

PRESS RELEASE

December 21, 2015 For Immediate Release 2015-29 TSX-V: JAG

Jaguar Reports Unscheduled Shutdown at Turmalina's Mill #2 and Revised Production Guidance for 2015

Toronto, Canada, December 21, 2015 - Jaguar Mining Inc. ("Jaguar" or the "Company") (JAG:TSX-V) today announced that on December 4, 2015 Mill #2 at the Turmalina mine was shutdown due to excessive vibration for unscheduled repairs, while Mill #1 and mining activities continue to operate normally. Mill #2 is expected to be repaired and fully operational on or about January 2, 2016.

As a result of the unscheduled repairs at Mill #2, a now longer than expected timeframe to make repairs and the previous deferral of required repairs at Turmalina's Mill #3, Turmalina will realize a shortfall in tonnes processed and consequently gold production during the fourth quarter 2015. While Mill #2 is repaired, the Company has been stockpiling ore that would have been otherwise processed and anticipates processing that ore in January 2016. The Company does not anticipate that this delay will impact projected production volumes over the coming months.

On a consolidated basis, the Company now expects full year gold production of approximately 89,500 ounces in 2015, while previous guidance indicated consolidated production of 92,000 ounces for 2015.

Rodney Lamond, President and Chief Executive Officer of Jaguar commented, "It is unfortunate that we had to interrupt the strong performance at Turmalina mine to complete the unscheduled repairs to Mill # 2. It is also unfortunate that there will be a negative impact on the full year gold production guidance due to the repairs and due to the closing of the year, as stockpiled mine production will be processed in the proceeding month."

The Company's consolidated year to date gold production reported September 30, 2015, was 67,253 ounces respectively, compared to 69,600 ounces in 2014. Turmalina increased production by 23% in the third quarter and produced 13,994 ounces of gold compared to 11,336 ounces while the average head grade at Turmalina was 4.77 grams per tonne compared to 3.69 grams per tonne reported tin he same quarter during 2014.

About Jaguar Mining Inc.

Jaguar is a gold producer with mining operations in a prolific greenstone belt in the state of Minas Gerais, Brazil. Additionally, Jaguar wholly owns the large-scale Gurupi Development Project in the state of Maranhão, Brazil. In total, the Company owns mineral claims covering an area of approximate 197,000-hectares. Additional information is available on the Company's website at www.jaguarmining.com.

FOR FURTHER INFORMATION PLEASE CONTACT:

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FORWARD-LOOKING STATEMENTS

Certain statements in this press release constitute "Forward-Looking Statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation. Forward-looking statements include, but are not limited to, management's assessment of Jaquar's future plans and operation. Certain statements throughout this press release constitute forward-looking statements (forecasts) under applicable securities laws relating to future events or future performance. 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. Forward-Looking Statements involve known and unknown risks, uncertainties and other factors, which may cause the actual results or performance to be materially different from any future results or performance expressed or implied by the Forward-Looking Statements. Management does not have firm commitments for all of the costs, expenditures, prices or other financial assumptions used to prepare the financial outlooks or assurance that such results will be achieved. The actual results of Jaguar will likely vary from the amounts set forth in the financial outlooks and such variation may be material. Jaguar and its management believe that the financial outlooks have been prepared on a reasonable basis, reflecting the best estimates and judgments, and represent, to the best of management's knowledge and opinion, the Company's expected production, grades, tones milled, recovery rates, cash operating costs, and definition/delineation drilling, in addition to overall expenditures and results of operations during 2015. However, because this information is highly subjective and subject to numerous risks, including the risks discussed below, it should not be relied on as necessarily indicative of future results. Forward-looking information is based on current expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by Jaguar and described in the forward-looking information. The forward-looking information contained in this press release is made as of the date hereof and Jaguar undertakes no obligation to update publicly or revise any forward-looking information, whether as a result of new information, future events or otherwise, unless required by applicable securities laws. The forward-looking information contained in this press release is expressly qualified by this cautionary statement.

Forward-Looking Statements involve known and unknown risks, uncertainties and other factors may cause the actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. Such risk factors include, among others the risk of Jaguar's not meeting the forecast plans regarding its operations and financial performance, as well as those factors disclosed in the Company's current Annual Information Form and Management's Discussion and Analysis, as well as other public disclosure documents, available on SEDAR at www.sedar.com. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate. The forward-looking statements contained herein are presented for the purposes of assisting investors in understanding the Company's plan, objectives and goals and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking statements.

These Forward-Looking Statements represent the Company's views as of the date of this press release. The Company anticipates that subsequent events and developments may cause the Company's views to change. Factors, which could cause results or events to differ from current expectations, include, among other things, actions taken against the Company by governmental agencies and securities and other regulators and other factors not currently viewed as material that could cause actual results to differ materially from those described in the Forward-Looking Statements. The Company does not undertake to update any Forward-Looking Statements, either written or oral, that may be made from time to time by or on behalf of the Company subsequent to the date of this discussion except as required by law.

Non-IFRS Measures.

This press release provides certain financial measures that do not have a standardized meaning prescribed by IFRS. Readers are cautioned to review the above stated footnotes where the Company expanded on its use of non-IFRS measures.

Footnotes

Cash operating costs and cash operating cost per ounce are Non-IFRS measures. In the gold mining industry,
cash operating costs and cash operating costs per ounce are common performance measures but do not
have any standardized meaning. Cash operating costs are derived from amounts included in the
Consolidated Statements of Comprehensive Income (Loss) and include mine site operating costs such as
mining, processing and administration as well as royalty expenses, but exclude depreciation, depletion share-

based payment expenses and reclamation costs. Cash operating costs per ounce are based on ounces produced and are calculated by dividing cash operating costs by commercial gold ounces produced; US\$ cash operating costs per ounce produced are derived from the cash operating costs per ounce produced translated using the average Brazilian Central Bank R\$/US\$ exchange rate. The Company discloses cash operating costs and cash operating costs per ounce as it believes those measures provide valuable assistance to investors and analysts in evaluating the Company's operational performance and ability to generate cash flow. The most directly comparable measure prepared in accordance with IFRS is total production costs. A reconciliation of cash operating costs per ounce to total production costs for the most recent reporting period, the three months ended September 30, 2015 is set out in the Company's third quarter 2015 MD&A filed on SEDAR at www.sedar.com.

2. All-in sustaining cost is a non-IFRS measure. This measure is intended to assist readers in evaluating the total costs of producing gold from current operations. While there is no standardized meaning across the industry for this measure, except for non-cash items the Company's definition conforms to the all-in sustaining cost definition as set out by the World Gold Council in its guidance note dated June 27, 2013. The Company defines all-in sustaining cost as the sum of production costs, sustaining capital (capital required to maintain current operations at existing levels), corporate general and administrative expenses, and in-mine exploration expenses. All-in sustaining cost excludes growth capital, reclamation cost accretion related to current operations, interest and other financing costs and taxes. A reconciliation of all-in sustaining cost to total production costs for the most recent reporting period, the three months ended September 30, 2015 is set out in the Company's third quarter 2015 MD&A filed on SEDAR at www.sedar.com.