ASX:VAN ANNOUNCEMENT 20 May 2020



MARYMIA MINERAL RESOURCE INCREASES TO ONE MILLION OUNCES

Builds Foundation for a High-Grade Long-Life Gold Production Centre

Highlights

Significant JORC 2012 Global Mineral Resource upgrade for the Marymia Gold Project:

Mineral Resource: 10.38Mt @ 3.0 g/t Au for 1,002,000oz gold,

includes underground resources: 2.13Mt @ 7.9 g/t Au for 541,000oz gold, and,

includes open pit resources: 8.25Mt @ 1.7 g/t Au for 461,000oz gold

- Represents a 53% increase in JORC 2012 Mineral Resources since the Trident resource upgrade¹ (as summarised in the 30 June 2019 Mineral Resource Statement²)
- Total JORC 2012 Indicated Resources increased by 64% to 663,000oz (6.44Mt @ 3.2 g/t Au), representing a high-proportion, 66%, of the Mineral Resource estimate
- Resources are predominantly from three of six identified mineralised corridors and less than 250m depth, with further drilling planned to test major resource upside potential
- Million ounce resource provides foundation for the proposed high-grade, long-life, gold production centre at Marymia

Vango Mining Limited (Vango, ASX:VAN) is pleased to announce that the Global Mineral Resource at the Marymia Gold Project has been significantly upgraded and now stands at one million ounces at a grade of 3 grams per tonne gold.

Importantly, the Indicated Resource category now makes up 66% of the overall Mineral Resource. The Company's 100%-owned Marymia Gold Project is located 300km northeast of Meekatharra in the Mid-West region of Western Australia (Figure 1).

Vango Chairman, Bruce McInnes, said that the significant size of the resource, the high proportion in the Indicated Resource category and the relatively high-grade reaffirms the Marymia Gold Project as one of the most significant undeveloped gold projects in Australia.

"Marymia continues to deliver high-grade, high-quality resource ounces at relatively shallow depth, offering potential for a naturally flexible and therefore lower risk operation, in close proximity to existing infrastructure, including an established camp and access roads," Mr McInnes said.

Mr McInnes explained how the Company's methodical approach to its targeted drilling programs has resulted in this significant increase to Vango's JORC 2012 Mineral Resource base.

"The new Mineral Resources are predominantly from just three of six identified gold mineralisation corridors – Trident, Triple P and PHB – each of which are similar in scale to the nearby Plutonic gold deposit, but still only tested to shallow depths.

"The Company has gained a detailed understanding of the geology and mineralisation controls at Marymia since the commencement of its systematic drilling campaigns in 2017. This has led to the development of a predictive exploration model to be applied to continued drilling programmes that are designed to further expand the Marymia high-grade resource base." Mr McInnes added.





Image 1: Reverse Circulation (RC) drilling at Marymia

The locations of the resource projects included in the updated Marymia Gold Project JORC 2012 Mineral Resource estimate are shown below (Figure 1).

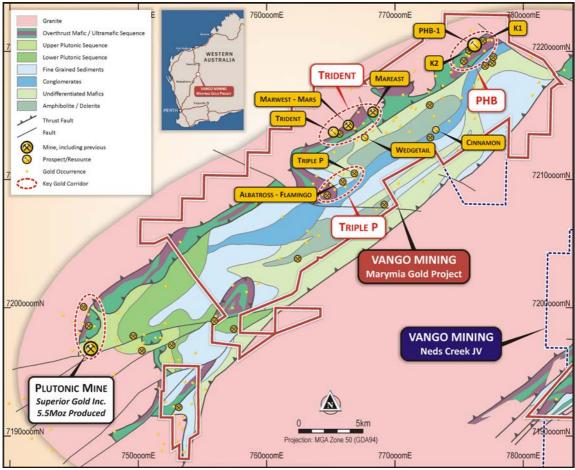


Figure 1: Marymia Gold Project, key corridors and Mineral Resource projects



Background to the New Marymia Gold Project Mineral Resource Estimate

The Marymia Gold Project JORC 2012 Mineral Resource estimate, as of 20 May 2020, is summarised in Table 1 below:

MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE ESTIMATE MAY 2020										
Deposit	Cut-off	In	dicated		li li	nferred		Total		
Mineral Resource - Open Pit (OP):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident West OP	0.5	253	1.1	9				253	1.1	9
Marwest & Mars OP	0.5	688	2.0	45				688	2.0	45
Mareast OP	0.5	486	1.9	30				486	1.9	30
EastMareast OP	0.5	237	1.1	8				237	1.1	8
Wedgetail OP	0.5	185	1.7	10				185	1.7	10
PHB-1 (K3) OP	0.5	604	2.0	39	238	1.4	11	841	1.9	50
K1 OP	0.5	743	1.8	42	837	1.7	47	1,580	1.8	89
Triple-P & Triple-P Sth OP	0.5	633	2.1	42	486	1.4	21	1,120	1.8	63
Albatross & Flamingo OP	0.5				853	1.4	38	853	1.4	38
Cinnamon OP	0.5	1,472	1.8	86	536	1.9	32	2,008	1.8	119
Total Open Pits		5,300	1.8	311	2,950	1.6	150	8,250	1.7	461
Mineral Resource - Underground (UG):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident UG	3.0	945	9.4	285	645	6.0	125	1,590	8.0	410
K2 UG	3.0	197	10.6	67	177	7.0	40	374	8.9	107
Triple-P & Zone-B UG	3.0				170	4.3	24	170	4.3	24
Total Underground		1,142	9.6	352	992	5.9	189	2,134	7.9	541
Total JORC 2012 Mineral Resource		6,442	3.2	663	3,942	2.7	339	10,384	3.0	1,002

Table 1: Marymia Gold Project JORC 2012 Mineral Resource Estimate 20 May 2020

Notes and Competent Persons Statements:

- 1. Mineral Resources reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (Joint Ore Reserves Committee Code JORC 2012 Edition).
- 2. Open pit resources reported within optimised conceptual pit shells at A\$2,500/oz gold price above a 0.5 g/t Au cut off and include oxide, transition and fresh material, see breakdown Appendix 2.
- 3. Trident underground resources are retained as first reported 18 April 2019¹ above a 3.0 g/t Au cut-off grade, and modelled at a gold price of A\$2,000/oz, on the basis that the information has not materially changed since last reported. Other underground resources reported above a 3.0 g/t Au cut off (with minor 2.5 g/t Au cut-off material included for continuity purposes) and includes fresh material only.
- 4. Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
- 5. The Statement of Mineral Resource Estimates has been compiled by Dr. Spero Carras who is a full-time employee of Carras Mining Pty Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ("FAusIMM"). Dr. Carras has sufficient experience, including over 40 years' experience in gold mine evaluation, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ("JORC") Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Dr. Carras consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.
- 6. The information in this report that relates to exploration results that form the basis of the Mineral Resource Estimate has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale, a Fellow of the Australian Institute of Mining and Metallurgy ("FAusIMM") and a full time employee of Discover Resource Services Pty Ltd. Mr Dugdale has sufficient experience, including over 34 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ("JORC") Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.



Key changes in this May 2020 Mineral Resource estimate:

Key changes in this May 2020 Mineral Resource estimate, compared to the JORC 2012 component of the previous, 30 June 2019, Mineral Resource statement², include the following:

- Total JORC 2012 Mineral Resources have increased by 53% to 1,002koz from 656koz².
- Total JORC 2012 Indicated Resources have increased by 64% to 663koz (6.44Mt @ 3.2 g/t Au) from 405koz (2.65Mt @ 4.8 g/t Au) and now represents 66% of the total Mineral Resource.
- JORC 2012 open pit Mineral Resources have increased by 222% to 461koz (8.25Mt @ 1.74 g/t Au) from 143koz (3.17Mt @ 1.4 g/t Au).
 - This includes the addition of 319koz (5.08Mt @ 2.0 g/t Au) of open pit Mineral Resources resulting in a 24% increased grade of over 1.7 g/t Au from 1.4 g/t Au, despite the A\$2,500/oz gold price applied for open pit optimisation constraints. This is explained by the retention of the 0.5 g/t Au cut-off grade, the discovery of high-grade extensions of open pit material at Mareast, Marwest-Mars, Triple-P, Albatross-Flamingo, Cinnamon and PHB-1, and the removal of the K2SE open-pit resource due to low-grade and inadequate continuity. K2SE requires infill drilling and further geotechnical information to qualify for inclusion in a Mineral Resource.
- The high-grade JORC 2012 underground Mineral Resources have increased to 541koz (2.13Mt @ 7.9 g/t Au) from 513koz (2.01Mt @ 8.0 g/t Au).
 - Underground (UG) Mineral Resources include the previously released, JORC 2012, high-grade Mineral Resource estimate for the Trident UG deposit of 410Koz (1.59Mt @ 8.0 g/t Au)¹, that has not been updated on the basis that the information has not materially changed since last reported based on a A\$2,000/oz gold price (18 April 2019)¹.
- The K2 underground (UG) Mineral Resource grade has increased significantly to 8.9 g/t Au from 7.7 g/t Au and has increased marginally in terms of contained ounces to 107koz (0.37Mt @ 8.9 g/t Au). The proportion of Indicated Resources have increased to 63% or 67koz (0.20Mt @ 10.6 g/t Au) from 54% of the previous Mineral Resource².
 - This increase in grade and proportion of Indicated Resources at K2 UG is due to infill RC drilling and oriented diamond core drilling, allowing improved structural re-interpretation and tighter constraint of block models. Oxide and transitional material have been excluded from the K2 UG Mineral Resource. Further optimisation will be carried out prior to pre-feasibility studies to examine the most economical open-pit cut-back versus underground mining options, and to ensure that the safety of underground extraction and the existing development will not be impacted by open-pit mining during the early stages of the planned operation.

Additional details to this May 2020 Mineral Resource Estimate:

The update to the Marymia Gold Project Mineral Resource estimate is predominantly based on new reverse circulation (RC) drilling data in open-pit Mineral Resource areas, complemented by selective, structurally oriented, diamond drilling of key areas of predominantly underground targets.

New data incorporated in the new Mineral Resource estimate includes drilling and assay results received to 31 March 2020, from 148 holes completed for 22,329.8m of reverse circulation (RC) and diamond drilling as detailed below:

- 121 RC only drillholes for 16,342m, defining and extending Indicated and Inferred open pit and underground Mineral Resources.
- 13 diamond drillholes (including RC pre-collars) for 1,998m diamond drillcore and 1,927m RC resource definition and extension drilling.



14 geotechnical and metallurgical diamond drillholes (including RC pre-collars) for 1,478.8m diamond drillcore and 584m RC pre-collar drilling. The purpose of this drilling was to provide geotechnical information for mine planning, metallurgical information for process engineering and verify the mining and processing assumptions incorporated into the JORC 2012 Mineral Resource estimate.

The Exploration Results from these drilling programs have been documented and released on the ASX by the Company in accordance with continuous disclosure requirements. All ASX releases are available on the Company's Website at www.vangomining.com.

Vango Mining engaged Carras Mining Pty Ltd (Carras Mining, CMPL) to complete the independent Mineral Resource Estimates, utilising exploration data generated and interpreted by Jon Dugdale of Discover Resource Services Pty Ltd (DRS) and personnel at Terra Search Pty Ltd (Terra Search).

The updated Mineral Resource estimates also include all historical drilling and assay results that have been audited and verified as described in JORC Code, 2012 Edition – Table 1, Section 1: Sampling Techniques and Data and Section 2: Reporting of Exploration Results.

Further details, including other modifying factors and mining parameters applied to the new Mineral Resource estimates, are described in:

- Appendix 1 to this announcement, that includes Information material to understanding the Marymia Gold Project Mineral Resource estimate.
- Appendix 2 to this announcement, that includes Table 2, a comparison between the Marymia Gold Project JORC 2012 Mineral Resource estimate announced today and the previous JORC 2012 component of the Mineral Resource estimate², and Table 3, a breakdown of Oxide, Transition and Fresh material.
- Appendix 3 to this announcement that includes JORC 2012 Table 1, Section 1 (Sample Techniques and Data), Section 2 (Reporting of Exploration Results) and Section 3 (Estimation of Mineral Resources) for each Mineral Resource estimate.



About Vango Mining Limited

Vango Mining Limited (Vango or the Company) is an exploration and mining development company primarily focused on exploring and developing the Company's key asset, the Marymia Gold Project (Marymia), located in the Mid-West region of Western Australia (Figure 2).

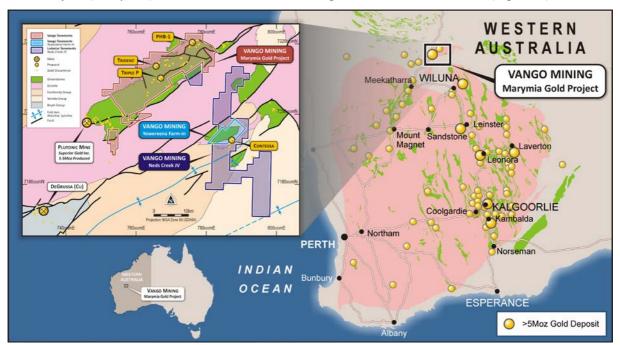


Figure 2: Location of Marymia Gold Project in the Yilgarn block of Western Australia

Competent Persons Statements

The Statement of Mineral Resource Estimates has been compiled by Dr. Spero Carras who is a full-time employee of Carras Mining Pty Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ("FAusIMM"). Dr. Carras has sufficient experience, including over 40 years' experience in gold mine evaluation, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ("JORC") Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Dr. Carras consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to exploration results that form the basis of the Mineral Resource Estimate has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale, a Fellow of the Australian Institute of Mining and Metallurgy ("FAusIMM") and a full time employee of Discover Resource Services Pty Ltd. Mr Dugdale has sufficient experience, including over 34 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ("JORC") Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Forward Looking Statements

Certain statements contained in this announcement, including information as to the future financial or operating performance of the Company and its projects, may be forward-looking statements that:



- may include, among other things, statements regarding targets, estimates and assumptions
 in respect of mineral reserves and mineral resources and anticipated grades and recovery
 rates, production and prices, recovery costs and results, capital expenditures, and are or may
 be based on assumptions and estimates related to future technical, economic, market,
 political, social and other conditions;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forwardlooking statements.

This market announcement has been authorised for release to the market by the Board of Vango Mining Limited.

- ENDS -

Previous ASX releases referenced in this ASX release and Appendices:

- ¹VAN ASX 18/04/19 New Trident High-Grade Resource Upgrade
- ² VAN ASX 30/09/19 Annual Report to Shareholders (Mineral Resource Statement 30 June 2019)
- ³ VAN ASX 22/01/19 New High-Grade Gold Intersections from Trident West
- ⁴ VAN ASX 19/11/19 New Shallow High-Grade Gold Intersections at Mars
- ⁵ VAN ASX 23/05/19 High-Grade Gold Intersections Extend Corridor (Mareast)
- ⁶ VAN ASX 05/08/19 New Very High-Grade Zone Discovered at Marymia Project (Triple-P)
- ⁷ VAN ASX 21/01/20 Exceptional High-Grade Gold Intercepts (Albatross-Flamingo)
- ⁸ VAN ASX 23/03/20 High-Grade Drilling Success at Marymia Gold Project (K2/PHB-1)
- ⁹ VAN ASX 03/03/20 Exceptional Intersections from New lode Discovery at Marymia (PHB-1)
- ¹⁰ VAN ASX 13/09/18 Broad and High-Grade Gold Intersections at Cinnamon

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Appendix 1:

Information material to understanding the Marymia Project Mineral Resource

Geology and Geological Interpretation

Regional

The Marymia Gold Project is located in the Plutonic Well or Marymia Greenstone Belt within the Archaean Marymia Inlier (see Figure 2), a complex granitoid-gneiss-greenstone terrane within the Palaeo-Proterozoic Capricorn Orogen, which also includes the Peak Hill Schist and Baumgarten Greenstone Belts.

The Marymia Greenstone Belt comprises two corridors of northeast – southwest trending mafic/ultramafic and sedimentary sequences separated by a conglomerate-dominated sedimentary sequence (Figure 1).

Three major structural events are interpreted to have shaped the belt, including D1 low-angle thrusting and isoclinal folding that has emplaced mafic and ultramafic units structurally above the sedimentary units in the northwest side of the belt ("the overthrust terrane"), followed by southeast directed upright D2 folding and faulting, granite/porphyry sheet intrusion then D3 high-angle thrusting, open folding of earlier structures plus reactivation of D1/2-thrusts.

Gold mineralisation is structurally controlled, orogenic, mesothermal (amphibolite metamorphic facies) in style, associated with the late tectonic D3 high-angle thrusting event and open folding/flexing and dilation of earlier structures - including the D1/D2 thrusts.

A number of later, mainly Proterozoic, deformation events have substantially shaped the final architecture of the greenstone belt.

Trident Corridor:

The Trident corridor extends from the Trident West deposit though Trident, Marwest/Mars and continues to the Mareast and East Mareast deposits (see Figure 3 below).

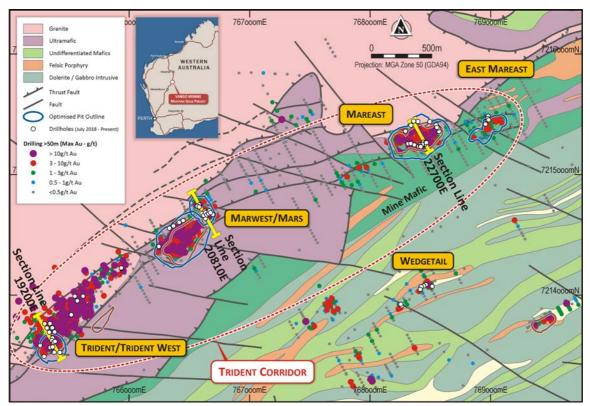


Figure 3: Marymia Gold Project, Trident Corridor with Mineral Resource projects



a. Trident West deposit

Trident West is the up-plunge surface representation of the Trident underground deposit¹.

Like Trident, mineralisation is hosted by, shallow to moderate dipping, ultramafic tremolite – phlogopite (mica) schist, immediately overlying serpentinised ultramafic units, and with a hangingwall of thrusted granite-gneiss that has been eroded away at Trident West.

High-grade gold zones are best developed within the shallow dipping ultramafic tremolite – phlogopite schist where it is bent into a concave flexure, in the hangingwall of steep, northwesterly dipping, fault structures.

Gold mineralisation in fresh rock (Trident) is associated with potassic, phlogopite mica, alteration and has a low proportion of quartz and sulphides, including minor pyrrhotite, pentlandite, chalcopyrite and, directly associated with gold, bismuthinite and rare bismuth tellurides. Rarely observed gold grains (in microscopy) are predominantly fine (<50 micron) but free and/or attached to, and rarely occluded within, sulphide grains.

The Trident West Mineral Resource estimate is predominantly oxide and transition mineralisation, and is demarcated from the Trident underground resource by the optimised open-pit boundary (see Figure 4).

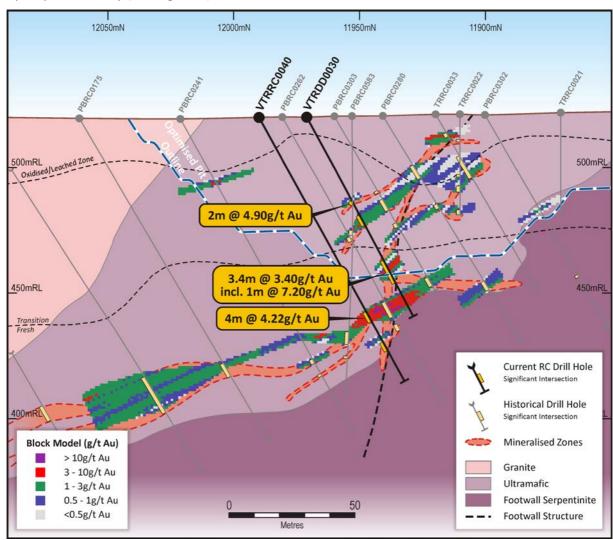


Figure 4: Trident West Mineral Resource cross section 19200mE³



b. Marwest and Mars deposits

The Marwest and Mars deposits are located 1km along strike to the northeast of Trident within the same geological corridor.

Mineralisation is hosted by the same ultramafic tremolite-phlogopite schist that is complexly folded and faulted, generally underlain by the serpentinised ultramafic units, and with a hangingwall of thrusted granite-gneiss.

The Marwest deposit has been previously mined to approximately 80m vertical depth by Resolute Mining as part of their Marymia Project that closed in 2001.

Mars is an unmined extension of the Marwest deposit. Two 'shoots' of shallow dipping gold mineralisation have been defined (see Figure 5), extending from the oxide zone to fresh rock with potential to extend down plunge to the southwest towards the Trident gold deposit.

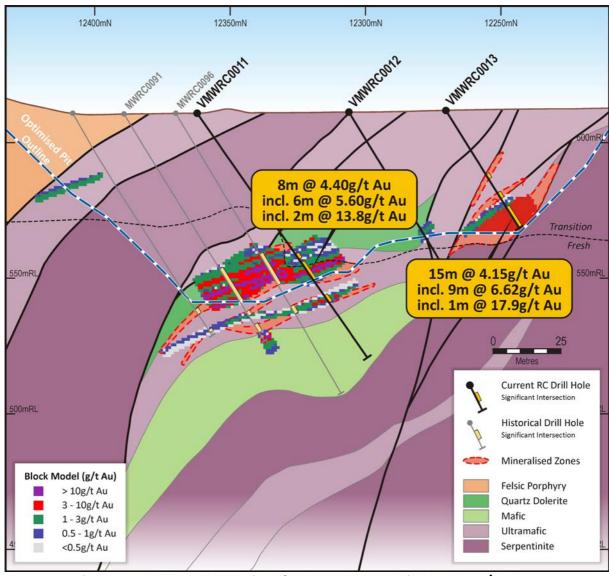


Figure 5: Marwest - Mars Mineral Resource cross section 20810mE 4



c. Mareast and EastMareast Deposits

The Mareast deposit is located 2km northeast of Trident at the northeast end of the Trident Corridor (Figure 3).

Mineralisation is hosted by thick mafic units that are interpreted to be analogous to the Mine-Mafic package that hosts the Plutonic gold deposit (see Figure 1). The mafic units are overlain by the hangingwall Trident ultramafic and intruded by felsic 'porphyries' (see Figure 6 below).

Mineralisation is associated with quartz veining and sulphides in sheared and fractured mafic rocks and appears to be controlled by shallow plunging flexures between steeply dipping fault zones.

