ASX Announcement
5 March 2019

Wagtail Mineral Resource, Ore Reserve and Operations Update

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to advise a number of operational outcomes at Wagtail.

Highlights

- The Wagtail Mineral Resource and Ore Reserve have been updated. The total Mineral Resource has increased by 17 %, to 632,000 tonnes @ 7.3 g/t Au for 147,300 ounces. The Mineral Resource remains open at depth and along strike.
- Ore Reserves at Wagtail increased by approximately 20% as a result of the upgrade, resulting in a combined Wagtail Ore Reserve of 393,000 tonnes @ 5.9 g/t Au for 74,000 ounces.
- Only the Rowdies ore zones at Wagtail were updated and re estimated following additional drilling. Ore zones from the Wagtail South and Wagtail North are unchanged from the May 2018 Mineral Resource estimate.
- All approvals required for the Wagtail South open pit cut back have been received. Open pit crews are currently mobilising to site and initial preparatory siteworks have commenced.
- Underground development at Wagtail North is progressing well and decline development has reached the access for the second ore level.

Wagtail Mineral Resource and Ore Reserve

The Wagtail Mineral Resource and Ore Reserve has been updated to include drilling which was completed following the May 2018 Mineral Resource estimate and Ore Reserve calculation. Drilling was focused on Rowdies and demonstrated the continuation of high-grade ore at depth within the system, with similar high grades to those seen in both drilling and mining at Nicolsons underground mine.

Pantoro expects to continue to expand the Mineral Resource and Ore Reserve at Wagtail as development within the mine provides additional drilling platforms to effectively access the orebody along strike and at depth in a cost-effective manner. This approach has been shown to be highly successful at Nicolsons to date.

Wagtail South

Pantoro detailed its open pit mining plans at Wagtail South in the December 2018 quarterly report. Final approvals have been received faster than anticipated by Pantoro, and as a result works are now underway. The Wagtail South extension will provide additional production ore during the period that Wagtail North is being advanced to full capacity. This will assist the operation in achieving its production expansion goal during 2019.

Commenting on operations at Wagtail, managing director Paul Cmrlec said:

> "The commencement of ore development at Wagtail late last quarter was an important milestone in our goal of achieving a run rate of +80,000 ounces per annum in the near term. Development at Wagtail North continues to progress well, and re-commencement of open pit mining will accelerate the achievement of our objectives.
>
> The outstanding drilling results that we have seen beneath the previous Mineral Resource at Rowdies has delivered a significant upgrade to Wagtail's Mineral Resources, and we are confident that this growth trend will continue at Wagtail just as it has at Nicolsons during the past four years. We will continue to update the Mineral Resource at Wagtail as underground development and additional drilling exposed the true extent of mineralisation within the system."

Enquiries

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Mineral Resource Estimate

The Mineral Resource was reported using a 2.5g/t Au cut off with only the Rowdies ore zones being updated and re estimated to reflect the additional focussed drilling undertaken on the down plunge extensions of the deposit. Ore zones from the Wagtail South and Wagtail North are unchanged from the May 2018 Mineral Resource estimate. Drilling to date has increased the understanding of the ore system, and there remains strong potential for continued upgrading of estimates as sufficient data becomes available. The mineralised zones which include Indicated, Inferred and Unclassified zones of mineralisation is shown in long section view in Figure 1. It should be noted that only Indicated and Inferred blocks have been included in the Mineral Resource Estimate.

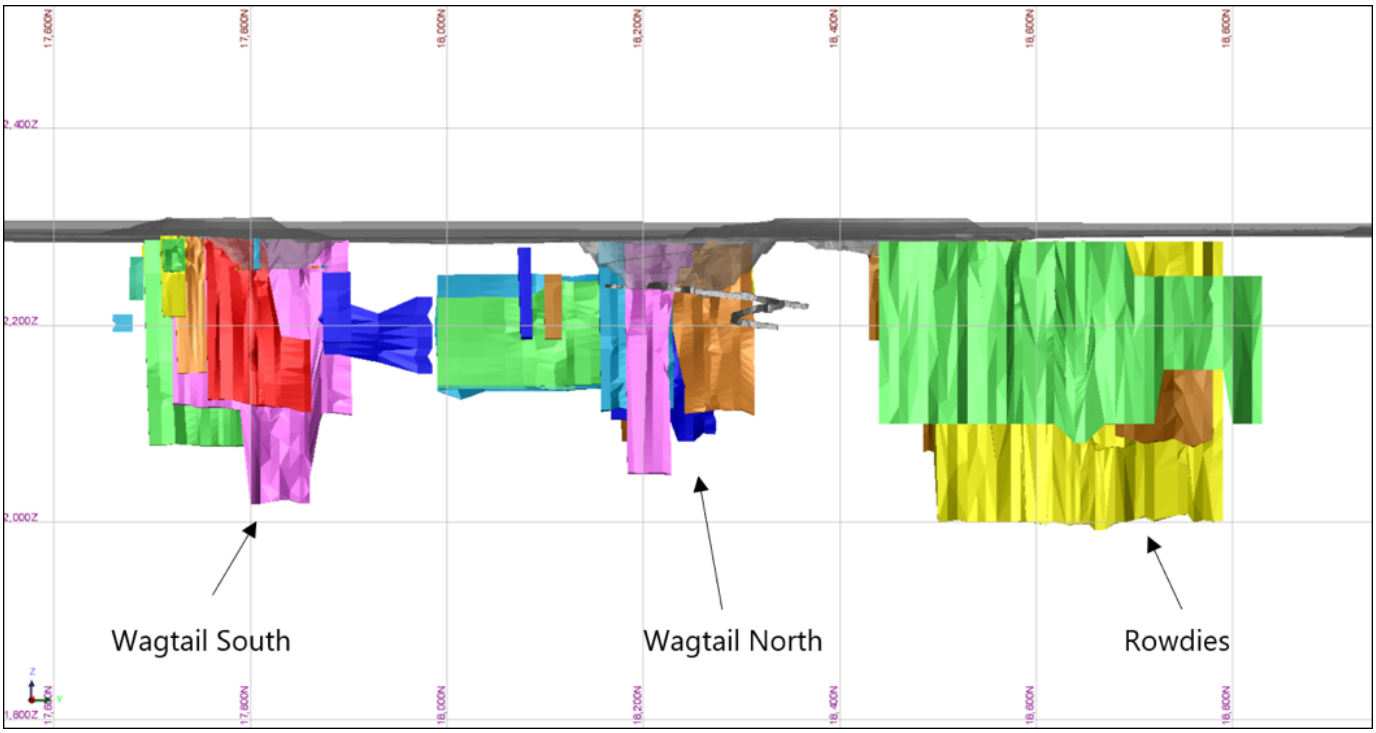

Figure 1 – Long section view of the current mineralised domains modelled at Wagtail beneath the existing open pit mines

The Mineral Resource is considered to be open along strike and at depth and displays a similar style of mineralisation and structural control seen at the Nicolsons Mine. Drilling will be ongoing at Wagtail from predominantly underground platforms and will be focused on expansion of the Mineral Resource and Ore Reserve. This has been an effective growth strategy for the Nicolsons mine since commencement of operations. The ore zones included in the Mineral Resource estimate are shown in the schematic long section in Figure 2.

