

## DECEMBER 2018 QUARTERLY ACTIVITIES REPORT

*Landmark Brazilian nickel-cobalt joint venture sees Centaurus free-carried to a Decision to Mine at Itapitanga; Multiple new targets identified at the Salobo West Copper-Gold Project as licensing process resumes and Centaurus advances plans for eagerly-anticipated drilling program*

31 January 2019



### DECEMBER QUARTER HIGHLIGHTS

#### ITAPITANGA NICKEL-COBALT PROJECT

- ▶ Landmark joint venture secured with leading battery metals process group, Simulus Group, under which Simulus has right to earn up to 80% of the Itapitanga Project, in stages, by free-carrying Centaurus through the entire exploration, resource evaluation and feasibility process to Decision to Mine.
- ▶ Planning work completed for collection of 40-tonne bulk sample for feasibility study-level flowsheet optimisation
- ▶ Hand-held auger drilling from multiple zones outside the current Exploration Target limits has identified new high-grade nickel-cobalt mineralisation at surface.
- ▶ Active phase of scoping study work (which will include some work to a feasibility study level) to be completed by Simulus on the Project in the coming quarter.

#### SALOBO WEST COPPER-GOLD PROJECT (CTM: 100%)

- ▶ Soils program at SW2 Prospect outlines an additional two high-priority copper-gold anomalies covering +4.5km and +2.0km – Salobo West now boasts five distinct large-scale copper prospects.
- ▶ 3D VTEM modelling has generated multiple EM conductor plates that represent outstanding targets for the discovery of high-grade copper-gold mineralisation.
- ▶ The Salobo West vegetation inventory survey field work covering the areas where clearing and the initial 36-hole drill program is planned was completed and lodged with ICMBio.
- ▶ Drilling planned for Q2 2019 in line with the end of the regional wet season.

#### CORPORATE

- ▶ Conquista Iron Ore Project sold to R3M Mineração Ltda, in keeping with the Company's predominant focus of base metal exploration in the world-class Carajás Mineral Province of northern Brazil.
- ▶ Cash reserves of \$1.4M at end of December 2018.

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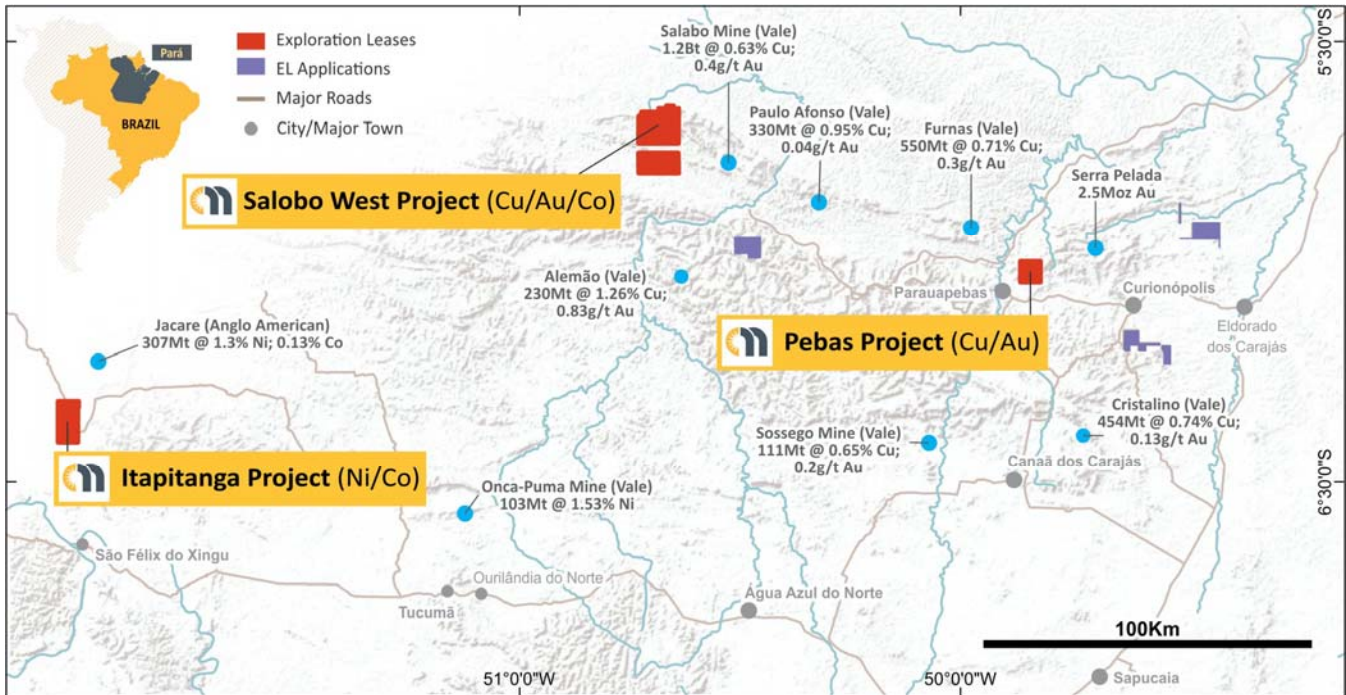


## EXPLORATION

### The Carajás Mineral Province

Centaurus’ Itapitanga Nickel-Cobalt Project, the Salobo West Copper-Gold Project and the Pebas Copper-Gold Project are all located in the Carajás Mineral Province (“Carajás”), which is considered to be one of the world’s premier mining addresses (see Figure 1).

**Figure 1 – Regional location map of the Carajás Mineral Province showing the location of Centaurus’ key projects.**



More than 20 world-class mineral deposits lie within an area of just 300 x 100km, including 10 Iron Oxide Copper-Gold (“IOCG”) deposits with resources of +100 million tonnes of copper-gold ore. These IOCG mines and deposits – in addition to several other IOCG prospects that are under exploration – collectively contain resources of more than 4.0 billion tonnes of copper-gold ore.

Furthermore, the Carajás region hosts multiple world-class, large-tonnage nickel-cobalt projects including the Onça-Puma nickel mine and the Jacaré nickel-cobalt project, in addition to some of the world’s best iron ore deposits at S11D and Serra Norte.

The sheer size and scale of projects in the Carajás has resulted in significant investment in key infrastructure for the region, which will provide significant benefits to Centaurus as it looks to grow its business in Brazil.

### ITAPITANGA NICKEL-COBALT PROJECT

The Itapitanga Project covers an area of approximately 50km<sup>2</sup> and is located in the Carajás Mineral Province of northern Brazil. The Project covers the southern extension of the same ultramafic-mafic intrusive complex that hosts both the Jacaré nickel-cobalt deposit and several unpublished nickel-cobalt resources held by Vale.



Anglo American’s neighbouring world-class Jacaré nickel-cobalt deposit is one of the highest grade, large-tonnage nickel-cobalt deposits in the world, with a Mineral Resource of 307Mt at 1.3% Ni and 0.13% Co, including a high-grade cobalt resource of 185Mt at 1.2% Ni and 0.18% Co<sup>1</sup>.

The Itapitanga Project is located primarily on farm land 50km north-east of the regional centre of São Felix de Xingu and is accessible all year via an unpaved road. The project is located 110km from Vale’s operating nickel mine, Onça-Puma.

**Joint Venture Agreement**

During the Quarter, Centaurus executed a binding earn-in joint venture term sheet with Australian-based battery metals process leader, the Simulus Group (“Simulus”), covering the development of the Itapitanga Nickel-Cobalt Project.

Under the staged earn-in Agreement, Simulus can earn up to an 80% interest in the project and will manage it through various study phases utilising its extensive in-house capabilities for process design on nickel-cobalt projects with the ultimate aim of delivering a low capital intensity process design and completing a Definitive Feasibility Study.

Centaurus will be free-carried throughout the various exploration, resource evaluation and feasibility phases until project financing is arranged and a decision to mine is made.

With the execution of the binding Term Sheet, the parties will work to complete a formal earn-in Joint Venture Agreement as soon as possible based on the key commercial points agreed in the Term Sheet.

The earn-in will comprise up to four stages as follows:

Stage	Description of Stage	Simulus Deliverable	Timeframe	Simulus Equity on Completion of Stage
1	Scoping Study	Scoping Study Report	6 months from execution of Term Sheet	21%
2a	Feasibility Study Core Disciplines including resource drill out and flowsheet optimisation	FS Progress Report	12 Months of delivering Scoping Study	49%
2b	Definitive Feasibility Study	Final DFS Report	Within 6 Months of delivering FS Progress Report	70%
3	Finalising arms-length financing and decision to Mine	Financing for the Project	No prescribed time frame	80%

The parties have agreed a high-level work plan for each stage which will be finalised as part of the formal documentation process. Should the milestone payments to the original project vendor be triggered during the earn-in phase, these payments will also be met by Simulus. There are only two milestone payments, being:

1. R\$1.0 million on the definition of a JORC Resource; and
2. R\$1.5 million on grant and gazettal of a Mining Lease.

From the time that Simulus earns its final equity position of 80%, the parties will then contribute to ongoing development costs on a pro rata basis or dilute. Simulus can withdraw at any time.

<sup>1</sup> Resource data sourced from Anglo American Presentations “O Depósito de Níquel Laterítico do Jacaré (PA), Brasil” – Simexmin 2010 and Ore Reserves and Mineral Resources Report 2016



In line with the strategic nature of the relationship between Centaurus and Simulus, the parties have agreed that, should Centaurus or Simulus be presented with a new project in Brazil within a 75km radius of Itapitanga or a nickel laterite project in any other location in Brazil, each party will give the other the first right to jointly review and participate in the Project.

Since signing the agreement Simulus have moved quickly to advance the project development requesting 230kg of variability samples of Itapitanga mineralisation to be air-freighted to the Simulus laboratory. Furthermore, Simulus initiated the collection of a 40 tonne bulk sample that is to be run through their state-of-the-art demonstration plant in Welshpool, Western Australia. The bulk sample is intended to provide a sufficiently large and representative ore sample for Feasibility Study-level flowsheet optimisation to be undertaken, allowing the flowsheet currently being proposed by Simulus for the Project to be confirmed and the requisite engineering design data to be collected.