The Mineral Resource defined at Mareast is predominantly transitional oxide material that lies below the existing historical open pit, mined during the Resolute Mining Marymia operation that closed in 2001. EastMareast is located immediately along strike to the northeast of Mareast and has not been previously mined.

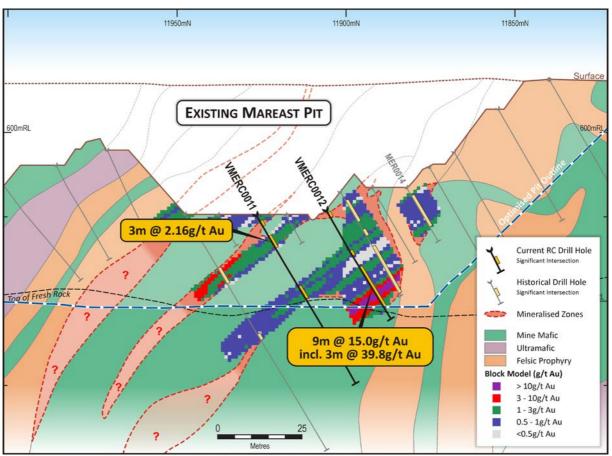


Figure 6: Mareast Mineral Resource cross section 22700mE⁵

2. Triple-P Corridor

The Triple-P Corridor extends from the Triple-P and Zone-B deposits west to the Albatross and Flamingo deposits and the Exocet deposit 3km to the west of Triple-P. All of these deposits have been previously mined by open pit and are generally associated with north-south trending geology and fault structures, linked by being in the hangingwall of an east-west trending D3 thrust fault (see Figure 7 below), similar to the major fault that occurs in the footwall of the Plutonic gold deposit.



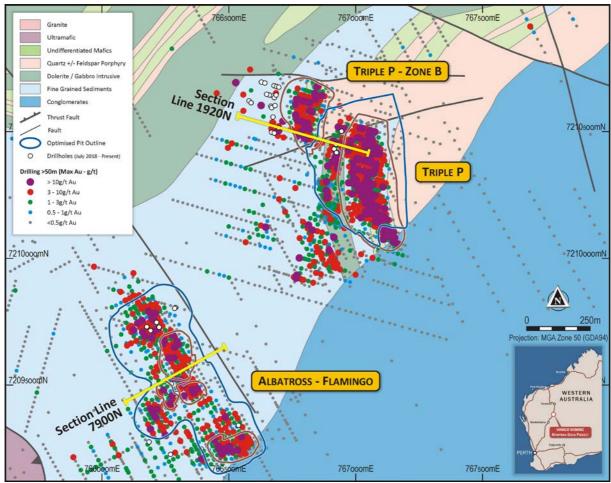


Figure 7: Marymia Gold Project, Triple-P Corridor with Mineral Resource projects

a. Triple-P and Zone-B gold deposits

The Triple-P deposit is located 2km south of Trident at the northeast end of the Triple-P Corridor.

Mineralisation is hosted by thick mafic units that are interpreted to be analogous to the Mine-Mafic package that hosts the Plutonic gold deposit (see Figure 1). The mafic units are overlain by right-way-up sedimentary units, underlain by the Trident ultramafic and intruded by felsic "porphyries" (see Figure 8 below).

Mineralisation is associated with quartz veining and sulphides, predominantly arsenopyrite, in sheared and fractured mafic rocks, and appears to be controlled by shallow plunging flexures between steeply dipping fault zones.

The Mineral Resource defined at Triple-P is predominantly transitional oxide and fresh material that lies below/down dip to the west of the existing historical open pit mined during the Resolute Mining Marymia operation.

Zone-B is interpreted to be the strike fault off set of the Triple-P mineralisation that is duplicated on the cross section below. Mineralisation is associated with a shallow dipping and plunging flexure in low angle thrust faults.



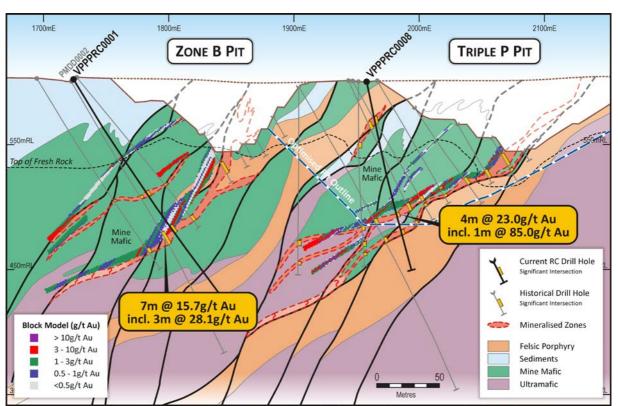


Figure 8: Triple-P and Zone-B Mineral Resource cross section 1920mN 6

b. Albatross and Flamingo

The Albatross and Flamingo gold deposits are located 1km southwest of Trident within the Triple-P Corridor (Figure 1 and 7).

Mineralisation previously mined in shallow open-pits is hosted by sedimentary units, erratically distributed, and associated with steeply dipping, north-south trending faults and shallow dipping link-zones between these structures.

Deeper RC drilling below these open pits has intersected high-grade gold mineralisation associated with shallow west dipping and northwest plunging zones of oxidised to semi-oxidised quartz-sulphide mineralisation close to the upper boundary of the interpreted Mine-Mafic unit (see Figure 9 below). The shallow dipping mineralisation is associated with corridors of steeply dipping fault structures that are interpreted to have caused dilation and mineralisation across this contact zone.



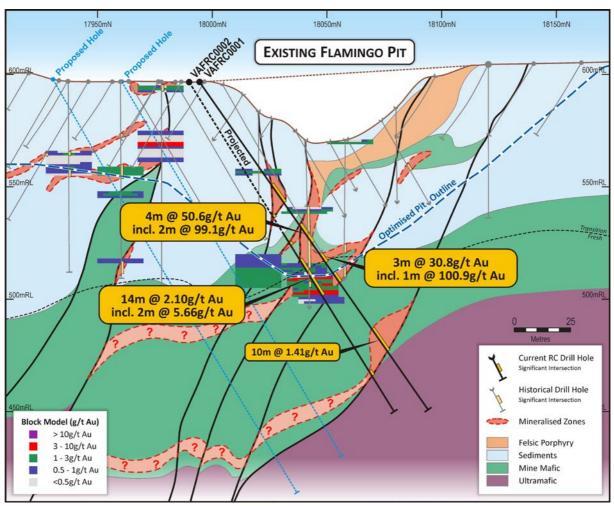


Figure 9: Albatross-Flamingo cross section 7900mN with optimised pit and N-S Resource blocks 7

3. PHB Corridor

The PHB Corridor extends from the K2 deposit northeast through the PHB-1 deposit to K1. K2 and K1 have been previously mined by open pit and PHB-1 is un-mined. The deposits are generally associated with a northeast – southwest corridor of steeply dipping, predominantly mafic, units with hangingwall ultramafic units more prevalent at K1 (see Figure 10 below).



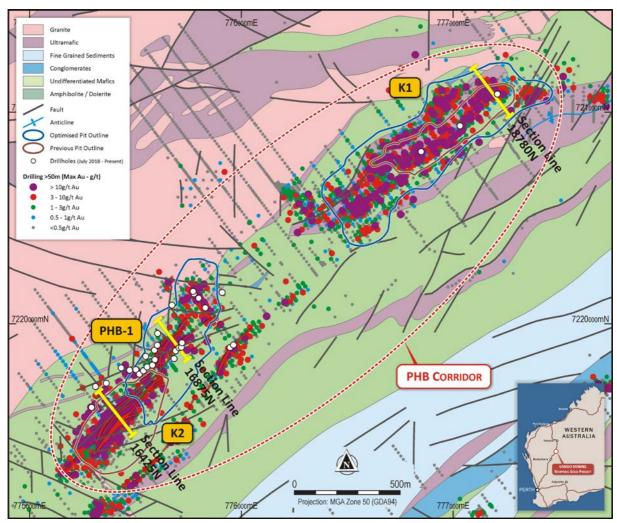


Figure 10: Marymia Gold Project, PHB Corridor with Mineral Resource projects

a. K2 gold deposit

The K2 gold deposit is located 15km northeast of Trident at the southwestern end of the PHB Corridor.

Mineralisation is hosted by steeply westerly dipping mafic units that are interpreted to be analogous to the Mine-Mafic package that hosts the Plutonic gold deposit (see Figure 1). The mafic units are overlain and underlain by folded and thrusted ultramafic units and interlayered with sulphidic sedimentary units (see Figure 11 below).

Mineralisation is associated with quartz veining/silicification and sulphides in sheared and fractured mafic rocks and appears to be controlled by shallow plunging flexures in steeply dipping fault zones.

Three key lode structures have been identified at K2: Main Lode, Central lode and West Lode (Figure 11). The majority of the K2 underground resource is associated with Main Lode, which was the key zone of production in the previously mined K2 open pit operated by Resolute as part of the historical Marymia gold operation that closed in 2001 (see Figure 12).



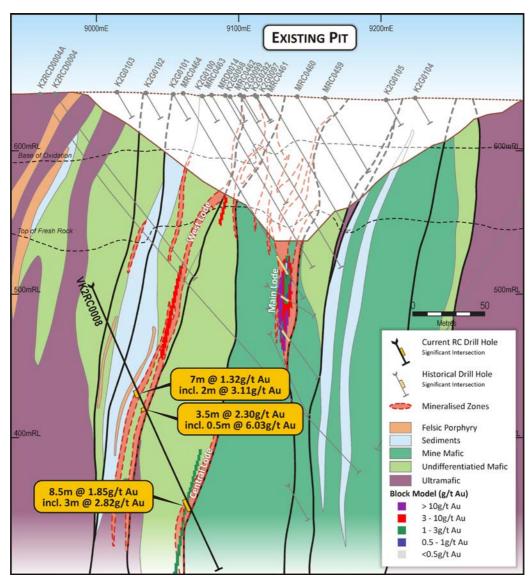


Figure 11: K2 West Lode, Central Lode and Main Lode cross section 16,425mN 9

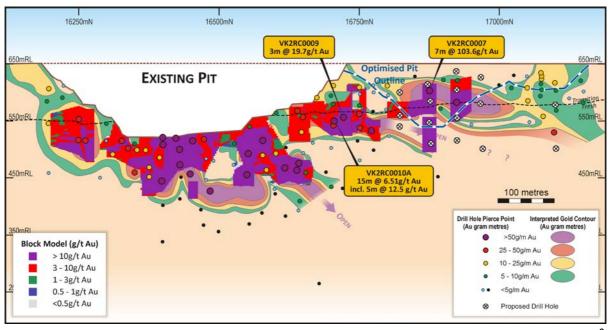


Figure 12: Longitudinal Projection through K2 Main Lode, PHB-1 optimised pit & Resource model 8



b. PHB-1 gold deposit

The PHB deposit lies immediately along strike from K2 and was formerly referred to as K3 in previous Mineral Resource statements². Mineralisation is hosted by the steep westerly dipping mafic units and interlayered sulphidic sedimentary units and associated with quartz veining/silicification and sulphides in sheared and fractured mafic rocks and appears to be controlled by shallow plunging flexures in steeply dipping fault zones.

A majority of the open pit resources defined at PHB-1 are associated with a steep easterly dipping flexures in West Lode. However, recent drilling has intersected high-grade mineralisation associated with Central Lode and extensions of the Main lode structure, that are poorly tested and represent priority exploration targets in the PHB-1 area (see longitudinal projection Figure 12 above and cross section Figure 13 below).

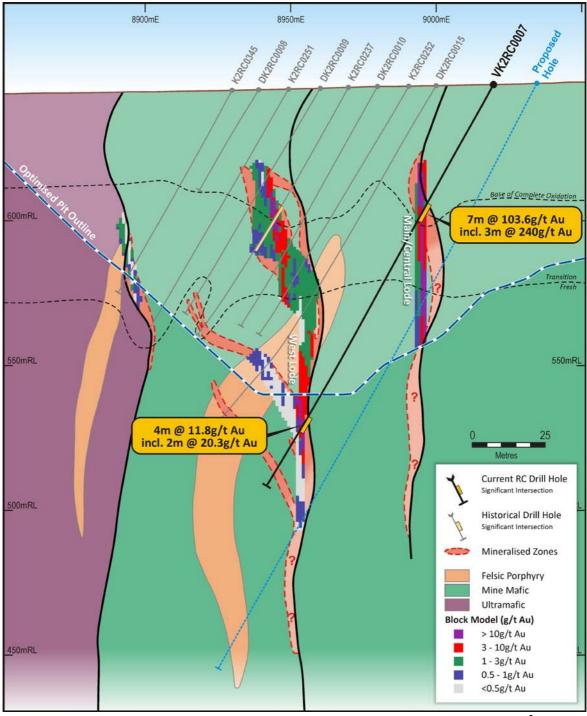


Figure 13: PHB-1 West Lode, Central Lode and Main Lode cross section 16,875mN 9



c. K1 Open cut

The K1 gold deposit is located 2km along strike to the northeast of K2 at the northeastern end of the PHB Corridor (see Figure 10).

Previously mined resources are predominantly hosted by steep westerly dipping ultramafic units with deeper mineralisation in the base of the pit hosted by extensions to the mafic units from K1 and PHB-1.

Mineralisation in the Mafic rocks is associated with quartz veining/silicification and sulphides, controlled by shallow plunging flexures in steeply dipping fault zones.

Three key lode structures have been identified that are analogous to the K2, Main Lode, Central lode and West Lode structures (see Figure 14 below).

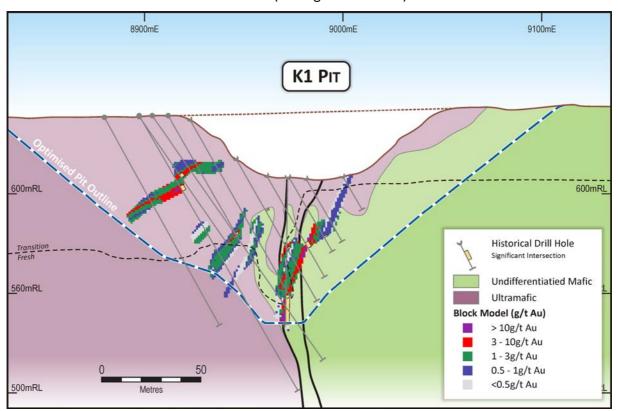


Figure 14: K1 Mineral Resource cross section 18,780mN

4. Cinnamon

The Cinnamon gold deposit is located in the central conglomerate domain of the Marymia Greenstone Belt (Figure 1), located approximately 8km southeast of Trident along the northwestern conglomerate basin boundary ('Cinnamon Corridor' – Figure 15).

Mineralisation is associated with shearing within the chlorite-biotite altered matrix of the conglomerate unit. The conglomerate mostly consists of granodioritic clasts within a mafic derived matrix. Minor quartz veining/silicification and sulphides (pyrrhotite, chalcopyrite) has been observed in the foliated/sheared chlorite - biotite altered matrix.

Drilling has confirmed the presence of high-grade shoots of gold mineralisation within a lower-grade envelope in upper and lower flexures that dip moderately to the northwest in the oxide/transition zones, and steeply in the primary/fresh zone (see Figure 16).



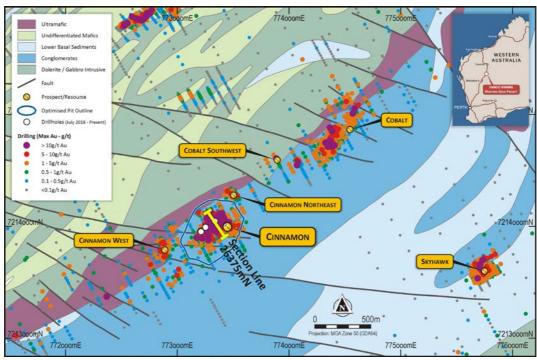


Figure 15: Marymia Gold Project, Cinnamon Corridor with Mineral Resource projects

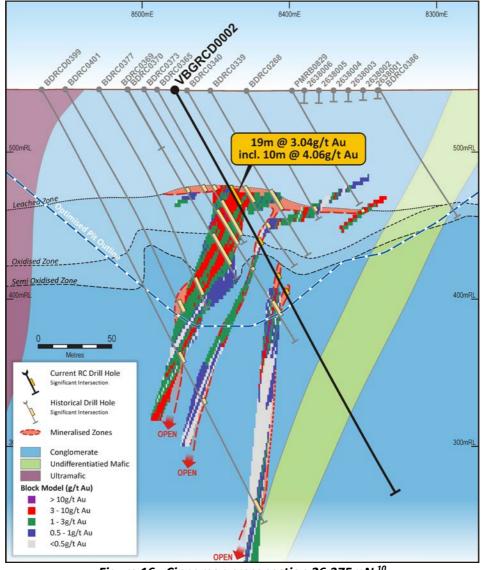


Figure 16: Cinnamon cross section 26,375mN ¹⁰



Sampling and Sub-Sampling Techniques and Sample Analysis

All assays from Diamond Drilling by Vango Mining are from Half core NQ2 and minor Quarter core HQ sampling cut on a diamond saw on site. Samples were of 0.8m-1.25m intervals with a majority cut on 1m intervals. This is considered to be sufficient material for a representative sample. RC Drilling was sampled on 1m intervals using a cone splitter within the cyclone. In less prospective lithologies these 1m samples were composited using a scoop over 4m intervals.

Standards, submitted every 20 samples, were of grade tenor similar to those expected in the sampling. Blanks were inserted every 20 samples and Duplicates were taken every 20 samples for a total of 15% QA/QC sampling.

Previous workers collected RC samples as 4m composite spear samples. Mineralised zones were sampled at 1m intervals using a 1/8 riffle splitter. Core samples were taken at 0.2m - 1m intervals or at geological boundaries from NQ2 and HQ Core.

Specific gravity (bulk density - SG) measurements were conducted on 140 diamond drillhole samples at Trident, Trident West, PHB1, K2 underground and Cinnamon using a wet/dry weight measurement to determine the density. Some measurements were completed using wax to ensure no bias due to water ingress in weathered or porous samples, and these values concur with the non-wax measurements. The bulk density measurements confirmed the use of 2.90 t/m³ as being appropriate for all ultramafic hosted mineralisation, with lower values of 2.8-2.84 t/m³ for mafic, 2.7 t/m³ for mafic matrix conglomerate and 2.6 t/m³ for felsic-sedimentary hosted mineralisation. Oxide and transitional material also show ranges of 1.8 - 2.0 t/m³ and 2.2 - 2.54 t/m³ respectively. Previous SG work completed by Resolute is not available as raw data but the values used in previous resource estimates have been continued where appropriate as they appear conservative. See JORC 2012 Table 1, Section 2.

Drilling Techniques

All drilling data used in this Mineral Resource estimate were from Diamond and Reverse Circulation drilling. Diamond Drilling was mostly NQ2 size with some HQ3 drilling also undertaken. The reverse circulation drilling utilised a face sampling hammer which reduces the potential for up-hole contamination. Quality of historical drilling information is varied, but has been verified against original logs and reports wherever possible. Previous work has been dominated by Resolute, BMA, Homestake, Barrick Resources and Dampier Gold, all of which used high quality methodology for the time. See JORC Table 1, Sections 1 and 2.

Estimation Methodology

The following outlines the estimation and modelling technique used for producing the May 2020 Mineral Resource estimate for the Marymia Gold Project in accordance with JORC 2012 criteria.

Following a complete review of the input database by Discover Resource Services Pty Ltd (DRS), Terra Search Pty Ltd (Terra Search) and Carras Mining Pty Ltd (CMPL), geology, drilling assays and mineralised intersections above a cut-off grade where a high grade cut had been applied to individual assays within the intersection, were plotted on 1:500 scale sections. The intersection selection criteria were specific to either open pit (OP) or underground (UG) mining parameters.

The following wireframes were provided by DRS and Terra Search for:

- a) Topography based on aerial imagery at 0.5m spacing.
- b) Base of Oxidation (BOCO)
- c) Top of Fresh Rock (TOFR)
- d) Pre-existing open pit profiles.

The 1:500 scale cross sections were initially plotted as hard copy for initial interpretation.



The majority of assay data was of 1m lengths and weighted lengths were used when modelling the deposits and estimating the high-grade cuts.

The high-grade cuts were derived using 2 methods:

- 1. The Gap (GAP) method, used in North America, based on the position where a discontinuity occurs in the cumulative assay frequency plot at the high-grade end.
- 2. The high-grade cutting methods of Denham which are based on the statistical theory of Gamma Distributions. This method was used as a check.

The following table summarises the high-grade cuts used for various projects, based on drilling data, and showing the percentage metal cut from the drill data used to estimate the Resource for each project:

Project	High Grade Cut (g/t Au)	Percentage Metal Cut (%)
Trident West OP	50 g/t Au	10%
Marwest & Mars OP	50 g/t Au (Major Shapes)	10%
	30 g/t Au (Minor Shapes)	
Mareast OP	40 g/t Au	14%
EastMareast OP	No Cut (Max 12 g/t Au)	No Metal Cut
Wedgetail OP	No Cut (Max 18 g/t Au)	No Metal Cut
PHB-1 (K3) OP	40 g/t Au (Major Shapes)	34%
	20 g/t Au (Minor Shapes)	(1 Sample at 640 g/t Au**)
K1 OP	40g/t	7%
Triple-P & Triple-P Sth OP	60 g/t Au (Major Shapes)	6%
	25 g/t Au (Minor Shapes)	
Albatross & Flamingo OP	50 g/t Au	5%
Cinnamon OP	30 g/t Au	2%
Trident UG ¹	(See April 201	9 ASX Release)
K2 UG	60 g/t Au*	27%
Triple-P & Zone-B UG	20 g/t Au	5%

^{*}Historically the high-grade cut used was 50 g/t Au. This has now been elevated to 60 g/t Au.

The following table lists the parameters used to derive the intersections for the open pit projects:

Project	Cut-off Grade (g/t)	Minimum* Mining Width (Down Hole Length - m)	Internal Dilution (Down Hole Length - m)	Shape Dilution (Down Hole Length - m)
Trident West OP	0.5g/t	3m	1m	0.5m
Marwest & Mars OP	0.5g/t	3m	1m	0.5m
Mareast OP	0.5g/t	3m	1m	0.5m
EastMareast OP	0.5g/t	3m	1m	0.5m
Wedgetail OP	0.5g/t	3m	1m	0.5m
PHB-1 (K3) OP	0.5g/t	6m	2m	0.5m
K1 OP	0.5g/t	3m	1m	0.5m
Triple-P & Triple-P Sth OP	0.5g/t	3m	1m	0.5m
Albatross & Flamingo OP	0.5g/t	3m	1m	0.5m
Cinnamon OP	0.5g/t	3m	1m	0.5m

^{*}The majority of intersections used to estimate the resource exceed the minimum mining width.

