Pedra Branca
2019 Mineral Resource Statement and Explanatory Notes

As at 25 March 2019

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PEDRA BRANCA MINERAL RESOURCE STATEMENT AS AT 25 March 2019

Summary

The Pedra Branca March 2019 Mineral Resource has been estimated at 19 million tonnes of copper mineralisation grading 1.6 per cent copper and 0.4 grams per tonne gold.

This combined Mineral Resource estimate update supersedes the previously reported Mineral Resource estimates for Pedra Branca West released on 13 July 2015 and Pedra Branca East released on 26 May 2016.

The updated Pedra Branca Mineral Resource estimate includes, substantial additional delineation drilling completed since the cut-off date of the previous Mineral Resource releases, reflects geological interpretation adjustments and updated classification confidence.

The March 2019 Mineral Resource estimate is 6 per cent higher in mineralisation tonnes, 30 per cent lower in copper metal tonnes and 25 per cent lower in gold ounces than the previous combined total of estimated Mineral Resources for Pedra Branca.

The key drivers for change are as follows:

- Reduction of approximately 2 million tonnes of mineralisation and ~155kt of copper metal due to the revised geological interpretation resulting in decreased mineralisation continuity.
- Addition of approximately 3 million tonnes of mineralisation and ~25kt of copper metal due to a decrease in the reporting cut-off grade from 0.9 percent copper to US$35/t NSR (approximately equivalent to 0.8 percent copper).

A summary of the current Pedra Branca Mineral Resource estimate is presented in Table 1.

Table 1: Copper Mineral Resource estimate as at 25 March 2019[1]

	Category	Tonnes (Mt)	Cu (%)	Au (g/t)	Cu (kt)	Au (koz)
Pedra Branca East US$35/t NSR[2] cut-off	Measured	2.3	1.6	0.5	37	35
	Indicated	9.2	1.7	0.5	160	140
	Inferred	1.7	2.0	0.5	34	28
	Subtotal	**13**	**1.7**	**0.5**	**230**	**200**
Pedra Branca West US$35/t NSR[2] cut-off	Indicated	2.4	1.4	0.4	32	28
	Inferred	3.1	1.2	0.4	38	41
	Subtotal	**5.5**	**1.3**	**0.4**	**70**	**69**
Total	Measured	2.3	1.6	0.5	37	35
	Indicated	11	1.6	0.4	190	160
	Inferred	4.8	1.5	0.4	72	69
	Total	**19**	**1.6**	**0.4**	**300**	**270**

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[1] Table subject to rounding errors.

[2] Net smelter return (NSR) details can be found under Section 3 "Cut-off parameters" in the attached JORC Table 1 documentation.

Setting

The Pedra Branca Project is located in the south-eastern portion of the State of Pará on the border of the municipalities of Canaã Dos Carajás and Água Azul Do Norte, situated about 100 km south-southwest of the city of Parauapebas (Figure 1). The project is accessible from Parauapebas by road via 100 km of sealed highway south to the town of Canaã, followed by a further 25 km of gravel road to the west to the village of Vila Feitosa, located in the northern area of Exploration Permit DNPM 850.318/2000.

The project is held by Vale Dourado Mineração, a wholly owned Brazilian subsidiary of OZ Minerals Brazil Limited, who own the rights to 100 per cent of the tenements in the current project. The final exploration report and economic plan report have been approved by the National Mining Agency (ANM) and the company is awaiting the issue of the mining licence.

Pedra Branca iron oxide copper gold deposit is hosted within the Carajás Mineral Province which is located in the southern part of the Amazon Craton. Locally the craton is overlain by metavolcanic–sedimentary units of the Rio Novo Group and the 2.76 Ga Itacaiúnas Supergroup. The Itacaiúnas Supergroup hosts all the known Carajás iron oxide copper gold deposits and is thought to have been deposited in a marine rift environment. The Carajás Mineral Province represents one of the best endowed mineral districts in the world and contains the world's largest known concentration of iron oxide copper gold deposits including the, Salobo, Igarapé Bahia, Alemão, Cristalino, Gameleira, Furnas, Alvo 118, Antas, Pedra Branca and Pantera deposits.