Drilling undertaken since the May 2018 Mineral Resource estimate has returned a number of high-grade results including:

- 3.3 m @ 17.26 g/t Au inc 1.5 m @ 33.22 g/t Au from 256 m.
- 2.15 m @ 42.33 g/t Au inc. 0.3 m @ 62.7 g/t Au and 0.5 m @ 142.25 g/t Au.
- 1.2 m @ 35.53 g/t Au inc. 0.5 m @ 78.8 g/t Au.
- 0.6 m @ 31.3 g/t Au.
- 1 m @ 12.3 g/t Au.
- 0.8 m @ 12.52 g/t Au.

For full details, refer to ASX Announcements "High Grade Drilling at Wagtail and Operations Update" released on 19 June 2018 and "Quarterly Production and Exploration Update" released on 10 October 2018.

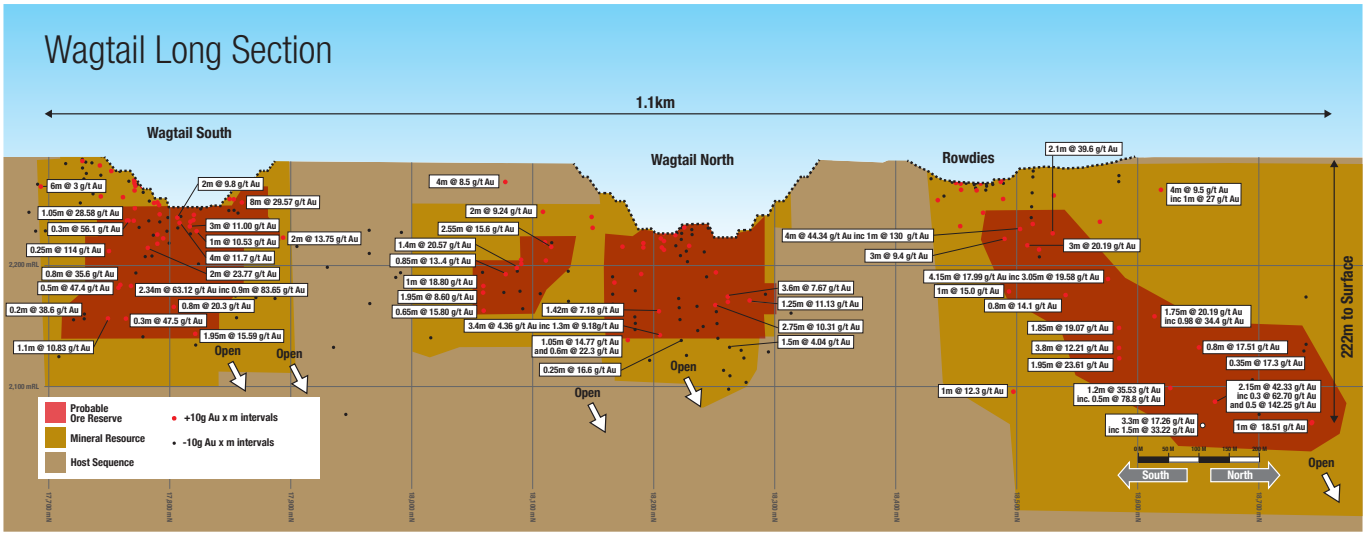

Figure 2 – Schematic long view of the Mineral Resource and Ore Reserve

Ore Reserve Calculation

The Wagtail Ore Reserve has been generated utilising functional mine designs, using the same mining techniques and cost structure as the Nicolsons mine. The Ore Reserve includes ore blocks to be mined at Wagtail South, Wagtail North and Rowdies deposits. The Wagtail South, and Wagtail North Deposits are unchanged since the previous Mineral Resource estimate and Ore Reserve calculation. The Rowdies Ore Reserve has been updated using the new December 2018 Mineral Resource estimate.

A number of low-grade sections in the Mineral Resource estimate do not meet the requirements for conversion to Ore Reserves. Experience at Nicolsons and in the Wagtail open pits has demonstrated consistent mineralisation when mined, with a number of modelled sub grade areas at Nicolsons shown to be valuable ore blocks when accessed by development. Pantoro considers that strong potential exists for Ore Reserve upgrades once developed, however this is not certain until development has taken place.

The Mineral Resource estimate is shown in Table 1 below:

Project Area	Resource Category	Tonnes	Au (g/t)	Au Ounces
Rowdies	Indicated	250,000	7.8	63,100
Wagtail		255,000	6.9	56,800
	Sub Total	**505,000**	**7.4**	**119,900**
Rowdies	Inferred	47,000	4.5	6,700
Wagtail		80,000	8.0	20,700
	Sub Total	**127,000**	**6.7**	**27,400**
Mineral Resources Total		**632,000**	**7.3**	**147,300**

Table 1 – Mineral Resource Estimate at 2.5 g/t Au cut off grade.

The Ore Reserve calculation is shown in Table 2 below:

Probable Ore Reserve	Tonnes (Kt)	Au (g/t)	Au Ounces (k Oz)
	393,000	5.9	74,000

Table 2 – Ore Reserve Estimate at 2.5 g/t Au cut off grade.

Changes in Mineral Resource

The Wagtail Mineral Resource has only been updated on Rowdies domains and was completed in accordance with JORC 2012 by independent resource consulting group Entech with data provided by Pantoro Geologists and under the supervision and review of the Competent Person.

Wagtail North and Wagtail South domains are unchanged. Key changes in the Mineral Resource Estimate include:

- Identification and estimation of additional Mineral Resource through additional drilling programs at Rowdies.

	Measured			Indicated			Inferred			Total		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
May 2018 Wagtail	-	-	-	450,000	6.8	98,000	124,000	7.0	28,000	574,000	6.8	126,000
December 2018 Wagtail	-	-	-	505,000	7.4	119,900	127,000	6.7	27,400	632,000	7.3	147,300

Changes in Ore Reserve

The Wagtail underground Ore Reserve is based on underground mine designs and costs. Only Indicated Mineral Resources have been included in the Ore Reserve. Changes to the Ore Reserve include:

- Identification and estimation of additional Mineral Resource converted to Probable Ore Reserves through additional drilling programs at Rowdies.

	Proven			Probable			Total		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
May 2018 Wagtail	-	-	-	356,000	5.4	62,000	356,000	5.4	62,000
December 2018 Wagtail	-	-	-	393,000	5.9	74,000	393,000	5.9	74,000

Enquiries

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Appendix 1 – Information relating to ASX Listing Rule 5.8.1

Mineral Resource Statement

The Mineral Resource Statement for the Wagtail-Rowdies Deposit Gold Mineral Resource Estimate (MRE) is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

In the opinion of Pantoro, the resource evaluation reported herein is a reasonable representation of the global gold mineral resources within the deposits, based on Reverse Circulation and Diamond Drilling sampling data available as of 31 December 2018. The MRE comprises oxide, transitional and fresh material and is detailed in Table 1 below.

