Jaguar Mining Inc
Form 20-F
May 01, 2015

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

o REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2014

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

o SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report ……

For the transition period from _____ to _____

Commission file number 001-33548

JAGUAR MINING INC.
(Exact name of Registrant as specified in its charter)

Ontario, Canada
(Jurisdiction of incorporation or organization)

67 Yonge Street, Suite 1203
Toronto, Ontario M5E 1J8 Canada
(416) 628-9601
(Address of principal executive offices)
Derrick Weyrauch
(416) 628-9601 (telephone)

dweyrauch@jaguarmining.com (email)
(647) 494-8885 (facsimile)
67 Yonge Street, Suite 1203, Toronto, Ontario M5E 1J8 Canada
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
None	N/A

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Common Shares, No Par Value
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

111,111,038

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

o Yes x No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

o Yes x No

Indicate by check mark weather the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

x Yes o No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files).

o Yes x No (not required)

As a foreign private issuer that prepares its financial statements in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"), the Registrant is required to submit to the SEC and post on its corporate website Interactive Data Files (as defined by Item 11 of Regulation S-T) pursuant to Rule 405 of Regulation S-T.

However, it is the view of the SEC's Division of Corporation Finance and Office of the Chief Accountant that the Registrant is not required to submit to the SEC and post on its corporate website Interactive Data Files until the SEC specifies on its website an IFRS taxonomy for use by foreign private issuers in preparing their Interactive Data Files.

As of the submission date of this Annual Report on Form 20-F, the SEC has not specified an IFRS taxonomy for the Registrant to use in preparing its Interactive Data Files.

Indicate by check mark weather the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o Accelerated filer o Non-accelerated filer x

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP o

International Financial Reporting Standards as issued by the International Accounting Standards Board (X)

Other o
If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

o Item 17 o Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

o Yes x No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

N/A o Yes o No

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CAUTIONARY NOTE TO U.S. INVESTORS REGARDING MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

As used in this Annual Report on Form 20-F, the terms “Mineral Reserve”, “Proven Mineral Reserve” and “Probable Mineral Reserve” are Canadian mining terms defined in accordance with National Instrument 43-101 (Standards of Disclosure for Mineral Projects) (“NI 43-101”) and the Canadian Institute of Mining, Metallurgy and Petroleum (the “CIM”) standards. These definitions differ from the definitions in SEC Industry Guide 7 under the U.S. Securities Act. Under SEC Industry Guide 7, a Mineral Reserve is defined as that part of a mineral deposit which could be economically and legally extracted or produced at the time the reserve determination is made. The terms “Mineral Resource,” “Measured Mineral Resource”, “Indicated Mineral Resource” and “Inferred Mineral Resource” are defined in and required to be used by NI 43-101. However, these terms are not defined terms under SEC Industry Guide 7. Investors are cautioned not to assume that any all, or any part of a mineral deposit in these Mineral Resources categories will ever be converted into Mineral Reserves. “Measured Mineral Resources”, “Indicated, Mineral Resources” and “Inferred Mineral Resources” have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all, or any part, of a Measured, Indicated Mineral or an Inferred Mineral Resource will ever be upgraded to a Proven or Probable Reserve Category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or preliminary feasibility studies, except in rare cases. Investors are cautioned not to assume that all or any part of an Inferred Mineral Resource exists or is economically or legally mineable. Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations. However, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in place tonnage and grade without reference to unit measures. Accordingly, information contained in this Annual Report on Form 20-F and the exhibits filed herewith or incorporated by reference herein contain descriptions of our mineral deposits that may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under U.S. federal securities laws and the rules and regulations promulgated thereunder. Further, the term “mineralized material” as used in this Annual Report on Form 20-F does not indicate “reserves” by SEC standards. We cannot be certain that mineralized material will ever be confirmed or converted into SEC Industry Guide 7 compliant “reserves”. Investors are cautioned not to assume that mineralized material will ever be confirmed or converted into reserves or that mineralized material can be economically or legally extracted, please see “United States and Canadian Reporting Definition Differences For Mineral Properties”.

UNITED STATES AND CANADIAN REPORTING DEFINITION DIFFERENCES FOR MINERAL PROPERTIES

The mineral reserve and mineral resource estimates contained in this Annual Report on 20-F have been prepared in accordance with NI 43-101. NI 43-101 follows guidelines set out in the CIM standards on mineral resources and mineral reserves definitions and guidelines adopted by the CIM council. However, the definitions in NI 43-101 differ in certain material respects from those under SEC Industry Guide 7 (some of such differences are provided below). Accordingly, mineral reserve information contained or incorporated by reference herein may not be comparable to similar information disclosed by U.S. companies.

SEC Industry Guide 7

Reserve

That part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination.

Proven (Measured) Reserves

Reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes, grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.

Probable (Indicated) Reserves

Reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation.

There are no Mineral Resource categories under SEC Industry Guideline 7.

CIM Definition Standards

For the CIM definition standards, please see Item 4 – Information on the Company.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 20-F contains forward-looking statements within the meaning of Section 27A of the United States Securities Act of 1933, as amended and Section 21E of the United States Exchange Act of 1934, as amended and forward-looking information as defined under applicable Canadian securities legislation (collectively, "forward-looking statements"). These forward-looking statements relate to, among other things, the objectives, goals, strategies, beliefs, intentions, plans, estimates and outlook of Jaguar Mining Inc. ("Jaguar" or the "Company").

Forward-looking statements can generally be identified by the use of words such as "believe", "anticipate", "expect", "intend" "plan", "goal", "will", "may", "target", "potential" and other similar expressions. In addition, any statements that ref expectations, projections or other characterizations of future events or circumstances are forward-looking statements. Forward-looking statements are based on estimates and assumptions made by Jaguar in light of its experience and perception of historical trends, current conditions and expected future developments, as well as other factors Jaguar believes are appropriate in the circumstances. These estimates and assumptions are inherently subject to significant business, economic, competitive and other uncertainties and contingencies, many of which, with respect to future events, are subject to change. Although Jaguar believes that the expectations reflected in such forward-looking statements are reasonable, undue reliance should not be placed on such statements.

In making the forward-looking statements in this Annual Report on Form 20-F, Jaguar has made assumptions, including, but not limited to assumptions concerning: the Company will be able to meet its obligations as they become due and continue as a going concern, production costs; the geological interpretation and statistical inferences or assumptions drawn from drilling and sampling analysis that are involved in the calculation of Mineral Reserves and Mineral Resources; that there is no material deterioration in general business and economic conditions; that there is no unanticipated fluctuation of interest rates and foreign currency exchange rates; that the supply and demand for, deliveries of, and the level and volatility of prices of gold as well as oil and petroleum products develop as expected; that Jaguar receives regulatory and governmental approvals for its development projects and other operations on a timely basis; that Jaguar is able to obtain financing for its development projects on reasonable terms; that there is no unforeseen deterioration in Jaguar's costs of production or Jaguar's production and productivity levels; that Jaguar is able to procure mining equipment and operating supplies in sufficient quantities and on a timely basis; that engineering and construction timetables and capital costs for Jaguar's development and expansion projects are not incorrectly estimated or affected by unforeseen circumstances; that costs of closure of various operations are accurately estimated; that unforeseen changes to the political stability or government regulation in the country in which Jaguar operates do not occur; that there are no unanticipated changes to market competition, that Jaguar's mineral reserve estimates are within reasonable bounds of accuracy (including with respect to size, grade and recoverability) and that the geological, operational and price assumptions on which these are based are reasonable; that Jaguar realizes expected premiums over London Metal Exchange cash and other benchmark prices; and that

Jaguar maintains its ongoing relations with its employees, affected communities, business partners and joint venturers.

Actual results may differ materially from those expressed or implied in the forward-looking statements contained in this Annual Report on Form 20-F. The Company anticipates that subsequent events and developments may cause the Company's views to change. Factors which could cause results or events to differ from current expectations include, among other things: Jaguar's ability to meet its obligations as they become due and continue as a going concern, to maintain a listing of its common shares on a stock exchange; actions taken by the Company's lenders, creditors, shareholders, and other stakeholders to enforce their rights; actions taken against the Company by governmental agencies and securities and other regulators; actions taken by the reconstituted board and senior management of the Company and other factors not currently viewed as material that could cause actual results to differ materially from those described in the forward-looking statements. Important factors that could cause actual results to differ materially from these expectations are discussed in greater detail under the heading "Risk Factors" in this Annual Report on Form 20-F. When relying on forward-looking statements to make decisions with respect to Jaguar, carefully consider these risk factors and other uncertainties and potential events. Jaguar undertakes no obligation to update or revise any forward-looking statement, except as required by law.

Please consult the Company's public filings at www.sec.gov for further, more detailed information concerning these matters.

PART I

Item 1. Identity of Directors, Senior Management and Advisors

A. Directors and Senior Management

Not applicable.

B. Advisers

Not applicable.

C. Auditors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

A. Offer Statistics

Not applicable.

B. Method and Expected Timetable

Not applicable.

Item 3. Key Information

A. Selected Financial Data

Financial information provided throughout this Annual Report on 20-F is referenced in United States dollars unless stated otherwise.

The following selected financial data of the Company for Fiscal 2014, Fiscal 2013 and Fiscal 2012 ended December 31st was derived from the consolidated financial statements of the Company included elsewhere in this Annual Report on Form 20-F. The selected financial data set forth for Fiscal 2011 and Fiscal 2010 ended December 31st are derived from the Company's audited consolidated financial statements, not included herein. The selected financial data should be read in conjunction with the consolidated financial statements and other information included immediately following the text of this Annual Report on 20-F.

The consolidated financial statements of the Company have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Pursuant to SEC Release No. 33-8879 "Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance with International Reporting Standards Without Reconciliation to U.S. GAAP", the Company includes selected financial data prepared in compliance with IFRS as issued by IASB without reconciliation to U.S. GAAP.

The basis of preparation is described in detail in Note 3 to our consolidated financial statements.

Selected Financial Data

International Financial Reporting Standards ("IFRS")
(expressed in thousands of US dollars, except share and per share data)

Table of selected financials (as at and for the fiscal year ended December 31st)

($ in '000´s)	2014	2013	2012	2011	2010
Gold sales	116,362	134,140	172,430	243,137	170,788
Gross profit (loss)	(4,590)	12,786	6,143	43,352	12,605
Net income (loss)	130,863	(249,307)	(84,537)	(65,623)	22,177
Weighted average shares	77,323,349	992,118	977,004	976,738	974,033
Basic income (loss) per share	1.69	(251.29)	(86.53)	(67.19)	22.77
Diluted income (loss) per share	1.64	(251.29)	(86.53)	(67.19)	22.77
Net assets	101,588	(93,559)	153,803	237,809	300,470
Total assets	195,264	294,788	503,875	660,666	569,378
Capital stock	434,465	371,077	370,043	370,043	369,747
Dividends declared per share	-	-	-	-	-

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

I. Risks Relating to Jaguar's Business

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Jaguar's operations involve exploration and development and there is no guarantee that any such activity will result in commercial production of mineral deposits.

