



## PRESS RELEASE

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JAG - TSX/NYSE

### **Jaguar Mining Announces a 72% Increase to Gold Resources** *Total Measured and Indicated Resources now at 6.0 Million Ounces*

**Jaguar Mining Inc. (“Jaguar” or the “Company”) (JAG: TSX/NYSE)** announced today that it has filed on SEDAR a National Instrument (“NI”) 43-101 statement of resources technical report on its newly acquired Gurupi Project in Northern Brazil. The technical report was prepared by Pincock Allen & Holt and states the following mineral resource information for the Gurupi Project:

GURUPI	RESOURCES (tonnages in metric tonnes and grades in grams/tonne)								RESOURCES (ounces Au)	
	Measured (t)	g/t	Indicated (t)	g/t	Measured + Indicated (t)	g/t	Inferred (t)	g/t	Measured + Indicated	Inferred
Cipoeiro	-	-	49,407,050	1.17	49,407,050	1.17	6,813,170	1.10	1,852,367	240,980
Chega Tudo	-	-	20,752,902	1.00	20,752,902	1.00	12,007,998	0.98	663,959	377,615
<b>Total</b>	-	-	<b>70,159,952</b>	<b>1.12</b>	<b>70,159,952</b>	<b>1.12</b>	<b>18,821,168</b>	<b>1.02</b>	<b>2,516,326</b>	<b>618,595</b>

As previously announced, Jaguar’s team is working with AMEC plc on a feasibility study for the Gurupi Project, which is expected to be completed during Q1 2010.

Incorporating the new mineral resources for the Gurupi Project to Jaguar’s mineral resource estimates for its properties in Minas Gerais, Brazil, as filed earlier this year, Jaguar’s measured and indicated (“M&I”) gold resources now total approximately 95,233,340 tonnes at an average grade of 1.97 grams per tonne totalling approximately 6,035,000 ounces. Inferred resources are estimated at approximately 26,072,000 tonnes at an average grade of 2.08 grams per tonne totalling approximately 1,744,000 ounces. The increase in M&I and inferred ounces over the Company’s previously filed statement rose 72% and 55%, respectively.

In Q3 2009, the reported run-of-mine (ROM) grades from Jaguar’s underground operations averaged 4.37 g/t. Management expects the ROM grades from the ongoing Gurupi feasibility study, which will be an open pit design, are likely to be higher than the resource grades shown herein for the Gurupi Project.

Jaguar’s new summary of estimated mineral resources is presented below.

	RESOURCES (tonnages in metric tonnes and grades in grams/tonne)								RESOURCES (ounces Au)	
	Measured (t)	g/t	Indicated (t)	g/t	Measured + Indicated (t)	g/t	Inferred (t)	g/t	Measured + Indicated	Inferred
<b>Northern Brazil</b>										
<b>Gurupi</b>										
Cipoeiro <sup>(6)</sup>	-	-	49,407,050	1.17	49,407,050	1.17	6,813,170	1.10	1,852,367	240,980
Chega Tudo <sup>(6)</sup>	-	-	20,752,902	1.00	20,752,902	1.00	12,007,998	0.98	663,959	377,615
<b>Total Northern Brazil</b>	<b>-</b>	<b>-</b>	<b>70,159,952</b>	<b>1.12</b>	<b>70,159,952</b>	<b>1.12</b>	<b>18,821,168</b>	<b>1.02</b>	<b>2,516,326</b>	<b>618,595</b>
<b>Southern Brazil</b>										
<b>Sabar</b>										
Sabar	677,230	1.72	245,970	1.48	923,200	1.66	439,000	2.24	49,160	31,620
Other <sup>(1)</sup>	518,900	5.56	704,300	5.40	1,223,200	5.47	830,000	3.91	215,060	104,350
Total	1,196,130	3.39	950,270	4.39	2,146,400	3.83	1,269,000	3.33	264,220	135,970
<b>Pacincia</b>										
Santa Isabel <sup>(2)</sup>	2,200,600	3.91	2,566,300	3.13	4,766,900	3.49	856,710	2.90	534,950	79,890
Other <sup>(1)</sup>	1,642,000	3.68	1,567,000	3.97	3,209,000	3.82	500,000	5.00	394,330	80,390
Total	3,842,600	3.81	4,133,300	3.45	7,975,900	3.62	1,356,710	3.67	929,280	160,280
<b>Caet Project</b>										
Pilar <sup>(3)</sup>	1,355,400	5.71	1,249,200	5.73	2,604,600	5.72	1,620,600	6.59	479,010	343,400
Roa Grande <sup>(3)</sup>	3,340,200	3.30	3,396,600	4.59	6,736,800	3.95	1,377,260	4.43	855,730	196,180
Total	4,695,600	4.00	4,645,800	4.90	9,341,400	4.44	2,997,860	5.60	1,334,740	539,580
<b>Turmalina</b>										
Faina and Pontal <sup>(4)</sup>	339,600	5.64	1,191,000	5.70	1,530,600	5.69	120,000	5.70	279,870	22,000
Ore Bodies A and B	340,200	6.13	2,124,200	6.89	2,464,400	6.79	1,027,280	6.39	537,660	211,070
Ore Body C <sup>(5)</sup>	516,180	3.52	1,098,510	3.23	1,614,690	3.32	479,740	3.70	172,510	57,080
Total	1,195,980	4.31	4,413,710	5.90	5,609,690	5.58	1,627,020	5.55	990,040	290,150
<b>Total Southern Brazil</b>	<b>10,930,310</b>	<b>3.96</b>	<b>14,143,080</b>	<b>4.68</b>	<b>25,073,390</b>	<b>4.36</b>	<b>7,250,590</b>	<b>4.83</b>	<b>3,518,280</b>	<b>1,125,980</b>
<b>TOTAL IN SITU RESOURCES</b>					<b>95,233,342</b>	<b>1.97</b>	<b>26,071,758</b>	<b>2.08</b>	<b>6,034,606</b>	<b>1,744,575</b>

