



#### Avanco Resources (ASX:AVB)

Level 3, 680 Murray Street West Perth, WA 6005

PO Box 1726 West Perth, WA 6872

Tel: +61 8 9324 1865 Fax: +61 8 9200 1850

#### Contacts:

Tony Polglase Managing Director info@avancoresources.com

#### Phil Retter

Investor Relations NWR Communications phil@nwrcommunications.com.au Tel: +61 407 440 882

#### For the latest news:

www.avancoresources.com

#### **Directors / Management:**

Colin Jones Tony Polglase Simon Mottram Wayne Phillips Scott Funston Luis Azevedo Vern Tidy Otávio Monteiro

# ASX ANNOUNCEMENT 29 April 2016

# **MARCH 2016 QUARTERLY ACTIVITIES REPORT**

Avanco Resources Limited ("Avanco" or "Company") is pleased to present its Quarterly Activities Report for the period ending 31 March 2016.

The Company's focus during the quarter continued to be on the development of the Antas Copper Mine located in the world class Carajás Mineral Province of Para State in northern Brazil.

## **HIGHLIGHTS**

- Concentrate offtake contract executed and first shipment of commissioning phase concentrate exported
- Dispatched concentrate returned provisional assays of ~28% copper and 4.5g/t gold, exceeding quality specifications
- Construction of Antas concentrator and mine infrastructure is 99% complete with no Lost Time Injuries after more than 956,000 man hours worked
- Antas Copper Mine officially opened and attended by Federal, State and Municipal Officials, in addition to major shareholders and employees
- Commissioning of the fully integrated plant nearly complete with ramp-up to steady state production expected during June quarter
- Diamond drilling continues at Pedra Branca with latest results confirming the high grade nature of the East zone:
  - 24.6m at 1.15% copper, 0.35g/t gold from 138.40m including 7.00m at 2.07% copper, 0.66g/t gold from 152.00m
  - 24.7m at 1.93% copper, 0.41g/t gold from 275.30m including 9.7m at 3.10% copper, 0.66g/t gold from 275.30m
- Positive progress on studies for a proposed fast track "trial mine" targeting early development of the Pedra Branca deposit



# **1. ANTAS OPERATION**

### CONCENTRATE MARKETING AND LOGISTICS

The first of two offtake contracts for a three-year term was recently executed. The signing of the offtake represents a landmark event and major achievement, assuring a market for the clean Antas concentrate on very competitive terms. The contract is US Dollar denominated.

The contract contains strict confidentiality clauses regarding the disclosure of further commercial details.

Around 250 tonnes of concentrate generated in the commissioning phase was shipped to Asia in the quarter. The aforementioned returned provisional assays of ~28% Copper and 4.5g/t Gold exceeding quality/commercial specifications.

Shipped quantities of commissioning phase concentrate, including the month of April, is approximately 3,000 Wet Metric Tonnes. The first cash from sales was received in late April.

The Company continues to negotiate for a second off-take contract.

#### MINING

The Antas open pit development continued on schedule, with a total material movement of 1,538,295 tonnes for the quarter and a total of 2,318,927 tonnes to date. The haul trucks performed very well, with limited downtime.

Highlights for the quarter have been:

- Completion of grade control drilling for the Stage Two pit cutback, showing a positive reconciliation against the resource model
- Commencement of the Stage Two cutback
- Establishment of pit wall geotechnical controls
- Improvements to blast fragmentation and drilling as more fresh rock is exposed in the pit
- Independent geotechnical review confirmed competent blasting practices, possibility of reductions to berm widths and the feasibility to mine double benches

Mine Commissioning Production	Unit	December Quarter 2015	March Quarter 2016	Project to Date
Total Material Mined	t	780,632	1,538,295	2,318,927
Waste	t	775,667	1,450,698	2,226,365
Ore	t	4,965	87,597	92,562
Cu Grade	Cu %	2.47	2.07	2.09
Gold Grade	Au g/t	~1	~1	0.74
Copper Content	t	122	1,812	1,934
Gold Content	OZ	106	2,328	2,434



The March quarter saw 87,597 tonnes of fresh sulphide ore mined. To date ore mining has been predicable and conforms to the grade control model with good reconciliation. Grade control is being complemented by in-pit ore block polygons marked up for visual guidance with every bucket excavated monitored by geological technicians.