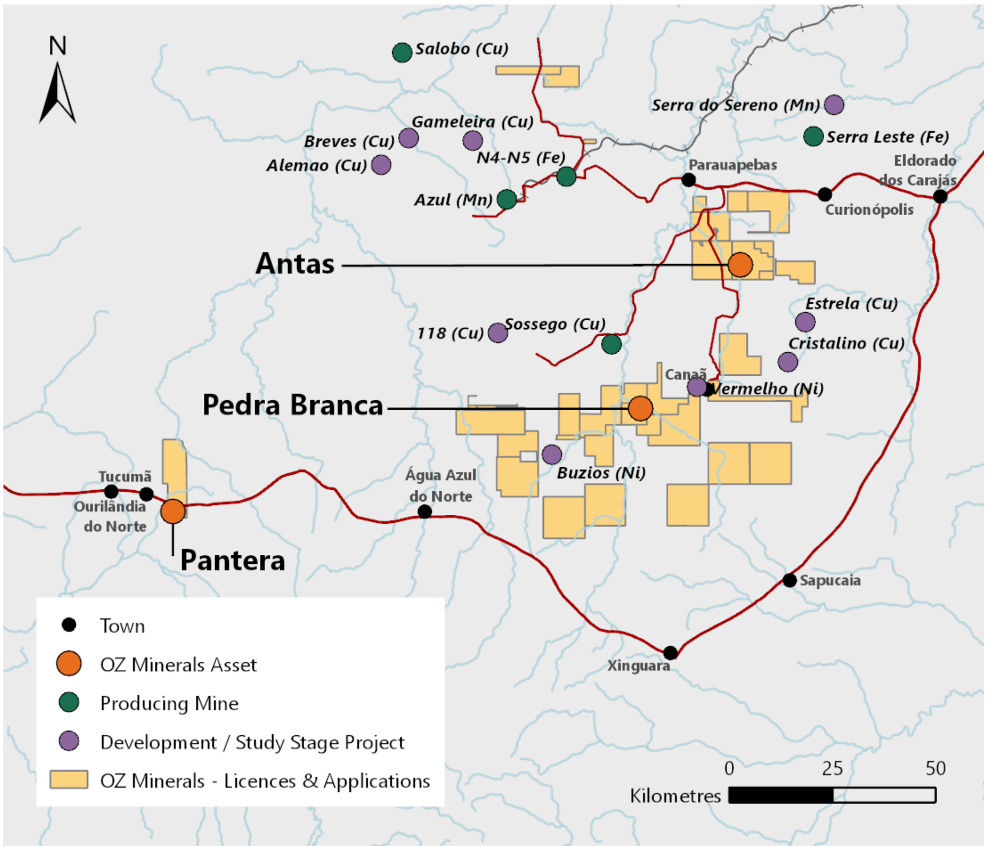

Figure 1: Local map showing OZ Minerals Carajás tenement portfolio[3] and surrounding mineral deposits, townships and infrastructure.

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[3] Pantera subject to an option agreement with VALE METAIS BÁSICOS S.A. (Vale).
Refer to ASX announcement "Avanco acquires Pantera Project from Vale" 16 January 2018 for detail on the terms and conditions of the option agreement with Vale.

Changes in the March 2019 Mineral Resource Estimate

The Pedra Branca Mineral Resource estimate increased by 1 million tonnes (6 per cent) and decreased by 130 thousand tonnes of copper metal (30 per cent) and 90 thousand ounces of gold metal (25 per cent) relative to the previous combined Mineral Resource estimates for Pedra Branca East (2016) and West (2015).

Diamond drilling activities undertaken since the previous combined Mineral Resource estimates in combination with revised interpretations of mineralisation and associated continuity resulted in an approximate reduction of estimated mineralisation by 2 million tonnes at 6.7 per cent copper and 1.5 grams per tonne gold.

The lowering of the Mineral Resource reporting cut-off grade from 0.9 per cent copper to US$35/t NSR resulted in the addition of 3 million tonnes of estimated Mineral Resource materials. The revised cut-off reflects approximately 80 per cent of a high-level assessment of a mining break-even, which takes into account revenue from recovered copper and gold metals and offsets projected site operating and sustaining capital costs, including underground operating development.

A detailed outline of copper and gold metal changes in the March 2019 Pedra Branca Mineral Resource estimate is presented in Figure 2 and Figure 3.

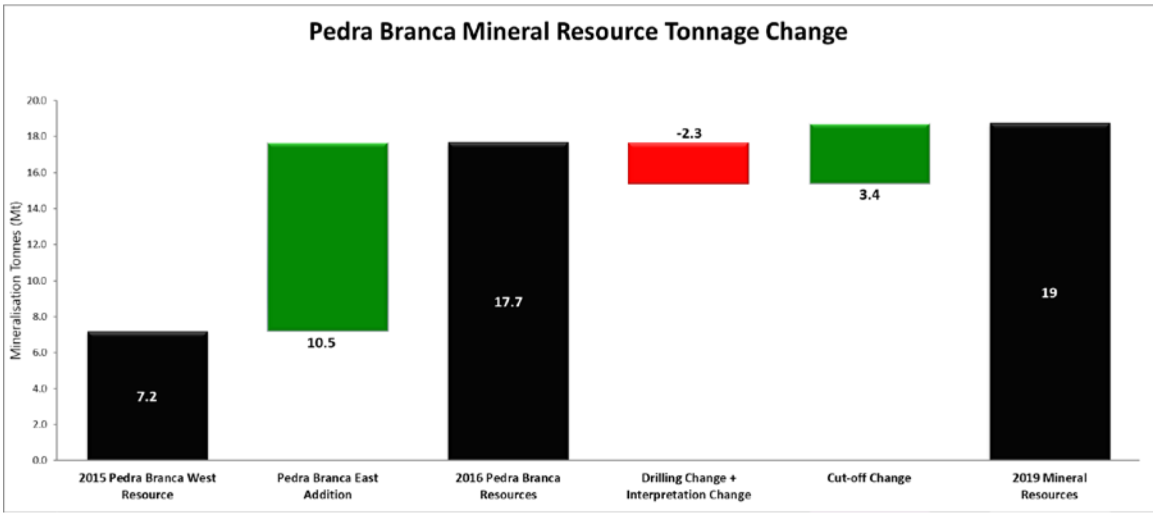

Figure 2: Mineralisation Tonnage changes in 25 March 2019 Pedra Branca Mineral Resource estimate update[4]

