

ASX Announcement 31 October 2019

Mary River Drilling Highlights Potential for a Large Low grade Gold System

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to advise that follow up drilling at the Mary River Gold Project has identified consistent low grade gold mineralisation over 450 metres of strike and remains open in all directions. Drilling was undertaken around the historic Reform mine located approximately 20 km SSE of the Nicolsons gold project.

The seven hole program which included five diamond drill holes and two RC holes has confirmed the potential for a large low grade gold system with new results including:

- 14 m @ 1.23 g/t Au inc. 2 m @ 5.33 g/t Au.
- 13 m @ 0.97 g/t Au.
- 4 m @ 3.35 g/t Au.
- 4 m @ 2.24 g/t Au.
- 15.7 m @ 0.89 g/t Au.
- 17.0 m @ 0.74 g/t Au.

The drilling is central to the historic Mary River gold field which is approximately 15 km along strike with numerous workings excavated during the 1880's Halls Creek gold rush. The entire field has had limited modern exploration with only three RC exploration drill holes prior to the work commenced by Pantoro in 2018.

The latest drilling was following up on the maiden program undertaken during 2018 which was designed to collect stratigraphic information relating to the project scale geology of the prospects. The 2018 program which was released to the ASX in an announcement on 7 August 2018 titled "Initial Results from Mary River Gold Project Drilling" returned encouraging results including:

- 31.65 m @ 1.78 g/t Au inc. 10.7 m @ 2.56 g/t Au and 12.95 g/t @ 1.88 g/t Au
- 8 m@ 1.2 g/t Au
- 8 m @1.65 g/t Au (hole ended in mineralisation)

Commenting on the results Managing Director Paul Cmrlec said

"This additional drilling confirms the presence of a broad, low grade gold system near the historic Reform mine. Future drilling will be focussed on extending the tested strike extent of mineralisation at Reform, and undertaking initial drilling programs at in the northern parts of the field which will be undertaken under the DMIRS EIS co-funding scheme. We are highly encouraged by the geological mapping and sampling undertaken in this area and the extensive historical workings."