### **Auger Drilling**

Hand-held auger drilling undertaken at Itapitanga during the Quarter has continued to expand the scale and potential of the discovery including potential new high-grade zones.

The new auger results confirmed that high-grade laterite mineralisation continues into undrilled areas at the Daniel's Creek fault zone and along the western contact of the Northern Target, as well identifying a new discovery in the north-east of the tenement package. All three highly prospective areas have not been tested by Reverse Circulation (RC) drilling and lie outside the current Exploration Target, see Figure 2.

The Exploration Target for the Itapitanga Nickel-Cobalt Project currently stands at 35-45Mt at 0.80% to 1.10% nickel, 0.07% to 0.12% cobalt and 18g/t to 30g/t scandium. Centaurus cautions that the potential quantity and grade of the Exploration Target is conceptual in nature and to date there has been insufficient exploration to define a JORC compliant Mineral Resource. It is also uncertain if further exploration and resource development work will result in the estimation of a Mineral Resource.

For full details of the Exploration Target please refer to the Company's ASX Release of 1 August 2018.

### ***Daniel's Creek Fault Zone***

The focus of the hand-held auger drilling was on the Daniel's Creek Fault Zone (the central part of the Northern Target), where the first phase of RC drilling returned some of the project's best assay results, including ITAP-RC-18-127 (32m at 1.02% Ni and 0.13% Co) and ITAP-RC-18-139 (15.0m at 0.92 % Ni and 0.22% Co).

Mineralised intercepts are broader and of higher nickel and cobalt grades in association with structural features. These structures facilitate the supergene process, which furthers the concentration of the nickel and cobalt mineralisation and deepens the mineralised profile.

RC drilling was not possible in the Daniel's Creek Fault Zone during the maiden campaign under the existing drilling permit. Auger drilling has been able to continue in areas where no vegetation clearing is required and was successful in intersecting high grade nickel-cobalt laterite mineralisation.

While numerous auger holes were able to intersect the top of high-grade nickel and cobalt mineralisation, many of the auger holes, which started in alluvium (stream sediment), could not advance due to water influx into the holes. In those areas where auger drilling has been ineffective, further RC drilling will be required to test beneath the alluvium.



Some of the better assay results from the recent auger drilling at the Daniel's Creek Fault Zone include:

- 5.0m @ 0.87 % nickel and 0.22% cobalt from 2.0m to 7.0m (EOH) in ITAP-AG00128;
- 3.0m @ 0.84 % nickel and 0.21% cobalt from 1.0m to 4.0m (EOH) in ITAP-AG00127;
- 5.0m @ 0.73 % nickel and 0.15% cobalt from 2.0m to 7.0m (EOH) in ITAP-AG00099;
- 5.0m @ 0.70 % nickel and 0.11% cobalt from 1.0m to 6.0m (EOH) in ITAP-AG00163;
- 4.0m @ 0.69 % nickel and 0.11% cobalt from 2.0m to 6.0m (EOH) in ITAP-AG00096;
- 4.0m @ 0.51% nickel and 0.12% cobalt from 2.0m to 6.0m (EOH) in ITAP-AG00100; and
- 3.0m @ 0.79 % nickel and 0.13% cobalt from 3.0m to 6.0m (EOH) in ITAP-AG00105.

See Figure 2 for drill hole locations.

All of these intersections finished in mineralisation. The results indicate that the high-grade mineralisation does extend beneath Daniel's Creek between the North and South zones of the Northern Target. In this area there is more than 300m of untested strike potential to be tested with further RC drilling.

**Northern Target (Western Contact)**

Wetlands also cover the western margins of the Northern Target. The mineralisation at the Northern Target remains open to the west and south-west along roughly 2.5km of the 3.5km strike extent of the Northern Target.

Auger drilling has been carried out along these limits and has successfully identified high-grade nickel and cobalt mineralisation beyond the current limits of the Exploration Target. As with some of the auger drilling in the Daniel's Creek Zone, many of the auger holes did not pass through the alluvium and, as such, will require RC drilling to fully test the extent of the mineralisation.

The following assay results are from the western contact north of Daniel's Creek:

- 2.7m @ 1.21 % nickel and 0.07% cobalt from 2.0m to 4.7m (EOH) in ITAP-AG00078;
- 2.6m @ 1.09 % nickel and 0.08% cobalt from 2.0m to 4.6m (EOH) in ITAP-AG00077;
- 3.3m @ 1.28 % nickel and 0.04% cobalt from 3.0m to 6.3m (EOH) in ITAP-AG00080;
- 1.2m @ 1.04 % nickel and 0.08% cobalt from 2.0m to 3.2m (EOH) in ITAP-AG00074;
- 2.0m @ 1.16 % nickel and 0.05% cobalt from 1.0m to 3.0m (EOH) in ITAP-AG00201; and
- 7.0m @ 0.94 % nickel and 0.07% cobalt from 6.0m to 13.0m (EOH) in ITAP-AG00079.

The following assay results are from the western contact south of Daniel's Creek:

- 4.0m @ 1.13 % nickel and 0.11% cobalt from 1.0m to 5.0m (EOH) in ITAP-AG00139;
- 1.0m @ 1.10 % nickel and 0.08% cobalt from 4.0m to 5.0m (EOH) in ITAP-AG00130; and
- 3.0m @ 0.67 % nickel and 0.02% cobalt from 3.0m to 6.0m (EOH) in ITAP-AG00132.

See Figure 2 for drill hole locations.

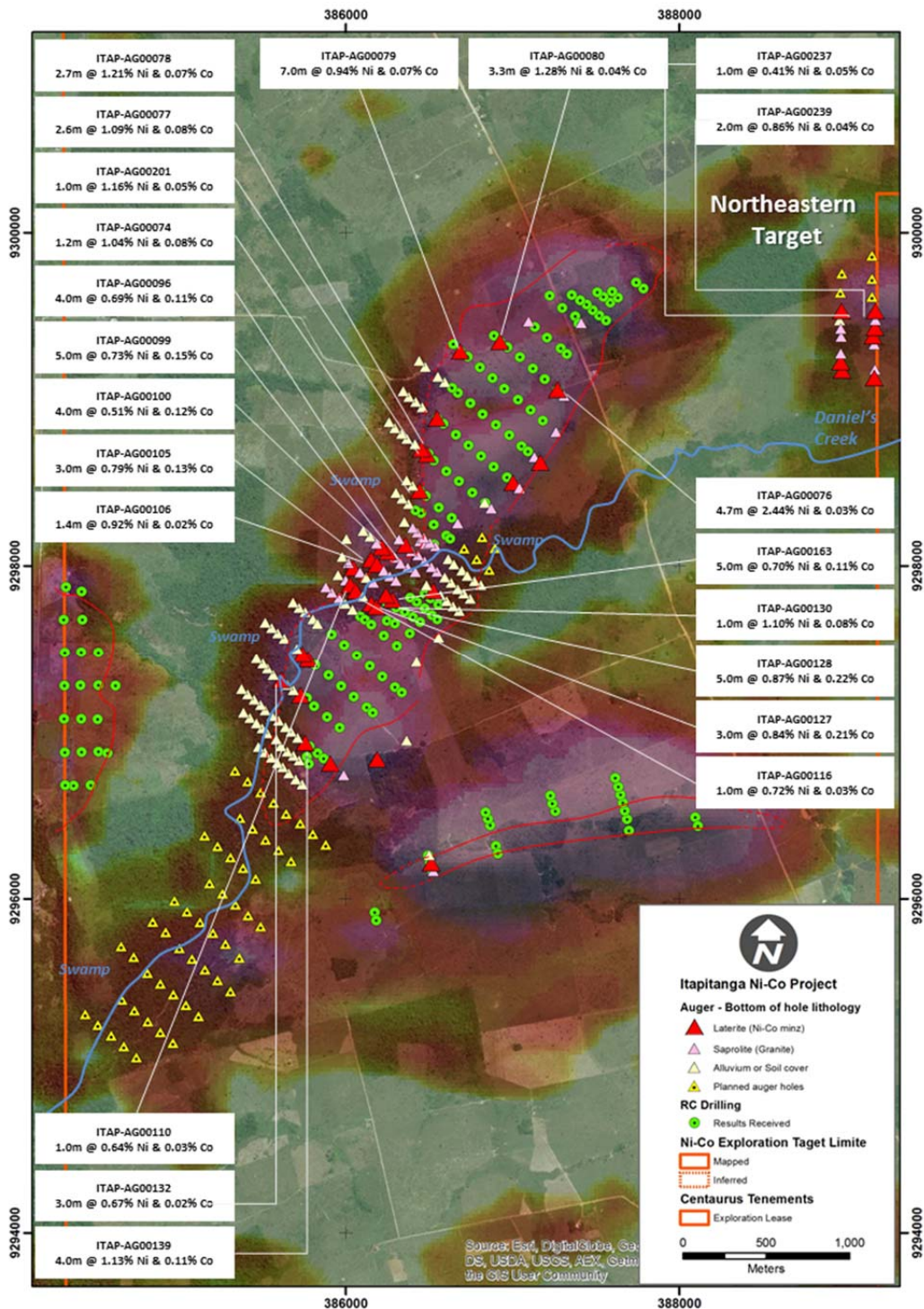
All of the intersections reported above finished in mineralisation. The result from auger hole ITAP-AG00139 (4m at 1.13% Ni and 0.11% Co) is particularly interesting as it indicates the presence of high-grade mineralisation at the south-western limit of the current Exploration Target, showing that the mineralisation may trend further to the south-west than originally thought.



**Northern Target (Eastern Contact)**

The auger drilling beyond the current limits of the Eastern Contact has extended the high-grade nickel-cobalt mineralisation with **ITAP-AG00076** intersecting **4.7m @ 2.44 % nickel and 0.03% cobalt** from 5.0m to the end-of-hole (EOH).

