



**August 30, 2021
FOR IMMEDIATE RELEASE**

**NEWS RELEASE
TSX: JAG**

JAGUAR IDENTIFIES SIGNIFICANT GREENSTONE BELT EXTENSION IN THE IRON QUADRANGLE, BRAZIL

**Five New High-Potential Trends identified over 50km Strike Length
Includes New Priority Targets for 2021 Drilling Campaign
Widespread Gold-In-Soil Anomalies – Outcrop Rock Chip Samples up to 11.76 g/t Au**

Toronto, August 30, 2021 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) is pleased to announce an exploration update from its Strategic Iron Quadrangle Joint Venture, ("the Agreement" or "JV") with IAMGOLD Corporation ("IAMGOLD" or "IMG") (TSX: IMG). Jaguar is the operator of the JV and may earn a 60% equity position in the project by incurring exploration expenditures of US\$6M over a four-year period (refer to news release dated August 26, 2020). A Project Location Map is presented as Figure 1.

Jon Hill, Vice President, Geology and Exploration, Jaguar Mining commented: *"During the past year, Jaguar's exploration team has made exceptional progress. Along with teams focused on mine resource expansion and project definition, we have a team with a clear, defined focus on generative exploration within the Company's extensive IQ tenements package and the IAMGOLD JV Area. These positive exploration results, which include the identification of a previously unrecognized, but clearly significant extension of the richly endowed Rio das Velhas Greenstone Belt, encompassing over 50 strike kms of prospective, gold bearing structural trends. This highlights an important geological area and positions us well as we progress our priority targets to the drilling stage."*

Vern Baker, CEO, Jaguar Mining commented: *"Our exploration program is positioned perfectly to mesh with our program of organic growth. The IAMGOLD JV is bringing in six exciting drill targets within short haulage distances of our CPA plant. We have a high level of confidence that our exploration effort can be successful and provide Jaguar with economic growth opportunity at any scale of resource identification."*

Exploration activities and highlights from exploration completed by Jaguar since the announcement of the Agreement include:

- A 150 square km UAV (Drone) high resolution magnetics survey, which is believed to be the largest survey ever attempted in South America with this technology, was coupled with a thorough review of historical data and focused on the ground geological mapping and geochemical soil and follow-up rock-chip sampling programmes. As a result, a significant, >30 square km (3,000 Ha) previously unrecognized extension of the highly prospective Ouro Fino Formation of the Rio das Velhas Greenstone Belt has been defined. (Figures 2A, 2B, 3).
- The Ouro Fino Formation is considered one of the most important geological units in the Rio das Velhas Greenstone Belt. The Rio das Velhas Greenstone Belt hosts several of the largest, highest-grade active and historically producing gold mines in the Iron Quadrangle ("IQ"), including Jaguar's recently announced Córrego Brandão discovery (refer to news release dated 16 February 2021).
- Jaguar's exploration team has defined a series of five stratigraphic and structural trends within the JV Area which, collectively represent a prospective, previously under-explored strike length or more than 50km.

- Within those trends, six priority targets have been generated based on geophysical, geochemical and structural targeting criteria. A 4,000m diamond drilling campaign, scheduled to commence in September 2021, will test the following target areas: Rio de Pedras, Buraco, Boa Viagem, Capivari, Água Suja and Calado. (Figures 3, 4 and 5).
- The newly defined prospective trends are distinct geological entities propagating off the major crustal scale Paciência – São Vicente lineament. This regionally important lineament is a major gold bearing geological structure transecting the Rio das Velhas Greenstone Belt, and within the area of interest, hosts two of Jaguar’s underground mines (Santa Isabel and Marzagão - currently in-active) which previously provided feed to the 2,000 tpd Paciência (CPA Plant - currently on care-and-maintenance).
- The potential and extent of these trends is confirmed via their clear association with strike-extensive, consistent gold (> 50ppb Au) and/or pathfinder element (Arsenic > 200 ppm, Antimony > 10ppm) in soil anomalies. Follow-up outcrop rock-chip sampling delivered encouraging results ranging up to 11.76 g/t Au. (Figure 5).