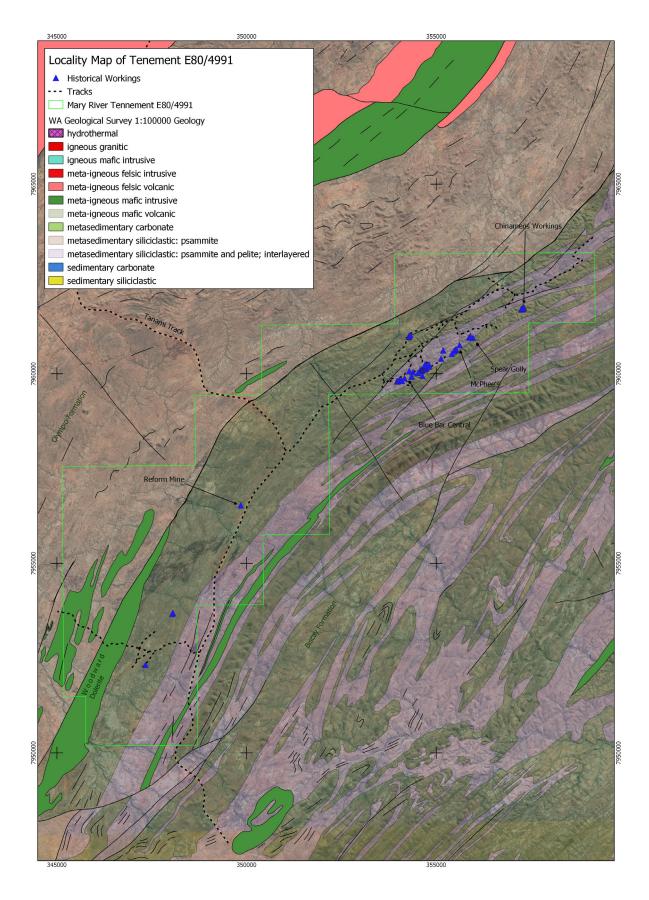


Figure 1: Tenement E80/4991 with Geology and historic workings

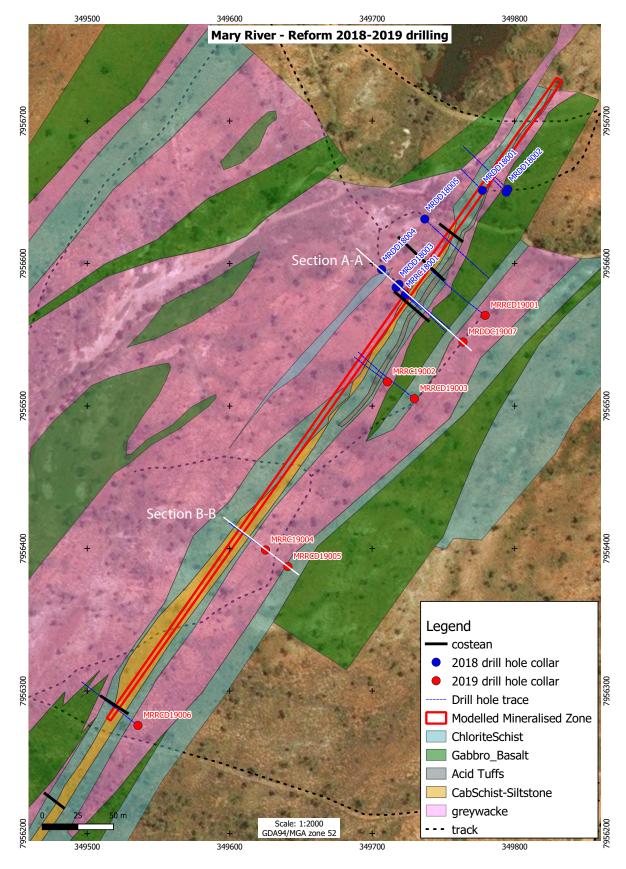
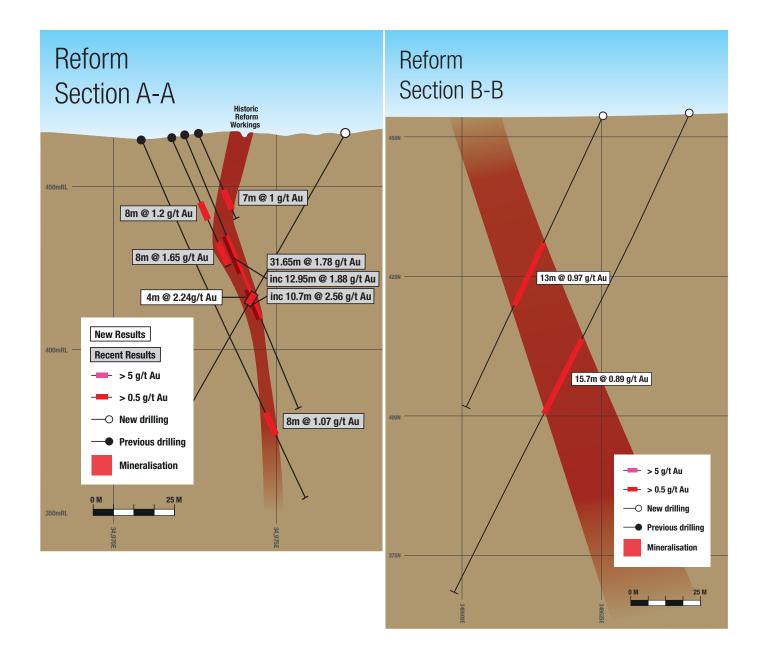


Figure 2: Drill hole location Plan Reform Prospect



Mary River North

In addition to the work undertaken at Reform, detailed surface mapping and sampling of the Northern 5km of the Mary River goldfield has been undertaken. The programs were conducted in an around the extensive historic and alluvial workings at McPhees, Blue Bar, Spear Gully and Chinamans where 60 pits and shafts were recorded.

The mapping and reconnaissance work has identified a similar shear system and geology to that seen at Reform, with both the broad low grade mineralisation and the localised high grade quartz veining which has been documented in previous work. Notable rock chip samples include*:

Prospect	Description	Sample Type	Assay (g/t)
McPhees West	Quartz shear in 1.5 m deep pit	Rock chip	25.20
Blue Bar	Sheared mafic	Rock chip	3.46
Chinamans	Quartz shear from shaft collar	Float	11.4
Spear Gully	Quartz shear in 1.5 m deep pit	Rock chip	0.82
Blue Bar	Quartz shear in 1 m deep pit	Rock chip	2.36
McPhees	Schist, with vq stringers 0.5-1 cm thick	Rock chip	22.74

This work supported a successful application in the DMIRS Round 19, EIS co-funded drilling grant with a program designed to test several of these targets during the 2020 field season.

^{*} Rock chip and float grab samples are inherently variable and do not accurately represent the average grade of the surrounding rock. Rock chip and float samples are used as a non-quantitative guide for assessing prospectivity in the context of observed geology.

