th percentile level. The associated distance of restriction of the outlier composites above the 98th percentile is set according to an appropriate multiple of local hole variogram ranges for the Julius deposit. The distance of restriction typically applied was 20m or approximately 25% of the average section spacing. Visual validation comparing block grades with drill hole assay values via cross sections, plans and long sections was completed.
Moisture	<ul style="list-style-type: none"> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> Tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> A nominal downhole cut-off of 0.5 g/t Au has been used to establish the target mineralised zones. The basis of the 0.5 g/t Au cutoff is an economic analysis coupled to dilutionary mining considerations. The cut-off corresponds reasonably well with the mineralised shear zone contact zone between the mafic and granite contact.
Mining factors or assumptions	<ul style="list-style-type: none"> <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</i> 	<ul style="list-style-type: none"> The resources defined to date would potentially be amenable to simple open pit mining. The shallow dip of the mineralisation, coupled to the extensive near surface laterite mineralisation lends itself to open pit mining with a relatively low stripping ratio.

Criteria	JORC Code explanation	Commentary
	<i>should be reported with an explanation of the basis of the mining assumptions made.</i>	
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> Preliminary metallurgical testwork has suggested excellent gold recoveries, via conventional CIP/CIL gold treatment. Test work to date has shown that the gold mineralisation is amenable to conventional recoveries via gravity and leaching with approximately 33.2% of the total gold content recovered via gravity separation and mercury amalgamation. A very high total gold recovery of 98.6%. The gold extraction was very fast with 95.4% of the gold recovered by gravity separation followed by only 2 hours of cyanide leaching.
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <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 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> 	<ul style="list-style-type: none"> Environmental studies are planned to commence in the near future. The general Yandal area is well known for gold mining and no environmental impediments are expected.
<i>Bulk density</i>	<ul style="list-style-type: none"> <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> <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> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> Bulk density/specific gravity have been assumed, based on the construction of oxidation boundaries, AN ISBD of 2.20 t/bcm has been used for the oxide, 2.4t/bcm for the transitional material and 2.8t/bcm for the fresh/sulphide mineralisation. Additional bulk density investigation is planned.
<i>Classification</i>	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying</i> 	<ul style="list-style-type: none"> The Mineral Resources have been classified as Indicated and Inferred based on the drill spacings and geological



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	<p><i>confidence categories.</i></p> <ul style="list-style-type: none"> • <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> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<p>continuity at the various deposits.</p> <ul style="list-style-type: none"> • The Resource model uses a classification scheme based upon block estimation parameters including Kriging Variance, Number of composites in search ellipsoid informing the block cell and composite distance to block centroid. These inputs were used to derive relative confidence levels or 'quality of estimate index' (QLTY item) within the block model) which has a range of 1 to 3, where QLTY=1, 2 or 3 represents high, medium or low confidence respectively • The results of the Mineral resource Estimation reflect the views of the Competent Person.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • Echo Resources personnel have reviewed the block model relative to the drilling data and considers the estimate to be an accurate reflection of the gold mineralisation at Julius.
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> • <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> • <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> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> • The relative accuracy of the Mineral Resource is reflected in the reporting of the Mineral Resource as being in line with the guidelines of the 2012 JORC. • The statement relates to global estimates of tonnes and grade, with reference made to resources above a certain cut-off that are intended to assist mining studies. • No production data is available for comparisons.