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# CENTAURUS UNCOVERS EXCITING NEW COPPER-COBALT EXPLORATION OPPORTUNITY AT SERENDIPIDADE, BRAZIL

*Recent review of historical drilling reveals multiple drill-hole intercepts of +0.20% cobalt* 

### <u>Key Points</u>

- The recently identified and validated historical geological, geophysical and drilling database for the Serendipidade Prospect, part of Centaurus' Salobo West Project in Northern Brazil, has revealed an exciting new exploration opportunity.
- The database includes near-surface drill intersections with significant cobalt and copper values such as 4m @ 0.16% cobalt and 0.94% copper from 13m and 10m @ 0.09% cobalt and 0.14% copper from 18m.
- The Prospect is delineated by a +2.5km long x 700m wide Cu-Co-Au-Ag-Mo soil anomaly that is coincident with a strong Electromagnetic (VTEM) response.
- The extensive historical geophysical database over the area includes VTEM, Mag and IP survey work. The EM response at Serendipidade is associated with broad sulphide-rich sedimentary horizons that returned drill intersections of up to 124m @ 0.021% cobalt.
- The Serendipidade Prospect is consistent with a copper-cobalt rich sedimentary-style mineralisation model. The main targets are N-NNE structures that are interpreted to represent the plumbing system for the metal-rich fluids and have the potential to host semi-massive and massive sulphide mineralisation.

Centaurus Metals (ASX Code: **CTM**) is pleased to advise that it has achieved another significant breakthrough in its ongoing evaluation of the 100%-owned **Salobo West Copper-Gold Project** in northern Brazil, with the recent validation of a historical geological, geophysical and drill-hole database for the Serendipidade Prospect area resulting in the identification of a copper-cobalt rich sedimentary style exploration target.

Significant historical drill intersections include (see Table 1 for complete significant intersections):

- 10m @ 0.09% cobalt<sup>1</sup> and 0.14% copper from 18m in DRI10-FD0004;
   o including 3m @ 0.18% cobalt and 0.31% copper
- 4m @ 0.16% cobalt and 0.94% copper from 13m in DRI10-FD0005; and
- 6m @ 0.07% cobalt and 0.30% copper from 23m in DRI10-FD0005.

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<sup>&</sup>lt;sup>1</sup> The upper detection limit for cobalt in the historical data was 0.20%. Five (5) 1 metre intervals recorded cobalt assays above the upper detection limit though a grade of only 0.20% cobalt was applied when reporting these intervals.



The **Serendipidade Prospect** is delineated by a **2.5km long x 700m wide Cu-Co-Au-Ag-Mo soils anomaly** that is coincident with a strong Electromagnetic (VTEM) response.

The EM response is associated with broad, sulphide-rich sedimentary horizons. Historical drilling intersected these units across all sections, which are spaced at 400m intervals. The broad sulphide-rich units all returned thick mineralised intersections with drill hole DRI10-FD0007 returning an extensive cobalt intersection of **124m @ 0.021% cobalt**.

From a review of the geology and geochemical data, it is clear that the Serendipidade Prospect is not an IOCG-style target. The Company considers the Prospect to be a structural/stratigraphically controlled and potentially high-grade copper-cobalt sedimentary style target.

Figure 1 – Serendipidade Prospect, historical drill-hole locations with cobalt (left) and copper (right) soil geochemistry over VTEM image (Ch 33)



The thick package of graphite-pyrite rich sediments dip shallowly (25-35°) towards the south-southwest. These units have been identified in the eight historical drill-holes in this area and have also been mapped at surface. They are also considered to be responsible for the broad strong VTEM anomaly due to their high sulphide content.

The Company will target potentially high-grade, structurally controlled mineralisation at the Serendipidade Prospect. This is expected to be associated with feeder faults (or vents) through which the hydrothermal metalliferous fluids flowed into the sedimentary basin which formed the thick graphite-pyrite rich units.

These targets are expected to be oblique to the stratigraphy and, as such, Centaurus believes that the historical drilling was not orientated optimally to test this type of target. The north-south orientation of the strongest part of the VTEM anomaly and NNE-SSW orientation of the regional structures present excellent target corridors (Figure 1) with east-west orientated drilling considered optimal for this target model.