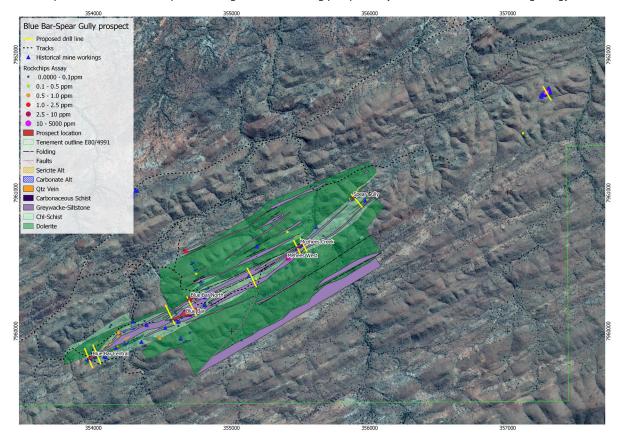


Figure 3: Mary River North Geology and Rock chip assays with Proposed EIS drill lines

About the Mary River Project

The Mary River Project is located approximately 20 km SSW of Halls Creek and is easily accessible via the Great Northern Highway and the Tanami Road. Mary River is approximately 20km from the Nicolsons processing plant.

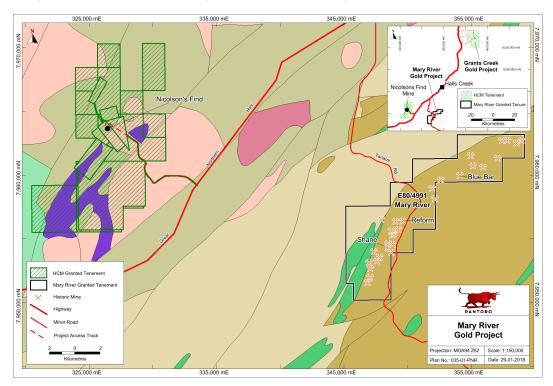


Figure 4: Location of Mary River Project

The tenement encompasses the majority of the historical Mary River Goldfield which is approximately 15 km long and 3 km wide. The area has a mining history dating back to 1885 with a large number of small-scale hard rock excavations, along with eluvial and alluvial mines having operated during the areas history. Large scale alluvial mining was undertaken as recently as the 1980's. Despite the long mining history in the area, Mary Creek remains largely un-explored by modern techniques. Few deposits have been drilled, and where drilling has been undertaken, it has been extremely limited.

Initial drilling has been focussed around the historic Reform mine which official figures have recorded production of approximately 6.5kg Au in the late 1800s. A further 2,300oz Au was reportedly produced from alluvial workings during the 1980s. Sampling of the Reform workings in the 1930s recorded grades from 0.3 to 13 g/t Au. Minor drilling at Reform produced a best result of 8m at 5.84g/t Au from 16m (MRPH1).

An Alluvial plant was commissioned during October 1988 by Roebuck Resources to mine a bulk sampled resource of >100 000 bank cubic metres in the uppermost reaches of the Mary River. An assessment was also made of downstream gravels in the Mary River, tributary streams and alluvial deposits and areas delineated for further bulk sampling ahead of mining.

The Reform, Blue Bar, McPhees and Spear Gully prospects are located in the Eastern zone of the Halls Creek orogeny, comprising low to medium grade meta-sedimentary and meta-igneous rocks of the c. 1880–1840 Ma Halls Creek Group.

Enquiries

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Appendix 1 – Table of Drill Results

Hole Number	Northing	Easting	RL	Dip (degrees)	Azimuth (degrees)	End of Hole Depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au gpt (uncut)
MRRCD19001	7,956,563.7	349,779.2	454.8	-60.0	310.0	100.1	68.0	72.0	4.0	3.35
MRRC19002	7,956,517.0	349,710.7	454.4	-60.0	310.0	57.0	20.0	34.0	14.0	1.23
								inc. 2m @ !	5.33 g/t Au	
MRRCD19003	7,956,505.2	349,729.6	455.3	-60.0	310.0	100.1	52.0	52.3	0.3	2.05
MRRCD19003	7,956,505.2	349,729.6	455.3	-60.0	310.0	100.1	56.0	56.9	0.9	1.20
MRRC19004	7,956,399.0	349,625.1	453.6	-59.7	306.3	60.0	26.0	39.0	13.0	0.97
MRRCD19005	7,956,387.4	349,640.8	454.4	-60.0	310.0	100.0	47.0	62.7	15.7	0.89
								inc. 1.80m @	3.11 g/t Au	
MRRCD19006	7,956,275.9	349,535.6	453.7	-60.0	310.0	100.0	21.0	38.0	17.0	0.74
MRDD19007	7,956,545.0	349,763.7	455.1	-60.0	310.0	100.1	60.0	64.0	4.0	2.24