**Figure 2 – Itapitanga Nickel-Cobalt Project – December 2018 Quarter Auger Drilling Results (Completed Auger hole – by EOH lithology (see legend); Planned Auger holes – yellow triangles; Completed RC drill holes – green circles)**





***New North-eastern Target***

The exploration team has also identified a new target in the north-eastern portion of the project area. The mineralisation represents the tail of Vale’s neighbouring Jacarezinho Nickel Laterite Project. Drilling at the North-eastern Target returned multiple intersections of nickel-cobalt laterite mineralisation. The target area is roughly 500m long and 200m wide. The best results from initial auger drilling in this area include (see Figure 2 for drill hole locations):

- 2.0m @ 0.86 % nickel and 0.04% cobalt from 9.0m to 11.0m (EOH) in ITAP-AG00239; and
- 1.0m @ 0.41 % nickel and 0.05% cobalt from 2.0m to 3.0m in ITAP-AG00237.

See ASX Announcement dated 22 October 2018 for a full list of auger assay results.

**Upcoming Joint Venture Activity for the March 2019 Quarter**

Principle activities to be undertaken by Simulus as part of their earn-in to the project during the March 2019 quarter will include:

- Collection of 40 Tonne bulk sample and delivery of this sample to Simulus’ state-of-the-art demonstration plant for Feasibility Study-level flowsheet optimisation
- Detailed topographical survey of mine and plant sites
- Maiden JORC Mineral Resource Estimate
- Initial mine plan determination
- Assessment of potential plant locations on site
- Assessment of water availability and quality
- Delivery of a Scoping Study Report for the Project.

During the upcoming quarter it is expected that a formal Joint Venture and Shareholders Agreement will be prepared and executed to supersede the existing binding term sheet the parties executed during the December quarter.

**SALOBO WEST COPPER GOLD PROJECT**

Three of the top five known IOCG deposits in the Carajás (all with resources +300Mt Cu-Au ore), as well as multiple exploration targets, are located along the Cinzento Shear Zone (see Figure 3). These deposits are structurally controlled by regional-scale W-NW striking, brittle-ductile shear zones hosted within the highly prospective volcanic and sedimentary rocks of the Itacaiúnas Supergroup.

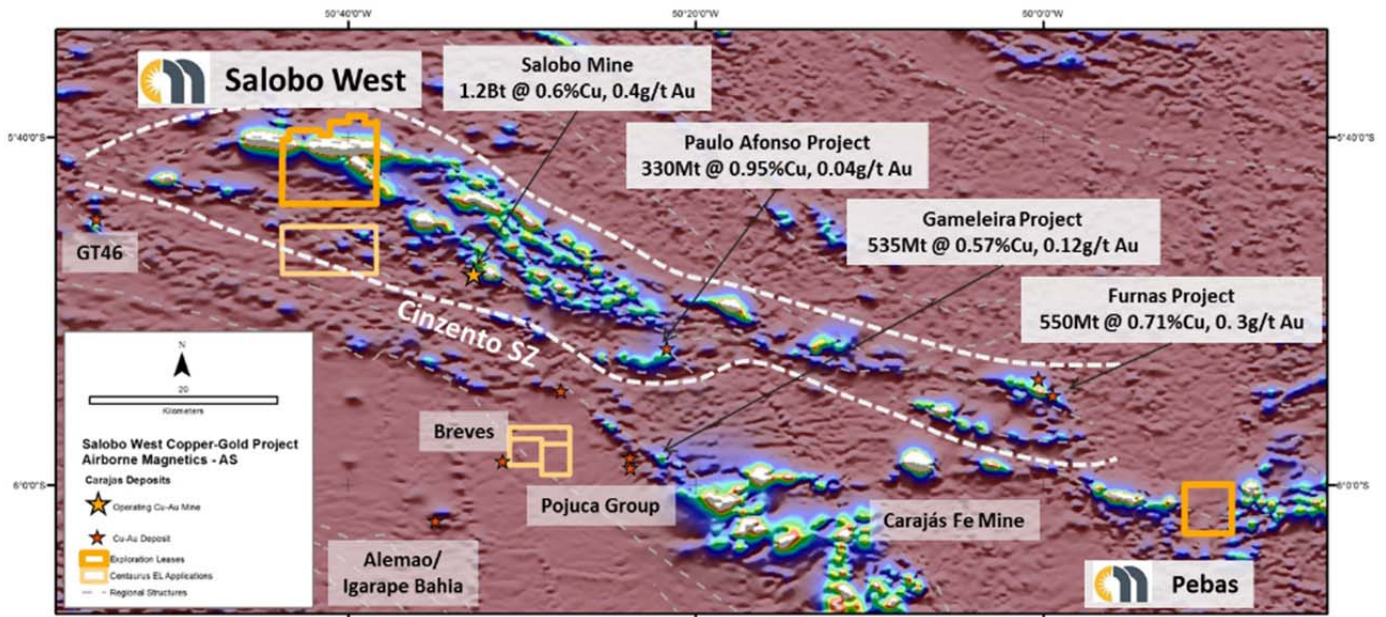
Vale’s giant Salobo Copper-Gold Mine is one of these deposits and is arguably the second-biggest IOCG in the world behind BHP’s Olympic Dam Mine. Salobo has Reserves of 1.2 billion tonnes at 0.61% Cu and 0.3g/t Au and produced approximately 193kt of copper and 346koz of gold in calendar year 2017<sup>2</sup>.

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<sup>2</sup> Vale Data sourced from “Vale Production in 4Q17” Report, its 20-F Annual Report for 2017 and other public reports



Figure 3: Tier-1 IOCG deposits in the Cinzento Shear Zone over the Regional Magnetics (AS).



Centaurus’ Salobo West Cu-Au Project includes multiple distinct targets that display similar geochemical and geophysical characteristics and are located in the same geological context as the Salobo mine, just 12km along strike.

The Salobo West Copper-Gold Project comprises two tenements – SW1 in the north and SW2 in the south of the project area, both of which have multiple walk-up drill targets.

**3D VTEM Modelling**

Processing of historical Versatile Time Domain Electromagnetic (VTEM) data over the Salobo West Project area during the Quarter has identified multiple new high-priority iron oxide copper-gold (IOCG) exploration targets.

The Company engaged highly-experienced geophysical consultants, Southern Geoscience, to carry out 3D modelling on a selection of profiles from the VTEM survey that was flown by Anglo American in 2009. The survey covered 322 line-kilometres and was run on 200m-spaced profiles with a base frequency of 30Hz.

Preliminary work has been carried out on four select sections that cover the SW1-A and SW1-B Prospects on the SW1 tenement (see Figures 4 and 5 below). In some cases, the sections are coincident with IP survey lines (also completed by Anglo American in 2009).

The results of the first four sections have highlighted a number of outstanding potential high-grade drill targets where the magnetic and EM conductor plates are coincident with IP chargeability anomalies and previously defined Cu-Au(-Co) soil anomalies.

The results of the 3D plate modelling across the SW1-A and SW1-B Prospects are discussed in more detail below.





Figure 4 – Salobo West Project (SW1-A and SW1-B Prospects on the SW1 Tenement) Analytical signal from project aeromagnetic survey with modelled EM plates (Yellow).

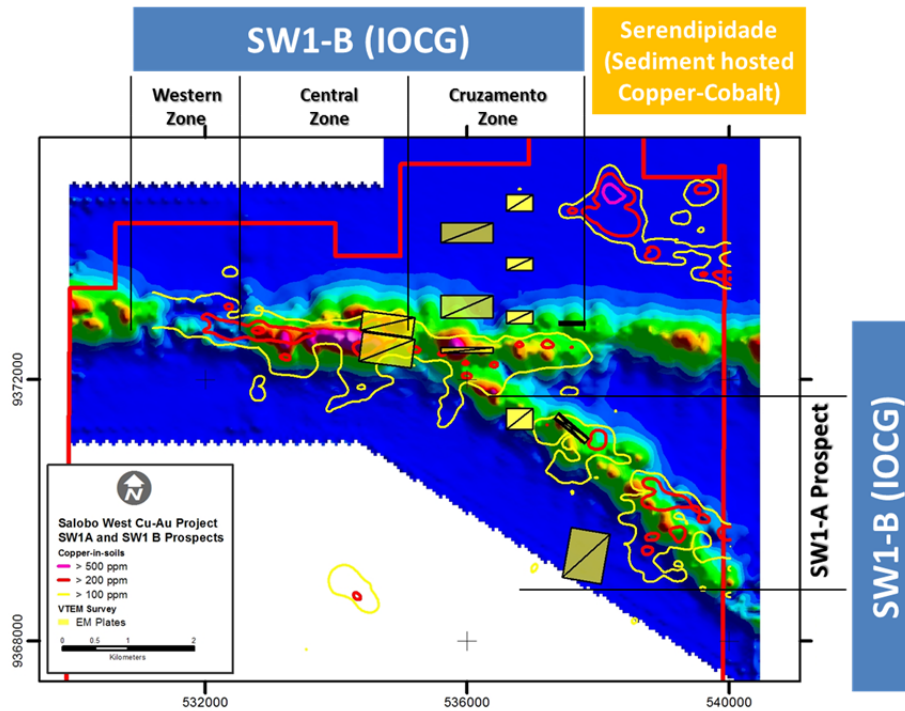
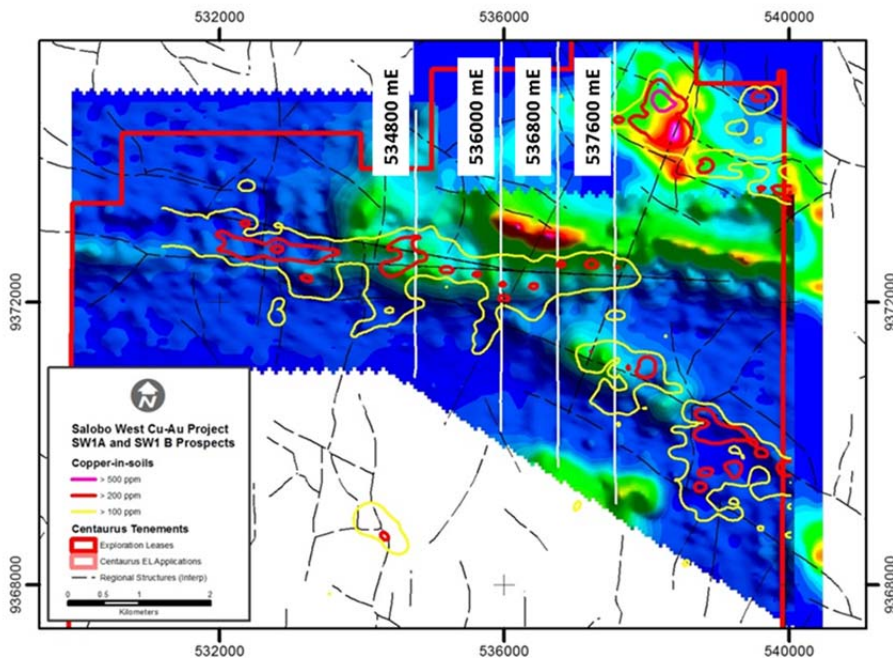


