



## **PRESS RELEASE**

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JAG – TSX/NYSE

### **Jaguar Mining Inaugurates its New Caeté Operation**

*Provides Updated Resource and Reserve Estimates Statement and Exploration Information*

**Jaguar Mining Inc. (“Jaguar” or “the Company”) (JAG: TSX/NYSE)** provided today details of the formal inauguration of Caeté, the Company’s newest gold operation, which took place on Wednesday, June 23. The regional processing facility was completed in late-May and the crushing circuit was commissioned on May 25. Testing of the milling circuit was conducted in early-June and the plant was charged with ore on June 12, formally entering the commissioning phase. The Caeté Project cost was US\$105.4 million and was developed on-budget and on-schedule.

In attendance were Jaguar’s Board of Directors, members of the Company’s management team and officials from the state of Minas Gerais and the cities of Caeté, Barão dos Cocais e Santa Bárbara, including Mr. Paulo Sérgio Machado Ribeiro, Sub-Secretary of the state of Minas Gerais who represented the Governor Mr. Antônio Augusto Junho Anastásia. Also in attendance were a number of representatives from CEMIG, the state’s power company as well as the Canadian Consul in Rio de Janeiro, Mr. Nigel Neale.

Mining at the adjacent Roça Grande Mine has begun with full operations expected during the middle of Q3 2010. Ore shipments from the Pilar Mine, which has been shipping 12,000 to 15,000 tonnes of ore per month to the Company’s Paciência complex for processing, has commenced ore shipments to the Caeté Plant and will continue supplying ore to the Caeté Plant as well as to the Paciência Plant through the end of 2010. The Caeté carbon-in-pulp (“CIP”) plant is currently processing approximately 1,200 tonnes per day of low-grade development ore from the stockpile and is expected to ramp-up the tonnage into the mill over the next three months. Physical gold production is likely to take place in late-July with the first pour and the new CIP plant expected to reach commercial operations in late-Q3 2010. Jaguar’s management team expects gold output from the new Caeté operation will range between 30,000 and 35,000 ounces this year and between 90,000 and 100,000 ounces in 2011.

Mr. Daniel R. Titcomb, Jaguar’s President and CEO stated, “The completion and inauguration of the Caeté operation is an important step for Jaguar and its shareholders. This new integrated mining complex will significantly enhance the Company’s production profile and help us achieve our goal of becoming a mid-tier gold producer in 2011. The completion of this project on-time and on-budget further demonstrates the depth and talent of our team in Brazil; a team which has built and commissioned more underground operations in Brazil than any other management team. The Caeté operation is expected to become Jaguar’s second largest and lowest-cost gold operation next year and will produce gold for years to come.”

## Updated Resource and Reserve Estimates Statement

In July 2010, Jaguar expects to file on SEDAR a National Instrument ("NI") 43-101 statement of resources technical report, which includes additional measured and indicated ("M&I") and inferred resources in southern Brazil as part of its normal exploration and development effort. As detailed in the following table, Jaguar now has 6,327,060 ounces of M&I gold resources based on 95,689,380 tonnes with an average grade of 2.06 grams per tonne as well as 1,762,330 ounces of inferred gold resources based on 26,306,020 tonnes with an average grade of 2.08 grams per tonne. Proven and probable reserves total 4,337,680 ounces of gold based on 81,188,600 tonnes of ore grading 1.66 grams per tonne.