Project Area	Resource Category	Tonnes	Au (g/t)	Au Ounces
Rowdies	Indicated	250,000	7.8	63,100
Wagtail		255,000	6.9	56,800
	Sub Total	**505,000**	**7.4**	**119,900**
Rowdies	Inferred	47,000	4.5	6,700
Wagtail		80,000	8.0	20,700
	Sub Total	**127,000**	**6.7**	**27,400**
Mineral Resources Total		**632,000**	**7.3**	**147,300**

Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

Table 1 – Mineral Resource Estimate at 2.5 g/t Au cut off grade.

Interpretations for Wagtail North and Wagtail South were as previously reported on the 24 May 2018 with no changes to the prior reported MRE for this component.

Interpretations for Rowdies was updated and was informed by Reverse Circulation drilling (134 drill holes), with Diamond Drilling (31 drill holes inclusive of diamond tails), for 496.2 m of drilling intersecting ore and a combined total of 541 m of drilling from 109 drill holes. The MRE contained all drill hole data available at 31 December 2018.

The MRE was depleted for all open pit and underground mining activity, surveyed up to the 31 December 2018.

This MRE comprises Inferred Mineral Resources which are unable to have economic considerations applied to them, nor is there certainty that they will be converted to Measured or Indicated Resources through further sampling.

Geology and Geological Interpretation

The Wagtail and Rowdies deposits including Wagtail South, Wagtail North and Rowdies are located within the Halls Creek Orogen (HCO) in the Kimberley region of Western Australia. Deposits are associated with north-northeast trending shear zones which form part of the Central belt of the HCO.

The principal units of the Central belt outcropping in the project area, are the Tickalara Metamorphics, comprising sediments and interspersed mafic zones, and the Koongie Park Formation (KPF), comprising tightly folded and highly metamorphosed volcaniclastic sediments and mafic units. The Central belt is also characterised by granitic intrusions related to the Bow River Batholith, and by mafic-ultramafic intrusions such as the Lamboo Complex, which outcrops to the south of the deposits. The observed strike-slip faulting common throughout the project area is interpreted to postdate the folding and metamorphism of the HCO and emplacement of the Bow River Batholith.

Wagtail and Rowdies mineralisation is hosted in quartz and quartz-sulphide veins with an average width of 1.4 metres, ranging from 0.3 metres up to 4.5 metres, and are related to these NNE faults and the associated fault architecture as they pass through the Tickalara Metamorphics adjacent to their contact with the granites of the Bow River Batholith. The mineralisation is analogous to the Nicolson's gold mineralization, located 900 m to the North.

Drilling Techniques

A variety of drilling techniques were used to test the Wagtail deposits, however the recent drilling has utilised diamond drilling, HQ3 and NQ2 diameter core from Reverse Circulation pre-collars. All pre-collars were sampled. Reverse circulation drilling was carried out using a face sampling hammer and a 130mm diameter bit.

Sampling Techniques, Sub-Sampling Techniques and Sample Preparation

Diamond

All diamond core is orientated and logged by a qualified geologist. It is sampled according to geology, with only selected samples assayed. Core is cut in half under the supervision of an experienced geologist utilising an Almonte diamond core-saw, with the RHS of cutting line routinely assayed, the other half retained in core trays on site for further analysis and storage. All mineralised zones are sampled as well as material considered barren either side of the mineralised interval. Samples are a maximum of 1.2m, with shorter intervals utilised according to geology to a minimum interval of 0.15m where clearly defined mineralisation is evident. All diamond core is stored in core trays and is aligned, measured and marked up in metre intervals referenced back to downhole core blocks recording run meterage and any core loss if encountered. Downhole surveys are conducted during drilling using a reflex electronic single shot cameras at collar, 20 m then every 30 m thereafter. No significant core loss has been noted from recent drilling. Visible gold is encountered at the project and where observed during logging, Screen Fire Assays are conducted

Reverse Circulation

Samples are collected via both a cone splitter and a rig-mounted static splitter used, with sample falling though a riffle splitter and sampled every 1m. Current Wagtail diamond hole pre-collars are sampled on 2m composites with 1m splits retained for further assays as required.

All RC holes are geologically logged by a qualified geologist and logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments. 100% of the holes are logged. Appropriately qualified company personnel supervise the drilling programs on site and monitor sample quality and integrity. Recovery and sample quality were visually monitored and laboratory sample weights recorded and reviewed. Chip trays from each logged interval are retained and stored for reference. No significant water was encountered and are typically dry

Reverse Circulation samples of 2-5kg in weight are dispatched to an external accredited laboratory Bureau Veritas in Perth (BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge). Diamond samples 0.5-3.5kg 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). The processes applied are industry standard for this type of sample.

Historical holes, RC drilling was used to obtain 1 m samples from which 2 - 3 kg was crushed and sub-split prior to pulverisation and then a 40 g aliquot for fire assay. Review of drilling programmes indicate all intervals were assayed and is considered to be to industry standard at that time

Sample Analysis Method

Samples were analysed at Bureau Veritas in Perth. Gold assays are 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. Screen fire assays consists of screening 500g of the sample to 106 microns. The plus fraction is fire assayed for gold and a duplicate assay is performed on the minus fraction. The size fraction weights, coarse and fine fraction gold content and total gold content are reported. The methods used approach total mineral consumption and are typical of industry standard practice.

CRM standards, blanks and repeats are included as part of the QAQC system. In addition, the laboratory has its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverising at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification.

No assay data was adjusted.

Estimation Methodology

A two dimensional (2D) Ordinary Kriging interpolation approach was employed to estimate block grades. The 2D interpolation approach varies from a three-dimensional approach (3D) in that estimation of both an accumulation variable (intercept gold composite weighted by true width) and the true width variable, is undertaken in a 2D plane.

The gold mineralisation is hosted within multiple lodes within narrow quartz veins in the corridor of the main Nicolsons shear zone (NSZ) and the interpreted mineralised domains were utilized as hard boundaries within the estimation process. Top caps were applied to gram meter basis of data after statistical, spatial analysis and assessment of percentage of metal reduction within the mineralized domain.

The 2D parent estimation block size selected for interpolation was 10 metres in the Y and X direction (Wagtail) and 20 metres in the Y and X direction (Rowdies). The parent block size was determined through kriging neighborhood analysis, review of vein dimensions, drilling density and mining selectivity. Block sub-celling size was selected for appropriate volume fill within the mineralization wireframes. No block rotation was applied.

At Wagtail, variography was conducted on all domains resulting in parameters for the Ordinary Kriging. The parameters were graphically checked against the sample data and the known characteristics of the orebody. The maximum extrapolation distance was 110 m in four search passes. The first pass search was two thirds of the maximum range the second pass search was the range, the third pass search was four thirds of the range and the fourth pass search was five thirds of the range.