Figure 5 – Salobo West 1 Project (SW1-A and SW1-B Prospects) VTEM (Channel 20), white profile line shows selected sections that were processed



**SW1-B Prospect**

The SW1-B Prospect is delineated by an extensive +6.5km long Cu-Au(-Co) soil anomaly that is up to 600m wide and hosted in the key Carajás geological sequence, the Itacaiúnas Supergroup – which hosts all known IOCG deposits in the Carajás.



Within the SW1-B Prospect there are multiple targets: the Cruzamento Zone, the Central Zone and the Western Zone (see Figure 4). The EM modelling work was carried out on the following north-south VTEM sections:

*Section 534800mE*

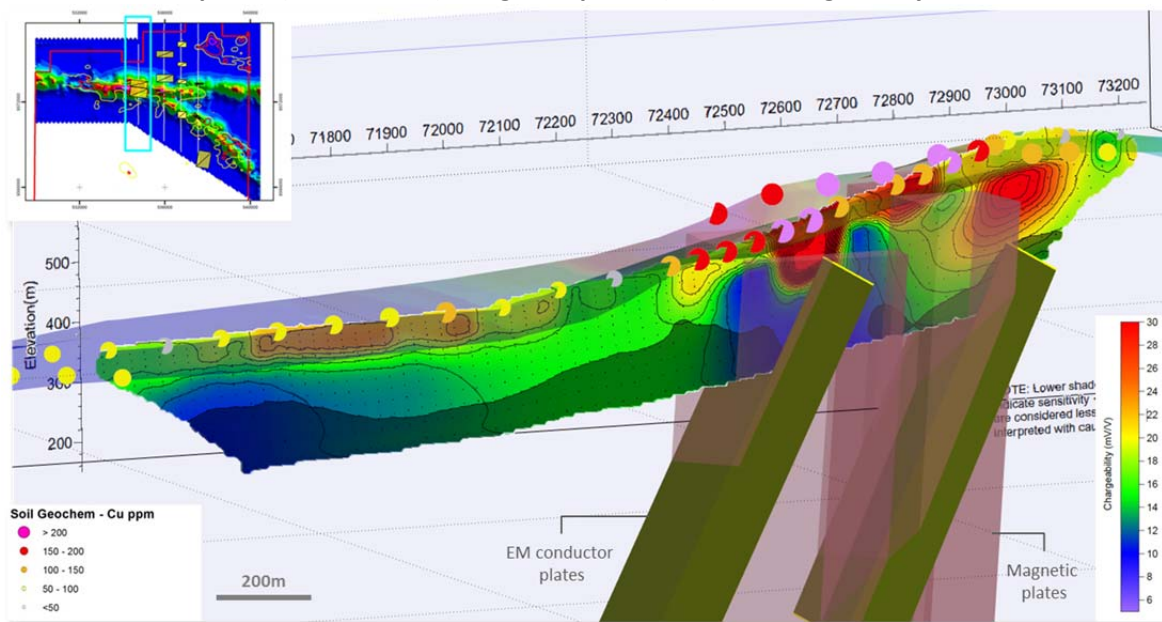
Section 534800mE is located on the eastern limit of the Central Zone of the SW1-B Prospect. The section demonstrates a clear relationship between the modelled magnetic and EM conductor plates that dip sub-vertically to the south. The magnetic plates represent the response from the magnetite, which can be from either the magmatically sourced iron-oxide mineralisation that is associated with the copper-sulphides or from an iron-oxide rich host rock.

The occurrence of two discrete EM conductor plates within the broader magnetic and IP anomalies creates a very strong exploration target for the Company. In IOCG deposits, the copper sulphide mineralisation (chalcopyrite and/or bornite) is commonly zoned, with the disseminated and veinlet zones trending towards a stockwork zone and eventually a high-grade breccia zone.

Interconnected semi-massive to massive sulphides are common in the breccia zone and, as such, the breccia zone is expected to be the most conductive region and most likely to return an EM response.

Furthermore, the EM plates are coincident with some of the best copper-gold soil anomalies from the Prospect area (see Figure 6 below). The EM plates are oblique to the magnetic plates, which suggests that the response is not from the host stratigraphy but more likely from the copper-gold sulphide mineralisation.

**Figure 6 – Section 534800mE looking towards the west-northwest EM plates (Dark Yellow); Magnetic plates (red); IP-Chargeability section.**



*Section 536000mE*

Section 536000mE is located in the Cruzamento Zone of the SW1-B Prospect. The Cruzamento Zone is structurally very interesting. IOCG deposits usually occur along fault splays off crustal-scale extension faults and the Cruzamento Zone represents precisely this scenario.



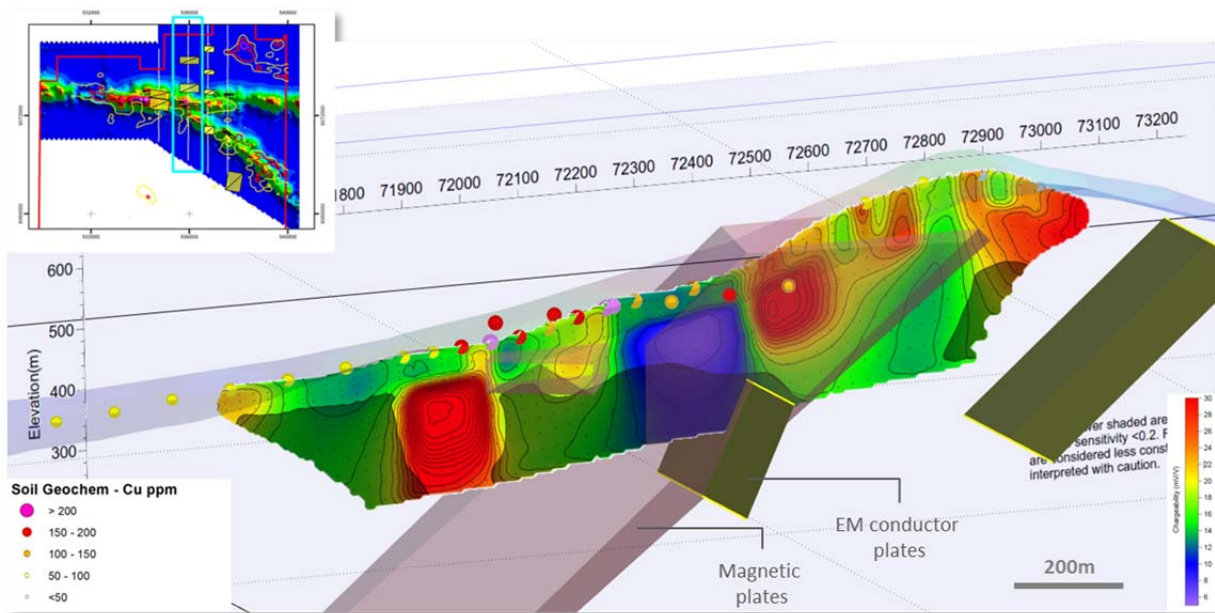
The Cruzamento Zone is located exactly where the east-west Banded Iron Formation (BIF) unit is intersected by the north-west trending BIF unit of the SW1-A Prospect (Figure 4), which is interpreted to be part of the north-west extension of the same Itacaíunas Supergroup that hosts the massive Salobo Mine.

A discrete EM conductor plate has been modelled coincidentally with the IP chargeability anomaly, magnetic plates and Cu-Au(-Co) soil geochemistry anomaly (see Figure 7 below). This represents an excellent first priority drill target for the Company.

Interestingly, there is a strong IP chargeability anomaly that is associated with the copper-in-soils anomaly but not the EM or magnetic anomalies. This target will also require drill testing.

The EM plate to the north is interpreted to be part of the graphite-pyrite rich sedimentary sequence that has been identified in historical drilling at the Serendipidade copper-cobalt sedimentary-style target. It should be noted there is no magnetic signature or geochemical anomalies associated with these EM plates and hence they are not considered an IOCG target priority.

**Figure 7 – Section 536000mE looking towards the west-northwest EM plates (Dark Yellow); Magnetic plates (red); IP-Chargeability section.**



**Section 536800mE**

Section 536800mE, also located in the Cruzamento Zone at SW1-B, is host to the only historical drill hole on the SW1-B Prospect. Drill-hole DRI10-FD0010 was drilled on Section 536800mE near the main convergent point of the Cruzamento Zone.

The Company understands that this hole was designed to target a combination of the SW1-B Cu-Au-Fe(-Co) soil anomaly and strong sub-vertical IP Chargeability anomaly coincident with a magnetic anomaly. The hole was stopped at 130.8m, approximately 50m short of the strong IP target (see Figure 8).

The drill hole did, however, intersect 4m at 0.8g/t Au (including 1m @ 2.0g/t Au) in iron formation from 116m-120m, preceded by an interval of weathered mafic schist that returned an average copper grade of 0.15% Cu from 110m-114m.



