



PRESS RELEASE

March 21, 2011
Concord, New Hampshire

2011-07
JAG - TSX/NYSE

Jaguar Mining Reports Q4 and FY 2010 Earnings

Jaguar Mining Inc. (“Jaguar” or the “Company”) (JAG: TSX/NYSE) reports its financial and operational results for the period ended December 31, 2010. The Company is also providing the date it intends to issue its preliminary Q1 2011 operating results and progress within this release. All figures are in U.S. dollars unless otherwise indicated.

FY 2010 Highlights

- Revenue of \$170.8 million, an increase of 21% over 2009.
- Net loss of \$23.8 million or (\$0.28) per basic and fully diluted share for the year ended December 31, 2010 compared to a net loss of \$8 million or (\$0.10) per basic and fully diluted share for the same period in 2009. Adjusted net loss, excluding special non-operating and non-recurring charges, totaled \$12.2 million or (\$0.15) per share (*See Non-GAAP Performance Measures*).
- Gross profit of \$12.4 million, a decrease of 71% from 2009, largely due to higher operating costs caused by the stronger Brazilian real and geo-mechanical operational issues at Jaguar’s Turmalina mining operation.
- Gold production of 137,867 ounces at an average cash operating cost of \$732 per ounce compared to 148,742 ounces at an average cash operating cost of \$462 per ounce during 2009 (*see Non-GAAP Performance Measures*). The primary reason for the decline in production was primarily attributable to the geo-mechanical problems at the Turmalina Mine during the second half of 2010. The Sabará operation has been excluded from the 2009 figures as it was placed on long-term care and maintenance during the second half of 2009.
- Cash generated by operating activities totaled \$19.6 million, a decrease of 39% from 2009.
- Investments of \$131.9 million in growth projects, an increase of 54% from 2009.
- As of December 31, 2010, the Company held cash, cash equivalents and short-term investments of approximately \$39.2 million. On February 9, 2011, the Company closed a \$103.5 million private offering of convertible notes that increased its cash and short term investments to \$119.5 million as of February 28, 2011.
- Achieved underground development targets by completing 18.8 kilometers of development.
- Commissioned the Caeté operation, Jaguar’s third integrated mining-processing facility.

Q4 2010 Highlights

- Revenue of \$44.6 million, an increase of 13% over 2009.
- Net loss of \$9.5 million or (\$0.11) per basic and fully diluted share compared to a net loss of \$29.4 million or (\$0.36) per basic and fully diluted share in Q4 2009. Adjusted net loss, excluding special non-operating and non-recurring charges, totaled \$6.4 million or (\$0.08) per basic and fully diluted share compared to a Q4 2009 adjusted net loss of \$3.7 million or (\$0.05) per basic and fully diluted share in Q4 2009. (See *Non-GAAP Performance Measures*).
- Gross profit of \$2.8 million, a decrease of 73% from Q4 2009.
- Gold production of 34,682 ounces at an average cash operating cost of \$762 per ounce compared to 39,891 ounces at an average cash operating cost of \$539 per ounce in Q4 2009 (see *Non-GAAP Performance Measures*). The decrease in production from the prior year was largely attributable to management's decision to halt ore production in the Turmalina Ore Body A due to geo-mechanical issues during the quarter and divert efforts to forward development.
- Cash generated by operating activities totaled \$24,000, a decrease of 98% from Q4 2009. Cash flow from operations, excluding changes in non-cash operating working capital, totaled approximately \$3 million in Q4 2010 (see *Non-GAAP Performance Measures*).
- Investments of \$22.6 million in growth projects in Q4 2010, a decrease of 31% from Q4 2009.

Commenting on the 2010 performance, Daniel R. Titcomb, Jaguar's President and CEO stated, "We faced a challenging year at our Turmalina and Paciência operations where both production and cash operating costs were adversely affected. Over the past eight months, our operating teams have worked diligently to improve these operations into healthier, more productive and sustainable mines. Turmalina required a change in the mining method, which we completed in early-2011. At each of our underground mines we have significantly increased the backfill systems and development of the infrastructure, adding more stopes and faces which adds to our flexibility. Through this effort, we now have between 10 and 18 months of fully developed reserves, ready for mining to support our 2011 production target. Our progress is in part tied to recent management changes implemented in the operations. We expect significant improvements as we move through 2011. As important, the successful commissioning of our new Caeté operation, the third such integrated mining complex we have built, should represent a significant source of gold production and a platform for further growth for years to come."