Shape dilution refers to dilution associated with marking out mineralised shapes when mining. It occurs when there is no major colour difference between ore and waste rock.

^{**}Accounts for a large amount of metal cut.



For the underground projects, Trident UG, K2 UG and Triple-P & Zone-B UG, the intersection selection parameters are outlined below:

Project	Cut-off Grade (g/t)	Minimum Mining Width (Down Hole Length - m)	Internal Dilution (Down Hole Length - m)	Shape Dilution (Down Hole Length - m)			
Trident UG ¹		(See April 2019 ASX Release)					
K2 UG	3g/t	3m	1m	0m			
Triple-P & Zone-B UG	3g/t	3m	1m	0m			

The cut-off grades were determined from operational mining costs provided by Independent Mining Consultants, Mining Plus and Metallurgical Consultants - Como Engineers.

In general, cut-off grades of 0.5 g/t Au were used for open pits and 3 g/t Au for underground mining projects. To guarantee continuity some intersections in K2 UG had their cut-off grades lowered to 2.5 g/t Au (in minimal instances less <2.5 g/t Au). The mining method for open pits will be selective mining on bench heights of 2.5m - 5m, following detailed grade control drilling, and for K2 UG long hole open stoping will be the mining method applied. (The Trident UG Resource is based on a 3 g/t Au cut-off grade and a A\$2,000 per ounce gold price. The proposed mining method is outlined in the April 2019 ASX Release¹).

For all projects, a geological interpretation was carried out on hard-copy sections and plans with continuous review of geological continuity. The interpretations were carried out by DRS and/or Terra Search then digitised by snapping on to intersection selected boundaries, modified where necessary by CMPL then wireframed by CMPL using Surpac Software.

The wireframed shapes then had their volumes measured to ensure that future block modelling volumes matched the interpreted wireframed shape volumes (especially for narrow shapes).

For open pit wireframed shapes, having adequate data and continuity, variography (using normalised grades) was carried out. In general variograms were produced along strike, down dip and in the down hole direction.

Estimation methods used Ordinary Kriging where there was adequate data in large wireframed shapes and Inverse Distance Cubed methods for smaller wireframed shapes of less data. In some instances, Inverse Distance Squared methods were used where variography was inconclusive.

Section 3 of the attached JORC Table 1 contains detailed information relating to the modelling parameters used for each deposit. Section 3 includes:

- 1. Variogram Parameters
- 2. Block Modelling Search Criteria (including interpolation parameters)
- 3. Block Sizes and Discretisation
- 4. Buk Density

Block sizes chosen were small as the models produced were based on specific wireframed shape cut-off grades and, as a result, the small blocks within the wireframed shapes could not be used for reporting resources at higher cut-off grades. It was assumed that the complete shape would be mined and there would not be application of an internal cut-off grade.

Bulk density values were based on actual field measured data (see JORC Table 1, Section 2 and Section 3).

For detailed information on the Trident UG model, Readers are referred to the 9 April 2019 ASX Release and accompanying 2019 JORC Table¹ (Section 3 included).



K2 Underground Project

The K2 UG Project consists of 3 Lodes; Main Lode, Central Lode and Western Lode. A detailed geological interpretation was carried out for K2 UG utilising new data which superseded the historic modelling.

A 3 g/t Au cut-off grade was used to define the underground mineralised intersections and in minimal instances the cut-off grade was relaxed to 2.5g/t or marginally less to ensure continuity. The high-grade cut applied was 60 g/t Au based on application of the GAP method. Intersection selection parameters are defined in the table above.

For Main Lode variograms were produced and Ordinary Kriging carried out. Other Lodes and smaller wireframes were estimated using Inverse Distance Cubed methods. A complete description of the parameters used for K2 UG modelling is included in the accompanying JORC Table 1 – Section 3.

Classification was based on a combination of drill hole spacing and confidence in geological continuity. In general drill hole spacing of 25mE x 25mN was used. Fresh material directly beneath the K2 OP was classified as Indicated Resource (Main Lode only). All other material was classified as Inferred Resource, with the exception of wireframes around one intersection (which was isolated) and wireframes which were extremely deep (Unclassified Resource).

Oxide and transitional material above the fresh rock has been excluded from the reported K2 UG Mineral Resource due to a lack of geotechnical work required to establish a stable pit cut-back. An interim technical decision was taken to focus on K2 underground for mining safety reasons, as proximal historical workings (including previous Decline) exist. Further optimisation will be carried out prior to pre-feasibility studies to determine the most economical outcome for open-pit cut-back versus underground mining options. The K2 open pit resource will be reported once a recoverable component, based on safety, geotechnical information and mining, can be determined.

Partial development of the K2 UG deposit was carried out in 1997 by Resolute, who completed a Feasibility study in 1996. Resolute mined a boxcut and decline access to the ore body before the mine was prematurely closed in 1998 after only minor amounts of ore extraction. Mining Engineering consultants, Entech, completed a DFS in June 2014, updated and released 13 February 2017, that selected a mining method of longitudinal open stoping with pillars that was assessed as applicable based on the known geotechnical data for the deposit. CMPL has re-evaluated further diamond drillcore completed by Vango Mining through the deposit and this remains the preferred mining method.

Triple-P & Zone-B Underground

Estimation of the Triple-P & Zone-B UG was carried out using extended sections with assigned polygon grades around intersections above 3 g/t Au, or in some cases 2.5 g/t Au to ensure continuity. As a result the Triple-P and Zone-B UG material is classified as Inferred Resource and further drilling is required to both increase the confidence in geological continuity and to potentially extend definition of the Mineral Resources along strike and at depth.

Classification for Open Pits

For each open pit project, classification was based on two criteria:

- 1. The drilling density and perceived geological continuity.
- 2. The potential for open pit mining.

The Indicated portion of the open pit resource was supported mostly by drilling on a 20m-25m x 20m grid (or better) where continuity in both grade and geological structure could be



demonstrated. For some pits a very small proportion (< 5%) of the Indicated had a single intersection but was deemed to be part of a mineralising structure.

The Inferred Resource included areas of the resource where sampling was greater than 25m x 20m or was represented by isolated discontinuous zones of mineralisation to a maximum of 25m.

The potential for eventual open pit mining was demonstrated by application of the following:

- 1. An optimised Whittle pit shell of A\$2,500 per ounce Au.
- 2. A turning circle of 20m was used to define a pit base.
- 3. Following discussions with Geotechnical Consultants (Peter O'Bryan and Associates) who had a historic involvement with the Marymia pits, overall pit slopes of 40 degrees were used except for Wedgetail and EastMareast where pit slopes of 45 degrees were used. Geotechnical data from diamond drillholes has been generated for Trident UG, Trident West OP, PHB-1 OP and from Cinnamon diamond drill-core (from 50m down-hole). These data were complimented by field examination of previous open pits.
- 4. The footwall at Triple-P OP was flattened to 30 degrees.
- 5. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation).
- 6. Only non-diluted resources (apart from included shape dilution) are reported in the Mineral Resource Statement.

Fibrous Asbestiform Minerals

The Trident deposits (Trident West OP and Trident UG) contain the fibrous asbestiform minerals actinolite and tremolite in the ultramafic rocks. These fibrous asbestiform minerals have also been detected at Marwest & Mars OP, Mareast OP and in backfilled tailings in the previous K1 open pit. Fibrous minerals had been associated with previous mining at Marymia and mining and milling processes were put in place to ensure appropriate Occupational Health and Safety requirements including adequate ventilation, wash down areas, the containment of crushed materials and the covering of waste and tailings. Best practices are being reviewed for mining and milling implementation.

Other Material Modifying Factors:

Data and modifying factors that have been generated and/or utilised to run open pit optimisations and pit shells and underground resource mining evaluations are detailed in the JORC Code, 2012 Edition – Table 1, Section 3: Estimation and Reporting of Mineral Resources, and include:

- Metallurgical testwork including Bond Ball Mill Work Index (BBWi) tests and cyanide leach testing that have been used to generate processing cost estimates and leach recoveries based on a 750,000 tonnes per annum (tpa) (fresh rock) Carbon in Leach (CIL) processing plant. Como Engineers have supervised the generation and compilation of this work and the compilation and auditing of historical testwork. The processing costs and recoveries applied to optimisations and mining evaluations are conservative relative to the recommended parameters (see JORC Table 1, Section 2).
 - The information in this release that relates to metallurgical test work is based on information compiled and/or reviewed by Mr Robert Gobert, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Gobert is a full-time employee of Como Engineers. Mr Gobert consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.
- Geotechnical parameters including recommended pit wall angles for open pit optimisations and pit shells have been compiled and reviewed by Peter O'Bryan and



Associates. As detailed above, overall pit slopes of 40 degrees were used except for Wedgetail and EastMareast where pit slopes of 45 degrees were used. Geotechnical holes exist for Trident UG, Trident West OP and PHB-1 OP Geotechnical data from diamond drillholes has been generated for Trident UG, Trident West OP, PHB-1 OP and from Cinnamon diamond drill-core (from 50m down-hole). These data were complimented by field examination of previous open pits.

The information in this release that relates to geotechnical modifying factors is based on information compiled and/or reviewed by Mr Peter O'Bryan, who is a Chartered Professional Member of The Australasian Institute of Mining and Metallurgy. Mr O'Bryan is a full-time employee of Peter O'Bryan and Associates. Mr O'Bryan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

• Specific Gravity (SG) measurements applied to the Mineral Resource estimates are based on extensive measurements on drill-core generated by Vango Mining as well as compilation of previous information (see JORC Table 1, Section 2).



Appendix 2: Detailed Resource Tables and Comparisons

Table 2 - Marymia Gold Project JORC 2012 Mineral Resource estimate May 2020 compared to JORC 2012 Mineral Resource component of 30 June 2019 Mineral Resource Statement²

IVIAKTIVIIA GOLD	MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE ESTIMATE MAY 2020									
Deposit	Cut-off	-off Indicated Inferred							Total	
Mineral Resource - Open Pit (OP):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident West OP	0.5	253	1.1	9				253	1.1	9
Marwest & Mars OP	0.5	688	2.0	45				688	2.0	45
Mareast OP	0.5	486	1.9	30				486	1.9	30
EastMareast OP	0.5	237	1.1	8				237	1.1	8
Wedgetail OP	0.5	185	1.7	10				185	1.7	10
PHB-1 (K3) OP	0.5	604	2.0	39	238	1.4	11	841	1.9	50
K1 OP	0.5	743	1.8	42	837	1.7	47	1,580	1.8	89
Triple-P & Triple-P Sth OP	0.5	633	2.1	42	486	1.4	21	1,120	1.8	63
Albatross & Flamingo OP	0.5				853	1.4	38	853	1.4	38
Cinnamon OP	0.5	1,472	1.8	86	536	1.9	32	2,008	1.8	119
Total Open Pits		5,300	1.8	311	2,950	1.6	150	8,250	1.7	461
Mineral Resource - Underground (UG):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident UG	3.0	945	9.4	285	645	6.0	125	1,590	8.0	410
K2 UG	3.0	197	10.6	67	177	7.0	40	374	8.9	107
Triple-P & Zone-B UG	3.0				170	4.3	24	170	4.3	24
Total Underground		1,142	9.6	352	992	5.9	189	2,134	7.9	541
Total JORC 2012 Mineral Resource		6,442	3.2	663	3,942	2.7	339	10,384	3.0	1,002
MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE APRIL 2019* ²										
	Cut-off		dicated			nferred			Total	
Deposit	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	α/+ Λιι	V 0-
			-					K TOTTICS	g/t Au	K Oz
K2 SE OC	0.5	1,048	1.1	37	937	1.1	33	1,985	1.1	70
K3 (PHB-1) OC	0.5	1,048 456			462	1.7	33 25	1,985 919	1.1	70 51
	0.5 0.5	456	1.1	37	462 268	1.7 2.5	33 25 21	1,985 919 268	1.1	70 51 21
K3 (PHB-1) OC	0.5		1.1	37	462	1.7	33 25	1,985 919	1.1	70 51 21
K3 (PHB-1) OC Marwest OC Total Open Pits	0.5 0.5 0.5	456 1,504	1.1 1.8	37 26 63	462 268 1,668	1.7 2.5 1.5	33 25 21 80	1,985 919 268 3,172	1.1 1.7 2.5	70 51 21 143
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG	0.5 0.5 0.5 3.0	456 1,504	1.1 1.8 1.3	37 26 63 57	462 268 1,668 217	1.7 2.5 1.5 6.7	33 25 21 80 47	1,985 919 268 3,172 415	1.1 1.7 2.5 1.4 7.8	70 51 21 143
K3 (PHB-1) OC Marwest OC Total Open Pits	0.5 0.5 0.5	456 1,504	1.1 1.8	37 26 63	462 268 1,668	1.7 2.5 1.5	33 25 21 80	1,985 919 268 3,172	1.1 1.7 2.5 1.4 7.8	70 51 21 143
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG	0.5 0.5 0.5 3.0 3.0	1,504 198 945 1,143	1.1 1.8 1.3 8.9 9.4	37 26 63 57 285	462 268 1,668 217 645 862	1.7 2.5 1.5 6.7 6.0	33 25 21 80 47 124	1,985 919 268 3,172 415 1,590 2,005	1.1 1.7 2.5 1.4 7.8 8.0 8.0	70 51 21 143 104 410 513
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground	0.5 0.5 0.5 3.0 3.0	1,504 198 945	1.1 1.8 1.3 8.9 9.4 9.3	37 26 63 57 285 342	462 268 1,668 217 645	1.7 2.5 1.5 6.7 6.0 6.2	33 25 21 80 47 124 171	1,985 919 268 3,172 415 1,590	1.1 1.7 2.5 1.4 7.8 8.0	70 51 21 143 104 410
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground	0.5 0.5 0.5 3.0 3.0 3.0	1,504 198 945 1,143 2,648	1.1 1.8 1.3 8.9 9.4 9.3	37 26 63 57 285 342 405	462 268 1,668 217 645 862 2,530	1.7 2.5 1.5 6.7 6.0 6.2 3.1	33 25 21 80 47 124 171 251	1,985 919 268 3,172 415 1,590 2,005	1.1 1.7 2.5 1.4 7.8 8.0 8.0	70 51 21 143 104 410 513
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource	0.5 0.5 0.5 3.0 3.0 3.0	1,504 198 945 1,143 2,648	1.1 1.8 1.3 8.9 9.4 9.3	37 26 63 57 285 342 405	462 268 1,668 217 645 862 2,530	1.7 2.5 1.5 6.7 6.0 6.2 3.1	33 25 21 80 47 124 171 251	1,985 919 268 3,172 415 1,590 2,005	1.1 1.7 2.5 1.4 7.8 8.0 8.0	70 51 21 143 104 410 513
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource	0.5 0.5 0.5 3.0 3.0 3.0 Cut-off	1,504 198 945 1,143 2,648	1.1 1.8 1.3 8.9 9.4 9.3 4.8	37 26 63 57 285 342 405	462 268 1,668 217 645 862 2,530	1.7 2.5 1.5 6.7 6.0 6.2 3.1	33 25 21 80 47 124 171 251	1,985 919 268 3,172 415 1,590 2,005	1.1 1.7 2.5 1.4 7.8 8.0 8.0 3.9	70 51 21 143 104 410 513
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource	0.5 0.5 0.5 3.0 3.0 3.0 Cut-off	1,504 198 945 1,143 2,648 D12 MINEF	1.1 1.8 1.3 8.9 9.4 9.3 4.8	37 26 63 57 285 342 405	462 268 1,668 217 645 862 2,530	1.7 2.5 1.5 6.7 6.0 6.2 3.1	33 25 21 80 47 124 171 251	1,985 919 268 3,172 415 1,590 2,005 5,178	1.1 1.7 2.5 1.4 7.8 8.0 8.0 3.9	700 511 211 143 104 410 513 656
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource DIFFERENCE	0.5 0.5 0.5 3.0 3.0 3.0 Cut-off	1,504 198 945 1,143 2,648 012 MINEF In	1.1 1.8 1.3 8.9 9.4 9.3 4.8 RAL RESC dicated g/t Au 2.0	37 26 63 57 285 342 405 DURCE N	462 268 1,668 217 645 862 2,530 MAY 2020 t	1.7 2.5 1.5 6.7 6.0 6.2 3.1 to APRIL	33 25 21 80 47 124 171 251 K Oz	1,985 919 268 3,172 415 1,590 2,005 5,178	1.1 1.7 2.5 1.4 7.8 8.0 8.0 3.9 Total g/t Au 2.0	700 51 21 143 104 410 513 656
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource DIFFERENCE	0.5 0.5 0.5 3.0 3.0 3.0 Cut-off	1,504 198 945 1,143 2,648 012 MINEF Int K Tonness 3,796	1.1 1.8 1.3 8.9 9.4 9.3 4.8 RAL RESC dicated g/t Au 2.0	37 26 63 57 285 342 405 DURCE N	462 268 1,668 217 645 862 2,530 MAY 2020 1 II K Tonnes 1,282	1.7 2.5 1.5 6.7 6.0 6.2 3.1 to APRIL of APRIL of APRIL 1.7	33 25 21 80 47 124 171 251 2019	1,985 919 268 3,172 415 1,590 2,005 5,178 K Tonnes 5,078	1.1 1.7 2.5 1.4 7.8 8.0 8.0 3.9 Total g/t Au 2.0	700 511 211 143 104 410 513 656 K Oz 319 224%
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource DIFFERENCE Deposit Total Open Pits	0.5 0.5 0.5 3.0 3.0 3.0 Cut-off Au g/t	1,504 198 945 1,143 2,648 012 MINEF In K Tonnes 3,796 252%	1.1 1.8 1.3 8.9 9.4 9.3 4.8 RAL RESC dicated g/t Au 2.0	37 26 63 57 285 342 405 DURCE N K Oz 248 395%	462 268 1,668 217 645 862 2,530 MAY 2020 to K Tonnes 1,282 77%	1.7 2.5 1.5 6.7 6.0 6.2 3.1 to APRIL of Au 1.7 7%	33 25 21 80 47 124 171 251 2019 K Oz 70 88%	1,985 919 268 3,172 415 1,590 2,005 5,178 K Tonnes 5,078 160%	1.1 1.7 2.5 1.4 7.8 8.0 8.0 8.0 3.9 Total g/t Au 2.0 24%	70 51 21 143 104 410 513
K3 (PHB-1) OC Marwest OC Total Open Pits K2 UG Trident UG Total Underground Total JORC 2012 Mineral Resource DIFFERENCE Deposit Total Open Pits	0.5 0.5 0.5 3.0 3.0 3.0 Cut-off Au g/t	1,504 1,504 198 945 1,143 2,648 012 MINEF K Tonnes 3,796 252% -1	1.1 1.8 1.3 8.9 9.4 9.3 4.8 RAL RESO dicated g/t Au 2.0 41%	37 26 63 57 285 342 405 DURCE N K Oz 248 395%	462 268 1,668 217 645 862 2,530 MAY 2020 1 In K Tonnes 1,282 77% 130	1.7 2.5 1.5 6.7 6.0 6.2 3.1 to APRIL 1.7 7% 4.1	33 25 21 80 47 124 171 251 2019 K Oz 70 88% 17	1,985 919 268 3,172 415 1,590 2,005 5,178 K Tonnes 5,078 160% 129	1.1 1.7 2.5 1.4 7.8 8.0 8.0 8.0 3.9 Total g/t Au 2.0 24% 6.6	70 51 21 143 104 410 513 656 K Oz 319 224%

^{*}Trident UG JORC 2012 Mineral Resource first disclosed 18 April 2019¹. Other JORC 2012 Mineral Resources first disclosed 1 October 2014. JORC 2004 Mineral Resources first disclosed 1 October 2014 that were included in the 30 June 2019 Mineral Resource Statement² have been excluded.



Table 3 - Marymia Gold Project JORC 2012 Mineral Resource May 2020 Oxide, Transition and Fresh

MA	MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE ESTIMATE MAY 2020												
Deposit	Cut-off		Oxide		Tr	ansition			Fresh			Total	
Mineral Resource - Open Pit (OP):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident West OP	0.5	12	1.2	0.5	189	1.0	6.2	51	1.2	2.0	253	1.1	9
Marwest & Mars OP	0.5	10	2.1	0.7	162	2.0	10.6	515	2.0	33.2	688	2.0	45
Mareast OP	0.5	10	1.5	0.5	451	1.9	27.9	25	2.2	1.7	486	1.9	30
EastMareast OP	0.5	224	1.1	8.0	13	0.9	0.4				237	1.1	8
Wedgetail OP	0.5	154	1.7	8.3	31	1.7	1.7				185	1.7	10
PHB-1 (K3) OP	0.5	287	1.5	14.1	392	1.9	23.7	162	2.4	12.4	841	1.9	50
K1 OP	0.5	350	1.5	17.0	780	1.6	41.1	450	2.1	31.0	1,580	1.8	89
Triple-P & Triple-P Sth OP	0.5	189	1.2	7.4	293	1.5	13.7	637	2.1	42.3	1,120	1.8	63
Albatross & Flamingo OP	0.5	606	1.3	24.8	239	1.7	13.0	8	1.7	0.4	853	1.4	38
Cinnamon OP	0.5	513	1.6	26.9	470	1.8	26.7	1,025	2.0	65.1	2,008	1.8	119
Total Open Pits		2,354	1.4	108	3,021	1.7	165	2,875	2.0	188	8,250	1.7	461
Mineral Resource - Underground (UG):	Au g/t	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz	K Tonnes	g/t Au	K Oz
Trident UG	3.0							1,590	8.0	410	1,590	8.0	410
K2 UG	3.0							374	8.9	107	374	8.9	107
Triple-P & Zone-B UG	3.0							170	4.3	24	170	4.3	24
Total Underground								2,134	7.9	541	2,134	7.9	541
Total JORC 2012 Mineral Resource		2,354	1.4	108	3,021	1.7	165	5,009	4.5	729	10,384	3.0	1,002



Appendix 3: JORC Code, 2012 Edition – Table 1 Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed 	Vango Work: Reported Diamond Drilling assays are from mostly Half core and minor Quarter core, NQ2 and HQ diamond core. This is considered to be sufficient material for a representative sample. Mineralised intervals were selected based on projections of known mineralisation as well as identified associations with mineralisation e.g. biotite alteration at Trident, quartz and sulphide at other prospects. Sampling was continued well beyond the identified mineralised intervals and follow-up sampling was conducted where mineralisation was detected at the ends of the sampled zones. Drillholes were generally designed to intersect mineralisation orthogonal to strike and core was oriented. Cutting of core was along the orientation line, in order to be as close as possible to orthogonal to mineralised structures and representative. RC Drilling assays are from 1m samples split on the cyclone. 4m composites from these 1m splits have been taken in the cover sequence. Sample preparation according to the Industry Standard approach of approximately 3 kg submitted to Intertek Laboratories in Perth they were pulverised to produce a 50 g charge for fire assay. Previous Workers: Quality of historical sampling information is varied, but has been verified against original logs and reports wherever possible. Previous work has been dominated by Resolute, BMA, Homestake, Barrick Resources and Dampier Gold, all of which are considered to have used high quality methodology for the time. RC samples were collected as 4m composite spear samples. Mineralised zones were sampled at 1m intervals using a 1/8 riffle splitter. Core samples were taken at 1m intervals or at geological boundaries from NQ2 and HQ Core. Where sampling methods have not been recorded, results are consistent with, and of a similar quality, to results where methodology is known, including Vango methodology i.e. the Industry Standard approach above.



