ASX Release
13 July 2015

PEDRA BRANCA RESOURCE UPGRADE DELIVERS SUBSTANTIAL INCREASE IN BOTH CONTAINED COPPER AND CONFIDENCE

The Company is pleased to announce that the updated JORC Reported Mineral Resource at the Pedra Branca[1] Project **shows a global increase of 18% or ~70,000 tonnes of contained Copper.** This has been achieved in conjunction with a **significant improvement in resource confidence.**

HIGHLIGHTS

- **Results exceed management's target of converting >50% of Resources to the Indicated Resource Category.**
- **Substantially more Copper has been defined and further resource upside identified along strike at Pedra Branca East**
- **Cognisant of mining economics, this resource upgrade has been prepared using a 0.9% Copper Resource cut-off. The exercise clearly illustrates the high grade nature of the project as per below:**

Pedra Branca EAST Mineral Resources July 2015 Grade Tonnage Reported above a Cut-off Grade of 0.9% Cu						
DEPOSIT	**Category (%)**	**Million (Mt)**	**Cu (%)**	**Au (ppm)**	**Cu Metal (t)**	**Au Metal (Oz)**
PB East	Indicated - **70%**	7.96	2.81	0.63	224,000	160,000
	Inferred - **30%**	3.43	2.70	0.61	92,000	67,000
Total		**11.39**	**2.78**	**0.62**	**316,000**	**227,000**
Pedra Branca WEST Mineral Resources July 2015 Grade Tonnage Reported above a Cut-off Grade of 0.9% Cu						
DEPOSIT	**Category (%)**	**Million (Mt)**	**Cu (%)**	**Au (ppm)**	**Cu Metal (t)**	**Au Metal (Oz)**
PB West	Indicated - **62%**	4.46	2.04	0.61	91,000	87,000
	Inferred - **38%**	2.74	1.72	0.56	47,000	49,000
Total		**7.19**	**1.92**	**0.59**	**138,000**	**136,000**
Pedra Branca Total		**18.58**	**2.45**	**0.61**	**454,000**	**363,000**

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ASX Symbol: AVB

- **Contrasting with the Company's Antas North Project (currently under construction), Pedra Branca contains three times more Copper at a comparable 2.45% Copper grade**
- **Geotechnical drilling is well advanced – visually the rock quality is considered very good**
- **Step-out drilling on the Pedra Branca East extension to follow is aimed at increasing near surface resources**
- **Pedra Branca is also open down plunge, representing future resource growth opportunities**

STAGE 2 – PEDRA BRANCA COPPER PROJECT

Pedra Branca is the Company's second and much bigger copper project located 50km southwest of Antas North (Stage 1). An infill drilling programme of eleven holes, for 4,192m of diamond drilling was completed.

Results in the infill 50m by 50m programme were consistent with grades observed in earlier results and mineralised widths at Pedra Branca West in the predominantly 100m by 100m spaced drilling. At Pedra Branca East results confirmed or improved on previous mineralised widths in the centre of the orebody resulting in a significant increase in tonnes and highlighted a continuation of the orebody along strike to the East. See the table below for comparison with the previous June 2103 JORC Reported Resource.

Comparison of Results to Previous JORC Reported Resource

Deposit	PB EAST Mineral Resources July 2015			PB EAST Mineral Resources June 2013			Comparison		
	Tonnes (Mt)	Grade (Cu %)	Cu Metal (Kt)	Tonnes (Mt)	Grade (Cu %)	Cu Metal (Kt)	Tonnes	Grade (Cu %)	Cu Metal (t)
PB East	11.39	2.78	**316**	8.63	2.78	**240**	+32%	0%	+32%
PB West	7.19	1.92	**138**	8.12	1.77	**144**	-11%	+8%	-4%
TOTAL	**18.58**	**2.45**	**454**	**16.75**	**2.29**	**384**	**+11%**	**+7%**	**+18%**

The increase in resources was principally from the higher grade Pedra Branca East deposit (+32% increase in tonnes with no change in grade, resulting in a 32% increase in contained Copper).

At Pedra Branca West, although there was a marginal drop in tonnes (-11%), much more importantly was an uplift in grade which increased by 8%.

On the eastern edge of Pedra Branca East, results from APBD-15-39 illustrate that the orebody and its high grade core (18.80m^2 at 2.89% Cu, 0.89g/t Gold from 453.00m^2) is open along strike, highlighting the potential for further resource growth and strongly justifies additional drilling.

A Scoping Study is progressing and will lead to a "Decision to Mine" before year end with the Pre-Feasibility Study to be finished in Quarter 1, 2016. In determining mining methods, the "Decision to Mine" will produce estimates of mineable tonnes and grade (JORC Compliant Reserves), define CAPEX and OPEX and provide valuable information for the subsequent Pre-Feasibility Study. The PFS will benefit from robust information's gleaned from the proximal Antas Project.

All results from the drilling programme are shown in the table below.

Given that the economic mining grade proven in Reserves calculations at Antas North is 0.65%, management considers a 0.9% Cu cut-off grade to be more appropriate. This cut-off reflects economics associated with the probable selection of underground mining methods for Pedra Branca

Tony Polglase
Managing Director

Drill Rig at Pedra Branca - APBD-15-40

View looking along the strike of Pedra Branca East

ABOUT AVANCO

- Avanco (ASX-AVB) is an emerging mid-tier copper company situated in the mining friendly world class Carajas Mineral Province, Brazil

- The Carajas hosts the world's greatest concentration of large tonnage IOCG[1] copper gold deposits and Avanco either owns, or holds the rights to 100% of the second largest area of mineral tenure in the region (behind Vale SA)

- The Company is ultimately well positioned to potentially operate a number of high grade, low cost copper/gold mines in the region which will establish Avanco as a profitable long life producer throughout a period of expected increasing copper pricing

- The Antas Copper Mine (Stage 1) is Avanco's first mine development. It was granted a full Mining License in September 2014 and has JORC Reported Ore Reserves (Proved + Probable) of 2.649 million tonnes at 3.19% copper and 0.66gpt Gold for 84,518 tonnes of contained copper and 56,277 ounces of Gold at a 0.9% Cu cut-off

