

18 October 2016

The Company Announcements Office Australian Securities Exchange Limited

### **Exploration and Resource Drilling Update**

### **Key Points**

- Resource infill drill hole APD1326 intersected 49.7m @ 2.0g/t gold from 54m within the transition zone
- Metallurgical drill hole APDM0002 intersected 21m @ 2.2g/t gold from 76m also within the transition zone
- Exploration drill hole APRD1325, located 300m north of the Aphrodite resource, intersected 23m @ 1.3g/t gold from 329m, and is suggesting that mineralisation is increasing in thickness with depth
- Strategic drill hole intersections within the February 2016 Entech optimised open pit outline are either greater than or in line with the modelled resource grade of 1.6g/t gold.
- Total metres of drilling completed to date 3234.9m

Aphrodite Gold Limited ("Aphrodite" or "the company") wishes to provide a further update to their Pre-feasibility drill program. The board and management are greatly encouraged by the results to date. The drilling program continues to achieve core recovery > 95% thus providing reliable samples for assay and metallurgical testwork with particular emphasis on the oxide and transition zones of mineralisation. Previous metallurgical testwork indicated that acceptable metallurgical recoveries could be achieved by conventional CIL/CIP processing of the oxide/transition zone mineralisation.



### **Exploration Drilling**

Exploration drill hole APRD1325 intersected **23m @ 1.3g/t gold from 329m** confirming the results from SCRC387D drilled in 1999, extending the mineralisation at depth by 30 metres and suggesting that the mineralisation is increasing in thickness with depth.(Figure 1)

The above intersection included higher grade zones of 5m @ 3.6g/t gold from 329 and 2m @4.5 g/t gold from 413m.

The sulphide associated gold mineralisation is hosted by highly altered Black Flag Group sediments at the contact with the mafic volcanic to the west. The alteration zone within the Black Flag group extends for 300m above the contact.

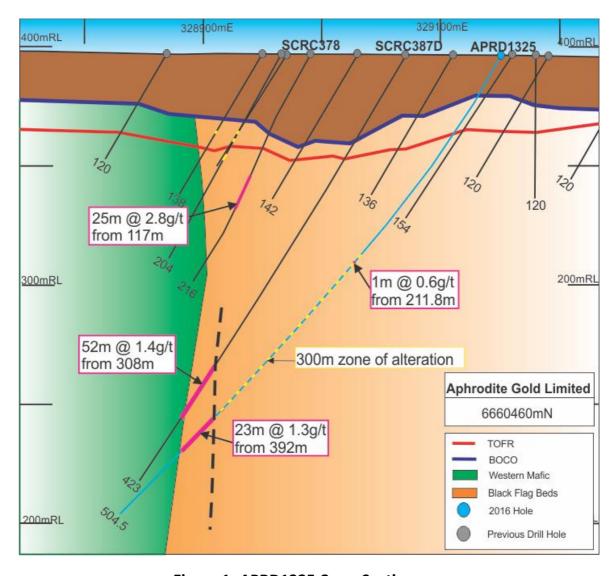


Figure 1- APRD1325 Cross Section



### **Resource Drilling**

The focus of the resource drilling is on the oxide and transition zones within the modelled resource and February 2016 Entech optimised open pit. Some drill holes are extending into the gold bearing primary sulphide mineralisation to provide confirmation of earlier reverse circulation drilling results.

Significant transition zone mineralisation was intersected in APD1326 of 49.7m @ 2.2 g/t gold from 54m including 10m @ 4.2 g/t gold from 61m and 5.2m @ 6.6 g/t gold from 98.5m. See figure 2.

The exploration, resource infill and metallurgical drill hole intersections received to date are summarised in table 1.