Mine infrastructure has largely been completed, including offices, workshop, wash-down, service bays and main power connected. Construction of the bulk explosives facility is complete and ready for commissioning.



Antas Stage 1 open pit with Stage Two cutback and waste dump in background



Antas Stage Two - drilling and explosive loading

Grade control drilling was completed ahead of the Stage 2 pit cutback. Results demonstrated the robustness of the Antas ore body conforming positively to the resource model.



## PROCESSING

The grinding circuit was commissioned in February and operated on a 24 hour basis from early March. The flotation and thickening circuits were subsequently commissioned and followed by the Metso filter. The later produced the first dewatered concentrate on March 11th.

Construction activities are effectively complete with Capex expected to close-out within budget

The first 10 containers (~250 tonnes) of Antas concentrate (which measured ~8% moisture) arising from commissioning has been loaded and shipped.

The following table outlines the metallurgical performance of the plant to the end of the March Quarter. Milling throughput and results are very encouraging for such an early stage of commissioning and are continuing to improve. Operations are on schedule to ramp-up to full production during the June Quarter.

	Units	December	March	Project to 31
	Quarter 2015		Quarter 2016	March 2016
Commissioning Processing				
Tonnes Processed	t	-	33,858	33,858
Copper Grade	Cu %	-	2.03	2.03
Gold Grade	g/t	-	0.393	0.393
Copper Recovery	%	-	89.8	89.8
Gold Recovery	%	-	84.0	84.0
Milling Rate	t/h	-	53	53
Commissioning Production				
Concentrate	dmt	-	2,156	2,156
Contained Copper	K lbs	-	1,327	1,327
Contained Gold	Oz	-	351	351
Concentrate Copper Grade	Cu %	-	28	28
Concentrate Gold Grade	g/t	-	5.07	5.07

# SAFETY AND ENVIRONMENT

#### Safety

Over 956,000 man-hours in construction and commissioning was achieved without a lost time accident.

#### Environment

There were no environmental incidents reported during the quarter.





A nursery has been established with indigenous seedlings in preparation for transplanting in future rehabilitation of mining activities

## **MINE OPENING**

The Antas Mine opening was held with over one hundred employees and visitors in attendance including several dignitaries from the local community, Federal and State officials from the mining industry of Brazil, governing bodies, employees and major shareholders.

The opening was well received with very positive feedback on the advancement of the Antas Mine, the effect on local job creation, engagement with the local community and the overall quality of the project development and construction.





Unveiling of the Commemorative Plaque. From left, Tim Simpkin of Greenstone Resources LLC, Ralph Penner of Appian Natural Resources Fund, Evy Hambro of BlackRock Natural Resources Fund and Mark Rozhanskiy of Glencore International



Carlos Nogueira, Brazil Federal Secretary of Geology



# 2. PEDRA BRANCA

### **EVALUATION STUDY**

A proposed fast-track "trial mine", targeting early development of the Pedra Branca East deposit is being evaluated. This followed a review of strategy cognisant of current copper market sentiment. This analysis has caused management to redefine the programme of study, focusing on this alternative accelerated staged "trial mine" start-up plan.

The revised study programme aims at proving up the viability of a low CAPEX small scale "trial mine" at Pedra Branca East ("PB East") as a first step towards full scale construction and production as market conditions improve.

Small scale underground mining is envisaged with the high grade ore being transported to the Antas plant for beneficiation. The idea being to utilise the residual/unused plant capacity at Antas. Spare capacity and/or any enhancements needed at Antas will likely be confirmed in late quarter two or quarter three and be included in the study.

Metallurgical testwork shows the Pedra Branca ore types to be very similar to Antas and of comparable grade, facilitating blending of the Antas and PB East ores. Further detailed metallurgical testwork is being undertaken to confirm these assumptions.

Underground mining will focus on accessing ore from the hanging wall high grade zone ("HW-HGZ"). The HW-HGZ is the largest/most prominent high grade zone and continuous throughout the eastern orebody. Mine development box-cut, portal, ramp and sub-level access, will be the same as is required for the full scale mine.

