



NEWS RELEASE

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FOR IMMEDIATE RELEASE

TSX: JAG

Jaguar Mining Provides Management Update and Reports on Operating Progress

Toronto, August 20, 2018 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) today provided an update on recent management changes and progress on operating performance.

As previously announced, Benjamin Guenther was appointed Interim Chief Executive Officer effective August 15, 2018. Ben brings more than 40 years of mining industry experience, with extensive knowledge of mining in Brazil.

On behalf of Jaguar Mining's Board, Chairman Dick Falconer commented, "The entire Jaguar Mining Board would like to thank Ben for taking the role as Interim Chief Executive Officer through this critical period. We are confident that under his leadership, operational teams will take the right steps to improve Company performance including delivering on our targets for production, lower costs and increase operational cash flow. We appreciate Ben's continued support as the Board conducts a thoughtful and comprehensive search for Jaguar's next CEO."

In addition, the Company has made progress on strengthening the senior operational team in Brazil with the recent appointment of Kevin Weston as Vice President Operations in July 2018. Mr. Weston is a Mining Engineer with nearly four decades of international gold and base metal mine management, as well as operational and gold processing experience. He has been successful in turning around challenging mining operations as well as achieving key targets during extended commissioning phases.

"As we focus on 2018 production and cost targets, we have made important changes to strengthen our operations team in Brazil. We are extremely pleased to welcome Kevin, who brings deep and proven experience with challenging operations, and look forward to his insight and positive impact across all of our mines," said Mr. Guenther. "Over the coming weeks, Kevin's top priority will be to focus on reviewing opportunities and implementing key changes at Turmalina to deliver on critical targets to drive improved performance."

The Company also takes this opportunity to provide an update on the strong performance at Pilar and its key priorities at Turmalina over the near-term.

Pilar Gold Mine Update

- Pilar Gold Mine ("Pilar") continues to see solid results and remains on track to achieve the higher end of production guidance in line with management expectations. Grades have more than doubled in the past two years, as the current working levels approach the higher-grade areas of orebodies BF and BFII.
- The mine management team performs well and is capable to adjust when challenging conditions are present. The solid performance of the team is the result of very good execution of the mine plan.
- Mine development and stope preparation inventories provide flexibility in maintaining consistent production rates.
- A new grade control program implemented at Pilar helped reduce dilution and improved reconciliations with reserve model.
- The orebody capacity provides confidence that the mine will continue to grow production in 2018 and a further growth is expected in 2019.

Turmalina Gold Mine Update

Geotechnical issues in the higher-grade area of Turmalina required modifying the mining sequence in the second quarter of 2018. This resulted in lower ore tonnage and grade as mine production was redirected to a lower grade area. Lack of mining flexibility required mining stopes prior to completing ore control drilling which contributed to a lower than expected grade profile.

In addition to a strengthened operating team with a Vice President of Operations in Brazil, management is focused on near-term priorities to deliver safe sustainable production performance and return to growing Turmalina's production to its historical profile.

Top near-term priorities at Turmalina include:

- Modifying the mining approach to minimize the number of unfilled open stopes. Converting from blind back stopes to cut-and-fill stoping below sill pillars to ensure minimal exposure from unfilled stope walls.
- Utilization of top down drilling to ensure better quality control on drilling, reduce dilution, improve mining recovery, and allow backfilling with waste rock.
- Strict adherence to backfilling in the stoping cycle to reduce unfilled open stopes.
- Use of better blasting techniques to reduce vibration into the rock mass.
- Improving ore control drilling, planning and execution to improve confidence in the ore production plan.
- Improving development planning and execution to give a high confidence in the mine production schedule.

The paste backfill plant has been commissioned and paste backfilling has begun in the upper levels of the Turmalina mine. In addition, a grade control program similar to Pilar has been implemented to reduce dilution.

The revised mine plan and schedule for the remainder of 2018 has been reviewed in detail which will allow Jaguar Mining to achieve the updated 2018 guidance of 80,000 to 85,000 ounces without any incremental costs.

The completion of these near-term priorities is critical to ensuring the flexibility and consistency in Turmalina's production plan. As it makes progress on these priorities, the Company expects in the near term that Turmalina will deliver:

- Improved gold production driving positive operational cash flow by the fourth quarter of 2018.
- Stabilized mine production over the coming quarters.
- Improved mine inventories over time to provide mining flexibility.
- Allow the mine to return to the historical higher production levels given the ore body capacity.

"Our top priority remains delivering key operational improvements at Turmalina as a path to returning to a growing and sustainable production profile more reflective of our large base of mineral resources. Importantly, as we see the favourable trends in increasing grades continuing at Pilar, we are optimistic that we will have a good second half of the year. We expect to meet our cost targets and production targets, as well as improved operating cash flows," concluded Mr. Guenther.

Newly Appointed Management Bios

Benjamin Guenther, Interim Chief Executive Officer

Benjamin Guenther has been appointed as Interim Chief Executive Officer. Mr. Guenther was appointed to the Board of Jaguar Mining in November 2017 and until recently was the Chairman of the Technical Committee of the Board. He is a mining engineer with a wide range of management and executive experience with over 40 years in the mining industry.

Mr. Guenther retired from AngloGold Ashanti in 2017. During his 22 years with AngloGold Ashanti his roles included: Executive Officer-Corporate Technical Group, Executive Officer-International Technical, SVP Operational Strategy and Asset Management, SVP-North America and Americas Technical, and General

Manager. He has worked closely with AngloGold Ashanti mines in Brazil over a period of 18 years advising, coaching, and supporting the management teams on operational strategies, operational performance, and capital growth project development and execution. He served as project steering committee chairman for expansion and new mine projects including Brazil during this period. He served on the boards of numerous alliance partners (public and private), joint ventures, and subsidiaries. He has been involved in a number of turn around projects and brings this experience to Jaguar.

Mr. Guenther has been working as a consultant since retiring from AngloGold Ashanti. Mr. Guenther graduated from the Colorado School of Mines.

Kevin Weston, Vice President, Operations

Kevin Weston was appointed Vice President, Operations in July 2018. Mr. Weston is a Mining Engineer with nearly four decades of experience in all facets of the mining industry following graduation from McGill University in Montreal. Mr. Weston has extensive international experience having worked in Zimbabwe, Tunisia, Mexico and Nicaragua, and brings significant underground mining knowledge, as well as wide experience with operating gold processing plants.

Over his career, Kevin has been recognized as a turnaround specialist having taken the Kemess Open Pit mine while under receivership to a viable operation, stabilized and achieved nameplate tonnage at the Casa Berardi gold concentrator, restructured the balance sheet of a private mining contractor in Northern Quebec, developed a safety culture at the Myra Falls Mine following it having the worst safety record in the Canadian Mining Industry, oversaw the Minto Open Pit copper mine in the Yukon and the G9 base metals mine and concentrator as they achieved their design capacities following extended commissioning phases.

Qualified Persons

Scientific and technical information contained in this press release has been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), Senior Expert Advisor Geology and Exploration to the Jaguar Mining Management Committee, 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”).

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 64,000 hectares. 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 2018. 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, 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.