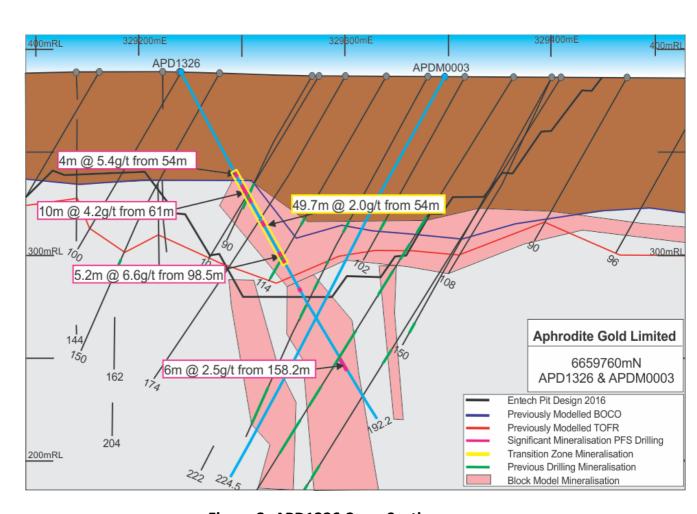


Figure 2- APD1326 Cross Section



### **Metallurgical Drilling**

Three metallurgical drill holes have been completed to date and intersected the oxide/transition and primary sulphide mineralisation zones as expected. The results for APDM0001 and APDM0002 are shown in Table 1.

Drill hole APDM0002, intersected within the transition zone 21m @ 2.2g/t gold from 76m including 2m from 4.9 g/t gold from 76m and 6.3m @ 5.1 g/t gold from 85.7m. See figure 3.

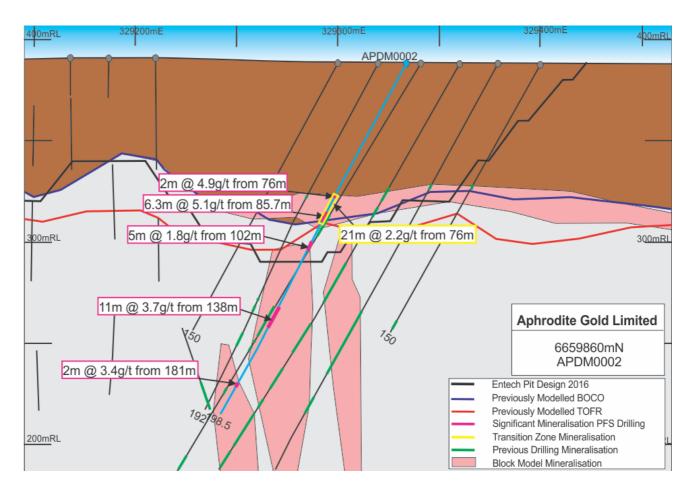


Figure 3- APDM0002 Cross section



**Table 1- Significant Results to date** 

Hole	Hole Type	Easting	Northing	Dip	Mag. Azimuth	Inclined Depth (m)	From (m)	To (m)	Length (m)	Gold g/t	Domain
							<i>75</i>	91	16	0.81	Т
							incl 75	77	2	2.34	Т
APD1324	Bookerso	220400	6659920	60	90	242.4	incl 87	91	4	1.46	T
APD1324	Resource	329190	0039920	-60	90	213.4	153	160	7	1.44	P
							169	203	34	4.12	P
							incl 169	191	22	5.03	P
							54	103.7	49.7	2.04	Т
						incl 54	55	1	9.07	T	
							incl 57	58	1	12.10	T
							incl 61	71	10	4.22	Т
							incl 66	70.6	4.6	7.72	T
			6659760		90		incl 82	84	2	0.75	T
APD1326	Resource	329220		-60		192.3	incl 98.5	107.7	9.2	3.72	T
APD 1320	Resource						incl 102.1	103.7	1.6	19.43	T
							109.6	110	0.4	1.85	T
							116.1	117.7	1.6	0.92	Р
							119	120	1	3.03	Р
							121	121.6	0.6	1.00	Р
							135.2	136.1	0.9	3.61	Р
							158.2	164.2	6	2.54	Р
							45	47	2	0.65	0
							211.8	212.8	1	0.66	Р
							377	379	2	2.00	Р
APRD1325	Exploration	329150	6660460	-60	270	504.5	392	415	23	1.30	Р
							incl 392	397	5	3.60	Р
							incl 409	411	2	0.82	Р
							incl 413	415	2	4.51	Р



