AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT
AND MEDIA RELEASE

CentaurusMetals
Limited

15 March 2023

STRONG RESULTS FROM JAGUAR PILOT PLANT TESTWORK SUPPORT PATHWAY TO BATTERY-GRADE NICKEL SULPHATE PRODUCT

Successful pilot program supports development strategy, with piloting to continue until the end of April resulting in the implementation of a revised schedule that will see the DFS completed in late Q4 2023

- **Comprehensive mineralogical testing and analysis of the Jaguar ore completed to support process flowsheet development.**
- **Extensive flotation testwork demonstrated over 94% sulphide nickel recovery to concentrate (equivalent total nickel recovery of 78% based on average head grade of current Mineral Resource Estimate), with over 800kg of high-quality concentrate produced to feed the Jaguar Pilot Plant.**
- **Pilot plant campaign is progressing well after initial delays due to unavailability of testing facilities at ALS Metallurgy in Perth, WA. Two of the four phases of work have now been completed with the third phase currently underway.**
- **Key results from the pilot work completed to date include:**
    - **High leach extraction of nickel at 98.6%.**
    - **Very efficient zinc/calcium recovery in solvent extraction (SX) circuit (D2EPHA). Over 99% of zinc and calcium extracted from the leach solution with minimal losses of nickel (0.8% nickel).**
    - **A high-purity zinc hydroxide product can be produced for sale to benefit overall project economics.**
- **Work to date continues to confirm the quality of the Jaguar Project and its potential to produce a battery-grade nickel sulphate product for the rapidly growing EV market.**
- **This is further supported by the significant endowment of the Jaguar deposit (JORC MRE: 938,000t of contained nickel with 730,000t of contained nickel in the Measured and Indicated categories).**
- **The pilot work will continue through to the end of April, with the flow-on impact being a delay in the completion of the process design for the refinery. In light of this, the DFS delivery date is scheduled towards the end of Q4 2023 and the Final Investment Decision (FID) has been scheduled for Q3 2024.**
- **Several key personnel appointments have been made to support the DFS delivery and future Front-End Engineering & Design (FEED) work, further strengthening Centaurus' in-house team and bringing a wealth of experience in the resource sector in the critical areas of process engineering, metallurgy and project execution to the Group.**
- **Centaurus remains well-funded with approximately $34 million in cash at the end of the December Quarter.**

Centaurus Metals (ASX Code: **CTM,** OTCQX: **CTTZF**) is pleased to provide an update on ongoing metallurgical (pilot plant) testwork, key personnel appointments and other key work streams being progressed as part of the ongoing Definitive Feasibility Study (DFS) on its 100%-owned **Jaguar Nickel Sulphide Project** in north-eastern Brazil.

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The Company has received highly encouraging preliminary results from the pilot plant testwork program currently underway at ALS Metallurgy in Perth, reinforcing the quality of the Jaguar Project and supporting its potential to achieve excellent nickel recoveries and ultimately deliver a battery-grade nickel sulphate product for the rapidly growing Electric Vehicle (EV) market.

Notwithstanding these excellent results, the delayed start to the pilot testwork program will see this program continue until the end of April, resulting in a delay to the important process flowsheet design for the refinery circuit. In light of this, the completion schedule for the Definitive Feasibility Study (DFS) has been revised to late Q4 2023, with a Final Investment Decision (FID) scheduled for Q3 2024.

Centaurus Metals Managing Director, Darren Gordon, said the results from the initial phases of the pilot plant testwork program were equal to or better than expectations, supporting the process design for the downstream refinery and validating the Company's development strategy for the Jaguar Nickel Sulphide Project.

> *"The results we have seen to date have reinforced our belief that Jaguar is a Tier-1 nickel project with a very low GHG profile that is ideally placed to deliver Class 1 nickel products into the rapidly growing EV-battery market.*
>
> *"We are seeing very high levels of metal extraction from the refining of flotation concentrates in pilot testwork, with nickel extraction in the leach circuit of over 98%. With this we expect to see a very high nickel recovery from concentrate to sulphate once piloting work is complete.*
>
> *"Efficient separation of zinc will further enhance the project economics at Jaguar from by-product revenue generation as it is likely that a zinc hydroxide product will be produced for delivery to the zinc smelter market. Further, Phase 3 of the pilot program – which is currently underway – is expected to produce a cobalt hydroxide product, further adding to the by-product revenue streams from Jaguar.*
>
> *"The pilot program is in full swing and will now continue until the end of April, with results to be collated and fed into the final process flowsheet design for the refinery circuit. Given the scale and importance of this work, it is vital that we get this right to ensure we deliver the high quality project and product to the market as planned. The team has worked hard to reconfigure the overall DFS schedule, and our master schedule now shows a completion time of late Q4 2023 rather than mid-2023, pushing out the FID to Q3 2024.*
>
> *"While delays are always regrettable, our primary focus is on maximising the long-term value of this exceptional asset for our shareholders and delivering a project that will successfully ramp up to full production and stand the test of time. The resource industry globally, including all of the consultants and service groups that support it, are currently working at capacity, and we have to be pragmatic about this, while also ensuring that we never compromise on the quality of work undertaken for this very important phase of the DFS for the sake of timelines. The team is confident that we can meet the revised timeline of late Q4.*
>
> *"I would also like to take this opportunity to welcome a number of important new additions to our team, as detailed in this announcement. The additional expertise and capability they bring will help to ensure that we maintain quality and achieve our targets."*

Metallurgy and Pilot Plant Testwork

Mineralogy

Centaurus has completed comprehensive testing and analysis of the mineralogy of the Jaguar Nickel Project as part of which 3km of core, drilled by Centaurus, was selected for mineralogical testing. The core was selected from geologically important areas across the entirety of the resource base of the Project, including Jaguar South, Jaguar Central, Jaguar West, Jaguar Central North, Jaguar North, Jaguar North-East, Onça Preta and Onça Rosa (see Table 1).

In addition to testing the geochemistry, 136 mineralogical composites were analysed by X-Ray Diffraction (XRD) and optical mineralogy. The details of the origin of the core are illustrated in Table 1 while Figure 1 outlines the average sulphide mineralogy of the ore zones.