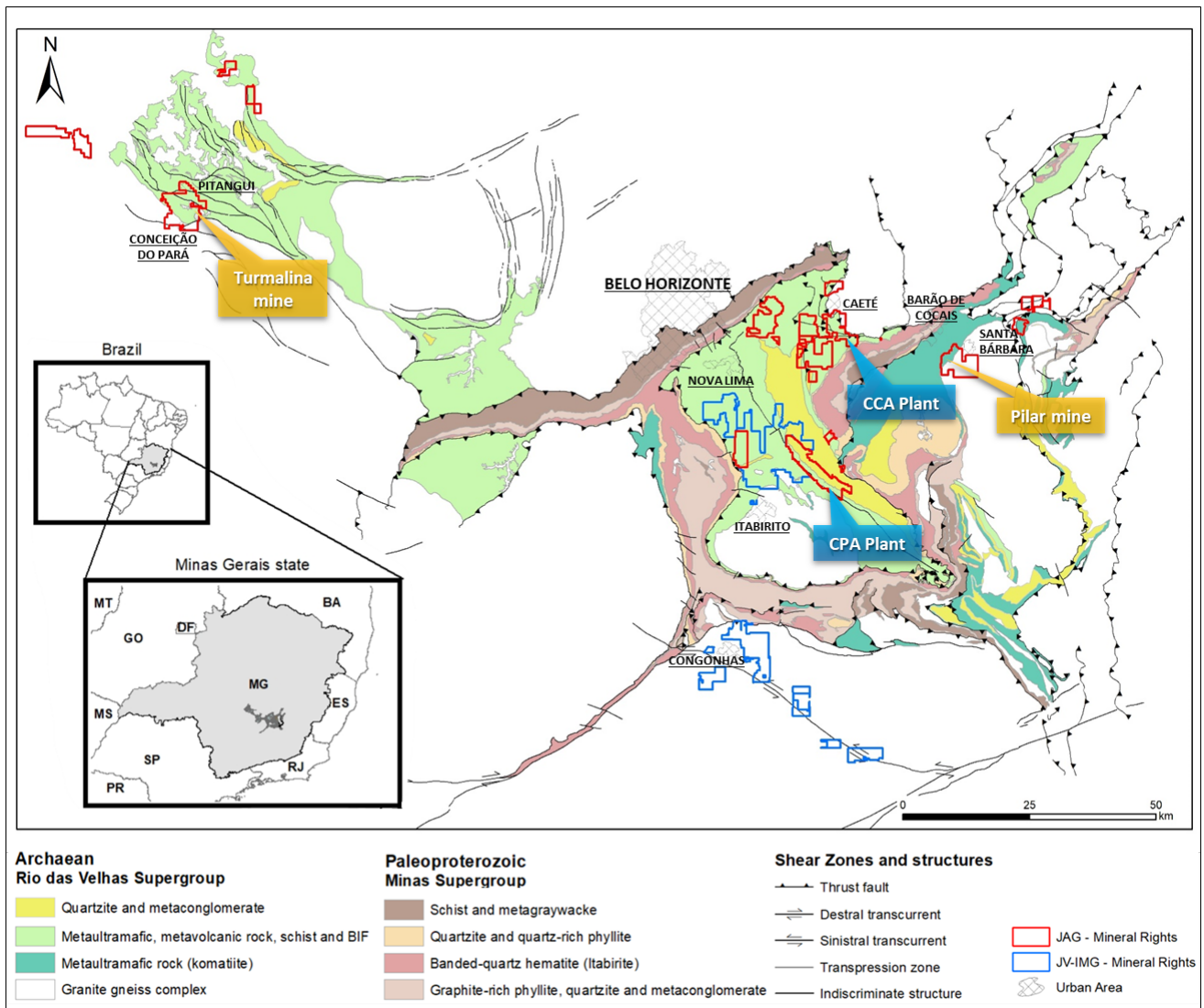


Figure 1. Location map showing Jaguar’s Tenements (red) and IAMGOLD’s Tenements (blue) within the Iron Quadrangle, Minas Gerais, Brazil

