ASX Announcement
19 November 2019

NEW SHALLOW HIGH-GRADE GOLD INTERSECTIONS AT MARS

Intersections further enhance Trident-Marwest-Mareast resource expansion potential

- **New, thick, high-grade and shallow gold intersections from the Mars deposit, including:**
  - **15m @ 4.15 g/t Au from 34m incl. 9m @ 6.62 g/t Au incl. 1m @ 17.9 g/t Au in VMWRC0013,**
  - **8m @ 4.40 g/t Au from 68m incl. 6m @ 5.60 g/t Au incl. 2m @ 13.8 g/t Au in VMWRC0011,**
  - **16m @ 2.06 g/t Au from 21m incl. 6m @ 3.62 g/t Au in VMWRC0015**
- **The new Mars intersections extend this high-grade zone to the southwest, potentially linking with the Marwest deposit and Trident, 2km to the southwest**
- **Drilling continues and is designed to extend and further define the high-grade gold resource base at Marymia to support the proposed, significant, stand-alone high-grade gold operation**

Gold exploration and development company Vango Mining Ltd ("Vango" or "the Company") is pleased to announce new shallow, high-grade, gold intersections from drilling at the **Mars** prospect on its 100%-owned Marymia Gold Project, 300km NE of Meekatharra in the Mid-West region of Western Australia (see location, Figure 1).

The Mars deposit is located at the north-eastern end of the 2km Trident-Marwest zone which sits within the 5km structural/mineralisation gold corridor that continues from the very high-grade Trident resource through the Marwest/Mars prospects to the Mareast prospect (see plan of Trident-Marwest-Mareast corridor and drill hole locations, Figure 2 and Trident-Marwest/Mars zone Figure 3).

The latest thick and high-grade intersections, reported in this announcement, are from shallow depth and further highlight the resource expansion potential of the Trident-Marwest-Mareast Gold Corridor. The new gold intersections at Mars remain open to the southwest where the zone may link with the Marwest deposit and/or extend below Marwest to connect with the Trident resource, 2km to the southwest. The key, new, intersections are summarised below:

- **15m @ 4.15 g/t Au from 34m incl. 9m @ 6.62 g/t Au incl. 1m @ 17.9 g/t Au in VMWRC0013,**
- **8m @ 4.40 g/t Au from 68m incl. 6m @ 5.60 g/t Au incl. 2m @ 13.8 g/t Au in VMWRC0011,**
- **16m @ 2.06 g/t Au from 21m incl. 6m @ 3.62 g/t Au in VMWRC0015**

Other recent and previous high-grade intersections from this zone include:

- **9m @ 12.7 g/t Au from 54m incl. 7m @ 15.6 g/t Au incl. 3m @ 30.6 g/t Au in VMWRC0002**[1]
- **13m @ 10.0 g/t Au from 60m including 7m @ 15.2 g/t Au from 65m in MWRC0096**[1]
- **6m @ 10.6 g/t Au from 51m including 4m @ 14.7 g/t Au from 52m in MWRC0034**[1]
- **15m @ 5.0 g/t Au from 68m including 3m @ 13.2 g/t Au from 75m in MWRC0091**[1]

Key new and selected previous intersections are shown on cross sections Figure 4.

These new, thick and high-grade, intersections at Mars are at shallow, potentially open pit-able, depth in the oxide-to-transition zone, immediately northeast of the previously mined Marwest open pit. The Mars zone offers potential for early high-grade open-pit production in a proposed future mining operation at the Marymia Project - in addition to the recently announced very high-grade intersections from shallow depth at Mareast (including **10m @ 22.6 g/t Au from 50m incl. 6m @ 33.3 g/t Au in VMERC0025**[2]).

Vango plans to confirm new open-pit resource estimates for Mars and Mareast, and it will make assessments regarding further drilling requirements in order to delineate these resources. The new resources will be added to the Marymia Project's existing resource inventory (e.g. the high-grade Trident Mineral Resource[3]) along with other new, high-grade, underground resource estimates planned to be defined via the Company's targeted ongoing drilling programmes. This drilling will target **Triple P - Zone B, Albatross-Flamingo** and other areas, with the aim of delivering a significant upgrade to the resource base for the proposed stand-alone Marymia Gold Project.

