

16 June 2021

**Jangada Mines plc ('Jangada' or 'the Company')**

**Updated Resource Estimate at Pitombeiras North and South Targets  
Measured and Indicated Resources increased by 221%**

Jangada Mines plc, a natural resources company, is pleased to report an updated National Instrument 43-101 ('NI 43-101') compliant Mineral Resource Estimate ('MRE') for the Pitombeiras North and South targets at its 100%-owned Pitombeiras Vanadium Project ('Pitombeiras' or 'the Project'), Ceará State, Brazil.

**Highlights**

- 221% increase in Measured and Indicated Resources ('M&I') based on two of eight identified targets:
  - M&I Resources of 5.10Mt at 0.46% V<sub>2</sub>O<sub>5</sub>, 9.04% TiO<sub>2</sub> and 46.06% of Fe<sub>2</sub>O<sub>3</sub>
  - Inferred Resource of 2.33Mt at 0.41% V<sub>2</sub>O<sub>5</sub>, 8.26% TiO<sub>2</sub> and 43.18% of Fe<sub>2</sub>O<sub>3</sub>
- Exploration potential remains open along strike and at depth - Jangada has established a target to potentially delineate 10Mt of total mineral resources
- Drilling programme at Goela target started in late April 2021 and expected to be concluded by end of June 2021
- Updated Preliminary Economic Assessment ('PEA') to be completed following the delivery of the updated mineral resources for both Pitombeiras' and Goela, which will include new metallurgical tests

**Brian McMaster, Executive Chairman of Jangada, said, "We are thrilled by these results as they sit firmly within expectations and bode well for future development as we look to fast-track plans to take the Project to production. The updated Mineral Resources Estimate for Pitombeiras North confirms our expectations of a well-defined deposit with about 71% within the Measured and Indicated categories, which brings a higher level of confidence to an already robust PEA. The Goela target drilling is now underway, and we are confident it will add to our previously disclosed resources. While we await the conclusion of the works at Goela, our team has advanced many other workstreams, including new metallurgical tests, that will be part of the updated PEA, scheduled for completion in Q3 2021. I look forward to updating our stakeholders further as we continue to rapidly progress with our plans in the weeks and months ahead."**

**Details**

The Company is focused on developing the Pitombeiras Vanadium Project towards commencing production in 2022, subject to sourcing the necessary construction financing. Accordingly, work is ongoing to strengthen the results of an initial PEA announced on 16 February 2021, which confirmed that Pitombeiras has robust economics and excellent potential to become a profitable producer of

Ferrovanadium concentrate (62%/65% Fe, plus V<sub>2</sub>O<sub>5</sub> credit). The revised PEA is expected to be completed in Q3 2021 and will incorporate the results of the current ongoing drilling programme, which is focused on expanding the Project's mineral resource base, as well as the results from metallurgical testing.

A diamond drilling ('DD') programme is currently underway to evaluate the structural corridor associated with the known vanadium titanomagnetite ('VTM') mineralisation, including the Pitombeiras North, Pitombeiras South and Goela deposits; these are part of the eight ground magnetic priority anomalies identified with VTM signatures over a total area of 1,068.89 hectares.

38 diamond drill holes have been completed for a total of 2,875.9 metres, including 2,704.80 metres at Pitombeiras North and 171.1 metres at Pitombeiras South; a total of 29 drillholes intersected VTM mineralisation. Accordingly, an updated National Instrument 43-101 ('NI 43-101') compliant MRE has been published, expanding the resource footprint, and upgrading resources from the Inferred category.

The MRE includes M&I Resources of 5.10Mt at 0.46% V<sub>2</sub>O<sub>5</sub>, 9.04% TiO<sub>2</sub> and 46.06% of Fe<sub>2</sub>O<sub>3</sub>, and Inferred Resources of 2.33Mt at 0.41% V<sub>2</sub>O<sub>5</sub>, 8.26% TiO<sub>2</sub> and 43.18% of Fe<sub>2</sub>O<sub>3</sub>. ~71% of total MRE is now classified at the higher confidence M&I Resources category against the previous 29% estimate.

