Sao Jorge Preliminary Economic Assessment Returns Robust Economics with an After Tax IRR of 46.4% and NPV5% of US$407.5 Million Using $1,500/oz Gold

18.02.2013 | FSCwire

Vancouver, British Columbia CANADA, February 18, 2013 /FSC/ - Brazilian Gold Corporation (BGC - TSX Venture), is pleased to announce the positive results of a Preliminary Economic Assessment (PEA) on its 100% owned Sao Jorge gold deposit located in the Tapajos region of northern Brazil. The PEA was prepared by the Canadian office of Coffey Mining Pty Ltd. (Coffey) with offices in Toronto, Ontario.

HIGHLIGHTS OF SAO JORGE PEA:

* A gold price of US$1,500 per ounce was used for the economic assessment of Sao Jorge project, which price equates to the three-year trailing average gold price as of the end of January 2013.

* After-tax Internal Rate of Return (IRR) of 46.4%

* After-tax Net Present Value (NPV5%) of US$407.5 million

* Life of Mine (LOM) of 10 years.

* Net after-tax cash flow over LOM of US$612.3 million

* LOM average cash cost of US$635/oz including refining and royalty costs.

* LOM average annual free cash flow (after tax and sustaining capital expenditures) of US$71.3 million.

* LOM average gold grade of 1.51 g/t gold for total production of 980,300 oz of recovered gold.

* LOM average annual recovered gold of 98,030 oz with ranges between 92,300 oz (Year 2) and 130,400 oz (Year 9).

* Base case capital expenditures of US$125.5 million for the LOM using contract mining.

* Study based on mineral resource as documented in Amended Independent NI43-101 Technical Report by Coffey Mining on Dec. 7, 2012.

Commenting on the announcement, Brazilian Gold's CEO, Ian Stalker stated: "The publishing of the Sao Jorge PEA is a major milestone for Brazilian Gold. The low capital costs for a project of this size, year-round paved road access, grid power, nearby community of Novo Progresso and established permitting process in Brazil translates into a low risk project with robust economics that can rapidly be advanced to production.

The PEA did not consider any additional resources from the nearby Surubim project (Jau deposit) that could be river barged to the process plant to increase the production rate or extend the life of the mine. Near mine site exploration has identified geophysical targets on strike and southeast of the deposit as well as geochemical anomalies southwest of the deposit that require drill testing and could potentially provide additional sources of feed to the process plant and extend the LOM.

We are exploring a variety of funding options and are in active discussion with a number of sources to secure financing to advance the Sao Jorge project including a Bankable Feasibility Study and Environmental Impact Statement as well as explore our other nearby highly prospective projects."

The PEA is based on the outcomes of an engineering study completed by Coffey Mining according to preliminary economic assessment study standards as defined by Canadian legislation in NI43-101. The PEA includes the project concept, infrastructure, geotechnical assessment, mining, mineral processing, environmental, permitting, social aspects and project economics. The study is based on a mineral resource

estimate using a 0.3 g/t gold cut-off and documented in an amended independent NI43-101 Technical Report by Coffey with an effective date of Sept. 17, 2012 and publish date of Dec. 7, 2012.

An open cast mine will be employed to extract mineralized oxide and sulphide material over a planned 10 year production life. A two-year development period has been estimated from time of project financing (Year 0). Contract mining will commence halfway through Year 1 with the mill being commissioned very shortly thereafter and processing 1.25 Mt of mineralized oxide rock by the end of the first year of operation.

The deposit is overlain by an oxide cap averaging 30 m in depth, which will be mined and processed separately and in advance of fresh rock sulphide material. The deferred capital requirements with this schedule, and the lower mining and processing costs for the mineralized oxide rocks will generate a larger margin during the initial years, thus enabling payback of the invested capital in 2.8 years.

The total project life will be 11-years from the release of project financing to mine closure based on the current resource estimate. The mine has been designed to a depth of 250 m below surface. Infrastructure requirements will be lower compared to other projects in Amazon region given the project site is within 4 km of a paved highway (BR 163), which connects the project with the town of Novo Progresso, located 70 km to the south. Electric power is available from the Brazilian power grid with the upgrading of the existing 70-km power line and installation of a sub-station at site. Process water is available from a dammed stream adjacent to proposed mill location. If additional water is required, it can be drawn from a river with year round flow 9 km to the west.

The project has an IRR of 46.4% and a NPV5% of US$407.5 million (Table 1) using a base case gold price of US$1,500/oz (3-year trailing average at Jan. 31, 2013 is US$1,503.30). Using a gold price of US$1,650/oz that is closer to today's gold price, the project has an IRR of 53.9% and a NPV5% of US$494.7 million.