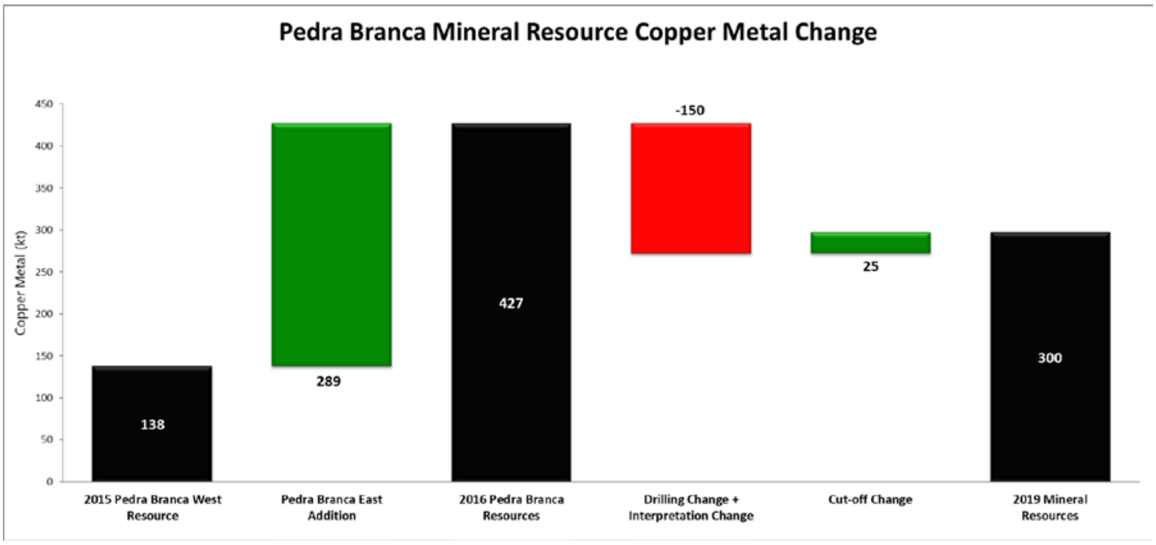

Figure 3: Copper metal changes in 25 March 2019 Pedra Branca Mineral Resource estimate update[4]

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[4] Tonnage totals subject to rounding. Data includes Measured, Indicated and Inferred Mineral Resources.

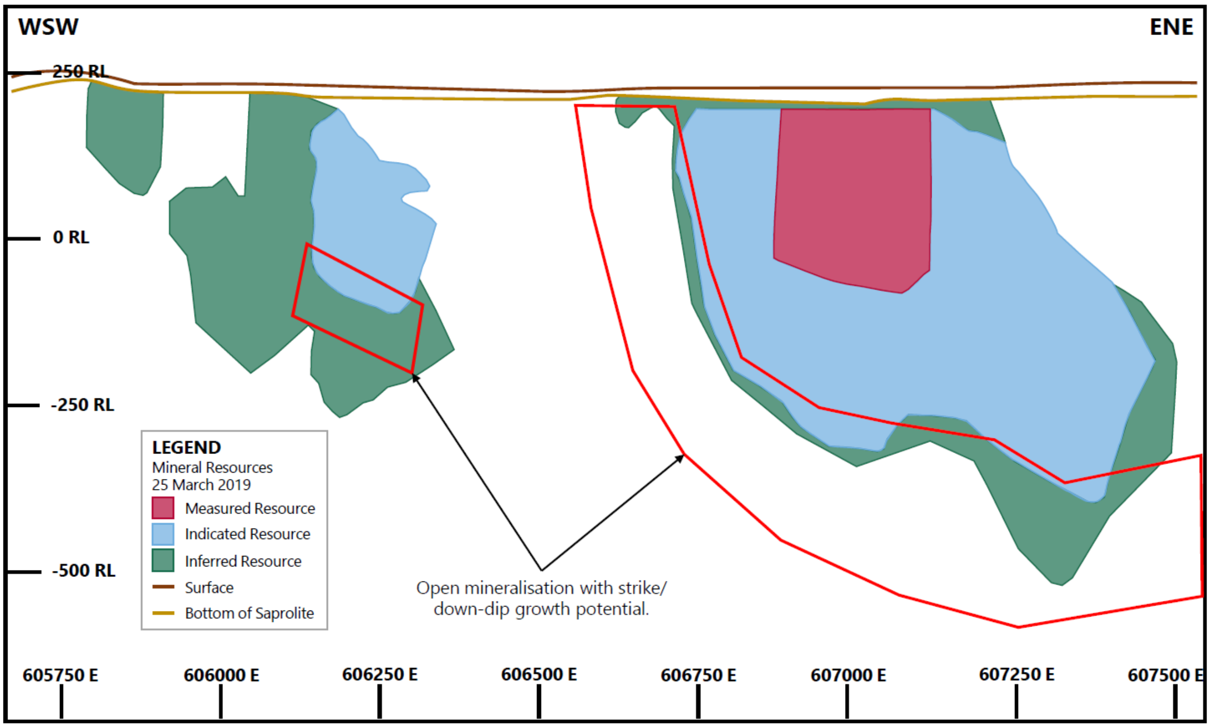

Figure 4: North facing long projection of Pedra Branca Mineral Resource showing proposed drill target areas for H2 2019

Supporting Information Required Under ASX Listing Rules, Chapter 5

The supporting information below is required, under Chapter 5 Section 5.8.1 of the ASX Listing Rules, to be included in market announcements reporting estimates of Mineral Resources and Ore Reserves which have materially changed from when those estimates were last reported.

Geology and geological interpretation

The Pedra Branca iron oxide copper gold deposit comprises two zones of mineralisation (East & West) hosted in gneiss and granitic units. The area to the south of the deposit is dominated by a sequence of meta-gabbro-diorite interspersed with foliated pegmatites of granitic composition while the northern area consists of a sequence of gneisses of granitic composition. The contact between the two rock units is represented by a generally south dipping shear zone which is interpreted to act as a dominant control on the distribution of higher-grade mineralisation, particularly in the east. Multiple sub-parallel lenses of mineralisation also occur in the footwall of both zones, however these do not develop the same level of continuity observed in the main hangingwall lens.

Hydrothermal alteration has been recognised in various parts of the Pedra Branca deposit area. Alteration zones are generally structurally controlled and are east-west to east-north-east striking. The alteration haloes of Pedra Branca follow the same trend of other known iron oxide copper gold deposits worldwide, with regional sodic-calcic alteration (albite-silica), intermediate to proximal potassic alteration (potassium-feldspar and biotite), proximal iron alteration (amphibole-magnetite) and late-stage local silicification.