| Table 1 - Summary of Estimated Mineral Resources* |  |             |                   |             |                          |             |                   |             |                       |                  |
|---|--|-------------|-------------------|-------------|--------------------------|-------------|-------------------|-------------|-----------------------|------------------|
|   | RESOURCES (tonnage 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>Southern Brazil</b>                            |  |             |                   |             |                          |             |                   |             |                       |                  |
| <b>Paciência</b>                                  |  |             |                   |             |                          |             |                   |             |                       |                  |
| Santa Isabel <sup>(2)</sup>                       | 1,651,480  | 3.98        | 2,331,680         | 3.24        | 3,983,160                | 3.55        | 856,710           | 2.90        | 454,240               | 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           |
| Other <sup>(7)</sup>                              | 325,350  | 5.89        | 930,850           | 4.66        | 1,256,200                | 4.98        | 248,230           | 4.87        | 201,100               | 38,860           |
| <b>Total</b>                                      | <b>3,618,830</b>   | <b>4.02</b> | <b>4,829,530</b>  | <b>3.75</b> | <b>8,448,360</b>         | <b>3.86</b> | <b>1,604,940</b>  | <b>3.86</b> | <b>1,049,670</b>      | <b>199,140</b>   |
| <b>Caeté Project</b>                              |  |             |                   |             |                          |             |                   |             |                       |                  |
| Pilar <sup>(3)</sup>                              | 2,137,260  | 4.05        | 1,668,020         | 4.71        | 3,805,280                | 4.34        | 1,757,090         | 6.20        | 530,510               | 350,400          |
| Roça Grande <sup>(3)</sup>                        | 4,686,090  | 2.97        | 4,927,390         | 3.82        | 9,613,480                | 3.41        | 1,540,660         | 3.88        | 1,053,480             | 192,410          |
| Other <sup>(1)</sup>                              | 569,650  | 5.48        | 530,000           | 5.83        | 1,059,000                | 5.66        | 330,000           | 6.04        | 192,650               | 64,070           |
| Other <sup>(7)</sup>                              | 569,650  | 4.06        | 934,800           | 3.99        | 1,504,450                | 4.02        | 863,990           | 3.85        | 194,440               | 106,870          |
| <b>Total</b>                                      | <b>7,962,650</b>   | <b>3.52</b> | <b>8,060,210</b>  | <b>4.16</b> | <b>15,982,210</b>        | <b>3.84</b> | <b>4,491,740</b>  | <b>4.94</b> | <b>1,971,080</b>      | <b>713,750</b>   |
| <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               | 21,990           |
| Ore Bodies A and B <sup>(5)</sup>                 | 331,160  | 4.52        | 2,277,280         | 5.58        | 2,608,440                | 5.44        | 809,600           | 6.54        | 456,370               | 170,340          |
| Ore Body C <sup>(5)</sup>                         | 627,700  | 2.57        | 1,118,070         | 3.51        | 1,745,770                | 3.17        | 479,740           | 3.70        | 178,070               | 57,110           |
| <b>Total</b>                                      | <b>1,298,460</b>   | <b>3.87</b> | <b>4,586,350</b>  | <b>5.10</b> | <b>5,884,810</b>         | <b>4.83</b> | <b>1,409,340</b>  | <b>5.50</b> | <b>914,310</b>        | <b>249,440</b>   |
| <b>Total Southern Brazil</b>                      | <b>12,879,940</b>  | <b>3.69</b> | <b>17,476,090</b> | <b>4.29</b> | <b>30,315,380</b>        | <b>4.04</b> | <b>7,506,020</b>  | <b>4.82</b> | <b>3,935,060</b>      | <b>1,162,330</b> |
| <b>Northern Brazil</b>                            |  |             |                   |             |                          |             |                   |             |                       |                  |
| <b>Gurupi</b>                                     |  |             |                   |             |                          |             |                   |             |                       |                  |
| Cipoeiro <sup>(6)</sup>                           | -  | -           | 45,308,000        | 1.21        | 45,308,000               | 1.21        | 6,800,000         | 1.10        | 1,760,000             | 200,000          |
| Chega Tudo <sup>(6)</sup>                         | -  | -           | 20,066,000        | 0.98        | 20,066,000               | 0.98        | 12,000,000        | 1.00        | 632,000               | 400,000          |
| <b>Total Northern Brazil</b>                      | <b>-</b>   | <b>-</b>    | <b>65,374,000</b> | <b>1.14</b> | <b>65,374,000</b>        | <b>1.14</b> | <b>18,800,000</b> | <b>1.04</b> | <b>2,392,000</b>      | <b>600,000</b>   |
| <b>TOTAL IN SITU RESOURCES</b>                    |  |             |                   |             | <b>95,689,380</b>        | <b>2.06</b> | <b>26,306,020</b> | <b>2.08</b> | <b>6,327,060</b>      | <b>1,762,330</b> |

