

Pedra Branca

2019 Mineral Resource Statement and Explanatory Notes as at 25 March 2019

and

2019 Ore Reserve Statement and Explanatory Notes as at 15 November 2019

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Summary

The Pedra Branca March 2019 Mineral Resource was estimated at 19 million tonnes of copper mineralisation grading 1.6 per cent copper and 0.4 grams per tonne gold and is rereported here from the Mineral Resource estimate released on 11th July 2019¹, noting that the Mineral Resources are inclusive of the Ore Reserves.

The Pedra Branca November 2019 Ore Reserve has been estimated at 5 million tonnes of ore grading 2.1 per cent copper and 0.5 grams per tonne gold and is the maiden Ore Reserve declared for Pedra Branca.

A summary of the estimates are presented in Table 2 and Table 1 below.

Table 2: Mineral Resource Estimate as at 25 March 2019²

	Category	Tonnes (Mt)	Cu (%)	Au (g/t)	Cu (kt)	Au (koz)
	Measured	2.3	1.6	0.5	37	35
Pedra Branca East	Indicated	9.2	1.7	0.5	160	140
US\$35/t NSR3 cut-off	Inferred	1.7	2.0	0.5	34	28
	Subtotal	13	1.7	0.5	230	200
	Indicated	2.4	1.4	0.4	32	28
Pedra Branca West US\$35/t NSR4 cut-off	Inferred	3.1	1.2	0.4	38	41
03\$33/tN3K* Cut-011	Subtotal	5.5	1.3	0.4	70	69
	Measured	2.3	1.6	0.5	37	35
Total	Indicated	11	1.6	0.4	190	160
Total	Inferred	4.8	1.5	0.4	72	69
	Total	19	1.6	0.4	300	270

Table 3: Ore Reserve Estimate as at 15 November 2019⁵

	Tonnes (Mt)	Cu (%)	Au (g/t)	Cu (kt)	Au (koz)
Proved	1.1	1.9	0.6	21	20
Probable	3.9	2.1	0.5	83	69
Total	5.0	2.1	0.5	104	89



¹ See OZ Minerals announcement titled "Pedra Branca 2019 Mineral Resource Statement and Explanatory Notes As at 25 March 2019", released on 11 July 2019 and available at: www.ozminerals.com/operations/resources-reserves/

² Table subject to rounding errors

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

⁴ Net smelter return (NSR) details can be found under Section 3 "Cut-off parameters" in the attached JORC Table 1 documentation

⁵ Table subject to rounding errors

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 OZ Minerals Brazil 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.

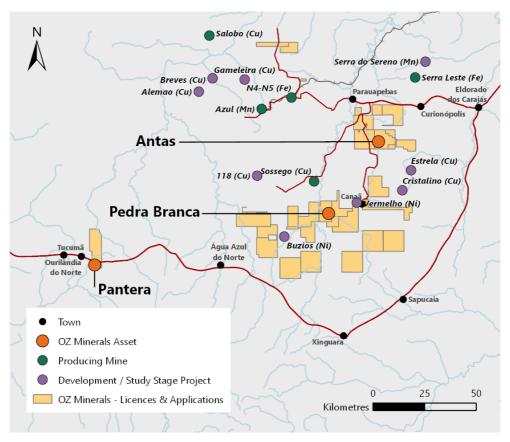


Figure 1: Local map showing OZ Minerals Carajás tenement portfolio⁶ and surrounding mineral deposits, townships and infrastructure.

⁶ Option exercised to acquire Pantera advanced copper exploration project from VALE METAIS BÁSICOS S.A. (Vale). See OZ Minerals announcement titled "Carajás Hub strategy gains pace" released on 28 November 2019 for detail on the terms and conditions of the option agreement. The announcement is available at: www.ozminerals.com/media/asx/



PEDRA BRANCA ORE RESERVE STATEMENT AS AT 15 November 2019

Ore Reserve Summary

The Pedra Branca Project studies have been updated to at least a Pre-Feasibility Level with limited elements at Feasibility level. The project design is now based upon a mine and pre-concentration facility at the Pedra Branca site with the pre-concentrate being transported and concentrated in the existing Antas operation's flotation plant.

The implementation of the mine and pre-concentration facilities at the Pedra Branca site and the transport of the pre-concentrate to the Antas plant simplifies implementation requirements and reduces environmental impacts and capital allocation, decreasing project threats.