Criteria	JORC Code explanation	Commentary
	information.	
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).	 Vango Work: NQ2 Diamond drill-core. Face Sampling, Reverse Circulation (RC) hammer Previous workers: NQ/NQ2 and HQ Diamond drill-core, minor BQ diamond drill-core from underground K2. Face Sampling, Reverse Circulation (RC) hammer. Minor Aircore drilling in oxide zones of some open pit resource areas.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Vango Work: RC drilling was bagged on 1m intervals and an estimate of sample recovery has been made on the size of each sample. Recoveries have been excellent in mineralised zones. Diamond core recoveries are recorded for each metre with excellent recoveries through mineralised zones showing no likely bias to results. Results between RC and diamond are of similar tenor where they have been adjacent, with no indication of bias to the sampling with any drilling method. Previous Workers: Limited information on the recoveries has been recorded for RC, but where located for the diamond drilling, the recoveries have been consistently high in agreement with those noted by Vango.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Vango Work: Reverse Circulation (RC) holes have been logged on 1m intervals Diamond holes are logged in detail based on geological boundaries. Diamond holes are logged on 1m intervals for geotechnical data. Metallurgical samples were taken from logged HQ diamond holes for testwork verified as representative and appropriate by Como Engineers to support appropriate Mineral Resource estimation. Diamond drillcore has been geotechnically logged in detail and the geotechnical logging has been examined and verified sufficient detail to support appropriate Mineral Resource estimation and mining studies by Peter O'bryan and associates, geotechnical engineers. Previous Workers: Geological logs have been examined from previous workers in both hard copy and digital files. Logging codes have varied, but careful reconstruction of the geological sections has shown good correlation with the broad lithological logging.



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise samples representivity Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/secondhalf sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Vango Work: Diamond drilling - Half and Quarter Diamond Core on selected intervals of between 0.25-1.25m length using a diamond saw sampled. Standards submitted every 20 samples, of gold grade range similar to those expected in the sampling. Blanks were inserted every 20 samples also. RC Drilling sampled on 1m samples using a cone splitter within the cyclone. In less prospective lithologies these 1m samples were composited using a scoop over 4m intervals. Field duplicate sampling was completed by passing the bulk reject sample from the plastic bag through a riffle splitter. In addition, ½ core was routinely submitted. Duplicate sample intervals were designated by the geologist. Previous Workers: RC – 1m samples collected at the rig using a 1:8 riffle splitter. Each sample was riffle split each 1m sample to collect approximately 2kg samples in calico bags, with the remaining sample retained on site in plastic bags. Four metre composite samples were also collected with any samples assaying greater than 0.1g/t Au being re-split to 1m intervals. Core sampled was halved using a diamond saw and sampled at 1m intervals, or to geological contacts. Sampling procedures for the Resolute drilling were not available. Metallurgy: Diamond Core sampled was halved using a diamond saw and then quartered for assaying and sampled at 1m intervals, or to geological contacts. Half core material was then used for metallurgical (leach recovery) testing with minor quarter core HQ material where this was necessary. Full core sections have been used for strength and grinding testing
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	 also. Vango Work: ~3kg samples dried, crushed and pulverised then a 50g charge analysed at Intertek Laboratories using an Industry Standard Fire Assay method. Standards submitted every 20 samples of grade-range/tenor similar to those expected in the sampling. Blanks were inserted every 20 samples also. Field duplicates also analysed. Previous Workers: Gold was analysed using fire assay with a 25-50g charge for Au within mineralised zones. Some Aqua regia data is included in the resources, generally in lower grade, oxide and transition, areas Drilling programs carried out by HGAL have included ongoing QAQC procedures. These included the use of certified standards, blanks, check assay and duplicate sampling. The various programs of QAQC carried out by HGAL have all produced results which support the sampling and assaying procedures used at the site. QAQC procedures for the Resolute drilling were not available.



Criteria	JORC Code explanation	Commentary
	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.	 QAQC Discussion: Higher grade results show greater variation as expected with Duplicates and re-assays, but in general show good correlation. Standards and Blanks reported within acceptable accuracy and precision levels around the expected standard value. Some anomalous results were likely due to mislabelling of standards and these were reassigned where obvious. The results indicate the fire assay results from Intertek are of sufficient quality to be acceptable for use in resource estimation. Previous workers QA/QC analysis and results are also within acceptable accuracy levels where available.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Vango Work: Intersections have been calculated using a 1 g/t cut off and internal waste of up to 3m thickness with total Intersections greater than 3g/t. Intersections have been reviewed by senior geological staff at consultants Terra Search and Discover Resource Services (Jon Dugdale). Intersections have been re-calculated according to Mineral Resource estimation criteria. Previous Workers: The database of analytical results from previous workers has been audited and, where possible, verified with reference to historical reports. Intersections have been re-calculated according to Mineral Resource estimation criteria. Vango infill drilling has largely confirmed the thickness and tenor of previous drilling. Scissored/twinned (<10m) holes have confirmed mineralised zones at many prospects Data is provided from the field as paper logs for geology, DGPS files for locations, and CSV files from the laboratory for assays. The digital formats are converted into spreadsheet format and pass through an initial validation prior to loading into the Terra Search Explorer3 RDBMS system. Extensive data validation protocols are then applied from within the database and through visual confirmation by the senior geological team. Previous company databases have been converted into the Explorer3 RDBMS format and undergone extensive validation including cross referencing to Annual reporting and internal data sources. The database is managed by Terrasearch and outputted to an Access data base at Carras Mining for Mineral Resource estimation purposes. Assay data has been used without adjustment except where high-grade cuts have been applied for Mineral Resource estimation purposes (see
Location of data points	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	 Section 3's). Vango Work: DGPS has been used to locate all drillholes. REFLEX Gyro Tool used for downhole surveys on all holes Previous Workers: The majority of drill holes used in the resource estimate have been accurately surveyed by qualified surveyors using DGPS. Down hole surveys have been conducted at regular intervals using industry-



Criteria	JORC Code explanation	Commentary
	 estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 standard equipment. Where single shot cameras were used some magnetic units have affected the azimuth readings and these have not been used. Many holes have been surveyed using Gyro tools. Some historical data may only have local surveyed coordinates and nominal downhole surveys but each hole in the database has been checked against original data with a small percentage of holes not available in hard copy for verification. Drill data spacing:
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. 	 Drillholes have been planned in areas of Mineral Resource definition to a minimum spacing of 40m x 40m intersection density (for Inferred Resources) and infilled to a minimum of 20m x 20m (for Indicated Resources). Isolated drillholes intersections at >40m spacing will be utilised for estimation of Exploration Targets. The drill spacing of 40m x 40m intersection density and 20m x 20m intersection density is sufficient to establish the degree of geological and grade continuity appropriate for Inferred to Indicated Mineral Resource estimation respectively for all prospects. Broader spaced drilling intersections (up to 60m) have been modelled in areas of structural continuity internal to the (Inferred) Mineral Resource. Some sections have closer spacing in high-grade zones, confirming the continuity in Indicated Resource areas. Metallurgy: Samples were selected from diamond core and/or RC chips to be representative of mill feed material for testing. Sufficient metallurgical sampling appropriate for the Mineral Resource estimation, complimented by previous data. Additional representative sampling will be required for Ore Reserve estimation in future.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 The orientation of a majority of the drilling is approximately perpendicular or at a high angle to the strike and dip of the mineralisation. Cutting of core was along the orientation line, in order to be as close as possible to orthogonal to mineralised structures and representative. There is a low likelihood of any sampling bias. Certain holes have drilled parallel to key structures, but density of drilling and drilling on other orientations has allowed detailed geological modelling of these structures and hence any sampling bias in a single hole has been removed.
Sample security	The measures taken to ensure sample security.	 Vango Work: Samples sealed in bulka bag with Security seal, unbroken when delivered to lab. Previous Work: No information on Sample security has been obtained on previous workers sampling, however Industry standard practices are assumed.



Criteria	JORC Code explanation	Commentary
		Metallurgical work: Samples sealed in bulka bag with Security seal, unbroken when delivered to lab or transported in diamond trays, previously photographed and then strapped to ensure safe and secure transport.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Review of standards, blanks and Duplicates indicate sampling and analysis has been effective. Historical QA/QC sampling has been referred to and signed off in previous resource statements, confirming the validity and previous data integrity. Databases have been extensively validated and a proportion of holes were compared to original data reports/sources and found to be consistent wherever checked.



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	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	Marymia Gold Project is located within the Archaean Marymia Inlier in the Plutonic Well or Marymia Greenstone Belt ~218km northeast of Meekatharra in the Midwest mining district in WA (Figures' 1 and 2). Trident/Trident West/Marwest/Mars: - M52/217 - granted tenement in good standing. Mareast/East Mareast/Wedgetail: - M52/218 - granted tenement in good standing. K1/K2/PHB: - M52/186 granted tenement in good standing. Triple-P & Zone-B/Albatross - Flamingo: - M52/396 granted tenement in good standing. Cinnamon: - M52/228 - granted tenement in good standing. The tenements above predate the Native title Act. The tenements are 100% owned by Vango Mining Limited and subsidiary Dampier Plutonic Pty Ltd. Gold production will be subject to a 1-4% royalty dependent on gold price (Currently 2%) capped at \$2M across the entire project area. Contingent production payments of up to \$4M across the entire project area.
Exploration done by other parties.	Acknowledgment and appraisal of exploration by other parties.	 Extensive previous work by Resolute Mining, Homestake Gold, Battle Mountain Australia, Barrick Mining and Dampier Gold. Previous metallurgical and resource work has been completed by Resolute Mining, Barrick Mining and Dampier Gold. The quality and verification of previous exploration work is covered under Section 1 above.
Geology	Deposit type, geological setting and style of mineralisation.	 Marymia mineralisation is structurally controlled, orogenic, mesothermal (amphibolite metamorphic facies) in style, associated with the late tectonic D3 high-angle thrusting event and open folding/flexing and dilation of earlier - including D1/D2 thrusts. Gold mineralisation at Trident/Trident West, Marwest and Mars project is hosted within a sheared contact zone in ultramafic rocks. High-grade 'shoots' of mineralisation are associated with flexures in the mineralised, generally shallow dipping shear structures /contact zones between steeply dipping (D3) faults. Gold mineralisation at Mareast/EastMareast, K1, K2 and PHB-1 are also orogenic hosted within steep shears within a mafic dominant package, flexures in the shear are important controls on mineralisation. Gold at Wedgetail is orogenic found on the sheared contact between felsic "porphyry" intrusions and mafic rocks. Gold mineralisation at Cinnamon is hosted within a shear zones within conglomerates with felsic clasts within a mafic derived matrix. High grade zones are located in flexures of the shear zones. Gold at Triple P and Zone B is hosted within steep to moderate dipping



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:	shears and shallow dipping link structures, within a mafic package which includes some sulphidic sedimentary units and felsic "porphyry" intrusions. Gold at Albatross and Flamingo is hosted within, and in shallow dipping linking zones between, shear zones within a mostly sedimentary package with some mafic units at depth. Vango Work: Location of Drillholes based on historical reports and data, originally located on surveyed sites, and DGPS. Northing and easting data generally within 0.1m accuracy RL data +-0.2m Down hole length =+- 0.1 m Details on Vango drilling included in this Mineral Resource update including: easting and northing of the drill hole collars, elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collars, dip and azimuth of the hole, down hole length and interception depth, hole length, are tabulated in Vango ASX releases (since July 2018) that are listed on the Company's Website www.vangomining.com . Where specific drilllhole intersections are shown on sections the relevant ASX release is referenced on page 7 of this release. Previous Workers: The majority of drill holes used in the resource estimate have been accurately surveyed by qualified surveyors using DGPS. Down hole surveys have been conducted at regular intervals using industry-standard equipment. Where single shot cameras were used some magnetic units have affected the azimuth readings and these have not been used. Many holes have been surveyed using Gyro tools. A number of the drillholes from each prospect are of unknown survey methods, and some may have a lower location accuracy both from a collar and survey perspective. These holes make up only a small percentage of the overall database at each resource and all holes
		 appear to have been located with sufficient accuracy to be consistent with the known drilling. Open hole percussion and RAB drilling have been excluded from the resource calculations.
Diagrams	Appropriate maps and sections (with scales) and tabulations of Intersections should be	 All Diamond and Reverse Circulation (RC) holes have been included. Representative plans and sections have been included in Appendix 1 of this report, including drill collar locations in plan view: Figure 1: Marymia Gold Project, key corridors and Mineral Resource projects
	included for any significant discovery being reported These	Figure 2: Location of Marymia Gold Project in the Yilgarn block of



Criteria	JORC Code explanation	Commentary
Balanced	should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or	 Western Australia Figure 3: Marymia Gold Project, Trident Corridor with Mineral Resource projects Figure 4: Trident West Mineral Resource cross section 19200mE Figure 5: Marwest – Mars Mineral Resource cross section 20810mE Figure 6: Mareast Mineral Resource cross section 22700mE Figure 7: Marymia Gold Project, Triple-P Corridor with Mineral Resource projects Figure 8: Triple-P and Zone-B Mineral Resource cross section 1920mN Figure 9: Albatross-Flamingo cross section 7900mN with optimised pit and N-S Resource blocks Figure 10: Marymia Gold Project, PHB Corridor with Mineral Resource projects Figure 11: K2 West Lode, Central Lode and Main Lode cross section 16,425mN Figure 12: Longitudinal Projection through K2 Main Lode, PHB-1 optimised pit & Resource model Figure 13: PHB-1 West Lode, Central Lode and Main Lode cross section 16,875mN Figure 14: K1 Mineral Resource cross section 18,780mN Figure 15: Marymia Gold Project, Cinnamon Corridor with Mineral Resource projects Figure 16: Cinnamon cross section 26,375mN Details of new drilling Intersections and results that are included in the Mineral Resource estimates are tabulated in previous Vango ASX releases (since July 2018) that are listed on the Company's Website www.vangomining.com. Where specific drillhole intersections are shown on sections the relevant ASX release is referenced on page 7 of this release.
	and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	relevant ASX release is referenced on page 7 of this release.
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;	Other substantive exploration data, exclusive of drilling data referred to above, that has contributed to the Mineral Resource Estimates reported includes: • Metallurgical test results have been included in mining optimisation evaluations; - As previously reported in ASX releases on the Company's website www.vangomining.com , based on metallurgical testwork for the Trident UG, Trident West/PHB-1 and Triple-P and Zone-B prospects. - Metallurgical data generated by previous workers on other prospects. Metallurgical recoveries recommended and applied to optimisations are tabulated below:



Criteria	JORC Code explanation	Commentary						
	potential deleterious or	Leach recoveries from test work and as applied						
	contaminating	ontaminating			verage fo			
	substances.			Recor	nmended		Applied	
		Trident West OP			93.7%		92.0)%
					92.99	%	92.0)%
		Mareast OP			93.79	%	92.0	0%
		EastMareast OP		93.79	%	92.0)%	
		Wedgetail OP			88.69	%	92.0	0%
		PHB-1 (K3) OP			95.29	%	92.0)%
		K1 OP			92.89	%	92.0)%
		Triple-P & Triple-P Sth	ı OP		93.49	%	90.0)%
		Albatross & Flamingo	OP		93.59	%	92.0)%
		Cinnamon OP			92.79	%	92.0)%
		Trident UG			89.49	%	90.0	0%
		K2 UG			94.09	%	92.0	0%
		Triple-P/Zone-B UG			91.59	%	90.0	0%
		Average			939	%	92	2%
		Prospect, Drillhole:	Z	one		BBV		
		Prospect, Drillhole: Zo		Zone BB			:Wi	
		PHB-1, PHBMET01 PHBM		НВМЕТО	IBMET01- Oxide		3.4	
		PHB-1, PHBMET01	TO1 PHBMETO2 Transition		_			
			Т				10.7	
		PHB-1, PHBMET01					16.8	
		PHB-1, PHBMET01 Cinnamon, VBGRCD00	Р	ransition	3-Fresh			
			D02 C	ransition HBMET0	3-Fresh		16.8	
		Cinnamon, VBGRCD00	P DO2 C DO1 F fic Gravi ry data h gh spec ineral Ro ommen	ransition PHBMETO Oxide/Tra resh ity (SG) d has been cific prosp esource of ded and ed below	3-Fresh nsition ata: generated pects and/ estimates. applied to	or as rep The SG' the Min	16.8 9.0 13.9 Company froorted in resisteral Resou	elation
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec	PD02 CD01 F fic Graving data high specimeral Recommentabulate	ransition HBMETO Oxide/Tra resh ity (SG) d nas been cific prosp esource e ded and ed below	3-Fresh nsition ata: generated pects and/ estimates. applied to	or as rep The SG' the Min	16.8 9.0 13.9 Company froorted in resisteral Resou	elation
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec	PD002 CD001 F fic Gravity data high specineral Riommen tabulate Oxio	ransition PHBMETO Oxide/Tra resh ity (SG) d has been cific prosp esource of ded and ed below	3-Fresh nsition ata: generated pects and/ estimates. applied to	or as rep The SG' the Min	16.8 9.0 13.9 Company froorted in resisteral Resou	elation
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are	PD02 CD01 F fic Graving data high specimeral Recommentabulate	ransition HBMETO Oxide/Tra resh ity (SG) d nas been cific prosp esource e ded and ed below	3-Fresh nsition ata: generated pects and/ estimates. applied to : Specific G	or as rep The SG' the Min	16.8 9.0 13.9 Company froorted in resisteral Resou	elation
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are	PD002 CD001 F fic Gravity data high specineral Riommen tabulate Oxio	ransition HBMETO Dxide/Tra resh ity (SG) d has been cific prosp esource e ded and ed below de SG	3-Fresh nsition ata: generated pects and/ estimates. applied to : Specific G Trans	or as rep The SG' the Min ravity (S	16.8 9.0 13.9 Company fronted in resisteral Resources	rce SG
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are Project	PD02 CD01 F fic Gravity data h gh specimeral Re ommen tabulate Oxio Recm	ransition HBMETO Dxide/Tra resh ity (SG) d has been cific prosp esource e ded and ed below de SG Use	3-Fresh nsition ata: generated pects and/ estimates. applied to : Specific G Trans Recm.	or as reported the SG' the Mineravity (S	16.8 9.0 13.9 Company froorted in restricted	SG Use 2.90
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are Project Trident West OP	PD002 CD001 F fic Gravity data high specimeral Rightson tabulate Oxio Recm . 1.80	resh ity (SG) d has been sific prospesource ed and ed below de SG Use 1.80	3-Fresh nsition ata: generated pects and/ estimates. applied to : Specific G Trans Recm. 2.40	or as reported the SG' the Mineravity (SG) Use 2.40	16.8 9.0 13.9 Company froorted in resisteral Resources G() Fresh Recm. 2.90	sG Use 2.90
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are Project Trident West OP Marwest & Mars OP	P DO2 C DO1 F fic Gravi y data h igh spec ineral Ri ommen tabulate Oxio Recm . 1.80	ransition HBMETO Dxide/Tra resh ity (SG) d has been dific prosp esource e ded and ed below de SG Use 1.80 1.80	3-Fresh nsition ata: generated pects and/ estimates. applied to : Specific G Trans Recm. 2.40 2.40	or as rep The SG' the Min ravity (S S SG Use 2.40 2.40	16.8 9.0 13.9 Company froorted in resisteral Resources G Recm. 2.90 2.80	SG
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are Project Trident West OP Marwest & Mars OP Mareast OP	PO02 CO01 F fic Gravity data high specimeral Rightsommen tabulate Oxio Recm 1.80 1.80	resh ity (SG) d has been cific prospesource ed and ed below Use 1.80 1.80	3-Fresh nsition ata: generated pects and/estimates. applied to: Specific G Trans Recm. 2.40 2.40 2.40	ravity (S S SG Use 2.40 2.40	16.8 9.0 13.9 Company froorted in resisteral Resources G() Fresh Recm. 2.90 2.80 2.80	SG Use 2.90 2.80 2.80
		Cinnamon, VBGRCD00 Cinnamon, VBGRCD00 • Bulk density/Speci - Specific Gravit drillcore throu to previous M measured/rec estimates are Project Trident West OP Marwest & Mars OP Mareast OP EastMareast OP	P DO2 C DO1 F fic Gravi y data h igh spec ineral Ri ommen tabulate Recm . 1.80 1.80 2.00	ransition PHBMETO Oxide/Tra resh ity (SG) d has been cific prosp esource edd and ed below de SG Use 1.80 1.80 2.00	3-Fresh nsition ata: generated pects and/estimates. applied to: Specific G Trans Recm. 2.40 2.40 2.40 2.40	ravity (S SSG Use 2.40 2.40 2.40	16.8 9.0 13.9 Company fronted in resisteral Resources G() Fresh Recm. 2.90 2.80 2.80	elation rce SG Use