Hole	Hole Type	Easting	Northing	Dip	Mag. Azimuth	Inclined Depth (m)	From (m)	To (m)	Length (m)	Gold g/t	Domain
							72	86	14	1.19	Т
							incl 72	79	7	1.59	Т
							incl 81	86	5	1.00	Т
APDM0001	Motallurgical	329340	6659900	-60	270	174.4	102	110	8	2.17	Р
APDIVIOUT	Metallurgical	329340	0039900	-60	-60 270	174.4	124	125	1	3.17	Р
							136	139	3	1.92	Р
							142	144	2	3.05	Р
							148	170	22	2.86	Р
							76	97	21	2.20	Т
							incl 76	78	2	4.93	Т
							incl 85.7	92	6.3	5.10	T
							incl 85.7	90	4.3	7.12	Τ
							incl 96	96 97	1	2.99	Т
APDM0002	Metallurgical	329335	6659860	-60	270	198.5	102	107	5	1.82	T/P
APDIVIOU2	Metallurgical	329333	0039000	-60	270	196.5	incl 106	107	1	5.73	Р
							117	119	2	1.95	P
							124	126	2	4.24	Р
							138	149	11	3.70	Р
							156	157	1	0.79	Р
							181	183	2	3.48	Р

<sup>\*</sup> Reported intersections are length weighted average grades with 0.5g/t gold as the cut-off grade.

Yours sincerely

Michael Beer

**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.

<sup>\*</sup> Results were obtained from analysis of 1m samples or part there of depending on mineralisation and lithology boundaries

<sup>\*</sup> Gold analysis was by the Fire Assay 50 gram method with an AAS finish.

<sup>\*</sup> O = Oxide, T = Transitional, P = Primary Mineralisation.



### **APPENDIX 1- LOCATION MAPS**

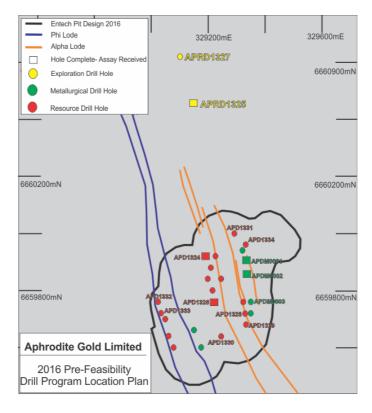


Figure 4- PFS Drill Program Collar Plan

Figure 4 shows the location of the drill holes within the program. To date a total of 3234.9 metres for 14 holes have been completed; 8 resource holes for 1413.7m, 2 Exploration holes for 1047.4m and 4 Metallurgical holes for 773.8m.

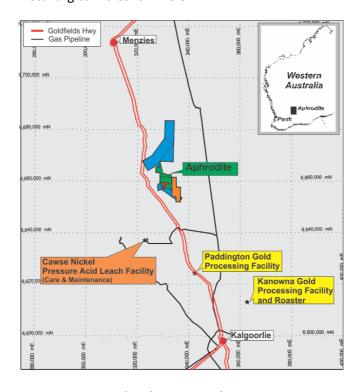


Figure 1- Aphrodite Regional Location Map



The Aphrodite deposit consists of 5 granted Mining Leases, 1 Exploration Licence E24/186, 3 granted Miscellaneous Licences which have been issued for water exploration and an application of a Miscellaneous Licence for haul road construction (see Fig 2)