The project targets a ~1.0 Mtpa production rate, planned to be achieved in the 3rd year after implementation as announced simultaneously with this release.⁷

A proportion of the production target and forecast financial information derived from a production target set out in the Feasibility Study Update is based on Inferred Mineral Resources (approximately 12%). There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of indicated resources or that the production target itself will be realized.

The high-quality rock masses that make up the footwall and hanging wall together with favorable orebody geometry supports the use of long hole mining methods in sublevel layouts. Thus, this mining method was selected and is deemed suitable for all portions of the orebody. Stoping with rock backfill will be applied in bench stoping bottom up configurations with the pre-concentration tailings and development waste rock used as backfill. Stope mining will be via long hole drill and blast. Blasted ore will be reclaimed by teleremote controlled LHDs with ore production trucked to surface by articulated trucks.

The ramp box cut was completed in 2016 and much of the initial infrastructure to resume its excavation is already in place. The pre-concentration plant and the remainder of the support facilities and administrative buildings will be constructed concurrently with the decline and lateral development excavation.

The information required under ASX Listing Rule 5.9.1 in relation to the Pedra Branca November 2019 Ore Reserve is included in the release entitled "Pedra Branca Project, Feasibility Study Update Report" (FSU Report), which was released simultaneously with this Explanatory Statement. This Explanatory Statement should be read in conjunction with the FSU Report⁸.

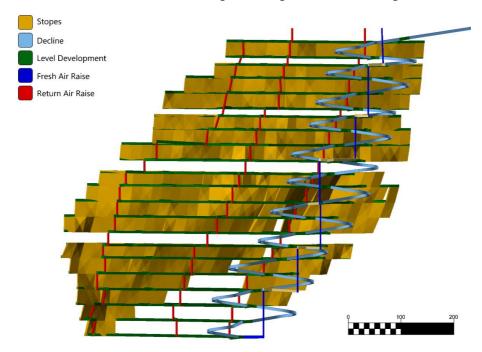
⁸ As above





⁷ The information initially appeared in the OZ Minerals announcement titled "Pedra Branca Project Feasibility Study Update Report" released on 28 November 2019 and available at www.ozminerals.com/media/asx. OZ Minerals confirms that all the material assumptions underpinning the production target in the original market announcement continue to apply and have not materially changed.

Figure 2: Details of the mine and infrastructure design in a longitudinal view looking south.





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 	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
	whether sample bias may have occurred due to preferential loss/gain of 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. 	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.
	The total length and percentage of the relevant intersections logged.	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	 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. 	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.
and sample preparation	 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 	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.
	duplicate/second-half sampling.Whether sample sizes are appropriate to the grain size of the material	Sample preparation quality control includes the use of blank samples and field duplicates.
	being sampled.	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 inhouse 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.
Orientation	Whether the orientation of sampling achieves unbiased sampling of	Geology and mineralisation at Pedra Branca mostly dips to the south.

Criteria	JORC Code explanation	Commentary
of data in relation to geological structure	 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. 	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 March 2019 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	No Exploration Results have been reported in this release, therefore there is no drill hole information to report.
	for all Material drill holes:	The Mineral Resource estimate uses all of the available drill hole information.
	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	

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 mineralisatio n 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 exploration	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
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.

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 did visit the site and was satisfied that the data collection processes were adequate for the purposes of Mineral Resource estimation.
Geological interpretatio n	 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.

Criteria	JORC Code explanation	Commentary
		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.
		Geology has guided the choice of how mineralised domains should be 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

Criteria	JORC Code explanation	Commentary
		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. 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. 	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 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, an anisotropy model was used which varied the search ellipsoid and variogram model

Criteria	JORC Code explanation	Commentary
		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.
		Cu, Au, Ag, Ni, Co and density were estimated.
		The maximum block size in mineralised domains was $10m(X)\times5m(Y)\times10m(Z)$. Sub-blocks to a minimum of $2.5m(X)\times1m(Y)\times2.5m(Z)$ 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

Criteria	JORC Code explanation	Commentary
		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 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 3. These are based on the OZ Minerals February 2019 corporate economic assumptions.
		Table 3: Metal Pricing and Metallurgical Recoveries
		Assumption Cu US\$/lb 2.96 Au US\$/oz 1305 Cu Recovery 90.3%