Criteria	JORC Code explanation	Commentary						
		Triple-P & Triple-P Sth OP Albatross & Flamingo OP Cinnamon OP Trident UG K2 UG Triple-P/Zone-B UG Average • Geotechnical and diamond drillhe examination of O'Bryan and A used in open pevaluation who used except for degrees were Trident West of Cinnamon OP transition and • Fibrous Asbestiform of The Trident defibrous asbest asbestiform of OP and Marea previous mining were put in please of Safety required areas, the conwaste and tail and milling im	data has noles cor for previous sociate bit optimere applor Wedgo used. Go Pand For deposit fresh man Minere posits (Tiform minerals hast OP. Fong at Maace to en ments in tainmenings. Be	been ge npleted. us open ps and ap isations icable. Oetail and eotechniches also aterial. If ident Vineral actions of a sure also ibrous mrymia ar isure applictuding st of crusst practic	nerated fr These da pits, has b plied to re and for un overall pit EastMare ical holes Diamon reviewed Vest OP an tinolite and been det ninerals hand mining propriate adequate hed mate	ta, compeen evalue een evalue een evalue een evalue en evalue exist for dill-competed at the evalue eeted at and milli Occupat ventilatirials and	olimented luated by Finded pit-slund mining f 40 degree re pit slope Trident UG ore from thing oxide, Int UG) conflite. Fibroid Marwest 8 associated ing processional Healt on, wash cuthe coveri	by field Peter opes es were es of 45 G, he tain the us & Mars with ses th and down ng of
Further Work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Interpretation and identified potential four key mineralise Cinnamon corridors Exploration Targets mineralisation outs Drilling programme and, based on succe the necessary drilling estimates in due co Plans and cross sect extensions, includir drilling areas: Figure 3: Mar Resource projential Figure 4: Tridential Figure 5: Mar 20810mE 	extension of corridors. will be exide the Nos will be execused the management of the management western of the management western western of the management will be a supplied to the management of the manag	estimated Mineral R designed drilling v ty to prep his repolatin geolo	repeats of ding the Pl d for zone Resource a d to test the will be car pare new the prical inter t, Trident	minerali HB, Tripl s of targ ireas whe hese Exp ried out Mineral he areas rpretation Corridor	sed zones e-P, Triden eted ere approp loration Ta in order to Resource of possible ans and fut with Mine	oriate. argets o reach ure



Criteria	JORC Code explanation	Commentary
		 Figure 6: Mareast Mineral Resource cross section 22700mE Figure 7: Marymia Gold Project, Triple-P Corridor with Mineral Resource projects Figure 8: Triple-P and Zone-B Mineral Resource cross section 1920mN Figure 9: Albatross-Flamingo cross section 7900mN with optimised pit and N-S Resource blocks Figure 10: Marymia Gold Project, PHB Corridor with Mineral Resource projects Figure 11: K2 West Lode, Central Lode and Main Lode cross section 16,425mN Figure 12: Longitudinal Projection through K2 Main Lode, PHB-1 optimised pit & Resource model Figure 13: PHB-1 West Lode, Central Lode and Main Lode cross section 16,875mN Figure 14: K1 Mineral Resource cross section 18,780mN Figure 15: Marymia Gold Project, Cinnamon Corridor with Mineral Resource projects Figure 16: Cinnamon cross section 26,375mN



Section 3 Estimation and Reporting of Mineral Resources TRIDENT WEST OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. • Drilling of the Trident West deposit (and adjoining Trident UG deposit) includes both RC and structurally oriented diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy – including in petrographic examination (e.g. Phlogopite-Tremolite-sulphides relationship) has enabled a structural model to be generated that has guided the interpretation. Drilling density at Trident West is <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. • The nature of the data used for the geological interpretation is almost entirely drilling data. At Trident West a total of 160 holes for 15,751m of drilling has been completed both historically and by Vango Mining. This includes 6 DD holes for 530m and 154 RC holes for 15,221m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging



Criteria	JORC Code explanation	Commentary
		 has been completed for all Vango and previous drilling. Data/information generated from structural and geotechnical logging of diamond drillcore has also been utilised. Alternative interpretations with respect to the shape and orientation of mineralised zones, where data is limited to RC drilling (no orientation not known) are unlikely to significantly effect the volume of mineralisation but may have a low to moderate effect on continuity and classification (e.g. Indicated vs Inferred). However, the level of understanding based on structural orientation data generated throughout the Trident deposit, and the experience of the geological team, has limited the interpretation risk to low. Geology (structural, lithological and alteration) has been a key factor guiding the interpretation of the orientation, geometry, size and continuity of the resource envelopes and constraints/boundaries. The other key factor has been grade distribution and trends in the assay data, particularly where mineralisation occurs within a rock mass or the oxide zone. Key factors affecting continuity both of grade and geology include, in order of importance: Structural controls – for example, steeply dipping (D3) fault zones that bound and are interpreted to have controlled dilation in the shallow dipping ultramafic schist host unit and also host mineralisation. Some post mineralisation movement may have accentuated the bounding nature of these structures. Gold mineralisation shoot controls in 3 dimensions have been observed whjch, in the case of Trident, constrain high-grade mineralisation to concave, downwarped, flexures in the ultramafic schist host. The footwall Serpentinite is generally un-mineralised and constrains the footwall of the mineralisation. Redistribution of gold mineralisation due to re-mobilisation of gold in the oxide zone and supergene enrichment in the transition zone of the deposit. Due to leaching and re-precipitation, this can generate a
Estimation and modelling techniques	 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. The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, 	 The Trident West OP deposit has dimensions of 430m strike northeast - southwest x 400m northwest - southeast and 150m vertically from surface. The Trident West mineralisation strikes generally strikes northeast - southwest and dips moderately to the northwest. The following outlines the estimation and modelling technique used for producing Resources for the Trident West OP deposit.
	interpolation parameters and maximum distance of	



Criteria	JORC Code explanation	explanation Commentary					
	extrapolation from	Deposit Information					
	data points. If a computer assisted estimation method was chosen include a	Deposit Orebody Nominal Metres of Drill Spacing Mineralised Drilling					
	description of computer software and	Trident West OP					
	parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions	 Wireframes were provided by Terra Search for: Topography based on aerial survey information and historica open pits. Bottom of Oxidation (BOCO) Top of Fresh Rock (TOFR) CMPL carried out a review of the weathering surfaces in conjunctivith Mr J Dugdale and Terra Search Geologists. Based on geology and using intersection selection, mineralised shape were wireframed at a 0.5g/t nominal cut-off grade and usintersection selection to constrain the interpretation. The mineralised shapes could contain values less than 0.5g/t within twireframes. The parameters used for intersection selection were down hole which equates to an approximate 2-2.5m bench height. Tintersections could include 1m of internal dilution and all intersection included 0.5m of edge dilution. This edge dilution was added to alle for the non-visible edge definition which would be experienced in timining process. The mineralised wireframes were audited by Mr J Dugdale. Each mineralised wireframe had an assigned strike, dip and plunge. The majority of data was 1m lengths and length weighting was us when modelling the deposit. The number of shapes used to model the deposit was as follows: 					
	behind modelling of selective mining units.	Deposit Number of Shapes					
	Any assumptions about correlation between	Trident West OP 69					
	variables. • Description of how the geological interpretation was used to control the	The 5 largest shapes contained 82% of the volume.8. A breakdown of pre-Resource volume for each shape was measure. This was to ensure that modelling did not over dilute shapes due to blo sizes being used.					
	 resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole 	9. For each shape a detailed set of weighted statistics was produce Based on the statistics, high grade cuts were determined using both t GAP method and the method of Denham. The GAP method determine the beginning position of non-linearity of the cumulative probability plat the high grade end of the data. The Denham method uses statistic distribution theory based on the gamma distribution and the deficient of variation. The selected high grade cut and percentage metal cut (based on drilling data) is shown below:					

data, and use of reconciliation data if



Criteria	JORC Code explanation	Co	ommentary		
	available.		Deposit	Maximum Cut (g/t)	Percentage Metal Cut %
			Trident West OP	50g/t	10% (50% of metal cut from 3 samples)
		10	produced for do	_	d directional variograms were down plunge for 6 mineralised plume of the deposit.
			(OK) with the fol Nugget: 0.5	lowing parameters:	nodelled using Ordinary Kriging wn dip, 3m down hole
		11		mineralised wireframe 3 (ID³) interpolation.	s were modelled using Inverse
		12	. For both OK and	ID ³ the following parar	neters were also used:
			of samp	num number of sample lles of 16 cretisation parameters	s of 2 and a maximum number were 2E x 1N x 1RL
			• The follo	owing search radii wer	
			sha	pes)	wn dip, 3m down hole (large
			sha	pes)	filled, the parameters were
				and the search radii w	
		13	The fundamenta	l block size used was:	
			Deposit	Small Blocks	
			Trident West OP	2.5mE x 1mN x 1n	nRL
			Small blocks were shapes were narr		late volume estimation where
		14	data, visual vali		block model honoured the drill ut comparing the interpolated
		15	compared with t	he block estimates of t shape by shape basis t	mined and these were then he volumes within those o ensure that volumes
		16	and geology as t		ombination of drill hole density potential mineability as ations.
		17	shell, using cost (Mining Plus) and pit shells were m base with allowa was used for pit	estimates provided I d metallurgical informa odified to include a mi nce for a 20m wide roa walls following site visi	A\$2,500 optimised Whittle pit by external Mining Consultants ation from Como Engineers. The nimum turning circle road at the d. An overall slope of 40 degrees ts and geotechnical work carried er O'Bryan and Associates). The



Criteria	JORC Code explanation	Commentary
		optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.)
		Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
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.	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical	 Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	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. • 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 of 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	To date, there have been no issues in carrying out drilling and having POW's approved. The Trident West OP contains the fibrous asbestiform minerals actinolite and tremolite. Fibrous minerals had been associated with previous mining at Marymia and mining and milling processes were put in place to ensure appropriate Occupational Health and Safety requirements including adequate ventilation, wash down areas, the containment of crushed materials and the covering of waste and tailings. Best practices are being reviewed for mining and milling implementation.



Criteria	JORC Code explanation	Commentary
Bulk density Classification	 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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	The following bulk densities (t/m3) were used: Oxide: 1.80 Transition: 2.40 Fresh: 2.90 The bulk densities used were based on actual bulk density measurements as outlined in Section 2 of the JORC Table. Bulk density data has been collected in the field using a standard Weight in Air/Dry Weight method systematically through the diamond drilling in the field. Samples were selected and weighed in air and then submerged and reweighed using scales with a 0.1g accuracy. The samples were from fresh non-porous rock and generally returned consistent values. Some samples were covered in wax to ensure the accuracy of the method and these proved to be consistent with non-waxed measurements. All material in Trident West OP has been classified as Indicated Resource. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 20mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were determined from geotechnical drilling. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement.
Audits or reviews	The results of any audits or reviews of Mineral Resource	There have been no other audits and reviews carried out using the same data as has been used in this study.





Section 3 Estimation and Reporting of Mineral Resources MARWEST & MARS OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. • Drilling of the Marwest & Mars OP deposits (and adjoining Trident UG deposit) includes both RC and structurally oriented diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy – including in petrographic examination (e.g. Phlogopite-Tremolite-sulphides relationship) has enabled a structural model to be generated that has guided the interpretation. Drilling density at Marwest & Mars OP is <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. • The nature of the data used for the geological interpretation is almost entirely drilling data. At Marwest & Mars OP a total of 367 holes for 28,183m of drilling has been completed both historically and by Vango Mining. This includes 12 DD holes for 944m and 355 RC holes for 27,239m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging



Criteria	JORC Code explanation	Commentary			
		that bound and shallow dipping mineralisation. accentuated the Gold mineralisation observed which high-grade mine ultramafic schister of the footwall Sereconstrains the form the oxide zon of the deposit.	nerated from struct has also been utilist ations with respects, where data is limit wn) are unlikely to so any have a low to nig. Indicated vs Infect don structural oriest ent deposit, and the einterpretation rist lithological and alteration of the orient ource envelopes are been grade distributere mineralisation of the orient cource envelopes are been grade distributere mineralisation of the orient continuity both of the continuity both of the continuity both of the orient continuity both of the con	tural and geote sed. It to the shape and sed. It to the shape and sted to RC drilling significantly effect of the shape and geote set to low. It to the shape and geote station data gere experience of the station, geometry and constraints/bution and trends occurs within a grade and geote station movement of these structure in 3 dimensions west & Mars Of the set was a dimensions west & Mars Of the set unit and also isation movement in the station. If you may be a structure in a dimension set west a structure in a structure	chnical logging Indicated orientation Ingino Indicated the volume of on continuity In the level of one at the geological In a key factor In size and oundaries. The in the assay rock mass or Indicated the geological on the one of the singular than the orient may have resulted the properties of the singular than the orient may have resulted the properties of the singular than the orient may have resulted the singular than the orient may have resulted that the orient may have resulted than the orient may have resulted that the orient may have resulted than the orient may have resulted than the orient may have resulted that the orient may have resulted than the orient may have resulted that the orient may have resulted
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.	The Marwest & M northeast - southwest from surface. The Marwest & M northeast - southwest	st x 400m northwes	t - southeast and ation strikes g	d 150m vertically generally strikes
Estimation and	The nature and	The following outline			
modelling techniques	appropriateness of the estimation technique(s)	producing Resources		Mars OP depos	it.
	applied and key	<u>Deposit Information</u>		<u> </u>	Motros of
	assumptions, including treatment of extreme grade values,	Deposit	Orebody Dimensions	Nominal Drill Spacing	Metres of Mineralised Drilling
	domaining, interpolation	Marwest & Mars OP	400mE x 400mN x 150mRL	20mE x 20mN	1,091m
	parameters and maximum distance of	1. Wireframes were pro	ovided by Terra Sea	arch for:	



Criteria	JORC Code explanation	Commentary
	extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements of other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological	2. CMPL carried out a review of the weathering surfaces in conjunction with Mr J Dugdale and Terra Search Geologists. 3. Based on geology and using intersection selection, mineralised shapes were wireframed at a 0.5g/t nominal cut-off grade and using intersection selection to constrain the interpretation. These mineralised shapes could contain values less than 0.5g/t within the wireframes. The parameters used for intersection selection were 3m down hole which equates to an approximate 2-2.5m bench height. The intersections could include 1m of internal dilution and all intersections included 0.5m of edge dilution. This edge dilution was added to allow for the non-visible edge definition which would be experienced in the mining process. 4. The mineralised wireframes were audited by Mr J Dugdale. 5. Each mineralised wireframe had an assigned strike, dip and plunge. 6. The majority of data was 1m lengths and length weighting was used when modelling the deposit. 7. The number of shapes used to model the deposit was as follows: Deposit Number of Shapes Marwest & Mars OP 62 The 10 largest shapes contained 75% of the volume. 8. A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used. 9. For each shape a detailed set of weighted statistics was produced Based on the statistics, high grade cuts were determined using both the GAP method and the method of Denham. The GAP method determines the beginning position of non-linearity of the cumulative probability plot at the high grade end of the data. The Denham method uses statistica distribution theory based on the gamma distribution and the coefficient of variation.
	interpretation was used to control the resource estimates.	Deposit Maximum Cut (g/t) Percentage Metal Cut %
	 Discussion of basis for using or not using grade cutting or capping. 	Marwest & Mars OP Sog/t (30g/t in some small areas) 10% (80% of metal cut from 4 samples)
	The process of validation, the checking process used, the comparison of model data to drill hall.	wireframes covering 65% of the total volume of the deposit.

model data to drill hole

reconciliation data if

data, and use of

The 8 mineralised wireframes were modelled using Ordinary Kriging

(OK) with the following parameters:



Criteria	JORC Code explanation	Commentary
	available.	 Nugget: 0.5 Ranges: 30m along strike, 30m down dip, 3m down hole 11. The remaining mineralised wireframes were modelled using Inverse Distance Power 3 (ID³) interpolation. 12. For both OK and ID³ the following parameters were also used: A minimum number of samples of 2 and a maximum number of samples of 16 The discretisation parameters were 2E x 1N x 1RL The following search radii were used: 20m along strike, 20m down dip, 2m down hole (small shapes) 30m along strike, 30m down dip, 3m down hole (large shapes) Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased.
		13. The fundamental block size used was: Deposit Small Blocks Marwest & Mars OP 2.5mE x 1mN x 1mRL Small blocks were used to ensure adequate volume estimation where
		 shapes were narrow. 14. To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. 15. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. 16. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. 17. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus) and metallurgical information from Como Engineers. The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of 40 degrees was used for pit walls following site visits and discussions with Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.)
		 Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.



Criteria	JORC Code explanation	Commentary
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
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.	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.
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	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	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. • 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	To date, there have been no issues in carrying out drilling and having POW's approved. The Marwest & Mars OP contains the fibrous asbestiform minerals actinolite and tremolite. Fibrous minerals had been associated with previous mining at Marymia and mining and milling processes were put in place to ensure appropriate Occupational Health and Safety requirements including adequate ventilation, wash down areas, the containment of crushed materials and the covering of waste and tailings. Best practices are being reviewed for mining and milling implementation.
Bulk density	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. • Whether assumed or determined. If assumed, the basis for	The following bulk densities (t/m3) were used: Oxide: 1.80 Transition: 2.40 Fresh: 2.90
	the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	 Fresh: 2.90 The bulk densities used were based on actual bulk density measurements as outlined in Section 2 of the JORC Table. The in-situ bulk density assignment was based on previous reported measurements taken on HG triple tube core and apparent relative density testing on NQ2 core where available from this deposit and other deposits in the region with similar host rocks.



Criteria	JORC Code explanation	Commentary
Classification	 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the 	 All material in Marwest & Mars OP has been classified as Indicated Resource. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 20mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 deposit. The results of any audits or reviews of Mineral Resource estimates. 	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/confidence	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	The interpretation of the deposit is robust, and it is unlikely that a different interpretation could be produced as the deposit modelling is based on previous modelling and mining of the Marwest OP deposit. Mars OP has not previously been mined.



Criteria	JORC Code explanation	Commentary
	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.	
	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.	
	These statements of	
	relative accuracy and	
	confidence of the	
	estimate should be	
	compared with	
	production data, where	
	available.	



Section 3 Estimation and Reporting of Mineral Resources MAREAST OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the Mareast deposit has been predominantly RC drilling. However, the Mareast historical open pit remains open and structural orientations have been observed in pit wall exposures. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy in other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at Mareast is <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At Mareast a total of 201 holes for 14,960m of drilling has been completed both historically and by Vango Mining. This includes This includes 3 DD holes for 190m and 198 RC holes for 14,770m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging



		Commentary			
		Data/information of diamond drill of diamond drill of diamond drill of mineralised a corientation not mineralisation land classification. Geology (struct guiding the intercontinuity of the other key factor data, particular the oxide zone. Key factors affer order of import - Structural of that bound steep to mineralisation accentuate - Gold minerobserved with mineralisation - Intrusive for - Redistribution the oxide of the deposition of th	leted for all Vango and on generated from stall loore has also been un pretations with respectones, where data is laknown) are unlikely to the many have a low to (e.g. Indicated vs. In ural, lithological and expretation of the original protection of the original protection. For example, and are interpreted orderate dipping Mafinion. Some post mined the bounding naturalisation shoot controlling in the case of Maion to shallow plunging elsic "porphyries" also ion of gold mineralisation	ructural and geot tilised. Dect to the shape limited to RC drillisto significantly afformation of grade and geometric have controlled to have controlled to have controlled to have controlled to have structions and dimensional dimensio	echnical logging and orientation ing (no fect the volume of it on continuity een a key factor ry, size and boundaries. The ds in the assay a rock mass or blogy include, in g (D3) fault zones d dilation in the so host nent may have ures. In shave been in high-grade the mafic host. Ineralsiation. obilisation of gold the transition zone ion, this can
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.	southwest x 30 surface/base of • The Mareast OP - southwest and	mineralised envelop dips moderately to t	utheast and 100 e strikes generally he northwest.	m vertically from y strikes northeast
Estimation and modelling	 The nature and appropriateness of the 		itlines the estimatior irces for the Mareast		echnique used for
techniques	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	Deposit Informa Deposit Deposit Mareast OP 1. Wireframes we a. Topog open popen	tion Orebody Dimensions 450mE x 300mN x 100mRL re provided by Terra raphy based on aeria	Nominal Drill Spacing 25mE x 20mN Search for: I survey information	





Criteria	JORC Code explanation	Commentary
		 20m along strike, 20m down dip, 2m down hole (small shapes) 30m along strike, 50m down dip, 4m down hole (large shapes) Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased. 13. The fundamental block size used was: Deposit Small Blocks
		Mareast OP 2.5mE x 1mN x 1mRL Small blocks were used to ensure adequate volume estimation where
		 shapes were narrow. 14. To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. 15. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. 16. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. 17. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus). The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of 40 degrees was used for pit walls following site visits and discussions with Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.) 18. Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.



Criteria	JORC Code explanation	Commentary
Metallurgical 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. 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 	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling. Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.
	methods, but the assumptions regarding metallurgical	



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	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	 To date, there have been no issues in carrying out drilling and having POW's approved. The Mareast OP contains the fibrous asbestiform minerals actinolite and tremolite. Fibrous minerals had been associated with previous mining at Marymia and mining and milling processes were put in place to ensure appropriate Occupational Health and Safety requirements including adequate ventilation, wash down areas, the containment of crushed materials and the covering of waste and tailings. Best practices are being reviewed for mining and milling implementation.
Bulk density	 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. 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 	 The following bulk densities (t/m3) were used: Oxide:



Criteria	JORC Code explanation	Commentary
Classification	alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. • The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant	 All material in Mareast OP has been classified as Indicated Resource. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 25mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following:
	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). • Whether the result appropriately reflects the Competent Person's view of the deposit.	 An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/confidence	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	The interpretation of the deposit is robust, and it is unlikely that a different interpretation could be produced as the deposit modelling is based on previous modelling and mining of the Mareast OP deposit.