The proposed programs on certain properties in which Jaguar holds an interest are exploratory in nature and such properties do not host known bodies of commercial ore. Development of these mineral properties is contingent upon, among other things, obtaining satisfactory exploration results. Mineral exploration and development involves substantial expenses related to locating and establishing mineral reserves, developing metallurgical processes and constructing mining and processing facilities at a particular site. It also involves a high degree of risk, which even a combination of experience, knowledge and careful evaluation may not be able to adequately mitigate. Few properties which are explored are ultimately developed into producing mines, and there is no assurance that commercial quantities of ore will be discovered on any of Jaguar's exploration properties. There is also no assurance that, even if commercial quantities of ore are discovered, a mineral property will be brought into commercial production, or if brought into production, that it will be profitable. The discovery of mineral deposits is dependent upon a number of factors including the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit is also dependent upon, among a number of other factors, its size, grade and proximity to infrastructure, current metal prices, and government regulations, including regulations relating to required permits, royalties, allowable production, importing and exporting of minerals and environmental protection. The exact effect of these factors cannot be accurately predicted, but any one of these factors or the combination of any of these factors may prevent Jaguar from receiving an adequate return on invested capital. In addition, depending on the type of mining operation involved, several years can elapse from the initial phase of drilling until commercial operations are commenced. Some ore reserves may become unprofitable to develop if there are unfavorable long-term market price fluctuations in gold, or if there are significant increases in operating or capital costs. Most of the above factors are beyond Jaguar's control, and it is difficult to ensure that the exploration or development programs proposed by Jaguar will result in a profitable commercial mining operation.

The results of Jaguar's Gurupi feasibility study remain subject to many risks relating both to that project and mining operations generally.

Jaguar's decision to develop a mineral property is typically based on the results of a feasibility study. Jaguar has completed feasibility study work which outlines Mineral Reserves for the Gurupi Project in accordance with NI 43-101. Feasibility studies estimate the anticipated project economic returns. These estimates are based on assumptions regarding, among other things:

- future gold prices;
- future foreign currency exchange rates;
- anticipated tonnages, grades and metallurgical characteristics of ore to be mined and processed;
- anticipated recovery rates of gold extracted from the ore; and
- anticipated capital expenditure and cash operating costs.

Actual cash operating costs, production and economic returns may differ significantly from those estimated by such studies. Operating costs and capital expenditure are driven to a significant extent by the costs of the commodity inputs, including the cost of fuel and chemical reagents, consumed in mining activities. In addition, there are a number of uncertainties inherent in the development and construction of any new mine, including the timing and cost of the construction of mining and processing facilities (which can be considerable), the availability and cost of skilled labor,

power, water and transportation facilities, and the availability and cost of appropriate smelting and refining arrangements, the ability to obtain necessary environmental and other governmental permits and the time to obtain such permits, and the availability of funds to finance construction and development activities.

These estimates used in Jaguar's feasibility studies depend upon the data available and the assumptions made at the time the relevant estimate is made. Ore reserve estimates are not precise calculations and depend on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. Further exploration and feasibility studies can result in new data becoming available that may change previous ore reserve estimates which will impact upon both the technical and economic viability of production from the relevant mining project. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of mineral reserves resulting in revisions to previous ore reserve estimates. These revisions could impact depreciation and amortization rates, asset-carrying values provisions for closedown, restoration and environmental clean-up costs.

Fluctuations in currency exchange rates may adversely affect Jaguar's financial position and results of operations.

Fluctuations in currency exchange rates, particularly operating costs denominated in currencies other than U.S. dollars, may significantly impact Jaguar's financial position and results of operations. Jaguar generally sells its gold based on a U.S. dollar price, but a major portion of Jaguar's operating expenses are incurred in non-U.S. dollar currencies. In addition, the devaluation of the Brazilian Real against the U.S. dollar has and could further decrease the dollar costs of gold production at Jaguar's mining operations in Brazil, which could materially affect Jaguar's earnings and financial condition.

Competition for new mining properties may prevent Jaguar from acquiring interests in additional properties or mining operations.

The gold mining industry is intensely competitive. Significant and increasing competition exists for gold and other mineral acquisition opportunities throughout the world. Some of the competitors are large, more established mining companies with substantial capabilities and greater financial resources, operational experience and technical capabilities than Jaguar. As a result of this competition, Jaguar may be unable to acquire rights to additional attractive mining properties on terms it considers acceptable. Increased competition could adversely affect Jaguar's ability to attract necessary capital funding or acquire an interest in additional operations that would yield reserves or result in commercial mining operations.

Jaguar relies on new management team and key personnel, and there is no assurance that such persons will fully transition into their respective new positions, remain at Jaguar, or that it will be able to recruit skilled individuals.

In connection with the implementation of the CCAA Plan on April 22, 2014, Jaguar has reconstituted its Board with three new directors and appointed a new chief executive officer and chief financial officer. Jaguar will be relying heavily on its new management team. If these new management members are unable to successfully transition into their respective positions, our operations will be adversely affected. Jaguar does not maintain "key man" insurance. Recruiting and retaining qualified personnel is critical to Jaguar's success. The number of persons skilled in the acquisition, exploration and development of mining properties is limited and competition for the services of such persons is intense. In addition, as Jaguar's business activity grows, it may require additional key financial, administrative, technical and mining personnel. The failure to attract and/or retain such personnel to manage growth effectively could have a material adverse effect on Jaguar's business, prospects, financial condition and results of operations.

Actual capital costs, operating costs, production and economic returns may differ significantly from those estimated by Jaguar and there can be no assurance that any future development activities will result in profitable mining operations.

Capital and operating costs, production and economic returns, and other estimates contained in the feasibility studies for Jaguar's projects may differ significantly from those anticipated by Jaguar's current studies and estimates, and there can be no assurance that Jaguar's actual capital and operating costs will not be higher than currently anticipated. In addition, delays to construction schedules may negatively impact the net present value and internal rates of return of Jaguar's mineral properties as set forth in the applicable feasibility studies.

Increases in energy costs or the interruption of Jaguar's energy supply may adversely affect Jaguar's results of operations.

Jaguar's operations are energy intensive and rely upon third parties for the supply of the energy resources consumed in its operations. The prices for and availability of energy resources may be subject to change or curtailment, respectively, due to, among other things, new laws or regulations, imposition of new taxes or tariffs, interruptions in production by suppliers, worldwide price levels and market conditions. In addition, in recent years, the price of oil has been extremely volatile due to a variety of factors. Disruptions in supply or changes in costs of energy resources could have a material adverse impact on Jaguar's financial condition and the results of operations.

There can be no assurance that the interests held by Jaguar in its properties are free from defects.

Jaguar's properties may be subject to prior recorded and unrecorded agreements, transfers or claims, and title may be affected by, among other things, undetected defects. Title insurance is generally not available for mineral properties, and Jaguar's ability to ensure that it has obtained a secure claim to individual mining properties or mining concessions may be severely constrained. Jaguar has not conducted surveys of all of the claims in which it holds direct or indirect interests. A successful challenge to the precise area and location of these claims could result in Jaguar being unable to operate on its properties as permitted or being unable to enforce its rights with respect to its properties. No assurance can be given that Jaguar's rights will not be revoked or significantly altered to its detriment. There can also be no assurance that its rights will not be challenged or impugned by third parties.

Jaguar is exposed to risks of changing political stability and government regulation in the country in which it operates.

Jaguar holds mineral interests in Brazil that may be affected in varying degrees by political instability, government regulations relating to the mining industry and foreign investment therein, and the policies of other nations in respect of Brazil. Any changes in regulations or shifts in political conditions are beyond Jaguar's control and may adversely affect its business. Jaguar's operations may be affected in varying degrees by government regulations, including those with respect to restrictions on production, price controls, export controls, various taxes (including income, mining, withholding, and indirect taxes), expropriation of property, employment, land use, water use, environmental legislation and mine safety. The regulatory environment is in a state of continuing change, and new laws, regulations and requirements may be retroactive in their effect and implementation. Jaguar's operations may also be adversely affected in varying degrees by political and economic instability, economic or other sanctions imposed by other nations, terrorism, military repression, crime, extreme fluctuations in currency exchange rates and high inflation.

Jaguar is subject to significant governmental regulations.

Jaguar's mining and exploration activities are subject to extensive local laws and regulations. Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities, who may require operations to cease or be curtailed, or corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in mining operations may be required to compensate those suffering loss or damage by reason of the mining activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

Amendments to current laws, regulations and permits governing operations and activities of mining companies, or more stringent implementation of such requirements, could have a material adverse impact on Jaguar and cause increases in capital expenditures or production costs or reductions in levels of production at producing properties or require abandonment or delays in development of new mining properties.

Jaguar's operations are subject to numerous governmental permits, which are difficult to obtain, and it may not be able to obtain or renew all of the permits it requires, or such permits may not be timely obtained or renewed.

Government approvals and permits are sometimes required in connection with Jaguar's operations. Although Jaguar believes it has all of the material approvals and permits to carry on its operations, Jaguar may require additional approvals or permits or may be required to renew existing approvals or permits from time to time. Obtaining or renewing approvals or permits can be a complex and time-consuming process. There can be no assurance that Jaguar will be able to obtain or renew the necessary approvals and permits on acceptable terms, in a timely manner, or at all. To the extent such approvals are required and not obtained, Jaguar may be delayed or prohibited from proceeding with planned exploration, development or mining of mineral properties.

Under current regulations, all exploration activities that the Company undertakes through its subsidiaries must be carried out on valid exploration licenses or prospecting permits issued by the DNPM, a department of the Brazilian federal government. The DNPM is responsible for the administration of all mining and exploration licenses, and prospecting permits. According to local regulations, Jaguar must submit a final exploration report before the expiry date of any license or permit, which is usually three years from the date of grant. However, Brazilian mining laws and regulations are currently undergoing a restructuring, and draft legislation to this effect has been submitted to the federal legislature for review and approval. The effects of this restructuring will, if adopted, be far-reaching in the ways that mining rights can be acquired and maintained in the country.

Current proposals include an auction process for new licenses, minimum expenditures designed to eliminate the "warehousing" of mining permits and licenses as well as new fee schedules. They also provide for land owner participation where applicable. It is the Company's understanding, based on consultations with local counsel, that licenses currently held in good standing will be grandfathered and not subject to certain requirements of the proposed new regime. Production from the Company's mines results in a 1% royalty fee payment to the Brazilian government (the "CFEM"), on the value of the ore produced, in the amount of US$1.1 million for the financial year ended December 31, 2014. However, and as mentioned above, the Brazilian government is currently considering the adoption of new mining legislation which would include increases in the CFEM royalties.

Environmental permits are granted for one to two year periods and all local agencies have the right to monitor and evaluate compliance with the issued permits. Any changes to the exploration activities that result in a greater environmental impact require approval.

The work the Company carries out on its exploration licenses is largely restricted to drilling and ancillary activities associated with the drilling programs (i.e., low impact road construction, drilling stations). As such, the reclamation costs in respect of drilling activities are not material to the Company and are factored into the budget for exploration programs.

Jaguar is subject to substantial environmental laws and regulations that may increase its costs and restrict its operations.

All phases of Jaguar's operations are subject to environmental regulations in the jurisdictions in which it operates. These laws address emissions into the air, discharges into water, management of waste and hazardous substances, protection of natural resources and reclamation of lands disturbed by mining operations. Environmental legislation is evolving in a manner that will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. Compliance with environmental laws and regulations may require significant capital outlays and may cause material changes or delays in, or the cancellation of, Jaguar's intended activities. There can be no assurance that future changes in environmental regulation, if any, will not be materially adverse to Jaguar's operations.

The properties in which Jaguar holds interests may contain environmental hazards, which are presently unknown to it and which have been caused by previous or existing owners or operators of the properties. If Jaguar's properties do contain such hazards, this could lead to Jaguar being unable to use the properties or may cause Jaguar to incur costs to clean up such hazards. In addition, Jaguar could become subject to litigation should such hazards result in injury to any persons.

Land reclamation requirements for Jaguar's mining and exploration properties may be burdensome.

Land reclamation requirements are generally imposed on companies engaged in mining operations and mineral exploration activities in order to minimize long-term effects of land disturbance. Reclamation may include requirements to control dispersion of potentially deleterious effluents and reasonably re-establish pre-disturbance land forms and vegetation. In order to carry out reclamation obligations imposed on Jaguar in connection with its mining and exploration activities, Jaguar must allocate financial resources that might otherwise be spent on further exploration and development programs. If Jaguar is required to carry out unanticipated reclamation work, its financial position could be adversely affected.