Management believes the trial mine approach complements the development sequence for the full size definitive mine. This concept allows Avanco to start building the underground earlier on a more manageable scale. Licensing and permitting will be simplified since a plant and tailings dam will not be required. Infrastructure would comprise offices, changing rooms, maintenance buildings and a ROM pad for ore transfer to Antas.

This strategy significantly de-risk's development of the definitive full scale mine. Most study areas associated with a Bankable Feasibility Study will be addressed during the "trial mining" phase, including geotechnical support costs, hydrological/geological and structural controls.

A detailed geotechnical study of PB East, together with an initial hydrological study was concluded with highly encouraging results. This work targeted geotechnical drilling and associated testing. The ore and igneous country rocks (i.e. footwall and hanging wall) are considered as being extremely competent. Results indicate very high rock compressive strength with modelling showing that 100m spans are feasible.

Hydrological estimates for water ingress and flow are low. This is a very desirable feature and attributed to the massive nature of the surrounding igneous rocks. Water is only expected at the base of saprolite, as "perched" water with low flow rates.



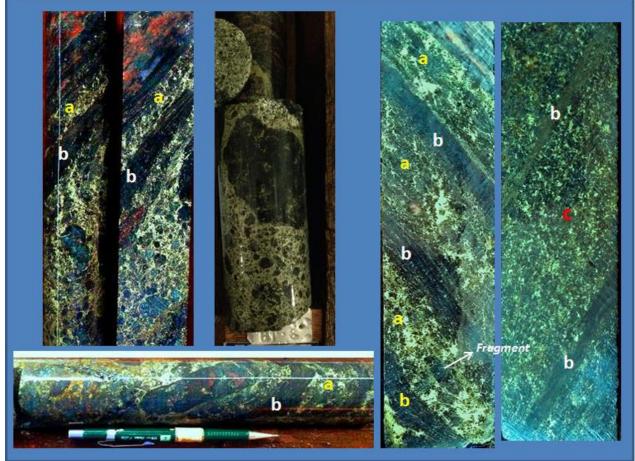
## DRILLING

Infill drilling, which targeted the shallow HW-HGZ to upgrade confidence of the near surface resource where "trial mining" will commence, was completed. The drilling results will also assist in the location and design of the box-cut and portal.

Assay results from this programme were equally as good as neighbouring holes, if not better. Significant results (reported as down hole intervals) included:

٠	11.00m at 2.40% copper, 0.67g/t gold from 62.00m	APBD-15-53
•	21.05m at 1.82% copper, 0.71g/t gold from 62.00m including <b>8.05m at 3.69% copper, 1.46g/t gold</b> from 62.00m	APBD-15-55
•	31.80m at 1.10% copper, 0.22g/t gold from 44.20m including <b>2.50m at 5.62% copper, 0.61g/t gold</b> from 44.20m	APBD-15-56
٠	4.25m at 3.06% copper, 0.53g/t gold from 162.40m	APBD-15-57
٠	11.60m at 1.84% copper, 0.23g/t gold from 76.40m	APBD-15-58
٠	13.10m at 1.99% copper, 0.69g/t gold from 51.20m	APBD-15-59
٠	29.95m at 2.24% copper, 0.48g/t gold from 165.05m including <b>2.30m at 10.36% copper, 2.21g/t gold</b> from 165.05m	APBD-15-61





High grade copper mineralisation on hangingwall contact at Pedra Branca East. (**a**) High grade breccia grading into multiple parallel zones of micro-breccia. (**b**) alternating magnetite-rich zones. (**c)** intense disseminated chalcopyrite

# **RESOURCE BLOCK MODELLING**

Final assays/QAQC data, together with updated interpretations have been sent to independent consultants for generating a new block model. The new model will focus on the eastern orebody HW-HGZ.