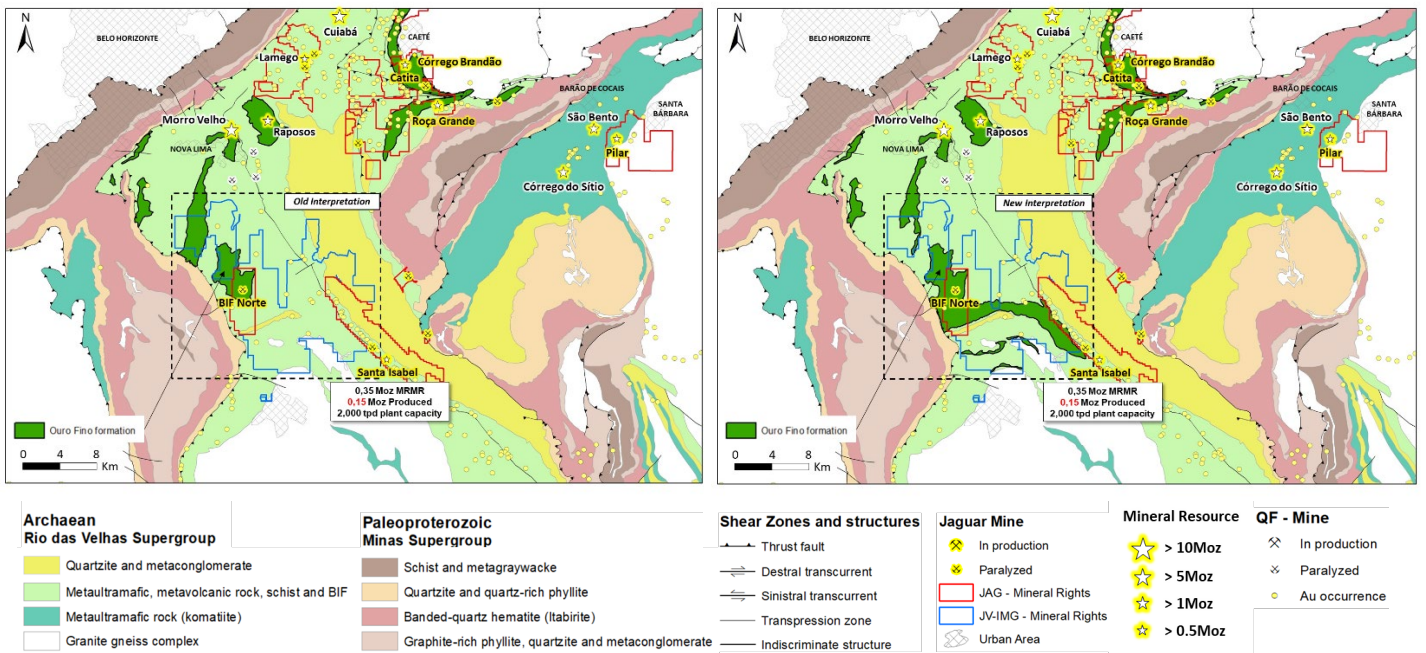


Figure 2A. Iron Quadrangle Geological Map showing the published distribution (2020) of the prospective Ouro Fino Formation relative to the major IQ active and past producing gold mines and occurrences prior to commencement of the Jaguar – lamgold Agreement and Figure 2B. Updated Geological Map (2021) showing the newly identified extension to the Ouro Fino Formation within the JV Agreement Area.