The sodic–calcic event was followed by potassic alteration and chloritisation. Potassic alteration characterised by potassium feldspar, biotite, magnetite, and quartz is spatially associated with sulfide mineralisation. The potassic alteration event appears to have occurred during a transition from ductile to brittle deformation. The sulfide mineralisation was late, generally cuts potassic alteration assemblages and is associated with renewed calcic alteration with a predominance of epidote and very late hydrolytic alteration characterised by sericite-quartz-hematite-calcite.

Most mineralised zones at Pedra Branca occur within breccia's that contain clasts of hydrothermally altered wall rock in a matrix of sulfides (mainly chalcopyrite) and late alteration minerals.

Sampling and sub-sampling techniques

The Pedra Branca mineralisation was sampled using diamond drill holes. Core from the drill holes were sampled on nominal one metre intervals, but intervals were adjusted where required to avoid samples crossing changes in lithology, mineralisation or alteration. Core was cut longitudinally in half with a core saw and sampled as half core, except where a field duplicate was taken, in which case quarter core was used for sampling. All samples of mineralised zones that are relevant for the Mineral Resource estimate were taken from NQ diamond drill core.

Laboratory sample preparation involved crushing to 4 millimetres, and riffle splitting to obtain a sub-sample of at least 700 grams. This sub-sample was pulverised to a nominal 95 per cent passing 106 microns. The sample preparation technique is considered to be of an acceptable quality for iron oxide copper gold style mineralisation.

Drilling techniques

Drill holes utilised either HQ size diamond or reverse circulation drill pre-collars prior to casing down to NQ size diamond drill holes in competent ground. All of the sampled intervals that are relevant for the Mineral Resource estimate were of NQ diamond drill core size.

Sample analysis method

Sample assaying for copper used an aqua regia digest and an AAS finish (Avanco drill holes), or a four acid digest and either an ICP-OES or AAS finish (Noranda/Xstrata drill holes). Check assays at an umpire laboratory using a four acid digest do not show any significant difference from copper grades determined using an aqua regia digest at the primary laboratory. Sample assaying for gold used fire assay (50g for Avanco, 30g for Xstrata/Noranda) and an AAS finish. Given the grain size and mineralogy of the samples, the methods are considered total and appropriate.

Estimation methodology

Estimation used Ordinary Kriging in Maptek Vulcan^{TM} software with estimates of Cu, Au, Ag, Ni, Co and density produced. Sample data were composited to 1m lengths and domain boundaries were treated as hard. Variography was analysed using Snowden Supervisor^{TM} software. For copper and gold, up to three estimation passes were used in mineralised domains in the East, having search ellipsoids of 80m×50m×10m, 120m×75m×15m and 240m×150m×30m. For passes one and two, a minimum of six samples and a maximum of 24 samples were allowed, with at most four samples per drill hole. For pass three a minimum of two and a maximum of 24 samples were allowed with a maximum of six samples per drill hole. For the Western zone, the search parameters were more inclusive than those for the East, to better suit the thicker zone of mineralisation in the West. To allow for variability in the orientation of mineralisation, an anisotropy model was used which varied the search ellipsoid and variogram model axes on a block-by-block basis. No specific restrictions were placed on the treatment of high-grade samples.

The maximum block size in mineralised domains was 10m(X)×5m(Y)×10m(Z). Sub-blocks to a minimum of 2.5m(X)×1m(Y)×2.5m(Z) were permitted. The size is small in relation to the typical drill hole spacing and the search ellipsoid. The block size was chosen to adequately represent the mineralised domain shapes. The block size is not intended to imply a selective mining unit size.

Resource classification criteria

The Mineral Resource estimate was classified primarily on confidence in the geological/grade continuity of the mineralisation, estimation pass and spacing of the drill hole data.

- Measured Resources were generally estimated on the first pass with sectional drill spacings of 25 to 50 metres. Drill holes were collared on section with 25-50 metre spacings dipping to the north at 50-60 degrees. Data density in these areas was sufficient to confirm geological and grade continuity between points of observation.

- Indicated Resources were generally estimated on the first or second pass with sectional drill spacings of 50 to 100m. Drill holes were collared on section with 40-60 metre spacings dipping to the north at 45-65 degrees. Data density in these areas was sufficient to assume geological and grade continuity between points of observation.
- Inferred Resources were generally estimated on the second or third pass with sectional drill spacings of 50 to 100 metres or greater. These areas often demonstrated lower data density where there was sufficient evidence to imply but not verify geological and grade continuity.

Material was classified as Measured or Indicated where it was considered unlikely that a significantly different alternative interpretation could be made about the position, thickness or orientation of the overall mineralised zone. Material was classified as Inferred where confidence in the interpreted shape of the mineralisation was low or where there was enough uncertainty to question the connectivity of mineralisation between drill holes.

Cut-off grade

The reporting cut-off for the Mineral Resource was set at a value of US$35/t Net Smelter Return (NSR). This value is approximately 80 per cent of a high-level assessment of a mining break-even which takes into account revenue from recovered copper and gold metals and offsets projected site operating and sustaining capital costs, including underground operating development. The calculation of NSR values in the resource model considers metallurgical recoveries and the copper and gold metal included in the NSR calculation have reasonable potential to be recovered and sold.

It is the Competent Person's opinion that this cut-off grade currently meets the requirements for reasonable prospects for eventual economic extraction based on current high-level cost modelling.

Mining and metallurgical methods and parameters and other material modifying factors considered to date.