In order to further refine these targets ahead of drilling, the Company will close in the spacing of the soil sampling and mapping – which is currently spaced at 400m. This work will include re-orientating the soil sample grid over the Prospect to an east-west grid.



The Company also intends to undertake a ground-based FLEM survey to help identify the fault-related massive and semi-massive sulphide occurrences.

#### **Management Comment**

Centaurus Metals Managing Director, Mr Darren Gordon, said the Salobo West Project continued to surprise on the upside with the Serendipidade Prospect once again living up to its name.

"The discovery of this valuable historical geological, geophysical and drilling database has been another major coup by our exploration team, helping to fast-track the definition of new targets," he said.

"Historical drilling has clearly demonstrated the prospectivity for copper and cobalt mineralisation at the Serendipidade Prospect, however, it appears that the orientation of the drilling was not optimally designed to test potential feeder vents – where you would expect to find the higher copper and cobalt grades. This represents an exceptional opportunity to test the Company's new geological model for the area.

"With the SW1-A and SW1-B IOCG prospects and now Serendipidade, we have multiple drill targets to test in the first half of 2018 before considering the potential targets that are beginning to emerge on the recently granted SW2 tenement."

-ENDS-

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#### **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.



#### Table 1 – Serendipidade Prospect - Significant Historical Drill Intersections

								Significant Intersections						
Drill Hole	Prospect	East	North	mRL	Dip	Azi	EOH	Rock Type	From	То	Interval	Cu %	Co %	Au g/t
DRI10_FD0003	Serendipidade	537991	9374369	556	-60	0	200.4	Saprolite	34	48	14	0.63	-	0.03
DRI10_FD0003	Serendipidade							Graph/Py-Phyllite	58	63	5	0.58	-	0.03
DRI10_FD0003	Serendipidade							Graph/Py-Breccia	95	118	23	-	0.020	-
DRI10_FD0003	Serendipidade							Graph/Py-Phyllite	157	186	29	-	0.016	-
DRI10_FD0004	Serendipidade	538008	9374595	588	-60	180	69.7	Saprolite	18	28	10	0.14	0.095	0.05
DRI10_FD0004	Serendipidade						including	Saprolite	18	21	3	0.31	0.182	0.04
DRI10_FD0004	Serendipidade							Saprolite	43	44	1	0.17	0.156	0.02
DRI10_FD0005	Serendipidade	538010	9374455	574	-60	0	241.7	Saprolite	6	13	7	0.23	0.024	0.35
DRI10_FD0005	Serendipidade							Saprolite	13	17	4	0.94	0.163	0.07
DRI10_FD0005	Serendipidade							Saprolite	23	29	6	0.30	0.071	0.14
DRI10_FD0005	Serendipidade						including	Saprolite	25	28	3	0.36	0.102	0.15
DRI10_FD0005	Serendipidade							Graph/Py/Po-Phyllite	118	178	60	-	0.012	-
DRI10_FD0005	Serendipidade							Graph/Py/Po-Phyllite	209	228	19	-	0.016	-
DRI10_FD0006	Serendipidade	538358	9374180	485	-60	0	76.0	Saprolite	44	46	2	-	-	1.15
DRI10_FD0006	Serendipidade							Saprolite	58	62	4	-	-	0.34
DRI10_FD0006	Serendipidade							Graph/Py-Phyllite	65	111	46	-	0.019	
DRI10_FD0006	Serendipidade							Graph/Py-Phyllite	147	180	33	-	0.018	-
DRI10_FD0007	Serendipidade	538400	9374280		-60	0	254.0	Saprolite	8	15	7	0.15	0.014	0.20
DRI10_FD0007	Serendipidade							Graph/Py-Phyllite	53	177	124	-	0.021	-
DRI10_FD0008	Serendipidade	538800	9373875	531	-60	0	200.3	Graph/Py-Phyllite	66	76	10	0.16	-	-
DRI10_FD0008	Serendipidade							Graph/Py-Phyllite	80	105	25	-	0.020	-

Figure 2 - Salobo West 1 Prospect Locations; over Aeromagnetic Image (AS), no magnetic response over Serendipidade Prospect