Jaguar will need to obtain additional financing in order to meet its near term operating cash requirements, debt payments and sustaining capital expenditures and there can be no assurance that financing will be available on terms acceptable to Jaguar, or at all.

The Company has reported an operating loss for the year ended December 31, 2014. The Company considers that the near term economic outlook presents challenges in terms of commodity prices. Whilst the Company has instituted measures to preserve cash, improve operations and is seeking to secure additional financing, these circumstances create uncertainties over future results and cash flows. The Company had a working capital deficiency of $23.2 million as at December 31, 2014. The Company will need to obtain additional financing in order to meet its near term operating cash requirements, debt payments and sustaining capital expenditures. There is no assurance that the Company's financing initiatives will be successful or sufficient. Failure to obtain sufficient financing, or financing on terms acceptable to Jaguar, may result in a delay or indefinite postponement of exploration, development or production on any or all of Jaguar's properties or even a loss of an interest in a property, or even a loss of an interest in a property, or an inability to pay any of Jaguar's non-operating expenses which could also lead to late fees or penalties, depending on the nature of the expense. The only source of funds now available to Jaguar is through production at Turmalina and Caeté, the sale of debt or equity capital, properties, royalty interests or the entering into of joint ventures or other strategic alliances in which the funding sources could become entitled to an interest in Jaguar's properties or projects. Additional financing may not be available when needed, especially in light of the current slowdown in lending resulting from global financial conditions. If funding is available, the terms of such financing might not be favorable to Jaguar and might involve substantial dilution to existing shareholders. If financing involves the issuance of debt, the terms of the agreement governing such debt could impose restrictions on Jaguar's operation of its business. Failure to raise capital when needed could have a material adverse effect on Jaguar's business, financial condition and results of operations.

Jaguar is exposed to risks of labor disruptions and changing labor and employment regulations.

Employees of Jaguar's principal projects are unionized, and the collective bargaining agreements between Jaguar and the unions which represent these employees must be renegotiated on an annual basis. Although Jaguar believes it has good relations with its employees and with their unions, production at Jaguar's mining operations is dependent upon the continuous efforts of Jaguar's employees. In addition, relations between Jaguar and its employees may be affected by changes in the scheme of labor relations that may be introduced by the relevant governmental authorities in whose jurisdictions Jaguar carries on business. Labor disruptions or any changes in labor or employment legislation or in the relationship between Jaguar and its employees may have a material adverse effect on Jaguar's business, results of operations and financial condition.

Substantially all of Jaguar's assets are held by foreign subsidiaries that are subject to the laws of the Republic of Brazil.

Jaguar conducts operations through its wholly-owned foreign subsidiaries, MSOL, MTL and MCT and substantially all of Jaguar's assets are held through such entities. Accordingly, any governmental limitation on the transfer of cash or other assets between Jaguar, MSOL, MTL and MCT could restrict Jaguar's ability to fund its operations efficiently. Any such limitations or the perception that such limitations may exist now or in the future could have an adverse impact on Jaguar's prospects, financial condition and results of operations.

Jaguar is subject to litigation.

All industries, including the mining industry, are subject to legal claims, with and without merit. The Company is currently involved in litigation and may become involved in additional legal disputes in the future. Defense and settlement costs can be substantial, even with respect to claims that have no merit. Due to the inherent uncertainty of the litigation process, there can be no assurance that the resolution of any particular legal proceeding will not have a

material effect on the Company´s financial position or results of operations.

Investors may not be able to enforce civil liabilities in the United States.

Jaguar is incorporated under the laws of the Province of Ontario, Canada. Some of its directors and officers are residents of Canada. Also, almost all of Jaguar's assets and the assets of these persons are located outside of the United States. As a result, it may be difficult for shareholders to initiate a lawsuit within the United States against these non-United States residents, or to enforce judgments in the United States against Jaguar or these persons which are obtained in a United States court and that are predicated upon civil liabilities under United States federal securities laws or the securities or "blue sky" laws of any state within the United States.

Jaguar has no record of paying dividends.

Jaguar has paid no dividends on its common shares since incorporation and does not anticipate doing so in the foreseeable future. Payment of any future dividends will be at the discretion of the board of directors of the Company (the "Board" or the "Board of Directors") after taking into account many factors, including operating results, financial condition, capital requirements, business opportunities and restrictions contained in any financing agreements.

Global financial conditions may negatively impact its operations and share pricing.

Current global financial conditions have been characterized by increased volatility (particularly the markets for commodities, including gold) and several financial institutions have either gone into bankruptcy or have had to be rescued by governmental authorities. Access to public financing has been negatively impacted by several factors including efforts by financial institutions to de-lever their balance sheets in the face of current economic conditions. These factors may impact the ability of Jaguar to obtain equity or debt financing in the future on terms favorable to Jaguar. Additionally, these factors, as well as other related factors, may cause decreases in asset values that are deemed to be other than temporary, which may result in impairment losses. If such increased levels of volatility and market turmoil continue, Jaguar's operations could be adversely impacted and the trading price of its common shares may be adversely affected.

The trading price for Jaguar's common shares is volatile and has been, and may continue to be, greatly affected by the ongoing market volatility.

Securities of mineral exploration and early stage base metal production companies have experienced substantial volatility in the past, often based on factors unrelated to the financial performance or prospects of the companies involved. These factors include macroeconomic developments in North America and globally and market perceptions of the attractiveness of particular industries. Jaguar's common share price is also likely to be significantly affected by short-term changes in gold prices or in its financial condition or results of operations as reflected in its quarterly earnings reports. Other factors unrelated to Jaguar's performance that may have an effect on the price of its common shares include the following: the extent of analytical coverage available to investors concerning Jaguar's business may be limited if investment banks with research capabilities do not continue to follow Jaguar's securities; the lessening in trading volume and general market interest in Jaguar's securities may affect an investor's ability to trade significant numbers of Jaguar's common shares; and the size of Jaguar's public float may limit the ability of some institutions to invest in Jaguar's securities.

Jaguar's shares are no longer listed in the US, with the result that shareholders may face reduced liquidity.

The common shares of the Company were delisted from the NYSE on June 7, 2013 and from the TSX on April 30, 2014, when the Company announced that TSX-V has accepted its listing application. Trading in the common shares of Jaguar at the TSX-V began on May 1, 2014. On May 1, 2014, the common shares of the Company commenced trading on the TSX-V. As a result of these changes, shares of the Company are no longer traded on any exchange in

the US and the Company may face difficulty accessing additional capital via the capital markets. Furthermore, US shareholders of the Company may face limited liquidity as a result of the delisting.

Jaguar's reporting status in the United States has changed and it may lose its foreign private issuer status in the future, which could result in significant additional costs and expenses.

Jaguar's reporting status changed from a Canadian foreign private issuer eligible to use the Multijurisdictional Disclosure System ("MJDS") to a foreign private issuer. In order to maintain Jaguar's current status as a foreign private issuer, a majority of its common shares must be either directly or indirectly owned by non-residents of the United States, unless Jaguar also satisfies one of the additional requirements necessary to preserve this status. Jaguar may in the future lose its foreign private issuer status if a majority of its common shares are held in the United States and it fails to meet the additional requirements necessary to avoid loss of foreign private issuer status. The Company may also decide to deregister its existing registration statements. The regulatory and compliance costs under U.S. federal securities laws as a U.S. domestic issuer may be significantly more than the costs incurred as a foreign private issuer. We expect our change to a foreign private issuer status and any future change to U.S. domestic issuer status to increase our legal compliance and financial reporting costs. This could also make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur higher costs to obtain coverage. In addition, this could make it more difficult for us to attract and retain qualified members of our board of directors, or qualified executive officers.

Even though Jaguar has implemented the CCAA Plan, it will continue to face risks.

Even though the CCAA Plan was consummated, Jaguar continues to face a number of risks, including certain risks that are beyond its control, such as the price of gold, changes in economic conditions, changes in our industry and regulatory changes. As a result of these risks and others, there is no guarantee that the CCAA Plan will achieve Jaguar' stated goals.

Such belief is based on certain assumptions, including, without limitation, that Jaguar's relationships with suppliers, customers and competitors will not be materially adversely affected by the CCAA Plan, that general economic conditions and the markets for Jaguar's products or for the products of its partners will remain stable or improve, as well as Jaguar's continued ability to manage costs. Should any of those assumptions prove false, the financial position of Jaguar may be materially adversely affected and Jaguar may not be able to pay its debts as they become due.

As a foreign private issuer, the Company's shareholders may have less complete and timely data.

The Company is a "foreign private issuer" as defined in Rule 3b-4 under the Exchange Act. Equity securities of the Company are accordingly exempt from Sections 14(a), 14(b), 14(c), 14(f) and 16 of the Exchange Act pursuant to Rule 3a12-3 of the Exchange Act. Therefore, the Company is not required to file a Schedule 14A proxy statement in relation to the annual meeting of shareholders. The submission of proxy and annual meeting of shareholder information on Form 6-K may result in shareholders having less complete and timely information in connection with shareholder actions. The exemption from Section 16 rules regarding reports of beneficial ownership and purchases and sales of common shares by insiders and restrictions on insider trading in the Company's securities may result in shareholders having less data and there being fewer restrictions on insiders' activities in its securities. The Company does, and its insiders do, make all necessary filings in Canada to provide timely, factual and transparent disclosure.

Gold prices are volatile and there can be no assurance that a profitable market for gold will exist.

Gold prices are volatile and subject to changes resulting from a variety of factors including international economic and political trends, expectations of inflation, global and regional supply and demand and consumption patterns, stock levels maintained by producers and others, currency exchange fluctuations, inflation rates, interest rates, hedging activities and increased production due to improved mining and production methods. While the price of gold has recently been stable, there can be no assurance that gold prices will remain at such levels or be such that Jaguar's

properties can be mined at a profit.

Mining is inherently risky and subject to conditions and events beyond Jaguar's control.

Mining involves various types of risks and hazards, including:

o environmental hazards;

o unusual or unexpected geological operating conditions, such as rock bursts, structural cave-ins or slides;

o flooding, earthquakes and fires;

o labor disruptions;

o industrial accidents;

o unexpected mining dilution;

o metallurgical and other processing problems; and

o metal losses and periodic interruptions due to inclement or hazardous weather conditions.

These risks could result in damage to, or destruction of, mineral properties, production facilities or other properties, personal injury or death, environmental damage, delays in mining, increased production costs, monetary losses and possible legal liability.

Jaguar may not be able to obtain insurance to cover these risks at affordable premiums or at all. Insurance against certain environmental risks, including potential liability for pollution or other hazards as a result of the disposal of waste products occurring from production, is not generally available to Jaguar or to other companies within the mining industry. Jaguar may suffer a material adverse effect on its business if it incurs losses related to any significant events that are not covered by its insurance policies.

Calculation of Mineral Reserves and Mineral Resources and metal recovery is only an estimate, and there can be no assurance about the quantity and grade of minerals until mineral resources are actually mined.

The calculation of mineral reserves, mineral resources and corresponding grades being mined or dedicated to future production are imprecise and depend on geological interpretation and statistical inferences or assumptions drawn from drilling and sampling analysis, which might prove to be unpredictable. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Until mineral reserves or mineral resources are actually mined and processed, the quantity of mineral reserves or mineral resources and grades must be considered as estimates. Any material change in mineral reserves, mineral resources, grade or stripping ratio at Jaguar's properties may affect the economic viability of Jaguar's properties. In addition, there can be no assurance that metal recoveries in small-scale laboratory tests will be duplicated in larger scale tests under on-site conditions or during production.