Appendix 2 – Table of Sample Results

Prospect	Sample Type	North MGA94	East MGA94	RL	Lithology 1	Lithology 2	Au gpt
Chinamens	Float	7961729.16	357279.30	456.538116	SHZ		11.4
Blue Bar North	Rock Chip	7960229.81	354697.39	461.633484	SHZ		3.9
MCPHEES WEST	Rock Chip	7960527.07	355412.34	445.05661	GWK	VQ	25.2
	Rock Chip	7960246.70	354721.13	462.440643	VQ		0.82
Blue Bar North	Rock Chip	7960151.68	354742.03	477.495331	GWK	VQ	2.36
McPHEES	Rock Chip	7960684.035	355562.835	443.16098	SCHIST	Schist	22.74

Appendix 3 – JORC Code 2012 Edition – Table 1

SECTION 1: SAMPLING TECHNIQUES AND DATA

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 	surface Diamond exploration drill sampling and Reverse Circulation (RC) of the of the Reform prospect at the Mary River gold project and surface rockchip sampling from reconnaissance and mapping from the North Mary River Goldfield.
		 RC – Rig-mounted static splitter used, with sample falling though a riffle splitter, splitting the sample in 87.5/12.5 ratio sampled every 1m
	 appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 	 RC samples 2-5kg samples are dispatched to an external accredited laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge).
	• 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.	• Diamond samples 2-5kg samples are dispatched to an external accredited laboratory (BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge).
		• All core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with RHS of cutting line assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1.2m, with shorter intervals utilised according to geology to a minimum interval of15m where clearly defined mineralisation is evident.
		Core is aligned, measured and marked up in metre intervals referenced back to downhole core blocks .
		 Rock chip samples are collected by hand using a rock hammer with multiple pieces of rock collected at one location for each sample.
		 Rock chip sample locations are recorded using a handheld GPS. Sample rock types were recorded where the rock was identifiable.
		Rock chip samples are collected directly from the rock. Samples taken were dry.
		 Rock chip and float chip samples are inherently variable and do not accurately represent the average grade of the surrounding rock. Rock chip and float samples are used as a non-quantitative guide for assessing prospectivity hence are regarded as suitable for this purpose.

Criteria	JORC Code explanation	Commentary
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	and a 130mm diameter bit
	of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Surface DD – HQ diamond tails completed on 3m rock roller precollars, all core has orientations completed
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	All holes were logged at site by an experienced geologist. Recovery and sample quality were visually observed and weights recorded at the laboratory
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC- recoveries are monitored by visual inspection of split reject and lab weight samples are recorded and reviewed.
	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.	DD – No significant core loss has been noted in fresh material. Good core recovery has generally been achieved in all sample types in the current drilling program.
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.	include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	 content and composition, quartz content, veining, and general comments. 100% of the holes are logged
	The total length and percentage of the relevant intersections logged.	Rock chip samples are described and key geological parameters recorded
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	All RC holes are sampled on 1m intervals.
and sample preparation	 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, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	RC samples are taken off the rig splitter, no significant water is encountered and are typically dry
		line sent for assaying and the other half retained in core trays on site for future
		analysis.
		• For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory.
		Core was cut under the supervision of an experienced geologist, it was routinely cut on the orientation line.
		All mineralised zones are sampled as well as material considered barren either side of the mineralised interval
		• Field duplicates for RC is completed and 5 $\frac{1}{4}$ core samples were taken as part of this program.
		Half core is considered appropriate for diamond drill samples.
		Sample sizes are considered appropriate for the material being sampled and weights are recorded and monitored by project geologists.