| <b>Table 2 - Summary of Estimated Mineral Reserves*</b> |                   |             |                     |             |                              |             |                  |
|---|-------------------|-------------|---------------------|-------------|------------------------------|-------------|------------------|
|   | <b>Proven (t)</b> | <b>g/t</b>  | <b>Probable (t)</b> | <b>g/t</b>  | <b>Proven + Probable (t)</b> | <b>g/t</b>  | <b>Ounces Au</b> |
| <b>Southern Brazil</b>                                  |                   |             |                     |             |                              |             |                  |
| <b>Paciência</b>  |                   |             |                     |             |                              |             |                  |
| Santa Isabel <sup>(2)</sup>                             | 1,713,200         | 3.43        | 2,383,510           | 2.82        | 4,096,710                    | 3.07        | 405,040          |
| <b>Caeté Project</b>                                    |                   |             |                     |             |                              |             |                  |
| Pilar <sup>(3)</sup>                                    | 1,719,860         | 3.67        | 1,680,760           | 4.20        | 3,400,620                    | 3.93        | 430,150          |
| Roça Grande <sup>(3)</sup>                              | 2,805,180         | 2.88        | 3,038,880           | 3.74        | 5,844,060                    | 3.33        | 625,020          |
| Total   | 4,525,040         | 3.18        | 4,719,640           | 3.90        | 9,244,680                    | 3.55        | 1,055,180        |
| <b>Turmalina</b>  |                   |             |                     |             |                              |             |                  |
| Ore Bodies A and B <sup>(5)</sup>                       | 293,020           | 3.62        | 2,366,890           | 4.78        | 2,659,910                    | 4.65        | 397,860          |
| Ore Body C <sup>(5)</sup>                               | 638,240           | 2.20        | 1,162,060           | 3.01        | 1,800,300                    | 2.72        | 157,600          |
| Total   | 931,260           | 2.65        | 3,528,950           | 4.20        | 4,460,210                    | 3.87        | 555,460          |
| <b>Total Southern Brazil</b>                            | <b>7,169,500</b>  | <b>3.17</b> | <b>10,632,100</b>   | <b>3.76</b> | <b>17,801,600</b>            | <b>3.52</b> | <b>2,015,680</b> |
| <b>Northern Brazil</b>                                  |                   |             |                     |             |                              |             |                  |
| <b>Gurupi Project</b>                                   |                   |             |                     |             |                              |             |                  |
| Cipoeiro <sup>(6)</sup>                                 | -                 | -           | 44,622,000          | 1.21        | 44,622,000                   | 1.21        | 1,730,000        |
| Chega Tudo <sup>(6)</sup>                               | -                 | -           | 18,765,000          | 0.98        | 18,765,000                   | 0.98        | 592,000          |
| <b>Total Northern Brazil</b>                            | -                 | -           | <b>63,387,000</b>   | <b>1.14</b> | <b>63,387,000</b>            | <b>1.14</b> | <b>2,322,000</b> |
| <b>TOTAL</b>  | <b>7,169,500</b>  | <b>3.17</b> | <b>74,019,100</b>   | <b>1.52</b> | <b>81,188,600</b>            | <b>1.66</b> | <b>4,337,680</b> |

\* Mineral resources listed in Table 1 include mineral reserves listed in Table 2. Some columns and rows may not total due to rounding.

- (1) TechnoMine NI 43-101 Technical Report on the Quadrilátero Gold Project filed on SEDAR on December 20, 2004.
- (2) TechnoMine NI 43-101 Feasibility Study Report on the Paciência Gold Project filed on SEDAR on August 9, 2007.
- (3) TechnoMine NI 43-101 Feasibility Study Technical Report on the Caeté Gold Project filed on SEDAR on Sept 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 Technical Report on the Turmalina Phase I Expansion Project filed on SEDAR on September 11, 2008.
- (6) AMEC NI 43-101 Technical Report on the Gurupi Project Pre-Feasibility Study filed on SEDAR on May 11, 2010.
- (7) TechnoMine Multi-Target Technical Report expected to be filed on SEDAR; July 2010.

### Qualified Person (“QP”)

The drill results disclosed herein were reviewed by Ivan C. Machado, M.Sc., P.E., P.Eng., Principal of TechnoMine. Mr. Machado serves as Jaguar’s independent Qualified Person in accordance with NI 43-101. SGS Geosol Laboratories of Belo Horizonte, Minas Gerais provided independent sample preparation and assay services, using standard industry practices. There has not been sufficient exploration to define a mineral resource based on these drill results and it is uncertain if further exploration will result in mineral resources.