The mineral reserve estimates contained in this Annual Report on Form 20-F are based upon estimates or reports published by Jaguar's personnel and independent geologists and mining engineers, who use assumed future prices, cut-off grades and operating costs that may prove to be inaccurate. Such estimation is a subjective process, and the accuracy of any mineral reserve or mineral resource estimate depends on the quantity and quality of available data and on the assumptions made and judgments used in interpreting geological data. There are numerous uncertainties inherent in estimating mineral reserves and mineral resources and metal recovery, many of which are beyond Jaguar's control, and as a result, no assurance can be given as to the accuracy of such estimates or reports. Extended declines in the market price for gold may render portions of Jaguar's mineralization uneconomic and result in reduced reported mineral reserves. A material reduction in Jaguar's estimates of mineral reserves, or of Jaguar's ability to extract this mineralization, could have a material adverse effect on Jaguar's financial condition and results of operations.

Definitional standards for reporting mineralized material differ between U.S. reporting standards and the Canadian standards used in this Annual Report on Form 20-F.

We use the terms “measured mineral resources,” “indicated mineral resources” and “inferred mineral resources” in this Annual Report on Form 20-F and in the documents incorporated by reference herein to comply with reporting standards in Canada. We advise U.S. investors that while those terms are recognized and required by Canadian regulations, the SEC does not recognize them. U.S. investors are cautioned not to assume that any part or all of the additional mineral deposits in these Mineral Resource categories will ever be converted into mineral reserves. These terms have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of measured mineral resources, indicated mineral resources, or inferred mineral resource will ever be upgraded to a higher Mineral Resource and Reserve category. In accordance with Canadian rules, estimates of inferred mineral resources cannot form the basis of a feasibility study or other economic evaluations. Investors are cautioned not to assume that any part of the reported measured mineral resource, indicated mineral resource, or inferred mineral resource in this Annual Report on Form 20-F or in the documents incorporated by reference herein is economically or legally mineable. See “Cautionary Note to U.S. Investors Regarding Mineral Reporting Standards” above.

Item 4. Information on the Company

A. History and Development of the Company

The legal name of the Company is Jaguar Mining Inc. The commercial names of the Company are “Jaguar Mining” and “Jaguar”.

Jaguar was incorporated on March 1, 2002 pursuant to the Business Corporations Act (New Brunswick). On March 30, 2002, Jaguar issued initial common shares to Brazilian Resources, Inc. (“Brazilian”) and IMS Empreendimentos Ltda. (“IMS”) in exchange for property. In that transaction, Brazilian contributed to Jaguar all of the issued and outstanding shares in Mineração Serras do Oeste Ltda. (“MSOL”), a Brazilian mining company that controlled the mineral rights, concessions and licenses to certain property located near the community of Sabará, east of Belo Horizonte in the state of Minas Gerais, Brazil (the “Sabará Property”), and IMS contributed to Jaguar a 1,000-ton per day production facility also located east of Belo Horizonte near the community of Caeté and the mineral rights to a nearby property related to National Department of Mineral Production (“DNPM”) Mineral Exploration Request no. 831.264/87 and DNPM Mineral Exploration Request nos. 830.590/83 and 830.592/83 (the “Rio de Peixe Property”). Jaguar was continued into Ontario in October 2003 pursuant to the Business Corporations Act (Ontario) (the “OBCA”) and is a corporation existing under the laws of Ontario.

On October 9, 2003, pursuant to an amalgamation agreement dated July 16, 2003, Jaguar amalgamated with Rainbow Gold Ltd. (“Rainbow”), a New Brunswick corporation and a then inactive reporting issuer listed on the TSX Venture Exchange (the “TSX-V”), through a reverse take-over. The amalgamated entity adopted the name “Jaguar Mining Inc.” Jaguar was approved for listing on the TSX-V on October 14, 2003 and began trading on October 16, 2003. Jaguar subsequently graduated from the TSX-V to the Toronto Stock Exchange (the “TSX”) and began trading on the TSX on February 17, 2004 under the symbol “JAG”. On July 23, 2007, trading of Jaguar’s common shares commenced on the NYSE Arca Exchange (“NYSE Arca”) under the symbol “JAG”. In July 2009, Jaguar received approval from the New York Stock Exchange (“NYSE”) to transfer the trading of its common shares from the NYSE Arca to the NYSE. Trading on the NYSE began on July 6, 2009, also under the symbol “JAG”. The common shares of the Company were delisted from the NYSE on June 7, 2013 and were delisted from the TSX on April 30, 2014. On May 1, 2014, the common shares of the Company commenced trading on the TSX-V.

Jaguar’s registered office is located at 67 Yonge Street, Suite 1203, Toronto, Ontario M5E 1J8, Canada, and its telephone number is 416-628-9601. Jaguar also has an administrative office located at Rua Levindo Lopes 323, Funcionários, Belo Horizonte, Minas Gerais, CEP 30140-170, Brazil and its telephone number is 55 31 3232-7100.

On November 13, 2013, the Company and its subsidiaries entered into a support agreement (as amended, the "Support Agreement") with holders (the "Noteholders") of approximately 81% of its $165.0 million 4.5% Senior Unsecured Convertible Notes due November 1, 2014 ("4.5% Convertible Notes") and 82% of its $103.5 million 5.5% Senior Unsecured Convertible Notes due March 31, 2016 (the 5.5% Senior Convertible Notes together with the 4.5% Convertible Notes, the "Notes") to effect a recapitalization and financing transaction that would eliminate approximately $268.5 million of the Company's outstanding indebtedness by exchanging the Notes for common shares of Jaguar and inject approximately $50 million into the Company by way of a backstopped share offering (the "Share Offering") by Noteholders pursuant to a backstop agreement dated November 13, 2013 (as amended, the "Backstop Agreement") between the Company, its subsidiaries and certain Noteholders. Additional Noteholders signed consent agreements to the Support Agreement such that as of November 26, 2013, holders of approximately 93% of the Notes had signed the Support Agreement or a consent agreement thereto.

On December 23, 2013, the Company filed for creditor protection (the "CCAA Proceedings") under the Companies' Creditors Arrangement Act (Canada) (the "CCAA") in the Ontario Superior Court of Justice (Commercial List) (the "Court"). The CCAA Proceedings were commenced in order to implement a recapitalization transaction as contemplated in the Support Agreement through a plan of compromise and arrangement (as amended, supplemented or restated from time to time, the "CCAA Plan"). On April 23, 2014, the Company announced that it had successfully implemented the CCAA Plan with an effective date of April 22, 2014. For a full description of the CCAA Proceedings, please see Item 13.

Capital Expenditures

Capital expenditures were primarily used for underground development, equipment improvement and replacement throughout the Company's operations in Minas Gerais. The table below summarizes the actual capital spending by unit for the financial years ended December 31, 2014, 2013 and 2012:

($ in '000s)	2014	2013	2012
Turmalina	10,079	10,608	15,197
Paciência	-	-	12,525
Caeté	11,452	11,949	20,808
Gurupi Project	506	807	6,683
Other spending	384	481	1,786
Total capital spending	22,421	23,845	56,999

B. Business Overview

Business of the Company

General

Jaguar is a gold mining company engaged in gold production and in the acquisition, exploration, development and operation of gold mineral properties in Brazil.

Jaguar's operating mining complexes, Turmalina and Caeté, and the Paciência Mine Complex currently on care and maintenance are located in or adjacent to the Iron Quadrangle region of Brazil, a greenstone belt located east of the city of Belo Horizonte in the state of Minas Gerais. Jaguar's portfolio also includes the Gurupi Project in the state of Maranhão and the Pedra Branca Project in the state of Ceará.

Through its wholly-owned subsidiaries, MSOL, MTL and MCT, Jaguar has interests in, and controls the mineral rights, concessions and licenses to the mineral resources and mineral reserves presented under the section entitled "Mineral Resources and Mineral Reserves".

All of Jaguar's production facilities are, or will be, near Jaguar's mineral concessions and are accessible via existing roads. Jaguar believes it has an advantage over other gold mine operators due to the clustered nature of its mineral resource concessions and the proximity of its concessions to its processing facilities and existing infrastructure.

Gold Production and Sales

Gold production in 2014 totaled 92,057 ounces, compared to 95,595 ounces in 2013 and to 102,823 ounces during 2012.

Gold sales in 2014 totaled 92,264 ounces at an average price of US$1,261 per ounce compared to 94,850 ounces at an average price of US$1,414 per ounce in 2013, and to 103,676 ounces sold at an average price of US$1,633 per ounce in 2012.

Competitive Conditions

The gold exploration and mining business is an intensely competitive business. Jaguar competes with numerous companies and individuals in the search for, and the acquisition of, mineral licenses, permits and other mineral interests, as well as for the acquisition of equipment and the recruitment and retention of qualified personnel. There is also significant competition for the limited number of gold property acquisition opportunities. The ability of Jaguar to acquire gold mineral properties in the future will depend not only on its ability to develop its present properties, but also on its ability to select and acquire suitable producing properties or prospects for gold development or mineral exploration.

Employees

As at December 31, 2014, Jaguar had 1,217 employees, 1,211 of whom are based in Brazil.

Foreign Operations

All of Jaguar's mineral projects are owned and operated through its wholly-owned Brazilian subsidiaries, MSOL, MTL and MCT. Jaguar's wholly-owned properties are located in the states of Minas Gerais, Maranhão and Ceará in Brazil. Jaguar is entirely dependent on its foreign operations for the exploration and development of gold properties and for production of gold.

Health, Safety and Environmental

Jaguar has safety as a core value and places high priority on the welfare of its employees. Jaguar recognizes that employees are its most valuable asset. The new management team is reinforcing safety as a core value in all of its decisions. Management believes that ongoing focus on safety is key to improved performance. Jaguar's training program for new employees includes the participation of experienced professionals who act as mentors, providing hands-on guidance and conducting periodical reviews. Jaguar wants its employees to grow with the company, so it encourages them to further their education and provides them with information to understand Jaguar's corporate culture and objectives.

Jaguar has an integrated management system in place that promotes open communication at all levels. This system includes tools such as the "Daily Safety Dialogue" to go over health and safety procedures before every shift, "Easy Talk" to encourage employees to report inadequate conditions or behavior, and the "Accident Analysis and Prevention Tool" which reviews every accident and allows employees to propose new measures to avoid reoccurrences.

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Jaguar promotes and supports programs for environmental stewardship, sustainable development and social responsibility in the communities where it operates.

Nothing is more important to Jaguar than the safety and health of its employees and their families. Although the Company is pleased with the overall improvements in safety statistics, this performance was overshadowed by a tragic fatality in November 2014 in the underground area of Turmalina Mine. The Company and the local authorities investigated the circumstances and the causes of the incident. The accident was caused due to a rock fall and the response of the Company's emergency team was timely. Unfortunately the facilities at the local rural hospital were not comprehensive enough to provide the necessary medical care. The Company has hired extra medical staff at the site to enhance the quality of emergency response and is conducting ongoing investigations into ways to improve emergency preparedness.

During the year ended December 31, 2014, the cumulative Lost Time Incidents ('LTIs') have reduced to 7 as compared to 11 incidents during the financial year 2013. For each incident, management identifies the likely causes and develops remediation plans to prevent future recurrences. The overall LTI frequency rate (number of lost-time injuries per million hours worked) has seen a steady drop since 2011.

In 2015 Jaguar plans to initiate the process of being accredited for OHSAS 18001, which the Company hopes to achieve in 2016. The Loss Control Management ('LCM') system already in place has many of the key elements required. LCM main elements are based on checking of procedures, facilities and equipment, human behavior and response to accidental scenarios whereas OHSAS as a management system, considers other key prevention elements like objectives/goals, legal and regulatory requirements, operational controls, personnel competence, training & awareness and internal audits.

