



JAGUAR MINING REPORTS THIRD QUARTER 2023 PRODUCTION RESULTS

Toronto, October 12, 2023 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG, OTCQX:JAGGF) today announced preliminary production results for the third quarter of 2023. Full financial results for the quarter will be reported and filed on SEDAR on or before November 9, 2023. All figures are in US Dollars, unless otherwise expressed.

Third Quarter Operating Highlights

After a challenging second quarter, the third quarter showed modest improvement in ounces produced (+3%) as the Company continued to focus on implementation of significant changes that are expected to improve our fourth quarter and the future production. During the quarter, the Company closed on the purchase of IAMGOLD's Brazilian assets which includes the Pitangui Project. Development at Faina reached the edge of the resource area. Changes in mining systems and cost structure were also initiated. Finally, the Company brought on board an experienced Chief Financial Officer. All of these steps are setting Jaguar up for improving performance well into the future.

- Consolidated gold production of 17,316 ounces was 19% below the 21,161 ounces reported in the third quarter of 2022. Tonnes milled decreased to 208,000 tonnes compared to 216,000 in the third quarter of 2022.
 - Pilar gold production of 8,787 ounces was 22% below the 11,195 ounces reported in the third quarter of 2022.
 - Turmalina gold production of 8,529 ounces was 14% below the 9,966 ounces reported in the third quarter of 2022.
- Total development meters completed in the quarter were 2,967 metres roughly in line with the 3,000 metres developed in the same period of 2022.
- Total definition, infill and exploration drilling in the quarter were 13,221 metres, a decrease of 33% compared to 19,584 metres drilled in the same period of 2022, when a major infill drilling program was conducted on the Faina Resource.
- The Company ended the third quarter with a cash and equivalents position of \$19.9 million.

Third Quarter Operating Results

Quarterly Summary	Q3 2023			Q3 2022		
	Turmalina	Pilar	Total	Turmalina	Pilar	Total
Tonnes milled (t)	100,689	107,294	207,982	100,122	111,365	216,487
Average head grade (g/t)	3.01	2.88	2.95	3.41	3.51	3.46
Recovery (%)	87.4	88.4	87.9	86.7	89.1	87.8
Gold ounces						
Produced (oz)	8,529	8,787	17,136	9,966	11,195	21,161
Sold (oz)	8,464	8,038	16,502	10,867	11,254	22,121
Development						
Primary (m)	606	421	1,027	631	420	1,051
Secondary (m)	756	661	1,417	677	582	1,259

Exploration Development (m)	523	0	523	439	251	690
Definition, infill and exploration drilling (m)	6,777	6,444	13,221	9,579	10,005	19,584

Vern Baker, President and CEO of Jaguar, stated: *“Implementation of change at both of our mines was the main challenge in the third quarter and is expected to lead to further improvement in the fourth quarter. Production of 17,316 ounces was an increase of 565 ounces from a low in the second quarter.*

The Turmalina mine is adapting several new tools to improve grade and consistency of performance. Adapting to the current ore variability has included the implementation of increased geologic mapping, modifying diamond drill patterns, sampling of production drill holes, reduction of mining block heights, and the utilization of in-hole cameras for identifying structural contacts. As a result of these steps, towards the end of the quarter, grade reconciliations were returning to levels considered to be within acceptable limits.

At our Pilar mine, changes in dip and ore thickness within Panel 15 for much of 2023 limited the mineable blocks and grade coming from our main production panel. To counter this change, the mine started the implementation of cut-and-fill mining method which should increase the percentage utilization of the resource base in the panels below 15. The process of changing mining methods started during the quarter, and we should expect to see improvement with the start of production contributions from Panel 16 during the fourth quarter. Additional grade-control steps, similar to those taken at Turmalina, are also being implemented.

Concurrently, both mines have been implementing steps to increase productivity which should in turn lower operating costs. We expect to reduce both our all-in-sustaining-costs and our total expenditures in the fourth quarter.

Development toward the Faina deposit continued and is expected to reach the better portions of the resource in the fourth quarter. Faina will begin augmenting ounce production with modest contributions from development expected in 2024. Work in 2024 will target establishing an internal ramp and infrastructure with multiple production levels to allow a smooth transition to full scale mining in 2025.

During the quarter, the Company successfully completed the acquisition of IAMGOLD’s Brazilian assets which includes a 100% interest in the Pitangui Project and remaining interest in the Acurui Project. The transaction increases our resource base and furthers our corporate strategy to leverage extensive existing infrastructure to drive production growth through increased plant throughput. We expect to include the Pitangui resource in our MRMR update for the end of the year. This project and its contribution of ounces to our Turmalina property will provide continuing growth at Turmalina following the addition of mining at the Faina resource.

We continue to have a strong financial position with only \$3 million in debt and a cash balance at quarter end of \$19.9 million.

Going forward, adjustments to mining systems in our existing mines, additional new production from Faina, a clear view of the path to production at the Pitangui Project, and several opportunities for contributions from other existing resources all are positioning us for sustainable production and increases in our levels of ounce production. It is both an exciting time and a difficult one as investing in growth reduces our cash balance at the same time as we work on getting our mines at consistent and stable levels. I would like to thank our team in Brazil for their continued efforts and commitment to making this Company great. I would also like to thank our shareholders that have continued to support our advancement towards a very bright future. Finally, I am pleased to officially welcome our new Chief Financial Officer, Alfred Colas, to the executive team. In his short time with us, Alfred has brought a wealth of experience and knowledge to help leverage our potential as we move this company forward.”

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 also 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 southeastern 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 third largest gold land position in the Iron Quadrangle with over 50,000 hectares.

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.

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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, the duration of the temporary suspension of the Company's 2023 production guidance in ounces and costs, the expected

future release of new guidance for 2023, the anticipated impact of planned changes in mining systems and cost cutting initiatives on the Company's future performance and production results, information related to 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). 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 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.