Underground Mineral Resources are constrained within the limits of domained copper mineralisation wireframes. The assumed mining method is a combination of underground longitudinal and transverse stoping.

Metallurgical test work has been undertaken on numerous composite samples sourced from the Pedra Branca deposit. Material selection for test work was focused on providing a good spatial representation of mineralisation for the deposit. Bench scale test work to date has demonstrated that a conventional crushing, grinding and flotation circuit similar to that of the OZ Minerals Antas North mining operation would produce acceptable concentrate grades and metal recoveries.

Sulfide material mined from the operation will be processed in the concentrator, while waste rock will be stockpiled into an integrated waste landform adjacent to the mining operation in line with Brazilian environmental regulations. This waste landform will include containment requirements for the management of contaminated waters and sediment generation.

Feasibility level technical studies for the Pedra Branca project are ongoing and refinement of modifying factors is continuing.

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.*	Samples were taken from NQ and HQ diamond drill core, cut longitudinally in half using a core saw. All of the samples of mineralised zones that are relevant for the Mineral Resource estimate were taken from NQ diamond drill core. Mineralisation is visually identifiable in drill core. Sampled intervals were selected to capture the full mineralised zone plus an unmineralised buffer adjacent to it. Samples were typically 1m in length, but where required, lengths were adjusted to avoid samples crossing changes in lithology, mineralisation or alteration. Sub-sampling, sample preparation and assay methods are discussed in the criteria Sub-sampling techniques and sample preparation and Quality of assay data and laboratory tests below. The methods of sampling, preparation and analysis are considered to be of acceptable quality for use with iron oxide copper gold style mineralisation.
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).*	Diamond drilling used a combination of HQ and NQ. Some drill holes used reverse circulation pre-collars. Core was oriented for 28 out of 170 drill holes using a Reflex ACT II tool.
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*	Diamond core recoveries are measured by length and recorded in the database. Overall recoveries average 88 per cent in soil and saprolite and more than 99 per cent in fresh rock. Recoveries are excellent and there are no known sample recovery problems, with the exception of soil and saprolite.

Criteria	JORC Code explanation	Commentary
	fine/coarse material.	Diamond core is reconstructed into continuous runs on an angle iron cradle for recovery measurement and core orientation. Depths are checked against those marked on the core blocks, and against the drilling company's records. There is no apparent relationship between sample recovery and grade. The very high core recovery means that the effect of any bias on sample grades would be negligible even if such a relationship existed.
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.*	Drill core has been geologically logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation and colour, and geotechnically logged for RQD, fracture frequency and rock strength. Logging is considered to have appropriate detail to support Mineral Resource estimation, mining studies and metallurgical studies. Logging is qualitative in nature except for some aspects of geotechnical logging which are quantitative. Core is photographed both wet and dry. The total length logged is 54,948m, which is 97per cent of the total drilled metres. All of the mineralised intersections that are relevant for the Mineral Resource estimate have 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.*	Core samples are cut with a core saw. Half core is taken for sampling, except where a field duplicate is taken, in which case quarter core is used for sampling. Sample preparation includes oven drying, crushing to 4mm, and riffle splitting to obtain a sub-sample of at least 700g. This sub-sample is pulverised to nominally 95 per cent passing 106µm. The sample preparation technique is considered to be of an acceptable quality for iron oxide copper gold style mineralisation. Sample preparation quality control includes the use of blank samples and field duplicates. Quarter core duplicates are inserted at an approximate rate of 1

Criteria	JORC Code explanation	Commentary
		duplicate per 40 normal samples. Results showed moderate to high variability of grades in duplicate pairs. It was noted that there was moderate to high variability in duplicate sample grades, however overall the sample sizes are considered to be satisfactory for the style and type of mineralisation.
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.*	Assaying for copper uses an aqua regia digest and an AAS finish (Avanco drill holes), or a four acid digest and either an ICP-OES or AAS finish (Noranda/Xstrata drill holes). Check assays at an umpire laboratory using a four acid digest do not show any significant difference from copper grades determined using an aqua regia digest at the primary laboratory. Assaying for gold uses fire assay (50 gram for Avanco, 30 gram for Xstrata/Noranda) and an AAS finish. Given the grain size and mineralogy of the samples, the methods are considered total and appropriate. Geophysical tools and portable XRF data have not been used for Mineral Resource estimation, except to assist in geological interpretation. Assay quality control includes the use of certified reference materials, blanks, field duplicates and external (umpire) laboratory check sampling. Acceptable levels of accuracy and precision have been established.
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.*	Senior exploration geology staff have visually verified significant intersections and results. There are no twinned drill holes. Primary data is collected on Microsoft Excel templates with detailed geological and structural logging recorded on paper. Information is transferred, validated, complied, and managed by the Company's in-house database professional in a Microsoft Access database. Where assay results are below detection limit, a value of half the detection limit has been used. No other adjustments were made to assay data used in this estimate.

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.*	Collar locations have been surveyed by differential GPS or total station. For Avanco drill holes, downhole surveys have been completed using a Maxibor digital down-hole tool, or a north-seeking gyro. For Noranda/Xstrata drill holes, the survey method has not been recorded. The accuracy and quality of surveys in general is considered to be satisfactory. Notional downhole surveys were assumed for one historical drill hole because of unreliable downhole survey data. The grid system is Universal Transverse Mercator, SAD69 Zone 22 South. The whole Pedra Branca area has been surveyed on ground, survey points are nominally 30m apart, and more detailed in areas with greater relief. The quality of the topographic control is adequate for Mineral Resource estimation. The Mineral Resource does not extend up to the topographic surface.
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.*	The current drill spacing at Pedra Branca East is nominally 50m by 50m, with some of the central upper part of the deposit drilled to a nominal spacing of 50m by 25m. At depth the spacing widens to approximately 100m by 100m. At Pedra Branca West the spacing is nominally 100m by 100m, but with a subset of the deposit drilled to a nominal spacing of 50m by 50m. The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation process and classification. No physical compositing of samples has occurred. Compositing of data into 1m lengths has occurred for Mineral Resource estimation.