Criteria	JORC Code explanation	Commentary
		Au Recovery 71.5% 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.
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.	The Mineral Resource for Pedra Branca is reported on an undiluted basis. It is assumed that the Pedra Branca deposit will be mined by sublevel stoping in longitudinal layouts where mining will start at the base of panels and progresses laterally and upwards in a bottom-up sequence. A minimum mining width of 2 metres is assumed with a minimum 6 metre pillar width between adjacent stopes in parallel lenses. Mining recovery is assumed at 90 percent to account for the rib pillars and ore losses. Dilution for stopes is assumed as an envelope obtained from the expansion of the stope walls for 0.5 m out towards each host rock. Development dilution is an assumed at 15 percent additional tonnes at a zero grade.
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 performed on composite samples sourced from Pedra Branca, with the selected sampling giving good spatial and mineralisation representation of the deposit. Bench scale test work demonstrated that a pre-concentration in Pedra Branca and further transport of the pre-concentrate to the Antas plant for conventional crushing, grinding and flotation will produce acceptable concentrate grades and metal recoveries. Additional preconcentration studies will be undertaken to refine mass rejection, recovery assumptions and costs. Metal recovery estimates are based on test work as at March 2019. Copper recovery is estimated via an equation with the life of mine average 90.3% and Gold recovery estimated at 71.5%.
Environmen-	Assumptions made regarding possible waste and process residue	Bench scale flotation test work was completed, including the production

Criteria	JORC Code explanation	Commentary
tal factors or assumptions	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	of tailings and their characterization, which was fed into the tailings dam engineering studies. Studies are advanced to allow for the use of the existing Antas tailings dam for some of the final tailings early in the production profile. Sulfide material mined from the operation will be processed in the concentrator, while a waste rock deposit will be established near the
	ovnlanation of the environmental accumptions made	portal to accommodate development waste with adequate containment for the management of any potential contaminated water or sediment generation, according to legislation.
		The pre-concentration tailings will preferentially be used as backfill in the mine. Any excess pre-concentration tailings that will not be disposed in the mine as backfill will be disposed of in the waste deposit.
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 surrounding rock.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	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	Classification of the Mineral Resource is primarily based on confidence in

Criteria	JORC Code explanation	Commentary
	 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. 	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.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	An external review was undertaken by AMC Consultants on the March 2019 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 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.

Criteria	JORC Code explanation	Commentary
	 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 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.

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 Mineral Resource estimate was compiled by Bruce Whittaker and Colin Lollo, full time employees of OZ Minerals Limited. Colin Lollo BSc. (Geol), MAusIMM who is the Competent Person for Mineral Resources has over 20 years' experience as a geologist in exploration, resource development and mining which includes over ten years in Iron-Oxide-Copper-Gold style deposits and resource estimation of precious metal deposits.
		The details of the development of the Mineral Resource estimates are described above and in the preceding tables.
		The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce 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 visited the Pedra Branca (mine) and the Antas (plant) sites in July 2019.
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 Ore Reserve estimates are based on a Pre-Feasibility level study with limited elements at Feasibility level, whereby legal, permitting, environmental and social aspects were addressed, geology and Mineral Resource estimates were produced, geotechnical and hydrogeological aspects were evaluated and metallurgical performance and marketing were also assessed, a mine plan was produced with the required detail for design and scheduling to complete the definition of the Modifying Factors. The production plan, revenue and costs for capital and operation were brought to a financial analysis, rendering positive economic results.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	The cut-off used in the Ore Reserve estimate is based on a Net Smelter Return (NSR), revenue in USD/tonne terms with provision for the feed grade, recovery, freight and commercial terms for treatment and refining

Criteria	JORC Code explanation	Commentary
		charges.
		The assumptions for metal prices, metallurgical recoveries (as at July 2019) and royalties used are shown in Table 4 :
		Table 4: Assumptions for metal prices, recoveries and royalties
		Variable Unit Value
		Metal Prices
		Cu US\$/lb 2.94
		Au US\$/oz 1,246_
		Recovery
		Pre-concentration mass 43.3%
		recovery
		Cu Recovery (%) 90.8% Au Recovery (%) 69%
		The block model was coded with NSR values and mineable stopes were defined for different production rates and NSR cut-off grades to define the Ore Reserves cut-off grade in a 'Hill of Value' exercise whereby the NSR cut-off grade was defined as USD \$50/tonne. Development ore was generated above a breakeven non-mining cost of US\$7.14 NSR/ tonne. The metal recoveries are based on a projection of the life of mine forecast and were based on metallurgical test work models.
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 	The Mineral Resource was converted to the Ore Reserve after stope optimization with a NSR USD \$50 /tonne cut-off and further detailed design, scheduling and local financial analysis to exclude uneconomical zones. For determining the Ore Reserve estimate, value from Measured and Indicated Mineral Resources only was utilised, with Inferred Resources assigned zero NSR value but with their corresponding mining costs