Table 1: Jaguar Nickel Project Mineralogy Origins

	December 2022 MRE Update (Table 4)				Mineralogy	
	Mt	%Ni	Ni t	% Ni t	Number of Samples	Metres Analysed
Jaguar South	34.6	0.92	316,500	33.7	91	1,091
Jaguar Central	12.5	0.81	100,400	10.7	54	837
Jaguar North	3.2	1.15	36,600	3.9	15	180
Jaguar Central North	14.2	0.62	88,100	9.4	13	149
Jaguar North-East	16.8	0.75	126,200	13.4	19	244
Jaguar West	8.7	0.72	63,100	6.7	23	205
Onça Preta	14.2	1.23	173,900	18.5	23	190
Onça Rosa	1.8	0.98	18,600	2.0	9	69
Tigre	2.0	0.77	15,100	1.6	-	-
Total	**108.0**	**0.87**	**938,500**	**100.0**	**247**	**2,965**

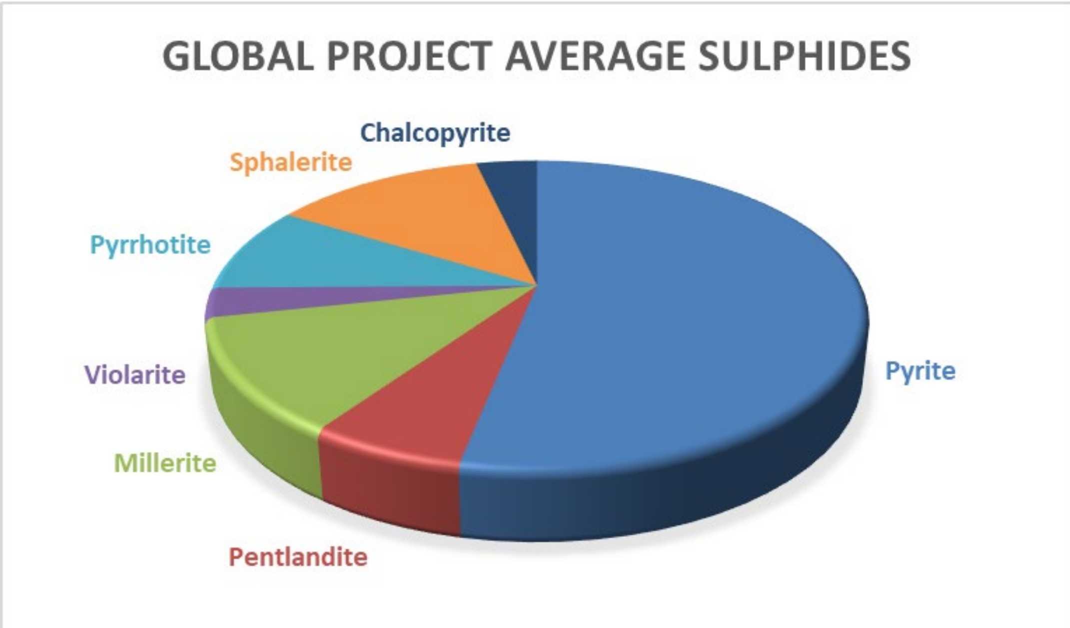

Figure 1: Average Sulphide Mineralogy of the Jaguar Nickel Project's Ore Zones

The mineralogy work has provided significant understanding of the ore zones at Jaguar, including:

- The distribution of ore hardness across ore zones;
- The relative proportions of nickel sulphides (millerite, pentlandite or violarite);
- The proportions of recoverable nickel sulphides from the ore zones;
- The average mineral grain size and associations of the target minerals;
- Important geometallurgical relationships (flotation metal and mass recovery expectations); and
- For Jaguar ore zones, nickel sulphide recovery is independent of nickel head grade.

From this work Centaurus has developed a detailed understanding of the ore types at the Jaguar Project, with how to best process them and the resultant concentrate quality produced.

Of particular importance for the concentrator circuit is the determination of sulphide nickel (which is recoverable by flotation). Figure 2 illustrates the sulphide nickel to total nickel relationship for the Jaguar and Onça deposits. There is a consistent background of non-sulphide nickel across the different deposits (see Figure 2) and, as such, the higher the total nickel grade the lower proportion of non-sulphide nickel losses and the higher nickel flotation recovery that will be achieved.

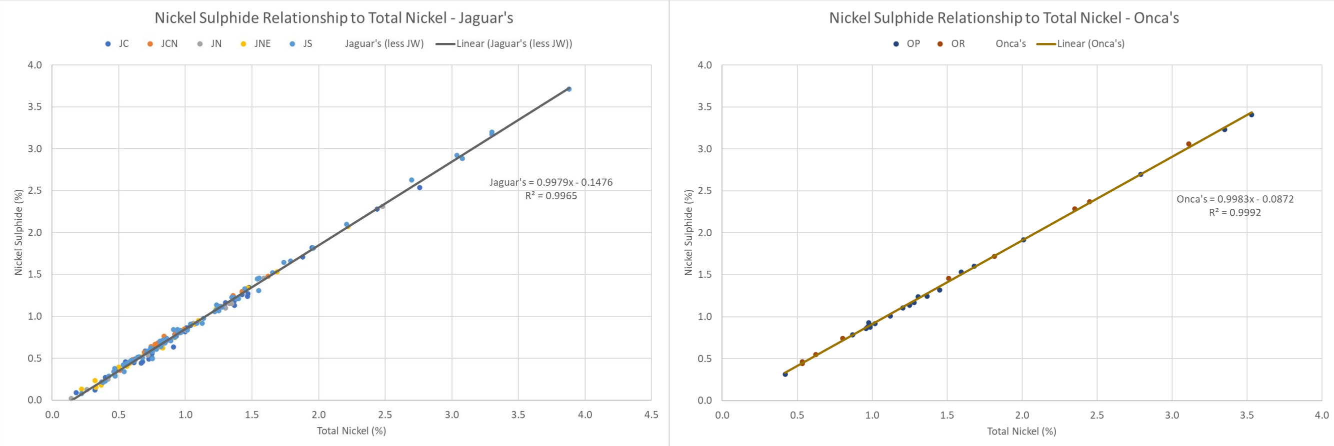

Figure 2: Total Nickel to Sulphide Nickel Relationship

Flotation Testwork

Extensive flotation testwork has been completed on the Jaguar nickel sulphide ore, with over 800kg of high-quality concentrate produced for feed to the Jaguar Pilot Plant. Variability composites were also prepared and tested. The flotation work has provided an extensive geometallurgical understanding for optimisation of the mining schedule.