### Exploration Update

The information which follows reflects the Company’s exploration effort through May 31, 2010.

### Turmalina

Jaguar is conducting additional exploration with a goal of increasing resources and reserves and expanding Turmalina’s annual production beyond the current plan of 100,000 ounces per year. The exploration effort has been concentrated in the Zone D, Faina and Pontal targets.

At Zone D (the “Satinoco Zone”) additional gold bearing oxide ore has been identified in the weathered rock above the sulfide zone. As part of the effort to evaluate the potential for gold contained in the oxide and sulfide ores, the Company developed trenches and conducted surface drilling. In April and May of this year, 333 meters were drilled in four holes and 260 meters were excavated from trenches with encouraging results. The gold contained in the oxide zone from Zone D will be treated at the Turmalina CIP plant along with the sulfide ore from existing underground operations.

Aggressive drilling and trenching activities are in progress on the Faina and Pontal targets, specifically at Pontal, and will be reported later in 2010.

The Pontal Target is an ore sheath located approximately 1.8 km and 3.8 km northwest from the Faina Target and the Turmalina Plant, respectively. At this location, two targets were identified: LB1 and LB2. The Pontal Target mineralization is represented by quartz masses (silicification zone) which disseminates to massive sulfites into a hydrothermal schist. The targets cover a 800 m x 100 m area defined by geochemistry and geophysical anomalies. In the late-1990’s, the oxide ore at the LB1 Target was mined out and treated at a heap leaching plant. However, the oxide zone at the LB2 Target remains intact.

Jaguar is developing preliminary metallurgical test work to verify whether the Pontal ore is refractory and determine the optimum process to treat it. If the Pontal Target sulfide ore is in fact determined to be refractory, which is the case for the Faina Target ore, the Company will likely construct a separate circuit to treat the refractory ore. Although no decision has been reached, the most likely case being evaluated is to construct a new circuit at the Turmalina Plant which can process the refractory ore. The oxide ore from the LB2 Target can be processed in the existing Turmalina Plant.

To-date, drilling at the Pontal Target has totaled 4,936 meters in 27 holes; 3,976 meters at the LB1 Target and 960 meters at the LB2 Target. Very encouraging preliminary assay results were obtained from both targets and are as follows:

| <b>Pontal Target – Main Surface Drilling Results (cut-off = 1 g/t)</b> |             |                 |               |                    |                      |
|--|-------------|-----------------|---------------|--------------------|----------------------|
| <b>Target</b>  | <b>Hole</b> | <b>From (m)</b> | <b>To (m)</b> | <b>Grade (g/t)</b> | <b>Thickness (m)</b> |
| LB1  | PTL-55      | 96.30           | 121.30        | <b>3.77</b>        | <b>25.00</b>         |
|  | includes    | 101.30          | 103.30        | 4.82               | 2.00                 |
|  | and         | 105.30          | 116.30        | <b>6.51</b>        | <b>11.00</b>         |
|  | PTL-56      | 81.50           | 93.50         | 2.13               | 12.00                |
|  | PTL-57      | 127.00          | 132.00        | 3.34               | 5.00                 |
|  |             | 161.00          | 165.00        | 3.31               | 4.00                 |
|  | includes    | 162.00          | 164.00        | 5.57               | 2.00                 |
|  | PTL-58      | 75.50           | 97.50         | <b>2.61</b>        | <b>22.00</b>         |
|  | includes    | 87.50           | 90.50         | 8.33               | 3.00                 |
|  | PTL-59      | 91.00           | 104.00        | 1.93               | 13.00                |
|  | PTL-60      | 8.00            | 10.00         | <b>9.17</b>        | <b>2.00</b>          |
|  |             | 98.50           | 111.50        | <b>2.37</b>        | <b>13.00</b>         |
|  | PTL-61      | 58.00           | 69.00         | <b>2.16</b>        | <b>11.00</b>         |
|  |             | 115.00          | 131.00        | <b>5.19</b>        | <b>16.00</b>         |
|  |             | 158.00          | 160.00        | <b>15.79</b>       | <b>2.00</b>          |
|  | PTL-62      | 99.00           | 124.00        | <b>1.92</b>        | <b>25.00</b>         |
| includes   | 116.00      | 118.00          | 4.73          | 2.00               |                      |
| PTL-63   | 39.30       | 40.30           | <b>14.58</b>  | <b>1.00</b>        |                      |