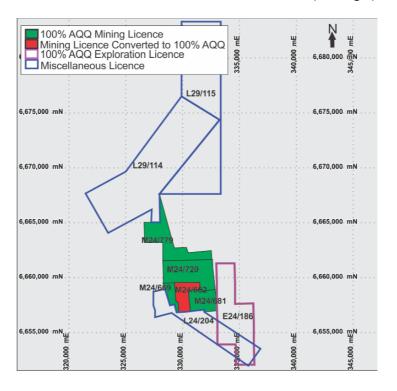


Figure 2- Aphrodite Tenement Map



### **APPENDIX 2 Drill Hole Data**

Hole ID	Drill Purpose	Hole Type	Grid ID	Northing	Easting	RL	Dip	Azi	Depth
APDM0001#	Metallurgical DH	DDH	AMG84_51	6659900	329340	390	-60	270	174.4
APDM0002#	Metallurgical DH	DDH	AMG84_51	6659860	329335	390	-60	270	198.5
APDM0003	Metallurgical DH	DDH	AMG84_51	6659760	329350	390	-60	270	224.5
APD1324	Resource DH	DDH	AMG84_51	6659920	329190	390	-60	90	213.4
APD1326#	Resource DH	DDH	AMG84_51	6659760	329220	388	-60	90	192.3
APD1328	Resource DH	DDH	AMG84_51	6659720	329330	390	-60	270	159.7
APD1329	Resource DH	DDH	AMG84_51	6659680	329333	390	-60	270	162.6
APD1330	Resource DH	DDH	AMG84_51	6659640	329245	390	-60	90	159.8
APD1331	Resource DH	DDH	AMG84_51	6660000	329290	390	-60	270	149.9
APD1332	Resource DH	DDH	AMG84_51	6659760	329025	390	-60	90	141.5
APRD1325#	Exploration DH	RC/DDH	AMG8_51	6660460	329150	390	-60	270	502.5
APRD1327	Exploration DH	RC/DDH	AMG8_51	6660620	329105	390	-60	270	542.9

<sup>#</sup> denotes Assays reviewed in this release



### APPENDIX 2 APHRODITE RESOURCE ESTIMATE

Details of the resource estimate at various open pit and underground cut-off grades are represented in the tables below (Tables 1-3). This resource estimate was first released to the ASX on 12 June 2013 and has not been amended since that date.

Table 1: Mineral Resource Estimates
Potential Open Pit (OP) and Underground (UG) Mineable

	Indicated			Inferred	nferred			Indicated + Inferred		
Cut-off	Tonnes	Gold		Tonnes	Gold		Tonnes	Gold	Gold	
(g/t)	(t)	(g/t)	(oz)	(t)	(g/t)	(oz)	(t)	(g/t)	(oz)	
OP										
0.3	16,780,000	1.07	577,000	15,890,000	0.84	429,000	32,670,000	0.96	1,006,000	
0.5	13,910,000	1.21	542,000	11,520,000	1.00	369,000	25,430,000	1.11	911,000	
0.8	9,280,000	1.49	444,000	5,381,000	1.43	248,000	14,660,000	1.47	692,000	
1.0	6,760,000	1.72	374,000	3,250,000	1.78	186,000	10,010,000	1.74	560,000	
UG										
2.0	6,420,000	3.21	662,000	3,140,000	3.03	306,000	9,560,000	3.15	968,000	
2.5	4,010,000	3.81	490,000	1,810,000	3.63	212,000	5,820,000	3.75	702,000	
3.0	2,480,000	4.47	357,000	830,000	4.79	128,000	3,310,000	4.55	485,000	
3.5	1,650,000	5.10	270,000	560,000	5.53	100,000	2,210,000	5.21	370,000	
4.0	1,160,000	5.68	212,000	420,000	6.15	82,000	1,580,000	5.80	294,000	

Table 2: Resource Summary at cut off of 0.5 g/t gold applied to potential open pit (OP) mineable resources and 3.0 g/t for the underground (UG) mineable resources.