Summary of Key Operating Results

The following is a summary of key operating results.

	Three Months Ended December 31		Year Ended December 31	
	2010	2009	2010	2009
(unaudited)				
(\$ in 000s, except per share amounts)				
Gold sales	\$ 44,554	\$ 39,497	\$ 170,788	\$ 140,734
Ounces sold	34,134	35,944	140,530	143,698
Average sales price \$ / ounce	1,306	1,099	1,215	979
Gross profit	2,777	10,363	12,420	42,583
Net income (loss)	(9,474)	(29,381)	(23,792)	(7,992)
Basic income (loss) per share	(0.11)	(0.36)	(0.28)	(0.10)
Diluted income (loss) per share	(0.11)	(0.36)	(0.28)	(0.10)
Weighted avg. # of shares outstanding - basic	84,259,191	80,738,919	84,152,914	76,410,916
Weighted avg. # of shares outstanding - diluted	84,259,191	80,738,919	84,152,914	76,410,916

Additional details are available in the Company's filings on SEDAR and EDGAR, including Management's Discussion and Analysis of Financial Condition and Results of Operations and Consolidated Financial Statements for the year ended December 31, 2010.

Q1 2011 Update of Operations

The Company intends to provide an update of its preliminary Q1 2011 operating results on Tuesday, April 19, 2011. In aggregate, the Company expects to produce between 38,000 and 40,000 ounces of gold for the quarter ending March 31, 2011. The first quarter results are consistent with the initiatives the Company implemented during the second half of 2010 and its 2011 target of between 195,000 and 205,000 ounces.

Non-GAAP Performance Measures

The Company has included the non-GAAP performance measures discussed below in this press release. These non-GAAP performance measures do not have any standardized meaning prescribed by Canadian GAAP ("GAAP") and, therefore, may not be comparable to similar measures presented by other companies. The Company believes that, in addition to conventional measures prepared in accordance with GAAP, these non-GAAP measures provide investors with additional information that will better enable them to evaluate the Company's performance. Accordingly, these Non-GAAP measures are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared with GAAP.

The Company has included cash operating cost per tonne processed, cash operating cost per ounce produced and cash operating margin per ounce because it believes these figures are a useful indicator of a mine's performance as they provide: (i) a measure of the mine's cash margin per ounce, by comparison of the cash operating costs per ounce to the price of gold; (ii) the trend in costs as the mine matures; and (iii) an internal benchmark of performance to allow for comparison against other mines. Additionally, the Company has provided adjusted net income, which reflects the elimination of special non-operating and certain non-recurring charges that do not reflect on-going costs in Jaguar's operations or administrative costs; and cash flow from operations, which does not reflect the change in non-cash operating working

capital. The definitions for these performance measures and reconciliation of the non-GAAP measures to reported GAAP measures are set out in the following tables.

Adjusted Net Loss
 Non-GAAP Measure
 (\$000s except per share amounts)

	Three Months Ended December 31, 2010	Year Ended December 31, 2010
Net (loss) as reported	\$ (9,474)	\$ (23,792)
Adjustments:		
Non-cash interest expense	2,074	8,098
Additional depletion on unconverted resources	-	1,800
Loss on forward derivatives	686	686
Loss on sale of Sabará inventory	-	677
Write-down of Sabará operation	313	313
Adjusted net income (loss)	\$ (6,401)	\$ (12,218)
Adjusted EPS	\$ (0.08)	\$ (0.15)
Cash Flow From Operations		
Non GAAP Measure		

	Three Months Ended December 31, 2010	Year Ended December 31, 2010
\$ in thousands (except per share amounts)		
Cash provided by operating activities as reported		
Net income (loss)	\$ (9,474)	\$ (23,792)
Items not involving cash:		
Unrealized foreign exchange (gain) loss	(203)	(151)
Stock-based compensation	1,109	(1,571)
Non-cash interest expense	2,074	8,098
Accretion expense	520	1,697
Future income taxes	(981)	172
Depletion and amortization	10,746	39,322
Write down on Sabara property	313	313
Unrealized (gain) loss on forward sales derivatives	(1,502)	-
Unrealized (gain) loss on foreign exchange contracts	509	1,111
Disposition of property	-	(4,625)
Accretion of interest revenue	(94)	(188)
Reclamation expenditure	(51)	(1,662)
Cash provided by operating activities before change in non cash operating working capital	2,966	18,724
Cash provided by operating activities per share	\$ 0.04	\$ 0.22

Cash Operating Margin per oz of gold	Three Months Ended December 31, 2010	Year Ended December 31, 2010
Average sales price per oz of gold	\$ 1,306	\$ 1,215
<i>less</i>		
Cash operating cost per oz of gold produced	762	732
<i>equals</i>		
Cash operating margin per oz of gold	\$ 544	\$ 483

The following tables set forth certain operating data for Turmalina, Paciência and Caeté for the three and twelve months ended December 31, 2010 and 2009.

