

30 October 2017

The Company Announcements Office Australian Securities Exchange Limited

# QUARTERLY ACTIVITIES REPORT TO 30 September 2017 HIGHLIGHTS

- Aphrodite Gold Ltd & Spitfire Materials Ltd (ASX: SPI) signed a Merger Implementation Agreement (MIA) to merge the companies by way of a scheme of arrangement
- The Aphrodite Gold Ltd and Poseidon Nickel Ltd MOU and due diligence deadline has been extended following MIA with Spitfire
- Aphrodite AGM for Wednesday 29<sup>th</sup> November 2017 to be held in Melbourne.

Aphrodite Gold Limited ("Aphrodite" or the "Company") presents its quarterly activity statement for the period ended 30 September 2017.

Following the release of the company's Pre-Feasibility Study in June 2017 the Board and Management are pleased to announce they have signed a Merger Implementation Agreement (MIA) with Spitfire Materials Ltd (ASX: SPI). The announcement was released to the ASX on 4<sup>th</sup> September 2017.

The merger is to be implemented by way of a scheme of arrangements whereby Spitfire has agreed to acquire all of the issued capital of Aphrodite that it does not already hold. Spitfire currently holds a 10.38% stake in Aphrodite. Pursuant to the MIA, AQQ shareholders (other than SPI) will receive 1 new SPI share for every 2.8959 AQQ shares held.

The merger will create a leading gold exploration and development company with a diversified asset base spread including a highly prospective Greenfields exploration project at the Alice River Project in QLD, an emerging gold discovery at the Mulwarrie Project in WA, and a resource level, near-term development opportunity at the Aphrodite Gold Project near Kalgoorlie in WA.



The Scheme Booklet relating to the merger will be issued to shareholders by mid-November.

A timetable for the merger is outlined in Table 1

**Table 1 Merger timetable** 

Event	Date
Lodge draft Scheme Booklet with ASIC and deliver to ASX	17 October 2017
Application to Federal Court in respect of the Scheme	23 October 2017
First Court Hearing	10 November 2017
Printing and despatch of Scheme Booklet	13 to 15 November 2017
Scheme Meeting held	18 December 2017
Second Court Hearing	20 December 2017
Lodge Court order with ASIC (Effective Date)	20 December 2017
Record Date	22 December 2017
Implementation Date	3 January 2018

## **Memorandum of Understanding- Poseidon Nickel**

In July 2017 Aphrodite entered into a Memorandum of Understanding (MOU) with Poseidon Nickel (refer to ASX Announcement 10<sup>th</sup> July 2017) to evaluate the processing of AQQ's gold mineral resources at POS's Black Swan Processing Facility (BSPF) in Western Australia's Eastern Goldfields.

Under the terms of the MOU, the Parties had 60 days in which to conduct due diligence and evaluation. Following the signed MIA with SPI, Aphrodite and POS announced (refer to ASX Announcement 4 September 2017) they plan to extend their due diligence period until both parties conclude detailed assessment.

## Impairment Review of the Company's exploration and evaluation assets

On 10 October 2017 the Company announced that it had received the technical valuation which is part of the Independent Expert's Report in relation to the Company's proposed Merger.



The technical valuation for the Company's exploration and evaluation assets (comprising the Aphrodite Gold Project) gave a valuation range of \$8.8 million to \$17.0 million with a preferred value of \$12.5 million.

In light of the above information, the Company commenced an impairment review in relation to the carrying value of the Company's exploration and evaluation assets in the Company's accounts as at 30 June 2017 of \$27.77 million. The Company expects that those assets will be written down by an amount of between \$10.8 million (assuming the impaired value of those assets is at the high end of the technical valuation) and \$19 million (assuming the impaired value of those assets is at the low end of the technical valuation) in the Company's accounts.

The full amount of the impairment (once finalised) will be expensed in the Company's profit and loss statement. As the impact of the impairment will be a non-cash item, it will not have any impact on cash flow or the Company's existing operations. Nor will it have any impact on the amount of the consideration the Company's shareholders will receive under the proposed Merger.

