



PRESS RELEASE

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JAG – TSX/NYSE

Jaguar Mining Provides Fourth Quarter and Full Year 2011 Preliminary Update of Operations; Announces Receipt of Installation License for Gurupi Processing Plant

Full Year 2011 Highlights

- Record total gold production of 155,764 ounces, up 13 percent year over year
- Total gold sold increased by 10 percent compared to 2010
- Total underground mine development of 24.8 km, up 32 percent year over year
- Underground infill drilling totaled 79,232 meters, up more than 400 percent year over year

Belo Horizonte, Minas Gerais, January 31, 2012 - Jaguar Mining Inc. (“Jaguar” or “the Company”) (JAG: TSX/NYSE) provided today a preliminary update on its Q4 and full year 2011 operating performance.

Total Combined Operations

For the full year 2011, Jaguar produced a Company record 155,764 ounces of gold. This represented an increase of 13 percent over 2010. The Company sold a total of 155,525 ounces of gold during the year which was also a Company record and represented a 10 percent increase over 2010.

Commenting on the Company’s operational performance, Jaguar’s Chairman Gary German stated, “We are pleased with the results of the turnaround program that we initiated in the fourth quarter of 2010. The record production we achieved this year is a clear indication that we are making solid progress towards predictable production and ultimately lower costs at our mines. The turnaround effort is largely complete at Turmalina and Caeté. Our efforts will be fully focused on Paciência for the next several quarters as changes in equipment and increased definition drilling will allow for greater selectivity and reduced mining dilution.”

Continued Investment in Development and Infill Drilling – Southern Operations

During 2011, Jaguar continued to increase development advance and improve operational flexibility across all of its operations. Underground mine development totaled nearly 25 km for the year. The number of available fully developed stopes was increased from 27 to 46 and the number of operating faces in ore increased from 54 to 88. Underground infill definition drilling totaled 79,232 meters during the year, an increase of over 400 percent from 2010.

The increased development and drilling is an investment in predictable, lower cost gold production. The Company has been catching up on underground development since Q4 2010 and this accelerated investment in development will taper off in the second half of 2012 as a comfortable level of fully developed reserves is achieved at all mines. The objective of this program is to reduce cash cost per ounce and allow for the consistent delivery of ounces on plan.

In the fourth quarter of 2011 Jaguar produced 33,397 ounces of gold and sold 34,157 ounces. The lower quarterly production had been anticipated due to the continuing repairs to the ball mills at Paciência and increased throughput of lower grade development ore at all three operations. Mining operations were further hampered by severe rainy weather that stopped production for several days at the Roça Grande surface mine at the Caeté operation. In addition road wash outs hampered ore haulage to the Caeté plant from the Pilar mine.

2011 Production by Operation

Operation	Q4 2011 Production (ounces Au)	Full Year 2011 Production (ounces Au)
Turmalina	13,470	61,400
Paciência	6,632	39,581
Caeté	13,295	54,783
Total	33,397	155,764

Gurupi Project Update

In early January, Jaguar received the installation license which authorizes the construction of the processing plant for the Gurupi open pit mine project in the Northern Brazilian state of Maranhão. The license was a critical step in the development of the Gurupi project and brings the Company closer to being able to realize the full value of its assets in Northern Brazil. “We want to thank the Secretary of the Environment and Natural Resources for the State of Maranhão for their support and cooperation,” Mr. German stated. “Our team has worked closely with government officials to ensure that all the licensing requirements were met and we will continue to work with them to ensure that this outstanding project brings value to the region as well as to Jaguar shareholders.”

The licensing decision for the tailings impoundment facility for the project is pending subject to company acquisition of surface land rights for their construction. Several land options are being considered and the Company is engaging in negotiations with land holders.

Jaguar is continuing exploration and development at Gurupi with an aggressive drilling program to further define the rich resource base. Phase One of the previously announced 30,000 meter infill and step-out drilling program at Gurupi was completed in January with a total of 98 holes / 22,751 meters. Phase Two of the drilling program has commenced with 1,158 meters having been drilled. Approximately 80 percent of the assays from Phase One have been received with the remaining 20 percent expected to be completed in February 2012. The results to date confirm the potential to significantly increase gold indicated mineral resources at the Project's Cipoeiro and Chega Tudo deposits, currently estimated at 69,887,500 tonnes at 1.12 grams per tonne totaling 2.5 million ounces. While the infill drilling confirms the mineralization is in line with the grade and width indicated from previous drilling programs, the step-out drilling demonstrates that the mineralization is persistent down-dip in both ore bodies as a pervasive pyrite-gold assemblage associated with NW-SE shear zones. Preliminary results from deep holes FCTU0023 and KCT420 at Chega Tudo suggest the extension of the mineralization to a vertical depth of approximately 300 meters. Previous

resource drilling campaigns at the Project had delineated the mineralization down to 170 meters vertical depth at Cipoeiro and 130 meters vertical depth at Chega Tudo.

“Our excitement and optimism for the Gurupi project continue to grow as we further define the resources and evaluate the enormous potential,” Mr. German said.

A full resource re-evaluation of the Cipoeiro and Chega Tudo ore bodies is expected to be completed in March 2012.

About Jaguar Mining

Jaguar is a junior gold producer in Brazil with operations in a prolific greenstone belt in the state of Minas Gerais and is developing the Gurupi Project in Northern Brazil in the state of Maranhão. The Company is actively exploring and developing additional mineral resources at its approximate 256,300-hectare land base in Brazil. Additional information is available on the Company’s website at www.jaguarmining.com.

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Forward Looking Statements

This press release contains forward-looking statements, within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws, concerning the Company. These forward-looking statements can be identified by the use of the words “believes”, “intends”, “plans”, “expects” and “will”. 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.

These factors include the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drilling results and other geological data, fluctuating gold prices and monetary exchange rates, the possibility of project cost delays and overruns or unanticipated costs and expenses, uncertainties relating to the availability and costs of financing needed in the future, uncertainties related to production rates, timing of production and the cash and total costs of production, changes in applicable laws including laws related to mining development, environmental protection, and the protection of the health and safety of mine workers, the availability of labor and equipment, the possibility of labor strikes and work stoppages and changes in general economic conditions. 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 information, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended.

These forward-looking statements represent our views as of the date of discussion. The Company anticipates that subsequent events and developments may cause the Company's views to change. 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. For a discussion of important factors affecting the Company, including fluctuations in the price of gold and exchange rates, uncertainty in the calculation of mineral resources, competition, uncertainty concerning geological conditions and governmental regulations and assumptions underlying the Company’s forward-looking statements, see the “CAUTIONARY NOTE” regarding forward-looking statements and “RISK FACTORS” in the Company's Annual Information Form for the year ended December 31, 2010 filed on System for Electronic Document Analysis and Retrieval and available at <http://www.sedar.com> and the Company’s Annual Report on Form 40-F for the year ended December 31, 2010 filed with the United States Securities and Exchange Commission and available at www.sec.gov.

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