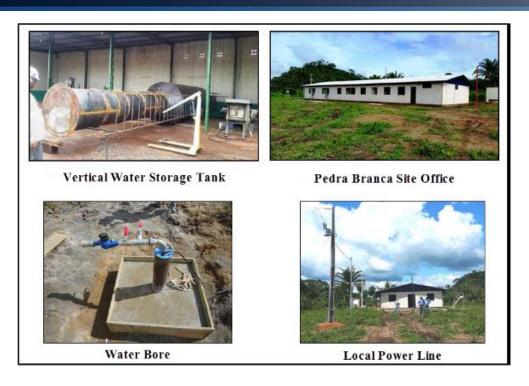
## **MINE ENGINEERING**

Design work for the proposed Pedra Branca East box-cut narrowed selection of location to two preferred sites. These two options provide a good compromise between easy entry underground (i.e. where fresh rock is close to surface thereby minimising the size/length and cost of the box-cut) verses easy access to future surface facilities. Geotechnical drilling is progressing to finalise selection.

## SITE INFRASTRUCTURE

The Pedra Branca site office together with services were completed during the quarter.



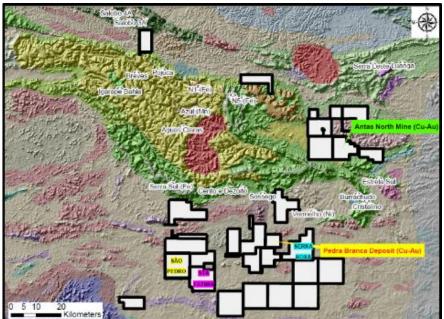


# **3. REGIONAL EXPLORATION**

Exploration focused on the Santa Fatima and Serra Roxa licences. At Santa Fatima, a power auger drilling programme (32 holes) tested and confirmed strongly coincident nickel-copperplatinum group elements anomalism in soil sampling over two distinct magnetic highs reported previously. This target has been added to the drill target inventory.

At Serra Roxa, a review of historic data revealed significant gold anomalism from stream sediments in the east of the licence. Geological reconnaissance for the probable source of the anomalism is in progress. Soil sampling is planned to follow up the stream sampling.

Generative work continues to examine new opportunities.





# 4. CORPORATE

Progress at Antas is encouraging and on target for the ramp-up to steady state production during the June 2016 quarter.

Construction at Antas is within budget and the Company has sufficient funds on hand to see Antas into commercial production.

The Company's cash position as of the end of the March quarter was USD\$20.3m.

The final instalment of US\$4 million was received from the BlackRock Royalty Transaction.

Avanco continues to explore in the west of Carajas as well as regularly evaluating new copper and gold opportunities as they are presented to the Company

On January 1<sup>st</sup> 2016 Avanco changed its functional and presentation currency to USD.

Tony Polglase Managing Director



#### **ABOUT AVANCO**

- Avanco (ASX:AVB) is an emerging mid-tier copper company situated in the mining friendly, world class Carajas Mineral Province of Brazil
- Avanco either owns, or holds the rights to 100% of the second largest area of mineral tenure in the Carajas region behind Vale
- The Company is well positioned to potentially operate a number of high grade, low cost copper-gold mines in the region which will establish Avanco as a potentially profitable long life producer
- Management has been successful in financing the development of Antas via an equity capital raising placing Avanco in a strong position being fully funded into production whilst remaining debt and covenant free
- The commissioning of Antas and ramp-up to commercial production is advancing to plan and is expected to produce around 12,000tpa of copper in concentrate (with 7,000ozpa of gold credits) from 2016, increasing to 15,000tpa by 2018
- Antas will produce a desirable, clean copper concentrate and the Company has executed a three year offtake contract
- The future development of the nearby Pedra Branca underground project has the potential to increase Avanco's production ~50,000tpa of copper in 4-5 years
- The Company is well supported by institutional shareholders with Blackrock World Mining Trust, Appian Natural Resources Fund, Greenstone Resources and Glencore currently holding ~57% of the issued capital
- Avanco is managed by highly experienced international and Brazilian mining professionals, most of whom are Portuguese speaking and reside in Brazil
- Whilst near term priorities are focused on mine life growth, Brazil offers significant opportunities to enhance shareholder value through new discoveries, acquisitions or partnerships with neighbouring majors and other companies within and outside of the Carajas

#### For further information contact:

Phil Retter Investor Relations phil@nwrcommunications.com.au Tel: +61 407 440 882