#### **Annual General Meeting**

The company has set the date for its Annual General Meeting to be held in Melbourne on Wednesday 29<sup>th</sup> November. Additional details of the meeting will be issued to shareholders in due course.

## **Tenement Schedule**

The Company held the following mining tenements as at 30 September 2017.

Status	Tenement	Annual Expenditure	Anniversary Date
Granted	M24/720	\$99,600	20/08/2028
Granted	M24/779	\$94,400	20/08/2028
Granted	M24/649	\$18,100	9/08/2030
Granted	M24/681	\$44,700	9/08/2030
Granted	M24/662	\$36,400	27/06/2028
Granted	E24/186	\$30,000	13/02/2019
Granted	P24/5014	\$5,680	6/07/2020
Granted	P24/5015	\$2,000	6/07/2020
Granted	L24/204	N/A	14/04/2035
Granted	L29/114	N/A	16/04/2035
Granted	L29/115	N/A	14/04/2035
Pending	L24/225	N/A	
Pending	L24/226	N/A	
Pending	L24/227	N/A	



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Yours sincerely

Michael Beer

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**Company Secretary** 

The information in the report to which this statement is attached that relates to open pit possible operations, Scoping Studies, Resource estimates is based on information compiled by Mr Eduard Eshuys, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Eduard Eshuys 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 Eshuys consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



#### **APPENDIX 1- RESOURCE ESTIMATE**

This Resource Estimate was first released to the ASX on 27 June 2017 and formed the basis of the companys Pre-Feasibility Study and has not been amended since.

Table 1: Mineral Resource Estimate by McDonald Speijers

Indicated		Inferred		Indicated + Inferred					
	Tonnes Gold		Tonnes	G	old	Tonnes	G	old	
Domain	(Mt)	(g/t)	(koz)	(Mt)	(g/t)	(koz)	(Mt)	(g/t)	(koz)
OP (0.5g/t cut-off)	6.21	2.1	411	3.96	1.5	188	10.17	1.8	599
UG (3.0g/t cut- off)	1.56	6.6	330	1.38	7.5	333	2.94	7	663
TOTAL	7.77	3.0	741	5.34	3.0	520	13.10	3.0	1.26M

## **Notes**

- 1. All resource estimates are diluted
- 2. Resources estimated by Recovered Fraction Model- a proprietary method by McDonald Speijers.

The information in the report to which this statement is attached that relates to Resource estimates is based on information compiled by Mr Diederik Speijers, Director of McDonald Speijers Consultants, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Diederik Speijers 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 Speijers consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

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## **APPENDIX 2- LOCATION MAPS**

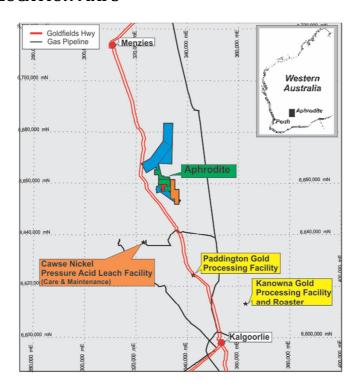


Figure 1- Aphrodite Regional Location Map

The Aphrodite deposit consists of 5 granted Mining Leases, 1 Exploration Licence E24/186, 2 Prospecting Licences, 3 granted and 3 pending Miscellaneous Licences which have been issued for water exploration (see Figure 2)