l I		Indicated	ndicated			Inferred			Indicated + Inferred		
Domain	Cutoff	Tonnes	Gold		Tonnes	Gold		Tonnes	Gold		
	(g/t)	(t)	(g/t)	(oz)	(t)	(g/t)	(oz)	(t)	(g/t)	(oz)	
ОР	0.5	13,910,000	1.21	542,000	11,520,000	1.00	369,000	25,430,000	1.11	911,000	
UG (Primary)	3.0	2,480,000	4.47	357,000	830,000	4.79	128,000	3,310,000	4.55	485,000	
TOTAL		16,400,000	1.70	898,000	12,340,000	1.26	498,000	28,740,000	1.52	1,396,000	



# Table 3: Mineral Resource Estimate Potential Open Pit (OP) Mineable Material at 0.5 g/t Cut Off

	Indicated			Inferred	Indicated + I			Inferred	
Material	Tonnes Gold		Tonnes	Gold		Tonnes	Gold		
	(t)	(g/t)	(oz)	(t)	(g/t)	(oz)	(t)	(g/t)	(oz)
Oxide	1,670,000	1.17	63,000	2,060,000	1.04	69,000	3,730,000	1.10	131,000
Transitional	4,950,000	0.96	153,000	6,720,000	0.88	191,000	11,670,000	0.92	344,000
Primary	7,290,000	1.39	326,000	2,740,000	1.25	110,000	10,030,000	1.35	436,000
TOTAL	13,910,000	1.21	542,000	11,520,000	1.00	369,000	25,430,000	1.11	911,000

#### <u>Notes</u>

- 1. All resource estimates are undiluted.
- 2. Resources estimated by Ordinary Kriging (OK).
- 3. Density factors applied: Oxide = 1.75, Transitional =2.4, Primary = 2.75.
- 4. Some errors due to rounding.
- 5. Aphrodite Gold has completed 305 RC holes for an aggregated length of 47,589 m, out of a total of 953 RC and DDH holes for 159,147 m. The revised resource is based on 788 of these holes.

The information in the report to which this statement is attached that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves 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.

# 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 (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> <li>Table relates to recent targets identified in diamond core drill hole (DDH) from APD1326, APRD1325, APDM0001 and APDM0002 from the Aphrodite Gold Deposit.</li> <li>Selected core samples were taken from core trays by lengthwise half core cutting method as per industry standards.</li> <li>Samples were dispatched to a certified laboratory for analysis where they were weighted, crushed, pulverised and split to produce 200g pulp samples for assay by 50g Fire Assay with AAS finish.</li> <li>Field Duplicates of quarter core were also collected.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	<ul> <li>Drill holes APD1326, APDM0001 and APDM0002 were drilled by Mud Rotary until a specified depth based on current geological models before casing off to HQ3 and subsequently NQ2.</li> <li>APRD1325 was drilled using RC until 150m before casing off to NQ2.</li> </ul>

Criteria	JORC Code explanation	Commentary
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 holes was geologically logged and recorded within the Aphrodite Database.</li> <li>Recoveries for the drill core are in order of 95-100%.</li> <li>Samples were selected based on lithology and sulphide content.</li> </ul>
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 information was collected by Aphrodite personnel and is imported and consolidated into a database for interpretation, analysis and verification purposed.</li> <li>The geological logging is compiled with appropriate attendation to detail.</li> <li>Industry standard practice is apparent in the level of detail of the logging</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>The selected sample intervals were collected on a near 1-metre basis within geological boundaries. Interval samples of less than 1m are restricted by geological notable features.</li> <li>Core samples were marked up prior to logging and sampling as per industry standards.</li> <li>The selected samples were cut lengthwise by diamond blade saw to give 2 half core lengths- normal industry practice.</li> <li>One half of the selected core was collected, bagged and marked before dispatch to the laboratory.</li> </ul>

Criteria	JORC Code explanation	Commentary
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 (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> <li>50g charge fire assays are quite appropriate for this type of deposit.</li> <li>The lab duplicated samples at regular intervals and there was an excellent correlation between the two datasets.</li> <li>Field duplicates were collected at a rate of about 1 in 10, and certified standards and blanks were also inserted at regular intervals. There was an excellent correlation between the primary and duplicate sample data.</li> <li>Grind checks were also done at regular intervals with acceptable results.</li> </ul>
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>	All assay results were verified and validated by the company's Database Geologist.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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>All collars were surveyed by a local surveying company by means of DGPS.</li> <li>All holes and topography were recorded with reference to AMG85 Zone 51</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>No compositing has been applied to these results.</li> <li>The reported intervals are weighted average grades over the summed thickness, this is normal industry practice.</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>	No sampling bias has been introduced due to the orientation of the drill hole.