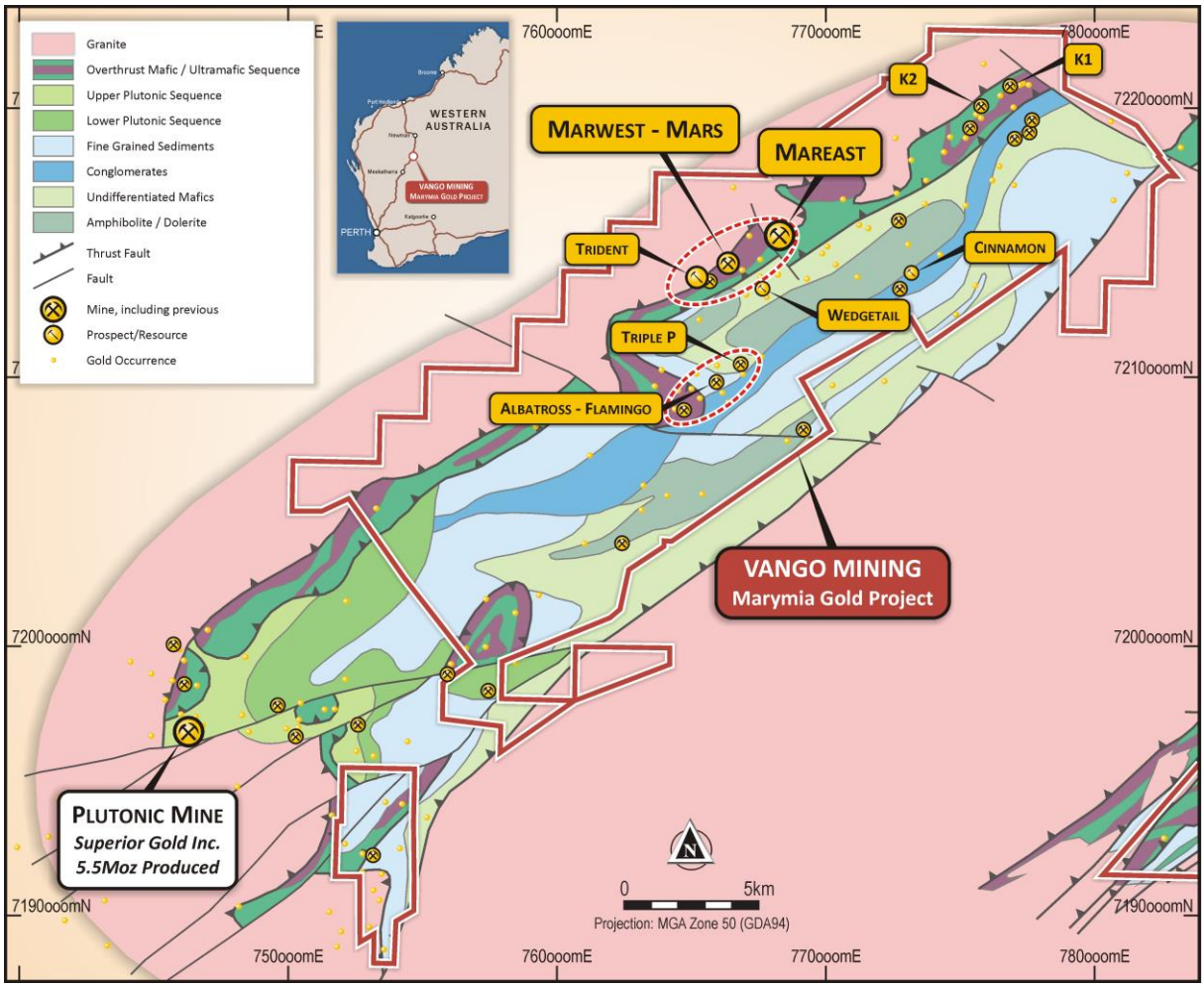

Figure 1: Marymia Gold Project, Mareast Prospect in Trident-Marwest-Mareast Corridor