Criteria	JORC Code explanation	Commentary
	slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit	retained. A minimum 60% combined Measured and Indicated Mineral Resource was required for the stope shape to be included.
	 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. 	The proposed mining method is sublevel stoping in longitudinal layouts with backfill in bench stoping configurations where mining starts in the base of the panels and progresses laterally and upwards in a bottom-up sequence. Backfill will be a combination of waste from development and tailings from the pre-concentration plant.
		Detailed geotechnical logging and mapping, empirical design method applications and numerical stability analysis were completed as part of the studies. Geomechanical considerations defined the suitability of the mining method, backfill recommendations, as well as the sill pillar and rib pillar design and rock reinforcement recommendations for the underground excavations.
		The stope optimization was run with minimum mining widths as of 2 m and minimum 6 m wide pillars between adjacent stopes in parallel lenses. Mine design was detailed accordingly for infrastructure and ore development.
		A 90% mining recovery factor was applied to the stoping tonnage to account for the rib pillars (8% of the tonnage) and ore losses (2%).
		For the mine plan and ore recovery, sill pillars were excluded.
		Planned dilution for stoping was defined within the stope optimization shapes. Non-planned dilution for the stopes was estimated as an envelope obtained from the expansion of the stope walls for 0.5 m out towards each host rock, taking the corresponding metal content obtained from the block model into account. No further dilution was considered for the mining of the ore in the stopes. Development dilution was estimated at a flat 15% for the ore drives and crosscuts at zero grade. The overall dilution was 18%.
		Detailed infrastructure design was completed upon the mine design to

Criteria	JORC Code explanation	Commentary
		address the required mine ventilation, mine dewatering, power supply, controls, and communication requirements.
		Additional stopes containing Mineral Resource and diluting material are planned to be mined in conjunction with the Ore Reserve, which represents an additional ~1.4Mt @1.8% copper and 0.5g/t. Future grade control drilling will target these stopes. Financial analysis of the Ore Reserve only, exclusive of these stopes, demonstrated positive economic results.
		Grade control definition is assumed to consist of underground diamond drilling and geological development mapping. Broken material sampling (development and stope) is also assumed to support the mine operations process. Grade control diamond drilling is planned to be undertaken from footwall development stockpiles and drilling platforms targeting the orebody mineralisation at approximate 25 metre by 25 metre centres. Drilling is assumed to be completed approximately 6-9 months ahead of scheduled stope mining and costed in the financial analysis.
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 	IOCG deposits such as Pedra Branca are amenable for the production of copper and gold concentrates via conventional and well-established flotation routes that will take place in the existing Antas plant.
	 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 	Pedra Branca will additionally have a pre-concentration circuit to take advantage of ore upgrading, lowering transport requirements, environmental impacts and costs, and allowing the use of the existing Antas plant for minimal capital. Preconcentrate tailings will contribute to mine rockfill requirements.
	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	Metallurgical test work has been performed on composite samples sourced from Pedra Branca, with the selected sampling giving good spatial and mineralisation representation of the deposit.
	estimation been based on the appropriate mineralogy to meet the specifications?	Bench scale test work demonstrated that a pre-concentration in Pedra Branca and further transport of the pre-concentrate to the Antas plant