|     |          |        |        |             |              |
|-----|----------|--------|--------|-------------|--------------|
|     |          | 73.30  | 83.30  | <b>2.20</b> | <b>10.00</b> |
|     |          | 115.00 | 134.00 | <b>3.06</b> | <b>19.00</b> |
|     | Includes | 125.00 | 134.00 | <b>4.79</b> | <b>9.00</b>  |
| LB2 | PTL-37   | 11.35  | 18.35  | 1.86        | 7.00         |
|     | includes | 16.35  | 18.35  | 4.57        | 2.00         |
|     | PTL-38   | 28.50  | 39.50  | <b>1.64</b> | <b>11.00</b> |
|     | PTL-39   | 13.00  | 20.00  | 1.36        | 7.00         |
|     |          | 36.00  | 42.00  | 1.91        | 6.00         |
|     | PTL-42   | 52.70  | 60.70  | 2.23        | 8.00         |
|     | PTL-44   | 27.00  | 33.00  | 2.12        | 6.00         |
|     | PTL-45   | 31.00  | 34.00  | 3.77        | 3.00         |
|     |          | 61.00  | 75.00  | <b>1.95</b> | <b>14.00</b> |
|     | includes | 67.00  | 70.00  | 4.76        | 3.00         |
|     | PTL-48   | 34.50  | 39.50  | 4.06        | 5.00         |
|     | PTL-49   | 35.40  | 43.40  | 1.50        | 8.00         |
|     | includes | 35.50  | 37.50  | <b>8.78</b> | <b>2.00</b>  |
|     |          | 64.50  | 90.50  | <b>3.14</b> | <b>26.00</b> |
|     | includes | 74.50  | 77.50  | 4.56        | 3.00         |
| and | 87.50    | 90.50  | 5.26   | 3.00        |              |

Note: Not all holes represent true width.

Trenches were excavated at the LB2 Target to evaluate the oxide resources. The main trenches results are summarized below:

| LB2 Target (Pontal) – Main Trench Results |             |               |  |               |             |               |
|---|-------------|---------------|--|---------------|-------------|---------------|
| Trench Number                             | Grade (g/t) | Thickness (m) |  | Trench Number | Grade (g/t) | Thickness (m) |
| TPT-001                                   | 3.72        | 2.00          |  | TPT-016       | 1.01        | 5.00          |
|   | 4.90        | 2.00          |  |               | 3.59        | 1.00          |
| TPT-002                                   | 2.09        | 4.00          |  |               | 1.84        | 6.00          |
| TPT-004                                   | 1.66        | 7.00          |  |               | 3.16        | 2.00          |
| TPT-005                                   | 2.91        | 2.00          |  | TPT-018       | <b>3.64</b> | <b>12.00</b>  |
| TPT-007                                   | 2.40        | 3.00          |  |               | 2.80        | 3.00          |
| TPT-008                                   | 2.58        | 3.00          |  |               | 2.75        | 2.00          |
| TPT-009                                   | <b>2.67</b> | <b>24.00</b>  |  |               | 2.05        | 5.00          |
| TPT-010                                   | 3.00        | 2.00          |  |               | <b>1.86</b> | <b>9.00</b>   |
| TPT-011                                   | 1.02        | 6.00          |  | TPT-019       | 2.35        | 3.00          |
| TPT-012                                   | 2.03        | 2.00          |  |               | <b>2.25</b> | <b>10.00</b>  |
| TPT-013                                   | 2.35        | 2.00          |  | TPT-020       | 2.33        | 2.00          |
|   | 2.58        | 3.00          |  |               | 3.10        | 2.00          |
|   | 2.00        | 2.00          |  | TPT-026       | 3.29        | 1.00          |
| TPT-015                                   | 2.35        | 3.00          |  | TPT-029       | <b>3.06</b> | <b>7.00</b>   |
|   | <b>1.45</b> | <b>17.00</b>  |  |               | 1.51        | 5.00          |
|   | <b>3.94</b> | <b>8.00</b>   |  |               |             |               |
|   | <b>4.09</b> | <b>9.00</b>   |  |               |             |               |

## Paciência

In April and May of this year, the exploration program in the Paciência region has been focused at the following targets: NW1, Conglomerates, NW3 (Bahú), Rio de Peixe, Quati, Monges and Viana.