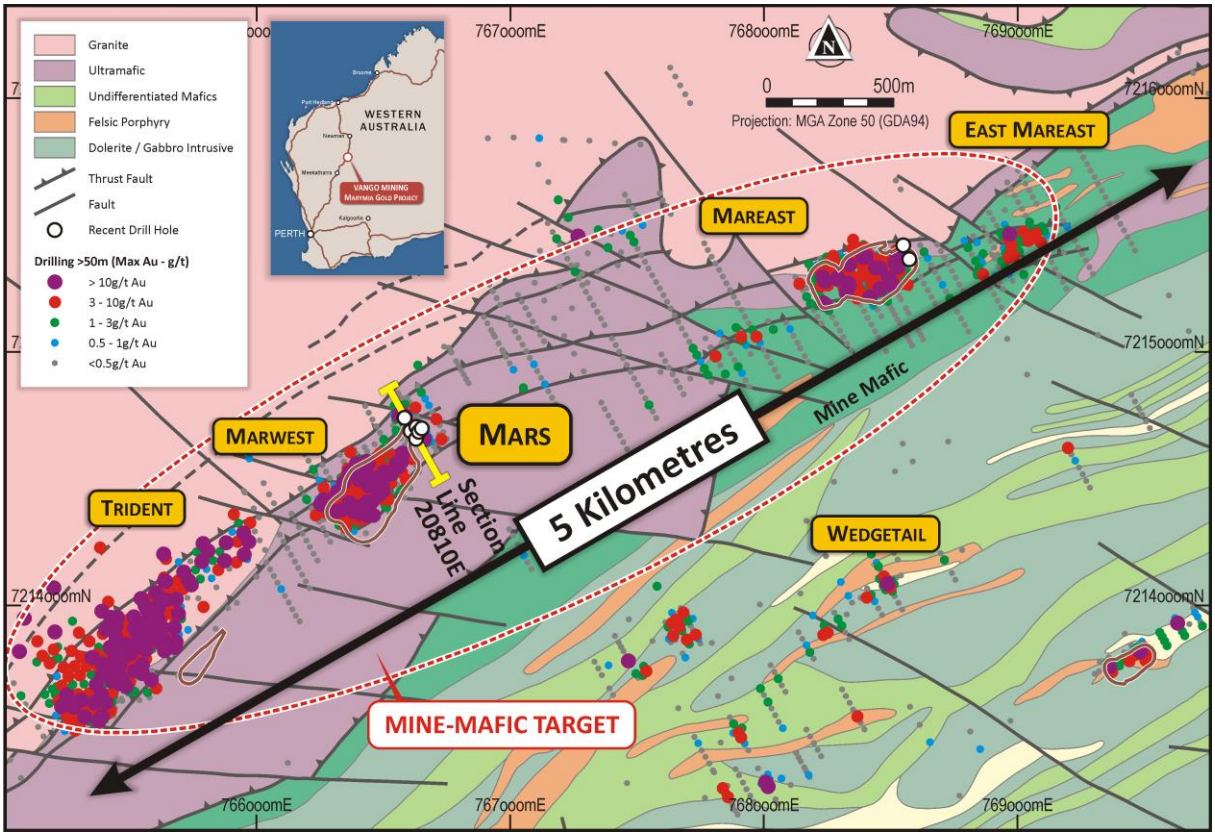

Figure 2: Trident-Marwest-Mareast Corridor, Mareast Prospect with Drillhole Locations