Quarter Ended December 31, 2010 Operating Data

	Ore Processed (t 000)	Feed grade (g/t)	Plant Recovery rate	Production (ounces)	Cash Operating cost/t	Cash Operating cost/ounce
Turmalina	143	2.89	88%	10,275	\$ 66.70	\$ 899
Paciência	135	3.57	94%	13,808	61.80	628
Caeté	156	2.84	88%	10,599	63.40	804
Total	434	3.09	92%	34,682	\$ 64.00	\$ 762

Year Ended December 31, 2010 Operating Data

	Ore Processed (t 000)	Feed grade (g/t)	Plant Recovery rate	Production (ounces)	Cash Operating cost/t	Cash Operating cost/ounce
Turmalina	692	3.20	87%	59,481	\$ 64.50	\$ 774
Paciência	626	3.32	93%	59,287	60.90	670
Caeté	258	2.85	91%	19,099	63.10	792
Total	1,576	3.19	90%	137,867	\$ 62.80	\$ 732

Quarter Ended December 31, 2009 Operating Data

	Ore Processed (t 000)	Feed grade (g/t)	Plant Recovery rate	Production (ounces)	Cash Operating cost/t	Cash Operating cost/ounce
Turmalina	179	3.93	89%	21,184	\$ 63.00	\$ 523
Paciência	178	3.41	93%	18,707	59.30	556
Caeté	-	-	-	-	-	-
Total	357	3.67	91%	39,891	\$ 61.20	\$ 539

Year Ended December 31, 2009 Operating Data

	Ore Processed (t 000)	Feed grade (g/t)	Plant Recovery rate	Production (ounces)	Cash Operating cost/t	Cash Operating cost/ounce
Turmalina	588	4.81	89%	82,071	\$ 59.60	\$ 424
Paciência	646	3.42	93%	66,671	51.20	502
Caeté	-	-	-	-	-	-
Total	1,234	4.14	91%	148,742	\$ 55.50	\$ 462

The following tables are included in Jaguar's audited financial statements as filed on SEDAR and EDGAR. Readers should refer to those filings for the associated footnotes which are an integral part of the tables.

JAGUAR MINING INC.

Consolidated Balance Sheet
(Expressed in thousands of U.S. dollars)

	December 31, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	\$ 39,223	\$ 121,256
Inventory	31,495	36,986
Prepaid expenses and sundry assets	24,523	19,050
Unrealized foreign exchange gains	168	1,280
	95,409	178,572
Prepaid expenses and sundry assets	48,582	35,837
Net smelter royalty	1,006	1,006
Restricted cash	908	108
Property, plant and equipment	343,363	205,329
Mineral exploration projects	90,008	129,743
	\$ 579,276	\$ 550,595
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 27,853	\$ 22,892
Notes payable	26,130	5,366
Income taxes payable	16,677	15,641
Asset retirement obligations	2,167	510
Deferred compensation liability	2,436	-
Other liabilities	704	-
	75,967	44,409
Notes payable	141,766	126,784
Future income taxes	12,558	11,821
Asset retirement obligations	19,462	12,331
Deferred compensation liability	3,816	8,616
Other liabilities	497	738
Total liabilities	254,066	204,699
Shareholders' equity		
Common shares	369,747	365,667
Stock options	13,054	14,762
Contributed surplus	42,762	42,028
Deficit	(100,353)	(76,561)
	325,210	345,896
Commitments		
Subsequent events		
	\$ 579,276	\$ 550,595

JAGUAR MINING INC.

