

## **Production stoping commences and high grade development ore at OK Mine**

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to advise that operations at Norseman are continuing to progress with production activities underway at OK underground mine. In addition, very high grade zones have been encountered in development within the Star of Erin Lode.

### **Production underway**

Following completion of the delayed secondary egress rise at the OK mine during February, Pantoro has moved quickly to commence stoping activities. The first stope excavated with down holes from the Star of Erin 095 level, has been successful in maintaining design width and excellent fragmentation.



095 level stope void from above      Stope ore reporting to 105E level

Bogging of the stope is underway ahead of backfilling and excavation of the next production panel.

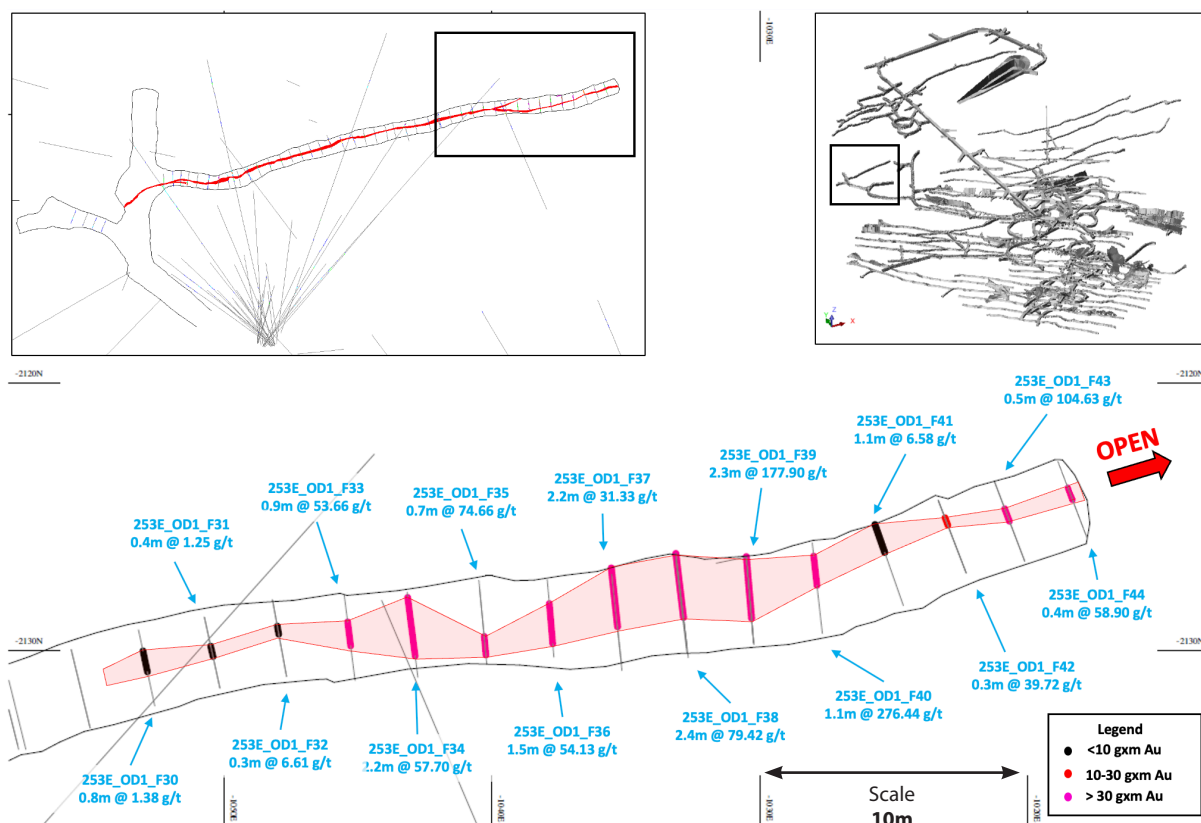
### **Very high-grade development in Star of Erin Lode**

Development in the Star of Erin 253 level has driven consistent and very high grade ore, surpassing modelled expectations.

Development has progressed east of the current Ore Reserve boundary with outstanding width and grade consistently reporting from the ore block. High grades have continued to be encountered in the latest development cuts.