**Table 1. Pitombeiras North and South targets, 31 May 2021 MRE  
(0.25% V<sub>2</sub>O<sub>5</sub> cut-off) – by geological VTM domain**

Resource Classification	Mineralisation Type	Tonnes	Average Grade %			Metal Content t		
			Fe <sub>2</sub> O <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>
<b>Measured + Indicated</b>	Oxide	586,001	51.63	0.53	10.11	302,574	3,079	59,267
	Transition	1,588,061	45.99	0.45	8.97	730,311	7,223	142,441
	VTM HG	1,045,334	62.15	0.65	12.44	649,631	6,819	130,038
	VTM LG	1,880,908	35.45	0.34	6.88	666,716	6,318	129,464
	<b>Total</b>	<b>5,100,303</b>	<b>46.06</b>	<b>0.46</b>	<b>9.04</b>	<b>2,349,232</b>	<b>23,439</b>	<b>461,210</b>
<b>Inferred</b>	Oxide	499,821	46.16	0.45	9.09	230,723	2,225	45,451
	Transition	491,446	42.11	0.41	8.44	206,964	2,031	41,485
	VTM HG	404,446	60.91	0.62	11.71	246,342	2,527	47,346
	VTM LG	940,081	34.53	0.30	6.25	324,589	2,864	58,726
	<b>Total</b>	<b>2,335,794</b>	<b>43.18</b>	<b>0.41</b>	<b>8.26</b>	<b>1,008,618</b>	<b>9,647</b>	<b>193,007</b>

**Table 2. Pitombeiras North and South Total Mineral Resources (0.25% V<sub>2</sub>O<sub>5</sub> cut-off)**

Resource Classification	Tonnes	Average Grade %			Metal Content t		
		Fe <sub>2</sub> O <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>
Measured	1,750,336	47.79	0.48	9.47	836,455	8,339	165,751
Indicated	3,349,967	45.16	0.45	8.82	1,512,776	15,100	295,459
<b>Measured + Indicated</b>	<b>5,100,303</b>	<b>46.06</b>	<b>0.46</b>	<b>9.04</b>	<b>2,349,232</b>	<b>23,439</b>	<b>461,210</b>
Inferred	2,335,794	43.18	0.41	8.26	1,008,618	9,647	193,007

*Notes to accompany Mineral Resource table for the Pitombeiras Project: The Mineral Resource is limited to within the tenement boundaries. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. There has been*

*insufficient exploration to define the Inferred Resources tabulated above as an Indicated or Measured Mineral Resource. There is no guarantee that any part of the mineral resources discussed herein will be converted into a mineral reserve in the future. 38 diamond drillholes were used in the resource estimate representing a total of 2,875.9m of drilling. The mineral resource estimate follows current CIM definitions and guidelines for mineral resources. Mineral Resources are reported using a cut-off calculated assuming only the blocks within a conceptual open pit shell optimizes by NPV Scheduler that uses the following assumptions: iron ore concentration (62%/65%Fe, +V<sub>2</sub>O<sub>5</sub>) price of US\$105.75/t, 80% of global mass recovery of Fe to the concentrate, US\$2.78/t of mining cost (ROM), processing costs of US\$6.00/t, mine dilution of 5%, mine recovery 95%, and final slope angle of 56° to the open pit. Mineral Resources have been reported on a dry tonnage basis. Discrepancies may occur due to rounding. In Table 1 VTM HG indicates high-grade vanadium-titanium-iron resources. VTM LG indicates the remaining vanadium-titanium-iron resources and amphibolite block resources. VTM Mineral Resources are reported with an effective date of May 31<sup>st</sup>, 2021. The Qualified Person for the estimate, as defined by NI 43-101, was Mauricio Prado, Msc. Geo. MAIG.*

The block models generated to estimate the Pitombeiras North and South mineral resource used a parental block size of 25m by 25m by 2m. These block dimensions were selected based on the distance between drill holes and the length selected for the composite samples.

The modelling of the Pitombeiras North and South targets was created based on geological description of the vanadium-bearing layer geology codes, and the grades of V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> were estimated by ordinary kriging, using LeapFrog Geo+Edge software.