Section 3 Estimation and Reporting of Mineral Resources EASTMAREAST OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. • Drilling of the EastMareast deposit has been predominantly RC drilling. However, the adjacent Mareast historical open pit remains open and structural orientations have been observed in pit wall exposures. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy in other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at EastMareast is <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. • The nature of the data used for the geological interpretation is almost entirely drilling data. At EastMareast a total of 142 RC holes for 3,287m has been completed both historically and by Vango Mining. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling. Data/information



Criteria	JORC Code explanation	Commentary			
		drillcore has als Alternative interior of mineralised zorientation not mineralisation is and classificatio. Geology (structing guiding the interior continuity of the other key factor data, particular the oxide zone. Key factors afferorder of import. Structural of that bound steep to me mineralisation accentuate. Gold minerior observed with mineralisation accentuate. Redistribut in the oxide of the deposition of the d	rpretations with responses, where data is known) are unlikely but may have a low the first little of the control of the original pretation of the or	pect to the shape limited to RC drillictorial significantly effect moderate effect inferred). alteration) has been tation, geometrics and constraints/ribution and trendon occurs within a of grade and geometric have controlled to have controlled in the structure of these structures of these structures in 3 dimension acts and alteralisation movement of the structure of the struct	and orientation ing (no fect the volume of it on continuity een a key factor ry, size and boundaries. The ds in the assay a rock mass or blogy include, in (D3) fault zones d dilation in the so host ment may have ures. In shave been it rain high-grade the mafic host. Ineralisation. Obilisation of gold me transition zone ion, this can
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.	southwest x 20 surface. • The EastMareas	t OP deposit has dim Om northwest - sou st OP mineralised on nwest and dips mode	utheast and 100 envelope strikes	m vertically from generally strikes
Estimation and	The nature and		Itlines the estimation		echnique used for
modelling techniques	appropriateness of the estimation technique(s)		rces for the EastMar	east OP deposit.	
comiques	applied and key	Deposit Informa			
	assumptions, including treatment of extreme grade values, domaining,	Deposit	Orebody Dimensions 300mE x 200mN	Nominal Drill Spacing 25mE x 20mN	Metres of Mineralised Drilling ~600m
	interpolation	EastMareast OP	x 90mRL		
	parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of	a. Topogi open p b. Botton c. Top of 2. CMPL carried o	re provided by Terra raphy based on aeria oits. In of Oxidation (BOCC Fresh Rock (TOFR) Out a review of the vale and Terra Search	I survey informati) weathering surface	



Criteria	JORC Code explanation	Cor	nmentary				
	computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or	 4. 5. 6. 7. 	Based on geology a were wireframed intersection select mineralised shapes wireframes. The particular down hole which expended on the non-visible of the non-visible of the mineralised wire Each mineralised wire the majority of dat when modelling the The number of shape	at a 0. ion to could coarameters to include 1 lge dilution edge defined a was 1r deposit.	5g/t nominal constrain the constrain values sused for internal on. This edge nition which were audited that an assigner lengths and	cut-off government of the control of	grade and using etation. These 0.5g/t within the election were 3m pench height. The d all intersections as added to allow experienced in the gdale. p and plunge. eighting was used
	other non-grade variables of economic		Deposit		Number of S	hapes	
	significance (e.g. sulphur for acid mine		EastMareast OP		34		
	drainage characterisation).		The 10 largest shape	es contair	ned 75% of the	e volume.	
	 In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological 	9.	A breakdown of protest and the beginning position at the high grade er distribution theory efficient of variation The selected high grade of the selected hi	detailed sics, high ge method on of non dof the based on.	Iling did not over set of weight grade cuts wer of Denham. The linearity of the data. The Der on the gamm	ver dilute sh ed statistic e determir The GAP m e cumulati nham meth a distribu	cs was produced. The dusing both the ethod determines of uses statistical tion and the co-
	interpretation was used to control the		Deposit	Maximu	ım Cut (g/t)	Percenta	ge Metal Cut %
	resource estimates. • Discussion of basis for		EastMareast OP	No Cut	Max 12g/t	No Metal	Cut
	 Using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	11.	Normalised variogr produced for down wireframes covering The 8 mineralised (OK) with the follow Nugget: 0.6 Ranges: 60m al The remaining min Distance Power 3 (III	n hole, do g 65% of the wireframe ring parare long strike eralised of D3) interp	es were modeneters: e, 30m down owireframes wolation.	on plunge on the defined using dip, 4m down dere model	for 8 mineralised eposit. Gordinary Kriging wn hole led using Inverse
				number			aximum number



Criteria	JORC Code explanation	Commentary
		 The discretisation parameters were 2E x 1N x 1RL The following search radii were used: 25m along strike, 25m down dip, 2.5m down hole (small shapes) 60m along strike, 30m down dip, 4m down hole (large shapes) Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased. The fundamental block size used was:
		Deposit Small Blocks EastMareast OP 0.5mE x 1mN x 1mRL Small blocks were used to ensure adequate volume estimation where
		 shapes were narrow. 14. To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. 15. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. 16. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. 17. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus). The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of 45 degrees was used for pit walls following site visits and discussions with Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.) 18. Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.



Criteria	JORC Code explanation	Commentary
	parameters applied.	
Mining factors or assumptions	parameters applied. • 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.	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.
Metallurgical factors or assumptions	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	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.
	Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• 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.	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.
Bulk density	 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. 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 	 The following bulk densities (t/m3) were used: Oxide:



Criteria	JORC Code explanation	Commentary
Classification	alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. • The basis for the	All material in EastMareast OP has been classified as Indicated Resource.
	classification of the Mineral Resources into varying confidence categories. • 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). • Whether the result appropriately reflects the Competent Person's view of the deposit.	 Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 25mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/ confidence	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	The interpretation of the deposit is based on geology in the ultramafic corridor (which includes historically mined Marwest and Mareast) and while the mineralised shapes pinch and swell they follow the general behaviour of mineralisation in the ultramafic stratigraphy of the Marymia belt. Marymia belt.



Criteria	JORC Code explanation	Commentary
	of the factors that could affect the relative accuracy and confidence of the estimate. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources WEDGETAIL OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the Wedgetail deposit has been predominantly RC drilling. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy in other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at Wedgetail is <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At Wedgetail drilling includes a total of 123 RC holes for 5,948m both historically and by Vango Mining. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling. Data/information generated from structural and geotechnical logging of diamond drillcore has also been utilised.



Criteria	JORC Code explanation	Commentary				
		of mineralised a orientation not mineralisation be and classification. Geology (struct guiding the interest continuity of the other key factor data, particular the oxide zone. Key factors affer order of import - Structural of that bound steep to me also host me may have a - Gold miner observed we mineralisat - Intrusive fermineralisat - Redistribut in the oxide of the deposition of the	rpretations with responses, where data is lead to where data in the original lead	limited to RC drillito significantly affico moderate effect inferred). alteration) has been tation, geometrics and constraints/ribution and trendon occurs within a of grade and geometric / felsic porphyry post mineralisation ding nature of the rols in 3 dimension and second in a dimension wedgetail, constraint the footation due to re-meteric ending to the re-meteric mand re-precipitation and re-precipitation and re-precipitation afficant in the and re-precipitation moderate effects.	ing (no fect the volume of t on continuity ten a key factor ry, size and boundaries. The ds in the assay a rock mass or allogy include, in (D3) fault zones d dilation in the ry host units and on movement ese structures. In have been ain high-grade the mafic host. Otwall of the obilisation of gold ne transition zone ion, this can	
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.	southwest x 20 surface. • The Wedgetail northeast - south	OP deposit has dime Om northwest - sou OP mineralised en hwest and dips steep	utheast and 100invelope strikes to moderately to	m vertically from generally strikes the northwest.	
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s)	The following outlines the estimation and modelling technique used for producing Resources for the Wedgetail OP deposit.				
	applied and key assumptions, including treatment of extreme grade values,	Deposit Informa Deposit	Orebody Dimensions	Nominal Drill Spacing	Metres of Mineralised Drilling	
	domaining, interpolation	Wedgetail OP	600mE x 225mN x 100mRL	25mE x 20mN	625m	
	parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and	a. Topogropen p b. Botton c. Top of	re provided by Terra raphy based on aeria pits. In of Oxidation (BOCO Fresh Rock (TOFR) out a review of the vale and Terra Search	al survey informat)) weathering surface		



Criteria	JORC Code explanation	Con	nmentary			Commentary			
	parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or	 4. 5. 6. 7. 	were wireframed intersection select mineralised shapes wireframes. The particular down hole which exists the particular of the non-visible of mining process. The mineralised wirefach mineralised wir	at a 0. cion to could coarameters to include 1 dge dilution edge definers to reframe to deposit.	5g/t nominal constrain the constrain values is used for internal on. This edge intion which were audited land an assigned in lengths and	less than 0.5g/t within the ersection selection were 3n te 2-2.5m bench height. The dilution and all intersection dilution was added to allow would be experienced in the			
	other non-grade variables of economic		Deposit		Number of S	Shapes			
	significance (e.g. sulphur for acid mine		Wedgetail OP		24				
	drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the	 characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. 	characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables.	9.	This was to ensure the sizes being used. For each shape a Based on the statist GAP method and the beginning positionat the high grade endistribution theory efficient of variation	e-Resource hat mode detailed : ics, high ge e method on of non hid of the co based co n. rade cut a	ce volume for lling did not over set of weight grade cuts wer l of Denham. -linearity of the data. The Der on the gamm	volume. Teach shape was measured ver dilute shapes due to block ted statistics was produced re determined using both the The GAP method determine the cumulative probability plotham method uses statistical and distribution and the contemporary of	
	geological interpretation was		Deposit	Maximu	ım Cut (g/t)	Percentage Metal Cut %			
	used to control the resource estimates. • Discussion of basis for using or not using		Wedgetail OP	No Cut	Max 18g/t	No Metal Cut			
	grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	11.	produced for down wireframes covering The 4 mineralised (OK) with the follow Nugget: 0.65 Ranges: 40m al The remaining min Distance Power 3 (II For both OK and ID ³ A minimum of samples The discrete	n hole, do g 75% of t wireframe ring parar long strike eralised of D3) interp the follow in number of 16 isation pa	own dip, dow the total volur es were mod neters: e, 20m down of wireframes we olation. wing parameter of samples of	elled using Ordinary Kriging dip, 3m down hole vere modelled using Inverse ers were also used: of 2 and a maximum numbe re 2E x 1N x 1RL			



Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	20m along strike, 20m down dip, 3m down hole (small shapes) 40m along strike, 20m down dip, 3m down hole (large shapes) Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased. 13. The fundamental block size used was: Deposit
		Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	 Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.



Criteria	JORC Code explanation	Commentary
Mining factors or assumptions Metallurgical 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. 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	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 92%, Transition 92%, Fresh 92%). These recoveries were used in financial assessment of the optimisation studies.
	metallurgical treatment processes	



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• 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	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.
Bulk density	 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. 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 	 The following bulk densities (t/m3) were used: Oxide:



Criteria	JORC Code explanation	Commentary
Classification	alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. The basis for the	All material in Wedgetail OP has been classified as Indicated Resource.
Clussification	classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit.	 Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 25mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/ confidence	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	The interpretation of the deposit is robust, and it is unlikely that a different interpretation could be produced as the main mineralisation is constrained to several parallel structures.





Section 3 Estimation and Reporting of Mineral Resources PHB-1 (K3) OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the PHB-1 (K3) OP deposit (and adjoining K2 UG deposit) includes both RC and structurally oriented diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy has enabled a structural model to be generated that has guided the interpretation. Drilling density at PHB-1 (K3) is generally <20m x 20m on the West Lode structure with a lower density of drilling testing extensions of Main Lode and Central Lode and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At PHB-1 (K3) OP a total of 289 holes for 26,079m of drilling has been completed both historically and by Vango Mining. This includes 14 DD holes for 2,400m and 275 RC holes for 23,679m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging



Criteria	JORC Code explanation	Commentary			
		Data/information of diamond drill Alternative interpression of mineralised zorientation not mineralisation with and classification. Geology (structing uiding the interpression of the oxide zone. Key factors affer order of import - Structural of that bound steeply dipression post mineralisation. Gold mineralisation of the deposition	eted for all Vango and on generated from state or has also been un repretations with respectones, where data is laknown) are unlikely fout may have a low the foliation of the originary of these structure of the originary of gold mineralisms of the originary of the origi	ructural and geot tilised. pect to the shape limited to RC drillisto significantly affice moderate effect for moderate within a for grade and geote, steeply dipping to have controlle for may have accentures. Find also host min may have accentures. Find Shoots within ation due to re-me enrichment in the and re-precipitation and re-precipitation.	echnical logging and orientation ing (no fect the volume of it on continuity een a key factor ry, size and boundaries. The ds in the assay a rock mass or logy include, in g (D3) fault zones d dilation in the eralisation. Some lated the ens have been ain high-grade the mafic host. obilisation of gold the transition zone ion, this can
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.	southwest x 25 surface. • The PHB-1 (K3)	deposit has dimen Om northwest - sou OP mineralised envo ips steeply the north	utheast and 250 elope generally s	m vertically from trikes northeast -
Estimation and modelling techniques	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	producing Resout Deposit Information Deposit PHB-1 (K3) OP 1. Wireframes we a. Topogropen popen po	Orebody Dimensions 500mE x 600mN x 250mRL re provided by Terra raphy based on aeria	Nominal Drill Spacing 25mE x 25mN Search for: I survey information	Metres of Mineralised Drilling ~2,500m fon and historical



Criteria	JORC Code explanation	Con	nmentary								
	computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of	 4. 5. 6. 7. 	Based on geology a were wireframed intersection select mineralised shapes wireframes. The particle of the non-visible of the mineralised wireframes. The mineralised wireframes could included 0.5m of each of the non-visible of the mineralised wirefach mineralise	at a 0. cion to could coarameters to include 2 dige dilution edge defined a was 1r e deposit.	5g/t nominal constrain the constrain values sused for internal on. This edge nition which were audited and an assigned lengths and	cut-off and cut-of	grade and using etation. These 0.5g/t within the election were 6m ench height. The d all intersections as added to allow experienced in the gdale. Ip and plunge. Eighting was used				
	deleterious elements or other non-grade		Deposit		Number of S	hapes					
	variables of economic significance (e.g.		PHB-1 (K3) OP		166						
	sulphur for acid mine drainage characterisation).		The 15 largest shape	es contair	ned 65% of the	e volume.					
	 In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. 	 In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between 	 model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between 	 model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between 	model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between	9.	A breakdown of promise was to ensure the sizes being used. For each shape a Based on the statist GAP method and the the beginning positicat the high-grade endistribution theory efficient of variation The selected high gradata) is shown below	detailed sics, high ge method on of non dof the based con.	Iling did not over set of weight grade cuts wer I of Denham. The Inearity of the data. The Der on the gamm	ver dilute sh ed statistic e determir The GAP m e cumulati nham meth a distribu	cs was produced. ned using both the ethod determines we probability plot nod uses statistical tion and the co-
	Description of how the geological		Deposit	Maximu	ım Cut (g/t)	Percentag	ge Metal Cut %				
	interpretation was used to control the resource estimates.Discussion of basis for	used to control the resource estimates. • Discussion of basis for		PHB-1 (K3) OP	40g/t (la shapes) (smalle	_		6 of metal cut imples, 1 at			
	using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	11.	The remaining min Distance Power 3 (II For both OK and ID ³ A minimum of samples	n hole, do g 40% of the wireframe ving parare long strike eralised of D3) interpositing the follow in number of 16	own dip, dow the total volunces were mod- meters: e, 25m down of wireframes wolation. wing parameto	ne of the deled using dip, 4m down ere modelers were all 2 and a market	for 7 mineralised eposit. Gordinary Kriging wn hole led using Inverse so used: aximum number				



Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	The following search radii were used: 25m along strike, 25m down dip, 3m down hole (small shapes) 50m along strike, 25m down dip, 4m down hole (large shapes) Note: for blocks that were not filled the parameters were relaxed and the search radii were increased. The fundamental block size used was: Deposit Small Blocks
		PHB-1 (K3) OP 1mE x 2.5mN x 1mRL Small blocks were used to ensure adequate volume estimation where shapes were narrow.
		 To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus) and metallurgical information from Como Engineers. The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of approximately 40 degrees was used for pit walls following detailed geotechnical analysis work carried out on drill holes by Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.) Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia



Criteria	JORC Code explanation	Commentary
	grade(s) or quality parameters applied.	area was likely to be 0.5g/t Au.
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	Open pit mining will be the mining method employed going forward using a 3m-5m bench height following grade control drilling.
	the basis of the mining	
Metallurgical factors or assumptions	assumptions made. • 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.	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• 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	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.
Bulk density	 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. 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 	 The following bulk densities (t/m3) were used: Oxide:



Criteria	JORC Code explanation	Commentary
	alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineralised material in PHB-1 (K3) OP has been classified as Indicated Resource for larger shapes only. Smaller shapes were classified as Inferred Resource. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 25mE x 25mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were determined from geotechnical drilling. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	 There have been no other audits and reviews carried out using the same data as has been used in this study. The current geological interpretation reflects previous interpretations of PHB-1 (K3) OP by previous owners, although previous estimates were based on a more tightly constrained model, indicating a preference for a very selective mining scenario.
Discussion of relative accuracy/confidence	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	 Mineralisation in the PHB-1 (K3) OP is narrow and for this reason a wide spaced intersection selection has been used which incorporates a reasonable amount of internal dilution. This will facilitate a more bulk mining approach in some areas rather than a highly selective mining approach for the entirety of the deposit. The interpretation of the deposit is robust as wider shapes have been modelled.



Criteria	JORC Code explanation	Commentary
	deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources K1 OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the K1 OP deposit includes both RC and structurally oriented diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy has enabled a structural model to be generated that has guided the interpretation. Drilling density at K1 OP is generally <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At K1 OP a total of 1,132 holes for 73,523m of drilling have been completed, both historically and by Vango Mining. This includes 34 DD holes for 3,577m and 1,098 RC holes for 69,946m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling. Data/information generated from structural and geotechnical logging of diamond



Criteria	JORC Code explanation	Commentary			
		of mineralised zorientation not mineralisation had classification. Geology (struct guiding the interest continuity of the other key factor data, particular the oxide zone. Key factors affer order of import - Structural of that bound steeply dip mineralisat accentuate - Gold miner observed with mineralisat ultramafic/ - Redistribut in the oxide of the deposition of the deposit of the deposition of the deposition of the deposition of the de	rpretations with respones, where data is I known) are unlikely tout may have a low tout may have a low tout may have a low tour (e.g. Indicated vs Ir ural, lithological and resource envelopes has been grade districting continuity both ance: controls – for example and are interpreted ping ultramafic/maficion. Some post mined the bounding naturalisation shoot controls, in the case of Kion to shallow plungi	imited to RC drillictory significantly afformation of grade and geometric host unit and also realisation movement of these structures of the str	ing (no fect the volume of it on continuity ten a key factor ry, size and boundaries. The ds in the assay a rock mass or allogy include, in (D3) fault zones d dilation in the so host nent may have ures. In shave been ligh-grade the obilisation of gold ne transition zone on, this can
Dimensions Estimation and	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. The nature and	x 300m northwe The K1 OP mine southwest and d	it has dimensions of set - southeast and 130 eralised envelope stips steeply the north	Om vertically from rikes generally st west or southeas	n surface/pit floor. trikes northeast - t.
modelling techniques	appropriateness of the estimation technique(s) applied and key assumptions, including	_	rces for the K1 OP de	_	Metres of
	treatment of extreme grade values,	Deposit	Orebody Dimensions	Nominal Drill Spacing	Mineralised Drilling
	domaining, interpolation	K1 OP	300mE x 1,000mN x 130mRL	20mE x 20mN	~6,000m
	parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and	a. Topogropen p b. Botton c. Top of	re provided by Terra raphy based on aerial its. n of Oxidation (BOCO Fresh Rock (TOFR) ut a review of the vale and Terra Search	l survey informati	



Criteria	JORC Code explanation	Commentary
Criteria	parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	3. Based on geology and using intersection selection, mineralised shapes were wireframed at a 0.5g/t nominal cut-off grade and using intersection selection to constrain the interpretation. These mineralised shapes could contain values less than 0.5g/t within the wireframes. The parameters used for intersection selection were 3m down hole which equates to an approximate 2-2.5m bench height. The intersections could include 1m of internal dilution and all intersections included 0.5m of edge dilution. This edge dilution was added to allow for the non-visible edge definition which would be experienced in the mining process. 4. The mineralised wireframes were audited by Mr J Dugdale. 5. Each mineralised wireframe had an assigned strike, dip and plunge. 6. The majority of data was 1m lengths and length weighting was used when modelling the deposit. 7. The number of shapes used to model the deposit was as follows: Deposit
		 Ranges: 50m along strike, 40m down dip, 4m down hole 11. The remaining mineralised wireframes were modelled using Inverse Distance Power 2 (ID²) interpolation. 12. For both OK and ID² the following parameters were also used:



Criteria	JORC Code explanation	Commentary
		 A minimum number of samples of 2 and a maximum number of samples of 16 The discretisation parameters were 2E x 1N x 1RL The following search radii were used: 20m along strike, 20m down dip, 2.5m down hole (small shapes) 50m along strike, 40m down dip, 4m down hole (large shapes) Note: for blocks that were not filled the parameters were relaxed and the search radii were increased. The fundamental block size used was:
		K1 OP 1mE x 2.5mN x 1mRL
		Small blocks were used to ensure adequate volume estimation where shapes were narrow.
Maisture	• Whether the tonnages	 To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus). The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of 40 degrees was used for pit walls following site visits and discussions with Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.) Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.



Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
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.	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.
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	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.



Criteria	JORC Code explanation	Commentary
	metallurgical	
Environmental factors or assumptions	 assumptions made. Assumptions made regarding possible waste and process 	To date, there have been no issues in carrying out drilling and having POW's approved, however the K1 OP contains fibrous asbestiform mineral tails which will need to be removed in accordance with
ussumptions	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.	Occupational Health and Safety Guidelines prior to commencement of mining.
Bulk density	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. The bulk density for bulk material must have been measured by methods that adequately account for	 The following bulk densities (t/m3) were used: Oxide:
	void spaces (vugs, porosity, etc), moisture	



Criteria	JORC Code explanation	Commentary
	 and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the 	 Mineralised material in K1 OP has been classified as Indicated Resource in large shapes and Inferred Resource in smaller shapes. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 20mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 deposit. The results of any audits or reviews of Mineral Resource estimates. 	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/ confidence	• 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	The interpretation of the deposit is robust, and it is unlikely that a different interpretation could be produced as previous mining on which the deposit modelling is based exists. Wider structures have been the focus of the current study, although a number of narrower structures have also been included and will be the focus of intensive grade control drilling.