Criteria	JORC Code explanation	Commentary
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.*	Geology and mineralisation at Pedra Branca mostly dips to the south. Thus, the majority of drilling is angled to the north, at inclinations aimed at achieving reasonable intersection angles. The relationship between drilling orientation and mineralisation orientation is not considered to have introduced a sampling bias.
Sample security	• *The measures taken to ensure sample security.*	For Avanco drill holes, core samples are received in core trays at Avanco's secure core yard. All sampling and work on the samples is carried out within the confines of this facility. Samples are delivered by Avanco personnel directly to the laboratory in Parauapebas. The laboratory confirms receipt of the samples and advises if there is any discrepancy with the list of delivered samples. Information on sample security measures for Noranda/Xstrata drill holes is not available.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	CSA Global Pty Ltd completed a review of drilling, sampling, data and exploration management procedures in 2012, with favourable results. Xstract Mining Consultants reviewed data collection processes during 2018 but no sampling was occurring at the time of the site visit. Xstract identified what they considered medium-risk findings regarding procedural documentation, database management systems, laboratory systems, and variability of duplicate sample grades. An external review was undertaken by AMC Consultants on the current Mineral Resource estimate. In its review, AMC recognised that QA/QC protocols were in place, but considered the volume, accuracy and precision of QA/QC data to not be fully understood and that a thorough collation of all analytical methods and quality control data across the life of the project should be completed.

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.*	The Pedra Branca deposit is located in Pará, Brazil, in license 850.318/2000 which is held by Vale Dourado Mineração Ltda which is a wholly owned Brazilian subsidiary of OZ Minerals Ltd. Existing third party royalties amount to 3 per cent net smelter on copper and 25 per cent net smelter return on gold. State royalties amount to 2 per cent net smelter return on copper and 2 per cent net smelter return on gold. All tenements are granted exploration licenses. No known impediments exist to obtaining a license to operate in the area.
Exploration done by other parties	- *Acknowledgment and appraisal of exploration by other parties.*	Mineralisation at Pedra Branca was discovered in 2003 by Noranda. Noranda (then Falconbridge) was purchased by Xstrata in 2006. Avanco purchased the Pedra Branca project from Xstrata in 2012. OZ Minerals purchased Avanco in 2018. Data from the ten holes drilled by Noranda and the twelve holes drilled by Xstrata at Pedra Branca are considered to be of an acceptable quality for inclusion together with Avanco data for Mineral Resource estimation.
Geology	- *Deposit type, geological setting and style of mineralisation.*	Pedra Branca is an iron oxide copper gold deposit, hosted predominantly by mafic metavolcanic and granitic rocks.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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*	No Exploration Results have been reported in this release, therefore there is no drill hole information to report. The Mineral Resource estimate uses all of the available drill hole information.

Criteria	JORC Code explanation	Commentary
	understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No Exploration Results have been reported in this release, therefore there is no aggregated drill hole information to report.
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').*	No Exploration Results have been reported in this release, therefore there are no relationships between mineralisation widths and intercept lengths to report.
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 have been reported in this release, therefore no exploration diagrams have been produced.
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.*	No Exploration Results have been reported in this release, therefore there are no results to report.
Other substantive	• *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*	There are no other substantive exploration data of a meaningful or material nature to report.

Criteria	**JORC Code explanation**	**Commentary**
exploration data	*method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Proposed future work will consist of a combination of infill and extensional test drilling to further define and where possible close the limits of the Pedra Branca mineralisation. It would also test near mineralisation exploration opportunities, which may be identified during such works. Diagrams are included in this report (Figure 4).

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.*	The database is maintained by a database professional. A significant amount of data transcription has occurred, including assay data at the laboratory. For Avanco data, analysis for copper uses two different digestions where the grade exceeds 0.2 per cent copper, and a comparison of these data provides some confidence that the number of transcription errors is not excessive. The database was validated using a combination of database queries and visual inspection spatially on screen.
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.*	No visits to the Pedra Branca site have been undertaken by the Competent Person. This was due to no activity occurring at the project at the time the Competent Person was in Brazil. Extensive discussions relating the deposit geology and geological interpretation were conducted with the project's Principal Exploration Geologist in Parauapebas, Brazil. This included extensive review of core photography from across the deposit and associated geological sections. A major contributor to the preparation of the Mineral Resource estimate

Criteria	JORC Code explanation	Commentary
		did visit the site and was satisfied that the data collection processes were adequate for the purposes of Mineral Resource estimation.
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.*	For the East, the overall mineralised zone at a large scale is tabular in shape, and the characteristics of the hanging wall rocks, footwall rocks, and mineralised zone are reasonably consistent between drill holes. Therefore, confidence in the overall shape and limits of the mineralised zone is high, except for the extent of extrapolation along strike and down plunge. Confidence in the existence of a consistent high-grade zone on the hanging wall edge of the mineralisation is also high, although its thickness varies. Confidence in the interpreted shape of other footwall high-grade zones is lower. For the West, there are several lenses of mineralisation, and confidence in the interpretation of some of these lenses is low. Drill hole data, including assays, logging, photos and petrophysics have been used to guide the geological interpretation. Extrapolation of mineralisation beyond drilling has been assumed up to a maximum of 50m where the mineralisation is open. An alternate interpretation and estimation was completed for the Eastern zone. Localised differences in the connectivity of high-grade intercepts were noted, particularly in the footwall high-grade zones. Overall comparison of the interpretation and estimate to the final model used showed very little difference in overall tonnage and grade outcomes. Alternative interpretations could affect both the tonnes and grade of the Mineral Resource. Changing the limits of extrapolation along strike or down plunge would change the tonnage. Different approaches to constraining high-grade zones during estimation would change the grade distribution, and consequently the tonnage and average grade above a given cut-off grade. Geology has guided the choice of how mineralised domains should be