Technical Information

The estimated Mineral Reserves and Mineral Resources for Jaguar's mines and mineral projects set forth in this Form 20-F have been calculated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Council – Definitions adopted by the CIM Council on November 27, 2010 (the "CIM Standards"). The following definitions are reproduced from the CIM Standards:

The term "Mineral Resource" means a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

The term "Inferred Mineral Resource" means that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

The term "Indicated Mineral Resources" means that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

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The term “Measured Mineral Resource” means that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

The term “Mineral Reserve” means the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

The term “Probable Mineral Reserve” means the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

The term “Proven Mineral Reserve” means the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

The scientific and technical information contained in this Form 20-F relating to the Corporation’s Turmalina Mining Complex is derived from the technical report titled “Technical Report on the Turmalina Mine, Minas Gerais State, Brazil”, filed on Sedar on April 7, 2015 (with an effective date of March 27, 2015), (the “Turmalina Technical Report”). The Turmalina Technical Report was prepared by Jason Cox, P. Eng. and Reno Pressacco, P. Geo, both from Roscoe Postle Associates Inc., each of whom is a “qualified person” as that term is defined in NI 43-101. Portions of the following information are based on assumptions, qualifications and procedures which are not fully described herein. Reference should be made to the full text of the Turmalina Technical Report.

The scientific and technical information contained in this Form 20-F relating to the Corporation’s Caeté Mining Complex up to October 29, 2010 is derived from the technical report titled “Caeté Gold Project Pilar and Roça Grande Properties Technical Report”, filed on Sedar on March 21, 2011 (with an effective date of October 29, 2010), (the “Caeté Technical Report”). The Caeté Technical Report was prepared by Ivan C. Machado, MSc. P.E., P. Eng. of TechnoMine Service LLC (“Technomine”) who is a “qualified person” as that term is defined in NI 43-101. Portions of the following information are based on assumptions, qualifications and procedures which are not fully described herein. Reference should be made to the full text of the Caeté Technical Report. All scientific or technical information relating to the Caeté Mining Complex subsequent to October 29, 2010 has been prepared by or under the supervision of Marcos Dias Alvim who is a “qualified person” for the purposes of NI 43-101 and Marcos Dias Alvim has approved the disclosure of scientific and technical information contained in this Form 20-F relating to the Caeté Mining Complex subsequent to October 29, 2010.

The scientific and technical information contained in this Form 20-F relating to the Corporation’s Gurupi Project up to January 31, 2011 is derived from the technical report titled “Gurupi Gold Project Cipoeiro e Chega Tudo Properties Feasibility Study”, filed on Sedar on January 31, 2011 (with an effective date of January 31, 2011), (the “Gurupi Feasibility Study”). The Gurupi Feasibility Study was prepared by Ivan C. Machado, MSc. P.E., P. Eng. of TechnoMine, who is a “qualified person” as that term is defined in NI 43-101. Portions of the following information are based on assumptions, qualifications and procedures which are not fully described herein. Reference should be made

to the full text of the Gurupi Feasibility Study.

Information on Measured and Indicated Resources dated July 30, 2012 has been prepared by or under the supervision of Leah Mach from SRK Consulting who is a “qualified person” for the purposes of NI 43-101 and Leah Mach has approved the disclosure of updated Measured and Indicated Resources dated July 30, 2012 contained in this Form 20-F relating to the Gurupi Project. Scientific or technical information relating to the Gurupi Project subsequent to January 31, 2011 has been prepared by or under the supervision of Wilson Miola who is a “qualified person” for the purposes of NI 43-101 and Wilson Miola has approved the disclosure of scientific and technical information contained in this Form 20-F relating to the Gurupi Project subsequent to January 31, 2011.

Mineral Properties

Material Mineral Properties

Turmalina, Caeté and Gurupi are material properties of Jaguar.

Mineral Resource and Mineral Reserve Estimates

Unless otherwise indicated, the responsible qualified persons, who have reviewed and approved the scientific and technical information contained in this Form 20-F are (i) in respect of the estimated Mineral Reserves and the Life of Mine Plan (LOMP) for Turmalina mine, Jason Cox, P.Eng., of Roscoe Postle Associates Inc. ("RPA"); (ii) in respect of the estimated Mineral Resources for Turmalina mine, Reno Pressacco, P.Geo., of RPA; (iii) in respect of the Caeté Mining Complex, Marcos Dias Alvim, P. Eng, and (iv) in respect of the Gurupi Project, (a) information up to January 31, 2011 is derived from the technical report titled “Gurupi Gold Project Cipoeiro e Chega Tudo Properties Feasibility Study”, filed on Sedar on January 31, 2011 (with an effective date of January 31, 2011), (the “Gurupi Feasibility Study”). The Gurupi Feasibility Study was prepared by Ivan C. Machado, MSc. P.E., P. Eng. of TechnoMine; (b) information on updated Measured and Indicated Resources dated July 30, 2012 for the Gurupi Project has been prepared by or under the supervision of Leah Mach; and (c) Mr. Walter Miola has approved the reconciliation of Mineral Reserves and Mineral Resources.

Based on the reconciliation, as of December 31 2014, Jaguar’s Mineral Resources are (i) Measured and Indicated Mineral resources of 157,862,373 tonnes with an average grade of 1.10 grams per tonne containing 5,606,404 ounces of gold and (ii) Inferred Mineral resources of 15,336,547 tonnes with an average grade of 2.98 grams per tonne containing 1,470,786 ounces of gold. Jaguar’s Proven and Probable Mineral Reserves, which are included in the Measured and Indicated Mineral Resource figure above, are 65,628,068 tonnes with an average grade of 1.23 grams per tonne containing 2,594,750 ounces of gold.

The tables below set forth Mineral Resource and Mineral Reserve estimates for the Turmalina and Caeté operations and the Gurupi Project as indicated on the Notes below.

Table 1 - Summary of Mineral Resources December 31, 2014

	Measured			Indicated			Measured & Indicated			Inferred			Gold ounces '(000's)	
	Tonnes	(000's)	g/t	Tonnes	(000's)	g/t	Tonnes	(000's)	g/t	Tonnes	(000's)	g/t	Measured & Indicated	Inferr
Southern Brazil														
Caeté Project														
Pilar	893	5.97		925	5.32		1,817	5.64		1,011	5.65		329	184
Roça Grande	3,708	3.02		4,713	3.83		8,421	3.47		2,335	3.90		940	293
Other5	529	5.48		530	5.83		1,059	5.66		330	6.04		193	64

Other6	190	7.19	887	4.05	1,077	4.60	673	4.26	159	92
Total Caeté	5,319	3.91	7,055	4.20	12,374	4.08	4,349	4.52	1,621	632
Turmalina										
Faina	72	7.39	189	6.66	261	6.87	1,542	7.26	58	360
Pontal	251	5.00	159	4.28	410	4.72	130	5.03	62	21
Ore Body A	412	6.93	491	8.35	904	7.70	389	11.38	224	142
Ore Body B	514	3.11	67	3.12	581	3.11	16	2.83	58	1
Ore Body C	40	2.48	657	2.88	697	2.86	1,191	3.88	64	148
Total Turmalina	1,289	4.92	1,563	5.21	2,853	5.08	3,268	6.40	466	673
Total Southern Brazil	6,608	4.1	8,618	4.4	15,227	4.3	7,617	5.3	2,087	1,305
Northern Brazil										
Gurupi										
Cipoeiro	25,734	0.78	58,494	0.87	84,229	0.84	7,041	0.67	2,273	152
Chega Tudo	20,923	0.66	37,484	0.67	58,408	0.66	678	0.62	1,246	13
Total Northern Brazil	46,657	0.7	95,979	0.8	142,636	0.8	7,719	0.7	3,519	165
TOTAL IN SITU RESOURCES	53,266	1.14	104,597	1.09	157,863	1.10	15,337	2.98	5,606	1,470

Notes to Table 1:

1. CIM definitions are followed for Mineral Resources. Mineral Resources are inclusive of Mineral Reserves and are stated as December 31, 2014.
2. Turmalina
(a) Mineral Resources were estimated using a cut-off grade of 2.5 g/t Au (Turmalina), 3.8 g/t Au (Faina) and 2.9 g/t Au (Pontal).
(b) Gold grades for Turmalina were estimated by the Inverse Distance, Cubed interpolation algorithm using capped composite samples.
3. Caeté - Roça Grande
(a) Mineral Resources were estimated using a cut-off grade of 2.00 g/t Au for RG1 and RG7.
(b) RG1 and RG7 were estimated using residual block model, depleting the ore mined until December 31, 2014. RG2, RG3 an RG6 resources were as per TechnoMine NI 43-101 Technical Report dated December 23, 2004, depleting ore mined un December 31, 2013.
4. Caeté - Pilar
(a) Mineral Resources were estimated using a cut-off grade of 2.5 g/t Au for Pilar.
(b) Resources were estimated using residual block model, depleting the ore mined until December 31, 2014.
5. Other - include Juca Vieira / Catita / Morro do Adão Resources are based on TechnoMine NI 43-101 Technical Report date December 23, 2004.
6. Other - include Boa Vista / Fernandes / Camará II / Camará I / Serra Paraíso Resources were based on TechnoMine NI 43-10 Technical Report filed on SEDAR on June 21, 2011, depleting the ore mined until December 31, 2013.
7. Gurupi Resources were approved by Leah Mach (SRK) as Qualified Person, as disclosed in the press release dated July 30, 2012 filed on SEDAR.
8. Mineral Resources for Turmalina, Pilar, RG1 and RG7 are estimated using an average long-term foreign exchange rate of 2.5 Brazilian Reais: 1 US Dollar and average long term gold price of $1,400 per ounce.
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Numbers may not add due to rounding.

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Table 2 - Summary of Diluted Mineral Reserves in December 31, 2014

	Proven			Probable			Proven & Probable Gold		
	Tonnes	(000's)	g/t	Tonnes	(000's)	g/t	Tonnes	(000's)	g/t	Ounces
Southern Brazil										
Caeté Project										
Pilar	259		2.84	229		2.54	488		2.70	42
Roça Grande	80		1.92	37		1.90	117		1.91	7
Total Caeté	339		2.62	266		2.45	606		2.55	50
Turmalina										
Ore Body A	333		5.00	566		6.96	899		6.23	180
Ore Body B	0		0.00	0		0.00	0		0.00	0
Ore Body C	0		0.00	367		3.14	367		3.14	37
Total Turmalina	333		5.00	933		5.46	1,266		5.33	217
Total Southern Brazil	672		3.80	1,199		4.79	1,871		4.43	267
Northern Brazil										
Gurupi Project										
Cipoeiro	-		-	45,044		1.20	45,044		1.20	1,735
Chega Tudo	-		-	18,713		0.99	18,713		0.99	593
Total Northern Brazil	-		-	63,757		1.14	63,757		1.14	2,328
TOTAL RESERVES	672		3.80	64,956		1.20	65,628		1.23	2,595

Notes to Table 2:

1. CIM definitions are followed for Mineral Reserves.

2. Turmalina

(a) Mineral Reserves were estimated using a cut-off grade of 2.9 g/t Au. Some stopes were included using an incremental cut-off grade of 1.5 g/t Au.

(c) For more information, refer to the Turmalina Technical Report filed on SEDAR (www.sedar.com) on April 07, 2015.

3. Caeté - Roça Grande

(a) Mineral Reserves for RG1 and RG7 are estimated using a cut-off grade of 2.0 g/t Au.

(b) RG1 and RG7 Mineral Reserves estimation considered 15% unplanned dilution based on historical data.

(c) RG2, RG3 and RG6 were not included in the reserves estimation.

4. Caeté - Pilar

(a) Mineral Reserves was estimated using a cut-off grade of 2.5 g/t Au.

(b) Mineral Reserves estimation considered 20% unplanned dilution based on historical data.

(c) Pilar Ore body SW was not included in the Reserves estimation.