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	Samples were delivered in suitably sealed bags to the laboratory in Kalgoorlie by site field staff. No sample preparation was done by any AGL staff or their representatives.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Internal review of sampling techniques as well as data handling and validation is regularly conducted by Aphrodite as part of due diliengence and continuous improvement and review of procedures.

## **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>All exploration activity carried out by AGL has been done on granted Mining leases.</li> <li>There are no known native title encumbrances, other than "Basalt Hill" which is located 500m west of the resource.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Several other parties have done exploration at the property in the past, notably Goldfields, Placer Dome and Apex.
Geology	Deposit type, geological setting and style of mineralisation.	Aphrodite is a typical shear-zone hosted lode gold mesothermal deposit hosted by greenstone belt rocks in the Bardoc Tectonic Zone (BTZ) which also hosts several other notable gold deposits.

Criteria	JORC Code explanation	Commentary					
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	This release relates to 1 drill hole APD1324- collar details below					
	<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> <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>	Hole ID         Grid ID         Easting         Northing         RL         Dip         Azi         Depth           APD1326         AMG84_51         329220         6659760         390         -60         90         192.3           APRD1325         AMG84_51         329150         6660460         390         -60         270         504.5           APDM0001         AMG84_51         329340         6659900         390         -60         270         174.4           APDM0002         AMG84_51         329335         6659860         390         -60         270         198.5					
Data aggregation methods	<ul> <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> <li>All intervals reported are length weighted in the downhole direction. This ensures that smaller intervals receive less weighting.</li> <li>No high grade cut-offs have been applied to the significant intercepts.</li> </ul>					
Relationship between mineralisation 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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Mineralisation at Aphrodite is interpreted to be hosted by shear zone and linking structures within the BTZ which trends about NNW.</li> <li>Typically the angular difference between the drillholes and mineralisation is about 35°, given the sub-vertical nature of the mineralised bodies.</li> </ul>					
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 body of Text for maps					

Criteria	JORC Code explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	A table summarising the significant intercepts of the most recent drilling can be found in the document to which this is appended (Error! Reference source not found.).
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.	
Further work	<ul> <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>	•

# 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>	
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>Tetra Tech has completed 3 site visits in the last 2.5 years.</li> <li>Drilling and mineralisation was observed on all 3 visits</li> <li>Collar coordinates were also verified on the 3 visits.</li> </ul>

Criteria	JORC Code explanation	Commentary
Geological interpretation	<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>Sufficient information was available from both diamond and RC drilling data as to provide clear structural interpretation of the mineralised zones. Adequate information was also provided to ensure sufficient interpretation of the weathering surfaces. There is sufficient uniformity in the gold mineralisation to confirm continuity between sections where appropriate.</li> <li>No alternative interpretations were considered necessary given the geological control understanding.</li> <li>The mid-section of the interpretation seems to be the zone of greatest dilation and hence greatest grade input; the grade profile weakens at the northern and southern extents where deformation is weakest and hence lesser plumbing availability for mineralizing fluids.</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.	,