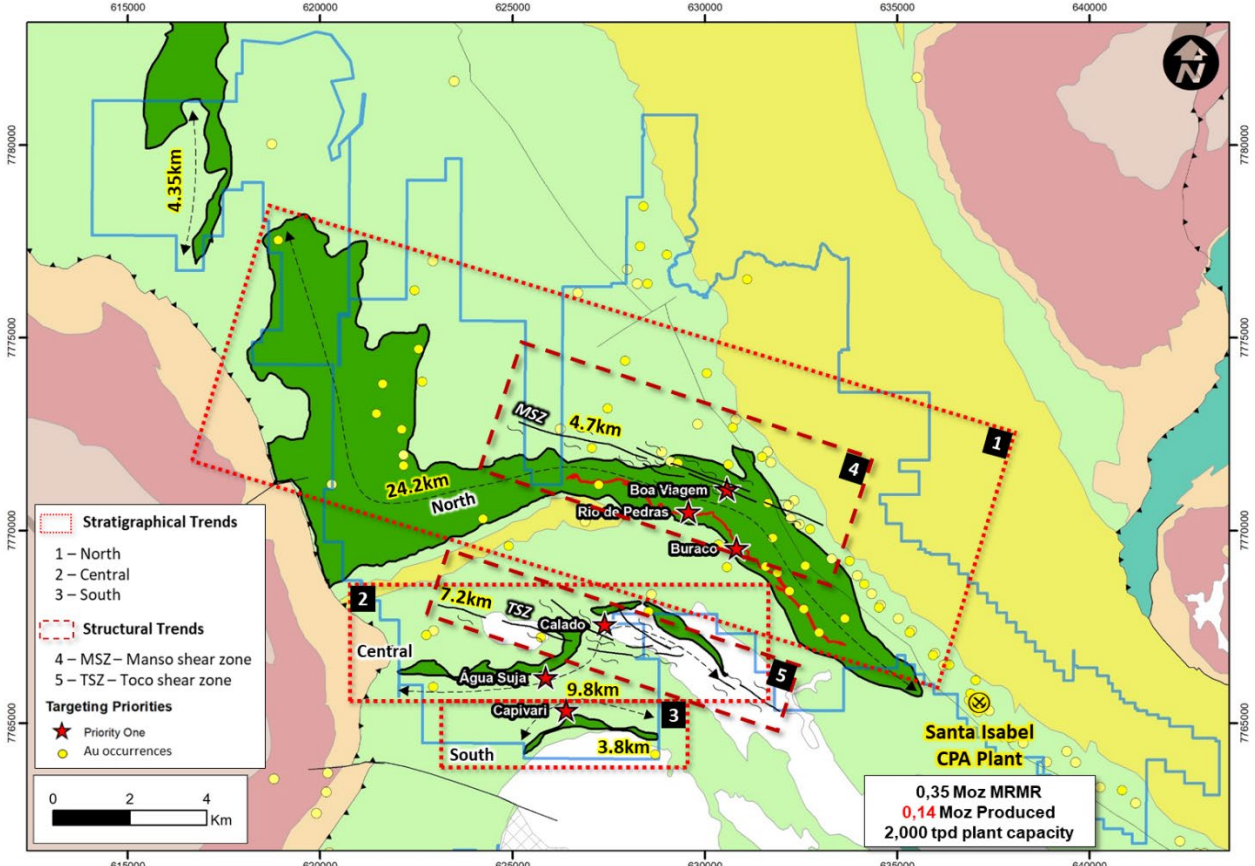


Figure 3 Updated Geological Map over the JV Tenements Area showing the location of the five principal prospective stratigraphic and structural trends representing a combined strike length in-excess of 50km defined to date. Jaguar’s CPA Plant and the six priority drill targets are also highlighted.