While vertical continuity of the ore zone is yet to be tested with additional development above and below the 253 level, results to date suggest that there is strong potential to the upside on the current Ore Reserve in the Star of Erin with the OK ore being well documented as being a highly nuggety orebody.

Development of the levels above and below the 253 level are being prioritised, and ore development is expected to be underway in those areas in March/April 2023.



## Project Progress

Pantoro is pleased to advise that both underground and open pit mining is currently advancing at the rates expected at the time of the equity raising in February 2023. The current focus in the open pits is to rapidly advance mining in the Scotia open pit so that substantial high grade ore is accessed during the June 2023 quarter.

The processing plant is currently being operated at or near nameplate capacity, and improvements works are currently underway to further increase production capacity in the near term.

Pantoro currently expects to be in a position to declare commercial production during the June 2023 quarter, coinciding with a step change in available ore from Scotia in May and June 2023.

Commenting on the project progress, Managing Director Paul Cmrlec said: "It is very pleasing to see progress in both the underground and open pit mines at Norseman. While the project start-up has been difficult for a number of reasons, we remain very confident in the long term value of the Norseman project. While it is still early days, the potential upside displayed in the development at OK is very encouraging, and we look forward to increasing production from the mine as more work areas become available in the coming months".

## Enquiries

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This announcement was authorised for release by Paul Cmrlec, Managing Director.

## Appendix 1 – Table of New Drill Results

Face Id	Northing	Easting	RL	Dip (Degrees)	Azimuth (Degrees)	Face Length (m)		Sample From (m)	Sample To (m)	Vein Intersection (m)	Au gpt
253E_OD1_F30	6434779	385211	75	0	168	2.9		0.8	1.6	0.8	1.38
253E_OD1_F31	6434779	385213	75	0	168	2.7		1.1	1.5	0.4	1.25
253E_OD1_F32	6434780	385216	75	0	170	2.9		1	1.3	0.3	6.61
253E_OD1_F33	6434780	385219	75	0	173	3.2		1	1.9	0.9	53.66
253E_OD1_F34	6434780	385221	75	0	173	3.2		0.2	2.4	2.2	57.70
253E_OD1_F35	6434781	385224	75	0	175	2.8		2.1	2.8	0.7	74.66
253E_OD1_F36	6434781	385226	75	0	175	2.9		0.9	2.4	1.5	54.13
253E_OD1_F37	6434781	385229	75	0	174	3.6		0	2.2	2.2	31.33
253E_OD1_F38	6434782	385231	75	0	173	3.5		0	2.4	2.4	79.42
253E_OD1_F39	6434782	385234	74	0	175	3.2		0	2.3	2.3	177.90
253E_OD1_F40	6434782	385236	75	0	174	3.4		0.5	1.6	1.1	276.44
253E_OD1_F41	6434783	385238	75	0	161	3.2		0	1.1	1.1	6.58
253E_OD1_F42	6434784	385241	75	0	159	2.9		0.7	1	0.3	39.72
253E_OD1_F43	6434785	385243	75	0	159	3.2		1.1	1.6	0.5	104.63
253E_OD1_F44	6434785	385245	75	0	163	3.2		1.5	1.9	0.4	58.90