Criteria	JORC Code explanation	Commentary
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 (e.g. 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> <li>Any assumptions about correlation between variables.</li> <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>A block size of 15x15x5m was deemed appropriate given the drill spacing's. All digital interpretations were done on vertical sections orthogonal to the mineralisation trends, and wire-framed together in Vulcan 8.1.4 software. Extensive variography was carried out to determine the search ranges, and Quantitative Kriging Neighbourhood Analysis was employed to optimize the min and max number samples, discretization's and max samples per hole to be used for a block estimate. All samples were length weighted in the estimations. All interpolations were completed using Ordinary Kriging, with Inverse Distance Squared and Nearest Neighbour estimates run also for validation purposes. The assay values for gold were estimated along with Arsenic, to ensure that the deleterious elements were sufficiently considered. Validation was done to compare the block estimates with the drill data in three ways: (1) visually in Vulcan in section and plan; (2) overall mean statistics comparisons, and; (3) swath plots. All estimates were done based on two estimation pass only, with varying criteria required to be satisfied for each pass, criteria were relaxed for the second pass estimations.</li> <li>A small proportion of the assays were capped per domain to remove obvious outliers which were determined by analysis of log-probability plots and the point of maximum deviation.</li> <li>Raw assays were capped prior to compositing.</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>	The tonnages in the estimates assume dry tonnages, with no factoring for moisture.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>Resources are reported at a threshold of 0.5g/t for material above 240mRL which is assumed to be the open pit mineable part of the resource.</li> <li>Resources are reported at a threshold of 3.0g/t for material below 240mRL which is assumed to be the underground mineable part of the resource.</li> <li>Please note that the above relate to separate volumes of the resource, with no overlaps.</li> </ul>
Mining factors or assumptions	• 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.	Given the steep nature of the mineralised bodies it seems likely that part of the resource will be extracted by open pit methods with the remainder extractable by underground methods. The already completed scoping study showed that this was the most likely scenario given the deep seated nature of the mineralisation. Extraction of the entire resource by open pit means is not likely to be economically viable given the current and forecast gold price.
Metallurgical factors or assumptions	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>Metallurgical test work has been carried out for the scoping study and also as part of the forthcoming Pre-Feasibility study by METS. The significant concentrations of Arsenic and Sulphur within the deposit indicate that it is mostly refractory in nature.</li> <li>No metallurgical factors have been applied to the resource other than the estimation of Arsenic for ARD (acid rock drainage) and processing considerations.</li> </ul>

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	<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 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.</li> </ul>	<ul> <li>Arsenic concentrations have been estimated in the block model to assist with environmental, geochemical and ARD considerations.</li> <li>Environmental considerations have been assessed as part of the scoping study already completed and as part of the forthcoming Pre-Feasibility study.</li> <li>No major environmental concerns have been identified at this time.</li> </ul>
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>Aphrodite and previous owners have collected a substantial dataset of bulk density/SG data mostly by standard immersion methods.</li> <li>Most of these measurements were collected at a recognized laboratory facility, which applied necessary procedures to the weathered material to ensure accuracy of measurements.</li> <li>Based on statistical analysis of all the available data; an SG of 1.75 for the oxidised material, 2.4 for transitional material and 2.75 for the fresh material were applied.</li> </ul>
Classification	<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 (i.e. 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>The current drill spacing's combined with the extensive variography data, and the level of confidence in geological and grade continuity is sufficient to support both Indicated and Inferred Resource categories for all resources at Aphrodite.</li> <li>Tetra Tech is comfortable with the classification of all the resources.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Tetra Tech's Chief Geologist has carried out a peer review of the current model and estimate, and was satisfied that there are no fatal flaws in the estimate.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	<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 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>	support the applied Indicated and Inferred Resource categories.

**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.
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.

Criteria	JORC Code explanation	Commentary
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>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.
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.

Criteria	JORC Code explanation	Commentary
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.
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.

Criteria	ORC Code explanation	Commentary
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to so licence to operate.</li> </ul>	• 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 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 the project, such as mineral tenement status, and government and status approvals. There must be reasonable grounds to expect that all necess. Government approvals will be received within the timeframes anticipated in Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of unresolved matter that is dependent on a third party on which extraction of reserve is contingent.</li> </ul>	estimated or reported.  y of tory sary the any
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confider categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measure Mineral Resources (if any).</li> </ul>	estimated or reported.  the
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.

Criteria	JORC Code explanation	Commentary
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.