### APPENDIX B – TECHNICAL DETAILS OF THE SALOBO WEST PROJECT, JORC CODE, 2012 EDITION – TABLE 1

### SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	Commentary
Sampling techniques	<ul> <li>Soil samples were collected at 50m intervals along 200m or 400m spaced grid lines along the strike of the project.</li> <li>Surface material was first removed and sample holes were dug to roughly 20-30cm depth. A 4-5kg sample was taken from the subsoil. The sample was placed in a plastic sample bag with a sample tag before being sent to the lab.</li> <li>Surface rock chip/soil samples were collected from in situ outcrops and rolled boulders and submitted for chemical analysis.</li> <li>Historical sampling was completed by Anglo American. Soil samples were collected in two phases; initially on SE-NW lines 2.5km apart with samples every 100m, then on N-S lines 400m apart with samples every 50m. A 3-5kg sample was taken from the B horizon with the &lt;6mm fraction sent for assay.</li> </ul>
Drilling techniques	• Historical drilling was carried out with a wireline hydraulic rig, drilling NQ and HQ core.
Drill sample recovery	• For diamond drilling, core recoveries were logged and recorded in the database for all historical diamond holes. Overall recoveries are >90% and there are no core loss issues or significant sample recovery problems recorded.
Logging	<ul> <li>All outcrop and soil sample points were registered and logged in the Centaurus geological mapping points database</li> <li>All historical drill holes have been logged geologically. No geotechnical logs were identified</li> <li>Logging for both forms of drilling is qualitative and quantitative in nature</li> <li>There is no photographic record of the historical drill core.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>All geological samples were received and prepared by SGS Geosol Laboratories in Parauapebas, Brazil as 0.5-5kg samples. They were dried at 105°C until the sample was completely dry (6-12hrs), crushed to 90% passing 3mm and reduced to 200-300g. The samples were pulverised to 95% passing 150µm and split further to 50g aliquots for chemical analysis.</li> <li>Historical diamond core (HQ) was cut with a specialized sampling tool where friable or using a core saw where compact (HQ and NQ), half core was sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>Chemical analysis for soil samples was completed for gold by fire assay and ICP for limit of 0.001ppm as well as multi element using ICP.</li> <li>Chemical analysis for metal oxides is determined using XRF analysis (XRF79C). Fusion disks are made with pulped sample and the addition of a borate based flux. Analysis at ALS is for a 10 element suite. FeO is determined using titration and LOI using loss determination by thermo-gravimetric analysis at 100°C.</li> <li>The SGS lab inserts its own standards at set frequencies and monitors the precision of the XRF analysis. These results reported well within the specified 2 standard deviations of the mean grades for the main elements. Additionally the labs perform repeat analyses of sample pulps at a rate of 1:20 (5% of all samples). These compare very closely with the original analysis for all elements.</li> <li>Laboratory procedures are in line with industry standards.</li> <li>To date no QAQC samples were inserted by Centaurus for this project.</li> <li>Drill core samples were prepared and analysed at multiple labs, the main being SGS Geosol Laboratories. Preparation of the sample consisted of drying, crushing to 2mm and pulverising 300gm using a carbon steel mill until 95% of sample passes -150 mesh. The pulverised sample was then split to 50 grams.</li> <li>Chemical analysis for drill core, soil and stream sediment samples was completed for gold by fire assay and ICP for limit of 0.001ppm as well as multi element using ICP.</li> <li>Anglo American inserted standard samples every 20 samples (representing 5%). Results of the QAQC data are not known.</li> <li>Laboratory procedures are in line with industry standards.</li> </ul>



Verification of sampling and assaying	<ul> <li>All recent samples were collected by Centaurus field geologists. All assay results were verified by alternative Company personnel and the Competent Person before release.</li> <li>All historical samples were collected by Anglo American field geologists/technicians.</li> </ul>
Location of data points	• The survey grid system used is SAD-69 22S. This is in line with Brazilian Mines Department requirements. All sample and mapping points were collected using a Garmin hand held GPS.
Data spacing and distribution	• Soil samples were collected on 50m spacing on section with distance between sections of 200m and 400m depending on location.
	• Sample spacing was deemed appropriate for geochemical studies but should not be considered for Mineral Resource estimations.
	<ul> <li>Drill holes reported in this announcement were surveyed using hand held GPS.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	• The extent and orientation of the mineralisation was interpreted based on field mapping and review of regional geological and geophysical data. Sample orientation is perpendicular to the main geological features sequence along which mineralisation exists.
Sample security	<ul> <li>All samples were placed in pre-numbered plastic sample bags and then a sample ticket is placed within the bag as a check. Bags are sealed and placed in larger bags (10 samples per bag) and then transported by courier to the SGS Geosol laboratories in Parauapebas, PA. Sample request forms are sent with the samples and via email to the labs. Samples are checked at the lab and a work order is generated by the lab which is checked against the sample request.</li> <li>The sample security process for the historical drill samples is not known.</li> </ul>
Audits or reviews	• The Company is not aware of any audit or review that has been conducted on the project to date.

### SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Salobo West project includes the two exploration leases 850.430/2016 and 850.429/2016, for a total of circa 120km<sup>2</sup>.</li> <li>The tenements are part of an earn-in agreement with Terrativa Minerais SA. Centaurus has now met the minimum earn in obligations under the Agreement and perfected 100% title to the Salobo West tenements. Only the SW1 tenement has been transferred at this stage as the SW2 tenement has only recently been granted. Terrativa retain a production royalty of 2% over any minerals extracted from the tenements. The royalty may be converted to a 25% project interest should it be sold to a third party.</li> <li>All mining projects in Brazil are subject to a CFEM royalty, a government royalty of 2% on copper and gold revenues and 2-4% on iron ore revenues.</li> <li>Landowner royalty is 50% of the CFEM royalty.</li> <li>The project is covered by the Tapirape-aquiri National Forest. Exploration and mining is allowed in the forest with the correct licences. The Company has received the key environmental licences for non-ground disturbing exploration activities.</li> </ul>
Exploration done by other parties	<ul> <li>Historically the Salobo West tenements have been held by Anglo American and before that Vale. Reports recovered from the Department of Mines demonstrate that Anglo American completed extensive mapping, soils sampling and local geophysical surveys.</li> <li>The Company recently retrieved a historical data set that includes, geological mapping, soils geochemistry, geophysical data and an incomplete drill hole database.</li> <li>Geological mapping and soils sampling is being used to validate historical data and independent experts are assessing the geophysical data.</li> </ul>
Geology	• The Salobo West tenements are located in the Carajás Mineral Province, located in the south-eastern part of the Amazon craton in northern Brazil. The CMP represents an Archean block divided into two distinct tectonic domains. Salobo West is located in the northern Carajás domain within the Cinzento Shear Zone. The Salobo West tenements cover a portion of the Itacaiúnas Supergroup where it contacts with Xingu basement rock.



Criteria	Commentary					
	<ul> <li>The Company is targeting IOCG deposits. These deposits are generally structurally controlled, brittle-ductile shears zones hosted within the highly prospective volcanic and sedimentary rocks of the Itacaiúnas Supergroup.</li> <li>IOCG deposits in the Carajás are generally massive replacement bodies, associated with the magnetite-rich rocks that are the product of intense Fe-K hydrothermal alteration at high temperatures. This style of mineralisation is highly amenable to modern geophysical exploration techniques, especially EM, radiometric and gravity surveys.</li> <li>The SW1-A and SW1-B Prosects are IOCG targets.</li> <li>The Serendipidade Prospect fits a copper-cobalt SedEx style mineralisation model. The main targets are the N-NNE structures that are interpreted to represent the plumbing system for the metal-rich fluids and potential host to semi-massive and massive sulphide mineralisation.</li> </ul>					
Drill hole Information	• Refer to Figures 1 and 2 and Table 1.					
Data aggregation methods	<ul> <li>No cut-offs have been applied in reporting of the exploration results.</li> <li>No aggregate intercepts have been applied in reporting of the exploration results.</li> </ul>					
Diagrams	• Refer to Figures 1 and 2.					
Balanced reporting	• All validated exploration results received by the Company to date are included in this report or can be referenced in previous ASX announcements.					
Other substantive exploration data	<ul> <li>The Company is working with the CPRM geological and geophysical regional data sets.</li> <li>The Company has recovered historical Mines Department reports and data and is in the process of validating the historical data from the project area.</li> </ul>					
Further work	<ul> <li>The Company has engaged Grant "Rocky" Osborne and Southern Geoscience Consultancy to carry out additional work on the historical data.</li> <li>The Company mobilized its field team to the Salobo West project to carry out survey line clearing, geological mapping and soils geochemical sampling.</li> </ul>					