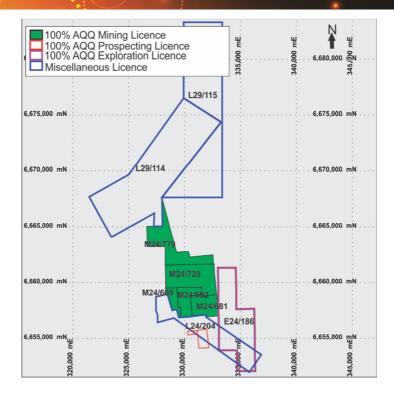


Figure 2- Aphrodite Tenement Map

# **JORC Code**, 2012 Edition – Table 1 report - Aphrodite

**Section 1 Sampling Techniques and Data** (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</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 (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.</li> </ul>	<ul> <li>About 80% reverse circulation chips and 20% half or qtr core.</li> <li>Chips over 1m rotary or riffle split on site to ~3kg and core was sawn on 1m intervals.</li> <li>Continuous sampling below unmineralised overburden layer.</li> <li>Chips crushed to 3mm then 2.5kg pulverized, core crushed and pulverized entirely.</li> <li>Standard 50g fire assay (84%), AR digest on unknown (16%).</li> <li>Large number of drilling programs by several owners over 20 year period.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Reverse circulation (80%) and HQ or NQ core (20%)</li> <li>Aircore and rotary air blast holes excluded from resource estimation.</li> </ul>
Drill sample recovery	<ul> <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> <li>All core measured in tray for recovery.</li> <li>Chip recovery not documented for historic drilling.</li> <li>Generally high core recovery recorded.</li> <li>RC chip recovery in recent drilling recorded by weight but not recorded in most historic drilling (prior to 2010).</li> <li>No observed relationship between recovery and grade.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <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> <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> <li>All core and chip intervals geologically logged.</li> <li>Historic logging retrieved and combined with recent data with some minor gaps in metadata.</li> <li>Logging includes lithologies, alteration, mineralization, colour, oxidation, regolith, moisture, etc.</li> <li>Purpose drilled core holes for metallurgical and geotechnical data collection.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <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> <li>Core was half or quarter sawn depending on program.</li> <li>Chips were rotary or riffle split depending on program but generally in accordance with standard industry methods at the time of the program. Limited wet samples were speared in historic drilling.</li> <li>Duplicate field samples taken from RC chips for most programs. 1 in 20 for recent drilling and well recorded. More variable in historic drilling and details not always well recorded.</li> <li>Duplicate sampling of sawn core in recent drilling.</li> <li>Sample sizes are generally considered adequate within the bounds of what is practical.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Majority of samples prepared and assayed by industry standard techniques for gold deposits using well established laboratory services.</li> <li>Recent checking of fire assays by bulk Leachwell and screen fire methods to guard against the possible presence of coarse free gold grains and to investigate refractory character of mineralization.</li> <li>Blind field duplicates submitted as well as reference standards although documentation not always well preserved in historic programs due to ownership changes.</li> <li>Interlab checks undertaken during recent drilling but mnot recorded in historic programs.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <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> <li>No specific twin hole program has been undertaken but there are numerous opportunistic twin holes that show reasonable correlation given the nature of the mineralization but this must necessarily be a qualitative comparison.</li> </ul>
Location of data points	<ul> <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> <li>Downhole surveys by gyro, mult-ishot or single shot, generally on nominal 30m intervals. One batch of recent RC drilling suffered from instrumental errors on dip measurements.</li> <li>Collars located by standard survey for recent drilling. Details for historic drilling not always well recorded but at least some were documented as location by regular survey.</li> <li>Grid system based on AMG84 Zone 51. Coordinates truncated for modelling purposes.</li> <li>Surface topography wireframe constructed from drill collar elevation data. Topographic relief is very low.</li> <li>Some historic hole collars set at nominal elevations and required minor adjustment to the topo surface. Any errors in this process are considered small and are not critical to the resource estimation.</li> </ul>
Data spacing and distribution	<ul> <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> <li>Data spacing is highly variable, particularly in deeper parts and lateral extremes of the mineralization where it may be sparse.</li> <li>The mineralization is contained within broad structural zones but is not always able to be readily correlated between intersections.</li> <li>The estimation technique has been chosen to deal with this issue and it also reflects in the assigned resource categories.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <li>Broad mineralizing structures are well recognized and sub-vertical to steep dipping. Mineralised sub-structures appear to be mostly parallel to broader zones.</li> <li>Drill holes are generally oriented to be as perpendicular as possible to these structures, that is east or west orientation and inclined at approximately 60 degrees.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Some holes are oriented on north-south sections where an additional mineralised cross structure has been postulated.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples hand delivered to sample preparation facility in Kalgoorlie for recent drilling but the procedure is not documented for historic drilling.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	•