- Project funding is in place for Stage 1 construction, and management believes is sufficient to see the Antas Copper Mine into production. All key licenses/land agreements are in place

- Pedra Branca, known as Stage 2, is located in the same district as Stage 1. This represents the Company's next project and is considerably larger. Infill drilling, aimed at improving Resources classification to facilitate "a decision to mine" has been completed

- The Company has well supported by major institutional shareholders: Glencore, Blackrock World Mining Trust, Appian Natural Resources Fund and Greenstone Resources

- Avanco is managed by a highly experienced international and Brazilian mining professionals, most of whom are Portuguese speaking

- Whilst near term priorities are focussed on transition to copper producer status and resource growth, Brazil offers significant opportunities to enhance shareholder value within its existing portfolio and any acquisitions that may be presented

CARAJAS - TOTAL JORC Reported Mineral Resources[3,4,5,6]						
DEPOSIT	**Category**	**Million Tonnes**	**Cu (%)**	**Au (ppm)**	**Copper Metal (T)**	**Gold Metal (Oz)**
PB East[7]	Indicated	7.96	2.81	0.63	224,000	160,000
	Inferred	3.43	2.70	0.61	92,000	67,000
	Total	**11.39**	**2.78**	**0.62**	**316,000**	**227,000**
PB West[7]	Indicated	4.46	2.04	0.61	91,000	87,000
	Inferred	2.74	1.72	0.56	47,000	49,000
	Total	**7.19**	**1.92**	**0.59**	**138,000**	**136,000**
PEDRA BRANCA	**Total**	**18.58**	**2.45**	**0.61**	**454,000**	**363,000**
ANTAS NORTH[7]	Measured	2.83	3.01	0.72	85,000	66,000
	Indicated	1.65	2.20	0.42	36,000	22,000
	Inferred	1.9	1.59	0.23	30,000	14,000
	Total	**6.38**	**2.38**	**0.50**	**152,000**	**102,000**
ANTAS SOUTH[8]	Measured	0.59	1.34	0.18	8,000	3,000
	Indicated	7.5	0.7	0.2	53,000	49,000
	Inferred	1.99	1.18	0.2	24,000	13,000
	Total	**10.08**	**0.83**	**0.2**	**85,000**	**65,000**
TOTAL		**35.04**	**1.97**	**0.47**	**691,000**	**530,000**

ANTAS NORTH – JORC Reported Ore Reserves[9,10]							
Classification	**Type**	**Economic Cut-Off Cu%**	**Tonnes (Mt)**	**Copper (%)**	**Gold (g/t)**	**Copper Metal (T)**	**Gold (Oz)**
Proved	**ROM Ore**	**0.90**	1.385	3.62	0.74	50,137	33,046
Probable	**ROM Ore**	**0.90**	1.264	2.72	0.57	34,381	23,231
PROVEN + PROBABLE ROM ORE			**2.649**	**3.19**	**0.66**	**84,518**	**56,277**
Proved	**Low Grade**	**0.65**	0.342	0.74	0.30	2,531	3,308
Probable	**Low Grade**	**0.65**	0.635	0.72	0.23	4,572	4,709
TOTAL PROVEN + PROBABLE			**3.63**	**2.53**	**0.55**	**91,621**	**64,294**

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Dr. Bielin Shi, who is a Fellow of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists. Dr. Shi is an employee of CSA Global Pty. Ltd. Dr. Shi has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Shi consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

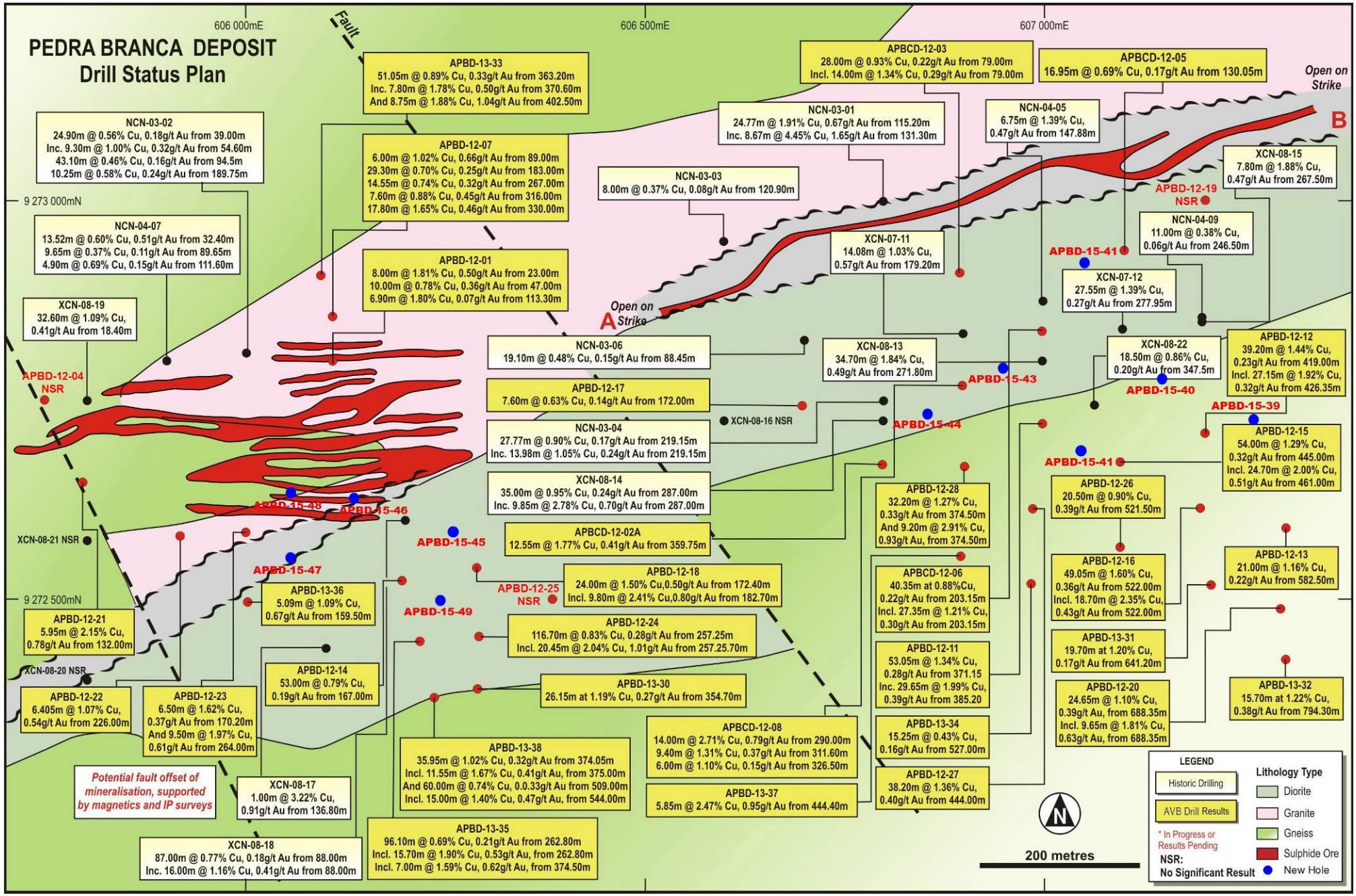
The information in this report that relates to Exploration Results is based on information compiled by Mr Simon Mottram who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Mottram is an Executive Director of Avanco Resources Limited, in which he is also a shareholder. Mr Mottram has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP) as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) *"Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Mottram consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