The Mineral Resources are reported using a cut-off calculated assuming only the blocks within a conceptual open pit shell optimized by NPV Scheduler, which uses the following assumptions: iron ore concentration (62%/65%Fe, +V<sub>2</sub>O<sub>5</sub>) price of US\$105.75/t, 80% of global mass recovery of Fe to the concentrate, US\$2.78/t of mining cost (ROM), processing costs of US\$6.00/t, mine dilution of 5%, mine recovery 95%, and final slope angle of 56° to the open pit.

Jangada notes that the Pitombeiras North target continues to be open on the north-north-eastern portion of the deposit for resources expansion. Based upon the exploration results from the Pitombeiras North, Pitombeiras South and Goela targets, Jangada has established a target to potentially delineate 10Mt of total mineral resources.

Drilling activities are now underway at the Goela target and expected to be concluded by end of June 2021. A consolidated MRE for Pitombeiras North, Pitombeiras South and Goela will follow when laboratory results from the Goela target are available, expected during Q3 2021.

**Figure 1. Example of drillholes distribution at Pitombeiras North target area**

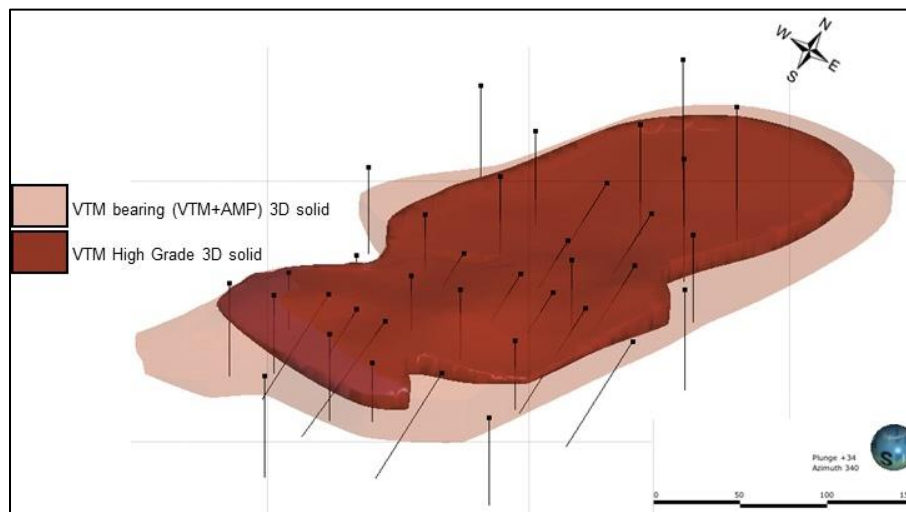
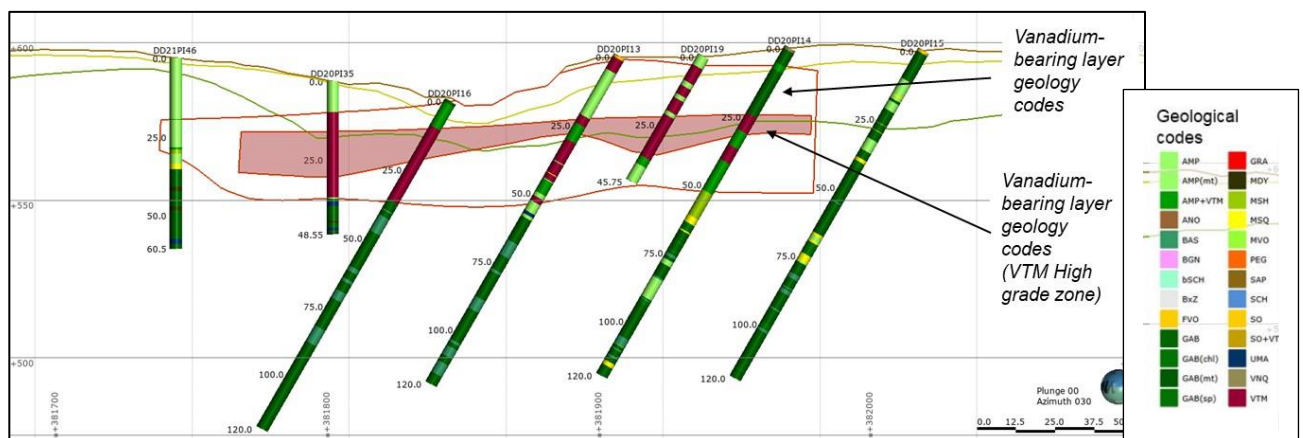
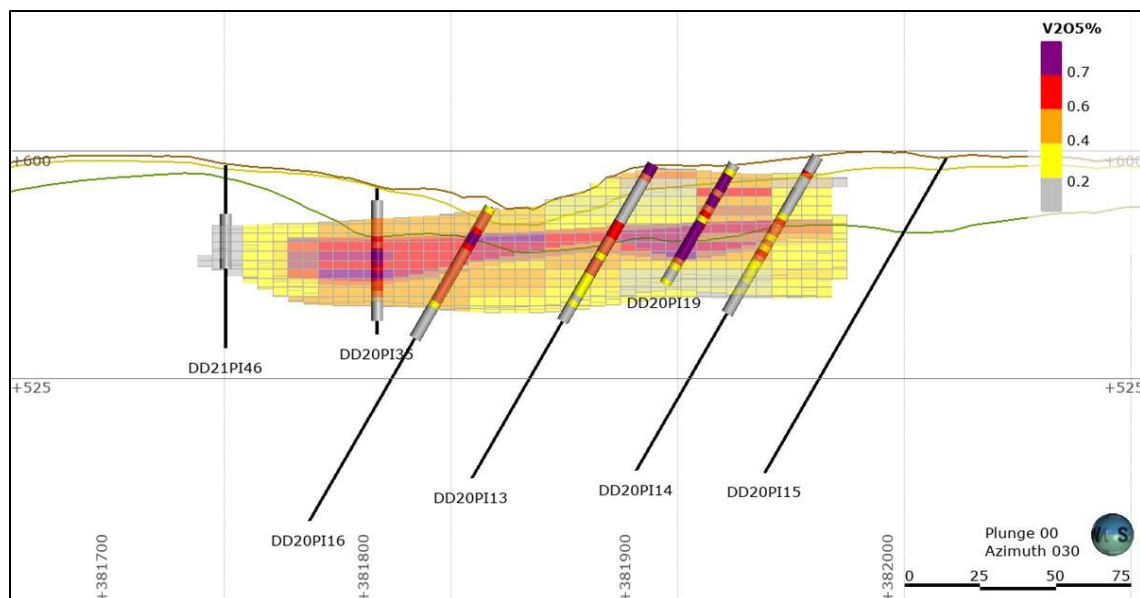
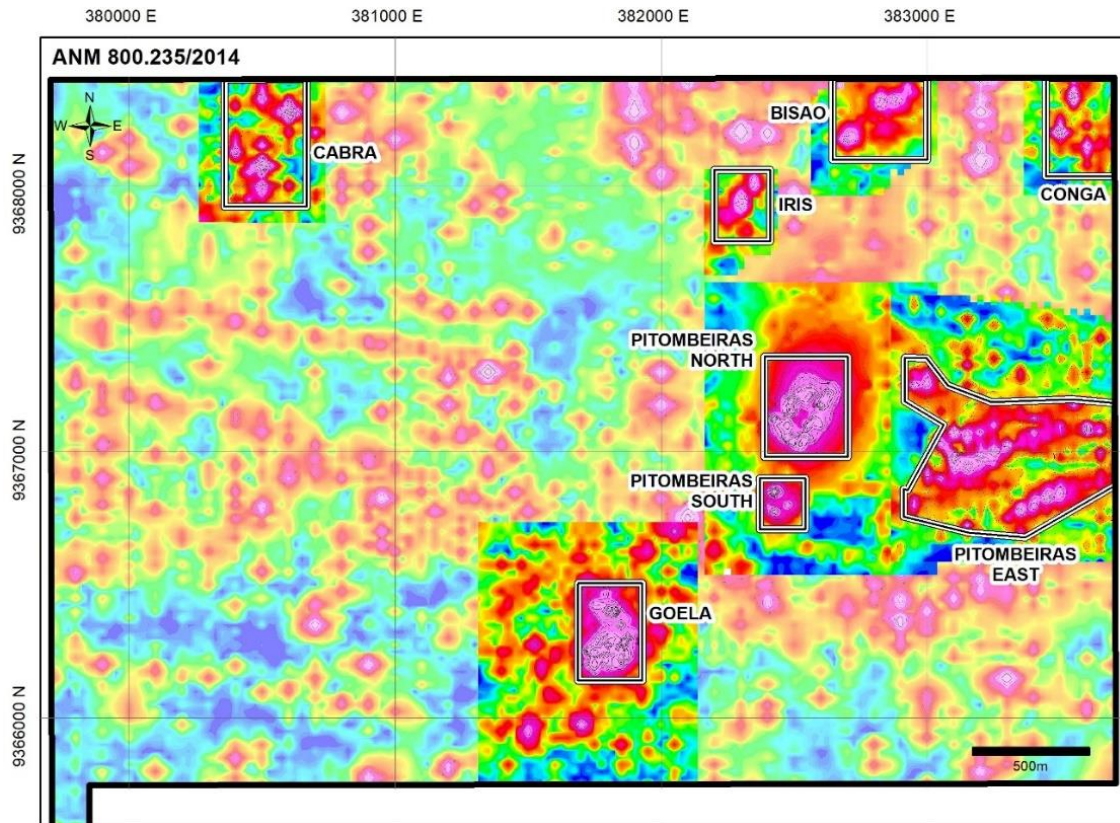