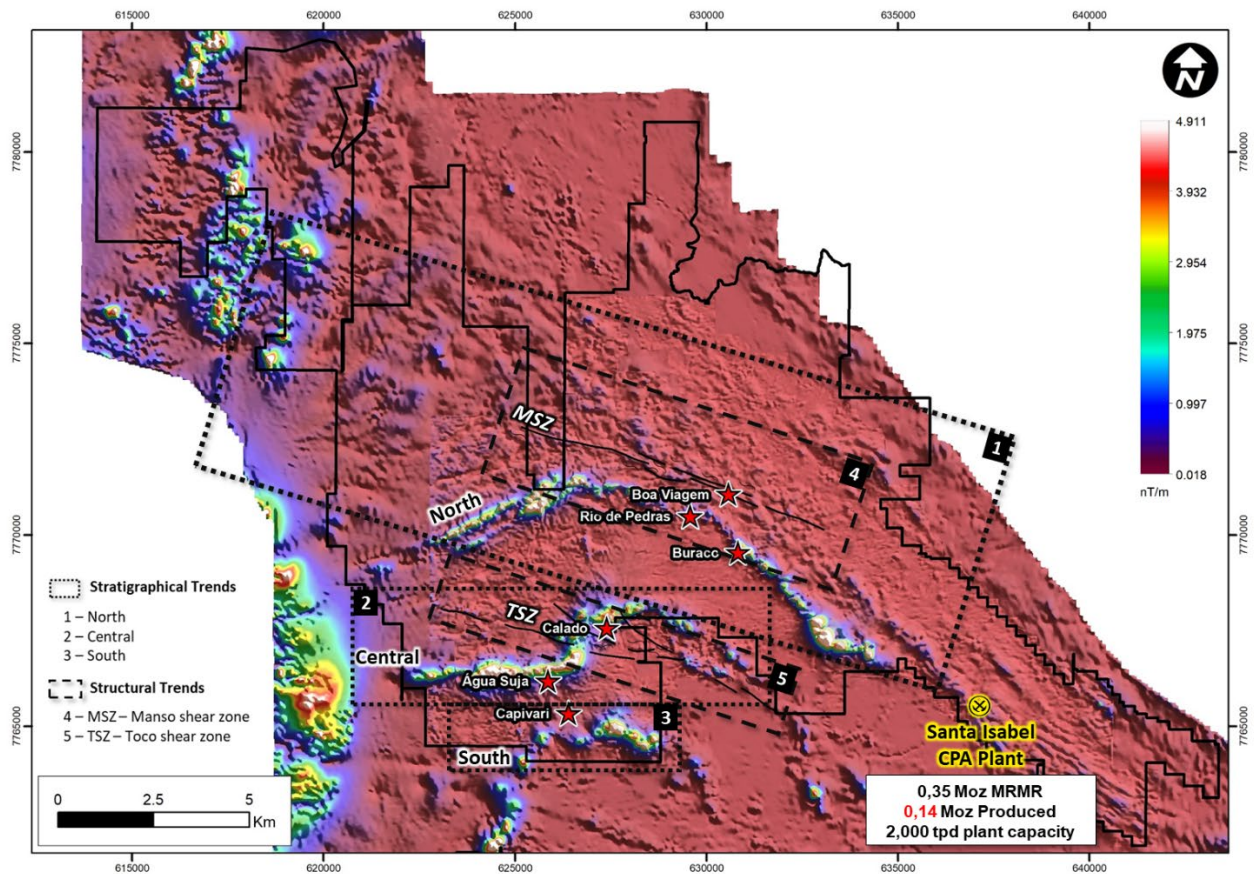


Figure 4. Analytical Signal Magnetic Image over JV Area clearly showing the five main prospective stratigraphic and structural trends and six priority drill targets.

- Four distinct mineralization styles have been identified in outcrop as follows. (Figure 5)
 - A. Mineralization associated with oxidized - carbonate banded iron formation (BIF), demagnetized with evidence of semi-massive and disseminated sulphide mineralization (oxidized – boxwork textures).
 - B. Mineralization associated with tourmalinites, fine to coarse grained tourmaline, smokey and sacaroidal quartz and carbonate.
 - C. Mineralization associated with boudinaged quartz (with associated disseminated sulphides) within mylonitic shears propagated within mafic-ultramafic and carbonaceous – metasedimentary units and greenstone – basement contacts.
 - D. Mineralization hosted within hydrothermally altered granitoid and granite – gneiss basement, coarse and disseminated arsenopyrite with associated quartz-tourmaline