1. The orebody is defined as an Iron Oxide Copper Gold (IOCG) deposit, typical of that found in the Carajas Province of Brazil, and well documented in respected geological texts
2. Down-hole length
3. See ASX Announcement "Pedra Branca Resource Upgrade Delivers Substantial Increase in Both Contained Copper and Confidence", 13 July 2015, for Competent Person's Consent, material assumptions, and technical parameters underpinning the Pedra Branca resource estimates
4. See ASX Announcement "Stage 1 set to excel on new high grade Copper Resource", 7 May 2014, for Competent Person's Consent, material assumptions, and technical parameters underpinning the Antas North resource estimate
5. See ASX announcement "Major Resource Upgrade for Rio Verde", 8 February 2012, for Competent Person's Consent, material assumptions, and technical parameters underpinning the Antas South resource estimate
6. The Antas South JORC compliant resource was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012, on the basis that the information has not materially changed since it was last reported
7. Grade Tonnage Reported above a Cut-off Grade of 0.9% Copper

8. Grade Tonnage Reported above a Cut-off Grade of 0.3% Cu for Oxide Resources
9. See ASX Announcement "Maiden Reserves Exceed Expectations for Antas Copper", 17 September 2014, for Competent Person's Consent, material assumptions, and technical parameters underpinning the Antas North JORC (2012) Reported Reserve estimate
10. Measured and Indicated Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves

The Mineral Resource estimate was completed by CSA Global Pty Ltd (CSA Global) for the Pedra Branca East Deposit based on the following:

- The majority of geological and sampling data was collected under the supervision of Avanco geologists and previous work by Xstrata geologists. The supervising geologist in charge work done by Xstrata is now a full time employee of Avanco, and contains to monitor the geological and sampling procedures
- Geological interpretations were provided by the client and three dimensional modelling was completed by the author
- The interpretation and wireframes were generated based on 50m × 50m and 50m × 25m exploration drilling patterns, covering the extent of the mineralisation in Pedra Branca area. The interpretation of the mineralisation as MicroMine strings on each lode has been summarised in the following sections
- Wireframe solids were generated based on the sectional interpretations to delineate the lodes of copper and gold mineralisation
- Pedra Branca East modelling is based on the over 45 extensional and infill drilling holes and Pedra Branca West modelling is based on the over 28 extensional and infill drilling holes completed until June 2015
- Drill-hole samples were flagged to the assay table according to the mineralised lode they fall into based on the constructed wireframes.
- Gaps in the down-hole sequence were treated as missing data during compositing with no default values. For all variables null values were assigned as 0.001.
- The majority of samples are 1m composites with only a small number of end of hole samples being larger than 1m long. Compositing to 1m had no effect due to the location of the less than 1m samples.
- Statistical analysis of the 1m composites shows copper has coefficient variance (CV) below 1.0; gold and silver have higher coefficient variance (CV), above 1.5.
- For the resource estimation, the current model has individually assessed the high-grade outliers. Top Cuts were used to treat the high-grade outliers of copper, gold and silver data based on review of the domain histograms and log probability plots.
- Variography analysis and evaluation of suitable estimation parameters based on the final variogram models were undertaken. The variograms were calculated for Cu, Au and Density variables by domain.
- The variography analysis was based on the 1m composite data of the major variables in each domain, and the Cu variogram model parameters have been used to represent the minor gold, silver, nickel and cobalt variables within the relative domain.
- Volume block models were constructed, with blocks coded based on the wireframes in a similar fashion to the drill hole samples.
- Two block models were created for the East and West separately using 10.0mE × 5.0mN × 10.0mRL parent blocks. Sub-cells were generated down to 2.0mE × 0.5mN × 2.0mRL as appropriate to honour wireframe lodes and regolith interpretations during model construction.
- Grade estimation was separately carried out using the linear estimation method of Ordinary Kriging for Cu, Au, Ag, Ni and Co. The OK method uses estimation parameters defined by the Variography.
- Quantitative Kriging Neighbourhood analysis was undertaken on a subset of blocks in the main domains to establish optimum search and minimum/maximum composite parameters. Goodness-of-fit statistics are generated to assess the efficiency of the various parameters. The primary statistics used are the Kriging efficiency and the slope of regression.
- Search ellipses were orientated based on the overall geometry of mineralised domains.
- A minimum of 6 samples and a maximum of 24 samples were used to estimate the sample grades into each block for the first search pass. The minimum number of samples was reduced to 4 for the smaller zones in the second and third search pass to ensure all blocks found sufficient samples to be estimated.
- A maximum of 4 samples from any one drill hole were used per block estimate, with cell discretisation of 5 x 2 x 5 (X × Y × Z).
- Statistical, visual and plot assessment of the Block Model was undertaken to assess successful application of the various estimation passes, to ensure that as far as the data allowed all blocks within lodes were estimated and the model estimates considered acceptable.
- Density data (Density_PB) were imported into MicroMine system and also were estimated by Ordinary Kriging (OK) method.
- The Pedra Branca Mineral Resource have been classified and reported in accordance with The 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Resource classification is based on confidence in the QA/QC data analysis, geological interpretation, drill spacing and geostatistical measures.