## **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> <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 licence to operate in the area.</li> </ul>	<ul> <li>Aphrodite Gold has 100% ownership of 5 mining leases that cover the project area. All are granted with a nearest expiry year 2028.</li> <li>There are no known environmental or heritage encumbrances in the immediate vicinity of the deposit which might impact on its exploitation.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Project has had many owners over more than 20 years and has been reviewed multiple times. However not many historical documents are currently available.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	Discontinuous shoots of low to moderate tenor gold mineralisation within two broader sub-parallel mineralised structural zones.  Mineralisation is beneath a substantial thickness of leached overburden. Free milling in upper oxidized and partially oxidized

Criteria	JORC Code explanation	Commentary
		zones but mostly refractory in the primary zone.
Drill hole Information	<ul> <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:         <ul> <li>easting and northing of the drill hole collar</li> <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> </ul> </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>	Data volume too great to include in this table. Project is in development stage.
Data aggregatio n methods	<ul> <li>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.</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>	Not applicable. Project is in development stage.
Relationshi p between mineralisati on widths and intercept lengths	<ul> <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 (eg 'down hole length, true width not known').</li> </ul>	Not applicable. Project is in development stage and individual intersections are too numerous to report here. See main report.

Criteria	JORC Code explanation	Commentary
Diagrams	<ul> <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>	See main report
Balanced reporting	<ul> <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>	Not applicable. Project is in development stage.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Not applicable. Project is in development stage.
Further work	<ul> <li>The nature and scale of planned further work (eg 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>	Not applicable. Project is in development stage.

# 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> <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> <li>Various historic databases have been combined with recent drilling data (since 2010) to form a unified database held in a Datashed model database. Some metadata is missing for historic drilling programs.</li> </ul>

Criteria	JORC Code explanation	Commentary
Site visits	<ul> <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> <li>Site has been visited on three occasions by personnel from MS including during drilling operations by current owner.</li> </ul>
Geological interpretati on	<ul> <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> <li>Major structurally controlled envelopes of mineralization can be interpreted with confidence in most cases from relatively wide spaced holes.</li> <li>Shoots within these envelopes are less continuous and not so easily defined but are preferentially developed on hanging and footwalls of envelopes. Multiple interpretations of shoots are possible.</li> <li>This lack of defined shoot continuity affects the assigned resource category.</li> </ul>
Dimensions	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> <li>Resource extends NNW over a strike length of 1700m and includes two separate major mineralised zones of a maximum width of 350m.</li> <li>Depth below surface to top of resource between 35m and 60m.</li> <li>Resource defined to maximum 500m below surface.</li> </ul>
Estimation and modelling techniques	<ul> <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-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	<ul> <li>Block modelling using proprietary Recovered Fraction composites selected as most appropriate for this mineralisation as this determines tonnage at the compositing stage rather than relying on grade smoothing. Yields a block model with an ore fraction and ore grade in each cell for specific assay cut-offs.</li> <li>Interpolation by inverse distance weighting within broadly defined envelopes of mineralisation and using dynamically adjusted search ellipsoid orientation.</li> <li>Domains defined on major structural features hosting mineralisation as well as interpretation of weathering surfaces.</li> <li>Search ellipsoids are anisotropic with radii dependent on sample spacing and use dynamically adjusted orientation guided by a manual interpretation of mineralised trends.</li> <li>Block size 10m (NS) by 5m (EW) by 5m (vert) with subcells to half of these dimensions.</li> <li>Sulphur and arsenic also estimated as these may affect metallurgical</li> </ul>
	<ul> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> </ul>	<ul> <li>Sulphur and arsenic also estimated as these may affect metallurgical performance.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>Minimal top-cutting of gold grades after investigation of statistical and spatial distribution of high grade samples.</li> <li>Estimates validated visually on 40m drill cross sections and in plan.</li> </ul>
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	All estimates based on dry bulk density.
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>Nominal assay cut-off determined by preliminary estimation of current cost and revenue parameters. Different cut-off values for surface and underground extractable mineralisation based on depth from surface of 160m.</li> </ul>
Mining factors or assumption s	<ul> <li>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.</li> </ul>	<ul> <li>Both undiluted (resource) and diluted estimates have been made at a range of cut-offs.</li> <li>Undiluted estimates apply maximum internal waste and minimum width parameters at the compositing stage for intersections at specific assay cut-offs.</li> <li>Diluted estimates additionally include ore loss and waste dilution skins to the edges of all intersections.</li> <li>Allowances for waste and mining skins are based on experience with models of this type.</li> </ul>
Metallurgic al factors or assumption s	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.	<ul> <li>A distinction is made between surface extractable generally free-milling mineralization and underground extractable ore which is partially refractory.</li> <li>Assumptions about metallurgical recovery are based on test work conducted on cores as well as a large suite of Leachwell analyses on sample composites selected to be representative of the surface extractable mineralisation.</li> </ul>
Environme n-tal factors	<ul> <li>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</li> </ul>	<ul> <li>At this time no issues are anticipated with waste and process residue handling that would be outside the regular operating conditions for mines of this type in the Eastern Goldfields.</li> </ul>