Criteria	JORC Code explanation	Commentary
		for conventional crushing, grinding and flotation will produce acceptable concentrate grades and metal recoveries. Additional preconcentration studies will be undertaken to refine mass rejection, recovery assumptions and costs.
		The current plant capacity at Antas is ~0.8 Mtpa, sufficient to accommodate the Pedra Branca pre-concentrate feed without significant capital expansions.
		Metal recovery estimates are based on test work: Copper recovery is estimated via an equation with the life of mine average ~91% and Gold recovery estimated at ~69%.
		Treatment and refining charges for the concentrate reflect average industry commercial terms and conditions, according to the concentrate quality. Additional analysis relating to concentration quality is ongoing to confirm current assumptions of low deleterious elements.
Environmen- tal	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	The Pedra Branca preliminary licence (Licence for Operation and Exploration, in Portuguese, <i>Licença de Operação e Pesquisa</i> , <i>LOP</i>) was granted in October 2018. The implementation licence (<i>LI</i>) documentation was submitted in July 2019 and the licence is expected to be granted in the first half of 2020. The operational licence (<i>LO</i>), is only granted once operations are constructed and is also expected in the first half of 2020.
		A trial mining license is already in place which enables decline construction to begin (waste mining) along with the annual production of 4,000 tonnes of ROM ore, to be processed through the Antas plant. This license is renewed annually.
		The transport of the pre-concentrate from Pedra Branca to the Antas plant might be subject to specific licensing conditions.
		A waste dump will be established in Pedra Branca near the portal to accommodate development waste with adequate containment for the management of any potential contaminated water or sediment

Criteria	JORC Code explanation	Commentary
		generation, according to legislation.
		The pre-concentration tailings will be used as backfill in the mine. Any excess pre-concentration tailings that will not be disposed in the mine as backfill will be disposed in the dump.
		Bench scale flotation test work was completed, including the production of tailings and their characterization, which was fed into the tailings dam engineering studies. Studies are advanced to allow for the use of the existing Antas tailings dam for some of the final tailings early in the production profile.
		Preliminary engineering studies were positive for utilising the Antas open pit for longer term storage, with engineering studies progressing, minimizing the footprint and anticipating pit closure requirements and timing. Preliminary investigations indicate limited additional licensing requirements to utilize the Antas pit for these activities (subject to further licensing and landowner agreements).
		Flotation tailings composites from two separate test work programs were subjected to SGS Environmental Characterization and Solid Waste Classification. Both composites were classified as ABNT – NBR10006 Class IIB (Not Dangerous – Inert) Non-corrosive, Non-acid generating, Non-reactive. Waste rock samples are being selected and prepared for similar testing. Based on the results of the flotation tailings, it is expected the results will be similar in nature.
Infrastructur e	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 Project is located in the Carajás mineral district in Brazil where regional infrastructure was first established in the late 1980s and has been increasing in size and quality ever since. Large iron ore and base metals mines are operated in the region, which has access to water, power, transport, accommodation and communications as well as to a number of services and goods suppliers who are well established.
		The educational levels and skills of the local human resources has

Criteria	JORC Code explanation	Commentary
		improved, though part of the specialized workforce still has to be attracted to the region and hired from elsewhere in Brazil.
		As for the site infrastructure, the implementation of the Mine and pre- concentration facilities at the Pedra Branca site and the transport of the pre-concentrate to the Antas plant simplifies implementation requirements and rationalizes environmental impacts and capital allocation, decreasing project threats.
		The underground mine infrastructure at the Pedra Branca site consists of the power supply (site access already in place), mine ventilation, mine dewatering and control and communications systems. The surface industrial facilities will consist of the decline portal, the waste dump, the pre-concentration plant and other auxiliary facilities.
		The ramp box cut was completed in 2016 and much of the infrastructure to resume its excavation is already in place. The pre-concentration plant and the remainder of the support facilities and administrative buildings can be built concurrently with the ramp and development excavation.
		The pre-concentrate will be transported for approximately 75 km from Pedra Branca to Antas at a rate of approximately 0.4 Mtpa via existing roads, with two by-passes to be used around nearby communities to accommodate traffic (one already in place).
		The final copper concentrate from Antas is modelled to be transported in containers via national roads to the port of Vila do Conde in Pará (as per current Antas mine concentrate).
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital and operational costs were produced in the Pre-Feasibility level engineering studies based on a majority of firm quotes.
	 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. 	Pre-production capital costs include allowances for mine development, underground infrastructure, mine equipment, surface infrastructure, plant, associated indirect costs and contingency (between 10% and 20% according to estimate confidence). Sustaining capital considered the