5. Gurupi Mineral Reserves are based on Technomine Feasibility Study Technical Report filed on SEDAR on January 31, 2011.

6. Mineral Reserves for Turmalina, Pilar, RG1 and RG7 were estimated using a long-term foreign exchange rate of 2.5 Brazilian Reais: 1 US Dollar and long term gold price of $1,200 per ounce. Mineral Reserves for Gurupi were based on exchange rate of 1.9 Brazilian Reais: 1 US Dollar and long term gold price of $1,066 per ounce.

7. Numbers may not add due to rounding.

Notes to Tables 1 and 2

Although Jaguar has carefully prepared and verified the Mineral Resource and Mineral Reserve figures presented herein, such figures are estimates, which are, in part, based on forward-looking information and no assurance can be

given that the indicated amounts of gold will be produced. Estimated Mineral Reserves may have to be recalculated based on actual production experience. Market price fluctuations of gold as well as increased production costs or reduced recovery rates and other factors may render the present Proven and Probable Mineral Reserves unprofitable to develop at a particular site or sites for periods of time. See “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements”.

Mining Concessions and Environmental Licenses

All of Jaguar's mineral rights and mining concessions in connection with its operations in the state of Minas Gerais and mineral rights and exploration licenses in connection with its Pedra Branca project located in the state of Ceará are in good standing. Through its wholly-owned subsidiaries, Jaguar has all the necessary environmental licenses that are material to the operation of its mines and processing plants in Minas Gerais. At this time, Gurupi remains in a stalled process awaiting a solution to the suspension of the environmental license. On October 14, 2013, the Company became aware that the Federal Public Prosecutor in São Luis, Maranhão, Brazil, filed a lawsuit against MCT, the subsidiary of the Company that holds the Gurupi project. See "Environmental Licensing" below.

Material Mineral Properties

Turmalina Mining Complex

The information below is derived from the"Technical Report on the Turmalina Mine, Minas Gerais State, Brazil", filed on Sedar on April 7, 2015 (with an effective date of March 27, 2015), (the "Turmalina Technical Report"). The Turmalina Technical Report was prepared by Jason Cox, P. Eng. and Reno Pressacco, P. Geo, both from Roscoe Postle Associates Inc., each of whom is a "qualified person" as that term is defined in NI 43-101.

Property Description and Location

The Turmalina Mine is located in the Conceição do Pará municipality in the state of Minas Gerais, approximately 120 km northwest of Belo Horizonte and six kilometres south of Pitangui, the nearest important town.

The property comprises seven contiguous mineral rights concessions granted by the National Department of Mineral Production (DNPM) that cover an area of 4,907.60 ha. The mine is centred at approximately 19°44'36" south latitude and 44°52'36" west longitude.

Jaguar has 100% ownership subject to a 5% net revenue interest up to $10 million and 3% thereafter, to an unrelated third party. In addition, there is a 0.5% net revenue interest payable to the surface landowner.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Turmalina Mining Complex is accessed from Belo Horizonte by 120 km of paved highways (BR-262 and MG-423) to the town of Pitangui. The Turmalina deposits are six kilometres south of Pitangui and less than one kilometre from highway MG-423.

Belo Horizonte is the commercial centre for Brazil's mining industries and has excellent infrastructure to support world-class mining operations. This mining region has historically produced significant quantities of gold and iron from open pit and large-scale underground mining operations operated by AngloGold, VALE, CSN, and Eldorado. The city is a well-developed urban metropolis of almost four million residents and has substantial infrastructure including two airports, an extensive network of paved highways, a fully developed and reliable power grid, and ready access to process and potable water.

Pitangui is a town of approximately 25,000 people. The local economy is based on agriculture, cattle breeding, and a small pig iron plant. Manpower, energy, and water are readily available.

The Turmalina mining complex lies approximately 700 MASL. The Pitangui area terrain is rugged in places, with numerous rolling hills incised by deep gullies along drainage channels. Farming and ranching activities are carried out in approximately 50% of the region.

The area experiences six months of warm dry weather (April to November) with the mean temperature slightly above 20o C, followed by six months of tropical rainfall. Annual precipitation ranges from 1,300 mm to 2,500 mm and is most intense in December and January. The climate is suitable for year-round operations.

Belo Horizonte is one of the world's mining capitals with a regional population in the range of 4 million people. Automobile manufacturing and mining services dominate the economy. General Electric has a major locomotive plant which produces engines for all of South America and Africa. Mining activities in Belo Horizonte and the surrounding area have been carried out in a relatively consistent manner for over 300 years. The Turmalina Mine site is within commuting distance of Belo Horizonte.

The Turmalina Mining Complex includes a nominal 2,000 tpd processing plant and tailings disposal area. Electrical power is obtained from the national grid.

All ancillary buildings are located near the mine entrance: gate house including a reception area and waiting room, administration building, maintenance shops, cafeteria, warehouse, change room, first aid, and compressor room. The explosives warehouse is located 1.2 km away from the mine area, in compliance with the regulations set forth by the Brazilian Army.

Other ancillary buildings are located near the processing plant and include an office building, a laboratory, warehousing, and a small maintenance shop.

There is no infrastructure related to the Faina and Pontal historic open pit operations.

History

Gold was first discovered in the area in the 17th century, and through the 19th century, intermittent small-scale production took place from alluvial terraces and outcropping quartz veins. Gold production exploited alluvium or weathered material, including saprolite and saprolite-hosted quartz veins. Records from this historical period are few and incomplete.

AngloGold controlled the mineral rights from 1978 to 2004 through a number of Brazilian subsidiaries. AngloGold explored the Project area extensively between 1979 and 1988 using geochemistry, ground geophysics, and trenching, which led to the discovery of the Turmalina, Satinoco (Orebody C), Faina, Pontal, and other mineralized zones. Exploration work at these mineralized bodies included 22 diamond drill holes totalling 5,439 m drilled from the surface to test the downward extension of the sulphide mineralized body. At the Satinoco target (Orebody C), a total of 1,523 m were completed in nine holes.

In 1992 and 1993, AngloGold mined 373,000 t of oxide ore from open pits at the Turmalina, Satinoco (now referred to as Orebody C), Pontal, and Faina zones. It recovered 35,500 oz of gold using heap leach technology. Subsequently, AngloGold drove a ramp beneath the pit and carried out drifting on two levels in the mineralized zone at approximately 50 m and 75 m below the pit floor to explore the downward extension of the sulphide mineralized body.

Jaguar acquired the AngloGold Turmalina properties in 2004 and continued operation of the underground mine. The mine is accessed from a 5 m by 5 m primary decline located in the footwall of the main deposit. The decline has reached Level 8, a vertical depth of approximately 650 m. A new level (Level 9) is currently being prepared.

Geological Setting

The Turmalina deposits are located in the western part of the Iron Quadrangle, which has been the largest and most important mineral province in Brazil for centuries until the early 1980s, when the Carajás mineral province, in the state of Pará, attained equal status. Many commodities are mined in the Iron Quadrangle, the most important being gold, iron, manganese, bauxite, imperial topaz, and limestone. The Iron Quadrangle was the principal region for the Brazilian hard rock gold mining until 1983 and accounted for about 40% of Brazil's total gold production. Gold was produced from numerous deposits, primarily in the northern and southeastern parts of the Iron Quadrangle, most hosted by Archean or Early Proterozoic-aged banded iron formations (BIF) contained within greenstone belt supracrustal sequences.

In the Brumal region, outcrops belonging to the granitic gneiss basement of the Nova Lima and Quebra sub-groups of the Rio das Velhas Supergroup occur. The granitic gneiss basement consists of leucocratic and homogeneous gneisses and migmatites, making up a complex of an initial tonalitic composition intruded by Archean rocks of granitic composition. The upper contact of the sequence is discordant and tectonically induced by reverse faulting. The Rio das Velhas is regionally represented by schists of the Nova Lima and meta-ultramafic rocks of the Quebra Group including serpentinites, talc schists, and metabasalts.

Iron formations occur as the only meta-sedimentary rocks in layers with thicknesses up to 10 m. The Nova Lima Group can be sub-divided into two units: a unit consisting of talc chlorites and intercalations of iron formation, fuschite schist, quartz sericite schist, and carbonaceous phyllite; and a unit hosting sulphidized gold bearing iron formation and quartz sericite schists.

The Pitangui area, where the Turmalina Mine is located, is underlain by rocks of Archaean and Proterozoic age. Archaean units include a granitic basement, overlain by the Pitangui Group, a sequence of ultramafic to intermediate volcanic flows and pyroclastics and associated sediments. The Turmalina deposit is hosted by chlorite-amphibole schist and biotite schist units within the Pitangui Group. A sequence of sheared, banded, sulphide iron formation and chert lies within the stratigraphic sequence. The stratigraphy locally strikes azimuth 135º.

Proterozoic units include the Minas Supergroup and the Bambui Group. The former includes basal quartzites and conglomerates as well as phyllites. Some phyllites, stratigraphically higher in the sequence, are hematitic. The Bambui is composed of calcareous sediments.

The local geology in the Turmalina and adjacent exploration areas was defined by AngloGold, specifically by UNIGEO geologists during the initial exploration field work. At that time, the mapped lithologies were defined and classified as a greenstone sequence, within a possible western extension of the Iron Quadrangle.

The stratigraphic column defined by UNIGEO in the region, from bottom to the top was:

Basement

The basement is composed of foliated, leucocratic granite and gneisses. Locally, it has been defined as migmatite portions with porphyry crystals of quartz and K- feldspars. Granitic intrusions with fine to medium texture and diabase dikes are common.

Pitangui Group

The Pitangui Group is defined as a greenstone belt sequence, of Archean age. It shows the following sequence:

- Meta-Ultramafic and Meta-Mafic Volcanic Unit (Basal Unit): constituted by interlayered igneous ultramafic and mafic flows represented by serpentinite, chlorite-actinolite schist and amphibolite with layers of talc schist, oxide BIF and carbonaceous schist;

- Meta-Mafic and Meta-Sediment Unit (Middle Unit): constituted by interlayered meta-mafic (chlorite-actinolite schist with dacitic intrusion at the top);

- Meta-sediment: cummingtonite BIF and metachert-rich horizons interlayered with carbonaceous and chlorite schist, locally, layers of meta-arkose can be observed);

    - Meta-mafic: alternation of amphibolite and chlorite-actinolite layers;

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- Pyroclastic and meta-pelites: volcanic meta-conglomerates at the bottom, transitioning to or alternating with foliated meta-lapilli tuffs and metatuffs at the top of the sequence, where the meta-tuffs are predominant;

- Meta-sediments (Upper Unit): narrow and numerous interlayered layers of quartz-sericite schist, quartz-chlorite schist, quartz-sericite-chlorite schist, and carbonate-rich schist.

Minas Supergroup

The Minas Supergroup is defined as clastic and chemical sediments in a Proterozoic sequence composed by thin to coarse quartzites with layers of the basal conglomerates. The quartzite is covered by grey carbonate phyllites and white sericite phyllites which present hematite increasing to the top of the sequence.

Intrusive Rocks

The intrusive rocks are defined as granitic and mafic to ultramafic rocks

The general stratigraphic sequence strikes towards azimuth 320° and dips moderately to steeply to the east. The sequence consists the Pitangui Group of bedded metasediments of volcanic origin including quartz-sericite schists and sericite-chlorite-biotite schists grading stratigraphically upwards into a metachert, banded iron formation (BIF) and graphitic schist. Overlying these sediments is a thicker sequence of tuffaceous metasediments and quartz-chlorite schists. All units have been metamorphosed to the amphibolite grade.

Exploration

Geochemistry

AngloGold performed a regional geochemistry survey covering an area of 430 km2 in the Turmalina region. A total of 875 stream sediments and 446 pan concentrate samples were collected. Stream sediment samples were assayed for Au, Cu, Zn, Pb, Cr, Sb, and As. Pan concentrate samples were assayed for Au only.