Drilling programs are in progress at the NW1 Target (underground drilling) and the NW3 Target (surface drilling). During the period, 584 meters were drilled from underground and 3,504 meters were drilled from the surface at the NW3 Target. The main results of these drill holes are summarized as follows:

| Target                         | Hole Number | From (m) | To (m)      | Grade (g/t)  | Thickness (m) |
|--------------------------------|-------------|----------|-------------|--------------|---------------|
| NW1                            | MSS-037     | 55.25    | 56.30       | 3.11         | 1.05          |
|                                |             | 58.15    | 63.10       | <b>5.10</b>  | <b>4.95</b>   |
|                                | MSS-038     | 51.40    | 53.35       | <b>8.66</b>  | <b>1.95</b>   |
|                                | MSS-040     | 39.60    | 40.60       | 2.83         | 1.00          |
|                                |             | 48.35    | 49.35       | 3.18         | 1.00          |
|                                | MSS-041     | 19.10    | 20.10       | <b>9.48</b>  | <b>1.00</b>   |
| 37.70                          |             | 43.60    | <b>5.19</b> | <b>5.90</b>  |               |
| NW3<br>(Bahú)<br>and<br>Jatobá | FBA-039     | 26.90    | 28.65       | 4.56         | 1.75          |
|                                | FBA-051     | 42.60    | 51.90       | <b>10.40</b> | <b>9.30</b>   |
|                                |             | 138.75   | 152.95      | <b>5.21</b>  | <b>14.20</b>  |
|                                | FBA-055     | 20.30    | 21.30       | 3.70         | 1.00          |
|                                |             | 123.90   | 127.90      | 1.03         | 4.00          |
|                                | FBA-061     | 49.25    | 51.90       | 2.25         | 2.65          |
|                                | FBA-076     | 121.00   | 122.00      | 6.33         | 1.00          |
|                                |             | 139.65   | 142.65      | 2.08         | 3.00          |
|                                | FBA-077     | 144.00   | 149.90      | 1.35         | 5.90          |
|                                | FBA-078     | 69.20    | 71.20       | 2.78         | 2.00          |
|                                | FBA-079     | 70.35    | 72.35       | 3.00         | 2.00          |
|                                |             | 161.85   | 167.90      | 1.54         | 6.05          |
| FBA-080                        | 137.70      | 141.70   | 2.61        | 4.00         |               |

*Note: Not all holes represent true width.*

The underground development and sampling at the NW1 Target defined numerous ore shoots totaling approximately 2,073 m<sup>2</sup> with an average grade of 3.07 grams per metric ton.

At the Jatobá Target, 42 meters of trenches were conducted to verify the extension of the mineralization. Results are not available as of this date.

At the conglomerate targets, which include Palmital and Ouro Fino, the Company continues with underground development. During May, the ramp to the fourth level at the Palmital Mine was completed with development of the exploration drift in process. A new portal at the Ouro Fino Target, which will access the underground conglomerate reef, is expected to be completed in Q3 of this year.

Jaguar controls other targets along the Paciência shear zone, which contains mineralization similar to the Santa Isabel Mine.

At the Quati/Viana Target, a trench program was initiated during Q2 2010 where 115 meters produced 322 channel samples. Assay results are not available as of this date. At the Monges Target, located approximately 10 km south of the Paciência CIP processing plant, geological mapping and sampling are underway.

In the Rio de Peixe zone field activities have been focused at the Mata dos Trovões and Urubu targets where 160 meters of trenches have been performed. Assay results are not available at this time.

### **Caeté**

As part of the Company's effort to identify and add to its gold resource base at its Caeté operation, 75,000 meters of additional drilling is planned over the next few years on targets located in close proximity to the Caeté Plant, including Catita II, Serra Paraíso, Boa Vista 2 and 3, Lavra Velha, Batatal and Carrancas targets.