## Appendix 2 – JORC Code 2012 Edition – Table 1

### SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to grade control face sampling results from an ongoing underground development from the OK underground deposit specifically the Star of Erin lode.</li> <li>For underground development face chip samples, Samples of approximately 2.0-3.0 kg are assayed at the onsite lab with a 500g pulverized pulp (P90 75 micron) assay by PAL (pulverizing and Leach) method where samples are completely pulverized and simultaneously leached with cyanide and solids and solution analysed for gold following procedures established by an external accredited laboratory. This method determines cyanide recoverable gold only. Routinely any samples with assays returning greater than 1g/t have pulps dispatched to external accredited laboratory where sizing checks are completed to establish sample preparation is to standard and then fire assayed (40g charge).</li> <li>Face Sampling: each development face / round is mapped geologically and chip sampled perpendicular to mineralisation. The sampling intervals are dominated by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). The majority of exposures within the orebody are sampled.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling is reported in this report.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Face Chips samples are nominally chipped to attain a consistent sample perpendicular to mineralisation across the face from left to right and sub-set via geological features as appropriate.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geological mapping of faces is completed by qualified geologists, with logging parameters including: from, to, surface area, lithology, alteration and mineralisation. All faces are routinely photographed.</li> <li>Mapping/Logging is quantitative and qualitative with all faces photographed.</li> <li>100% of the relevant intersections are logged.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• Face Chips samples are nominally chipped perpendicular to mineralisation and horizontally across the face from left to right, and sub-set via geological features as appropriate.</li> <li>• For face samples, each face are separated into sample intervals and separately bagged for analysis at site lab and the certified laboratory.</li> <li>• Samples are processed by PAL allowing a 500g pulverized pulp (P90 75 micron) assay to be obtained. The larger sample size (relative to Fire Assay) and recoverable nature of the assay are deemed appropriate for this deposit.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• PAL LeachWELL Assays are completed in an onsite laboratory in Norseman which is managed under agreement with BVA.</li> <li>• For underground development face chip samples, Samples of approximately 2.0 – 3.0 kg are crushed and split at the onsite lab producing a 500g sample to (P90 3-5mm) and pulverized to (P90 75 micron) by the PAL (LeachWELL) methodology following accredited procedures established by external laboratory service provider BVA. This method determines cyanide recoverable gold only..</li> <li>• Lab standards, blanks and repeats are included as part of the QAQC system. In addition BVA has its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverizing by the PAL at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections are calculated and checked with assay results by company personnel both on site and in Perth. Diamond drilling confirms the width of the mineralised intersections.</li> <li>• There are no twinned holes drilled as part of these results, however multiple samples are taken in the mineralized veins in the process of face sampling.</li> <li>• All primary data is logged either digitally or 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 in onsite office.</li> <li>• Visual checks of the data re completed in Datamine mining software</li> <li>• No adjustments have been made to assay data unless in instances where standard tolerances are not met and reassay is ordered.</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All underground development is routinely picked up by conventional survey methods and faces referenced to this by measuring from underground survey stations prior to entry into the database.</li> <li>The project lies in MGA 94, zone 51, results are tabled as such.</li> <li>The conversion from Phoenix Grid to MGA 94 is as follows:</li> <li>Y: Y + 6436924.800, X: X + 386235.129, Z: Z + 325.030</li> <li>Rotation: -0.38'15"</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Face samples are taken on the basis of the length of the development rounds being approximately a 2.5 m spacing along strike</li> <li>The Competent Person is of the view that the drill/sample spacing, geological interpretation and grade continuity of the data supports the resource categories assigned.</li> <li>No compositing is applied to face sampling.</li> <li>Development face samples are both sampled to geology of between 0.2 and 1.2m intervals.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Underground face and development sampling is nominally undertaken normal to the various orebodies All intervals are reviewed relative to the understanding of the geology and true widths calculated and reported in the tables attached in the body of the report.</li> <li>No bias of sampling is believed to exist through face sampling orientation.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The chain of custody is managed by Pantoro employees and contractors. Samples are stored on site in a secured area and delivered in sealed bags to the lab in Norseman or Kalgoorlie</li> <li>Samples are tracked during shipping.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audit or reviews of current sampling techniques have been undertaken however the data is managed by an offsite data scientist who ensures all internal checks/protocols are in place.</li> </ul>

## SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement related to this drilling is 50% held by Pantoro subsidiary company Pantoro South Pty Ltd. This is : M63/68.</li> <li>Tenement is owned 50% by Pantoro South and 50% CNGC in a JV. The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Gold was discovered in the area 1894 and mining undertaken by small Syndicates.</li> <li>In 1935 Western Mining established a presence in the region and operated the Mainfield and Northfield areas under the subsidiary company Central Norseman Gold Corporation Ltd. The Norseman asset was held within a company structure whereby both the listed CNGC held 49.52% and WMC held a controlling interest of 50.48%. They operated continuously until the sale to Croesus in October 2001 and operated until 2006. During the period of Croesus management the focus was on mining from the Harlequin and Bullen Declines accessing the St Pats, Bullen and Mararoa reefs. Open Pits were HV1, Daisy, Gladstone and Golden Dragon with the focus predominantly on the high grade underground mines.</li> <li>From 2006-2016 the mine was operated by various companies with exploration being far more limited than that seen in the previous years.</li> <li>The OK mine was originally worked in the 1930s, but lay idle until 1980 when the shaft was re-opened by CNGC to mine remnant ore from the OK Main reef. Underground drilling of the east striking tensional Main reef led to the discovery of the 300o striking O2 reef, which was developed via decline.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Norseman gold deposits are located within the southern portion of the Eastern Goldfields Province of Western Australia in the Norseman-Wiluna greenstone belt in the Norseman district. Deposits are predominantly associated with near north striking easterly dipping quartz vein within metamorphosed Archean mafic rocks of the Woolyeenyer Formation located above the Agnes Venture slates which occur at the base.</li> <li>The principal units of the Norseman district, are greenstones which are west dipping and interpreted to be west facing. The sequence consists of the Penneshaw Formation comprising basalts and felsic volcanics on the eastern margin bounded by the Buldania granite batholith, the Noganyer Iron Formation, the Woolyeenyer formation comprising pillow basalts intruded by gabbros and the Mount Kirk Formation a mixed assemblage.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• The mineralisation is hosted in quartz reefs in steeper shears and flatter linking sections, more recently significant production has been sourced from NNW striking reefs known as cross structures (Bullen). Whilst a number of vein types are categorized the gold mineralisation is predominantly located in the main north trending reefs which in the Mainfield strike for over a kilometre. The quartz/ sulphide veins range from 0.5 metres up to 2 metres thick , these veins are zoned with higher grades occurring in the laminated veins on the margins and central bucky quartz which is white in colour. Bonanza grades are associated with native gold and tellurides with other accessory sulphide minerals being galena , sphalerite, chalcopyrite, pyrite and arsenopyrite.</li> <li>• The long running operations at Norseman have provided a good understanding on the controls of mineralisation as well as the structural setting of the deposits. The overall geology of the Norseman area is well understood with 3D Fractal Graphic mapping and detailed studies, adding to a good geological understanding to the area. The geometry of the main lodes at Norseman are well known and plunge of shoots predictable in areas, however large areas remain untested by drilling with the potential for new spurs and cross links high.</li> <li>• The gold in the OK reefs is free milling and typically hosted by a very narrow (0.3 m average width) laminated quartz vein which is commonly surrounded by a selvage of up to 2 m wide of predominantly biotite alteration. The veins are most commonly hosted by fine grained metamorphosed basalt or relatively fine grained porphyries. Accessory minerals include carbonate, scheelite, pyrite, chalcopyrite and arsenopyrite. The O2 and Main reefs are among the most nuggety at Norseman.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• 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: <ul style="list-style-type: none"> <li>» easting and northing of the drill hole collar</li> <li>» elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>» dip and azimuth of the hole</li> <li>» down hole length and interception depth</li> <li>» hole length.</li> </ul> </li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• A table of face sample data pertaining to this release is attached.</li> <li>• All relevant faces with results available are reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Reported development results are uncut.</li> <li>All relevant intervals to the reported mineralised intercept are length weighted to determine the average grade for the reported intercept.</li> <li>No metal equivalents are reported</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>Face Chips samples are nominally chipped perpendicular to mineralisation and horizontally across the face from left to right, and sub-set via geological features as appropriate.</li> <li>The results in this release pertain to horizontal face production samples and as such horizontal widths are reported. Typical geometry of the Star of Erin Mineralisation is steeply dipping between 80 and 90 degrees.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate diagrams are included in the report.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All relevant data to the context to this announcement are included in the tables.</li> <li>Diagrams show the location and tenor of both high and low grade samples.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No other meaningful data to report.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>These underground face sampling results are part of an ongoing grade control program to define the orebody for production purposes.</li> </ul>

**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, 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 and options in the Company. 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.

**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.