CARAJAS - TOTAL JORC Reported Mineral Resources,1,2,3,4									
DEPOSIT	Category	Million Tonnes	Cu (%)	Au (ppm)		Copper Metal (T)	-	old II (Oz)	
	Indicated	7.96	2.81	0.63		224,000	160	,000	
PB East⁵	Inferred	3.43	2.70	0.61		92,000	67,	000	
	Total	11.39	2.78	0.62		316,000	227	,000	
	Indicated	4.46	2.04	0.61		91,000	87,	000	
PB West⁵	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	
	Measured	2.83	3.01	0.72		85,000	66,	000	
ANTAS NORTH⁵	Indicated	1.65	2.20	0.42		36,000	22,	000	
	Inferred	1.9	1.59	0.23		30,000	14,	14,000	
	Total	6.38	2.38	0.50		152,000	102	,000	
	Measured	0.59	1.34	0.18		8,000	3,0	3,000	
ANTAS SOUTH <sup>6</sup>	Indicated	7.5	0.7	0.2		53,000	49,	000	
ANTAS SOUTH	Inferred	1.99	1.18	0.2		24,000	13,	000	
	Total	10.08	0.83	0.2		85,000	65,	65,000	
TOTAL		35.04	1.97	0.47		691,000 530,000		,000	
	ANTAS	NORTH – JOR	C Repor	ted Ore I	Rese	rves <sup>7,8</sup>			
Classification	Туре	Economic Cut- Off Cu%	Tonne (Mt)			Gold (g/t)	Copper Metal (T)	Gold (Oz)	
Proved	ROM Ore	0.90	1.385	385 3.62		0.74	50,137	33,046	
Probable	ROM Ore	0.90	1.264	2.7	2	0.57	34,381	23,231	
PROVEN + P	ROBABLE R	OM ORE	2.649	9 3.1	.9	0.66	84,518	56,277	
Proved	Low Grade	0.65	0.342	0.7	'4	0.30	2,531	3,308	
Probable	Low Grade	0.65	0.635	0.7	'2	0.23	4,572	4,709	
TOTAL PRO	OVEN + PRO	BABLE	3.63	2.5	53	0.55	91,621	64,294	

#### Competent Persons Statement

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. 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



- 2. 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
- 3. 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
- 4. 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
- 5. Grade Tonnage Reported above a Cut-off Grade of 0.9% Copper
- 6. Grade Tonnage Reported above a Cut-off Grade of 0.3% Cu for Oxide Resources
- 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
- 8. Measured and Indicated Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves

Project	Property Name	Tenure Title Holder	Interest %	AREA (ha)	DNPM <sup>8</sup> No of Area	Status of Tenure
STAGE 1	RIO VERDE	AVB	100	7,290.69	PL 470	Mining Concession
	RIO VERDE	AVB	100	7,290.69	853.714/1993	Mining Concession
	SERRA VERDE	AVB	100	2,391	850.622/2007	#
	SERRA VERDE	AVB	100	7,359	850.892/2006	Granted to 2018
	ESTRELA EAST	VDM**	100	4,230	850.825/2005	#
	AGUA BOA	VDM	100	1,327	850.016/2013	#
	AGUA BOA	ARM	100	8,907	850.823/2005	***
	AGUA BOA	ARM	100	6,552	850.121/2009	Granted to 2016
	AGUA BOA	VDM	100	8,957	850.826/2012	***
STAGE 2	PEDRA BRANCA	VDM	100	3,195	850.318/2000	Final Report Approved
	PEDRA BRANCA	VDM**	100	9,997	850.015/2008	Granted to 2016
	PEDRA BRANCA	VDM	100	8,881	850.570/2003	Granted to 2016
	PEDRA BRANCA	AVB	100	4,106	850.202/2013	Granted to 2016
	PEDRA BRANCA	VDM	100	9,391	850.707/2009	Granted to 2017
	PEDRA BRANCA	VDM	100	9,879	850.526/2004	Granted to 2017
	PEDRA BRANCA	VDM	100	1,040	850.278/2005	Granted to 2017
	PEDRA BRANCA	EST	100	4,998	850.053/2014	Granted to 2018
	PEDRA BRANCA	VDM	#	9,859	851.067/2007	Granted to 2018
	PEDRA BRANCA	VDM**	100	240	850.217/2000	Granted to 2018
	PEDRA BRANCA	AVB	#	5,000	851.674/2011	Granted to 2018
	PEDRA BRANCA	VDM	#	7,770	850.780/2012	Granted to 2018
	PEDRA BRANCA	VDM	100	9,988	850.226/2009	۸
	PEDRA BRANCA	EST	#	4,999	850.700/2013	#
	PEDRA BRANCA	AVB	#	598	300.420/2011	#
	PEDRA BRANCA	VDM**	#	4,980	850.146/1995	#
	PEDRA BRANCA	VDM**	#	9,993	850.173/2002	#
	PEDRA BRANCA	VDM**	#	9,755	850.181/2001	#
	PEDRA BRANCA	VDM**	#	10,000	850.300/1993	#
	PEDRA BRANCA	EST	#	1,904	851.037/2013	#***
Terrativa Carajas Option	CARAJAS REGIONAL	TM	#@	182	850.570/2014	#@
	CARAJAS REGIONAL	ТМ	#@	5,409	851797/2013	#@***
	CARAJAS REGIONAL	ТМ	#@	9,729	850288/2014	Granted to 2018
Touro Nickel Project	TRINDADE SOUTH	AVB	#	9,797	850.781/2013	#
	TRINDADE SOUTH	AVB	#	9,797	850.569/2011	Granted to 2018