Criteria	JORC Code explanation	Commentary
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. 	 determined using fire assay with 40g charge. Where other elements are assayed using either AAS base metal suite or acid digest with ICP-MS finish. The methods used approach total mineral consumption and are typical of industry standard practice. No geophysical logging of drilling was performed.
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. 	 Significant intersections are noted in logging and checked with assay results by company personnel both on site and in Perth. MRDD19007 is a scissor hole drilled to validate orebody following up on intersections from the maiden stratigraphic drilling as part of this program.
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. 	RC/DD drilling is downhole surveyed utilizing surveyed electronic single shot

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of 	Surface diamond drilli ng in this initial phase bas been 25-50m along strike spacing, over 3 lines
	geological and grade continuity appropriate for the Mineral Resource and Ore	
	Reserve estimation procedure(s) and classifications applied.Whether sample compositing has been applied.	Core samples are both sampled to geology of between 0.15 and 1.2m intervals. All RC samples are at 1m intervals.
		 Rockchip locations are point data taken at locations of interest identified by geologist undertaking regional and prospect scale reconnaissance.
Orientation of data in	Whether the orientation of sampling achieves unbiased sampling of possible	No bias of sampling is believed to exist through the drilling orientation
relation to geological structure	 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. 	
Sample security	The measures taken to ensure sample security.	The chain of custody is managed by Pantoro employees and contractors. Samples are stored on site and delivered in sealed boxes and bags to the lab in Perth
		Samples are tracked during shipping.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 No audit or reviews of sampling techniques have been undertaken however the data is managed by an database consultant who has internal checks/protocols in place.

SECTION 2: REPORTING OF EXPLORATION RESULTS

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.	company Halls Creek Mining Pty Ltd. This is: E80/4991
	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.	

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration in the area has included historic gold workings, at the Reform mine official figures show produced approximately 6.5kg Au in the late 1800s. An Alluvial plant was commissioned 29/10/1988 by Roebuck Resources to mine an initial bulk sampled resource of >100 000 bank cubic metres in the uppermost reaches of the Mary River. An assessment was also made of downstream gravels in the Mary River, tributary streams and alluvial deposits and areas delineated for further bulk sampling ahead of mining.
		There appears to have been very little previous drilling on this tenement. Three RC percussion holes were drilled by Roebuck Resources in 1988.
		Costeans were dug by Finucane and Bulletin Resources completed reconnaissance work in the area between 2012 and 2014.
Geology	Deposit type, geological setting and style of mineralisation.	The geology in the area is comprised of the Biscay formation overlain by the Olympia formation with both intruded by the Woodward dolerite. The contact between the Biscay and Olympia formation follows the north easterly direction of the regional fabric. The Woodward dolerite intrudes as sills up to 200m thick rather than dykes and hence also follows the regional fabric. The Woodward dolerite has been deformed and metamorphosed with the Halls Creek group and the mafic rocks of the Biscay formation recrystallized under upper greenschist to epidoteamphibolite facies conditions, making the distinction between metabasalt and metadolerite very difficult (Griffen & Tyler,1992).
		 The mineralisation is located within the Biscay Formation, and lie along a north east curving trend aligned roughly parallel and 1 to 1.5km east of its faulted contact with the Olympio Formation. Most of these mineralised occurrences are situated on north easterly trending faults, but these faults are typically barren away from the contact between the Biscay and Olympio Formations.
		• The mineralization at the Reform mine is possibly related to several shear-parallel quartz veins in a 1.5 m wide shear zone within siltstone and silicified shale (Sanders, 1999).

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:	
	» easting and northing of the drill hole collar	
	» elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	» 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.	determine the average grade for the reported intercept.
	 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. 	• All significant intersections are reported with a lower cut on or 0.5 g/t Au including a maximum of 2m of internal dilution. Individual intervals below this
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and	These relationships are particularly important in the reporting of Exploration Results.	Surface DD/RC drilling is perpendicular to the interpreted strike of the mineralisation.
intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known,	Downhole lengths are reported.
	its nature should be reported.	Estimated true widths are not currently known due to the early stage of the
	• 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').	drilling with orientations yet to be defined
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.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	 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. 	. Follow up drilling is planned to continue to test the vertical and along strike extents. A EIS funded drill program is planned in the North Mary River area from which the rock chips and float sample were returned where similar geology has

Exploration Targets, Exploration Results

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Scott Huffadine (B.Sc. (Hons)), a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Huffadine is a Director and full time employee of the company. Mr Huffadine is eligible to participate in short and long term incentive plans of and holds shares, options and performance rights in the Company as has been previously disclosed. Mr Huffadine has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Huffadine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Previously Reported Mary River Drill Results

The information is extracted from the report entitled 'Initial Results from Mary River Gold Project Drilling' created on 7 August 2018 and is available to view on Pantoro's website (www.pantoro.com.au) and the ASX (www.asx.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement.

Forward Looking Statements

Certain statements in this report relate to the future, including forward looking statements relating to Pantoro's financial position and strategy. These forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or achievements of Pantoro to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement and deviations are both normal and to be expected. Other than required by law, neither Pantoro, their officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward looking statements will actually occur. You are cautioned not to place undue reliance on those statements.