Criteria	JORC Code explanation	Commentary
or assumption s	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.	Heritage survey has identified one site of cultural significance some 500m from deposit.
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Dry bulk density estimates have been made for mineralization according to depth below surface and mineralised domain.</li> <li>Estimates are based on historic core measurements and gammagamma logging for underground extractable material and on recent core measurements alone for surface extractable material.</li> <li>Where deemed appropriate, waxing of cores has been undertaken prior to measurement by water displacement.</li> </ul>
Classificati on	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Classification takes account of the relative interpretative uncertainties of this style of mineralization and the methods used for estimation.</li> <li>Drill hole spacing is the most significant factor in classification and account is taken of the data quality in overall determination.</li> <li>Mineralisation is classified as Indicated, Inferred or Null (not resource) based on personal visual assessment by the Competent Person.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>Current resource estimate not reviewed at this stage but several previous estimates and reviews have been made at earlier stages in the project's history including by Goldfields, Coffey and TetraTech.</li> </ul>
Discussion of relative accuracy/	<ul> <li>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</li> </ul>	<ul> <li>The proprietary Recovered Fraction method was selected for estimation because of the difficulty of reliably interpreting and correlating assay-defined shoots within the identified mineralised structural zones. This technique preserves tonnage-grade</li> </ul>

Criteria	JORC Code explanation	Commentary
confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>relationships in regions of variable drill data spacing whereas conventional assay smoothing techniques do not.</li> <li>The estimates tend towards being global rather than local in that ore tonnage may be spread over an aggregation of cells. This contrasts with conventional grade smoothing methods which assume that a single cell contains 100% ore or waste based on a post-applied cutoff grade filter.</li> <li>Global estimates using the RF method are relatively immune to changes in data density and are insensitive to different smoothing algorithms.</li> <li>The deposit is undeveloped and thus no production data is available.</li> </ul>

**Section 4 Estimation and Reporting of Ore Reserves** (Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Site visits	<ul> <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>	Not applicable at this time, as no mineral reserve has been estimated or reported.

Criteria	JORC Code explanation	Commentary
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore</li> <li>Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	Not applicable at this time, as no mineral reserve has been estimated or reported.
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Not applicable at this time, as no mineral reserve has been estimated or reported.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Not applicable at this time, as no mineral reserve has been estimated or reported.
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.

Criteria	JORC Code explanation	Commentary
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Not applicable at this time, as no mineral reserve has been estimated or reported.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.

Criteria	JORC Code explanation	Commentary
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	Not applicable at this time, as no mineral reserve has been estimated or reported.
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>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.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	Not applicable at this time, as no mineral reserve has been estimated or reported.