Criteria	JORC Code explanation	Commentary	
penalties for failure to meet specification, etc.	The allowances made for royalties payable, both Government and	remaining underground mine development and in requirements, along with nominal sustaining requirements closure costs	
	private.	Operational costs were also estimated in the Pre-lengineering studies as shown in Table 5 :	Feasibility level
		Table 5: Operational costs estimates	
		Item (Costs USD/t ROM)
		Mine	23.6
		Pre-concentration plant (Pedra Branca)	2.2
		Transport of ore or pre-concentrate to Antas plant	3.1
		Plant (Antas)	7.0
		Overhead costs	5.8
		_Total	41.7
		NSR elements including treatment and refining charges and adjustments for deleterious elements are from the OZ Minerals corporate economic assumptions. These economic assumptions are generally derived from relevant industry references such as analyst forecasts and industry commercial terms for similar products. The exchange rate for capex and opex estimates was estimated at 3.71 USD/BRL, according to OZ Minerals corporate assumptions based upon consensus values. Transport charges are derived from quotations for the transport of the	
		the concentrate are based on the Antas' mines tell Vila do Conde, PA to international destinations.	ort duties and freight of
		Royalties payable to government and private roya	lties are detailed below:

Criteria	JORC Code explanation	Commentary
		Cu Royalties
		State & Federal royalty % 2.0%
		Landowner royalty % 1.0%
		Investor royalty % 2.0%
		Au Royalties
		State & Federal royalty 1.5%
		Landowner royalty % 1.0%
		Investor royalty % 25.0%
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. 	Detailed feed grades were derived from the mine plan. Financial assumptions, metal prices, exchange rates and NSR elements, treatment and refining charges are from the OZ Minerals corporate economic assumptions. These economic assumptions are generally derived from relevant industry references such as analyst forecasts and industry commercial terms for similar products.
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. 	The copper concentrate is modelled to be sold on the open concentrate market to a range of international customers. The cost of sales includes the transport costs from mine to customer, the smelter treatment and refining charges and any commercial adjustments for deleterious elements. The smelter treatment and refining charges are typically negotiated on an annual basis directly with customers with regard to industry benchmark terms. Revenue is determined by the metal content, metal payable scales negotiated for the product and price assumptions.
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. 	A full financial analysis was produced for the Pre-Feasibility level study, rendering a positive net present value. Metal prices forecasts and revenue assumptions are detailed in Table 4. Capital costs estimates were utilised along with operational costs estimates detailed in Table 5. The project Net Present Value (NPV) is mostly sensitive (at +/-25%) to

Criteria	JORC Code explanation	Commentary
		the metal prices for Copper and Gold and the metallurgical recoveries, also, to a lesser extent, to the exchange rate fluctuations, the operational costs and the capital costs.
		Gross revenue was estimated based on production schedule yearly quantities, grades and metallurgical recoveries, at an average price of US\$ 6,547/tonne for copper and US\$ 1,258/oz for gold.
		A discount rate of 10% was used in the analysis.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	No further licenses than those indicated under the Environmental section are believed to be contingent to the project implementation.
		The Pedra Branca Project is fully contained on a freehold cattle-grazing property with secure tenure for OZ Minerals. The area is in an established mining region, which includes a number of well-established operating mines. Local towns and cities provide support services for the mining operations. The mines are one of the major employers of the region and are well supported by the populace and the municipalities.
		The Pedra Branca Project is located within the municipality of Agua Azul do Norte, and approximately 25 km from the city of Canaã dos Carajás and 70 km from the city of Parauapebas. The workforce will be mainly sourced from the local population that reside in these towns, supplemented by some experienced external operational and technical staff as required.
		The social impact of the project will be positive in the provision of additional job opportunities and the training in underground mining skills. With a workforce in excess of 400, this will not only provide direct employment, it will also stimulate the local economies creating a number of indirect employment and business opportunities as well.

Criteria	JORC Code explanation	Commentary
on the est	 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 	The project is on track for its implementation in 2020 and all of governmental agreements and approvals that are still under consideration and critical to its implementation are expected to be received in a timely fashion. The project configuration has changed since the application of the environmental licences with the pre-concentration at Pedra Branca and final concentration in Antas. Consultations with the local community leaders has begun to explain the changes in the project. There is a low risk of unplanned impacts to the license schedule or requests for additional compensation.
	extraction of the reserve is contingent.	The transport of the pre-concentrate from Pedra Branca to the Antas plant might be subject to specific licensing and there is a risk that a public hearing might be needed, delaying licensing the process.
		Findings from the test work from the upcoming excavation of the decline, ore development and bulk sampling might result in changes for the pre-concentrate tailings and final tailings disposal.
		As the final tailings will be disposed at the Antas site, any delays on the approvals for the licensing of tailings disposal at Antas might impact Pedra Branca ore production.
		The project financial outcomes are dependent on the exchange rate fluctuations: since costs are mostly in Brazilian Reais and revenues are in US Dollars, a US Dollar devaluation can produce negative impacts on of the project economic results.
		The project financial outcomes are impacted by tax benefits (SUDAM incentive). There is a risk related to application timing and granting of these benefits.