Criteria	JORC Code explanation	Commentary
	deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources TRIPLE-P, TRIPLE-P STH OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the Triple-P, Triple-P Sth OP deposits includes both RC and previous diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy at Triple-P and other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at Triple-P, Triple-P Sth OP is generally <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At Triple-P, Triple-P Sth OP a total of 348 holes for 17,913m of drilling, both historically and by Vango Mining. This includes 19 DD holes for 1,172m and 329 RC holes for 16,741m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling. Data/information



Criteria	JORC Code explanation	Commentary			
		drillcore has also Alternative inter of mineralised z orientation not mineralisation b and classificatio Geology (structu guiding the inter continuity of the other key factor data, particularl the oxide zone. Key factors affect order of importat Structural c that bound moderately host minerat have accent Gold minerat observed w high-grade mafic/sedin Intrusive fel mineralisati Redistributi in the oxide of the depo	rpretations with respones, where data is known) are unlikely but may have a low to read the control of the ories resource envelope has been grade dist y where mineralisat cting continuity both	pect to the shape limited to RC drilling to significantly after to moderate effect of moderation, geometrically and trending of grade and geometrically and the second of the seco	and orientation ing (no fect the volume of ect on continuity een a key factor ry, size and //boundaries. The ds in the assay a rock mass or ology include, in g (D3) fault zones d dilation in the units, and also ovement may etructures. In shave been eith OP, constrain oots within the otwall of the lobilisation of gold the transition zone ion, this can
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.	northeast - south from surface/pit • The Triple-P, Tri	ple-P Sth OP depor lwest x 500m northy floor. iple-P Sth OP mine it - southwest and	vest - southeast a	nd 150m vertically strikes generally
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key	_	tlines the estimation rces for the Triple-P, tion	_	-
	assumptions, including treatment of extreme grade values,	Deposit	Orebody Dimensions	Nominal Drill Spacing	Metres of Mineralised Drilling
	domaining, interpolation parameters and	Triple-P, Triple-P Sth OP	500mE x 700mN x 150mRL	20mE x 20mN	~8,000m
	maximum distance of extrapolation from data points. If a computer assisted estimation method was	a. Topogr open p b. Bottom	re provided by Terra aphy based on aeria its. n of Oxidation (BOCC Fresh Rock (TOFR)	ll survey informati	ion and historical



Criteria	JORC Code explanation	Commentary					
	chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of	2. 3. 4. 5. 6.	CMPL carried out a with Mr J Dugdale a Based on geology a were wireframed intersection select mineralised shapes wireframes. The padown hole which equintersections could included 0.5m of ed for the non-visible of mining process. The mineralised wire Each mineralised wire the majority of dat when modelling the The number of shape	nd Terral and using at a 0. ion to could contain the could contain the could contain the could be defined as was 1 and could be deposit.	Search Geologintersection so 5g/t nominal constrain the ontain values or used for internal or of internal or of internal or or of internal or	gists. election, m cut-off government less than ersection so te 2-2.5m to dilution an dilution would be ear by Mr J Dug ed strike, di length we	nineralised shapes grade and using etation. These 0.5g/t within the election were 3m bench height. The d all intersections as added to allow experienced in the gdale. p and plunge. eighting was used
	deleterious elements or other non-grade		Deposit		Number of S	hapes	
	variables of economic significance (e.g. sulphur for acid mine		Triple-P, Triple-P	Sth OP	116		
	drainage characterisation). In the case of block model interpolation, the block size in		The 10 largest shape A breakdown of pro This was to ensure the sizes being used.	e-Resourd nat mode	ce volume for Iling did not ov	each shap er dilute sh	napes due to block
	relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables.	9.	For each shape a Based on the statist GAP method and the the beginning position at the high-grade er distribution theory efficient of variation The selected high gradata) is shown below	ics, high ge method on of non and of the based of the care and care and care and care and early ea	rade cuts wer of Denham. ⁻ -linearity of th data. The Der on the gamm	e determin The GAP m e cumulati nham meth a distribut	ned using both the ethod determines we probability plot od uses statistical tion and the co-
	Description of how the geological interpretation was		Deposit	Maximu	ım Cut (g/t)	Percentag	ge Metal Cut %
	interpretation was used to control the resource estimates.		Triple-P,Triple-P Sth OP		arge shapes) mall shapes)	6% (35% from 3 sa	of metal cut mples)
	 Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole 	10.	Normalised variogr produced for down wireframe covering The 1 mineralised w with the following p Nugget: 0.6 Ranges: 60m al	hole, do 40% of the vireframe arameter	own dip, dow ne total volum was modelled	n plunge e of the de I using Ord	for 1 mineralised posit.
	data, and use of reconciliation data if available.		The remaining min Distance Power 3 (II For both OK and ID ³	eralised of the position of the following in the following in number of the position of the po	wireframes w olation. wing paramete	ere model	led using Inverse



Criteria	JORC Code explanation	Commentary
		 The discretisation parameters were 2E x 1N x 1RL The following search radii were used: 50m along strike, 25m down dip, 3m down hole (small shapes) Note: for blocks that were not filled the parameters were relaxed and the search radii were increased. The fundamental block size used was:
		Deposit Small Blocks
		Triple-P, Triple-P Sth OP 1mE x 2.5mN x 1mRL
		Small blocks were used to ensure adequate volume estimation where shapes were narrow.
Maintura		 To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus). The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of 40 degrees was used with the exception of the footwall side where 30 degrees was implemented, following site visits and discussions with Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.) Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.



Criteria	JORC Code explanation	Commentary
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.	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.
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.	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 92%, Transition 92%, Fresh 86%). Test-work indicates the fresh recovery can be upgraded to 90% using a combination of flotation concentrate of sulphide occluded gold, finer grinding and lead nitrate addition prior to leaching. These recoveries were used in financial assessment of the optimisation studies.



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	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	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.
Bulk density	 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. 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 	 The following bulk densities (t/m3) were used: Oxide:



Criteria	JORC Code explanation	Commentary
	 alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineralised material in Triple-P & Triple-P Sth OP has been classified as Indicated Resource within the one large shape and Inferred for all other shapes. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 20mE x 20mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/confidence	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	The interpretation of the deposit is robust, and it is unlikely that a different interpretation could be produced as the current model is based on previous mining.



Criteria	JORC Code explanation	Commentary
	of the factors that could affect the relative accuracy and confidence of the estimate. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources ALBATROSS & FLAMINGO OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the Albatross & Flamingo OP deposits includes predominantly RC. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy at other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at Albatross & Flamingo OP is generally <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a moderate degree of uncertainty regarding variability of shape and orientation, particularly in the oxide zone. The nature of the data used for the geological interpretation is almost entirely drilling data. At Albatross & Flamingo OP a total of 380 holes for 33,779m of drilling both historically and by Vango Mining. This includes 5 DD holes for 336m and 375 RC holes for 33,443m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling. Data/information



Criteria	JORC Code explanation	Commentary
		 generated from structural and geotechnical logging of diamond drillcore has also been utilised. Alternative interpretations with respect to the shape and orientation of mineralised zones, where data is limited to RC drilling (no orientation not known) are unlikely to significantly affect the volume of mineralisation but may have a low to moderate effect on continuity and classification (e.g. Indicated vs Inferred). Geology (structural, lithological and alteration) has been a key factor guiding the interpretation of the orientation, geometry, size and continuity of the resource envelopes and constraints/boundaries. The other key factor has been grade distribution and trends in the assay data, particularly where mineralisation occurs within a rock mass or the oxide zone. Key factors affecting continuity both of grade and geology include, in order of importance: Structural controls – for example, steeply dipping (D3) fault zones that bound and are interpreted to have controlled dilation in the shallow to moderately dipping sedimentary and mafic host units, and also host mineralisation. Some post mineralisation movement may have accentuated the bounding nature of these structures. Gold mineralisation shoot controls in 3 dimensions have been observed whjch, in the case of Albatross & Flamingo OP, constrain high-grade mineralisation to shallow plunging shoots within the sedimentary and mafic host units. In some cases intrusive felsic "porphyries" also constrain the footwall of the mineralisation at Albatross & Flamingo OP. Redistribution of gold mineralisation due to re-mobilisation of gold in the oxide zone and supergene enrichment in the transition zone of the deposit. Due to leaching and re-precipitation, this can generate a poddy, discontinuous gold distribution in some areas. Modeling of the continuity of these zones has in some cases been difficult and this has led to a sectional projection model being generated.
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.	 The Albatross & Flamingo OP deposit has dimensions of 800m strike northeast - southwest x 400m northwest - southeast and 170m vertically from surface/pit(s) floor. The Albatross & Flamingo OP mineralised envelope strikes generally strikes northeast - southwest and dips steeply the northwest or southeast.
Estimation and	The nature and	The following outlines the estimation and modelling technique used for
modelling techniques	appropriateness of the estimation technique(s)	producing Resources for the Albatross & Flamingo OP deposit.
	applied and key	Deposit Information
	assumptions, including treatment of extreme grade values,	Deposit Orebody Dimensions Nominal Drill Spacing Orilling Metres of Mineralised Drilling
	domaining, interpolation parameters and	Albatross & 400mE x 800mN x 170mRL 20m x 20m 3,800m
	maximum distance of extrapolation from	Wireframes were provided by Terra Search for:



Criteria	JORC Code explanation	Commentary
	data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables.	 a. Topography based on aerial survey information and historical open pits. b. Bottom of Oxidation (BOCO) c. Top of Fresh Rock (TOFR) 2. CMPL carried out a review of the weathering surfaces in conjunction with Mr J Dugdale and Terra Search Geologists. 3. Based on geology and using intersection selection, mineralised shapes were wireframed at a 0.5g/t nominal cut-off grade and using intersection selection to constrain the interpretation. These mineralised shapes could contain values less than 0.5g/t within the wireframes. The parameters used for intersection selection were 3m down hole which equates to an approximate 2-2.5m bench height. The intersections could include 1m of internal dilution and all intersections included 0.5m of edge dilution. This edge dilution was added to allow for the non-visible edge definition which would be experienced in the mining process. 4. The mineralised wireframes were audited by Mr J Dugdale. 5. Each mineralised wireframe had an assigned strike, dip and plunge. 6. The majority of data was 1m lengths and length weighting was used when modelling the deposit. 7. The number of shapes used to model the deposit was as follows: Deposit Number of Shapes Albatross & Flamingo OP 150 A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used. 9. For each shape a detailed set of weighted statistics was produced. Based on the statistics, high grade cuts were determined using both the GAP method and the method of Denham. The GAP method determines the beginning position of non-linearity of the cumulative probability plot at the high grade end of the data. The Denham method uses statistical distribution theory based on the gamma distribution and the coefficient of variation. The selected high grade cut and percentage metal cut (based on drilling data) is shown below:
	 Description of how the geological interpretation was 	Deposit Maximum Cut (g/t) Percentage Metal Cut %
	used to control the resource estimates. • Discussion of basis for	Albatross & 50g/t 5% (Only 2 samples cut)
	 Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 10. Due to the discontinuous nature of the mineralisation, no variograms were run and as a result, kriging was not carried out. 11. The mineralised wireframes were modelled using Inverse Distance Power 2 (ID²) interpolation with the following parameters: A minimum number of samples of 2 and a maximum number of samples of 16 The discretisation parameters were 2E x 1N x 1RL The following search radii was used: 30m along strike, 15m down dip, 2m down hole Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased.



Criteria	JORC Code explanation	Commentary	
		12. The fundamental block size used was:	
		Deposit Small Blocks	
		Albatross & 2.5mE x 1.25mN x 1mRL Flamingo OP	
		Small blocks were used to ensure adequate volume estimation where shapes were narrow.	
		· ·	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the	All results are reported on a dry tonnage basis.	
Cut-off parameters	 moisture content. The basis of the adopted cut-off grade(s) or quality parameters applied. 	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.	
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.	



Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	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. The basis for assumptions 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	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.
Environmental factors or assumptions	assumptions made. • Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.



Criteria	JORC Code explanation	Commentary
Bulk density	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. • 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. • 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. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The following bulk densities (t/m3) were used: Oxide: 1.60 Transition: 2.20 Fresh: 2.60 The bulk densities used were based on actual bulk density measurements as outlined in Section 2 of the JORC Table. The in-situ bulk density assignment was based on previous reported measurements taken on HG triple tube core and apparent relative density testing on NQ2 core where available from this deposit and other deposits in the region with similar host rocks.
Classification	The basis for the	All material in Albatross & Flamingo OP has been classified as Inferred



Criteria	JORC Code explanation	Commentary
	classification of the Mineral Resources into varying confidence categories. • 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). • Whether the result appropriately reflects the Competent Person's view of the	 Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 20mE x 20mN was used, with some infill holes, however due to the lack of geological continuity exhibited by the drilling all material has been classified as Inferred Resource. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 deposit. The results of any audits or reviews of Mineral Resource estimates. 	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/ confidence	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. The statement should specify whether it relates to global or	The interpretation of the deposit should be considered as preliminary and it will require further drilling to raise its classification status from Inferred Resource to Indicated Resource.



Criteria	JORC Code explanation	Commentary
	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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources CINNAMON OPEN PIT (OP)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the Cinnamon OP deposits includes both RC and structurally oriented diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy at Cinnamon OP and other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at Cinnamon OP is generally <20m x 20m and, although re-distribution of gold mineralization has occurred in the oxide zone of the deposit, the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At Cinnamon OP a total of 109 holes for 17,358m of drilling of drilling has been completed, both historically and by Vango Mining. This includes 13 DD holes for 3,431m and 96 RC holes for 13,927m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling.



Criteria	JORC Code explanation	Commentary	Commentary		
		of diamond drill Alternative interest of mineralised zero orientation not mineralisation be and classificatio Geology (structure guiding the interest continuity of the other key factore data, particularly the oxide zone. Key factors affer order of importation of the bound steep to make mineralisating accentuates. Gold mineralisating host unit. Redistribution the oxide of the deposition of mineralisating the oxide of the deposition of the deposition of the deposition of mineralisating the oxide of the deposition of the depo	controls – for example and are interpreted oderately conglomeration. Some post mined the bounding naturalisation shoot contrologically, in the case of Colon to shallow plungion of gold mineralisation of gold mineralisation and supergeneration. Due to leaching poddy, discontinuous as also depleted the contrological controlo	tilised. Dect to the shape limited to RC drillisto significantly afformation moderate effect inferred). Alteration, geometric and constraints/ribution and trendon occurs within a of grade and geometric have controlled at host units, and eralisation movement of these structions in 3 dimension cinnamon OP, conting shoots within action due to re-mediand re-precipitations gold distributions.	and orientation ing (no fect the volume of ect on continuity een a key factor ry, size and boundaries. The ds in the assay a rock mass or cology include, in g (D3) fault zones d dilation in the d also host nent may have ures. In have been estrain high-grade the conglomerate obilisation of gold he transition zone ion, this can in some areas.
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.	- southwest surface. • The Cinnan northeast -	non OP deposit has d t x 400m northwest - non OP mineralised southwest and dips	southeast and 25 envelope strikes steeply the northy	Om vertically from generally strikes west or southeast.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key		itlines the estimation rces for the Cinnamonation		echnique used for
	assumptions, including treatment of extreme grade values,	Deposit	Orebody Dimensions	Nominal Drill Spacing	Metres of Mineralised Drilling
	domaining, interpolation	Cinnamon OP	400mE x 300mN x 250mRL	25mE x 25mN	2,520m
	parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was	a. Topogr open p b. Bottom	re provided by Terra raphy based on aeria its. n of Oxidation (BOCO Fresh Rock (TOFR)	l survey informati	ion and historical



Criteria	JORC Code explanation	Con	Commentary				
	chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	2. 3. 4. 5. 6. 7.	CMPL carried out a with Mr J Dugdale at Based on geology at were wireframed intersection select mineralised shapes wireframes. The padown hole which equintersections could included 0.5m of edfor the non-visible of mining process. The mineralised wire Each mineralised wire Each mineralised wire Each mineralised wire Each mineralised wire The number of shape Deposit Cinnamon OP 3 groups of shapes of A breakdown of preserved the statistic GAP method and the statistic GAP method and the statistic of the high-grade endistribution theory efficient of variation. The selected high gradata) is shown below Deposit Cinnamon OP Normalised variographoduced for down grouped wireframes. The 3 mineralised gradata is shown below Deposit Cinnamon OP Normalised variographoduced for down grouped wireframes. The 3 mineralised gradata is shown below Deposit Cinnamon OP	and Terra and Using at a O. ion to could contained and a deposit. es used to based contained and make and	Search Geologis intersection sel 5g/t nominal constrain the ontain values less used for intersection which we were audited by had an assigned in lengths and lo model the de Number of Sh S8 1 65% of the volume for each of Denham. The ling did not over set of weighters and lo model the grade cuts were lof Denham. The linearity of the data. The Denham the gamma and percentage lum Cut (g/t) 30g/t The run and direction of the total control of the	ests. lection, m cut-off g interpress than resection s is 2-2.5m k ilution an ililution w ould be e if Mr J Dug I strike, di length we posit was apes ume. each shaper dilute sl d statistic determine GAP m cumulatinam meth distribut rectional in plunge al volume re modelle p, 3m dow re modelle rs were al	nineralised shapes grade and using etation. These 0.5g/t within the election were 3m oench height. The id all intersections as added to allow experienced in the gdale. In and plunge, eighting was used as follows: De was measured, hapes due to block of the determines we probability plot and uses statistical tion and the control of the determines of the deposit. Eled using Ordinary of the determines of the deposit. Eled using Inverse of the design of the deposit.



Criteria	JORC Code explanation	Commentary
		 The discretisation parameters were 2E x 1N x 1RL The following search radii were used: 30m along strike, 20m down dip, 2m down hole (small shapes) 60m along strike, 40m down dip, 3m down hole (large shapes) Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased. The fundamental block size used was:
		Deposit Small Blocks Cinnamon OP 2.5mE x 1mN x 2.5mRL Small blocks were used to ensure adequate volume estimation where
		 shapes were narrow. 14. To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. 15. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. 16. Classification was carried out using a combination of drill hole density and geology as the guide as well as the potential mineability as determined by preliminary pit considerations. 17. Resources were estimated within an A\$2,500 optimised Whittle pit shell, using cost estimates provided by external Mining Consultants (Mining Plus). The pit shells were modified to include a minimum turning circle road at the base with allowance for a 20m wide road. An overall slope of 40 degrees was used for pit walls following site visits and discussions with Geotechnical Consultants (Peter O'Bryan and Associates). The optimised Whittle pit shells provided a reasonable basis for defining the portion of models that may have prospects for economic exploitation in the foreseeable future and could therefore reasonably be declared as Open Pit Resources. (Optimisation used a metallurgical recovery of approximately 92% overall. The Resources reported are minimally diluted and further dilution, predominately in hard rock, would be required to produce Reserves as well as new optimisation studies followed by detailed pit design.) Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality	Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for open pit deposits in the Marymia area was likely to be 0.5g/t Au.



Criteria	JORC Code explanation	Commentary
	parameters applied.	
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	Open pit mining will be the mining method employed going forward using a 2.5m-5m bench height following grade control drilling.
	the basis of the mining	
	assumptions made.	
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.	Preliminary metallurgical testwork suggested high recoveries would be achieved (Oxide 93%, Transition 93%, Fresh 90%). These recoveries were used in financial assessment of the optimisation studies.



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	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	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.
Bulk density	 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. 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 	 The following bulk densities (t/m3) were used: Oxide:



Criteria	JORC Code explanation	Commentary
	alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineralised material in Cinnamon OP has been classified as Indicated Resource in areas where shapes exhibited continuity and as Inferred Resource elsewhere. Classification was based on a combination of drill hole spacing and confidence in geological continuity as well as the likelihood that it would be mined as a pit. In general, drill hole spacing of 25mE x 25mN was used, with some infill holes. The potential for eventual open pit mining was determined by application of the following: An optimised Whittle pit shell of A\$2,500 per ounce Au. Pit slopes were based on performance of existing open pits and a geotechnical review by Peter O'Bryan and Associates. A turning circle of 20m was used to define a pit base. The resource within the partially designed pits was undiluted (however sensitivities to dilution were carried out to ensure robustness of optimisation). Only non-diluted resources (inclusive of shape dilution) are reported in the Mineral Resource Statement. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/confidence	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	The interpretation of the deposit is based on historic and more recent drilling. While the overall interpretation is correct, at a local scale there will be variations which will require more detailed drilling for increased confidence in the behaviour of the mineralisation.