At Rowdies, variography was conducted, in the plane of mineralisation, on two of the largest and well informed (composite number) mineralisation domains. From which parameters for the Ordinary Kriging were derived and applied to other smaller (by volume and informing composites) domains. The Rowdies search strategy was a maximum extrapolation distance of 130 m over two search passes. The first pass search was equal to the variogram maximum range (65 m) with the second pass search double the variogram range (130 m) with a constant minimum of 4 and maximum of 12 composites. A third pass of 195 m was required on several domains to ensure complete estimation of the entire domain. For domains 45 and 75, a single categorical indicator for each domain was used to segregate bimodal populations. Block and sample selection was based on sub-domain volumes generated in Leapfrog 3D using a Radial Basis Function (RBF) Indicator Interpolant with a probability of >= 40% above a selected accumulation cut-off. Indicator interpolation used Spheroidal inputs equivalent to the proportional nugget and range defined by accumulation variography. A hard boundary approach was applied to domain 45 whilst a soft boundary approach was applied to domain 75 whereby blocks within the "high grade" above cut- off portion of the estimate were un-restricted in sample selection while blocks within the "low grade" below cut-off portion of the estimate were restricted to only samples within that portion.

Check estimates were completed utilising a combination of Inverse Distance weighting and Ordinary Kriging. Comparisons were also made to recent Open Pit reconciled grade and production records.

Classification

This current Mineral Resource Estimate has been classified as Indicated and Inferred Mineral Resources. The Wagtail deposits have been mined by Open Pit methods over the 18 months up to December 2017, with recent data from grade control and in pit mapping supporting both grade and geological continuity. The bulk of the data utilised in the current Mineral Resource estimate is from recently acquired drilling data with 186 new holes for 25,086 metres.

Blocks in the resource model have been allocated a confidence category of Inferred or Indicated based on a combination of various estimation quality derived parameters, data support, data quality, mineralization continuity and mining knowledge.

The reported Mineral Resource was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 234 m below topography in Wagtail and 280 m below topography at Rowdies.

Cut-off Parameters

The global gold Mineral Resource has been reported at a 2.5 g/t gold cut-off and is based upon economic parameters currently utilised at Wagtail, and the nearby Nicolsons operations, where deposits of the same style, commodity, comparable size and mining methodology are currently being extracted.

Mining and Metallurgical Factors or Assumptions

The material reported as Wagtail and Rowdies Mineral Resources is considered to meet Reasonable Prospects for Eventual Economic Extraction based on the following considerations.

Similar mineralised material is currently mined, at the reported cut-off, in the most recent phase of open pit and underground mining at Wagtail. This includes fresh material mined and processed in the current Nicolson processing facility where recoveries have been consistently achieving 93 % and support recovery of the in situ Mineral Resource via conventional gravity and cyanidation methodology.

The MRE extends nominally 234 to 280 m below topographic surface. Pantoro considers material at this depth would fall within the definition of 'reasonable prospect of eventual economic extraction' within an underground mining framework.

No dilution, cost factors or metallurgical recovery factors were applied to the Mineral Resources or Resource Tabulations.

Wagtail Underground Ore Reserve

Material Assumptions for Ore Reserves

The Wagtail Underground Ore Reserve was calculated utilising sectional mine design methods. Sections orientated east-west, approximately perpendicular to the defined mineralisation were generated using Surpac software. The sections were generated 10m apart.

Functional development designs were completed for zones within the Indicated Mineral Resource, and utilised as the basis for up hole bench stope design. Development was designed at 3m W x 4.2m high, and suitable factors to allow for split firing of the development drives were utilised to calculate the ore development tonnage and grade included within the Ore Reserve. Development was designed at 20m floor to floor vertical intervals.

Uphole bench stopes were designed with a minimum width of 1.5m, with an additional 15% dilution at 0g/t was allowed for in the calculation of the Ore Reserve. Stopes were wireframed in discrete 10m blocks between designed levels. Each block was analysed using Surpac software, and individual stopes of less than 2g/t were excluded from the Ore Reserve calculation. Stope blocks of 2g/t or higher met the incremental cut off grade for inclusion in the Ore Reserve after dilution factors were applied.

Preliminary mine infrastructure designs were completed to ensure that the designed ore blocks could be accessed practically and economically.

It is assumed that mining costs will be equal to the mining costs currently achieved at the Nicolsons underground mine. Nicolsons mine is only located 1km from Wagtail, ore is of a similar nature, and the same management philosophy is utilised. Mining at Wagtail is underway, and has the same cost structure as Nicolsons. Ground conditions encountered to date are assessed as being equal or better than ground conditions at Nicolsons.

Ore Reserve Classification

All of the insitu mineralisation is currently classified as Indicated, Inferred or Unclassified within the block model. Blocks have not been classified as Measured, pending the completion of ore development.

Only Indicated Mineral Resources have been utilised for conversion to Probable Ore Reserves. Since no ore blocks have been included in the Measured category, no Proven Ore Reserve has been defined. No Inferred Mineral Resource or unclassified ore blocks were included in the Conversion to Ore Reserve.

Mining Method

The proposed Underground mining method includes the development of two underground declines with portals in the Wagtail North and Wagtail South Open pits. Declines are developed at a gradient of 1:-7, with level cross cuts spaced 15 to 20m vertically apart depending on location. The level cross cut is developed approximately perpendicular to the ore.

Once the ore is accessed, ore drives are developed along the strike of the ore body under geological control. All gold mineralization is contained within visible quartz veins. Where the ore is less than 60% of the drive width, spilt firing is utilised in development. Was is fired and bogged prior to blasting the ore zone. 25% dilution is assumed when split firing is undertaken to allow for ore/waste mixing during the process.

Once development is completed, the level is prepared for uphole bench stoping methods. The orebody is drilled using 64mm upholes and blasted using ANFO. Burden and spacing in blast holes is variable depending on the width and dip of the orebody.

Depending on the geometry of the ore zones, other methods including conventional stoping using hand held methods and mechanical cut and fill may also be employed. Experience at Nicolsons mine has demonstrated that similar economic outcomes are achieved with the various methods and control of dilution is the critical factor in determining the method used within different zones of the orebody.

Processing method

The ore is processed through the Nicolsons Find processing plant and utilises a standard CIP method. This technology is well tested globally for gold bearing orebodies and the successful treatment of Nicolsons ores.

There are no deleterious elements identified.

A total gold recovery of 93% was assumed in calculation of the Ore Reserve. This recovery has been consistently achieved in the Nicolsons processing plant at the current throughput rates, and test work on Wagtail ore completed to date demonstrates that 93% is a conservative but suitable factor.

Recent operating history since commissioning supports the metallurgical parameters used in the Ore Reserve estimation. No allowance has been made for the process improvements which are being achieved on Nicolsons ore through the use of ore sorting. Ore sorting has been demonstrated to positively impact the amount of material able to be mined as Ore, and further analysis will be undertaken prior to future Ore Reserve calculations.

Cut-off Grade

Cut-off grades were calculated utilising current costs at Nicolsons underground mine. Ore blocks were first assessed in several iterations to ensure full levels are able to be economically extracted. The diluted ore cut off grade for fully costed mining is 4.3g/t Au, allowing for a suitable profit margin.

The incremental diluted ore cut off grade for development and stoping of ore on a level which is shown to be economic in its own right is approximately 2.6g/t. Ore with a grade lower than 2.6g/t is only developed if required to access higher grade blocks. Lower grade material in this category has been included in the Ore Reserve.