At Boa Vista 2 and 3 targets, Jaguar is conducting trenching, sampling and drilling programs to test the mineralization that occurs in banded iron formation ("BIF") horizons. To-date, 479 meters have been drilled in 11 drill holes, with promising results.

In the Carrancas Target, the Company has initiated a short-hole drilling campaign. A total of 148 meters distributed in 18 holes have been drilled. At the Batatal Target, 122 meters of trenches have been excavated. As of this date, assay results are not available from these efforts.

### **Pilar Mine**

The Pilar Mine has been operating for the past 18 months and has been shipping ore to the Paciência Plant. Underground development has proceeded and during Q1 of this year, access to level three in the mine was completed. During the development of the third level (~250 meters from surface), exploration efforts have yielded some very positive results with a significant rise in contained gold grades.

The Pilar mine has two distinct ore sheaths that come together in a hinge zone of a layer in a BIF fold. During the development of level three in the mine, the appearance of a series of folds along the contact zones have revealed increasing thicknesses of the mineralization. The strike along these mineralized zones remains open at depth. Of significance, the grades and thicknesses of the mineralized zones have increased quite sharply from level one to level three at the Pilar Mine. The total area of the defined ore bodies identified are: Level One - 2,477 m<sup>2</sup> with an average grade of 4.41 grams per tonne; Level Two - 2,818 m<sup>2</sup> with an average grade of 4.56 gram per tonne; and Level 3- an estimated area of 3,500 m<sup>2</sup> with an average grade of 5.50 grams per tonne. One zone measured through the end of May in level three contains an area of 1,367 m<sup>2</sup> with an average grade of 8.17 grams per tonne.

Due to the fact that the ore bodies follow a geological boudinage pattern, the increase in grade and size of the mineralized areas is something that occurs frequently in the Iron Quadrangle. This can be observed at AngloGold Ashanti's Cuiabá and Morro da Glória Mines, São Bento Mine (ex-Eldorado) and Jaguar's Turmalina Mine.

### **Pedra Branca Project**

Jaguar is currently conducting a comprehensive exploration program at the Pedra Branca Project, including extensive geological mapping, drainage and soil geochemistry, detailing of zones with anomalies, trenching and diamond drilling. During 2007 and 2008, Jaguar completed an exploration drill

program to test the continuity of the mineralization at depth and laterally. To-date, 91 drill holes totaling 8,974 meters have been completed.

During April and May of this year, the Company continued the trenching plan covering all the soil anomalies that show grades over 0.2 grams per tonne in all the targets defined.

The main channel results obtained in the trenches are presented in the table below:

| <b>Target</b> | <b>Trench Number</b> | <b>Grade (g/t)</b> | <b>Interval (m)</b> |
|---------------|----------------------|--------------------|---------------------|
| Mirado/Coelho | TCM-007              | 1.89               | 4.00                |
| Parelhas      | TPR-001              | 1.49               | 2.90                |
|               | TPR-003              | 0.96               | 3.00                |
| Queimadas     | TQM-022              | 1.14               | 2.00                |
|               |                      | 3.46               | 7.20                |
|               |                      | 1.26               | 13.50               |
|               | TQM-023              | 0.81               | 22.50               |
|               | TQM-024              | 2.12               | 2.00                |
|               |                      | 4.28               | 2.00                |

Below is a summary of the exploration effort conducted during 2010 at the Pedra Branca Project.

| <b>Activity</b>          | <b>April-May/2010</b> |                | <b>Year to date</b> |                |
|--------------------------|-----------------------|----------------|---------------------|----------------|
|                          | <b>M</b>              | <b>samples</b> | <b>m</b>            | <b>samples</b> |
| Stream sediment sampling |                       | 170            |                     | 280            |
| Soil sampling            | 29,020                | 1,531          | 54,190              | 2,523          |
| Rock sampling / Chip     |                       | 39             |                     | 146            |
| Trenching                | 5,675                 | 926            | 10,008              | 3,465          |

### **Expanded Management Team in Brazil**

Due to the significant expansion of Jaguar's operations in Brazil over the past several years, and the plan to continue its stated growth program both organically and possibly through acquisitions, the Company has expanded its management team in Brazil. The newest additions to Jaguar's team in Brazil include:

#### **Director of Operations, Northern Brazil – Luis Alberto Alves**

Mr. Alves is a mining engineer with 34 years of experience in mining and plant operations, including 21 years (combined) with Rio Tinto and Kinross (Paracatu Gold Mine) and 10 years with Arafertil/(Bunge). He has held General Manager and Operations Director position at Rio Tinto and Kinross companies.