The testwork and geometallurgical analysis of the data has defined the following parameters:

- Concentrate mass recovery
- Nickel sulphide recovery
- Copper recovery
- Sulphur recovery
- Zinc recovery
- Cobalt recovery
- Ore hardness parameters

From the flotation testwork, **Centaurus estimates that it will be able to recover approximately 94% of the sulphide nickel processed to a concentrate (which is approximately 78% of the total nickel at the average head grade in the MRE).**

The 800kg of bulk concentrate used as feed for piloting of the refinery had the following product specification (Table 2)

Table 2: Pilot Bulk Concentrate Sample Analysis

Ni (%)	Cu (%)	Co (%)	Zn (%)	Al (%)
11.2	0.72	0.31	3.07	0.44
Cl (%)	**As (%)**	**F (%)**	**Fe (%)**	**K (%)**
<0.01	<0.01	<0.01	30.3	0.13
MgO (%)	**Fe/MgO**	**Pb (%)**	**S (%)**	**P (%)**
2.56	11.9	0.05	36.7	0.42

Pilot Plant

Centaurus' piloting program for the Jaguar Project has been developed to provide detailed chemistry and process engineering data for the DFS and future front-end engineering design (FEED) requirements, as well as to ensure a high-quality nickel product is achieved for marketing and offtake discussions.

The pilot program will also confirm the by-products that can be produced from the Jaguar process flowsheet so that all viable revenue streams from Jaguar can be considered in the project economics of the DFS.

The Pilot Plant testwork commenced in January 2023 (at ALS Metallurgy in Balcatta, Western Australia) when the pilot facilities were made available to Centaurus following extensions of piloting work programs of other companies in the piloting queue.

The scope of the Refinery piloting is split into four phases of work as follows:

- Phase 1: Concentrate feed preparation, pressure leaching, and copper solvent extraction.
- Phase 2: Calcium and zinc removal via solvent extraction.
- Phase 3: Cobalt/magnesium and nickel solvent extraction circuits.
- Phase 4: Nickel sulphate crystallisation plus zinc and cobalt hydroxide precipitate production.

Phase 1 and Phase 2 have been completed with Phase 3 underway (due for completion by the end of March) and Phase 4 to be completed by the end of April 2023.

Phase 1

Phase 1 treated the flotation concentrate, the specification of which is outlined above in Table 2. The flowsheet included oxidative pressure leaching (POX) in an autoclave with cooling by flash recycling, primary neutralisation, copper solvent extraction and secondary neutralisation (Figure 3 and Figure 4).

Figure 3: Pressure Leaching in Autoclave at ALS

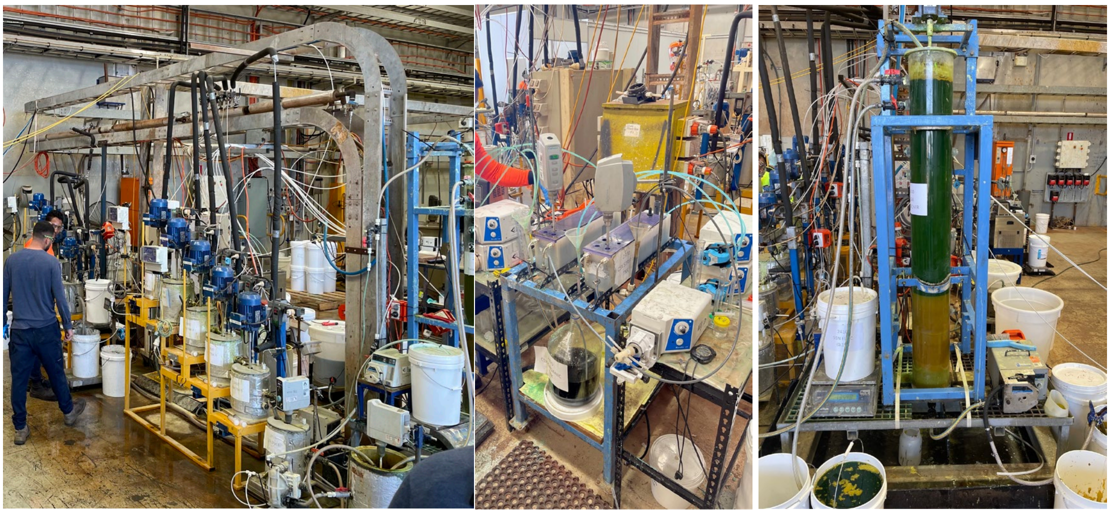

Figure 4: Primary Neutralisation, Copper Solvent Extraction and Secondary Neutralisation

Phase 1 of the pilot plant performed well and generated extensive chemistry and engineering data for the completion of the process design of the refinery, as planned. Of note were the following observations and results:

- The established flowsheet was able to produce high extractions continuously.
- The extractions of nickel, copper, zinc, and cobalt sulphides were better than anticipated at 98.6%, 96.6%, 95.6% and 60.8% respectively.
- Only 45% of the sulphides need to be oxidised to achieve the metal extractions which will translate into reduced oxygen consumption and acid generation and savings in neutralisation costs.
- A 3.5-hour retention time was achieved which was better than the 4-hour leach previously indicated from batch testwork.
- The thickening and filtration design data provided better than expected settling/filtration rates and solute recovery.

Further bench scale testwork has been completed by ALS on the pilot feed concentrate to positively verify the scale up relationship between the bench scale tests and the results achieved in continuous piloting. This provides the Company with confidence in using small-scale batch testing for concentrate variability.

Phase 2

Phase 2 & 3 of the pilot work defines the **solvent extraction requirements** of the flowsheet.

Phase 2 is designed to extract zinc (for a by-product revenue stream) and soluble calcium from Phase 1 leach solution with minimal nickel loss, whilst Phase 3 is designed to initially extract cobalt (again for a by-product revenue stream) and magnesium followed by the purification of the nickel solution to produce nickel sulphate.

From the Phase 2 solvent extraction work, three product/waste streams are produced:

1. A raffinate primarily containing nickel/cobalt/magnesium/manganese;
2. A zinc strip solution; and
3. A calcium strip solution for waste deposition.

The 14-day (Phase 2) piloting of zinc and calcium solvent extraction has been completed using D2EPHA extractant and a **solvent extraction circuit** configuration (Figure 5) that was **successful in extracting over 99% of the zinc and calcium whilst only losing less than 0.8% of the nickel** (Table 3).

Table 3: Phase 2 Product Average Solution Concentrations

Solution	Ca (mg/L)	Co (mg/L)	Mg (mg/L)	Mn (mg/L)	Ni (mg/L)	Zn (mg/L)
Product to Phase 3 Future Testing	7	772	2940	54	37670	3
Zinc Product Solution	382	<1	0.1	0.6	0.3	43290

While the product testing has not been fully completed yet, the **test work shows that a high purity zinc hydroxide product can be generated** providing an additional revenue stream not considered in prior economic assessments of the project. The results from Phase 2 confirmed the initial laboratory scale batch test work results.