Table 1: Sao Jorge PEA study result.

Category	Values
Oxides mined	3.5 Mt
Sulphides mined	18.2 Mt
Total mineralized rock mined	21.7 Mt
Total mineralized rock and waste mined	128.1 Mt
Stripping ratio	4.9:1
Total gold recovered	980,300 oz
Average annual gold production*	98,031 oz/y
Average cash cost	US$635/oz
Gold price	US$1,500
After tax IRR	46.4 %
NPV5	US$407.5 M
Capital payback	2.8 years

**At nameplate capacity*

The PEA is preliminary in nature as it includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The PEA is based on mineral resource estimates containing an indicated mineral resource of 14.42 Mt

grading 1.54 g/t gold (715,000 oz) and inferred mineral resource of 28.19 Mt grading 1.14 g/t gold (1,035,000 oz); both the resource estimate and PEA have been prepared by Coffey Mining.

I. MINERAL RESOURCES

The Sao Jorge gold deposit is a structurally controlled stockwork and disseminated gold system hosted in Proterozoic-age granitic rocks. The gold bearing mineralization has been intersected by drill holes from surface (approx. +215 masl) to -150 masl and is open at depth. Coffey Mining estimated indicated and inferred resources for the Sao Jorge deposit on the basis of analytical results available up to Sept. 17, 2012; no additional drilling or assaying has been completed since this time. The summarized mineral resource statement in Table 2 has been prepared and reported in accordance with NI43-101 standards and the classifications adopted by CIM Council in December 2010. The resource estimate has been classified as an indicated and inferred mineral resource based on the confidence of the input data, geological interpretation and grade estimation.

Table 2: Sao Jorge mineral resource estimate using a 0.3 g/t gold cut-off.

	Material	Million Tonnes	Average Grade (g/t Au)	Contained Gold (K oz)
Indicated Resource	Oxide	1.78	1.42	81
Indicated Resource	Sulfide	12.64	1.56	634
Total Indicated	All	14.42	1.54	715
Inferred Resource*	Oxide	1.97	1.1	70
Inferred Resource*	Sulfide	26.23	1.15	965
Total Inferred	All	28.19	1.14	1,035

Mineral resources are not mineral reserves and do not have demonstrated economic viability. Mining methods, metallurgical recoveries, environmental permitting, legal, marketing, or other relevant issues may materially affect the conversion of mineral resources to mineral reserves.

*As is allowed under CIM rules, inferred mineral resources may be used in a PEA. The Sao Jorge mine plan has been designed to include as much of the indicated and inferred mineral resource as economically possible.

II. MINING, PROCESSING AND PRODUCTION SCHEDULE

The Sao Jorge deposit is amenable to open pit mining of its gold bearing mineralization. The processing plant of 2.5 Mtpa will necessitate a nominal mining rate of 12.8 Mtpa according to the pit design and its 4.9:1 stripping ratio and 10 year LOM. The LOM production summary is shown in Table 3.

Table 3: Sao Jorge LOM production summary.

	Units	Values
Oxide	tonnes	3,484,609
Sulphide	tonnes	18,213,820
Mineralized rock mined	tonnes	21,698,429
Average gold grade	g/t	1.51
Contained gold	oz	1,054,784
Overburden	Tonnes	-
Waste	tonnes	106,362,559
Waste + OB	tonnes	106,362,559
Stripping Ratio		4.9
Total Tonnes Mined	tonnes	128,060,988

Standard drill and blast bench mining will be employed with excavator loading of dump trucks. Waste rock will be delivered to a waste rock stockpile near the pit mouth and mineralized material will be delivered directly to the crusher and the processing mill with a run-of-mine (ROM) stockpile accepting surge material.

Contract mining costs for the operation are estimated to be US$3.11/t mined and the mine is projected to have a 4.9:1 strip ratio of waste tonnes to mineralized rock tonnes for a total mining cost of US$18.37/t.

Coffey Mining has undertaken a process flow design and scoping-level cost estimate based on metallurgical testwork conducted in 2006 and 2012, and reported in previous technical reports by SGS Lakefield Limited and Testwork Desenvolvimento de Processo Ltda. An overall recovery of 93.7% for the sulphide mineralized rock based on limited testwork completed to date, which makes up 86.7% of the LOM feed, indicates the mineralized material responds well to conventional gold extraction processes. Oxide mineralized material, which will be processes in the first two years of production and comprising 13.3% of the LOM feed, had a recovery of 88% based on limited testwork completed to date. Additional testwork using different grind sizes, retention times and reagent dosages on the oxide mineralized material is currently in progress to optimize recoveries.