Criteria	JORC Code explanation	Commentary
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 estimates are based on the Mineral Resource estimates classified as Measured and Indicated after consideration of all modifying factors such as legal, environmental, geological, geotechnical, mining, metallurgical, social, economic and financial aspects. All Proved Ore Reserves were derived from the Measured Mineral
		Resources and all Probable Ore Reserves were derived from the Indicated Mineral Resources.
		The Ore Reserve classification reflects the Competent Persons' view of the deposits.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	AMC Consultants Pty Ltd conducted an independent, external review of the Ore Reserve estimate, including the supporting Pre-Feasibility study documentation. In its review, AMC concluded that the estimation methodology was acceptable, the Ore Reserve estimates were reasonable and that the Ore Reserves are appropriately classified as Proved and Probable Reserves 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 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 Ore Reserve estimate is supported by appropriate legal and environmental considerations as well as engineering design, scheduling, and financial analysis meeting the requirements of a pre-feasibility level study. The Ore Reserve estimate consists of 20% Proved and 80% Probable Ore
	 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 	Reserves (subject to rounding). No statistical procedures were carried out to quantify the accuracy of the Ore Reserve estimate.
	relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific	Following the Mineral Resource, the Ore Reserve is a global estimate, derived from a block model that has sufficient local accuracy to be used for the mining studies and the derivation of the Modifying Factors to a

Criteria	JORC Code explanation	Commentary
	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.	Pre-Feasibility level. A number of the modifying factors, including mining dilution, geotechnical parameters, NSR cut-off and metallurgical test work assumptions are subject to further refinement in additional studies and may influence the accuracy of the Ore Reserve. Particularly, the findings of the upcoming underground excavation and bulk sampling and metallurgical test work program anticipated for the Feasibility Study, may affect the current estimates for the Modifying Factors. There has been no production from Pedra Branca to reconcile estimates to actual production data.

Competent Person Declaration - Mineral Resources

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 (AuslMM 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
 - o Colin Lollo, OZ Minerals Limited
- Data Quality & Geological Interpretation
 - o Bruce Whittaker, Colin Lollo OZ Minerals Limited
- Estimation & Technical Review
 - o 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.



Competent Person Declaration - Ore Reserve

Competent Person Statement

The information reported on the Ore Reserve is based on and fairly represents information and supporting documentation compiled by Mr. Ruy Lacourt, mining engineer, MSc, a Competent Person as a Registered Member of the Society for Mining, Metallurgy and Exploration, Inc. (SME), in the United States of America (SME 4172669RM). Mr Lacourt is an independent consultant mining engineer at LoM Consultants, Brazil, and does not have any direct interest in OZ Minerals or its Avanco assets, and does not beneficially own, directly or indirectly, securities of OZ Minerals.

Mr Lacourt 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 Lacourt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Lacourt has over 32 years of experience as a mining engineer, including over 15 years in project development for gold and base metals mines and over 20 years as an underground geotechnical engineer, mining engineer and manager in metalliferous mining.

This Ore Reserve 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).

Ruy Lacourt Rodrigues Consultant mining engineer LoM Consultants

Contributors

- Legal and permitting, Environmental
 - o Luis Azevedo, FFA Legal
- Geomechanical support
 - o Gabriel Rezende Freire, LoM Consultants
- Metallurgical test work and process design
 - o Wayne Philips, OZ Minerals Limited
- Mine Infrastructure, costs estimates
 - o Wagner Lourenço, Mineset consultants
- Tailings and waste dumps engineering design
 - o Antônio Landi Borges, GeoHydroTech

Ruy Lacourt is responsible for the Ore Reserve estimate and relied on, checked and reviewed, data and advice from OZ Minerals and its experts.