Consolidated Statements of Operations and Comprehensive Loss
(Expressed in thousands of U.S. dollars, except per share amounts)

	Year Ended December 31, 2010	Year Ended December 31, 2009	Year Ended December 31, 2008
Gold sales	\$ 170,788	\$ 140,734	\$ 93,657
Production costs	(119,124)	(74,287)	(53,610)
Stock-based compensation	(482)	(600)	(24)
Depletion and amortization	(38,762)	(23,264)	(12,669)
Gross profit	12,420	42,583	27,354
Operating expenses:			
Exploration	3,553	3,079	3,536
Stock-based compensation	(2,053)	10,644	1,238
Administration	20,600	16,411	12,571
Management fees	1,131	1,604	854
Amortization	560	452	264
Accretion expense	1,697	786	490
Other	5,051	2,440	379
Total operating expenses	30,539	35,416	19,332
Income (loss) before the following	(18,119)	7,167	8,022
Loss on forward derivatives	686	-	318
Loss (gain) on forward foreign exchange derivatives	(1,391)	(2,642)	2,623
Foreign exchange gain	(1,697)	(17,307)	(2,477)
Interest expense	16,638	28,847	11,584
Interest income	(3,870)	(4,203)	(3,850)
Gain on disposition of property	(6,794)	(2,043)	(452)
Write down on Sabará property	313	3,522	-
Other non-operating expenses	-	145	-
Total other expenses	3,885	6,319	7,746
Income (loss) before income taxes	(22,004)	848	276
Income taxes			
Current income taxes	1,616	4,979	6,172
Future income taxes (recovered)	172	3,861	(1,640)
Total income taxes	1,788	8,840	4,532
Net loss and comprehensive loss for the year	(23,792)	(7,992)	(4,256)

JAGUAR MINING INC.

Consolidated Statements of Cash Flows
(Expressed in thousands of U.S. dollars)

	Year Ended December 31, 2010	Year Ended December 31, 2009	Year Ended December 31, 2008
Cash provided by (used in):			
Operating activities:			
Net loss and comprehensive loss for the year	\$ (23,792)	\$ (7,992)	\$ (4,256)
Items not involving cash:			
Unrealized foreign exchange gain	(151)	(3,227)	(3,471)
Stock-based compensation	(1,571)	7,962	1,262
Non-cash interest expense	8,098	15,320	1,982
Accretion of interest revenue	(188)	-	-
Accretion expense	1,697	786	490
Future income taxes (recovered)	172	3,861	(1,640)
Depletion and amortization	39,322	23,716	12,933
Write down on Sabará property	313	3,522	-
Amortization of net smelter royalty	-	-	219
Unrealized loss (gain) on foreign exchange contracts	1,111	(3,701)	4,102
Gain on disposition of property	(4,625)	-	-
Reclamation expenditure	(1,662)	(328)	-
Change in non-cash operating working capital			
Inventory	8,064	(11,106)	(4,361)
Prepaid expenses and sundry assets	(12,607)	(13,612)	(14,200)
Accounts payable and accrued liabilities	4,960	9,707	423
Current taxes payable	1,036	7,015	5,107
Deferred compensation liabilities	(546)	-	-
	19,631	31,923	(1,410)
Financing activities:			
Issuance of common shares, special warrants and warrants, net	2,895	114,294	105,803
Shares purchased for cancellation	-	-	(6,381)
Settlement of forward derivatives	-	-	(14,500)
Decrease (increase) in restricted cash	(800)	2,998	(4)
Repayment of debt	(4,158)	(84,614)	(18,654)
Increase in debt	31,099	118,204	3,848
Other long term liabilities	463	738	-
	29,499	151,620	70,112
Investing activities			
Mineral exploration projects	(29,275)	(25,200)	(37,087)
Purchase of property, plant and equipment	(102,089)	(60,300)	(52,210)
Proceeds from disposition of property	1,250	-	-
	(130,114)	(85,500)	(89,297)
Effect of foreign exchange on non-U.S. dollar denominated cash and cash equivalents			
	(1,049)	2,653	(4,556)
Increase (decrease) in cash and cash equivalents	(82,033)	100,696	(25,151)
Cash and cash equivalents, beginning of year	121,256	20,560	45,711
Cash and cash equivalents, end of year	\$ 39,223	\$ 121,256	\$ 20,560

Conference Call Details

The Company will hold a conference call tomorrow, March 22 at 10:00 a.m. EDT, to discuss the results.

From North America:	800-392-9307
International:	213-416-2192
Replay:	
From North America:	800-675-9924
International:	213-416-2185
Replay ID:	32211
Webcast:	www.jaguarmining.com

A presentation will be available prior to the call on the Company's homepage at www.jaguarmining.com.

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. Based on its development plans, Jaguar is one of the fastest growing gold producers in Brazil. 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.

For Information:

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Forward Looking Statements

This press release contains a forward-looking statement, within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws, concerning the Company's belief that Caeté should represent a significant source of gold production for years to come. 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.

This forward-looking statements represents our view 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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