Estimation Methodology

The development and stope designs completed using Surpac software were wireframed in valid three dimensional objects. The three dimensional objects were analysed using the block model reporting function in Surpac. Individual stope blocks of approximately 10m x 20m x ore width were reported separately.

Once the economic stope blocks had been identified, development designs were modified to accommodate only the economic portions. Final development designs were reported using the block model reporting function.

The insitu ore reported as a result was modified with suitable ore dilution and recovery factors applied using Microsoft Excel software. Diluted ore and stope blocks were aggregated to calculate the Probable Ore Reserve.

Material Modifying Factors

Modifying factors utilised in the Ore Reserve calculation are as follows:

Mineral processing recovery – 93% recovery of gold was assumed in the calculation of cut off grades. It is noted that the calculated Ore Reserve has not been modified as a result of processing recovery, except for calculation of cut off grades.

Development split firing - it is assumed that when ore is less than 60% of the width of the ore drive, split firing of development is utilised. When split firing is utilised, ore dilution of 25% is assumed.

Stoping dilution - it is assumed that stope ore incurs 20% dilution at 0g/t.

Stope Recovery – it is assumed that 90% of the diluted ore is recovered from stopes. The recovery allows for both ore left unrecovered from stopes and for rib pillars left insitu.

Appendix 2 – 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 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.	• This report relates to the annual update of the Mineral Resource and Ore Reserve statement for the Wagtail South, Wagtail North and Rowdies deposits at the Nicolsons gold project. • The Wagtail North, South and Rowdies deposits have been sampled mainly by RC with historic aircore undertaken by previous owners. Pantoro undertook initial infill and grade control drilling by RC methods in 2016. Holes were sampled on 1 m intervals. 2 historic diamond holes were also identified relogged and assayed at Rowdies and Wagtail North. • 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 • RC samples 2-4kg samples are dispatched to an external accredited laboratory where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge). • Visible gold is encountered and where observed during logging , Screen Fire Assays are conducted • Historical holes - RC and aircore drilling was used to obtain 1 m samples from which 2 - 3 kg was crushed and sub-split to yield 250 for pulverisation and then a 40 g aliquot for fire assay. Upper portions of deeper holes were composited to 3m sample intervals and sub-split to 1 m intervals for further assay if an anomalous composite assay result was returned. For later drilling programs all intervals were assayed.
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).	• 2016 infill and grade control drilling program was completed by – Reverse circulation drilling carried out using a face sampling hammer and a 140mm diameter bit • Historic RC drilling was completed over a number of generations. All RC rigs between 2011 and 2014 used face sampling hammers with bit size of 140 – 146mm. Historical holes used a 130 mm bit size). Recent aircore drilling was completed by the RC rig with an aircore bit assembly. . • 3 diamond holes were drilled in 2011 as part of a previous study and intersected the ore zone in 2 holes at Rowdies and Wagtail North whuich were HQ diameter.

Criteria	JORC Code explanation	Commentary
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.	• All holes were logged at site by an experienced geologist. Recovery and sample quality assessments were undertaken with visual observation of split reject and lab weight samples are recorded and reviewed. • Recovery for older (pre 2011) holes is unknown. • All drilling was completed within rig capabilities. Rigs used auxiliary air boosters when appropriate to maintain sample quality and representivity. • In post 2011 where aircore drilling could not provide sufficient penetration an RC drilling method was used. • There is no known relationship between recovery and grade. Review of the historic diamond holes RDD1101 and WNDD1101 of oxide and transitional material in the Rowdies and Wagtail North pit showed moderate core loss in the Wagtail North ore mineralised zones.
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.	• Geological logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments. • All drill chips were logged on 1 m increments, the minimum sample size. A subset of all chip samples is kept on site for reference. • diamond holes were logged to geological boundaries and is considered quantitative. Core was photographed. • All drilling has been logged.
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, 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 drill chip samples were collected on 1m sample intervals with either a three-tier, rotary or stationary cone splitter depending on the drill rig used. Aircore drill samples were subset using a 3 tier riffle splitter. Most (> 95%) of samples are recorded as being dry. • All RC and aircore sample splitting was to 12.5 % of original sample size or 2 – 3 kg, typical of standard industry practice • Sample sizes are considered appropriate • Field duplicates were taken in previous programs with results reviewed and not considered a risk to estimation of the Mineral Resource • RC and Aircore drilling and sampling practices by previous operators were to industry standard • The limited core samples from 2 historic holes were sawn in half with one half used for assaying and the other half retained in core trays on site for future analysis. Only the Wagtail North Diamond hole was used in this resource update with the historic Rowdies diamond hole twinning a RC hole used in the prior estimate which showed the RC hole had a negative bias.

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.	• Assays were completed in a certified laboratory in Perth WA. • Gold assays are determined using fire assay with 40g charge and AAS finish. Other elements were assayed using acid digest with ICP-MS finish. Screen fire assays consists of screening 500g of the sample to 106 microns. The plus fraction is fire assayed for gold and a duplicate assay is performed on the minus fraction. The size fraction weights, coarse and fine fraction gold content and total gold content are reported. The methods used approach total mineral consumption and are typical of industry standard practice. • No geophysical logging of drilling was performed. This is not relevant to the style of mineralisation under exploration. • Blind submission of Certified Reference Materials (CRM) was undertaken as well as blank samples submitted, blanks and repeats are included as part of the QAQC system. In addition the laboratory had its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverising at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification. • Analysis of drilling undertaken in 2011 showed a negative bias with several of the external certified standards. • RC and AC drill samples from previous owners is assumed to be fire assay with AAS finish. Review of historic records of received assays confirms this.
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. Some significant intersections have been resampled and assayed to validate results. • The 2016 drill program was an infill and grade control program and did not include any twinning of existing RC holes. • All primary data is logged on paper and later entered into the SQL database. Data is visually checked for errors before being sent to an external database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept onsite. • No adjustments have been made to assay data.

Criteria	JORC Code explanation	Commentary
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.	• Pre 2016 drilling is surveyed using DGPS with accuracy of ± 0.3m. Recent drilling is surveyed using RTK survey equipment Downhole surveys are conducted during drilling using a reflex electronic single shot cameras at collar 20 m then every 30 m thereafter. Current mine workings (open pits) are surveyed by company surveyors using RTK survey equipment. Historical holes was surveyed by prior operators to validate collar coordinates. • The project lies in MGA 94, zone 52. Local coordinates are derived by conversion: GDA94_EAST =NIC_EAST * 0.9983364 + NIC_NORTH * 0.05607807 + 315269.176 GDA94_NORTH = NIC_EAST * (-0.05607807) + NIC_NORTH * 0.9983364 + 7944798.421 GDA94_RL =NIC-RL + 101.799 • Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use.
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.	• Drill hole spacing at Wagtail North, South and Rowdies as a result of the 2016 infill and grade control drilling has been reduced to 10 m x 10 m over the main ore zones and inside the pit designs to a depth of 60-70m below surface for the Wagtail North and South Pits. Rowdies was a shallower pit with limited additional information added outside of the pit shell in 2016 . The remainder of the drilling in the deeper areas are of variable and wider spacing . • The Competent Person is of the view that the drill spacing, geological interpretation and grade continuity of the data supports the resource categories assigned. • No sample compositing was undertaken in the 2016 drill program. Historically sample compositing to 3m occurred in holes above predicted mineralised zones. Composite samples were re-assayed in their 1 m increments if initial assay results were anomalous.
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.	• Drilling is perpendicular to the main north-south ore strike, it is however identified from the Nicolson Mine that localised bonanza splay structures striking at 325 o exist and may not be fully defined • No bias of sampling is considered to be derived by the drilling orientation
Sample security	• The measures taken to ensure sample security.	• The chain of custody is managed by Pantoro employees and consultants. 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.	• Review of the current data has been undertaken by Pantoro personnel as part of the current drilling programs. • A review of the historic sampling techniques was carried out by an independent consultancy in relation to prior Mineral Resource estimation in 2011/12 on behalf of the previous owners. No significant issues were noted.