Criteria	JORC Code explanation	Commentary
		modelled. Although modelling was primarily based on copper grade, high-grade domains have been modelled by looking to match mineralisation nature, such that they are consistent with respect to the project geology team's interpretation of mineral zonation. The host shear zone is continuous in the Eastern zone. Minor post-mineralisation faulting may offset mineralisation at a smaller scale than that which can be reliably modelled using the current drill hole data. Local zones of semi-massive sulfides with high copper grades exist within the overall mineralised zone, but continuity of some of these zones between drill holes is not always obvious. Where the relationship between high-grade semi-massive intersections in adjacent drill holes zones is not reasonably clear, they have been left unconstrained within the overall mineralised zone.
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 estimated Mineral Resource extends 1700m along strike, with a 350m gap between the eastern and western lodes. Plan thickness varies between 130m in the west where there is a series of stacked vertical lenses to 20m in the east where the orebody presents as a single mineralised zone. Depth below surface to the upper limit of the Mineral Resource is 10-20m with the mineralisation extending vertically for 560m in the west and 770m in the East.
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.*	The overall mineralisation envelope was modelled using a 0.2 per cent copper cut-off grade. Within this overall mineralised zone, five high-grade zones have been modelled. The first represents the eastern hanging wall high-grade zone, which is a zone of semi-massive to disseminated sulfides, and was modelled using an approximate 2 per cent copper cut-off grade, in some cases adjusted where there was a sharp change in grade and character of the sulfides. The second, third and fourth represent small high-grade zones of semi-massive sulfides in the east near the footwall contact, modelled using a cut-off of approximately 1.5 to 2 per cent copper or where there was an obvious

Criteria	JORC Code explanation	Commentary
	- *Estimation of deleterious elements or other non-grade variables of economic significance (eg 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.*	step-change in grade. The fifth represents a medium grade zone in the west of moderate to heavily-disseminated chalcopyrite, modelled using a cut-off of approximately 1.5 per cent copper. Estimation used Ordinary Kriging in Maptek Vulcan software. Samples were composited to 1m lengths. Variography was analysed using Snowden Supervisor software. For Cu and Au, up to three estimation passes were used in mineralised domains in the East, having search ellipsoids of 80m×50m×10m, 120m×75m×15m and 240m×150m×30m. For passes one and two, a minimum of six samples and a maximum of 24 samples were allowed, with at most four samples per drill hole. For pass three a minimum of two and a maximum of 24 samples were allowed with a maximum of six samples per drill hole. The somewhat restrictive first and second pass search criteria were intended to force interpolation between drill holes, to keep the interpolation suitably anisotropic, and to avoid excessive smoothing of grade between high- and low-grade zones. For the Western zone, the search parameters were more inclusive than those for the East, to better suit the thicker zone of mineralisation in the West. To allow for variability in the orientation of mineralisation, an anisotropy model was used which varied the search ellipsoid and variogram model axis on a block-by-block basis. No specific restrictions were placed on the treatment of high-grade samples. Previous estimates were available and their approaches to estimation have been considered. A check estimate was available for the eastern zone of mineralisation. The estimate was domained independently from the final estimate and demonstrated localised differences in the connectivity of high-grade samples. Globally however there was no material difference in the estimated tonnage or grade of the check and final estimate. No mine production has occurred. It is assumed that Cu and Au would be recovered, and this is supported by metallurgical studies.

Criteria	**JORC Code explanation**	**Commentary**
		Cu, Au, Ag, Ni, Co and density were estimated. The maximum block size in mineralised domains was 10m(X)×5m(Y)×10m(Z). Sub-blocks to a minimum of 2.5m(X)×1m(Y)×2.5m(Z) were permitted. The size is small in relation to the typical drill hole spacing and the search ellipsoid. The block size was chosen to adequately represent the mineralised domain shapes. The block size is not intended to imply a selective mining unit size. No selective mining units were assumed in this estimate. Gold and density had a positive correlation with copper. These variables were estimated independently but using the same mineralisation domains, with the exception of a single high density zone of magnetite-amphibole alteration in the east. Interpreted mineralised domain boundaries were treated as hard boundaries for the purposes of Mineral Resource estimation. Grade cutting or capping was not used because the sample grade distributions within each domain were not considered sufficiently skewed for these to be required Block model validation included comparison of domain block volumes and wireframe volumes, domain mean sample grades versus block grades, swath plots, and a visual review of sample grades versus block grades. No reconciliation data is available.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis. The moisture content is assumed to be zero because the drill core is not visibly porous.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The Mineral Resource is reported above a cut-off grade of US$35/t Net Smelter Return (NSR), which is considered reasonable for an underground operation. The US$35/t Net Smelter Return takes into account revenue from copper

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>and gold metals and offsets projected site operating and sustaining capital costs, including underground operating development. This cut-off represents approximately 80 per cent of the high-level assessment of a mining break-even value. The calculation of NSR values in the resource model considers metallurgical recoveries and the copper and gold metal included in the NSR calculation have reasonable potential to be recovered and sold.

It is the Competent Person’s opinion that these methods and cut-off grades satisfy the requirements for reasonable prospects for eventual economic extraction.

