

October 4, 2016
For Immediate Release

2016-22 TSX: JAG

PRESS RELEASE

Jaguar Signs Earn-In Agreement to Sell Gurupi Project to Avanco Resources

Toronto, Canada, October 4, 2016 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) is pleased to announce that it has entered into an earn-in agreement (the "Agreement") with Avanco Resources Limited (ASX: AVB) ("Avanco"), pursuant to which Avanco may earn up to a 100% interest in the Gurupi Project ("Gurupi" or the "Project"). Gurupi is located in the state of Maranhão, Brazil, and includes the Cipoeiro and Chega Tudo deposits which are found in a 72-kilometre trend that remains mainly unexplored. Jaguar, through a wholly-owned subsidiary, holds mineral concessions totaling 140,332 hectares. The last feasibility study on the Gurupi Project was prepared on January 31, 2011, by TechnoMine Services LLC, which is filed under the Company's profile on SEDAR (www.sedar.com).

Main Terms of the Agreement

Upon the satisfactory completion of certain closing conditions, the Agreement provides Avanco with the right to earn 20% of Jaguar's interest in the Project by paying to Jaguar an aggregate cash fee of US\$1.7 million plus an additional fee of US\$500,000 in cash or shares of Avanco, and by expending a minimum of US\$300,000 on permitting and access in respect of the Project. Avanco will earn an additional 31% interest in Gurupi upon the publication of a JORC compliant reserve estimate in excess of 500,000 ounces, and will earn a further 29% interest in Gurupi upon demonstration of adequate funding coupled with the start of construction of a process plant with capacity in excess of 50,000 ounces per year. In the event that Avanco cannot demonstrate adequate funding for the Project, Jaguar will have a one-time right to buy-back a 31% interest in Gurupi and control of the Project by paying to Avanco the reasonable costs and expenses incurred in the preparation of the JORC compliant reserve estimate and technical studies. Avanco will have the option to acquire the remaining 20% interest in the Project at any time by paying a fee equal to the greater of US\$6.25 million or the sum of US\$12.50 per ounce of gold as per the JORC compliant reserve estimate.

Pursuant to the Agreement, Jaguar will retain a Net Smelter Return ("NSR") royalty ("Royalty") upon the commissioning of production at the Project. The Royalty will be 1% NSR on the first 500,000 ounces of gold or gold ounce equivalents produced; 2% NSR on production from 500,001 to 1,500,000 ounces of gold or gold ounce equivalents; and 1% NSR on production exceeding 1,500,000 ounces of gold or gold ounce equivalents.

Rodney Lamond, President and Chief Executive Officer of Jaguar commented, "We are pleased to announce that we are partnering with Avanco to develop the Gurupi Project while retaining exposure to the significant exploration upside this property possesses through an Earn-In Agreement and through an NSR Royalty on the Property. Jaguar originally acquired Gurupi as part of the 2009 acquisition of Mineração Chega Tudo from Kinross Gold, through which we gained 100% ownership of the entire mineral licenses for the Project located in northern Brazil. Since joining Jaguar as CEO, our primary focus has been on our core assets in the Iron Quadrangle to create shareholder value. We are pleased with this agreement and with our new partners who we believe will develop the Gurupi Project enabling the Company to remain focused on our operating mines and achieving our 2016 production guidance."

Mr. Lamond went on to say, "Avanco's strong track record in raising funds, building and commissioning mines in northern Brazil, and recognized Brazilian regulatory skills makes them a solid partner positioned for success. Avanco's board members include former Kinross Gold executives highly familiar with Gurupi, which further demonstrates that Avanco's team retains the necessary experience and knowledge to take on this high-profile asset and succeed. Lastly, the Royalty, while beneficial to Jaguar, will allow Avanco to develop the project cost effectively."

About Avanco Resources Ltd.

Avanco is a Brazilian focused mining exploration and development company, targeting exploration and near-term production from copper and gold projects. Avanco's Board of Directors and Management team have extensive global resource industry experience, particularly in Northern Brazil where they have recently commissioned the Antas copper-gold mine on-schedule and under budget. Avanco has offices in Perth, Australia; Rio de Janeiro; and Parauapebas, Brazil.

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 covering an area of approximately 191,000 hectares. The Company's principal operating assets are located in a prolific greenstone belt in the state of Minas Gerais and include the Turmalina Gold Mine Complex ("Mineração Turmalina Ltda" or "MTL") and Caeté Gold Mine Complex ("Mineração Serras do Oeste Ltda" or "MSOL") which combined produce more than 90,000 ounces of gold annually. The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012. Additional information is available on the Company's website at www.jaguarmining.com.

For further information please contact:

Rodney Lamond President & Chief Executive Officer rodney.lamond@jaguarmining.com 416-628-9601 Hashim Ahmed Chief Financial Officer hashim.ahmed@jaguarmining.com 416-628-9601

Forward-Looking Statements

Certain statements in this press release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. 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. This press release contains forward-looking information regarding (1) the expectations regarding whether a transaction will be consummated, including whether conditions to the consummation of the transactions will be satisfied, or the timing for completing the transaction, (2) expectations for the effects of the transaction or the ability of the Company to successfully achieve business objectives, including the effects of unexpected costs, liabilities or delays, and (3) expectations for other economic, business, and/or competitive factors. Forward-looking information involves a number of known and unknown risks and uncertainties, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company, including, without limitation, the risks that the transaction as described in the Agreement may not be completed and the parties may be unable to realize on the anticipated benefits of the transaction. Accordingly, 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 press 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 press 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 press release is expressly qualified by this cautionary statement.