Figure 5: Phase 2 Pilot - Zinc & Calcium Solvent Extraction (with Principal Metallurgist, John Knoblauch and GM Operations, Wayne Foote)

Phase 3 and Phase 4

Phase 3 of the pilot commenced early March (Figure 6) and Phase 4 will commence shortly after Phase 3 is complete.

Figure 6: Phase 3 Pilot - Cobalt and Manganese Solvent Extraction & Nickel Purification

As noted above, Phase 3 is designed to initially extract cobalt and magnesium from the Phase 2 raffinate to allow production of a cobalt hydroxide product which will then be followed by the purification of the nickel solution to produce nickel sulphate.

Phase 3 and Phase 4 will be completed by the end of March and end of April respectively. This will deliver all necessary data for the completion of the important refinery process design for the DFS as well as producing battery grade nickel product for marketing and offtake negotiations.

New Appointments

The Company is pleased to advise that several key personnel appointments have been made to support the delivery of the DFS and future Front-End Engineering & Design (FEED) work. The appointments bring a wealth of additional experience in the resource sector to Centaurus and significantly add to the existing process engineering, metallurgy and hydrometallurgical experience within the group.

Mick Ryan – Project Manager

Mick brings **over 40 years' experience** to the project team in the mining industry in an **extensive array of operational, project & construction management and consulting metallurgist roles** covering a range of commodities and international locations. He has held project management roles in nickel, niobium and gold for Australian and International Projects and as a metallurgist he has been in the forefront of a number of large scale mining projects and process technologies, including flotation of base metals (Ban Phuc Vietnam, Red Dome QLD, Yackabindie WA, Oyu Tolgoi Mongolia and Kanyika Malawi), nickel laterite hydrometallurgy and refining (Murrin Murrin WA, NiWest WA, Syerston NSW, Ambatovy Madagascar and Weda Bay Indonesia) and chloride leach technologies. He heads up a diverse team of engineering professionals, consultants and contractors to deliver the Jaguar Nickel Project feasibility study, engineering and execution.

Sarah Mitchell – Consultant Metallurgist

Sarah brings to the team a wealth of metallurgical, project studies and commissioning management experience. With over 25 years' experience in metallurgy and process development for complex flow sheets in nickel, cobalt, copper, uranium and other metals, Sarah has been engaged to support the development of the refinery solvent extraction and nickel sulphate crystalliser flow sheet and design. Most recently, Sarah spent **four years as the Commissioning Manager for BHP with responsibility for commissioning of new processing facilities across Australia including the commissioning of the nickel sulphate crystalliser in Kwinana, Western Australia**.

Barun Dutta – Engineering Manager

Barun has over 30 years' experience in senior leadership roles in engineering, project and asset management in Australia and internationally including engineering management on **project builds up to USD4.4B in South America** and operational asset maintenance responsibility for a 60ktpa nickel refinery in Madagascar using process equipment similar to that contemplated for Jaguar. Barun most recently worked for Newmont and is a Fellow of Engineers Australia.

Glenn Firth – Environmental and Compliance Specialist

Glenn has over **30 years' experience in environmental management** in mining operations, project studies and as a consultant with significant experience in the development, implementation and auditing of health, safety and environmental management systems in Australia and internationally. Glenn is an accredited Environmental Management Systems (ISO14001) auditor.

Richard Kelly – Project Engineer

Richard has over 20 years' experience in site project execution on owner and engineering teams including with Samsung at the Roy Hill Project and FMG's Solomon Hub. Richard brings **significant experience in project controls, logistics and contracts administration** to the team. For the past seven years Richard has managed site projects including tailings storage facility and sustaining capital projects at a gold mine in WA.

For further information on the Company please visit www.centaurus.com.au to view our latest corporate presentation or contact:

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Competent Person's Statements

The information in this report that relates to Exploration Results is based on information compiled by Mr Roger Fitzhardinge who is a Member of the Australasia Institute of Mining and Metallurgy. Mr Fitzhardinge is a permanent employee and shareholder of Centaurus Metals Limited. Mr 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'. Mr Fitzhardinge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the November 2022 Jaguar Mineral Resources is based on information compiled by Mr Lauritz Barnes (consultant with Trepanier Pty Ltd) and Mr Roger Fitzhardinge (a permanent employee and shareholder of Centaurus Metals Limited). Mr Barnes and Mr Fitzhardinge are both members of the Australasian Institute of Mining and Metallurgy. Mr Barnes and Mr Fitzhardinge have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons 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. Specifically, Mr Fitzhardinge is the Competent Person for the database (including all drilling information), the geological and mineralisation models plus completed the site visits. Mr Barnes is the Competent Person for the construction of the 3-D geology / mineralisation model plus the estimation. Mr Barnes and Mr Fitzhardinge consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