PEDRA BRANCA DEPOSIT
Drill Status Plan
606 000mE
606 500mE
607 000mE
9 273 000mN
9 272 500mN
Fault
Open on Strike
A
B
APBD-13-33
51.05m @ 0.89% Cu, 0.33g/t Au from 363.20m
Inc. 7.80m @ 1.78% Cu, 0.50g/t Au from 370.60m
And 8.75m @ 1.88% Cu, 1.04g/t Au from 402.50m
APBCD-12-03
28.00m @ 0.93% Cu, 0.22g/t Au from 79.00m
Incl. 14.00m @ 1.34% Cu, 0.29g/t Au from 79.00m
APBCD-12-05
16.95m @ 0.69% Cu, 0.17g/t Au from 130.05m
NCN-03-02
24.90m @ 0.56% Cu, 0.18g/t Au from 39.00m
Inc. 9.30m @ 1.00% Cu, 0.32g/t Au from 54.60m
43.10m @ 0.46% Cu, 0.16g/t Au from 94.5m
10.25m @ 0.58% Cu, 0.24g/t Au from 189.75m
NCN-03-01
24.77m @ 1.91% Cu, 0.67g/t Au from 115.20m
Inc. 8.67m @ 4.45% Cu, 1.65g/t Au from 131.30m
NCN-04-05
6.75m @ 1.39% Cu,
0.47g/t Au from 147.88m
APBD-12-07
6.00m @ 1.02% Cu, 0.66g/t Au from 89.00m
29.30m @ 0.70% Cu, 0.25g/t Au from 183.00m
14.55m @ 0.74% Cu, 0.32g/t Au from 267.00m
7.60m @ 0.88% Cu, 0.45g/t Au from 316.00m
17.80m @ 1.65% Cu, 0.46g/t Au from 330.00m
NCN-03-03
8.00m @ 0.37% Cu, 0.08g/t Au from 120.90m
XCN-08-15
7.80m @ 1.88% Cu,
0.47g/t Au from 267.50m
APBD-12-19
NSR
NCN-04-09
11.00m @ 0.38% Cu,
0.06g/t Au from 246.50m
NCN-04-07
13.52m @ 0.60% Cu, 0.51g/t Au from 32.40m
9.65m @ 0.37% Cu, 0.11g/t Au from 89.65m
4.90m @ 0.69% Cu, 0.15g/t Au from 111.60m
XCN-07-11
14.08m @ 1.03% Cu,
0.57g/t Au from 179.20m
APBD-15-41
APBD-12-01
8.00m @ 1.81% Cu, 0.50g/t Au from 23.00m
10.00m @ 0.78% Cu, 0.36g/t Au from 47.00m
6.90m @ 1.80% Cu, 0.07g/t Au from 113.30m
XCN-07-12
27.55m @ 1.39% Cu,
0.27g/t Au from 277.95m
XCN-08-19
32.60m @ 1.09% Cu,
0.41g/t Au from 18.40m
NCN-03-06
19.10m @ 0.48% Cu, 0.15g/t Au from 88.45m
XCN-08-13
34.70m @ 1.84% Cu,
0.49g/t Au from 271.80m
XCN-08-22
18.50m @ 0.86% Cu,
0.20g/t Au from 347.5m
APBD-12-12
39.20m @ 1.44% Cu,
0.23g/t Au from 419.00m
Incl. 27.15m @ 1.92% Cu,
0.32g/t Au from 426.35m
APBD-12-04
NSR
APBD-12-17
7.60m @ 0.63% Cu, 0.14g/t Au from 172.00m
XCN-08-16 NSR
APBD-15-43
APBD-15-40
APBD-15-39
APBD-15-44
NCN-03-04
27.77m @ 0.90% Cu, 0.17g/t Au from 219.15m
Inc. 13.98m @ 1.05% Cu, 0.24g/t Au from 219.15m
APBD-12-15
54.00m @ 1.29% Cu,
0.32g/t Au from 445.00m
Incl. 24.70m @ 2.00% Cu,
0.51g/t Au from 461.00m
XCN-08-14
35.00m @ 0.95% Cu, 0.24g/t Au from 287.00m
Inc. 9.85m @ 2.78% Cu, 0.70g/t Au from 287.00m
APBD-15-41
APBD-15-48
APBD-15-46
APBD-12-28
32.20m @ 1.27% Cu,
0.33g/t Au from 374.50m
And 9.20m @ 2.91% Cu,
0.93g/t Au, from 374.50m
APBD-12-26
20.50m @ 0.90% Cu,
0.39g/t Au from 521.50m
XCN-08-21 NSR
APBD-15-45
APBCD-12-02A
12.55m @ 1.77% Cu, 0.41g/t Au from 359.75m
APBD-15-47
APBD-12-18
24.00m @ 1.50% Cu,0.50g/t Au from 172.40m
Incl. 9.80m @ 2.41% Cu,0.80g/t Au from 182.70m
APBD-12-25
NSR
APBD-15-49
APBCD-12-06
40.35m at 0.88%Cu,
0.22g/t Au from 203.15m
Incl. 27.35m @ 1.21% Cu,
0.30g/t Au from 203.15m
APBD-12-16
49.05m @ 1.60% Cu,
0.36g/t Au from 522.00m
Incl. 18.70m @ 2.35% Cu,
0.43g/t Au from 522.00m
APBD-12-13
21.00m @ 1.16% Cu,
0.22g/t Au from 582.50m
APBD-13-36
5.09m @ 1.09% Cu,
0.67g/t Au from 159.50m
APBD-12-24
116.70m @ 0.83% Cu, 0.28g/t Au from 257.25m
Incl. 20.45m @ 2.04% Cu, 1.01g/t Au from 257.25.70m
APBD-12-21
5.95m @ 2.15% Cu,
0.78g/t Au from 132.00m
APBD-12-11
53.05m @ 1.34% Cu,
0.28g/t Au from 371.15
Inc. 29.65m @ 1.99% Cu,
0.39g/t Au from 385.20
APBD-13-31
19.70m at 1.20% Cu,
0.17g/t Au from 641.20m
XCN-08-20 NSR
APBD-12-14
53.00m @ 0.79% Cu,
0.19g/t Au from 167.00m
APBD-13-30
26.15m at 1.19% Cu, 0.27g/t Au from 354.70m
APBD-12-20
24.65m @ 1.10% Cu,
0.39g/t Au, from 688.35m
Incl. 9.65m @ 1.81% Cu,
0.63g/t Au, from 688.35m
APBD-13-32
15.70m at 1.22% Cu,
0.38g/t Au from 794.30m
APBD-12-22
6.405m @ 1.07% Cu,
0.54g/t Au from 226.00m
APBD-12-23
6.50m @ 1.62% Cu,
0.37g/t Au from 170.20m
And 9.50m @ 1.97% Cu,
0.61g/t Au from 264.00m
APBCD-12-08
14.00m @ 2.71% Cu, 0.79g/t Au from 290.00m
9.40m @ 1.31% Cu, 0.37g/t Au from 311.60m
6.00m @ 1.10% Cu, 0.15g/t Au from 326.50m
APBD-13-34
15.25m @ 0.43% Cu,
0.16g/t Au from 527.00m
APBD-13-38
35.95m @ 1.02% Cu, 0.32g/t Au from 374.05m
Incl. 11.55m @ 1.67% Cu, 0.41g/t Au, from 375.00m
And 60.00m @ 0.74% Cu, 0.0.33g/t Au from 509.00m
Incl. 15.00m @ 1.40% Cu, 0.47g/t Au, from 544.00m
APBD-12-27
38.20m @ 1.36% Cu,
0.40g/t Au from 444.00m
APBD-13-37
5.85m @ 2.47% Cu, 0.95g/t Au from 444.40m
Potential fault offset of mineralisation, supported by magnetics and IP surveys
XCN-08-17
1.00m @ 3.22% Cu,
0.91g/t Au from 136.80m
APBD-13-35
96.10m @ 0.69% Cu, 0.21g/t Au from 262.80m
Incl. 15.70m @ 1.90% Cu, 0.53g/t Au, from 262.80m
Incl. 7.00m @ 1.59% Cu, 0.62g/t Au, from 374.50m
XCN-08-18
87.00m @ 0.77% Cu, 0.18g/t Au from 88.00m
Inc. 16.00m @ 1.16% Cu, 0.41g/t Au from 88.00m
N
200 metres
LEGEND
Historic Drilling
AVB Drill Results
* In Progress or Results Pending
NSR:
No Significant Result
Lithology Type
Diorite
Granite
Gneiss
Sulphide Ore
New Hole