# **Interests in Mining Tenements Held**



AVB = AVB Mineracao ARM = Avanco Resources Mineracao VDM = Vale Dourado Mineracao EST = Estela do Brazil Mineracao TM = Terrativa Minerias.S.A.

\* Renewable on approval of the Final Exploration Report by the National Department of Mineral Production. Awaiting final decision.

\*\* Expected to be, or awaiting or in the process of being transferred into respective subsidiary

\*\*\* Subject to pending legal process

\*\*\*\* Option Agreement

^ Application for an extension of term, awaiting decision

# New application for exploration permit (size of tenement may be reduced/reshaped, if approved and before approval)

@ Part of the Terrativa Option

# Summary of Exploration and Evaluation Expenditure Incurred per Project

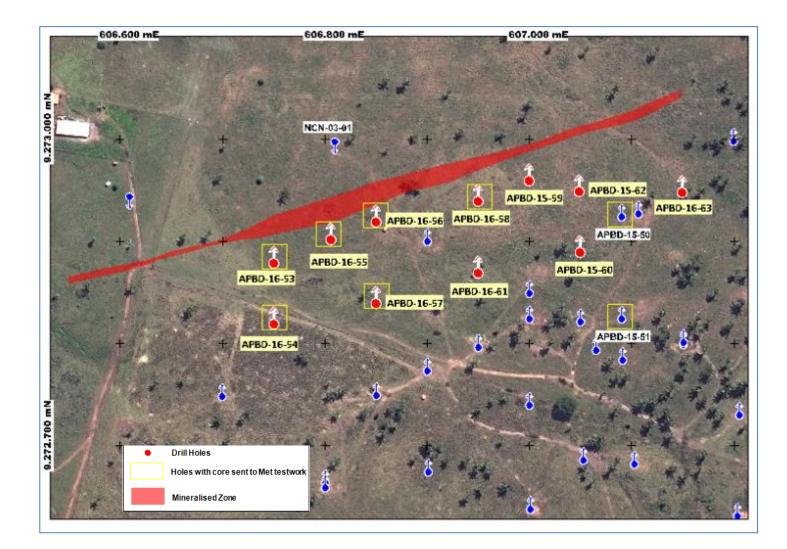
Project	Current Quarter
	Payments
	\$US'000
Stage 2	550
Regional Exploration	5
Total	555



