ASX Announcement
05 March 2019

EXCELLENT METALLURGY FOR TRIDENT WEST GOLD DEPOSIT

97.9% gold extraction and low cost crushing and grinding conditions indicated

HIGHLIGHTS

- **Vango delivers exceptional metallurgical results which will form a key positive input into mine planning and stand-alone processing plant studies on the Trident Gold Deposit**
- **Results to now be incorporated into updated Scoping Study prior to a Pre-Feasibility Study**
- **Trident West metallurgical testing achieved a very high 97.9% gold extraction in 24 hours**
- **Gold head assays significantly above estimated grades for the metallurgical composite**

Gold exploration and development company Vango Mining Limited (ASX:VAN) is pleased to announce excellent metallurgical results for the Trident West gold deposit at the Company's 100%-owned Marymia Gold Project ("Marymia" or "the Project") in the Mid-West region of Western Australia.

The testwork was designed to assess the metallurgical parameters of the resource at Trident West, to assist in determining the most appropriate processing conditions and costs for Vango's proposed stand-alone processing plant to support the proposed mining operation at Trident and Trident West.

The metallurgical programme was highly successful and returned a gold extraction recovery rate of 97.9% over 24 hours at the preferred 106-micron grind size.

In addition, crushing/compression tests indicate a very low crushing work index (CWi) and grinding tests, which are currently in progress, also indicate low cost grinding conditions.

These results demonstrate the potential for ore from the Trident West deposit to deliver very high gold recoveries and relatively low milling costs for the initial stages of the Company's proposed stand-alone processing plant at the Plutonic Dome Project.

The metallurgical results will now be incorporated into updated processing plant scoping studies by Como Engineers, prior to initiation of the Pre-Feasibility Study (PFS) on the stand-alone mining and processing project at Marymia.

The test work was conducted on a 42kg composite of oxidised to transitional ultramafic rock from metallurgical diamond drillhole VTRMET0100, estimated from drill-core assays to grade 1.3 g/t Au. Head assays of the crushed and homogenised composite averaged 1.99 g/t Au (see Table 1). This is significantly above the estimated 1.3 g/t Au grade from drill-core assays, indicating the presence of some coarse, supergene, gold in the oxide portion of the drill-hole, that is more difficult to sample due to the variable grain size of the gold in this part of the weathering profile.

The Trident West deposit is the near-surface expression of the Trident gold deposit. The project is being evaluated as a potential open pit target as well as an access point to the underground development of the high-grade Trident (Main) gold deposit.

About the Metallurgical Test-work Program:

The test work on the Trident West drill-core was focused on two objectives:

i) To determine metallurgical leach recovery rates and establish preferred grind size, and,

ii) to provide crushing (CWi) and a Bond, Ball-mill, Work Index (BBWi) to allow determination of milling conditions and costs.

A 42kg composite sample was generated from previous diamond drill-core at Trident, with an estimated average grade from drill-core assays of 1.3 g/t gold (Au). Head assays of the composite averaged 1.99 g/t Au (see Table 1) and calculated head assays ranged from 1.87 g/t Au to 1.94 g/t Au. This is significantly above the estimated grade from drill core assays and indicates the presence of some coarse gold in the oxide portion of the drill sample.

Cyanide leach tests were conducted at three grind sizes, producing the following results over 24 hours:

- 150 micron: 95.5% gold recovery
- **106 micron: 97.9% gold recovery** (optimum and preferred grind size),
- 75 micron: 97.7% gold recovery

The leaching rate at the 106 micron grind size was rapid at the tested cyanide level of 1,000ppm (see Chart 1 below) - however cyanide consumption was only moderate at 1.1 kg/t.

The UCS testing indicated very weak material that will essentially "fall apart" under crushing conditions.

Final BBWi results are to come however soft grinding conditions are expected.