PEDRA BRANCA - DIAMOND DRILLING RESULTS 2015

Hole ID	UTM-E	UTM-N	RL (m)	Dip	Az	Depth (m)	Status	From (m)	From (m) True Depth	To (m)	Width (m) Downhole	Width (m) True	Cu %	Au g/t
APBD-15-39	607250	9272735	240.500	-60	360	495.75	**Completed**	**436.00**	**~378**	**476.00**	**40.00**	**~35**	**1.60**	**0.26**
								437.60	**~379**	**456.40**	**18.80**	**~16**	**2.89**	**0.89**
APBD-15-40	607150	9272802	236.010	-60	360	369.60	**Completed**	318.00	~275	334.00	16.00	~14	0.92	0.21
APBD-15-41	607050	9272822	234.531	-60	360	303.00	**Completed**	264.45	~229	281.45	17.00	~15	1.48	0.52
								264.45	**~229**	**268.00**	**3.55**	**~3**	**3.89**	**1.50**
APBD-15-42	607050	9272690	235.000	-60	360	479.35	**Completed**	**418.15**	**~362**	**466.00**	**47.85**	**~41**	**1.27**	**0.36**
								444.30	**~385**	**451.70**	**7.40**	**~6**	**2.63**	**0.69**
APBD-15-43	606950	9272798	234.000	-60	360	310.05	**Completed**	261.00	~226	288.00	27.00	~23	1.63	0.44
								261.00	**~226**	**273.65**	**12.65**	**~11**	**2.39**	**0.55**
APBD-15-44	606850	9272751	234.877	-60	360	343.45	**Completed**	**274.95**	**~238**	**315.80**	**40.85**	**~35**	**1.38**	**0.70**
								274.95	**~238**	**288.00**	**13.05**	**~11**	**3.14**	**1.63**
APBD-15-45	606250	9272510	228.041	-60	360	420.45	**Completed**	**188.90**	**~164**	**295.00**	**106.10**	**~92**	**0.81**	**0.20**
								198.07	~172	221.00	22.93	~20	1.70	0.39
APBD-15-46	606150	9272600	226.000	-55	360	375.85	**Completed**	135.00	~111	153.00	18.00	~16	0.41	0.11
								262.00	~215	266.35	4.35	~4	2.04	0.60
APBD-15-47	606050	9272554	228.957	-55	360	500.25	**Completed**	266.00	~218	309.00	43.00	~37	0.61	0.27
APBD-15-48	606050	9272647	228.092	-55	360	331.60	**Completed**	83.00	~69	89.00	6.00	~5	0.70	0.21
								129.15	~106	144.40	15.25	~13	0.31	0.10
								151.70	~124	168.00	16.30	~14	0.59	0.27
								183.45	~150	188.00	4.55	~4	2.05	3.79
APBD-15-49	606240	9272585	227.000	-55	360	262.30	**Completed**	111.75	~92	117.50	5.75	~5	1.53	0.39
								141.00	**~116**	**187.50**	**46.50**	**~40**	**0.80**	**0.23**
								151.00	**~124**	**175.00**	**24.00**	**~21**	**1.01**	**0.28**

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 Edition)