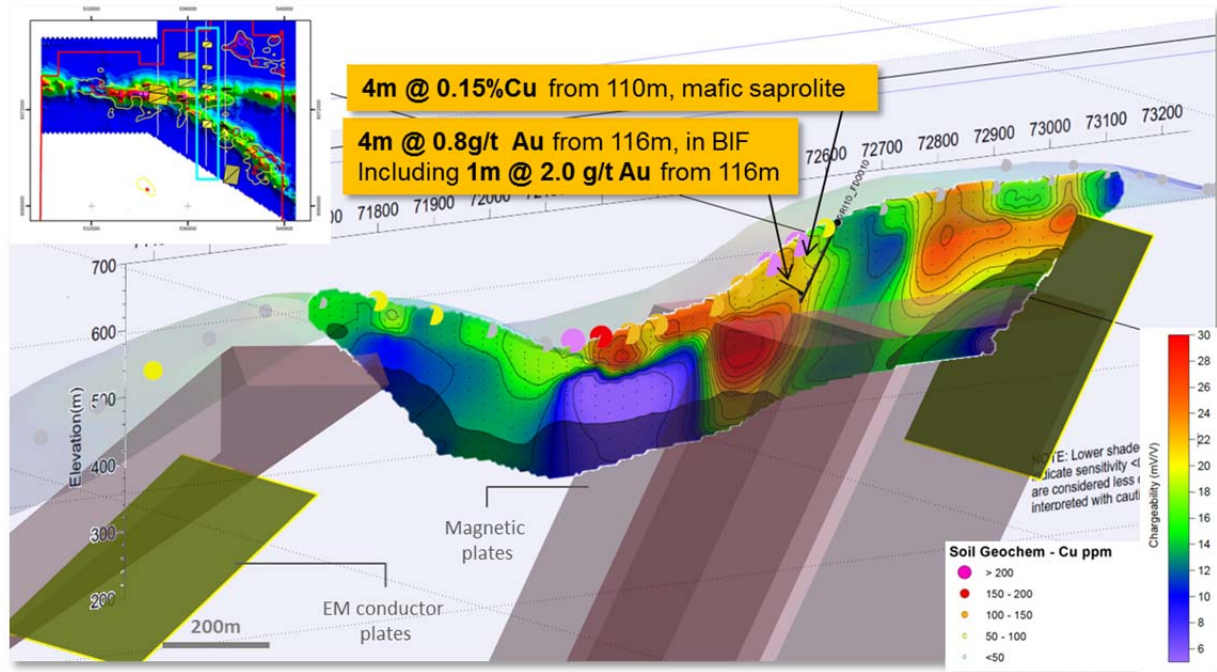
Importantly, historical logging and geochemistry of diamond drill hole DRI10-FD0010 demonstrates that the SW1-B Prospect is set within the highly prospective meta-volcanic sedimentary package of the Itacaiúnas Supergroup.

Although there is no EM plate associated with the strong sub-vertical IP Chargeability anomaly, the magnetic plates are coincident with the IP and Cu-Au(-Co) soil anomaly. This may represent a more disseminated zone of the IOCG mineralisation.

The EM plate modelled to the south is associated with the SW1-A Prospect. The plate is slightly oblique to the magnetic anomaly, which represents the iron formations of the Itacaiúnas Supergroup that extend north-west from the Salobo mine.

This can be an indicator that the conductor plate is associated with magmatic sulphides and not the iron formation.

**Figure 8 – Section 536800mE looking towards the west-northwest EM plates (Dark Yellow); Magnetic plates (red); IP-Chargeability section.**



**SW1-A Prospect**

The SW1-A Prospect is delineated by a +3.5km long Cu-Au(-Co) soil anomaly hosted in the same stratigraphic sequence with similar magnetic susceptibility to the Salobo mine and has a favourable structural orientation with the NW extent of the Prospect being truncated by the E-W trending BIF unit of the SW1-B Prospect.

**Section 537600mE**

Section 537600mE traverses both the eastern limit of SW1-B Prospect to the north and the central zone of SW1-A Prospect. Both present excellent drill targets. The southern part of the section intersects the main zone of the SW1-A Prospect target.

Although the soils anomaly is stronger in the south-east of the SW1-A Prospect there is little or no VTEM response (see Figure 5). This is due to a late stage mafic dyke that cuts the Itacaiúnas stratigraphy that was observed in the only two historical diamond drill holes completed on the SW1-A prospect.

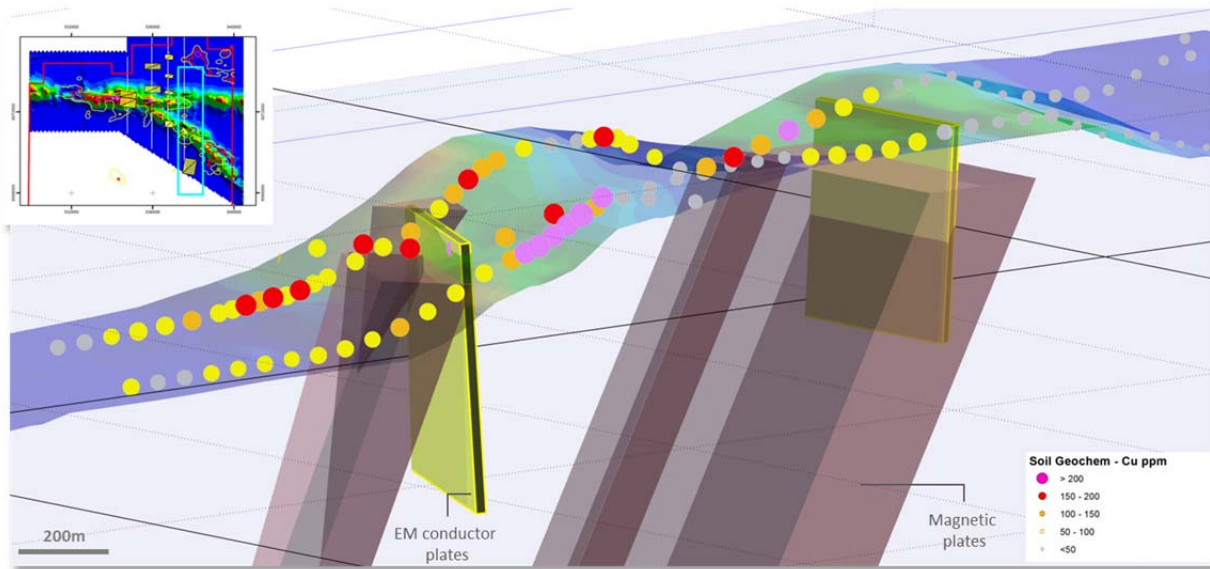


The north-western zone of SW1-A hosts a distinct 2.0km long VTEM anomaly that is coincident with magnetics and Cu-Au(-Co) soil anomalies. This VTEM anomaly has generated an EM conductor plate that sits oblique to the magnetic anomaly and coincident with the Cu-Au soil anomaly (see Figure 9 below).

Drilling has been planned along the 2.0km strike of the VTEM anomaly.

The northern target, which is part of the SW1-B Prospect, again hosts an oblique EM conductor plate within a magnetic anomaly coincident with the Cu-Au soil anomaly and is another excellent drill target that is planned to be tested in 2019 with drilling.

**Figure 9 – Section 537600mE looking towards the west-northwest  
EM plates (Yellow); Magnetic plates (red).**



**Summary of VTEM Data Review**

The results from the 3D VTEM modelling are very encouraging and have provided an excellent platform to allow the exploration team to vector in on the potential high-grade copper-gold mineralisation. The Company will carry out additional modelling work on selected sections ahead of the Company’s maiden drill program, which is currently planned for Q2 2019.

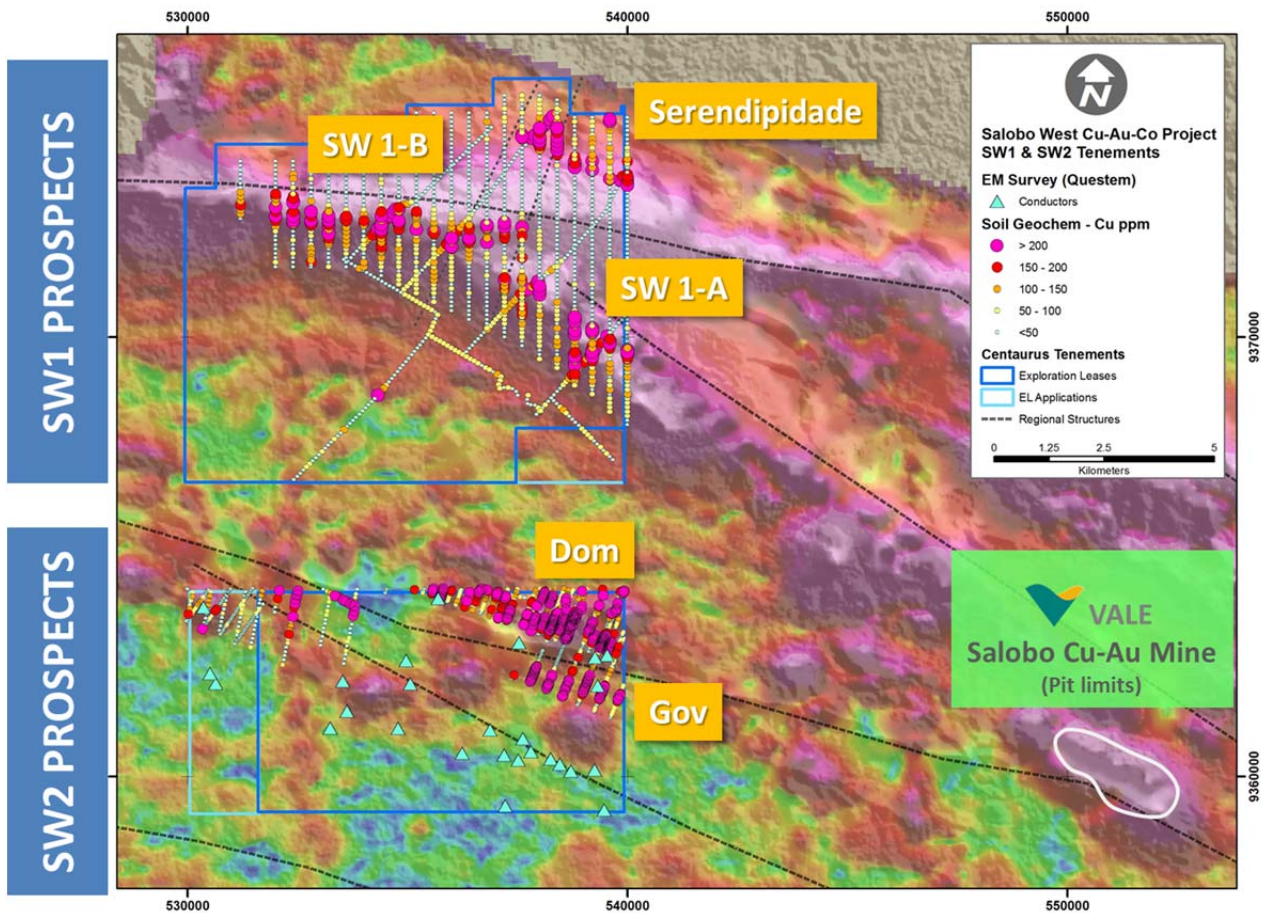
**Soil Sampling and Field Mapping Program**