Table 4 – The Jaguar JORC Mineral Resource Estimate by Deposit – November 2022

Deposit	Classification	Mt	Grade Ni %	Cu %	Co ppm	Zn %	Contained Metal Ni	Cu	Co	Zn
Jaguar South	Indicated	27.6	0.87	0.05	198	0.13	240,300	13,000	5,500	37,200
	Inferred	7.0	1.10	0.07	262	0.09	76,300	4,600	1,800	6,400
	Total	**34.6**	**0.92**	**0.05**	**211**	**0.13**	**316,500**	**17,600**	**7,300**	**43,600**
Jaguar Central	Measured	8.9	0.88	0.05	252	0.56	78,600	4,900	2,300	50,400
	Indicated	2.9	0.61	0.04	207	0.24	17,300	1,000	600	6,700
	Inferred	0.7	0.68	0.05	210	0.19	4,500	300	100	1,200
	Total	**12.5**	**0.81**	**0.05**	**239**	**0.47**	**100,400**	**6,200**	**3,000**	**58,400**
Jaguar North	Indicated	2.7	1.14	0.17	383	1.19	30,900	4,500	1,000	32,200
	Inferred	0.5	1.19	0.23	387	1.16	5,700	1,100	200	5,600
	Total	**3.2**	**1.15**	**0.18**	**383**	**1.19**	**36,600**	**5,600**	**1,200**	**37,800**
Jaguar Central North	Indicated	10.2	0.61	0.04	189	0.62	62,000	3,600	1,900	63,500
	Inferred	4.0	0.66	0.04	197	0.44	26,100	1,700	800	17,600
	Total	**14.2**	**0.62**	**0.04**	**191**	**0.57**	**88,100**	**5,300**	**2,700**	**81,100**
Jaguar Northeast	Indicated	13.3	0.71	0.09	269	0.50	95,100	11,700	3,600	66,100
	Inferred	3.5	0.89	0.21	317	0.55	31,200	7,200	1,100	19,300
	Total	**16.8**	**0.75**	**0.11**	**279**	**0.51**	**126,200**	**18,900**	**4,700**	**85,400**
Jaguar West	Indicated	7.8	0.72	0.03	168	0.13	56,200	2,300	1,300	9,800
	Inferred	0.9	0.75	0.04	157	0.05	6,900	300	100	400
	Total	**8.7**	**0.72**	**0.03**	**167**	**0.12**	**63,100**	**2,600**	**1,500**	**10,200**
Jaguar Deposits	**Measured**	**8.9**	**0.88**	**0.05**	**252**	**0.56**	**78,600**	**4,900**	**2,300**	**50,400**
	Indicated	**64.5**	**0.78**	**0.06**	**216**	**0.33**	**501,800**	**36,100**	**13,900**	**215,500**
	Inferred	**16.5**	**0.91**	**0.09**	**254**	**0.31**	**150,500**	**15,200**	**4,200**	**50,500**
	Total	**89.9**	**0.81**	**0.06**	**226**	**0.35**	**730,900**	**56,200**	**20,400**	**316,400**
Onça Preta	Measured	5.1	1.39	0.10	636	0.33	70,800	4,900	3,200	17,000
	Indicated	4.5	1.19	0.09	517	0.15	53,800	4,100	2,300	6,900
	Inferred	4.5	1.08	0.08	436	0.07	49,200	3,700	2,000	3,000
	Total	**14.2**	**1.23**	**0.09**	**534**	**0.19**	**173,900**	**12,700**	**7,600**	**26,900**
Onça Rosa	Indicated	1.9	0.98	0.08	281	0.03	18,200	1,400	500	500
	Inferred	0.04	0.92	0.05	304	0.02	400	20	10	10
	Total	**1.9**	**0.98**	**0.07**	**282**	**0.03**	**18,600**	**1,400**	**500**	**500**
Tigre	Indicated	**0.8**	**0.86**	**0.09**	**303**	**0.04**	7,100	700	200	300
	Inferred	**1.2**	**0.70**	**0.06**	**248**	**0.02**	8,100	700	300	300
	Total	**2.0**	**0.77**	**0.07**	**271**	**0.03**	**15,100**	**1,400**	**500**	**600**
Jaguar MRE	**Measured**	**14.0**	**1.06**	**0.07**	**391**	**0.48**	**149,400**	**9,800**	**5,500**	**67,300**
	Indicated	**71.7**	**0.81**	**0.06**	**238**	**0.31**	**580,900**	**42,300**	**17,000**	**223,300**
	Inferred	**22.2**	**0.94**	**0.09**	**291**	**0.24**	**208,200**	**19,700**	**6,500**	**53,700**
	Total	**108.0**	**0.87**	**0.07**	**269**	**0.32**	**938,500**	**71,700**	**29,000**	**344,400**

** Within pit limits cut-off grade 0.3% Ni; below pit limits cut-off grade 0.7% Ni; Totals are rounded to reflect acceptable precision, subtotals may not reflect global totals. All oxide material is considered as waste and therefore not reported as Resources.*

APPENDIX A – Compliance Statements for the Jaguar Project

The following Tables are provided for compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results and Mineral Resources at the Jaguar Project.

SECTION 1 - SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections).

Criteria	Commentary
Sampling techniques	• Historical soil sampling was completed by Vale. Samples were taken at 50m intervals along 200m spaced north-south grid lines. • Surface material was first removed, and sample holes were dug to roughly 20cm depth. A 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. • Surface rock chip/soil samples were collected from in situ outcrops and rolled boulders and submitted for chemical analysis. • The historical drilling is all diamond drilling. Drill sections are spaced 100m apart and generally there is 50 to 100m spacing between drill holes on sections. • Core was cut and ¼ core sampled and sent to commercial laboratories for physical preparation and chemical assay. • At the laboratories, samples were dried (up to 105°C), crushed to 95% less than 4mm, homogenized, split and pulverized to 0.105mm. A pulverized aliquot was separated for analytical procedure. • Sample length along core varies between 0.3 to 4.0m, with an average of 1.48m; sampling was done according to lithological contacts and generally by 1m intervals within the alteration zones and 2m intervals along waste rock. • Current drilling is being completed on spacing of 100m x 50m or 50m x 50m. Sample length along core varies between 0.5 to 1.5m • Core is cut and ¼ core sampled and sent to accredited independent laboratory (ALS). • For metallurgical test work continuous downhole composites are selected to represent the metallurgical domain and ¼ core is sampled and sent to ALS Metallurgy, Balcatta, Perth. ¼ core samples have been taken from 187 resource drill holes across all deposits as well as hole core samples from 34 designated metallurgical drill holes (twins of resource holes). • Samples from RC drilling are split to make 3-5kg samples. The sample is placed in a plastic sample bag with a sample tag before being sent to the laboratory.
Drilling techniques	• Historical drilling was carried out between 2006 to 2010 by multiple drilling companies (Rede and Geosol), using wire-line hydraulic diamond rigs, drilling NQ and HQ core. • Vale drilled 169 drill holes for a total of 56,592m of drilling in the resource area. All drill holes were drilled at 55°-60° towards either 180° or 360°. The resource considers 229 drill holes completed by Centaurus for a total of 47,917m of drilling. All drill holes were drilled at 55°-75° towards either 180° or 360°. • Current drilling is a combination of HQ and NQ core (Servdrill). • The current RC drilling is completed by Geosenda Sondagem using a face sampling hammer (4.5”). Sample is collected from the sample cyclone in large plastic sample bags. Samples are then split either by riffle splitters or manually (fish bone method) where there is high moisture content. • All RC holes were sampled on 1m intervals. Sample size, sample recovery estimate and conditions were recorded.
Drill sample recovery	• Diamond Drilling recovery rates are being calculated at each drilling run. • For all diamond drilling, core recoveries were logged and recorded in the database for all historical and current diamond holes. To date overall recoveries are >98% and there are no core loss issues or significant sample recovery problems. • To ensure adequate sample recovery and representativity a Centaurus geologist or field technician is present during drilling and monitors the sampling process. • No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated. • RC sample weights are taken for all samples and a recovery estimate are made where the sample is not wet. Where the sample is wet a visual estimate of the sample recovery is made. The estimated recovery is approximately 90%, which is considered acceptable for the deposit type. • To ensure the representative nature of the sample, the cyclone and sample hoses are cleaned after each metre of drilling, the rig has two cyclones to facilitate the process. Additionally, extra care is taken when drilling through the water table or other zones of difficult ground conditions. • No quantitative twinned drilling analysis has been undertaken at the project to date.