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. • 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.	• Tenements containing Mineral Resource estimates and Ore Reserves are 100% held by Pantoro subsidiary company Halls Creek Mining Pty Ltd. Tenements with Mineral Resources and Ore Reserves are: M80/503 and M80/362 Tenement transfers to HCM are yet to occur as stamp duty assessments have not been completed by the office of state revenue The tenements lie on a pastoral lease with access and mining agreements and predate native title claims. • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The deposits were discovered by prospectors in the early 1990s. After an 8,500 m RC program, Precious Metals Australia mined 23 koz at an estimated 7.7g/t Au from Nicolson's Pit in 1995/96 before ceasing the operation. Rewah mined the Wagtail and Rowdy pits (5 koz at 2.7g/t Au) in 2002/3 before Terra Gold Mines (TGM) acquired the project, carried out 12,000 m of RC drilling and produced a 100 koz Mineral Resource estimate for the Nicolsons Find deposit. GBS Gold acquired TGM and drilled 4,000 m before being placed in administration. Bulletin Resources Ltd acquired the project from administrators and conducted exploration work focused on Nicolsons and the Wagtail Deposits and completed regional exploration drilling and evaluation and completed a Mining Study in 2012 prior to entering into a JV with PNR in 2014.Review of available reports show work to follow acceptable to standard industry practices.
Geology	• Deposit type, geological setting and style of mineralisation.	• Gold mineralisation in the Project area is structurally controlled within the 400 m wide NNE trending dextral strike slip Nicolson's Find Shear Zone (NFSZ) and is hosted within folded and metamorphosed turbiditic greywackes, felsic volcaniclastics, mafic volcanics and laminated siltstones and mudstones. This zone forms part of a regional NE-trending strike slip fault system developed across the Halls Creek Orogen (HCO). • The NFSZ comprises a NNE-trending anastomosing system of brittle-ductile shears, characterised by a predominantly dextral sense of movement. The principal shear structures trend NNE to N-S and are linked by NW, and to a lesser extent, by NE shears. Individual shears extend up to 500m along strike and overprint the earlier folding and penetrative cleavage of the HCO. • The overall geometry of the system is characterized by right step-overs and bends/jogs in the shear traces, reflecting refraction of the shears about the granite contact, mineralisation in Wagtail North is predominantly hosted in the granite within the shear. Within this system, the NW-striking shears are interpreted as compressional structures and the NE-striking shears formed within extensional windows.

Criteria	JORC Code explanation	Commentary
		• Mineralisation is primarily focussed along NNE trending anastomosing systems of NNE-SSW, NW-SE and NE-SW oriented shears and splays. The NNE shears dip moderately to the east, while the NW set dips moderately to steeply to the NE. Both sets display variations in dip, with flattening and steepening which result in a complex pattern of shear intersections. • Mineralisation is strongly correlated with discontinuous quartz veining and with Fe-Si-K alteration halos developed in the wall rocks to the veins. The NE shears are associated with broad zones of silicification and thicker quartz veining (typically white, massive quartz with less fracturing and brecciation); however, these are typically poorly mineralized. The NW-trending shears are mineralized and often host bonanza gold grades with associated increases in base metal content, with the lodes most likely related to high fluid pressures with over-pressuring and failure leading to vein formation. Although the NE structures formed within the same shear system, the quartz veining is of a different generation to the mineralized veins. • Individual shears within the system display an increase in strain towards their centres and comprise an anastomosing shear fabric reminiscent of the pattern on a larger scale.
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.	• No exploration results are reported as part of this release, results relating to the deposits have been previously released.

Criteria	JORC Code explanation	Commentary
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.	• No exploration results are reported as part of this release, results relating to the deposits have been previously released.
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').	• Drilling is predominantly at 270o to local grid at a dip of -60o. Local structures strike 0o to the local grid and dip at 60oE (i.e. having a 60o intersection angle to lode structures). Deeper holes have some drillhole deviation which decreases or increases the intersection angle, but not to a significant extent. • Downhole lengths are reported and true widths are approximately 60 – 90% of down-hole length. True widths are calculated and reported for any drill intersections > 1 ppm Au.
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.	• No exploration results are reported as part of this release, and therefore no diagrams are included.
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.	• Results greater than 1 ppm Au have been reported for the 2016 RC drilling
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.	• No other relevant exploration other than those previously reported have been conducted in the reporting period.
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.	• Mining has commenced and processing of this ore has produced gold at levels above local grade estimates. • Drilling has commenced to evaluate the depth extension of the orebodies with a view to evaluating underground potential below the current pits.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

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.	• Data input has been governed by lookup tables and programmed import of assay data from lab into database. The database has been checked against the original assay certificates and survey records for completeness and accuracy. • Data was validated by the geologist after input. Data validation checks were carried out by an external database manager in liaison with Pantoro personnel. An extensive review of the data base was undertaken when Pantoro acquired the project, and external data review is ongoing.
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.	• The Competent Person conducts regular visits to the site and has a good appreciation of the mineralisation styles comprising the Mineral Resource.
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.	• Confidence in the geological interpretation is moderate to high given the increased drill density additional to previous Mineral Resource estimate. Surface and historic pit floor mapping confirms the orientation data for the main mineralised structures. • Interpreted wireframes utilised to constrain the Mineral Resource estimate are based on mineralised drilling intersections and geological constraints. All Wireframes have been conducted to a 0.5 ppm Au cut –off grade for inclusion based on the above parameters. • The mineralisation is consistent with narrow high grade gold lodes and drill intercepts clearly define mineralisation and lode position. In general the interpretation of the mineralised structures is clear, however short strike splay structures are found to be present in the course of mining and can contain localised bonanza grades. • In general the controls on mineralisation and grade continuity is constrained by quartz veining within the NFSZ and based on learning outcomes from Nicolsons Find underground development are relatively straightforward and as such no alternate interpretations have been considered. • Geological interpretation of the data was used as a basis for the wireframes for individual lodes which were then constrained by cut-off grades.
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 Rowdies and Wagtail deposits occur over a strike length of approximately 1200m. Mineralised widths in plan vary between 0.5m and 4.5m and mineralisation extends from surface to 280 metres below surface and has not been closed off.