TABLE 1 – Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• Diamond drilling core is cut in half onsite using an industry standard core saw, perpendicular to mineralisation or geology to produce two identical (mirrored) halves. Samples are collected consistently from the same side of cut core, sent to an internationally accredited independent assay laboratory, and analysed for a suite of elements by appropriate analytical techniques for the style and type of Iron Oxide Copper Gold (IOCG) mineralisation.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• The drill hole collar locations are surveyed by by a Global Positioning System (GPS) instrument. Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Logging and sampling is carried out according to Avanco protocols and QAQC procedures as per industry standard, and overseen by its Geological Managers and the Competent Person (CP).
	• *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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Diamond core is HQ and NQ in size, sampled on mineralised intervals or regular 1.0m intervals in wide mineralised zones. Core is cut in half to produce sample weights of 3-5kg. Samples are crushed, dried and pulverised (total prep) to produce a sub-sample for analysis. Using a four digest drill core samples are analysed for Cu, Ni (ICP) and Au (Fire Assay, 50g). Mineralised zones and samples with >2,000ppm Cu are further analysed for "Ore Grade" Cu by Atomic Absorption. Additional elements may be assayed based on geological observations.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• Drilling is a combination of HQ and NQ Diamond drilling. Core is reconstructed into continuous runs on an angle iron cradle orientation device.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Diamond core recoveries are logged and recorded in the database. Overall recoveries are consistently >95% in oxide and >99% in fresh rock. Drill sample recoveries are recorded as an average for each metre and recorded in the database. Recoveries are excellent and there are no known sample recovery problems, with the exception of the soil profile
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• 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.

Criteria	JORC Code explanation	Commentary
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• There is no known sample bias or potential for sample bias.
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.*	• Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Logging and sampling is carried out according to Avanco protocols and procedures as per industry standard, and overseen by the Company's Geological Managers and CP. The Company believes that the level of detail and quality of the work is appropriate to support current and future studies.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Core is photographed both wet and dry.
	• *The total length and percentage of the relevant intersections logged.*	• All drill holes are logged in full from start to finish of the hole.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Where sampled, core is cut in half onsite using an industry standard core saw, perpendicular to mineralisation or geology to produce two identical (mirrored) halves. Samples are collected consistently from the same side of cut core.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• All drilling to date has been by diamond core.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Sample preparation is according to industry standard, including oven drying, coarse crush, and pulverisation to at least 85% passing 100µm or better.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Avanco uses an industry standard QAQC programme involving Certified Reference Materials "standards" for Cu (with Cu grades ranging from low to very high), and blank samples, which are introduced in the assay batches at an approximate rate of one control sample per 20 normal samples. These QAQC results are reported along with the sample values in the preliminary and final analysis reports. Umpire checking of the Primary laboratory is then carried out by a Secondary laboratory, where both are internationally accredited independent assay laboratories.
	• *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.*	• Duplicates are inserted at an approximate rate of 1 duplicate per 40 normal samples. Umpire checking of the Primary laboratory is then carried out at by a Secondary laboratory, at an approximate rate of 1 control sample per 20 normal samples, or a minimum of 3 umpire samples per hole. Both are internationally accredited independent laboratories.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation.
	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered*	• Assaying uses a four acid digest, which is a standard industry method for Base and Precious metals analysis. The acids used are hydrofluoric, nitric, perchloric

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	*partial or total.*	and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals. "Ore grade" Cu is further analysed by an accredited AAS "Ore Grade" analysis method. The analysis is considered total and appropriate.
	• *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.*	• It is the Company's policy not to use in-house tools to determine reportable results for anything other than regional soil sampling. XRF's are used internally by Company geologists to assist in geological and mineralogical interpretation.
	• *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.*	• Avanco uses an industry standard QAQC programme involving Certified Reference Cu Materials "standards" (with Cu grades ranging from low to very high), blank samples, duplicates and Umpire Laboratory check sampling. Data is analysed and reported internally on a monthly basis for accuracy, precision, repeatability and various biases.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• Avanco's Exploration Manager (>30 years' experience) and Chief Geoscientist (>40 years' experience) visually verify significant intersections and results, with further verification by the Company's CP.
	• *The use of twinned holes.*	• The Company uses twin holes routinely in the more advanced stages of resource definition drilling, and for metallurgical drilling. The current drilling programme however, is in-fill in nature.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Primary data is collected on 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 manager in a relational database. All Company Intellectual Property is stored on a central server, kept in a secure and environmentally controlled room. Automated tape back-up occurs on a nightly basis and duplicate back-ups are regularly rotated "off-site" as a secondary precaution in case of loss of the Server site.
	• *Discuss any adjustment to assay data.*	• No adjustments or calibrations are made to assay data.
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.*	• Collar locations are surveyed by GPS on the State Survey Datum using true Mean Sea Level RL's. Downhole surveys are done using a Maxbor digital down-hole tool with readings every 3m.
	• *Specification of the grid system used.*	• Universal Transverse Mercator, SAD69 Zone 22 South.
	• *Quality and adequacy of topographic control.*	• Regional Topographic control (1m contours) and Digital Terrain Models are used.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• The current drill spacing at Pedra Branca was nominally 100m by 100m. The drill holes completed in the current programme discussed in this report, closes the drill spacing to a nominal spacing of 50m by 50m in the core of the deposit,

Criteria	JORC Code explanation	Commentary
		for the upgrade of Resource Confidence and later studies.
	• *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.*	• Sufficient continuity in both geology and mineralisation has been established to support the classification of Company's existing JORC Reported Mineral Resources where reported and classified under JORC 2012.
	• *Whether sample compositing has been applied.*	• In the JORC Code reported Mineral Resource estimate, the majority of samples are 1m in length with only a small number of (mostly end of hole) samples being larger than 1m long, or less than 1m where core samples are cut to the limit of mineralisation. In these cases samples are composited to 1m. Statistical analysis shows that this has no effect due to their locations.
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.*	• Geology and mineralisation at Pedra Branca is approximately sub-vertical, dipping slightly to the south. Thus the majority of drilling is angled to the north, dipping at an angle aimed at achieving the most representative intersections.
	• *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.*	• The company does not believe that any sample bias has been introduced.
Sample security	• *The measures taken to ensure sample security.*	• "Chain of custody" is managed by Avanco. All core samples are received intact and in their entirety in their core trays at the Company's secure Core Yard in Parauapebas, Para, Brazil. All sampling and work on the samples is carried out within the confines of this secure facility. Samples are delivered by Avanco personnel directly to the laboratory in Parauapebas and thus at no point do the samples leave the possession of Avanco staff prior to arriving at the laboratory. Avanco has protocols and procedures for tracking the progress of the samples through the laboratory, ensuring accurate validation and authentication of results issued by the laboratory in relation to the samples that were submitted.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• CSA Global Pty Ltd (CSA Global) competed a full onsite (in Brazil) review of all Company drilling, sampling, data and exploration management procedures from start to finish, including a visit to the independent laboratory facilities, as part of their own "Competent Person's" due diligence in 2012, prior to commencing Resource Estimation work for Avanco on the Company's projects in Brazil. Avanco received a very favourable review, with no area needing any significant change or improvement, or any concern with the quality and integrity of data received by CSA Global from Avanco's CP.