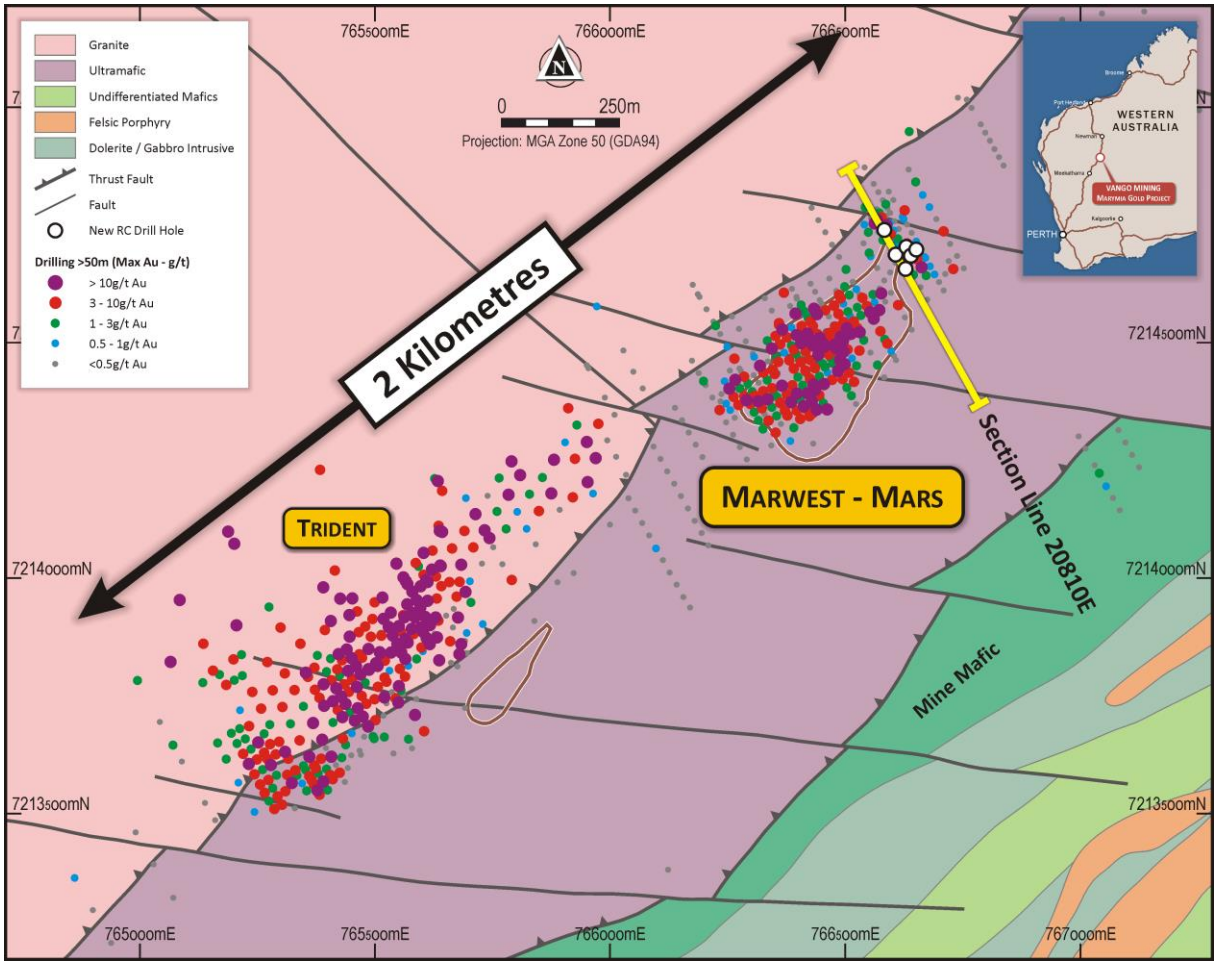

Figure 3: Trident-Marwest/Mars Zone with section line through new drilling intersections at Mars