Metal price assumptions and recoveries used in the NSR calculation are detailed in Table 1 and are in line with the OZ Minerals corporate economic assumptions which are released periodically each year.

Table 1: Metal Pricing and Metallurgical Recoveries
<table>
<tr><th></th><th>Assumption</th></tr>
<tr><td>Cu US$/lb</td><td>2.96</td></tr>
<tr><td>Au US$/oz</td><td>1305</td></tr>
<tr><td>Cu Recovery</td><td>90.3%</td></tr>
<tr><td>Au Recovery</td><td>71.5%</td></tr>
</table>
The recoveries specified in Table 1 are based on a projection of the life of mine forecast. All recovery determinations have used up-to-date metallurgical test work models and copper-gold ore feed mineral speciation considerations.</td></tr>
<tr><td>Mining factors or assumptions</td><td>• <i>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</i></td><td>It is assumed that the Pedra Branca deposit will be mined by a combination of underground longitudinal and transverse stoping methods.

Underground mining design and a Feasibility Study is in progress. Mining</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	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.	assumptions such as dilution and minimum mining widths will be included in the optimisation, detailed mine planning and Life of Mine plan that will be completed in the Ore Reserve estimations that are in progress.
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 been undertaken on numerous composite samples sourced from the Pedra Branca deposit, with the selected samples selected to give good spatial and mineralisation type representation of the deposit. Bench scale test work to date has demonstrated that a conventional crushing, grinding and flotation circuit similar to that of the OZ Minerals Antas North mining operation would produce acceptable concentrate grades and metal recoveries.
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.*	Bench scale flotation test work has been completed. This includes production of tailings and tailings analysis which has been fed into the tailing dam engineering design, which is in progress. Sulfide material mined from the operation will be processed in the concentrator, while waste rock will be stockpiled into an integrated waste landform adjacent to the mining operation in line with Brazilian environmental regulations. This waste landform will include containment requirements for the management of contaminated waters and sediment generation.
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.*	The water immersion method has been used for density determinations. 4,009 samples were collected from 92 drill holes drilled into the deposit. The intervals that were selected for density determination were reviewed to assess whether selection bias had occurred. Although high-density zones had been sampled more frequently than low-density zones, the results within each mineralised domain are considered representative. The mineralised material is not significantly porous, nor is the

Criteria	JORC Code explanation	Commentary
	- *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	surrounding rock. The same mineralisation domains used for copper estimation were considered to be suitable for use as constraining domains for bulk density estimation, with the exception of a single high-density zone of magnetite-amphibole alteration in the east. Estimation of density used Ordinary Kriging. Where no samples were found within the final search ellipsoid, blocks within mineralised domains were assigned a density of 2.91 and blocks in the surrounding unmineralised rock were assigned a density of 2.77.
Classification	- *The basis for the classification of the Mineral Resources into varying confidence categories.* - *Whether appropriate account has been taken of all relevant factors (ie 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.*	Classification of the Mineral Resource is primarily based on confidence in the geological/grade continuity of the mineralisation, estimation pass and spacing of the drill hole data. Material was classified as Measured or Indicated where it was considered unlikely that a significantly different alternative interpretation could be made about the position, thickness or orientation of the overall mineralised zone. Material was classified as Inferred where confidence in the interpreted shape of the mineralisation was low. At the reporting cut-off continuity in the east of the deposit was good. Cut-off continuity in the west of the deposit was lower and subsequently additional continuity restrictions were applied to ensure that appropriate reporting was achieved. Appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data and associated quality control, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). The result appropriately reflects the Competent Person's view of the deposit.

Criteria	JORC Code explanation	Commentary
Audits or reviews	- *The results of any audits or reviews of Mineral Resource estimates.*	An external review was undertaken by AMC Consultants on the current Mineral Resource estimate. In its review, AMC considered that the estimation methodology was acceptable and that the Mineral Resource classification was reasonable, given the complexity of the anisotropy and data densities and that it was appropriately classified as Measured, Indicated and Inferred Resources in accordance with the JORC Code (2012).
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 accuracy and confidence level in the Mineral Resource estimate is commensurate with that implied by the classification. Global accuracy of the Mineral Resource estimate at any given cut-off grade is sensitive to the choices that are made about how medium- and high-grade zones of mineralisation are modelled and how grade estimation is constrained. The Mineral Resource is a global estimate, but it is derived from a block model that is intended to have sufficient local accuracy to be useful for mining studies. There has been no production from Pedra Branca to compare with the estimated Mineral Resource.

Competent Person Declaration

Competent Person Statement

The information in this report that relates to Mineral Resources is based on and fairly represents information and supporting documentation compiled by Mr. Colin Lollo, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM Membership No. 225331). Mr. Colin Lollo is a full time employee of OZ Minerals Limited. He is a shareholder in OZ Minerals Limited and is entitled to participate in the OZ Minerals Performance Rights Plan.

Mr. Colin Lollo 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' (JORC 2012). Mr. Colin Lollo consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr. Colin Lollo BSc (Geology) has over 20 years of relevant experience as a geologist including over ten years in iron oxide copper gold style deposits.

This Mineral Resource Statement has been compiled in accordance with the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

Colin Lollo
Principal Geologist - Brazil
OZ Minerals Limited

Contributors

- Overall
  - Colin Lollo, OZ Minerals Limited
- Data Quality & Geological Interpretation
  - Bruce Whittaker, Colin Lollo - OZ Minerals Limited
- Estimation & Technical Review
  - Colin Lollo, Bruce Whittaker - OZ Minerals Limited

Mr. Colin Lollo is responsible for Mineral Resource classification but has relied on, and checked and reviewed, data and advice from OZ Minerals geologists regarding data quality, interpretation and estimation.