TABLE 1 – Section 2: 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.*	• AVB MINERAÇÃO Ltda and VALE DOURADO MINERAÇÃO Ltda are wholly owned Brazilian subsidiaries of Avanco Resources Ltd, who own the rights to 100% of the tenements in the current exploration drill program. Existing third party Royalties amount to 3% NSR on Cu and 25% NSR on Au. State royalties amount to 2% NSR on Cu and 1% NSR on Au. Unless negotiated otherwise with the owner, the surface rights owner (farmer) receives a royalty equal to 50% of the State royalty.
	• *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.*	• All tenements are granted exploration licenses
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• AVB's CP has determined that the quality and integrity of historical work is adequate for inclusion, consideration and interpretation in the current work programme.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Iron Oxide Copper Gold (IOCG) breccia pipe, 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:* *a. easting and northing of the drill hole collar* *b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *c. dip and azimuth of the hole* *d. down hole length and interception depth* *e. hole length.*	• Where results are reported, tabulation of information relating to drilling can be found in this report listed in the table "Pedra Branca – Diamond Drilling Results 2015". Information relating to Points "A" though to "E" inclusive, are all included in this table.
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Where results are reported, no information listed in Points "A" through to "E" has been excluded. All information is complete and is presented in the table in the table "Pedra Branca – Diamond Drilling Results 2015" found within this report.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	• Where results are reported, averaging of mineralised intervals are calculated by the following parameters 1. Weighted averaging of grade/thickness 2. A minimum Cut-off grade of 0.1% Cu 3. A maximum of 3 continuous metres of internal dilution (<0.1% Cu) 4. Top-Cuts of 20% Cu, 10g/t Au
	• *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.*	• Where results are reported and intercepts incorporate lengths of "high grade" (in the context of surrounding results), these "high grade" results have been detailed transparently and separately in any reported results, both in the text of the report and in the table "Pedra Branca – Diamond Drilling Results 2015".

Criteria	**JORC Code explanation**	**Commentary**
		Detailed examples are present in this report and the table above.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No assumptions are included in this report, because Metal Equivalents have not been used.
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.*	• Geology and mineralisation at Pedra Branca is approximately sub-vertical, dipping slightly to the south. Thus the majority of drilling is angled to the north, dipping at an angle aimed at achieving the most representative intersections.
	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Where results are reported, True Depths and Widths have been calculated, and are shown tabulated in this report in the table "Pedra Branca – Diamond Drilling Results 2015".
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.*	• A plan view showing all new drilling and the relationship to existing holes (with scale and annotations) is included in this report. All intercepts are tabulated ("Pedra Branca – Diamond Drilling Results 2015").
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.*	• Where results are reported, they include intersections and results for every hole drilled including high and low grade intersections. Even if secondary elements (credits) are below detection limit (BDL), they are still shown.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported) including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All material and meaningful exploration data, relevant to the scope of work in this report, has been included in this report. There is no other information, which is available and/or in the opinion of the Company's CP is lacking in this report.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• The current drilling is in-fill in nature. Future work will consist of further in-fill drilling as required for Resource and Reserve work, and exploration at depth where mineralisation remains open and untested.
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The current drilling is in-fill in nature. A plan view showing all new drilling and the relationship to existing holes (with scale and annotations) is included in this report.

TABLE 1 – 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 on site. • The exploration database used for the Mineral Resource estimation has been validated and is considered accurate.
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 for this Mineral Resource estimation is a full time employee of CSA Global Ltd. and has undertaken a site visit, ensuring industry standards in the Mineral Resource estimation process from sampling through to the final block model.
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.*	• Wireframe interpretations were completed by CSA Global based on the section and plan interpretations of mineralisation and geology made by Avanco geologists, which are considered robust. • The wireframes were generated based on 50 m spaced cross sections. This was based on exploration and grade control drilling patterns. • The geological interpretation of mineralised boundaries is considered robust, and alternative interpretations do not have the potential to impact significantly on the Mineral Resource. • Mineralisation cut-off grades (0.2% Cu combined with Au grade > 0.1 g/t Au), geological logging and interpretation were used to define the mineralised envelopes. • Continuity along strike and at depth of grade (mineralisation) and geology is well defined by alteration and structure (the breccia).
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.*	• Mineralisation at Pedra Branca extends along strike from 605,700mE to 607500mE with approximately 300m currently holding no resources between Pedra Branca East and West, and from about 10m below surface to beyond the depth of current drilling. Within the deposits there is a dominant single lode that thickens in the centre, generally striking E-W and dipping towards the south at 70° to 80°.
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*	• 1m composites were created and used for statistical analysis, variography analysis, and estimation. • Thorough univariate statistical analysis of weighted by length 1m downhole composites, flagged for mineralogy has been completed, for copper and gold, and in each mineralogical domain. Top-cuts were used where applicable. • Statistical analysis indicated that outlier management was crucial to prevent severe high grade smearing that could result in potential overestimation for some elements. The approach used has been capping (Top-cuts were defined