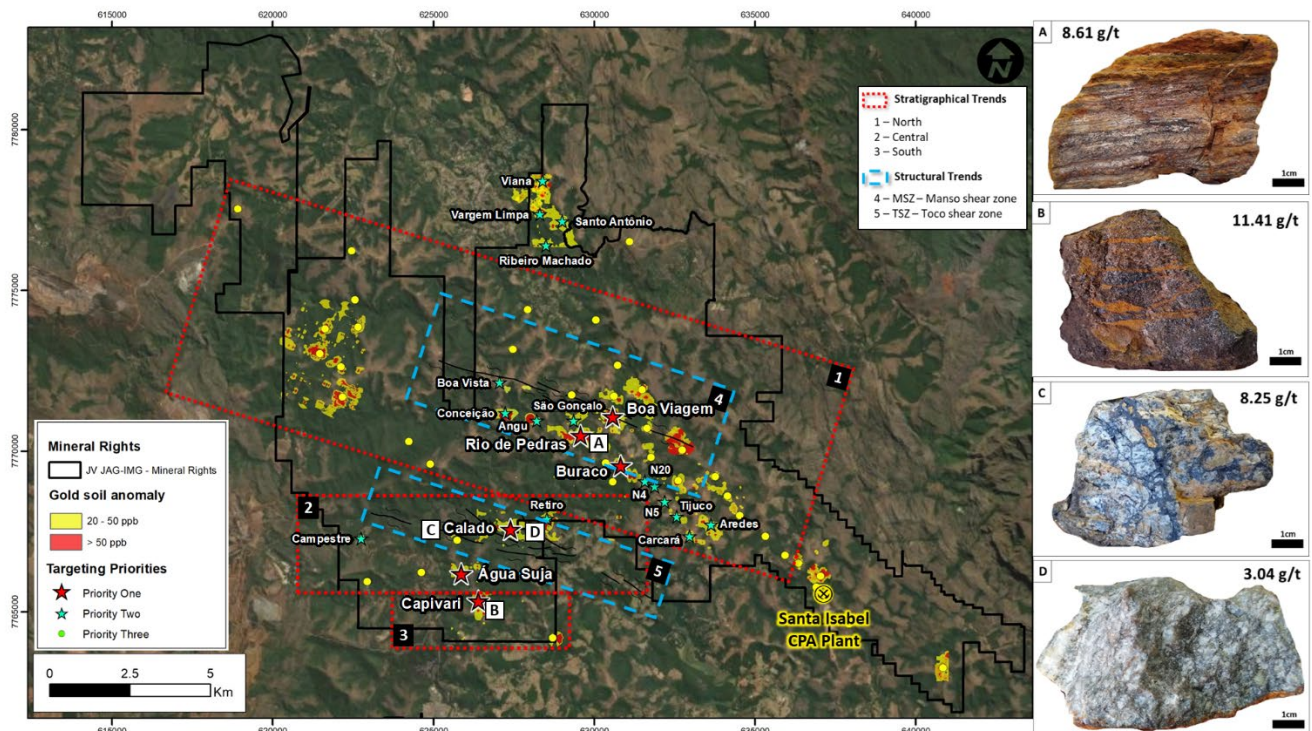


Figure 5. Image showing strike extensive gold in-soil anomalism associated with the five prospective trends. Six priority drill targets are highlighted along with high grade samples collected from outcrop within the target areas. (A) demagnetized banded iron formation (BIF), 8.61 Au g/t (B) Medium-grained tourmalinite with carbonate veinlets, 11.41 Au g/t (C) brecciated quartz vein with goethite and hematite filling fractures, 8.25 Au g/t (D) granitoid-gneiss rock with finely disseminated arsenopyrite, 3.04 Au g/t.

Qualified Person

Scientific and technical information contained in this press release has been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), FAUSIMM, Vice President Geology and Exploration, who is an employee of Jaguar Mining Inc., and is a "qualified person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

The Iron Quadrangle

The Iron Quadrangle has been an area of mineral exploration dating back to the 16th century. The discovery in 1699-1701 of gold contaminated with iron and platinum-group metals in the south-eastern corner of the Iron Quadrangle gave rise to the name of the town Ouro Preto (Black Gold). The Iron Quadrangle contains world-class multi-million-ounce gold deposits such as Morro Velho, Cuiabá, and São Bento. Jaguar holds the second largest gold land position in the Iron Quadrangle with just over 62,000* hectares (*includes lamgold JV Agreement Areas).

About Jaguar Mining Inc.