The test work that has been completed, in conjunction with costing estimates, has resulted in the proposed standard gold plant process flow sheet for precious metal recovery as detailed in the study. The proposed flow sheet incorporates crushing, grinding, thickening and Carbon in Leach (CIL) processing to produce gold dore.

III. INFRASTRUCTURE

Road Access

The Sao Jorge project is accessed by a paved highway (BR-163) that traverses the property approximately 4 km east of the deposit. The highway connects the city of Cuiaba in Mato Grosso state with the port city of Santarem in Para state that is located on the Amazon River. The town of Novo Progresso is located 70 km to the south along the highway and will form the operation base from where workers will be housed and bussed to the site daily avoiding the expense of on-site living quarters. Novo Progresso is of sufficient size (approx. 60,000 people) with associated services to supply the project with fuel, labour and many of the services required for a project of this size. Regional commercial aircraft connect Novo Progresso with the cities of Manaus and Belem, which have International Airports that connect to other major cities in North and South America, and Europe.

Power Supply

Power to the Sao Jorge project is available through the regional electrical utility company CELPA (Centrais Eletricas do Para).

Preliminary discussions with CELPA indicate they could supply power to the project at a contract cost of $0.0907 per kWh based on a demand of 9,000 kW for a milling operation of 2.5 Mtpa as contemplated in the PEA.

Power line connects the project and Novo Progresso, however it will require an upgrade to 138 kV capacity along with a local substation at the plant site at an estimated cost of $7.59 million. Capital costs associated with upgrading of the power line and installation of the substation are recoverable from the cost of power over the first three years of production resulting in a power cost of $0.058 per kWh.

Potential savings may be achieved by purchasing power on the spot market as a result of several new hydro electrical power plants that are planned to come on stream and an abundance of power in Para state.

Water Supply

The project has an abundance of water with adequate water storage for all mining and processing needs from a dammed stream adjacent to the proposed mine and processing facility. The Jamanxim River is located 9 km due west of the deposit if additional water is necessary.

Camp

The Sao Jorge camp currently has accommodation for exploration personnel (20), office with satellite internet and telephone lines, core storage facility, fuel storage tanks (10,000 litres) and a number of buildings suitable for warehousing of mining supplies. New office, warehouse and equipment maintenance buildings have been budgeted at US$2.1 million.

IV. OPERATING COSTS

The operating costs for the mine and plant have been derived from known mining costs and factored mill processing costs based on the preliminary plant design (Table 4). The LOM average mining and processing costs are US$3.11/t mined and US$6.92/t processed, respectively.

Table 4: Sao Jorge operating cost estimates.

Category	$/t
Mining - oxide	2.00
Mining - sulphide	3.25
Processing oxide	4.94
Processing sulphide	7.37
G&A	0.89

V. CAPITAL COSTS

The PEA has assumed contract mining costs based on a bid received from a local Brazilian contractor. The capital requirements for the Sao Jorge mine, operating at a steady state of 2.5 Mtpa throughput rate, have been tallied by cost centre: process plant equipment, factored construction commodities and infrastructure (Table 5). In addition, contingency (25 %), indirect costs, and owner costs have been included to determine the total funding requirements of $125.5 million.

Table 5: Sao Jorge capital cost estimates.

Category	$(000s)
Process plant	25,032
Factored construction commodities	28,286
Infrastructure	23,513
Contingency (25%)	19,208
Indirect costs	24,049
Owners costs	5,395
Total	125,482

Owner mining would increase the funding requirements by US$57 million, decrease the operating cost ($536/oz) and return similar economics (IRR of 45.2% and NPV5% of US$430.4 million) as the base case scenario at US$1,500/oz gold.

VI. TAXATION

Projects located within the Amazon region are eligible for an income tax incentive by SUDAM (Amazon Development Superintendence) that provides for a 75% reduction in the regular corporate income tax (25%) for a 10-year period. Sao Jorge being located within this region would qualify for this incentive and it has been used in determining the project economics.

The social welfare tax (CSLL) of 9% has been assumed to apply for the duration of the project life.

Other tax incentives are available and include RECAP, which is a special tax regime for the acquisition of goods by export companies and applies to the exemption of PIS and COFINS (Brazilian social contribution taxes) on purchases of imported machinery and equipment. However at this time, no application has been made and project economics have not considered the potential benefits that the incentive may bring to the project.

VII. FINANCIAL ANALYSIS

Cost estimates for the construction and operation of the project have been made in the fourth quarter of 2012 in US dollars. The estimates do not include allowances for escalations or currency exchange fluctuations. It has been assumed that all equipment will be purchased new from competitive bids. Cost estimates have been derived from:

* Mechanical equipment lists

* Process design criteria

* Process flow sheet

* Current labour and material costs

* Preliminary general arrangement drawings

* First principles

The financial model for the Sao Jorge gold project that has been generated by Coffey is based on the mine production and processing schedule, associated gold grades, metallurgical recoveries, and capital and operating costs summarized in Tables 1 to 5. The economic analysis assumes the gold will be delivered in the form of gold dore and exported.