Criteria	JORC Code explanation	Commentary
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 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.	• Separate block models were generated for Wagtail and Rowdies deposits. Individual mineralised structures were domained separately. Models contain grade estimates and attributes for blocks within each domain only. • Geological interpretation forms the basis for the mineralisation domain wireframes; these were oriented along trends of grade continuity and form hard boundaries during estimation. • Ordinary Kriging (OK) using Surpac software was used to generate the resource estimates. • Model validation was conducted by review of visual comparison between composite and estimated block grades and statistical comparison against the input drill data and graphical profile (swath) plots. Checks for negative and missing grades were also undertaken. • Production figures from Rowdies and Wagtail Pits based on current mining have been reconciled to the Mineral Resource estimate. Current estimates on the whole are consistently lower than reconciled production from the open pit mines. • By products are not included in the Mineral Resource estimate. No deleterious elements or other non-grade variables have been estimated, however metallurgical test work and operating recoveries support good metallurgical recovery. **Wagtail Mineral Resource Estimate** • Drillholes used in the Mineral Resource estimate update for Wagtail North included, in addition to data used in prior estimates, an additional 38 RC holes for a total of 783m of composites within the resource wireframes. Wagtail South included 53 RC holes for a total of 887 metres of composites within the resource wireframes. • The block models used primary block sizes of 5m Y X 2.5m X X 2.5m Z on Wagtail South deposits. Primary block sizes of 2.5m Y X 1.25m X X 1.25m Z were used on Wagtail North. Sub-celling was employed at domain boundaries to allow adequate representation of the domain geometry and volume. Block size was determined primarily with the assumption of a relatively selective mining approach for both open pit and underground operations. • Only gold has been estimated. Drill hole data was composited utilizing domain codes with all data composited to 1m. • Grade distribution statistics were used to generate top cuts by domain, along with the analysis of distribution graphs and disintegration analysis in order to limit the influence of outliers in the estimate.

Criteria	JORC Code explanation	Commentary

Estimation and modelling techniques (continued)		• Variography of gold grades from drilling data provided a maximum grade continuity of 22m down plunge,12 m perpendicular to plunge and 4, across plane for Wagtail South. Wagtail North parameters were 23 m along strike, 12 m down-dip and 4 m across the plane.
		• Block estimation used 3 passes. At Wagtail North, the 1st pass used a search radius of 122 m with a minimum of 3 and maximum of 15 samples. Wagtail South estimation used a 122m radius for the 1st pass with a minimum of 2 and maximum of 20 samples. The search radius was increased by 2 for second pass and the minimum number of samples was decreased to 1 for the 3rd pass.
		Rowdies Mineral Resource Estimate
		• A two-dimensional (2D) Ordinary Kriging (OK) interpolation approach was selected to address some of the main issues encountered when estimating narrow vein mineralisation, such as:
		  • Additivity issues due to non-uniform support and resulting grade bias. Instances of highly variable individual intercepts (e.g. 0.3 m to 5.0 m) which would be difficult to incorporate and represent statistically using downhole composites of equal lengths (e.g. 0.5, 1.0 or 2.0 m);
		  • Varying mineralisation geometry across lode, down dip, and along strike; and
		  • Block size required for adequate volume fill of narrow geometry is generally too small, introducing conditional bias to the MRE outcome.
		• Drillholes were composited for the full width of the domain intercept, followed by trigonometric calculation of true width (TW) using the orientations of the drill hole intercept and ore domain defined by a digitised reference (centreline) surface. A gold accumulation variable was then calculated by multiplication of intercept grade by true width.
		• Composited sample data was transformed (grid rotation removed) before being pressed onto a cartographic plane and statistical analysis undertaken on accumulation, width, and grade variables, to assist with determining estimation search parameters, top-cuts etc.
		• Assessment and application of top-cutting for the 2D estimate was undertaken on the gold accumulation variable within individual domains. Top cuts, where appropriate, were applied on an individual domain basis.
		• Variography analysis of individual domains was undertaken on gold accumulation variables in 2D space, followed by Qualitative Kriging Neighbourhood Analysis to assist with determining appropriate search parameters.
		• The 2D block models for interpolation were created using a block size of 20 mN x 20 mRL x 1 mE with no sub-celling. Block size was determined primarily with the assumption of a relatively selective mining approach for both open pit and underground operations.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques (continued)		• Block estimation used 2 passes. The 1st pass used a search radius equal to the variogram range of 65m with a minimum of 4 and maximum of 12 samples. The search radius was increased to 130m for the second (and final) pass. • For domains 45 and 75, a single categorical indicator for each domain was used to segregate bimodal populations. Block and sample selection was based on sub-domain volumes generated in Leapfrog 3D using a Radial Basis Function (RBF) Indicator Interpolant with a probability of >= 40% above a selected accumulation cut-off. Indicator interpolation used Spheroidal inputs equivalent to the proportional nugget and range defined by Accumulation Variography. A hard boundary approach was applied to domain 45 whilst a soft boundary approach was applied to domain 75 whereby blocks within the "high grade" above cut-off portion of the estimate were un-restricted in sample selection while blocks within the "low grade" below cut-off portion of the estimate were restricted to only samples within that portion. • Post estimate. Gold ppm values for each block were calculated by dividing interpolated gold accumulation by interpolated TW, whereby for each block: • Block Gold ppm = Block Gold Accumulation Value / Block TW Value • Back calculated gold ppm values for each block were transformed from 2D to 3D space and pressed across the full width of the corresponding domain in the final host 3D compilation model. • Check estimates were carried out in 3D using Inverse Distance Squared. Both accumulation and horizontal width were estimated before back calculation of the check estimate gold grade. • Validation of the gold accumulation, TW estimations and gold ppm back-calculation was completed by global and local bias analysis, statistical and visual inspections in 2D and 3D space.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	• Tonnage was estimated on a dry basis. • The tonnages of material on stockpiles are quoted on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied	• The Mineral Resource cut-off grade for reporting of global gold resources was at a 2.5 g/t gold cut-off. This was based upon economic parameters currently utilized at Wagtail, and the nearby Nicolsons, operations, where deposits of the same style, commodity, comparable size and mining methodology are being extracted.

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.	• Due to the high grade nature of the mineralisation, a minimum downhole intersection width of 1m is considered reasonable to support with external/edge dilution minimum mining widths for the selective open pit and underground operations respectively and currently being employed. • The MRE extends nominally 280 m below surface. Pantoro considers material at this depth suitable to have a reasonable prospect of eventual economic extraction within an underground mining framework.
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.	• Metallurgical test work has shown acceptable (> 93%) gold recovery using CIP technology and is confirmed with calculated recoveries from the current processing of the material from the Mineral Resource. No metallurgical factors from the have been applied to the estimates as this will be addressed during the application of modifying factors during Ore Reserve conversion.
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.	• The deposits are on granted mining leases with existing mining disturbance and infrastructure present to support the reasonable prospects for economic extraction.