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes and a large land package with significant upside exploration potential from mineral claims. The Company's principal operating assets are located in the Iron Quadrangle, a prolific greenstone belt in the state of Minas Gerais and include the Turmalina Gold Mine Complex and Caeté Mining Complex (Pilar and Roça Grande Mines, and Caeté Plant). The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012. The Roça Grande Mine has been on temporary care and maintenance since April 2019. Additional information is available on the Company's website at www.jaguarmining.com.br

For further information please contact:

Vernon Baker
Chief Executive Officer
Jaguar Mining Inc.
vernon.baker@jaguarmining.com
416-847-1854

Hashim Ahmed
Chief Financial Officer
Jaguar Mining Inc.
hashim.ahmed@jaguarmining.com
416-847-1854

Forward-Looking Statements

Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements and information are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking information made in this news release is qualified by the cautionary statements below and those made in our other filings with the securities regulators in Canada. Forward-looking information contained in forward-looking statements can be identified by the use of words such as "are expected," "is forecast," "is targeted," "approximately," "plans," "anticipates," "projects," "anticipates," "continue," "estimate," "believe" or variations of such words and phrases or statements that certain actions, events or results "may," "could," "would," "might," or "will" be taken, occur or be achieved. All statements, other than statements of historical fact, may be considered to be or include forward-looking information. This news release contains forward-looking information regarding, among other things, expected sales, production statistics, ore grades, tonnes milled, recovery rates, cash operating costs, definition/delineation drilling, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects and new deposits, success of exploration, development and mining activities, currency fluctuations, capital requirements, project studies, mine life extensions, restarting suspended or disrupted operations, continuous improvement initiatives, and resolution of pending litigation. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the estimated timeline for the development of its mineral properties; the supply and demand for, and the level and volatility of the price of, gold; the accuracy of reserve and resource estimates and the assumptions on which the reserve and resource estimates are based; the receipt of necessary permits; market competition; ongoing relations with employees and impacted communities; political and legal developments in any jurisdiction in which the Company operates being consistent with its current expectations including, without limitation, the impact of any potential power rationing, tailings facility regulation, exploration and mine operating licenses and permits being obtained and renewed and/or there being adverse amendments to mining or other laws in Brazil and any changes to general business and economic conditions. Forward-looking information involves a number of known and unknown risks and uncertainties, including among others: the risk of Jaguar not meeting the forecast plans regarding its operations and financial performance; uncertainties with respect to the price of gold, labour disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, weather delays and increased costs or production delays due to natural disasters, power disruptions, procurement and delivery of parts and supplies to the operations; uncertainties inherent to capital markets in general (including the sometimes volatile valuation of securities and an uncertain ability to raise new capital) and other risks inherent to the gold exploration, development and production industry, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company and described herein. In addition, there are risks and hazards associated with the business of gold exploration, development, mining and production, including environmental hazards, tailings dam failures, industrial accidents and workplace safety problems, unusual or unexpected geological formations, pressures, cave-ins, flooding, chemical spills, procurement fraud and gold bullion thefts and losses (and the risk of inadequate insurance, or the inability to obtain insurance, to cover these risks). In addition, the Company's principal operations and mineral properties are located in Brazil and there are additional business and financial risks inherent in doing business in Brazil as compared to the United States or Canada. In Brazil, corruption represents a challenge requiring extra attention by those who conduct business there. Corruption does not only occur with the misuse of public, government or regulatory powers, it also can occur in a business's supplies, inputs and procurement functions (such as illicit rebates, kickbacks and dubious vendor relationships) as well as the inventory and product sales functions (such as inventory shrinkage or skimming). Employees as well as external parties (such as suppliers, distributors and contractors) have opportunities to commit theft, procurement fraud and other wrongs against the Company. While corruption, bribery and fraud and theft risks can never be fully eliminated, the Company reviews and implements controls to reduce the likelihood of these events occurring. The Company's present and future business operations face these risks. Accordingly, for all of the reasons above, readers should not place undue reliance on forward-looking information.

For additional information with respect to these and other factors and assumptions underlying the forward-looking information made in this news release, see the Company's most recent Annual Information Form and Management's Discussion and Analysis, as well as other public disclosure documents that can be accessed under the issuer profile of "Jaguar Mining Inc." on SEDAR at www.sedar.com. The forward-looking information set forth herein reflects the Company's reasonable expectations as at the date of this news release and is subject to change after such date. The Company disclaims any

intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. The forward-looking information contained in this news release is expressly qualified by this cautionary statement.