Criteria	Commentary
Logging	• Historical outcrop and soil sample points were registered and logged in the Vale geological mapping point database. • All drill holes have been logged geologically and geotechnically by Vale or Centaurus geologists. • Drill samples are logged for lithology, weathering, structure, mineralisation and alteration among other features. Logging is carried out to industry standard and is audited by Centaurus CP. • Logging for drilling is qualitative and quantitative in nature. • All historical and new diamond core has been photographed. • Geologists complete a visual log of the RC samples on 1m intervals at the time of drilling. Logging captures colour, rock-type, mineralogy, alteration and mineralisation style. Logging is both qualitative and quantitative. • Chip trays have been collected, photographed and stored for all drill holes to-date.
Sub-sampling techniques and sample preparation	• Diamond Core (HQ/NQ) was cut using a core saw, ¼ core was sampled. Sample length along core varies between 0.3 to 4.0m, with an average of 1.48m; sampling was done according to lithological contacts and generally by 1m intervals within the alteration zones and 2m intervals along the waste rock. • There is no non-core sample within the historical drill database. • For RC sampling 1m samples are taken from the cyclone and then split by rifle splitter (if dry) or manually (if wet) using the fish-bone technique. Sample weight is between 3-5kg. • QAQC: Standards (multiple standards are used on a rotating basis) are inserted every 20 samples. Blanks have been inserted every 20 samples. Field duplicates are completed every 30 samples. Additionally, there are laboratory standards and duplicates that have been inserted. • Centaurus has adopted the same sampling QAQC procedures which are in line with industry standards and Centaurus's current operating procedures. • Sample sizes are appropriate for the nature of the mineralisation. • All historical geological samples were received and prepared by SGS Geosol or ALS Laboratories as 0.5-5.0kg samples. They were dried at 105°C until the sample was completely dry (6-12hrs), crushed to 90% passing 4mm and reduced to 400g. The samples were pulverised to 95% passing 150µm and split further to 50g aliquots for chemical analysis. • New samples are being sent to ALS Laboratories. The samples are dried, crushed and pulverised to 85% passing 75µm and split further to 250g aliquots for chemical analysis. • During the preparation process grain size control was completed by the laboratories (1 per 20 samples). • Metallurgical samples are crushed to 3.35mm and homogenised. Samples are then split to 1kg sub-samples. Sub-samples are ground to specific sizes fractions (53-106µm) for flotation testwork.
Quality of assay data and laboratory tests	• Chemical analysis for drill core and soil samples was completed by multi element using Inductively Coupled Plasma ICPAES (multi-acid digestion); ore grade analysis was completed with Atomic Absorption (multi-acid digestion); sulphur analysis was completed with Leco, and Au and PGEs completed via Fire Assay. • New samples are being analysed for 48 elements by multi element using ME-MS61 (multi-acid digestion) at ALS Laboratories; ore grade analysis was completed with ICP-AES (multi-acid digestion); sulphur analysis was completed with Leco, and Au and PGEs completed via Fire Assay. • ALS Laboratories insert their own standards at set frequencies and monitor the precision of the analysis. The results reported are well within the specified standard deviations of the mean grades for the main elements. Additionally, ALS 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. • Vale inserted standard samples every 20 samples (representing 5%). Mean grades of the standard samples are well within the specified 2 standard deviations. • All laboratory procedures are in line with industry standards. Analysis of field duplicates and lab pulp duplicates have returned an average correlation coefficient of over 0.98 confirming that the precision of the samples is within acceptable limits. • Vale QAQC procedures and results are to industry standard and are of acceptable quality. • All metallurgical chemical analysis is completed by ALS laboratories
Verification of sampling and assaying	• All historical samples were collected by Vale field geologists. All assay results were verified by alternative Vale personnel. The Centaurus CP has verified the historical significant intersections. • Centaurus Exploration Manager and Senior Geologist verify all new results and visually confirm significant intersections. • No twin holes have been completed. • All primary data is now stored in the Centaurus Exploration office in Brazil. All new data is collected on Excel Spreadsheet, validated and then sent to independent database administrator (MRG) for storage (DataShed). • No adjustments have been made to the assay data.

Criteria	Commentary
Location of data points	• All historical collars were picked up using DGPS or Total Station units. Centaurus has checked multiple collars in the field and has confirmed their location. All field sample and mapping points were collected using a Garmin handheld GPS. • An aerial survey was completed by Esteio Topografia and has produced a detailed surface DTM at (1:1000 scale). • The survey grid system used is SAD-69 22S. This is in line with Brazilian Mines Department requirements. • New drill holes are sighted with handheld GPS and after completion picked-up by an independent survey consultant periodically. Downhole survey for all the historical drill holes and Centaurus hole up to JAG-DD-19-012 used Maxibor equipment. All new drill holes are being downhole surveyed using Reflex digital down-hole tool, with readings every metre.
Data spacing and distribution	• Soil samples were collected on 40m spacing on section with distance between sections of 200m and 400m depending on location. • Sample spacing was deemed appropriate for geochemical studies. • The historical drilling is all diamond drilling. Drill sections are spaced 100m apart and generally there is 50 to 100m spacing between drill holes on sections. Centaurus is in the process of closing the drill spacing to 100m x 50m or 50m x 50m. • No sample compositing was applied to the drilling. • Metallurgical samples to date have been taken from Jaguar South, Jaguar Central, Jaguar North and Onça Preta and Onca Rosa.
Orientation of data in relation to geological structure	• Historical drilling was oriented at 55º-60º to either 180º or 360º. This orientation is generally perpendicular to the main geological sequence along which broad scale mineralisation exists. • Mineralisation is sub-vertical; the majority of the drilling is at low angle (55-60º) to achieve intersections at the most optimal angle.
Sample security	• All historical and current samples are placed in pre-numbered plastic sample bags and then a sample ticket was placed within the bag as a check. Bags are sealed and then transported by courier to the ALS laboratories in Vespasiano, MG. • All remnant Vale diamond core has now been relocated to the Company's own core storage facility in Tucumã, PA.
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 listed in the preceding Section also apply to this section).