Notes: Some columns and rows may not total due to rounding. Slight differences in the conversion of grams to ounces reflect operational differences in the number of significant decimal places used.

- (1) TechnoMine NI 43-101 Technical Report on the Quadriltero Gold Project filed on SEDAR on December 20, 2004.
- (2) TechnoMine NI 43-101 Feasibility Study on the Pacincia Gold Project filed on SEDAR on August 9, 2007.
- (3) TechnoMine NI 43-101 Feasibility Study on the Caet Gold Project filed on SEDAR on September 17, 2008.
- (4) TechnoMine NI 43-101 Technical Report on the Turmalina Gold Project filed on SEDAR on December 20, 2004.
- (5) TechnoMine NI 43-101 Feasibility Study on the Turmalina Expansion Project filed on SEDAR on September 11, 2008.
- (6) Pincock Allen & Holt NI 43-101 Technical Report on the Gurupi Project filed on SEDAR on December 4, 2009.

The mineral resource estimates disclosed herein in connection with Sabar, Turmalina, Pacincia and Caet were reviewed by Ivan C. Machado, M.Sc., P.E., P.Eng., Principal of Salt Lake City based TechnoMine Services, LLC. Mr. Machado serves as Jaguar's independent Qualified Person in accordance with NI 43-101. The mineral resource estimates disclosed herein in connection with the Gurupi Project were reviewed by Jeremy L. Clark and Barton G. Stone, C.P.G. of Pincock Allen & Holt. Mr. Clark and Mr. Stone both serve as Jaguar's independent Qualified Persons in accordance with NI 43-101.

## NOTICE OF UPCOMING EVENTS

The Company will hold two important meetings in early 2010, which qualified individuals may want to consider attending. These are:

- A. January 19, 2010: Jaguar will hold an analyst meeting at the Intercontinental Hotel in Toronto and,
- B. April 13-16, 2010: Tour of Jaguar's operations in Belo Horizonte, Brazil.

Additional details will be forthcoming on these two events in the weeks ahead. If you would like more information, please contact the individuals noted below.

## **ABOUT JAGUAR MINING**

Jaguar is one of the fastest growing gold producers in Brazil with operations in a prolific greenstone belt in the state of Minas Gerais and has plans to develop the Gurupi Project in northern Brazil in the state of Maranhão. Jaguar is actively exploring and developing additional mineral resources at its approximate 575,000-acre land base in Brazil. The Company has no gold hedges in place thereby providing the leverage to gold prices directly to its investors. Additional information is available on the Company's website at [www.jaguarmining.com](http://www.jaguarmining.com).

### **For Information:**

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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, relating to the completion of the Gurupi Project feasibility study in Q1 2010, the Company's plan to develop the Gurupi Project and management's expectation that the ROM grades from the ongoing Gurupi feasibility study are likely higher than the resource grades shown in the tables presented in this press release. These forward-looking statements can be identified by the use of the words "expects" and "plans". 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 ecological 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 other than as required by law.

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