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 different materials.
		• Bulk density measurements of ore and waste were adopted from historical testwork from drill core using the water displacement method and data from historical mining. Pit data provided 29 samples and drilling provided 91 samples.
		• Bulk density estimates used for Wagtail and Rowdies (mineralized) were:
		  • Oxide All: 2.0 t/m^3. Transitional All: 2.4t/m^3
		  • Fresh Wagtail North: 2.9t/m^3. Fresh Wagtail South and Rowdies: 2.7t/m^3
		• Bulk density estimates for Rowdies 'un-mineralised' material was:
		  • Backfill: 2.0 t/m^3, Oxide: 2.3 t/m^3, Trans: 2.7 t/m^3, Fresh: 2.9 t/m^3

Criteria	JORC Code explanation	Commentary

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.
		• Resources were classified utilising a combination of various estimation derived parameters, input data and geological/mining knowledge and depleted to the mined surface as of 31st December 2018 for the mined pits.
		• This approach considers all relevant factors and reflects the Competent Person's view of the deposit
		• Indicated Mineral Resources were defined where a moderate level of geological confidence in geometry, continuity, and grade was demonstrated, and were identified as areas where:
		  • Good support from drilling – where drilling was within 20 m of a block estimate; and estimation quality was considered reasonable, as delineated by a conditional bias slope above 0.6.
		• Inferred Mineral Resources were defined where a low level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:
		  • Drill spacing was averaging a nominal 50 m or less, or where drilling was within 40 m of the block estimate; and estimation quality was considered low, as delineated by a conditional bias slope between 0.2 – 0.6.

Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates	• A review of previous estimates have been the subject of independent review. No significant issues were noted. • The current Mineral Resources has been reviewed internally and results are considered acceptable with reconciled production results.
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 relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The Mineral Resource statement relates to global tonnage and grade estimates. No formal confidence intervals nor recoverable resources were undertaken or derived. • Production figures from Rowdies and Wagtail Pits based on current mining have been reconciled to the Mineral Resource estimate. Current estimates on the whole are consistently lower than reconciled production from the open pit mines.The amount is considered to be within acceptable limits for the classification of the resource. Current estimates on the whole are consistently lower than reconciled production from the open pit mines

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Ore Reserve was calculated using detailed mine designs applied to the current Mineral Resource estimate. The Mineral Resource estimate was completed by experienced geologists familiar with the deposits, overseen by the competent person. • The Mineral Resources reported are inclusive of the Ore Reserve.
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.	• The Competent Person makes regular visits to the site and is involved in preparation of the overall operations plans which are the basis for the Ore Reserve.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• The study completed to enable the conversion of the Ore Reserve is considered to be a Feasibility level of study. Modification to conversion is undertaken during mining as necessary. • The mine planning process utilises functional mine designs and prevailing site operating and capital costs for formulation of the conversion
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• Rowdies/Wagtail – Pits were designed were designed using a 2.14 g/t cut-off. Low grade material recovered above 1.5 g/t is reported as will report to low grade surface stockpiles .
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	• Mineral Resources were optimised using Geovia Whittle software, followed by detailed open pit design using Geovia Surpac software. • Key parameters used in optimisation were sourced from prevailing site operating costs (mining and grade control, fuel and consumables, milling cost and administration costs). • Final pit slopes are at an overall angle of 43 degrees, in line with geotechnical studies completed by Pantoro Ltd and approved in the PMP. • Mining dilution of 15% was utilised • Mining recovery of 100% of diluted ore was utilised. • No inferred Mineral Resource was included in the mining studies. • Current site infrastructure supports the Open pit mining methods currently being used.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• The existing processing plant at Nicolsons uses a conventional CIP circuit, which is appropriate for the style of mineralisation. • The CIP process is the conventional gold processing method in Western Australia and is well tested and proven. • The plant has now been operating for 20 months and prior metallurgical test work has been achieved consistently since the inclusion of the open pit material supporting the metallurgical recovery factor • There are not any know deleterious elements • The 97% recovery is consistent with calculated recoveries from the current operating period from the Nicolsons operations • Not applicable
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The Nicolsons site is fully established and operating
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• Capital costs were estimated by identifying capital equipment items and estimating labour and equipment requirements for installation of capital equipment. • Operating costs are calculated from current operating costs realized on a going concern basis • There are no known deleterious elements and no adjustments have been made. • All costs were estimated in Australian dollars, and a gold price of $1400/oz was utilized. • Transport charges were based on actual operating cost on a going concern basis. • Credit elements including silver were not attributed any value in the calculation and it is assumed that the silver credits received will cover refining charges. • A 2.5% state government royalty was assumed.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• Grade is scheduled monthly in a detailed mining schedule. • Gold price was assumed to be A$1,400 per ounce. • No revenue from silver or any metals other than gold was assumed.

Criteria	JORC Code explanation	Commentary
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Gold prices can be volatile and there are many conflicting positions on the future price of Gold. Pantoro budgets using a $1650 per ounce gold price and the $1400 per ounce optimisation is a realistic forward price forecast with suitable margins
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• Due to the short life of the proposed mine, inflation was not applied to costs or gold price.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The project is on granted mining leases and the company has an access agreement with the local aboriginal corporation who is also the pastoral lease owner.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• Pantoro is the 100% owner of the Project. Pantoro is not currently named on tenement titles due to delays in assessment of stamp duty by the Office of State Revenue. Pantoro is satisfied that it has full legal rights to 100% of the project by virtue of the legal agreements in place with the previous owner. • Signed transfer documents for the tenements are held by Pantoro, however transfers have not occurred as the Department of State Revenue has not completed a Stamp Duty Assessment, and Stamp Duty must be paid prior to transfer of tenements. The Acquisition Agreement protects PNR's interest in the period prior to transfer. • PNR has the required government and stakeholder approvals required to mine and process the Ore Reserve • All regulatory approvals are in place for the mining of the Rowdies and Wagtail pits.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The Ore Reserve has been derived from Indicated Mineral Resources. Inferred Mineral Resource has been excluded from the Ore Reserve. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit • No Measured Mineral Resource is classified in the Mineral Resource estimate
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• The Ore Reserve has been reviewed using internal processes. No external audits

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • 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. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The Ore Reserve has been derived from Indicated Mineral Resources. • Inferred Mineral Resource has been excluded from the Ore Reserve. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit

Mineral Resources

The information in the report to which this statement is attached that relates to the Exploration Results and Mineral Resources at the Wagtail/Rowdies Deposit is based upon information compiled by Mr Scott Huffadine BSc., a Competent Person who is a member of the Australian Institute of Geoscientists (MAIG 6748). Mr Huffadine is Operations Director at Pantoro. and a 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 relevant to the style of mineralisation and deposit type under consideration and to the activities 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 matters based on his information in the form and context in which it appears.

Ore Reserves

The information in this report that relates to Ore Reserves is based on information compiled by Mr Paul Cmrlec (B. Eng (Mining) (Hons), a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Cmrlec is a Director and full time employee of the company. Mr Cmrlec 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 Cmrlec 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 Cmrlec consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Previously Announced Drilling Results

The information is extracted from the reports entitled 'High Grade Drilling at Wagtail and Operations Update' created on 19 June 2018 and 'Quarterly Production and Exploration Update' created on 10 October 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.