Results from a soil sampling and field mapping program on the SW2 tenement during the Quarter have generated further large IOCG targets.

Three prospects have already been delineated on the SW1 tenement (SW1-A, SW1-B and Serendipidade) with the recently completed soil sampling and mapping on the SW2 tenement identifying two additional large-scale, and highly prospective, prospects – the Dom and Gov Prospects (see Figure 10 below).



Figure 10 – Salobo West (SW1 and SW2 Prospects) copper-in-soils geochemistry anomaly over Regional Aeromagnetics (AS) image in the background, pink circles represent +200 ppm Cu.



Structural control is particularly important with IOCG mineralisation in the Carajás, with most deposits – especially those in the Cinzento Shear Zone – being associated with fault splays/shear zones and intersections of major W-NW and SW-trending lineaments.

The SW2 tenement covers, what is regionally described as a sliver of the Itacaiúnas Supergroup, associated with a major regional shear zone that runs WNW from the Salobo Cu-Au Mine and through the northern portion of the SW2 tenement. This shear zone is identified in regional radiometric data as well as in the field by a small ridge that separates the Dom and Gov Prospects.

### ***The Dom Prospect***

The Dom Prospect is delineated by an extensive +4.5km long Cu-Au-in-soils anomaly that is up to 800m wide locally with soil values of up to 650ppm Cu and 137ppb Au. The soil signature for the Dom Prospect is comparable to a number of the known IOCG deposits in the Carajás.

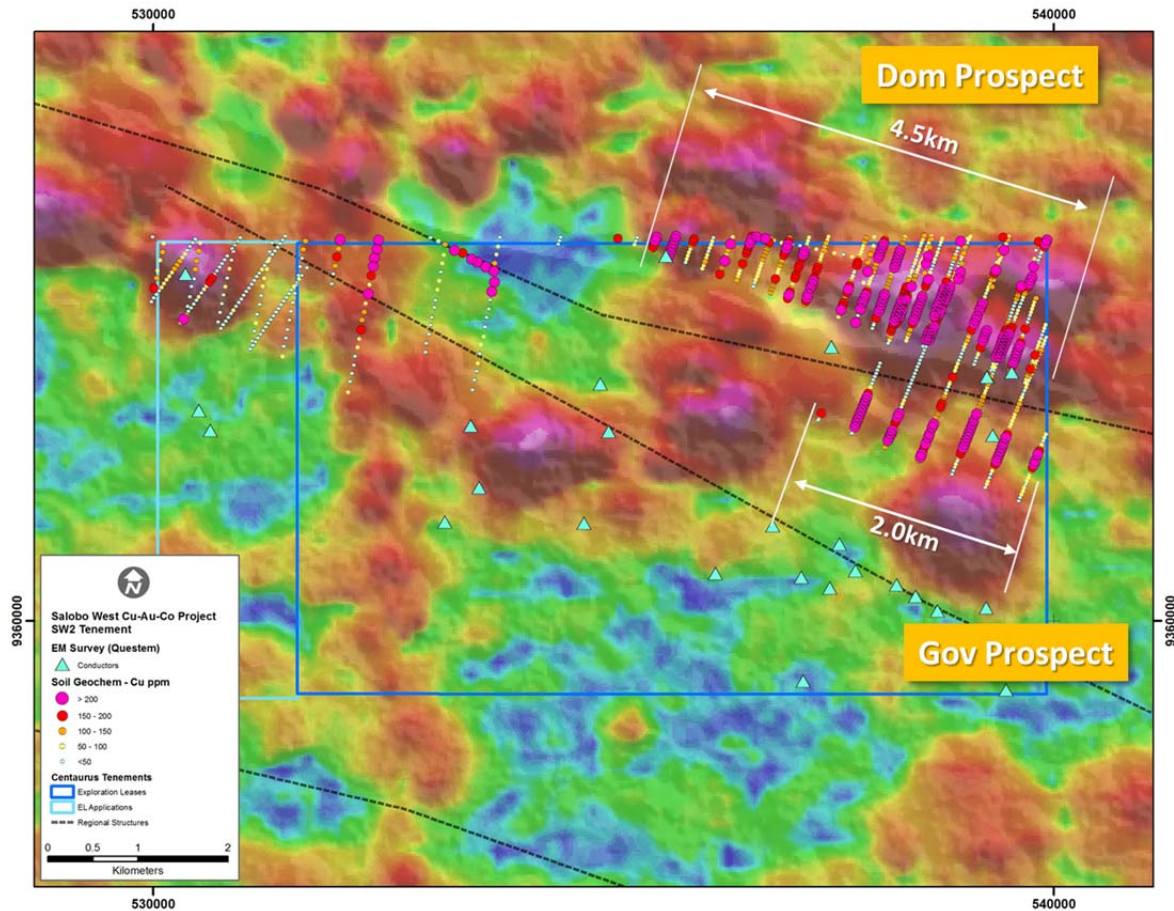
The prospect sits on the northern side of the ridge that represents a highly siliceous regional shear zone that is understood to be an important structural feature in the mineralisation of Vale’s Salobo deposit (see Figure 10).

Importantly, the Cu-Au soil anomaly is coincident with a discrete 3.0km magnetic anomaly, indicative of the iron-rich metavolcanic-sedimentary rocks of the Itacaiúnas Supergroup.



Multiple EM conductors occur on the southern limits of the Dom Prospect that may indicate the presence of semi-massive to massive sulphides. The Dom Prospect hosts numerous walk-up priority one drill targets and these target areas were included in the recently completed vegetation survey for the drill permitting process.

**Figure 11 – SW2 Prospects copper-in-soils geochemistry anomaly over Regional Aeromagnetics (AS) image in the background, pink circles represent +200 ppm Cu and blue triangles represent EM conductors.**



The Company plans to drill the Dom Prospect as part of its maiden drill program in 2019.

***The Gov Prospect***

The Gov Prospect is delineated by a 2.0km long copper-in-soils anomaly that is up to 400m wide with soil values of up to 502ppm Cu. The Gov Prospect sits on the southern side of the regional shear zone which, as noted above, is understood to be an important structural feature in the mineralisation of Vale’s Salobo deposit.

Although the copper-in-soil anomaly is not coincident with any magnetic anomalies, it is located between the magnetic anomaly associated with the Dom Prospect and a 1.0km long magnetic anomaly immediately to the south. An EM conductor occurs in the centre of the Gov Prospect and, when considered with the other exploration data in the immediate vicinity, this represents an outstanding drill target for potential semi-massive to massive sulphides.

Mapping by Centaurus geologists has identified the ferruginous soils of meta-sedimentary rocks intercalated within granitic soils, consistent with the regional interpretation. This mapping is consistent with information that was observed by the Vale geologists in their historical work programs.

The following are comments on the SW2 tenement geology that was translated from Vale’s historical exploration report for the tenement:



*“From a geological point of view, the regional structures that cross the area are interesting, as it seems to coincide with the Salobo trend, with strong silicification (felsic-breccia), bordered by granitoids with iron formations and hydrothermally-altered schists intercalations and cataclastic rocks with quartz-magnetite-chlorite alteration ± chalcopyrite” – translated from DNPM 850.399/95 Partial Exploration Report dated December 2000.*

Importantly, the Vale geologists identified lithologies and alteration styles similar to those seen at the Salobo Mine on the SW2 prospect area. Below is an additional extract from the report:

*“This anomalous belt represents an association of several EM anomalies with distinct magnetic anomalies and a geological environment favourable to mineralisation, with many characteristics that resemble those observed in the Salobo Cu-Au deposit.” – translated from DNPM 850.399/95 Partial Exploration Report dated December 2000.*

The southern 70% of the SW2 tenement remains un-sampled (see Figure 11). Multiple EM conductors (digitized from Vale’s historical exploration reports to the DNPM) and discrete magnetic anomalies are present throughout this area, and this highlights the potential for additional quality exploration targets to be generated in the future. The Company is currently operating under a non-ground disturbing exploration licence and, as such, additional soil sampling and mapping over these southern targets can be undertaken in upcoming field campaigns.

Drilling of the SW1 and SW2 Prospects will only be undertaken with an ICMBio approved clearing and drilling licence. The Company is working to expedite this licence and hopes to have secured it by the end of Q1 2019, allowing the Company to be ready to drill come the end of the regional wet season.

### **Salobo West Licensing**

The vegetation inventory survey field work covering the areas where clearing and the initial 36-hole drill program is proposed was completed in early November. This was a comprehensive survey covering more than 50km over both tenements at Salobo West. The survey report was completed and lodged with ICMBio for review and approval. This report is an integral part of the site access clearing and drill licence application process for the Project.