Criteria	Commentary
Mineral tenement and land tenure status	• The Jaguar project includes one exploration licence (856392/1996) for a total of circa 30km^2. A Mining Lease Application has been lodged that allows for ongoing exploration and project development ahead of project implementation. • The tenement is part of a Sale & Purchase Agreement (SPA) with Vale SA. One final deferred consideration payment totalling US$5.0M (on commencement of commercial production) and a production royalty (0.75% on a nickel concentrate product or 0.55% on a nickel sulphate product) are to follow. Centaurus has taken on the original obligation of Vale to BNDES for 1.8% Net Operating Revenue royalty. • Mining projects in Brazil are subject to a CFEM royalty, a government royalty of 2% on base metal revenue. • Landowner royalty is 50% of the CFEM royalty. • Centaurus has secured possession rights to three properties over the Jaguar Project. The agreements remove exposure to the landowner royalty over the properties secured. • The project is covered by a mix of cleared farmland and natural vegetation. • The project is not located within any environmental protection zones and exploration and mining is permitted with appropriate environmental licences.
Exploration done by other parties	• Historically the Jaguar Project was explored for nickel sulphides by Vale from 2005 to 2010.
Geology	• Jaguar Nickel Sulphide is a hydrothermal nickel sulphide deposit located near Tucumã in the Carajás Mineral Province of Brazil. • Jaguar is located at the intersection of the WSW-trending Canaã Fault and the ENE-trending McCandless Fault, immediately south of the NeoArchean Puma Layered Mafic-Ultramafic Complex.

Criteria	Commentary
	• Iron rich fluids were drawn up the mylonite zone causing alteration of the host felsic volcanic and granite units and generating hydrothermal mineral assemblage. Late-stage brittle-ductile conditions triggered renewed hydrothermal fluid ingress and resulted in local formation of high-grade nickel sulphide zones within the mylonite and as tabular bodies within the granite.
Drill hole Information	• Refer to previous ASX Announcements for significant intersections from Centaurus drilling. • Refer to ASX Announcement of 6 August 2019 for all significant intersections from historical drilling.
Data aggregation methods	• Continuous sample intervals are calculated via weighted average using a 0.3 % Ni cut-off grade with 2m minimum intercept width. • There are no metal equivalents reported.
Relationship between mineralisation widths and intercept lengths	• Mineralisation is sub-vertical; the majority of the drilling is at low angle (55-60^{o}) to achieve intersections at the most optimal angle. • The historical drilling results in ASX Announcement 6 August 2019 reflect individual down hole sample intervals and no mineralised widths were assumed or stated.
Diagrams	• Refer to Figures 1 to 6 of this announcement. • Refer to previous ASX Announcements for maps and sections from Centaurus drilling included in the resource estimate.
Balanced reporting	• All exploration results received by the Company to date are included in this or previous releases to the ASX. • For the current resource, a revised 0.3% Ni cut-off grade has been applied to material less than 200m vertical depth from surface in the estimation of the Global MRE with this being consistent with mineralisation domain modelling and reported significant intersection cut-off grades.
Other substantive exploration data	• The Company has received geophysical data from Vale that is being processed by an independent consultant Southern Geoscience. Refer to ASX Announcements for geophysical information.
Further work	• Electro-magnetic (EM) geophysical surveys (DHEM and FLEM) are ongoing. • In-fill and extensional drilling within the known deposits to test the continuity of high-grade zones is ongoing. Resource samples are continuously being sent in batches of 150-300 samples and will be reported once the batches are completed. • Metallurgical testwork is ongoing. • Geotechnical and hydrological studies for the proposed tailings facility and waste deposits have started.

SECTION 3 - ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in Section 1, and where relevant in Section 2, also apply to this Section.)

Criteria	Commentary
Database integrity	• The drilling database was originally held by Vale and received from them as csv exports. • The drilling data have been imported into a relational SQL server database using Datashed™ (Industry standard drill hole database management software) by Mitchell River Group. • All the available drilling data has been imported into 3D mining and modelling software packages (Surpac™ and Leapfrog™), which allow visual interrogation of the data integrity and continuity. All the resource interpretations have been carried out using these software packages. During the interpretation process it is possible to highlight drilling data that does not conform to the geological interpretation for further validation. • Data validation checks were completed on import to the SQL database. • Data validation has been carried out by visually checking the positions and orientations of drill holes.
Site visits	• The Competent Person responsible for Sampling Techniques and Data and Exploration Results, Mr Roger Fitzhardinge, has visited the site multiple times and overseen exploration activity and assumes responsibility for the sampling and data management procedures. • No visits to the Jaguar site have been undertaken by the Competent Person responsible for the Mineral Resource Estimate (MRE), Mr Lauritz Barnes, due to travel restrictions (COVID-19).

Criteria	Commentary
Geological interpretation	• Sufficient drilling has been conducted to reasonably interpret the geology and the mineralisation. The mineralisation is traceable between multiple drill holes and drill sections. • Interpretation of the deposit was based on the current understanding of the deposit geology. Centaurus field geologist supplied an interpretation that was validated and revised by the independent resource geologist. • Drill hole data, including assays, geological logging, structural logging, lithochemistry, core photos and geophysics have been used to guide the geological interpretation. • Extrapolation of mineralisation beyond the deepest drilling has been assumed up to a maximum of 100m where the mineralisation is open. • Alternative interpretations could materially impact on the Mineral Resource estimate on a local, but not global basis. No alternative interpretations were adopted at this stage of the project. • Geological logging in conjunction with assays has been used to interpret the mineralisation. The interpretation honoured modelled fault planes and interpretation of the main geological structures. • Mineralisation at Jaguar occurs as veins and breccia bodies set in extensively altered and sheared host rocks. Continuity of the alteration and sulphide mineralisation zones is good, continuity of local zones of semi-massive to massive sulphide is not always apparent. • Mineralisation at the Onça Preta and Onça Rosa deposits plus the Tigre deposit predominantly forms tabular semi-continuous to continuous bodies both along strike and down dip. • Post-mineralisation faulting may offset mineralisation at a smaller scale than that which can be reliably modelled using the current drill hole data.
Dimensions	• Jaguar South (primary mineralisation) covers an area of 1,250m strike length by 400m wide by 530m deep in strike length trending ESE-WNW. Individual domains dip sub-vertically with widths ranging from a few metres up to 20-30m thick. • Jaguar Central (primary mineralisation) covers an area of 800m strike length by 250m wide by 420m deep trending ESE-WNW. Individual domains dip sub-vertically with widths up to 20-30m. • Jaguar North (primary mineralisation) has a strike length of 600m by up to 25m wide by 300m deep, trending SE-NW. • Jaguar Central North (primary mineralisation) covers an area of 720m strike length by 100m wide by 500m deep, trending E-W. Individual domains dip sub-vertically with widths up to 20-30m. • Jaguar Northeast (primary mineralisation) covers an area of 1,200m strike length by 300m wide by 500m deep, trending ESE-WNW. Individual domains dip sub-vertically with widths up to 10-15m. • Jaguar West (primary mineralisation) has a strike length of 1,000m by up to 80m wide by 350m deep, trending E-W. Individual domains dip sub-vertically with widths up to 10m. • Leao East (primary mineralisation) has a strike length of 275m by up to 10m wide by 130m deep, trending ESE-WNW. • Onça Preta (primary mineralisation) has a strike length of 400m by up to 15m wide by 375m deep, trending E-W. • Onça Rosa (primary mineralisation) has a strike length of 500m by up to 10m wide by 250m deep, trending ESE-WNW • Tigre (primary mineralisation) has a strike length of 500m by up to 10m wide by 250m deep, trending ESE-WNW.
Estimation and modelling techniques	• Grade estimation using Ordinary Kriging (OK) was completed using Geovia Surpac™ software for Ni, Cu, Co, Fe, Mg, Zn and As. • Drill hole samples were flagged with wire framed domain codes. Sample data were composited to 1m using a using fixed length option and a low percentage inclusion threshold to include all samples. Most samples (80%) are around 1m intervals in the raw assay data. • Top-cuts were decided by completing an outlier analysis using a combination of methods including grade histograms, log probability plots and other statistical tools. Based on this statistical analysis of the data population, no top-cuts were applied. • Directional variograms were modelled by domain using traditional variograms. Nugget values are low to moderate (around 15-25%) and structure ranges up to 200 in the primary zones. Variograms