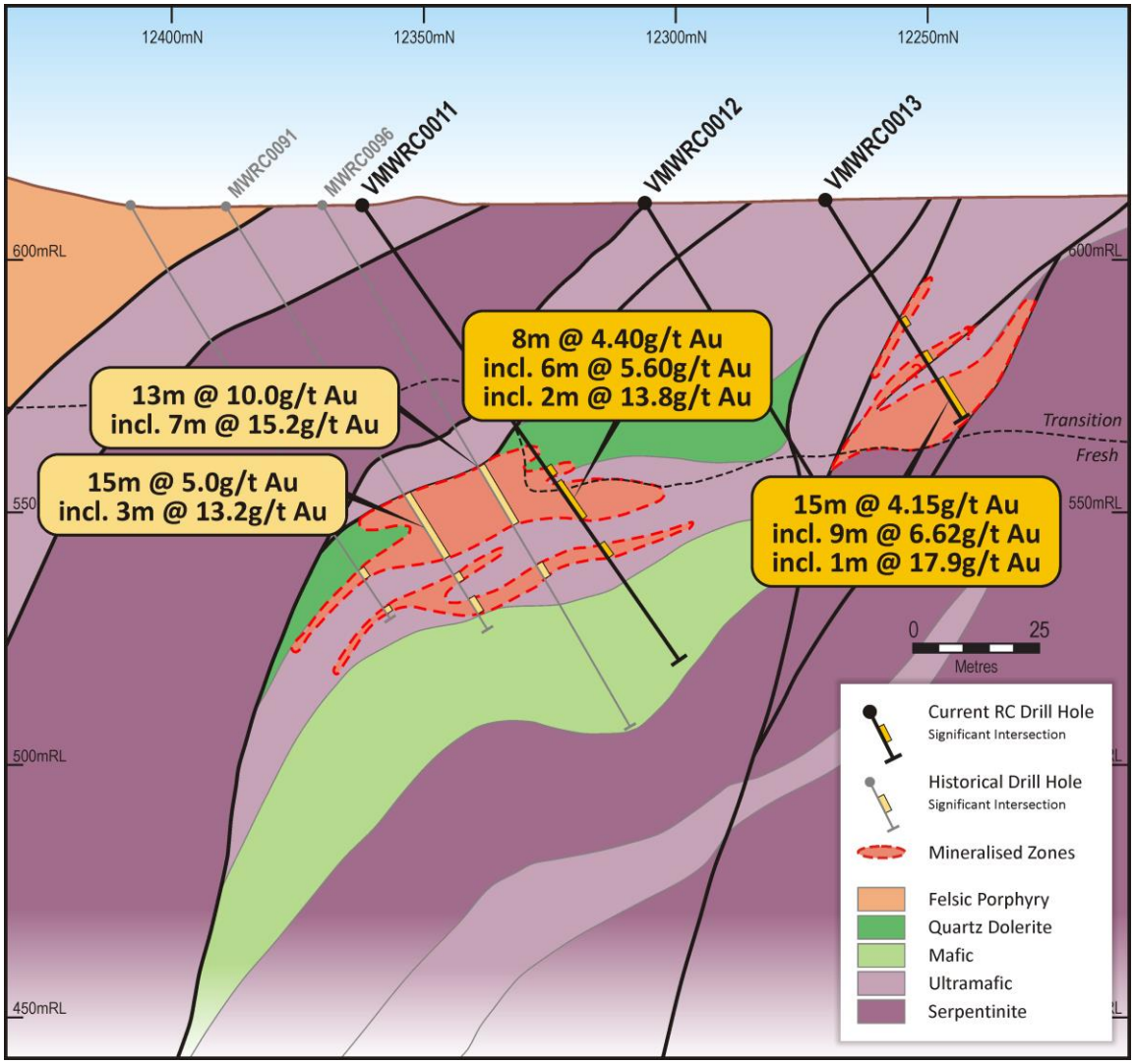

Figure 4: Mars Prospect cross section 20,810mE showing new high-grade intersections

Table 1: Mars New RC Drilling Intersections:

Prospect	Hole #	Section Easting	From	To	m	g/t Au	Cut off
MARS	**VMWRC0011**	20,810mE	**68**	**76**	**8**	**4.40**	0.5 g/t
			68	**74**	**6**	**5.60**	1.0 g/t
			70	**72**	**2**	**13.78**	3.0 g/t
MARS	**VMWRC0011**	20,810mE	**82**	**85**	**3**	**1.88**	0.5 g/t
			82	**84**	**2**	**2.52**	1.0 g/t
			83	**84**	**1**	**3.94**	3.0 g/t
MARS	**VMWRC0012**	20,810mE	NSA				
MARS	**VMWRC0013**	20,810mE	**34**	**49**	**15**	**4.15**	0.5 g/t
			40	**49**	**9**	**6.62**	1 g/t
			41	**49**	**8**	**7.22**	3 g/t
			46	**47**	**1**	**17.94**	>5 g/t
MARS	**VMWRC0014**	20,835mE	NSA				
MARS	**VMWRC0015**	20,835mE	**21**	**37**	**16**	**2.06**	1 g/t
			27	**33**	**6**	**3.62**	3 g/t
MARS	**VMWRC0016**	20,850mE	**23**	**25**	**2**	**2.37**	1 g/t

Table 2 Mars Prospect Drillhole locations:

Prospect	Hole ID	Drill Type	MGA East	MGA North	RL	Grid East	Grid North	Depth (m)	Dip°	Azi°
Mars	VMWRC0011	RC	766583.5	7214739.5	610.9	20810	12363	109	-55	151
Mars	VMWRC0012	RC	766607.6	7214687.0	611.3	20806	12304	79	-60	151
Mars	VMWRC0013	RC	766629.1	7214656.6	612.0	20810	12267	49	-60	151
Mars	VMWRC0014	RC	766630.6	7214703.3	611.6	20835	12308	79	-60	151
Mars	VMWRC0015	RC	766640.2	7214684.8	611.8	20835	12287	61	-60	151
Mars	VMWRC0016	RC	766651.6	7214698.0	611.7	20850	12294	61	-60	151

Previous releases referenced:

[1] Very High-Grade Gold Intersections Extend Trident – Marwest Corridor ASX: 19/06/2019

[2] Further Exceptional High-Grade Gold Intersection at Mareast ASX: 08/11/2019

[3] New High-Grade Trident Gold Resource Upgrade ASX: 18/04/2019

For further information, please contact:

Bruce McInnes
Executive Chairman
Vango Mining Limited
E: bamcinnes@vangomining.com
T: +61 2 9251 6012
W: www.vangomining.com

Media and Investor Inquiries:
James Moses
Mandate Corporate
E: james@mandatecorporate.com.au
T: +61 420 991 574

Competent Persons Statement

The information in this report that relates to exploration results 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, contracted to Vango Mining Ltd. Mr Dugdale has sufficient experience 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 forward-looking statements.

Appendix 1: Significant Assays – Mars RC drilling program:

Prospect	Hole ID	Sample	From Depth	To Depth	Data Type	Au	Au1
MARS	VMWRC0011	5161965	63	64	INT	0.615	
MARS	VMWRC0011	5161966	64	65	INT	0.607	
MARS	VMWRC0011	5161967	65	66	INT	0.183	
MARS	VMWRC0011	5161968	66	67	INT	0.686	
MARS	VMWRC0011	5161969	67	68	INT	0.543	
MARS	VMWRC0011	5161970	68	69	INT	**1.473**	
MARS	VMWRC0011	5161971	69	70	INT	**1.223**	
MARS	VMWRC0011	5161972	70	71	INT	**9.385**	**9.336**
MARS	VMWRC0011	5161973	71	72	INT	**18.348**	**18.053**
MARS	VMWRC0011	5161974	72	73	INT	**1.889**	
MARS	VMWRC0011	5161975	73	74	INT	**1.427**	
MARS	VMWRC0011	5161976	74	75	INT	**0.863**	
MARS	VMWRC0011	5161977	75	76	INT	**0.783**	
MARS	VMWRC0011	5161978	76	77	INT	0.359	
MARS	VMWRC0011	5161979	77	78	INT	0.104	
MARS	VMWRC0011	5161981	77	78	DUP	0.069	
MARS	VMWRC0011	5161983	78	79	INT	0.093	
MARS	VMWRC0011	5161984	79	80	INT	0.092	
MARS	VMWRC0011	5161985	80	81	INT	0.066	
MARS	VMWRC0011	5161986	81	82	INT	0.041	
MARS	VMWRC0011	5161987	82	83	INT	**1.093**	
MARS	VMWRC0011	5161988	83	84	INT	**3.929**	**3.955**
MARS	VMWRC0011	5161989	84	85	INT	**0.612**	
MARS	VMWRC0011	5161990	85	86	INT	0.389	
MARS	VMWRC0011	5161991	86	87	INT	0.137	
MARS	VMWRC0013	5163101	25	26	DUP	0.039	
MARS	VMWRC0013	5163103	26	27	INT	**1.208**	
MARS	VMWRC0013	5163104	27	28	INT	0.094	
MARS	VMWRC0013	5163105	28	29	INT	0.025	
MARS	VMWRC0013	5163106	29	30	INT	0.033	
MARS	VMWRC0013	5163107	30	31	INT	0.145	
MARS	VMWRC0013	5163108	31	32	INT	0.165	
MARS	VMWRC0013	5163109	32	33	INT	0.033	
MARS	VMWRC0013	5163110	33	34	INT	0.171	
MARS	VMWRC0013	5163111	34	35	INT	**0.583**	
MARS	VMWRC0013	5163112	35	36	INT	**0.657**	
MARS	VMWRC0013	5163113	36	37	INT	**0.489**	
MARS	VMWRC0013	5163114	37	38	INT	**0.156**	
MARS	VMWRC0013	5163115	38	39	INT	**0.483**	
MARS	VMWRC0013	5163116	39	40	INT	**0.327**	
MARS	VMWRC0013	5163117	40	41	INT	**1.782**	

Prospect	Hole ID	Sample	From Depth	To Depth	Data Type	Au	Au1
MARS	VMWRC0013	5163118	41	42	INT	**4.62**	
MARS	VMWRC0013	5163119	42	43	INT	**8.257**	
MARS	VMWRC0013	5163121	42	43	DUP	**7.3**	
MARS	VMWRC0013	5163123	43	44	INT	**6.708**	
MARS	VMWRC0013	5163124	44	45	INT	**5.479**	
MARS	VMWRC0013	5163125	45	46	INT	**7.044**	
MARS	VMWRC0013	5163126	46	47	INT	**17.937**	
MARS	VMWRC0013	5163127	47	48	INT	**2.571**	
MARS	VMWRC0013	5163128	48	49	INT	**5.146**	
MARS	VMWRC0015	5163226	20	21	INT	0.17	
MARS	VMWRC0015	5163227	21	22	INT	**2.515**	
MARS	VMWRC0015	5163228	22	23	INT	**0.607**	
MARS	VMWRC0015	5163229	23	24	INT	**1.424**	
MARS	VMWRC0015	5163230	24	25	INT	**0.371**	
MARS	VMWRC0015	5163231	25	26	INT	**0.496**	
MARS	VMWRC0015	5163232	26	27	INT	**1.841**	
MARS	VMWRC0015	5163233	27	28	INT	**5.895**	**5.447**
MARS	VMWRC0015	5163234	28	29	INT	**5.787**	**5.393**
MARS	VMWRC0015	5163235	29	30	INT	**2.538**	
MARS	VMWRC0015	5163236	30	31	INT	**0.772**	
MARS	VMWRC0015	5163237	31	32	INT	**4.121**	
MARS	VMWRC0015	5163238	32	33	INT	**3.001**	
MARS	VMWRC0015	5163239	33	34	INT	**0.228**	
MARS	VMWRC0015	5163241	33	34	DUP	**0.247**	
MARS	VMWRC0015	5163243	34	35	INT	**1.656**	
MARS	VMWRC0015	5163244	35	36	INT	**0.671**	
MARS	VMWRC0015	5163245	36	37	INT	**1.415**	
MARS	VMWRC0015	5163246	37	38	INT	0.488	
MARS	VMWRC0015	5163247	38	39	INT	0.266	
MARS	VMWRC0016	5163279	21	22	INT	0.21	
MARS	VMWRC0016	5163281	21	22	DUP	0.321	
MARS	VMWRC0016	5163283	22	23	INT	0.346	
MARS	VMWRC0016	5163284	23	24	INT	**2.059**	
MARS	VMWRC0016	5163285	24	25	INT	**2.68**	
MARS	VMWRC0016	5163286	25	26	INT	0.1	