Figure 2. Typical cross section at Pitombeiras North showing the block model with grades and the drill holes intersections and the vanadium-bearing layer geological codes.



**Figure 3. Selected Targets Based on Ground Magnetic Survey**



#### **Quality Assurance & Quality Control**

All drill samples have been prepared and analysed by SGS-Geosol Laboratórios Ltda ('SGS-Geosol') based in Belo Horizonte, Brazil. SGS-Geosol is ISO14001:2004 and ISO 9001:2008 accredited and is independent of Jangada. The samples were analysed by fusion with lithium tetraborate-XRF for Al<sub>2</sub>O<sub>3</sub>, CaO, Co, Fe<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, P<sub>2</sub>O<sub>5</sub>, SiO<sub>2</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub> and retained moisture (LOI) by multi-temperature.

QA/QC procedures include the submission by Jangada of systematic duplicates, blanks and standard samples within every sample batch submitted to SGS. In addition, SGS-Geosol inserts its own standards, blanks and duplicate samples. The results from these control samples indicate acceptable consistency of analysis.

#### **Qualified/Competent Person Review**

The technical information in this announcement has been reviewed by Mr. Paulo Ilidio de Brito, who is a member of the Australian Institute of Geoscientists (MAIG #5173) and a member of AusIMM - The Australasian Institute of Mining and Metallurgy (MAusIMM #223453). Mr. Brito is a senior professional geologist with +35 years of experience in the mining industry, which is relevant to the style of

mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Mr. Brito also meets the requirements of a competent person under the AIM Note for Mining, Oil and Gas Companies. Mr. Brito has no economic, financial or pecuniary interest in the Company, and he consents to the inclusion in this document of the matters based on his technical information in the form and context in which it appears.

The 31 May 2021 updated Mineral Resource Estimate of the Pitombeiras North and South targets are the responsibility of Mr. Mauricio Prado. MSc. Geo. MAIG, Qualified Person as defined by NI 43-101 guidelines, independent geological consultant contracted by Jangada Mines Plc. Mr. Prado is an independent consultant based on Goiânia, Brazil.

This announcement contains inside information for the purposes of Article 7 of EU Regulation 596/2014. Upon the publication of this announcement, this inside information is now considered to be in the public domain.

#### **ENDS**

For further information please visit [www.jangadamines.com](http://www.jangadamines.com) or contact:

<b>Jangada Mines plc</b>	Brian McMaster (Chairman)	Tel: +44 (0) 20 7317 6629
<b>Strand Hanson Limited (Nominated &amp; Financial Adviser)</b>	James Spinney Ritchie Balmer Georgia Langoulant	Tel: +44 (0)20 7409 3494
<b>Brandon Hill Capital (Broker)</b>	Jonathan Evans Oliver Stansfield	Tel: +44 (0)20 3463 5000
<b>St Brides Partners Ltd (Financial PR)</b>	Isabel de Salis Charlie Hollinshead	<a href="mailto:info@stbridespartners.co.uk">info@stbridespartners.co.uk</a>