Criteria	Commentary
	for domains with lesser numbers of samples were poorly formed and hence variography was applied from the higher sampled domains. • Block model was constructed with parent blocks for 10m (E) by 2m (N) by 10m (RL). All estimation was completed to the parent cell size. • Three estimation passes were used. The first pass had a limit of 75m, the second pass 150m and the third pass searching a large distance to fill the blocks within the wire framed zones. Each pass used a maximum of 12 samples, a minimum of 6 samples and maximum per hole of 4 samples. • Search ellipse sizes were based primarily on a combination of the variography and the trends of the wire framed mineralized zones. Hard boundaries were applied between all estimation domains. • Validation of the block model included a volumetric comparison of the resource wireframes to the block model volumes. Validation of the grade estimate included comparison of block model grades to the declustered input composite grades plus swath plot comparison by easting and elevation. Visual comparisons of input composite grades vs. block model grades were also completed.
Moisture	• The tonnages were estimated on an in-situ dry bulk density basis which includes natural moisture. Moisture content was not estimated but is assumed to be low as the core is not visibly porous.
Cut-off parameters	• Potential mining methods include a combination of open pit and underground. The new Jaguar MRE has been reported within a pit shell using modifying factors determined in the Jaguar Value-Add Scoping Study and metal prices of US$20,000/t Ni, US$44,000/t Co and US$2,900/t Zn. Within the pit, a 0.3% Ni cut-off grade has been maintained. A higher grade 0.7% Ni cut-off grade has been used for resources below the pit shell reflective of the cut-off grade that was determined for the underground operations developed in the Scoping Study.
Mining factors or assumptions	• It is assumed that the Jaguar deposits will be mined by a combination of open pit and underground mining methods. • Conceptual pit optimisation studies have been completed by Entech to ensure that there are reasonable prospects for the eventual economic extraction of the mineralisation by these methods. • Input parameters were benchmarked from similar base-metal operations in Brazil and Australia.
Metallurgical factors or assumptions	• Metallurgical test work has been undertaken on multiple composite samples sourced from the Jaguar South, Jaguar Central, Jaguar West, Jaguar North, Jaguar Central North, Onça Rosa and Onça Preta deposits. Material selection for test work was focused on providing a good spatial representation of mineralisation for the deposits to date. Bench scale test work to date has demonstrated that a conventional crushing, grinding and flotation circuit will produce concentrate grades (10-15% Ni) and nickel sulphide recoveries (+95%)). • Pressure leach testing has identified that 97-98% nickel extraction from concentrate into solution is reproducible. Metallurgical test work remains ongoing. • See ASX Announcements of 18 February 2020, 17 March 2020, 31 March 2020 and 8 December 2021 for metallurgical test results
Environmental factors or assumptions	• Tailings analysis and acid drainages tests have been completed which underpin the preliminary tailing storage facility design (TSF), which is in progress. • Waste rock will be stockpiled into waste dumps adjacent to the mining operation. • The TSF and waste dumps will include containment requirements for the management of contaminated waters and sediment generation in line with Brazilian environmental regulations.
Bulk density	• On the new drilling, bulk densities were determined on 15 to 30 cm drill core pieces every 1m in ore and every 10m in waste. On the historical drilling the bulk densities were determined on drill core at each sample submitted for chemical analysis. • Bulk density determinations adopted the weight in air /weight in water method using a suspended or hanging scale. • The mineralized material is not significantly porous, nor is the waste rock. • A total of 43,571 bulk density measurements have been completed.

Criteria	Commentary
	• Of these, 4,040 were included in the analysis and are within the defined mineralised domains – and 4,031 are from fresh or transitional material leaving only 9 measurements from saprolite or oxide material. • Oxide and saprolite material are excluded from the reported resource. • Fresh and transitional measurements from within the mineralised domains we analysed statistically by domain and depth from surface and compared to Ni, Fe and S. A reasonable correlation was defined against Fe due to the magnetite in the system. • The bulk density values assigned the mineralised domains by oxidation were as follows: o Oxide: 2.0 o Saprolite: 2.3 o Transition: 2.6 o Fresh: by regression against estimated Fe using: BD = (fe_ok*(0.0323)) + 2.6276 • Work is in progress to further refine the relationships between bulk density and mineralised domains, and updates will be applied to the next iteration of the resource model.
Classification	• The Mineral Resource has been classified on the basis of confidence in the geological model, continuity of mineralised zones, drilling density, confidence in the underlying database, a combination of search volume and number of data used for the estimation plus availability of bulk density information. • Indicated Mineral Resources are defined nominally on 50mE x 40mN spaced drilling and Inferred Mineral Resources nominally 100mE x 100mN with consideration given for the confidence of the continuity of geology and mineralisation. • Oxide and saprolite material are excluded from the Mineral Resource. • The Jaguar Mineral Resource in part has been classified as Indicated with the remainder as Inferred according to JORC 2012.
Audits or reviews	• This is the third Mineral Resource estimate completed by the Company. The current model was reviewed by Entech as part of the MREEE assessment.
Discussion of relative accuracy/ confidence	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The statement relates to global estimates of tonnes and grade.