Criteria	JORC Code explanation	Commentary
	of the factors that could affect the relative accuracy and confidence of the estimate. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources K2 UNDERGROUND (UG)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the K2 UG deposits includes both RC and structurally oriented diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy at K2 UG and at other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at K2 UG is generally <20m x 20m, with some areas of broader drill spacing such as on West Lode, and the confidence in the geological interpretation in terms of grade distribution and volume is high, with a low to moderate degree of uncertainty regarding variability of orientation. The nature of the data used for the geological interpretation is almost entirely drilling data. At K2, including K2 UG, 1,003 holes for 76,428m of drilling has been completed, both historically and by Vango Mining. This includes 98 DD holes for 19,893m and 905 RC holes for 56,535m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling. Data/information generated from structural and geotechnical logging of diamond



Criteria	JORC Code explanation	Commentary				
		of mineralised zo orientation not keep to mo mineralisation of the other key factors affect order of importation of the steep to mo mineralisation accentuated of the continuity of the other key factors affect order of importation order of importation of the bound of the steep to mo mineralisation accentuated of the continuity of the continuity of the other key factors affect order of importation of the continuity of the co	pretations with respenses, where data is likenown) are unlikely to ut may have a low to e.g. Indicated vs Intral, lithological and a pretation of the orient resource envelopes has been grade district where mineralisation ting continuity both or one.	mited to RC drilling significantly affect of moderate effect ferred). Iteration) has been tation, geometry and constraints/bibution and trending of grade and geologic host units, and ralisation movement of these structures in 3 dimensions 2 UG, constrain high grade in the K2 UG redistribution of gold in the kalling of g	en a key factor y, size and coundaries. The sin the assay rock mass. ogy include, in (D3) fault zones dilation in the also host ent may have res. s have been gh-grade he mafic host G Mineral gold e oxide zone and	
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.	x 300m northwes The K2 UG mine southwest and di	it has dimensions of 8 t - southeast and 250 ralised envelope str ps steeply the northv	m vertically from ikes generally str vest or southeast.	surface/pit floor. ikes northeast -	
Estimation and modelling	The nature and appropriateness of the	_	lines the estimation ces for the K2 UG de	_	chnique used for	
techniques	estimation technique(s) applied and key assumptions, including	Deposit Deposit	Orebody Dimensions	Nominal Drill Spacing	Metres of Mineralised Drilling	
	treatment of extreme grade values,	K2 UG	300mE x 800mN x 200mRL	25mE x 25mN	585m	
	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	 Wireframes were provided by Terra Search for: a. Topography based on aerial survey information and historical open pits. b. Bottom of Oxidation (BOCO) c. Top of Fresh Rock (TOFR) CMPL carried out a review of the weathering surfaces in conjunction with Mr J Dugdale and Terra Search Geologists. Based on geology and using intersection selection, mineralised shapes were wireframed at a 3g/t nominal cut-off grade and using intersection selection to constrain the interpretation. These mineralised shapes 				



Criteria	JORC Code explanation	Commentary	
Criteria	parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using grade cutting or capping.	could contain values less than 3g/t within the wireframes. The parameters used for intersection selection were 3m down hole and intersections could include 1m of internal dilution. To ensure continuity of mineralisation intersection grades could be lowered to 2.5g/t (or in minimal cases < 2.5g/t). 4. The mineralised wireframes were audited by Mr J Dugdale and 3 Lodes were interpreted; Main Lode, Central Lode and West Lode. 5. Each mineralised wireframe had an assigned strike, dip and plunge. 6. The majority of data was 1m lengths and length weighting was used when modelling the deposit and in determining the high grade cuts. 7. The number of shapes used was as follows: Deposit Number of Shapes K2 UG 49 1 shape (Main Lode) contained 50% of the volume. A breakdown of pre-Resource volume for each shape was measured. This was to ensure that modelling did not over dilute shapes due to block sizes being used. 9. For each shape a detailed set of weighted statistics was produced. Based on the statistics, high grade cuts were determined using both the GAP method and the method of Denham. The GAP method determines the beginning position of non-linearity of the cumulative probability plot. The Denham method uses statistical distribution theory based on the gamma distribution and the co-efficient of variation. The selected high grade cut and percentage metal cut (based on drilling data) is shown below: Deposit Maximum Cut (g/t) Percentage Metal Cut % K2 UG 60g/t 27% (70% of metal cut from 4 samples) (Historically a 50g/t cut was applied). 10. Normalised variograms were run and directional variograms were produced for down hole, down dip, down plunge for 1 mineralised wireframe (Main Lode) covering 50% of the total volume of the deposit.	
	capping. The process of validation, the checking process used, the comparison of	capping. The process of validation, the checking process used, the comparison of model data to drill hole	The 1 mineralised wireframe (Main Lode) was modelled using Ordinary Kriging (OK) with the following parameters: Nugget: 0.6 Ranges: 60m along strike, 30m down dip, 3m down hole 11. The remaining mineralised wireframes were modelled using Inverse Distance Power 3 (ID ³)
	aata, and use of reconciliation data if available.	 12. For both OK and ID³ the following parameters were also used: A minimum number of samples of 2 and a maximum number of samples of 16 The discretisation parameters were 2E x 1N x 1RL The following search radii were used: 25m along strike, 25m down dip, 2.5m down hole (small shapes) 	



Criteria	JORC Code explanation	Commentary		
		 30m along strike, 60m down dip, 3m down hole (large shapes) Note: for blocks that were not filled, the parameters were relaxed and the search radii were increased. 13. The fundamental block size used was: 		
		Deposit Small Blocks		
		K2 UG 1mE x 2.5mN x 1mRL		
		Small blocks were used to ensure adequate volume estimation where shapes were narrow.		
		 14. To check that the interpolation of the block model honoured the drill data, visual validation was carried out comparing the interpolated blocks to the sample composite data. 15. Volumes within wireframes were determined and these were then compared with the block estimates of the volumes within those wireframes on a shape by shape basis to ensure that volumes estimated were correct. 16. Classification was carried out using a combination of drill hole density and geology as the guide and Indicated Resource was constrained to Main Lode directly underneath the K2 OP. 17. Operating cost estimates developed by external Independent Mining Consultants (Mining Plus) and Metallurgists (Como Engineers) indicated that a break even mill feed cut-off grade for deposits for underground mining in the Marymia area was likely to be 3g/t Au. 		
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All results are reported on a dry tonnage basis.		
Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for deposits for underground mining in the Marymia area was likely to be 3g/t Au, based on a gold price o A\$2,500. 		
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	Underground mining using long hole open stoping will be the mining method employed going forward. Historic work carried out by Entech Mining Consultants support the concept of long hole open stoping and historic geotechnical work indicates good rock strength with minimal geotechnical issues in the mining.		



Criteria	JORC Code explanation	Commentary
Motallywaical	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.	Listorical motally grigal tactured a high recovery (000(1) yearld
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.	Historical metallurgical testwork suggested a high recovery (90%+) would be achieved.
Environmental factors or assumptions	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	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.



Criteria	JORC Code explanation	Commentary
	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.	
Bulk density	 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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of 	 The following bulk densities (t/m3) were used: Fresh: 2.90 The bulk densities used were based on actual bulk density measurements. Bulk density data has been collected in the field using a standard Weight in Air/Dry Weight method systematically through the diamond drilling in the field. Samples were selected and weighed in air and then submerged and reweighed using scales with a 0.1g accuracy. The samples were from fresh non-porous rock and generally returned consistent values. Some samples were covered in wax to ensure the accuracy of the method and these proved to be consistent with non-waxed measurements.
Classification	 the different materials. The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability 	 Fresh material directly beneath the K2 OP was classified as Indicated Resource (Main Lode only). All other material was classified as Inferred Resource with the exception of wireframes around one intersection (which was isolated) and wireframes which were extremely deep (Unclassified Resource). Classification was based on a combination of drill hole spacing and confidence in geological continuity. In general drill hole spacing of 25mE x 25mN was used. The Mineral Resource estimate appropriately reflects the view of the Competent Person.



Criteria	JORC Code explanation	Commentary
Audits or reviews	of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit. • The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/ confidence	 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. 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. These statements of 	 The interpretation of the deposit is robust and it is unlikely that a different interpretation at the global scale could be produced given the drilling that now defines the ore. There will need to be underground face sampling and drilling to define small scale fluctuations in the mineralised Lodes. The estimated resource is in-line with historic resources estimated for K2 UG taking into consideration the additional information. Oxide and transitional material above the fresh rock has been excluded from the reported K2 Mineral Resource due to a lack of geotechnical work required to establish a stable pit cut-back. An interim technical decision was taken to focus on K2 underground for mining safety reasons, as proximal historic workings exist. Further optimisation will be carried out prior to pre-feasibility studies to determine the most economical outcome for open-pit cut-back versus underground mining options. The K2 open pit resource will be reported once a recoverable component, based on safety, geotechnical information and mining, can be determined.



Criteria	JORC Code explanation	Commentary
	relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources Triple-P and Zone B Underground (UG)

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Industry standard checks were carried out on the database using Surpac Software by Carras Mining Pty Ltd (CMPL). All modelling was carried out using Surpac Software by CMPL. Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive Explorer3 RDBMS database. Previous data was sourced from the best available databases for each prospect and supplemented by regional databases. Structural and geotechnical data was collected from historical hard copy reports in several instances to enhance the geological and geotechnical database generated by Vango Mining. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. These include the review of original data, mostly from historical reporting (e.g. previous Annual Reports) to ensure the reliability of the data. Any potential data discrepancies have been examined and corrected where necessary. Some data within the existing database has been adjusted based on review with the original source data including Vango Mining data and data from historical reporting.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Spero Carras of CMPL (Competent Person) has visited the Marymia area and reviewed projects on the ground. Dr Carras also spent a significant amount of time working on the Marymia geology and geophysics in conjunction with Mr Jon Dugdale of DRS (Competent Person for the Exploration Results).
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Mr Jon Dugdale of DRS carried out geological interpretations of the Marymia Projects in the offices of CMPL working together with David Jenkins and Etienne deGaul of Terrasearch and Dr Spero Carras and Mr Tony Patriarca of CMPL. As a result, CMPL were involved in all aspects of the geological interpretation used for the Mineral Resource estimation. Drilling of the Triple-P and Zone B UG deposits includes both RC and previous diamond drillcore. Structural orientations and examination of timing relationships between mineralised structures and related alteration mineralogy at Triple-P and Zone B UG and at other deposits such as Trident, has enabled a structural model to be generated that has guided the interpretation. Drilling density at Triple-P and Zone B UG is generally 20m - 40m x 20m - 40m, and the confidence in the geological interpretation in terms of grade distribution and volume is moderate, with a moderate degree of uncertainty regarding variability of orientation. Thus the entire Mineral Resource estimate for Triple-P and Zone B UG is categorised Inferred. The nature of the data used for the geological interpretation is almost entirely drilling data. At Triple-P and Zone B UG a total of 511 holes for 38,583m of drilling has been completed, both historically and by Vango Mining. This includes 11 DD holes for 1,321m and 500 RC holes for 37,262m. Assay data generated from these drillholes is almost entirely Fire Assay analyses (see Section 1 for description). Lithological logging has been completed for all Vango and previous drilling.



Criteria	JORC Code explanation	Commentary				
		 Data/information generated from structural and geotechnical logging of diamond drillcore has also been utilised. Alternative interpretations with respect to the shape and orientation of mineralised zones, where data is limited to RC drilling (no orientation not known) are unlikely to significantly affect the volume of mineralisation but may have a low to moderate effect on continuity and classification (e.g. Indicated vs Inferred). Geology (structural, lithological and alteration) has been a key factor guiding the interpretation of the orientation, geometry, size and continuity of the resource envelopes and constraints/boundaries. The other key factor has been grade distribution and trends in the assay data, particularly where mineralisation occurs within a rock mass. Key factors affecting continuity both of grade and geology include, in order of importance: Structural controls – for example, steeply dipping (D3) fault zones that bound and are interpreted to have controlled dilation in the shallow to moderately dipping mafic and sedimentary host units, and also host mineralisation. Some post mineralisation movement may have accentuated the bounding nature of these structures. Gold mineralisation shoot controls in 3 dimensions have been observed whjch, in the case of Triple-P and Zone B UG, constrain high-grade mineralisation to shallow plunging shoots within the mafic and sedimentary host units. Only fresh material has been included in the Triple-P and Zone B UG Mineral Resource estimate and, as such, redistribution of gold mineralisation due to re-mobilisation of gold in the oxide zone and supergene enrichment in the transition zone of the deposit is not a factor. 				
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.	 The Triple-P and Zone B UG deposits are separate shoots of mineralisation, offset from each other by a oriented strike-slip fault. The Triple-P & Zone-B UG deposit have dimensions of: Triple-P: 140m strike north – south, 100m east – west and 100m from the base of the Triple-P pit floor. Zone-B: 160m strike north – south, 100m east – west and 150m from the base of the Zone B pit floor. The Triple-P and Zone B UG mineralised envelope strikes generally strikes north – south and dips shallow to moderately to the west. 				
Estimation and modelling techniques	modelling appropriateness of the	The following outlines the estimation and modelling technique used for producing Resources for the Triple-P & Zone-B UG deposit. Deposit Information Orebody Nominal Dimensions Drill Spacing Triple-P 100mE x 140mN x 100mRL 20mE x 20mN up to				
		interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a	interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a	Zone-B 100mE x 160mN x 40mE x 40mE 100mRL		



Criteria	JORC Code explanation	Con	nmentary					
	computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in	computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model intervolution. Only the fresh rock component was consestimates estimation. CMPL carried out a review of the weath with Mr J Dugdale and Terra Search Geol Based on geology and using intersection were wireframed at a 3g/t nominal cut-oselection to constrain the interpretatio could contain values less than 3g/t parameters used for intersection selection. The mineralised wireframes were audited and the mineralised wireframes were audited by parameters used for intersection selection. The mineralised wireframes were audited by parameters used for intersection selection to constrain the interpretation could contain values less than 3g/t parameters used for intersection selection. The mineralised wireframe had an assign the mineralised wireframes were audited by parameters used for intersection selection. The mineralised wireframes were audited by parameters used for intersection selection. The majority of data was 1m lengths and when modelling the deposit. The number of shapes used to model the properties of the data, a visual plant of the data visual plant of the da					ring surfaces in conjunction ists. election, mineralised shapes grade and using intersection. These mineralised shapes hin the wireframes. The were 3m down hole. by Mr J Dugdale. d strike, dip and plunge. length weighting was used eposit was as follows:	
	relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.		Deposit Triple-P & Zone-B UG The modelling method of extended sections with to the wireframe. Classification was carried and geology as the guided classified as Inferred mineralisation to increat the continuity of the following the mining of Operating cost estimate. Consultants (Mining Pluthat a break even mill fee Marymia area was likely	used we do out the are resulted out the resulted	t using a combinal ted in all of the mource. There is size with further logy and with ite-P OP. Eveloped by extern d Metallurgists (Cot-off grade for uncot-off grade	stimation of nineralise the production of mprove that are the production of the prod	drill hole density ed material being totential for the to better define d understanding ependent Mining gineers) indicated	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of	•	All results are reported o	n a d	ry tonnage basis.			



Criteria	JORC Code explanation	Commentary	
	determination of the moisture content.		
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	 Operating cost estimates developed by Como Engineers indicated that a break even mill feed cut-off grade for deposits for underground mining in the Marymia area was likely to be 3g/t Au, based on a gold price of A\$2,500. 	
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.	At present there is no definitive proposed mining method. Following more detailed drilling (which will raise the classification of the mineralised resource to Indicated) the best method of extraction will be selected.	
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	Preliminary metallurgical testwork suggested high leach recoveries would be achieved, (Fresh 75% to 97%, average 86%). Test-work indicates the fresh recovery can be upgraded to 90% using a combination of flotation concentrate of sulphide occluded gold, finer grinding and lead nitrate addition prior to leaching.	



Criteria	JORC Code explanation	Commentary
	with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	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	There are currently no known environmental factors which will affect the project. To date, there have been no issues in carrying out drilling and having POW's approved.
Bulk density	 assumptions made. 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. The bulk density for bulk material must have been measured by methods that 	 The following bulk densities (t/m3) were used:



Criteria	JORC Code explanation	Commentary
	void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineralised material in Triple-P & Zone-B UG has been classified as Inferred Resource due to the lack of continuity exhibited by the currently available drilling. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no other audits and reviews carried out using the same data as has been used in this study.
Discussion of relative accuracy/confidence	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	The interpretation of the deposit should be considered preliminary and as a result the mineralisation has been classified as Inferred Resource. It is anticipated that further deep drilling will better define the underground potential of this area.



Criteria	JORC Code explanation	Commentary
	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. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	



Section 3 Estimation and Reporting of Mineral Resources Trident Underground (UG)¹ - unchanged from 18 April 2019 release

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Current work has been plotted and examined in MineMap and Surpac in detail along with the existing extensive database. Any potential discrepancies have been examined and corrected where necessary. All data has been loaded into the Explorer3 RDBMS and has undergone validation procedures. Some data within the existing database has been adjusted based on review with the original source data from historical reporting. Previous data was sourced from databases previously reviewed by Runge in 2010. Structural and geotechnical data was collected from hard copy reports in several instances to enhance the geological and geotechnical database.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	Dr Carras carried out 2 independent site visits to the Trident resource area where he reviewed diamond drilling information. Dr Carras was also involved extensively with the geological interpretation and domaining of the Trident resource area.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 Current work has included the drilling of 33 Diamond holes and 27 RC holes within the area. This data in addition to the previous database of over 600 holes has allowed detailed geological interpretation of the system. Detailed Geological logging was completed on the diamond drillholes and used to interpret previous logging. RQD and magnetic susceptibility data was also used to define structures and geological units in conjunction with the geological logging. Structural logging from this program and previous diamond logging was used to inform the geological model. Biotite alteration was a common companion to gold mineralisation and shows a strong correlation. There is high confidence in the geological model which shows two distinct zones a shallow north west dipping structure of 2- 10m thickness parallel to thrusting, and a steep, wider folded zone adjacent to steep controlling faults within the deposit. Cross-faulting does appear to displace the mineralisation causing some breaks in continuity. The location of these structures is of moderate confidence.
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	The resource extents of this estimate are approximately 1,000m from 19,050mE to 20,100mE and 300m vertical extent.



Criteria	JORC Code explanation	Commentar	У		
	Mineral Resource.				
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key	producin	wing outlines the estimatio g resources for the Trident timation process.	_	•
	assumptions, including treatment of extreme grade values,	Deposit	Orebody Dimensions	Nominal Drill Spacing	Metres of Mineralised Drilling
	domaining, interpolation	Trident	1,100mE x 500mN x 300mRL	20m x 20m	Approx. 1,400m
	interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between	Service a. b. c. 2. Carras weather Resour 3. Based were very shapes The part which interse interse 4. The wir Resour 5. The de dip. 6. The mark used w 7. The ne Depo Trider 8. A brea This wa to the 9. The Re density domain statisti	ames were provided by Teres Ltd for: Topography based on dri Bottom of Oxidation (BOTTOP of Fresh Rock (TOFR) Mining Pty Ltd ("CMPL") calering surfaces in conjunction ree Services Ltd geologists. On geology and using intervireframed at a 3.0g/t nome could contain values less trameters used for intersected at the citions could include up the citions were undiluted. Terframed shapes were auditive Services Ltd geological surface Services Ltd	ill collar data CO) arried out a revie in with Terrasear section selection inal cut-off grad than 3.0g/t with ction selection w 2-2.5m minimum to 3m of intern ited by Terrasear staff. sterly strike and a ingths and weight as follows: ume for each sha indid not over dilu en into domains e accompanying d statistics was pri determined usi	tw of the ch and Discover n, domainal shapes le. These domainal in the wireframes. Here 3m down hole in stope height. The all dilution and all orch and Discover an east north east ted lengths were ted lengths were spe was measured. Let the shapes due is based on drilling image.) For each roduced. Based on ng the method of
	variables. • Description of how the geological	based	m. The Denham method on the gamma distribution a istent with the often-used (and the co-efficie	· · · · · · · · · · · · · · · · · · ·
	interpretation was used to control the	The se	lected high-grade cut and p	ercentage metal	cut for each



Criteria	JORC Code explanation	Commentary	,		
	resource estimates.	domain	is shown below:		
	Discussion of basis for using or not using grade cutting or	Domain	Comment	High Grade Cut (g/t)	Metal Cut (%)
	capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of	Domain 1	Main Flat Dipping Domain (High Grade Area)	140	8
		Domain 1	Main Flat Dipping Domain (Not in High Grade Area)	55	4
	reconciliation data if available.	Domain 2	Main Vertical Domain (High Grade Area)	120	3
		Domain 2	Main Vertical Domain (Not in High Grade Area)	70	4
		Domain 3	Eastern Domain	50	0
		Domain 4	Horizontal Domain Near Transition Boundary	20	0
		Domain 5	Flat Dipping Domains Close to Domain 1	30	0
		Domain 6	Flat Dipping Domain Under Proposed Portal	15	0
		Domain 7	All Other Shapes	30	0
		definite bounda even w 10. Major s variogra 11. The foll Domain	owing fill method was use	emoved. The high-graundaries when estimal metal is still cut from assigned for each shard in modelling:	nde domain ting. Note that Domain 1.
		12. The foll • •	owing parameters were u A minimum number of s of samples of 16 The discretisation param Search parameters were variography Note: for blocks that did	sed for all Domains in amples of 2 and a maineters were 2 x 2 x 1 based on domain orion not meet these requires	entation and rements, the
			search parameters were increased.	Telanea ana the sealt	ii iddii WEIE



Criteria	JORC Code explanation	Commentary	
		13. The fundamental block size used was: Deposit Small Blocks Trident 0.5mN x 5mE x 1mRL	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages and grades were estimated on a dry in-situ basis. No moisture values were reviewed.	
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• The Mineral Resource has been reported at a 3g/t gold cut-off grade. A cut-off grade has not been applied to material within the interpreted wireframes for resource reporting. Underground mining and milling costs suggested that a cut-off grade of 3.0g/t would be appropriate at an AU\$2,000/oz gold price.	
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	The mining method will be a mix of moderately sized long hole open stopes with engineered paste fill and some conventional drift and engineered fill in the flatter areas. Cable bolting of the ultramafic hanging wall is anticipated. It is expected that dilutions of up to 30% may be experienced. Dilution has not been applied in the Resource modelling process. Geotechnical studies are currently underway to determine the dilution parameters that will be used in conversion to reserves. It is intended to maximise the use of remote control, tele-operated and automated, mining equipment when implementing the underground mining method.	



Criteria	JORC Code explanation	Commentary
	with an explanation of the basis of the mining assumptions made.	
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	• Metallurgical testwork was conducted by ALS in Perth on a representative, >50kg composite sample generated from diamond drill-core that forms part of the Trident Mineral Resource. The calculated head grade is in line with the Indicated Resource at 9.1 g/t gold (Au). Metallurgical results included cyanide leach gold extraction at a grind size of 106µm of over 89% after 24 hours to 90% after 48 hours. The new test-work also produced a relatively low Bond, Ball-mill, Work Index of 13, indicating potential for relatively low milling costs.
Environmental factors or assumptions	assumptions made. • 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	The Trident deposit contains the fibrous asbestiform mineral actinolite and as a result the mining, treatment of ore and disposal of waste will need to comply with the handling of fibrous minerals rules and regulations. Fibrous minerals have been associated with previous mining of the Marwest pit at Marymia and mining and milling processes were put in place to ensure appropriate Occupational Health and Safety requirements. At Trident there will be a need for adequate ventilation, wash down areas, the containment of crushed materials and the covering of waste and tailings.



Criteria	JORC Code explanation	Commentary
Bulk density	should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. Whether assumed or determined. If	Bulk density was measured on 140 diamond drillhole samples using a wet/dry weight measurement to determine the density. Some
	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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	measurements were completed using wax to ensure no bias due to water ingress and these values showed the non-wax measurements to be accurate. • The bulk density measurements confirmed the use of 2.90 t/m³ as being appropriate for all mineralisation.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result 	 Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012). The Indicated portion of the resource was confined to areas defined where the drill spacing was approximately 20m by 20m and continuity in both grade and geological structure was demonstrated. The Inferred Resource included areas of the resource where sampling was greater than 20m by 20m or was represented by isolated, discontinuous zones of mineralisation to a maximum of 40m. In general, classification was carried out using a combination of drill hole spacing and geology as the guide. The result appropriately reflects the Competent Person's view of the Trident deposit.



Criteria	JORC Code explanation	Commentary
Audits or reviews	appropriately reflects the Competent Person's view of the deposit. The results of any audits or reviews of Mineral Resource	Internal review of interpretation and methodology have been completed by contractors who verified the technical inputs, geological methodology and parameters of the estimate.
Discussion of relative accuracy/ confidence	 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. 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 The Resource has not yet been independently reviewed. The Trident deposit has a very high-grade core which is within a dilational zone with an ultramafic schist host. The use of the very high-grade cut is appropriate for such a zone and this zone has been domained to constrain the high-grade values. The results produced are global and in general, domaining to determine the high cuts and removal of a significant amount of metal has restricted the smoothing of high-grade values into lower grade domains, even though soft boundaries have been used. Definite waste zones have also been eliminated from the estimates. There is no production data available.