		Р	EDRA	BRA	NCA	<b>A - DI</b>	AMOND	DRIL	LING RES	SULTS	5 2016			
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-15-50	607090	9272925	234.0	-60	360	200.45	Completed	138.40	~120	164.00	24.60	~21	1.15	0.35
Incl.								152.00	~132	159.00	7.00	~6	2.07	0.66
APBD-15-51	607090	9272825	237.0	-60	360	333.30	Completed	275.30	~238	300.00	24.70	~21	1.93	0.41
Incl.								275.30	~238	285.00	9.70	~8	3.10	0.66
APBD-16-52	607050	9272600	231.0	-60	360	555.35	Completed	486.95	~422	526.00	39.05	~34	0.70	0.22
Incl.								486.95	~422	505.05	18.55	~16	1.03	0.36
Incl.								486.95	~422	489.00	2.05	~2	3.76	1.38
APBD-16-53	606750	9272880	231.2	-60	360	133.85	Completed	58.55	~51	75.50	16.95	~15	2.12	0.53
Incl.								62.00	~54	73.00	11.00	~10	2.40	0.67
APBD-16-54	606750	9272820	231.9	-60	360	196.75	Completed	136.35	~118	145.00	8.65	~7	1.50	0.50
Incl.								136.35	~118	140.75	4.40	~4	2.13	0.66
APBD-16-55	606800	9272900	232.0	-60	360	85.75	Completed	62.00	~54	83.05	21.05	~18	1.82	0.71
Incl.								62.00	~54	70.05	8.05	~7	3.69	1.46
APBD-16-56	606850	9272920	233.0	-60	360	220.85	Completed	44.20	~38	76.00	31.80	~27	1.10	0.22
								44.20	~38	46.70	2.50	~2	5.62	0.61
APBD-16-57	606850	9272840	233.0	-60	360	270.75	Completed	162.40	~141	166.65	4.25	~4	3.06	0.53
APBD-16-58	606950	9272940	233.8	-60	360	100.75	Completed	76.40	~66	89.00	11.60	~10	1.84	0.23
APBD-16-59	607000	9272960	233	-60	360	81.90	Completed	51.20	~44	64.30	13.10	~11	1.99	0.69
APBD-16-60	607050	9272890	235	-60	360	210.70	Completed	164.75	~143	189.00	24.25	~21	1.15	0.25
								164.75	~143	166.40	1.65	~1	5.19	0.95
APBD-16-61	606950	9272870	234	-60	360	208.60	Completed	165.05	~143	195.00	29.95	~26	2.24	0.48
Incl.								165.05	~143	167.35	2.30	~2	10.36	2.21
APBD-16-62	607050	9272950	233	-60	360	110.40	Completed	86.70	~75	100.00	13.30	~12	1.34	0.24
APBD-16-63	607150	9272950	235	-60	360	170.30	Completed	137.45	~119	141.00	3.55	~3	0.95	0.12











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

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 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

# **TABLE 1 – Section 1: Sampling Techniques and Data**





Criteria	JORC Code explanation	Commentary
		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.
	• 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





Criteria	JORC Code explanation	Commentary
		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.
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.	• 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 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) visually verifies 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 is in-fill in nature.





Criteria	JORC Code explanation	Commentary
	• 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 is nominally 50m by 50m. The drill holes completed in the current programme discussed in this report are select 25m x 50m drill spacing in a select area to improve confidence in the geological and structural interpretation.
	• 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.





Criteria	JORC Code explanation	Commentary
	• 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.





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 programme. 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	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>a. easting and northing of the drill hole collar</li> <li>b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>c. dip and azimuth of the hole</li> <li>d. down hole length and interception depth</li> <li>e. hole length.</li> </ul> </li> </ul>	• 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 2016". Information relating to Points "A" though to "E" inclusive, are all included in this table.

# **TABLE 1 – Section 2: Exploration Results**





Criteria	JORC Code explanation	Commentary
	• 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 2016" 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.	<ul> <li>Where results are reported, averaging of mineralised intervals are calculated by the following parameters</li> <li>1. Weighted averaging of grade/thickness</li> <li>2. A minimum Cut-off grade of 0.1% Cu</li> <li>3. A maximum of 3 continuous metres of internal dilution (&lt;0.1% Cu)</li> <li>4. Top-Cuts of 20% Cu, 10g/t Au</li> </ul>
	• 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 2016". 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 2016".
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 2016").





Criteria	JORC Code explanation	Commentary
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, within the existing JORC Reported Resource. A plan showing the locations of new and existing drilling, is included within this report.