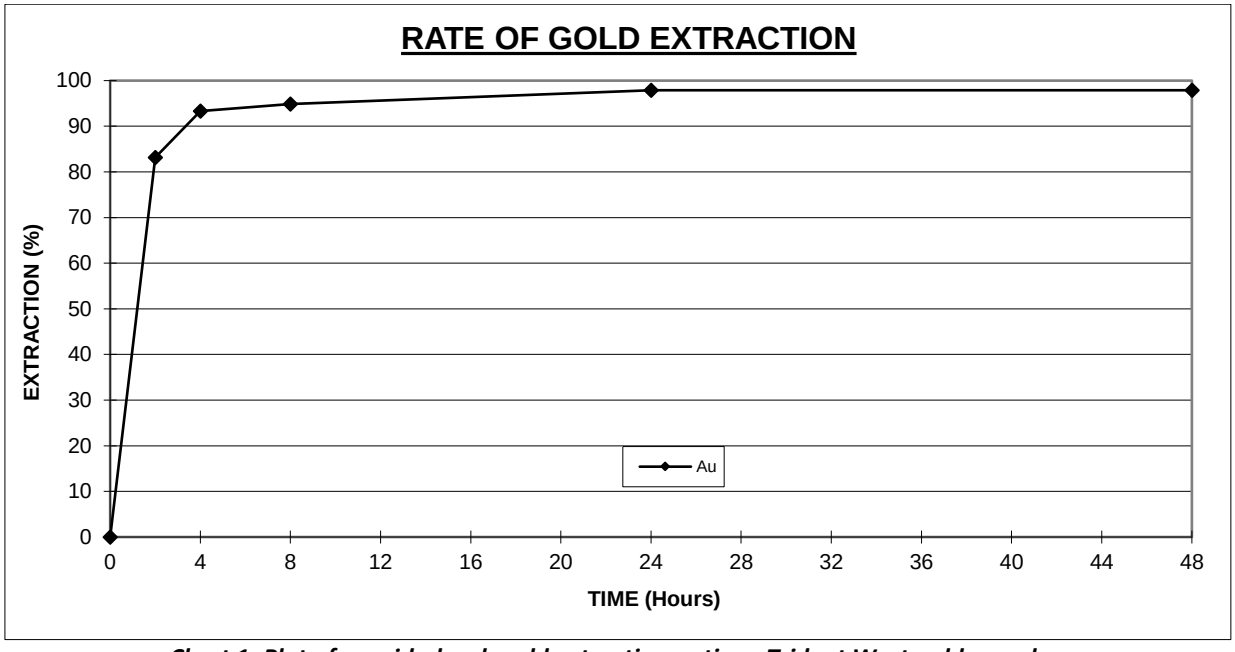

Chart 1: Plot of cyanide-leach gold extraction vs time, Trident West gold sample

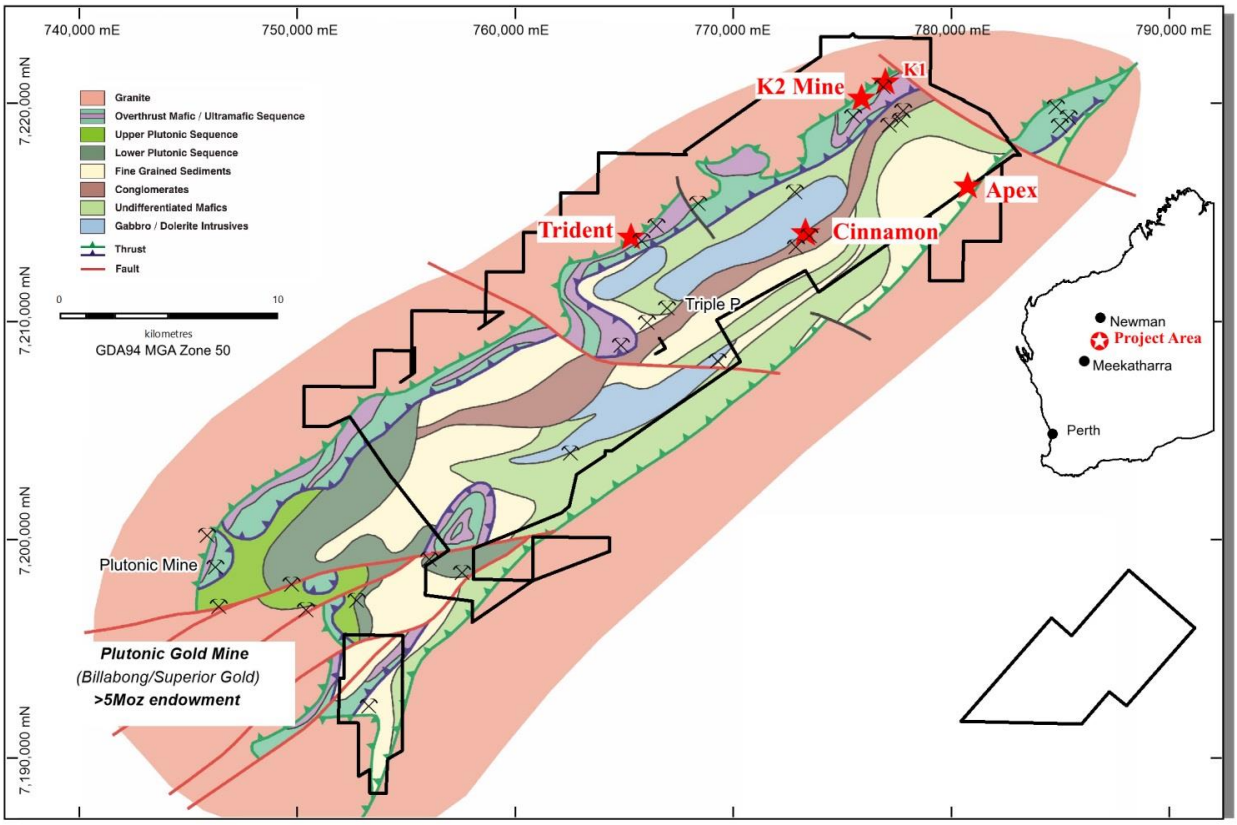

Figure 1: Marymia Gold Project, location and geology map with key prospects

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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. 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.

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.

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.

Table 1: Head assays for 42kg Trident West Composite (ALS)

Element	Unit	Grade
Au_1	g/t	2.02
Au_2	g/t	1.86
Au_3	g/t	1.98
Au_4	g/t	2.09
Au AVG	g/t	1.99
Ag	ppm	<2
Al	%	2.92
As	ppm	<10
Ba	ppm	10
Be	ppm	<5
Bi	ppm	<10
C_{TOTAL}	%	0.27
$C_{ORGANIC}$	%	<0.03
Ca	%	3.28
Cd	ppm	<5
Co	ppm	75
Cr	ppm	2600
Cu	ppm	102
Fe	%	7.10
K	ppm	2500
Li	ppm	10
Mg	%	15.1
Mn	ppm	1100
Mo	ppm	45
Na	%	920
Ni	ppm	1100
P	ppm	500
Pb	ppm	65
S_{TOTAL}	%	0.3
$S_{SULPHIDE}$	%	0.28
SiO_2	%	45.6
Sr	ppm	28
Te	ppm	2
Ti	ppm	1600
V	ppm	98
Y	ppm	<100
Zn	ppm	130

THE JORC CODE - TABLE 1
CHECK LIST OF ASSESSMENT AND REPORTING CRITERIA FOR TRIDENT WEST METALLURGY

Criteria	Explanation
Sampling Techniques and Data *(criteria in this group apply to all succeeding groups)*	
Sampling techniques.	• Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity. *Metallurgical samples were taken from Half HQ3 core from hole VTRMET0100.*
Drilling techniques.	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka 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.). *Samples sourced from Diamond drilling used HQ3 diameter core.*
Drill sample recovery.	• Whether core and chip sample recoveries have been properly recorded 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. *100% recovery was recorded from the sampled intersections.*
Logging.	• Whether core and chip samples have been 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. *All holes were field logged by company geologists using standard geological legends. Lithology, weathering and other detailed structural and mineralogical data was recorded in sufficient detail to support current metallurgical studies and Mineral Resource estimation and mining studies in progress.*
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 representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected. • Whether sample sizes are appropriate to the grainsize of the material being sampled. *Diamond drill core sampled was halved using a diamond saw and sampled at 1m intervals, or to geological contacts.*

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. • 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. *Assays of the composite sample and residue used standard analytical methods and are considered to be of suitable accuracy for these purposes (See Table 1).*
Verification of sampling and assaying.	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. *Not applicable*
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. • Quality and adequacy of topographic control. *Holes were surveyed using DGPS*
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. • Whether sample compositing has been applied. *This sample was taken from one hole (VTRMET0100) from within the oxidized and transitional mineralised zones of the Trident West gold deposit.*
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 the drilling was designed to maximise the intersection of the oxidized portion of the mineralisation. Results are consistent with those returned from RC and diamond drill-holes in the area.*
Audits or reviews.	• The results of any audits or reviews of sampling techniques and data. *Not applicable*