Soil geochemistry sampling was executed by AngloGold in both the Faina and Pontal areas with grids varying from 100 m x 20 m to 10 m x 10 m. At Faina, 1,272 soil samples were collected and 16,900 m of lines were opened. At Pontal, 1,698 soil samples were collected and 28,000 m of lines were opened.

Several samples returned gold grades superior to 300 ppb. A significant portion of the soil samples collected from these targets were also assayed for As and Sb. There is a strong relation between gold and As/Sb since gold is associated directly with quartz veins with arsenopyrite and/or berthierite in the region.

Initial exploration efforts by Jaguar in 2004 focused on the re-interpretation of the AngloGold data (trenches, soil geochemistry, and drilling) to better understand the local geology. These efforts were concentrated on the targets previously identified by AngloGold: Main, NE and Satinoco.

An exploration program was carried out at the Satinoco (Orebody C) target by Jaguar from March 2006 to April 2008 in order to collect sufficient information to prepare an estimate of the Mineral Resources in accordance with NI 43-101. This Satinoco (Orebody C) program included the opening of about 700 m of trenches and the collection of 146 channel samples crossing the mineralized zone and a complementary diamond drill program.

Geophysical Surveys

In the 1980s, AngloGold contracted the Instituto de Pesquisas Tecnológicas (IPT) to execute a ground geophysics survey at the Faina and Pontal areas. At Faina, a 50 m x 100 m grid was made composed of 11 lines covering about 31.5 ha. At Pontal, the grid was 40 m x 100 m, with 24 lines covering about 130 ha. Part of this area (approximately 56 ha) was surveyed by ground magnetics in a 5 m x 25 m grid.

Several geophysical anomalies were defined by both methods and most of them showed a strong relation with the geochemical anomalies. This information was used for the planning of trench locations.

In 2004, the Minas Gerais Government Mining Agency (COMIG) completed a supplementary airborne geophysical survey, covering all the Iron Quadrangle and the adjacent areas, totaling approximately 36,400 km2. This survey was performed by LASA SA on a 250 m grid using magnetic and gamma ray methods. All Jaguar targets, including the Turmalina Mine, were covered with these geophysical surveys.

Drilling

Following the trenching and channel sampling program between March 2006 and April 2008, Jaguar completed a three-phase drilling campaign in the Turmalina Mine area:

Phase 1: 5,501 m drilled in 35 holes. This program tested the continuity of the mineralized bodies between the weathered zone and up to 200 m below the surface.

Phase 2: 3,338 m drilled in 24 complementary in-fill holes to create a 25 m x 60 m grid between the surface and 100 m below and to test the lateral continuity of the mineralized bodies.

Phase 3: An additional drill hole campaign was carried out in 2007, which consisted of 12,763 m drilled in 48 holes. Results from holes FSN 10 to 68 from this campaign were included in the mineral resource estimate contained in the original TechnoMine technical report, dated October 22, 2007. Results from the remaining drill holes FSN 69 to 113 were included in the second TechnoMine technical report dated February 5, 2008.

During the three Satinoco/Orebody C drilling phases, 2,338 core samples from holes FSN 10 to 113 were collected. The drill program was carried out by Mata Nativa Comércio e Serviços Ltda. (Mata Nativa), a local drilling company, using Longyear drill machines.

Drill hole lengths ranged from 32 m to 453 m. Core diameters were consistently HQ from surface through the weathered rock to bedrock. At approximately three metres into bedrock, the holes were reduced to NQ diameter to the final depth.

Collar locations for the holes were established by theodolite surveys. All holes were drilled within three metres of the planned location. Azimuth and inclination for angle holes were set by Brunton compass, deemed accurate to within 2° azimuth and <1° inclination.

Following completion of the holes, the collars were resurveyed with theodolite and cement markers emplaced. Downhole surveys were completed in all holes with length greater than 100 m, using Sperry-Sun or Maxibore equipment.

The average core recovery was greater than 90%. Core samples were collected during these phases and sent to laboratories for gold assays (discussed in the next section).

Jaguar has continued to carry out drilling and channel sampling programs on the Orebodies. The drilling has been carried out from surface locations which provide general information as to the location of the mineralized zones. Further detailed drill hole information is gathered for the three Orebodies from underground locations. Final detailed information of the location and distribution of the gold mineralization is collected by means of channel sampling. A summary of the drilling and channel sample information that has been gathered as at June 30, 2014 is provided in Table 3.

Surface diamond drilling was carried out by the drilling contractor Mata Nativa using HQ and NQ tools. HQ-sized equipment is used for the portion of the hole that traverses the saprolite horizon and the hole diameter is then reduced to NQ when the fresh rock is reached. The diamond drill core procedures adopted by Jaguar are described below:

- Only drill holes with more than 90% core recovery from the mineralized zone were accepted.
- Drill hole deviations (surveys) were measured by Sperry-Sun or DDI/Maxibore equipment.
- The cores were stored in wooden boxes of one metre length with three metres of core per box (HQ diameter) or four metres of core per box (NQ diameter). The hole's number, depth, and location were identified in the boxes by an aluminum plate on the front of the box and by a water-resistant ink mark on its side. The progress interval and core recovery are identified inside the boxes by small wooden or aluminum plates.

The results of on-going drilling programs that targeted the immediate down-plunge areas of Orebody A were released in the fall 2014. It is to be noted that the intersection lengths represent core lengths and do not represent true thicknesses. The holes have been completed from drilling platforms located in the hangingwall of the mineralized zone and are designed to intersect the projected plunge and dip of the mineralization as closely as perpendicularly as possible.

Table 3 In-fill and Extension Drilling Results, Orebody A
Jaguar Mining Inc. –Turmalina Mine

Hole ID	Year	From	To	Core Length (m)	Average Grade (g/t Au)
Intersections Within 2013 Mineral Resource					
FTS1022	2013	116.9	121.0	4.1	8.16
FTS1070	2013	75.0	90.0	15.0	12.60
FTS1072	2014	97.5	116.5	19.0	15.32
FTS1074	2014	111.7	127.5	15.8	9.09
FTS1081	2014	88.5	93.3	4.8	9.13
FTS1082	2014	100.0	103.7	3.7	13.71
FTS1083	2014	111.7	114.9	3.2	14.72
FTS1089	2014	122.3	138.5	16.2	9.32
FTS1108	2014	162.1	163.9	1.8	8.07
FTS1109	2014	116.4	130.7	14.3	6.36
Intersections Below 2013 Mineral Resource					
FTS1076	2014	141.2	151.5	10.3	9.99
FTS1088	2014	116.6	123.2	6.6	9.08
and		145.3	146.7	1.4	27.17
FTS1092	2014	153.7	161.6	7.9	8.36
FTS1097	2014	166.8	171.8	5.0	24.71
FTS1103	2014	165.0	169.6	4.6	13.21
FTS1104	2014	129.3	143.3	14.1	10.99
FTS1105	2014	141.6	143.3	1.7	16.78

Sampling Method and Approach

Sampling

The sampling and sample preparation procedures used by Jaguar are as follows.
Surface/Exploration Channel Sampling

- Channel samples are regularly collected from outcrops and trenches.
- The sites to be sampled are cleaned with a hoe, exposing the material by scraping it.
- Structures are mapped and the lithologic contacts defined, and samples marked so that no sample has more than one lithology.
- Samples have a maximum length of one metre and are from one kilogram to two kilograms in weight.
- Each sample is collected manually in channels with average widths between five and ten centimetres, and about three centimetres deep, using a hammer and a chisel.
- Either an aluminum tray or a thick plastic canvas drop sheet is used to collect the material.
- The samples are then stored in a thick plastic bag and identified by a numbered label, which is protected by a thin plastic cover and placed with the sample.
- At the sampling site, samples are identified by small aluminum plates, labels, or small wooden poles.
- Sketches are drawn with lithological and structural information. The sample locations are surveyed.

Diamond Drilling Core Sampling

- Surface drilling is performed by contractors with holes in HQ or NQ diameters.
- Underground drilling is performed either by Jaguar or contractors with holes in BQ and LTK diameters.
- Drill holes are accepted only if they have more than 85% of recovery from the mineralized zone.
- All the drill holes have their deviations measured by Maxibor or equivalent survey tool.
- The cores are stored in wooden boxes of one metre length with three metres of core per box (HQ diameter) or four metres of core per box (BQ or LTK diameters).
- The number, depth, and location of each hole are identified in the boxes by an aluminum plate or by a water-resistant ink mark in front of the box.
- The progress interval and core recovery are identified inside the boxes by small wooden plates.
- During logging, all of the geological information, progress, and recovery measures are verified and the significant intervals are defined for sampling.
- Samples are identified in the boxes by highlighting their side or by labels.
- Samples are cut lengthwise with the help of a diamond saw and a hammer into approximately equal halves.
- One half of the sample is placed in a highly resistant plastic bag, identified by a label, and the other half is kept in the box at a warehouse.
- The remaining drill core from the surface-based drill holes is stored at an offsite secure location nearby to the mine.
- For many of the underground-based drill holes, samples are cut lengthwise with the help of a diamond saw and a hammer into approximately equal halves.
- For the shorter-length, bazooka-type drill holes completed from underground set ups (the LM-series drill holes) the whole core is sampled as the core diameter does not permit splitting into halves.

Underground Production Channel Sampling

- The sector of wall to be sampled is cleaned with pressurized water. Structures are mapped and lithologic contacts defined, and samples marked so that no sample has more than one lithology. Samples have a maximum length of one metre and are from two to three kilograms in weight.
- Channel samples were taken by manually opening the channels, using a hammer and a little steel pointer crowned by carbide or a small jackhammer.
- The channel samples have lengths ranging from 50 cm to one metre, average widths between five and ten centimetres, and about three centimetres deep.

- Two sets of channel samples on the face are regularly collected. One set of channel samples are taken from the top of the muck pile once the work area has been secured. The second set of channel samples are taken at waist height once the heading has been mucked clean and secured.
- At roughly 5m intervals, the walls and back are sampled by channel sampling. The channel samples are collected starting at the floor level on one side and continue over the drift back to the floor on the opposite side.
- Either an aluminum tray or a thick plastic canvas is used to collect the material. The samples are then stored in a thick plastic bag and identified by a numbered label, which is protected by a thin plastic cover and placed with the sample.
    - At the sampling site, samples are identified by small aluminum plates, labels, or small wooden poles.
    - Sketches are drawn with lithological and structural information. The sample locations are surveyed.

Security of Samples - Sample Preparation and Analysis

For surface-based exploration drill holes, samples are prepared at the SGS laboratories in Belo Horizonte. For other drill holes and channels, samples are prepared at Jaguar's mine site laboratories by drying, crushing to 90% minus 2 mm, quartering with a Jones splitter to produce a 250 g sample, and pulverizing to 95% minus 150 mesh. Analysis for gold is by standard fire assay procedures, using a 50 g or 30 g sample and an atomic absorption (AA) finish.

The SGS laboratory based in Belo Horizonte meets international analytical standards and ISO 17025 compliance protocols. Analytical results from the SGS laboratory were forwarded to Jaguar's Exploration or Mine Departments by e-mail, followed by a hard copy.

A process control laboratory at the Turmalina Mine analyzes the shift and plant samples, while all delineation drill core, channel, and exploration drill core samples from Turmalina are forwarded to the in-house laboratory located at the Caeté mine site.