#### **Director of Operations, Southern Brazil – Álvaro Xavier Brandão**

Mr. Brandão is a mining engineer with nearly 30 years of experience in mining and plant operations, including 13 years with AngloGold Ashanti, 5 years with Orica Brasil and 10 years with Metso Brasil.

#### **Director of Engineering – Wilson Miola**

Mr. Miola is a geological engineer, with M.E. equivalent degree in Geostatistics, M.Sc. and Ph.D. degrees in Mining Engineering. With more than 30 years of experience in mining and planning



operations, has held positions of Director, Planning Manager and Engineering at Camargo Correa, Vale, and other reputable Brazilian companies.

**Director of Finance – Guto Berto**

Mr. Berto is a financial professional who has held leading positions in multi-national corporations in segments such as mining, automobile manufacturing and auditing. Mr. Berto has extensive knowledge of business practices and operations, market analysis, financial and information systems, internal controls and processes, and critical and strategic financial reporting procedures.

**New Business Manager – Johan Van der Stricht**

Mr. Van der Stricht holds a MSc. in Mining Geology from the Camborne School of Mines and is a graduate in Mineralogy and Geology. Mr. Van der Stricht has over 26 years of experience in mining, exploration, feasibility studies and business development, including four years with Mineração Tejuçana, four years in international business development and commercial management roles in Portugal, and eight years with the Odebrecht Group in Angola. He obtained his Brazilian permanent residence in 2001 and consolidated his local business experience in mine management consulting, environmental permitting and compliance, feasibility studies, project implementation, and general management roles.

**Technical Services Manager – Eli Leite**

Mr. Leite graduated in Quality Control and Mining Engineering, with specialization in Ore Treatment. His experience includes over 30 years in mining, feasibility studies and project execution through the operational activities and mining processing, including 26 years at Vale, three years at EPC and four years at GRD Minproc. At Jaguar, he will implement the Corporate Technical Services Area.

With respect to this expansion, Mr. Titcomb stated, “Understanding that people are our greatest asset, not only to improve our operations, but to further grow our operating base, we have recruited top-notch industry personnel who can make an immediate impact. The professionals we have added will put the emphasis where it needs to be and at the same time allow us to cultivate new leaders for the future. Additional key management personnel needs have been identified and will be added over the next 24 months.”

Jaguar has consistently sized its employ base to match its growth plans rising from seven employees in 2002 when the Company was formed to over 1,800 today. Based on Jaguar’s announced expansion plans, over the next 24 months the Company intends to add more than 1,200 additional employees to its ranks and become one of, if not the largest gold producers in Brazil.

**Suspension of Reporting Preliminary Operating Results**

Management has elected to suspend its interim reporting of production, operating costs and sales information two weeks after the end of a quarter as has been its practice over the past two years. Instead, this information will be supplied when the Company reports its quarterly financial results, except in the case of its year-end results, generally within six weeks following the end of each calendar quarter. This will allow management the ability to provide a more complete picture of operations and the impact on earnings, including an interactive conference call to discuss relevant issues, in a manner similar to the practice other mining companies are now adopting.

## **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).

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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's objectives, including reach full operations at the Roça Grande Mine in Q3 2010, continuance of ore shipments from the Pilar Mine to the Caeté Plant as well as to the Paciência Plant through the end of 2010, reach commercial operations at the Caeté CIP Plant in late-Q3 2010 as well as production between 30,000 and 35,000 ounces in 2010 and between 90,000 and 100,000 ounces in 2011, become a mid-tier gold producer in 2011 and have Caeté become Jaguar's second largest and lowest-cost gold operation in 2011 and produce gold for years to come. These forward-looking statements can be identified by the use of the words "intends", "plans", "expects", "expected" 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, 2009 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, 2009 filed with the United States Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov).

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