Based on the results of the vegetation inventory, Centaurus is comfortable that there should be no impediment to ICMBio granting the required environmental licence required for clearing and drilling, with the Company planning for the licence to be secured before the end of the regional wet season.

### **PEBAS COPPER-GOLD PROJECT**

The Pebas Project is located approximately 8km outside of the regional city of Parauapebas and 20km north of the operating Antas Norte copper-gold mine, operated by ASX-100 copper-gold miner Oz Minerals (ASX: OZL), which recently completed a takeover of fellow ASX-listed miner Avanco Resources.

The Project is hosted within the highly prospective Itacaiúnas Supergroup, which hosts all IOCG deposits within the Carajás Mineral Province. The Pebas Project area is wedged between the regionally important Cigano and Estrela Granite Complexes.

The Pebas Project contains four targets (see Figure 12), set within the highly prospective Itacaiúnas Supergroup, which hosts all IOCG deposits within the Carajás Mineral Province.

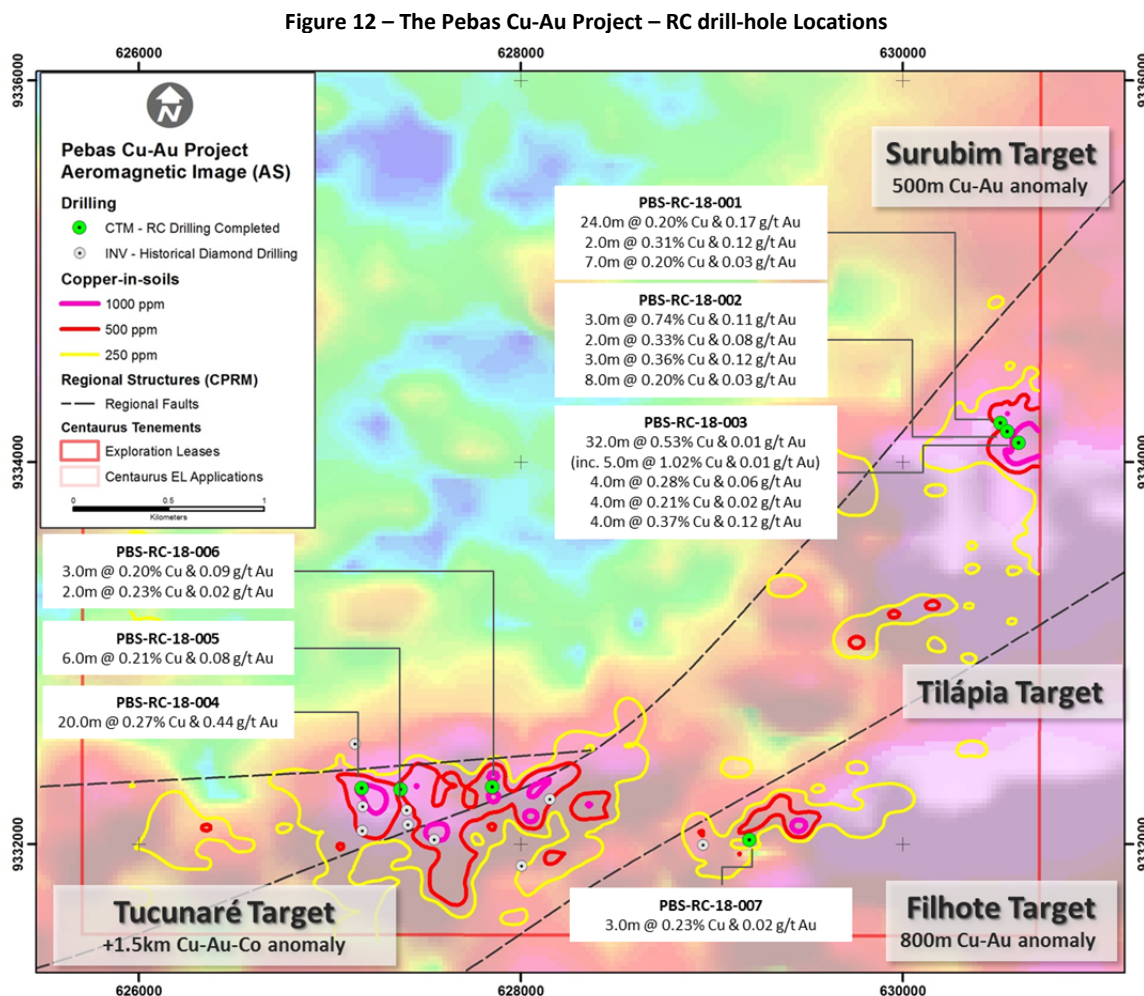




During the Quarter, Centaurus received assay results from the Company’s maiden Reverse Circulation (RC) drilling program at Pebas, which focused on potential high-grade fault-related IOCG targets that are analogous to the nearby Antas Norte Copper-Gold Mine, located 25km to the south and operated by ASX-100 mining company Oz Minerals (ASX: OZL).

Drilling intersected the copper-sulphide mineralisation locally as stringer veins but predominantly as disseminations of chalcopyrite within strongly altered host rocks comprised of garnet-chlorite-magnetite-grunerite schists, interpreted to be originally metasediments. This alteration style is typical of a number of IOCG deposits in the region (e.g., Salobo and Furnas).

Figure 12 shows the location of the highlighted intersections, with the full set of RC and historical results from the Pebas Project provided in the Company’s ASX Announcement dated 7 November 2018.



*Tucunaré Target*

The +1.5km long Cu-Au-Co-P soil anomaly at the Tucunaré Target is coincident with a 1.5km long discrete magnetic signature (Figure 12) that is distinct from the regional anomalies that are associated with the iron formations of the Itacaiúnas Supergroup.

Historical rock chips from the Tucunaré Target have returned assay results of up 27.6% copper, 4.6g/t gold and 0.75% cobalt.

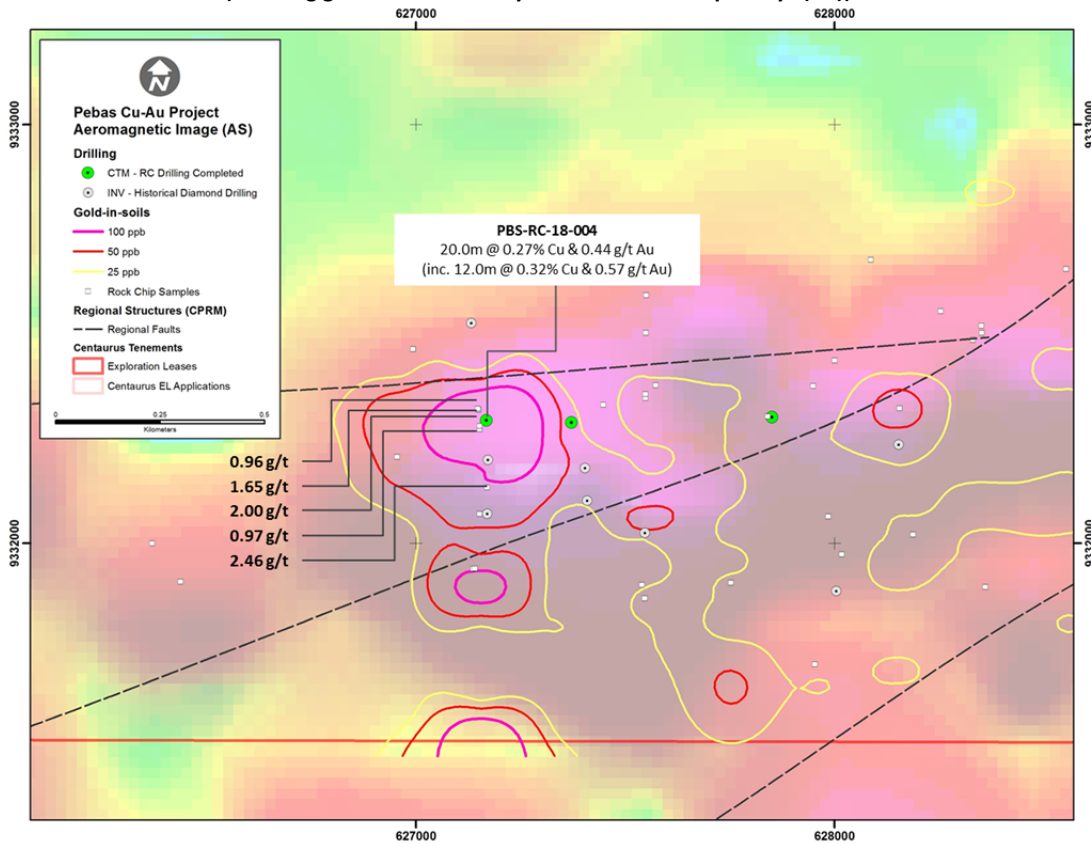


Three drill holes (PBS-RC-18-004 to 006) targeted the east-west trending faulted contact between the siliceous quartzite (north) and the intensely altered mafic schists (south), interpreted to be a potential feeder structure for the mineralising fluids. Drilling successfully identified the contact zone which hosts strong alteration and localised disseminated sulphide mineralisation.

Interestingly, drill hole PBS-RC-18-004 intersected a broad zone of gold mineralisation returning 20.0m at 0.44g/t gold including 12.0m at 0.57g/t gold with 1.0m intervals as high as 1.70g/t gold.

This intersection is coincident with an outcropping auriferous gossan that returned rock chip samples of up to 2.46 g/t gold and is set within a 500m long +100 ppb gold-in-soils anomaly (see Figure 13 below). More detailed mapping of the immediate area around this gold anomaly is required.

**Figure 13 – The Pebas Cu-Au Project – Tucunaré Target  
(Showing gold-in-soil anomaly and select rock chip assays (Au))**



The drill-hole spacing along the +1.5km long Cu-Au-Co-P soil anomaly does allow good coverage for future DHEM survey work. All drill holes completed on the Tucunaré Target were cased ready for DHEM.