The base case economic analysis assumes a gold price of $1,500/oz (3-year trailing average at Jan. 31, 2013 is US$1,503.30). The gross gold revenue is US$1.5 billion over the 10-year LOM or an average of

US$147 million per year. The average annual free cash flow after accounting for taxes and sustaining capital expenditures is estimated to be approx. US$71.3 million.

Figure 1 summarizes the sensitivity of the undiscounted NPV of the project base case (contract mining and gold price of US$1,500/oz) to variations in gold price, operating cost and capital expenditures. The sensitivity analysis indicates the project is most sensitive to gold price followed by operating cost.

To view Figure 1, click onto the following link:
http://www.usetdas.com/maps/braziliangold/BrazilianGoldFigure1.pdf

VIII. SAO JORGE NI43-101 PRELIMINARY ECONOMIC ASSESSMENT TECHNICAL REPORT

Coffey Mining Pty Ltd (Coffey Mining) under its Canadian office, completed the study of the PEA and prepared the updated NI43-101 Technical Report for the Sao Jorge gold project, in Para State, Brazil.

The NI43-101 Technical Report on the Sao Jorge Project will be filed on SEDAR and Brazilian Gold's website within 45 days of this news release.

All principal technical personnel participating in the preparation and review of this Technical Report have extensive relevant experience.

Hebert Oliveira B.Sc. (Geo.), MAusIMM, MAIG (Mineral resource estimation), Porfirio Cabaleiro B.Sc. (Eng.), MAIG (Mineral resource estimation), Reinis Sipols B.Sc. (Mine Eng.) P.Eng. (NY, NJ, PA), MMSA (QP) (Mining methods), Dan Peldiak Met.Eng., P.Eng. (Ontario) (Recovery methods) and Curtis Clarke B.Sc. (Mine Eng.), MMSA (QP), MSME, AIME (overall project manager), are all Qualified Persons in their respective fields as defined by NI43-101. Porfirio Cabaleiro completed a site visit to the Sao Jorge gold project on July 13 and 14, 2012 and Curtis Clarke and Porfirio Cabaleiro previously visited the project on March 1, 2011.

Garnet Dawson, M.Sc., P.Geo. (British Columbia), Vice President, Exploration for the Company and a Qualified Person, as defined by National Instrument 43-101, has reviewed and approved the technical disclosure contained in this News Release.

About Brazilian Gold Corporation

Brazilian Gold has a resource inventory of 715,000 ounces of gold grading 1.54 g/t gold in the indicated category and 1,921,000 ounces of gold grading 1.00 g/t gold in the inferred category at a 0.3 g/t cut-off that is hosted in three deposits (Table 5).

Table 3: Brazilian Gold 2013 global resource at a 0.3 g/t gold cut-off.

Project	Deposit	Classification	Cut-off Grade(g/t)	Tonnage	Grade (g/t)	Ounces
Sao Jorge	Sao Jorge	Indicated	0.3	14,420,000	1.54	715,000
		Inferred	0.3	28,190,000	1.14	1,035,000
Surubim	Jau	Inferred	0.3	19,440,000	0.81	503,000
Boa Vista	VG1	Inferred	0.3	12,130,000	0.98	383,000
	All deposits	Indicated		14,420,000	1.54	715,000
	All deposits	Inferred		59,760,000	1.00	1,921,000

Brazilian Gold is a Canadian-based public company with a focus on the acquisition, exploration and

development of mineral properties in northern Brazil. The Company has title to one of the largest land packages (3,753 km2) in the Tapajos and adjacent Alta Floresta gold provinces. The land package contains green fields to more advance stage projects including the Company's flagship Sao Jorge project. Rapid improvements to regional infrastructure continue to provide underlying support to Brazilian Gold's activities in northern Brazil.

For further information:

Brazilian Gold Corporation
Ian (John) Stalker, CEO and Director
Joanne Yan, President and Director
Tel: +1 604 602-8188

Some statements in this news release contain forward-looking information, including without limitation statements as to planned expenditures and exploration programs. These statements address future events and conditions and, as such, involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the statements. Such factors include without limitation the completion of planned expenditures, the ability to complete exploration programs on schedule and the success of exploration programs.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or the accuracy of this news release.

Brazilian Gold Corporation
308-595 Howe Street
Vancouver British Columbia
Canada V6C 2T5
T: 604.602.8188 F: 604.677.6243

Release No. 3/13