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 (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• RC Drilling assays are from 1m samples split on the cyclone for the key intercepts. 4m composites from these 1m splits are taken in zones of lower prospectivity. Where the composite samples return > 0.5g/t Au, they are re-assayed on 1m intervals
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Face Sampling, Reverse Circulation hammer
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.*	• RC drilling was bagged on 1m intervals and an estimate of sample recovery has been made on the size of each sample.
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.*	• Reverse Circulation holes are being logged on 1m intervals
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*	• Standards submitted every 20 samples of grade similar to those expected in the sampling. • Blanks were inserted every 20 samples also • In un-prospective lithologies these 1m samples were composited using a scoop over 4m intervals.

Criteria	JORC Code explanation	Commentary
	representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
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.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples analysed at Intertek Laboratories in Perth, WA, using a 50g Fire Assay method. • Samples are dried, crushed and pulverised prior to analysis.
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.*	• Intercepts have been calculated generally using a 1g/t cut off or as otherwise stated (see Table 1) and internal waste of up to 3m thickness with total intercepts greater than 1g/t. All repeats and duplicates have been included.
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 estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• DGPS has been used to locate the drillholes. • REFLEX Gyro Tool used for downhole surveys on all holes
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.*	• Drilling within 10m of existing drillholes
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.*	• Intercepts given are downhole widths with the true widths not determined.
Sample security	• *The measures taken to ensure sample security.*	• Samples sealed in bulka bag with Security seal, unbroken when delivered to lab
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

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.*	• Located in the Marymia - Plutonic Greenstone Belt ~218km northeast of Meekatharra in the Midwest mining district in WA • M52/217 granted tenement in good standing. • The tenements predate Native title interests, but are covered by the Gingirana Native Title claim • 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 and Dampier Gold
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Gold mineralisation at Mars is orogenic, hosted within sheared and faulted ultramafic rocks. High grade 'shoots' of mineralisation are associated with flexures in the mineralised host shear zones between steeply dipping structures (see Figure 3 and 4).
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:* ▪ *easting and northing of the drill hole collar* ▪ *elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar* •	• 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

Criteria	JORC Code explanation	Commentary
	dip and azimuth of the hole ▪ *down hole length and interception depth* ▪ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Intercepts have been calculated generally using a 1 g/t cut off or as otherwise stated (see Table 1) and internal waste of up to 3m thickness with total intercepts greater than 1g/t. All Duplicates and repeats are included • No upper cut off has been applied to intersections.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Orientation of mineralised zones are still to be ascertained by follow up drilling.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See Figure 1, regional geology; Figure 2 and 3; Prospect geology, drillhole locations and plan view of drillhole collar locations and Figure 4, appropriate cross-sectional view of the Mars deposit. • See Table 1, summary of drilling intersections and Table 2, drillhole locations and Appendix 1, all significant assays, with repeats and duplicates.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to*	• See Table 1, summary of drilling intersections and Table 2, drillhole locations and Appendix 1, all significant assays, low and high grade,

Criteria	JORC Code explanation	Commentary
	avoid misleading reporting of Exploration Results.	with repeats and duplicates.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Geological interpretations are included on both plan views (Figures 1, 2 and 3) and sectional views (Figure 4) • No new exploration data has been generated apart from the drilling information included in this report.
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.*	• Planning of further drilling to extend and define the high-grade ultramafic hosted mineralisation and potentially link to Trident will be summarised in future reports prior to initiation.