**Surubim Target**

The Surubim Target is located 2.5km to the north-east of the Tucunaré Target. The target is around 400m long and up to 500m wide with consistent soil sample grades of over 1,000 ppm copper. This anomaly is coincident with a magnetic low set inside a broader magnetic high.

Drilling targeted the depth extension of a cupriferous gossan that sits within the interpreted NE-SW fault zone. This fault zone represents the north-western limit of the +1,000ppm copper-in-soils anomaly (see Figure 12).



Three drill-holes (PBS-RC-18-001 to 003) intersected intercalated meta-sediments with locally strong chlorite and albite alteration (typical IOCG alteration). Disseminated chalcopyrite mineralisation was identified in all drill-holes with stringer veins apparent locally. The highest-grade samples of copper sulphide mineralisation returned 1.15% copper and 0.25g/t gold over 1.0m.

Multiple broad near surface intervals were also intersected, with 32.0m at 0.53% copper, including 5m at 1.02% copper, in drill hole PBS-RC-18-003. Other significant intervals from the Surubim Target include:

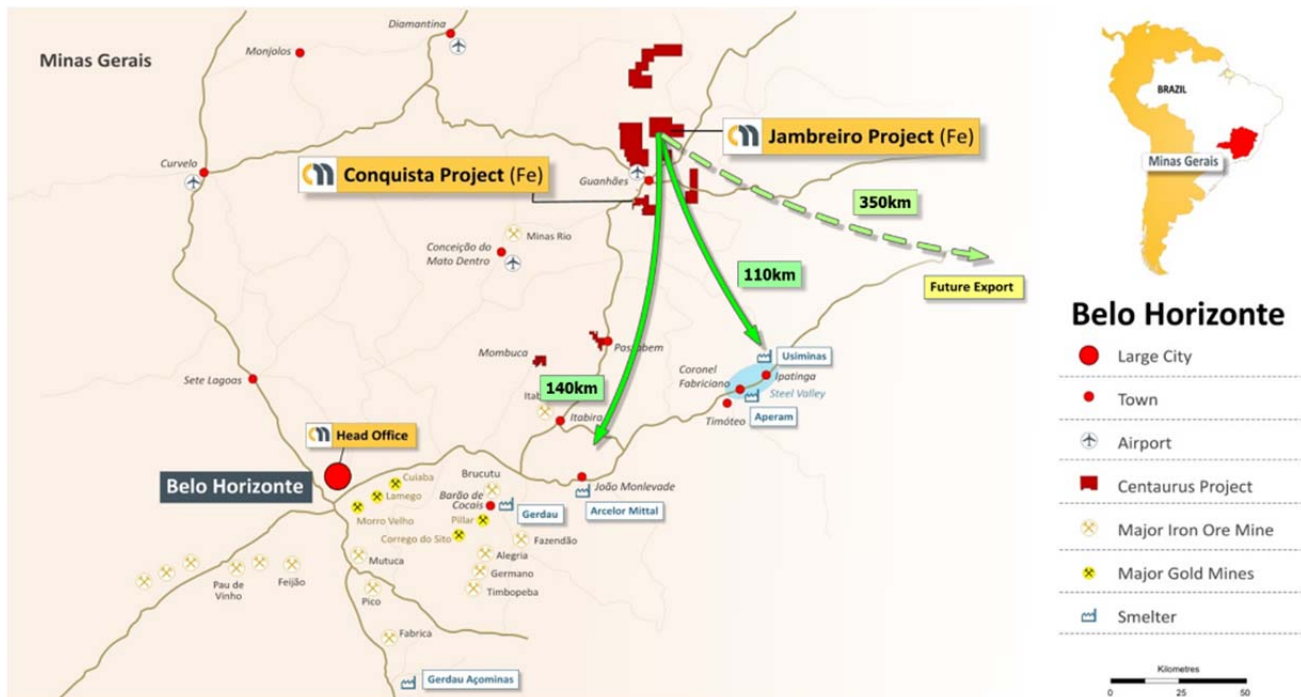
- 24.0m at 0.20% copper and 0.17 g/t gold from 2.0m in PBS-RC-18-001;
- 3.0m at 0.74% copper and 0.11g/t gold from 97.0m;
- 3.0m at 0.36% copper and 0.12g/t gold from 136.0m in PBS-RC-18-002; and
- 4.0m at 0.37% copper and 0.12g/t gold from 150.0m in PBS-RC-18-003.

All drill-holes completed on the Surubim Target were cased ready for DHEM.

The drill-holes completed to date provide an excellent platform to complete future DHEM survey work to assist in vectoring towards potential accumulations of massive and semi-massive sulphides. DHEM survey work at Pebas would likely be undertaken in conjunction with a Fixed Loop EM (FLEM) survey which is being considered for the Salobo West Project.

## IRON ORE PROJECTS

Figure 14: Centaurus Iron Ore Project Locations in south-eastern Brazil.



### CONQUISTA DSO IRON ORE PROJECT

During the Quarter, Centaurus divested its Conquista Iron Ore Project in south-east Brazil to privately-owned Brazilian mining group, R3M Mineração Ltda (“R3M”), as part of the continuing value realisation process from its Brazilian iron ore portfolio.



The transaction is consistent with the Company’s predominant focus of base metal exploration in the world-class Carajás Mineral Province of northern Brazil.

Under the terms of the Agreement, R3M completed payment of R\$500,000 (~A\$185,000) to Centaurus on 19 December 2018 and has also granted the Company a 12% production royalty on all future production from Conquista and a number of surrounding exploration tenements which are prospective for iron ore. As part of this royalty arrangement, Centaurus will receive an upfront payment of R\$1.5 million on the commencement of production from Conquista as an advance of the production royalty.

All proceeds received by Centaurus from the sale of Conquista will be split 75% Centaurus, 25% Terrativa (the original vendor of the Conquista tenements to Centaurus). Terrativa’s share of proceeds arises from the termination of its previous royalty interest in the Project.

## JAMBREIRO IRON ORE PROJECT

The Company’s 100%-owned Jambreiro Project, located in south-east Brazil (Figure 14), is a shovel-ready development project that is licenced for 3Mtpa of wet production and which represents a strategic asset in the Brazilian domestic iron ore and steel sector, particularly with the premium pricing that exists in the market for high grade ore (+65% Fe) such as that which could be produced at Jambreiro.

The Company continues to explore how best to realise value from the Jambreiro Project including a re-analysis of the original process flowsheet and the associated capex and opex parameters to support new joint venture discussions.

## CORPORATE

### Proceeds from Sale of Conquista Iron Ore Project

Centaurus received payment of R\$500,000 (~A\$185,000) from R3M Mineração Ltda during the Quarter under the Conquista Project Sale Agreement outlined above.

### Cash Position

At 31 December 2018, the Company held cash reserves of A\$1.4 million.

### Shareholder Information

At the end of the reporting period, the Company had 2,304,982,165 shares on issue with the Top 20 holding 28% of the total issued capital. Directors and Senior Management held approximately 6% of the total issued capital.

The Company’s capital structure is as follows:

### Quoted Securities

Security	Number
Fully paid ordinary shares (CTM)	2,304,982,165
Listed options, exercise price \$0.01, expiry date 31 August 2019 (CTMOB)	623,049,575



**Unquoted Options**

Expiry date	Exercise price	Employee Options		Options	Total number of shares under option
		Vested	Unvested		
10/06/2019	\$0.0082	8,500,000	-	-	8,500,000
10/06/2020	\$0.0082	8,500,000	-	-	8,500,000
31/05/2020	\$0.0130	18,500,000	-	-	18,500,000
31/05/2021	\$0.0140	18,500,000	-	-	18,500,000
31/05/2022	\$0.0150	-	37,000,000	-	37,000,000
31/01/2020	\$0.0150	-	-	167,500,000	167,500,000
<b>Total</b>		<b>54,000,000</b>	<b>37,000,000</b>	<b>167,500,000</b>	<b>258,500,000</b>

**Unquoted Performance Rights**

The following Performance Rights were issued on 5 September 2017 and are held by Terrativa Minerais SA under the terms of the Company’s Agreement with Terrativa signed in December 2016 in relation to the acquisition of 100% of the Para Exploration Package in Brazil.

Each tranche of Performance Rights will be converted into Ordinary Shares upon the achievement in full of the following vesting conditions:

- Tranche A – 30,000,000 Performance Rights will be converted into 30,000,000 Ordinary Shares if, within a period of 5 years after the date of issue of the Performance Rights, a JORC-compliant Inferred Resource of 500,000oz of gold or gold equivalent is defined on the Pará Exploration Package Project tenements;
- Tranche B – 30,000,000 Performance Rights will be converted into 30,000,000 Ordinary Shares if, within a period of 5 years after the date of issue of the Performance Rights, a JORC-compliant Inferred Resource of 1,000,000oz of gold or gold equivalent is defined on the Pará Exploration Package Project tenements;
- Tranche C – 30,000,000 Performance Rights will be converted into 30,000,000 Ordinary Shares if, within a period of 5 years after the date of issue of the Performance Rights, a JORC-compliant Inferred Resource of 1,500,000oz of gold or gold equivalent is defined on the Pará Exploration Package Project tenements.

During the Quarter none of the Performance Rights were converted or cancelled and no vesting conditions were met.

**DARREN GORDON**  
**MANAGING DIRECTOR**

**Competent Person Statement**

*The information in this report that relates to Exploration Results is based on information compiled by Roger Fitzhardinge who is a Member of the Australasian Institute of Mining and Metallurgy. Roger Fitzhardinge is a permanent employee of Centaurus Metals Limited. Roger Fitzhardinge 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 as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Roger Fitzhardinge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

**Exploration Target**

*This report comments on and discusses Centaurus Metals Limited’s exploration in terms of target size and type. The information relating to Exploration Targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. The potential quantity and quality of material discussed as Exploration Targets is conceptual in nature since there has been insufficient work completed to define them as Mineral Resources or Ore Reserves. It is uncertain if further exploration work will result in the determination of a Mineral Resource or Ore Reserve.*