Criteria	JORC Code explanation	Commentary
	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.*	by domain, following thorough examinations of histograms, probability curves and the spatial locations of the outliers). Top cuts ranged from 2% Cu to 8% Cu and 1g/t Au to 3g/t Au, based on analysis of individual domain statistics. • Variogram modelling was completed within Isatis™ software and used to define the characterisation of the spatial continuity of copper and gold within all lodes, and parameters used in the interpolation process. Variogram models are cross-validated to ensure parameters are accurate. • Quantitative Kriging Neighbourhood analysis (QKNA) using "goodness" of fit statistics to optimize estimation parameters, has been undertaken. Parameters optimised include block size, search parameters, number of samples (minimum and maximum) and block discretisation. • Directional ranges have been determined from variogram modelling and are used to constrain the search distances used in block interpolation, incorporating geologists' interpretations of ore geometry and continuity. Estimation search strategies implemented have sought to ensure robust estimates while minimising conditional bias. Three search estimation runs are used with initial short-search runs extending the sample influence in later runs. • Block estimation has been completed within Datamine™ Studio 3 Resource Modelling software. Three dimensional mineralisation wireframes were completed within Micromine™ software and imported into Datamine™. These wireframes are used as hard boundaries for the interpolation. • Ordinary Kriging using a local dynamic anisotropy search is used for block grade estimates using uniquely coded 1m composite data for respective lodes. • All block estimates are based on interpolation into parent blocks. Parent block estimates are then assigned to sub-blocks. Mineral Resource estimation does not include any form of dilution. • Block model extends from local grid 606,500mE to 607,500mE, 9,272,500mN to 9,273,300mN and vertical from -1000mRL to 350mRL. • Six variables copper, gold, silver, nickel, cobalt and density were estimated. • No selective mining units were assumed in this estimate. • Standard model validation has been completed using visual and numerical methods and formal peer review sessions by key geology staff. • The Mineral Resource Model has been validated visually against the input composite/raw drillhole data with sufficient spot checks carried out on a number of block estimates on sections and plans. • Easting, northing and elevation swath plots have been generated to check input composited assay means for block estimates within swath windows. • A comparison of block volume weighted mean versus the drillhole cell de-clustered mean grade of the composited data was undertaken. • Efficiency models using block Kriging Efficiencies (KE) and Slope of Regression (ZZ) were used to quantitatively measure estimation quality to

Criteria	JORC Code explanation	Commentary
		ensure the desired level of quality of estimation.
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.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource is constrained by economic cut off grades. Top-cuts were defined by domain, following thorough examinations of histograms, probability curves and the spatial locations of outliers. Top cuts ranged from 2% Cu to 8% Cu and 1g/t Au to 3g/t Au, based on analysis of individual domain statistics.
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 Pedra Branca East deposit will be mined underground. Mining methods comprise of conventional Longitudinal and Transverse Sub-Level Open Stoping, primaries and secondaries with paste fill. A Pre-Feasibility Study is currently underway, which will include Underground mine design. Detailed mining 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 assumptions are based on comprehensive metallurgical test work that has been completed for the Pedra Branca deposit and proposed flotation plant. This work includes preliminary, detailed and final metallurgical test work. Bench scale flotation test work has been completed, including production and detailed analysis of concentrate and tailings produced by this work. Finally detailed analysis of design concentrates has been completed, including analysis of concentrate grades and deleterious elements.
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. This data was been fed into the tailing dam engineering design, which has been completed and is now in construction. Sulphide material mined from the operation will be processed in the concentrator, while waste products have been characterised and found to be benign. All materials factors for waste and residue storage and disposal have been quantified and incorporated in the project design and construction.
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*	• The Pedra Branca East drill database includes 1,321 density measurements; The Pedra Branca West drill database includes 1,184 density measurements

Criteria	JORC Code explanation	Commentary
	representativeness of the samples. • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Density data has been selected to cover in detail all possible mineralisation types and rocks types and over the full range of depth and width of the deposit. • Data has been collected from diamond drill core, and all work performed by the same accredited independent assay laboratory that completed the sample assays. The measurement procedure followed four steps: 1. A sensitive balance was fitted with a fishing line harness which could hang freely below and then recalibrated to zero 2. A specimen was placed in the harness and weighed in air 3. A water vessel was raised below to immerse the specimen, which was then weighed in water 4. The appropriate values were substituted into the following formula: • BD = weight in air / (weight in air – weight in water)
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.*	• The Pedra Branca East and West Mineral Resources have been classified and reported in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition). Resource classification is based on confidence in the geological domaining, drill spacing and geostatistical measures. • The initial classification process was based on the interpolation distance and minimum samples within the search ellipse as defined by macros in Micromine mining software. The main components of the macro are summarised as follows: • Initial classification: 1. The Mineral Resource was classed as Inferred if the average weighted sample distance was greater than 60 m. 2. The Mineral Resource was classed as Indicated if the average weighted sample distance was between 30 m and 60 m. 3. Numbers of drill holes -< 2, Indicated Mineral Resources downgraded one class. The initial classification was reviewed visually. Based on the initial classification, and three solids created (Rescat_Ind and Rescat_Inf) to define Indicated and Inferred resources. These defined resource categories were based on a combination of data density and geological confidence. Resource classification is defined in the model by the following codes: 1. Indicated Resource (class = 2) 2. Inferred Resource (class = 3) 3. Unclassified Resource (class = 4)

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• This Mineral Resource and estimation procedures have been reviewed internally within CSA Global. This Mineral Resource has not been audited externally. The processes for geological modelling, estimation and reporting of Mineral Resources is industry standard, and the process has been subject to an independent external review. CSA Global undertook a peer review during 17th – 18th June 2015 for the East block model and 7th – 8th July 2015 for the West block model, and found the Mineral Resources to be a robust global estimate.
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.*	• Mineral Resources has been reported in accordance with the guidelines of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and reflects the relative accuracy of the Mineral Resources estimates. • The current Mineral Resource models represent a robust global estimate of the in-situ mineralisation at the Pedra Branca East and West deposits. • It is recommended that optimised pit shells and underground design are used as a guide to create drilling programmes that maximise the conversion from lower classification Mineral Resources (Inferred to Indicated) to higher classification Mineral Resources (Indicated to Measured) and reduce mining risk attributed to data density and quality. Careful consideration of mining dilution is warranted, as some internal waste between lodes will be difficult to exclude during mining.