At Jaguar's Caeté laboratory, the samples are dried and then crushed. A one kilogram sub-sample of the crushed material is selected for pulverization to approximately 70% minus 200 mesh. The ring-and-puck pulverizers are cleaned after each sample using compressed air and a polyester bristle brush. The analytical protocol for all samples employs a standard fire assay fusion using a standard 30 g aliquot, with the final gold content being determined by means of AA. The detection limit for fire assay analyses is 0.05 g/t Au. A second cut from the pulps is taken and re-assayed for those drill core samples where the grade is found to be greater than 30 g/t Au. If the two assays are in good agreement, only the first assay is reported. The AA unit is calibrated to directly read gold grades up to 3.3 g/t Au – samples with grades greater than this are re-assayed by diluting the solute until it falls within the direct-read range.

Quality Assurance and Quality Control

The Caeté laboratory carries out an internal program of Quality Assurance/Quality Control (QA/QC) for all drill core samples. No QA/QC is performed for channel samples. The QA/QC protocol includes carrying out a duplicate analysis after every 20 samples, representing an insertion frequency of 5%.

Commercially sourced standard reference materials (Rocklab standards Si64 (recommended value of 1.780 g/t Au) and SK78 (recommended value of 4.134 g/t Au)) are inserted at a frequency of every 45-50 samples.

Blank samples are inserted at a rate of one in every 20 samples, representing an insertion frequency of 5%. Blank samples are composed of crushed, barren quartzite or gneiss and are used to check for contamination and carry-over during the crushing and pulverization stage.

The results of the blanks, duplicates, and standards are forwarded to Jaguar's head office on a monthly basis for insertion into the Jaguar's internal database (BDI). There, the results from the standards samples are scanned visually for out-of-range values on a regular basis. When failures are detected, a request for re-analysis is sent to the laboratory – only those assays that have passed the validation tests are inserted into the main database.

Mineral Resource and Mineral Reserve Estimates

Table 4 summarizes the Mineral Resources as of December 31, 2014 based on a US$1,400/oz gold price. The total Mineral Resources for the Turmalina Mine Complex comprise 2.85 million tonnes at an average grade of 5.08 g/t Au containing 466,000 ounces of gold in the Measured and Indicated Resource category and 3.3 million tonnes at an average grade of 6.4 g/t Au containing 673,000 ounces of gold in the Inferred Mineral Resource category. The Mineral Resources include the Turmalina Mine and two satellite deposits, Faina and Pontal. A cut-off grade of 2.5 g/t Au was used to report the Mineral Resources for the Turmalina Mine, and cut-off grades of 3.8 g/t Au and 2.9 g/t Au were used to report the Mineral Resources for the Faina and Pontal deposits, respectively.

The conceptual operational scenarios considered during preparation of previous Mineral Resource estimates for the Faina and Pontal deposits envisioned that the fresh, unoxidized mineralization would be excavated on a satellite deposit basis and transported by truck to the existing Turmalina plant for processing. Preliminary metallurgical tests have been completed on samples of fresh, unoxidized mineralization from the two deposits from that conceptual perspective. They have yielded unacceptably low recoveries when the material is considered as potential feed to the existing Turmalina plant, and have concluded that the mineralization at both deposits is refractory.

An alternative conceptual operational scenario was developed for the current update of the Mineral Resources in which the mineralized material will be excavated by means of underground mining methods and transported to the Turmalina plant for processing. A gold-rich flotation concentrate is envisioned to be generated after appropriate upgrades have been made to the existing plant. The gold-rich flotation concentrate would then be shipped or sold to a domestic source for recovery of the gold.

Table 4 Summary of Total Mineral Resources – December 31, 2014
Jaguar Mining Inc. – Turmalina Mine Complex

Category	Tonnes (000)	Grade (g/t Au)	Contained Oz Au (000)
Turmalina			
Measured	966	4.71	146
Indicated	1,215	5.10	199
Sub-total M&I	2,182	4.93	346
Inferred	1,596	5.69	292
Faina			
Measured	72	7.39	17
Indicated	189	6.66	42
Sub-total M&I	261	6.87	58
Inferred	1,542	7.26	360
Pontal			
Measured	251	5.00	40
Indicated	159	4.28	22
Sub-total M&I	410	4.72	62
Inferred	130	5.03	21
Total Turmalina, Faina, and Pontal			
Measured	1,289	4.92	203
Indicated	1,563	5.21	263
Sub-total M&I	2,853	5.08	466
Inferred	3,268	6.40	673

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are inclusive of Mineral Reserves.
3. Mineral Resources include the Turmalina Mine, Faina deposit, and Pontal deposit.
4. Mineral Resources are estimated at a cut-off grade of 2.5 g/t Au at Turmalina, 3.8 g/t Au at Faina, and 2.9 g/t Au at Pontal.
5. Mineral Resources are estimated using a long-term gold price of US$1,400 per ounce.
6. Mineral Resources are estimated using an average long-term foreign exchange rate of 2.5 Brazilian Reais: 1 US Dollar.
7. A minimum mining width of approximately 2 m was used.
8. Bulk density is 2.76 t/m3 for Orebodies A and B and 2.95 t/m3 for Orebody C at the Turmalina mine.
9. Gold grades are estimated by the inverse distance cubed interpolation algorithm using capped composite samples.
10. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
11. Numbers may not add due to rounding.

Roscoe Postle Associates Inc. (“RPA”) is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the Mineral Resource estimates.

Mineral Resource Estimate – Turmalina Mine

The updated block model for the Turmalina Mine is based on drilling and channel sample data using a data cut-off date of June 30, 2014. The database comprises 2,420 drill holes and 10,862 channel samples. The estimate was generated from a block model constrained by three-dimensional (3D) wireframe models that were constructed using a

minimum width of two metres. The gold grades are interpolated using several interpolation algorithms using capped composited assays. A capping value of 50 g/t Au was applied for all three Orebodies. The Mineral Resources are reported using the gold grades estimated by the inverse distance cubed (ID3) method. The wireframe models of the mineralization and excavated material for the Turmalina Mine, Faina Deposit and Pontal Deposit were constructed by Jaguar and reviewed by RPA.

The mineralized material for each Orebody was classified into the Measured, Indicated, or Inferred Mineral Resource categories on the basis of the search ellipse ranges obtained from the variography study, the observed continuity of the mineralization, the drill hole and channel sample density, and previous production experience with these orebodies.

The Mineral Resources are inclusive of Mineral Reserves. For those portions of the Mineral Resources that comprise the Mineral Reserve, stope design wireframes were used to constrain the Mineral Resource reports.

Additional Mineral Resources are present that reside beyond the Mineral Reserves. For these areas, clipping polygons were prepared to aid in the estimation of the Mineral Resources. The clipping polygons were prepared in either plan or longitudinal views, as appropriate. The clipping polygons were drawn to include continuous volumes of blocks whose estimated grades were above the stated cut-off grade, and were not located in mined out areas. The clipping polygons were used to appropriately code the block model and report the Mineral Resources.

At a cut-off grade of 2.5 g/t Au, the Mineral Resources at the Turmalina Mine comprise 2.18 million tonnes at an average grade of 4.93 g/t Au containing 346,000 ounces of gold in the Measured and Indicated Resource category and 1.6 million tonnes at an average grade of 5.7 g/t Au containing 292,000 ounces of gold in the Inferred Mineral Resource category. The Mineral Resources are presented in further detail in Table 5.

Table 5 Summary of Mineral Resources as of December 31, 2014 – Turmalina Mine
Jaguar Mining Inc. – Turmalina Mine

Category	Tonnage (000 t)	Grade (g/t Au)	Contained Metal (000 oz Au)
	Orebody A:		
Measured	412	6.93	92
Indicated	491	8.35	131
Sub-total M&I	904	7.70	224
Inferred	389	11.38	142
	Orebody B:		
Measured	514	3.11	51
Indicated	67	3.12	7
Sub-total M&I	581	3.11	58
Inferred	16	2.83	1
	Orebody C:		
Measured	40	2.48	3
Indicated	657	2.88	61
Sub-total M&I	697	2.86	64
Inferred	1,191	3.88	148
	Total Turmalina Mine:		
Total, Measured	966	4.71	146
Total, Indicated	1,215	5.10	199
Total Measured & Indicated	2,182	4.93	346
Total, Inferred	1,596	5.69	292

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 2.5 g/t Au.
3. Mineral Resources are estimated using a long-term gold price of US$1,400 per ounce.
4. Mineral Resources are estimated using an average long-term foreign exchange rate of 2.5 Brazilian Reais: 1 US Dollar.
5. A minimum mining width of approximately 2 m was used.
6. Bulk density is 2.76 t/m3 for Orebodies A and B and 2.95 t/m3 for Orebody C.
7. Gold grades are estimated by the inverse distance cubed interpolation algorithm using capped composite samples.
8. Mineral Resources are inclusive of Mineral Reserves.
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Numbers may not add due to rounding.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the Mineral Resource estimates.

Mineral Reserve Estimate

Mineral Reserves for Turmalina are based on the Mineral Resources as of December 31, 2014, mine designs, and external factors. Table 6 summarizes the Mineral Reserves.

Table 6 Mineral Reserve Estimate – December 31, 2014
Jaguar Mining Inc. – Turmalina Mine

Orebody	Classification	Tonnes (000)	Grade (g/t Au)	Au Ounces (000)
A	Proven	333	5.00	54
	Probable	566	6.96	127
C	Probable	367	3.14	37
Total	Proven & Probable	1,268	5.33	217

Notes:

1. CIM definitions were followed for Mineral Reserves.
2. Mineral Reserves were estimated at a break-even cut-off grade of 2.9 g/t Au. Some stopes were included using an incremental cut-off grade of 1.5 g/t Au.
3. Mineral Reserves are estimated using an average long-term gold price of US$1,200 per ounce.
4. A minimum mining width of 3 meters was used.
5. Bulk density is 2.7 t/m3.
6. Numbers may not add due to rounding.

The Mineral Reserves consist of selected portions of the Measured and Indicated Resources that are within designed stopes and associated development, designed by MCB Serviços e Mineração (MCB), a Brazilian consulting group. A breakdown by location is given in Table 7.

TABLE 7 TURMALINA MINERAL RESERVES BY LOCATION
Jaguar Mining Inc. – Turmalina Mine

Orebody	Area	Tonnes (000)	Grade (g/t Au)	Au Ounces (000)
A	Level 6	68	4.50	10
	Level 7	63	5.40	11
	Level 8	266	5.73	49
	Level 9	503	6.83	111
C	Level 1	65	3.66	8
	Level 2	20	3.43	2
	Level 3	283	3.00	27
Total		1,268	5.33	217

Dilution and extraction (mining recovery) have been included in the reserve estimate through the following:

- Areas within the stope designs below 2.9 g/t Au. The resource wireframes were constructed at a cut-off grade of 0.5 g/t Au, and therefore include material below the reserve cut-off grade for continuity.

- In Orebody A, planned dilution includes areas where the stope designs run outside of the resource wireframe, to achieve minimum width and due to irregularities in geometry. An allowance of 0.5 m on each of the hangingwall and footwall sides has been added. This allowance is built into the stope design.

- In Orebody C, ground conditions are good, and planned dilution due to geometry was deemed sufficient. Stope designs do not include the extra allowance of 0.5 m.

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- In both A and C, unplanned dilution from over-break into the surrounding rock was based on an estimate of 15%.

- Extraction is assumed to be 100%. Although some losses are encountered during blasting and mucking, they are minimal, and reconciliation to mill results indicates that high dilution/high extraction assumptions match up well.

- Pilar recovery stopes on Level 6 (a mostly mined-out area) are treated differently, with a dilution factor of 50% and extraction factor of 70% applied.

Cut-Off Grade

A break-even cut-off grade of 2.9 g/t Au was estimated for Mineral Reserves, using a gold price of US$1,200/oz, and average gold recovery of 88% and 2014 cost data for the Turmalina Mine. Gold prices used for reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources.

Cost data was stated in US dollars, using the exchange rate at the time (approximately 2.5 BRL to the US dollar). The US dollar has strengthened considerably against the BRL recently, with a rate of 3.2 BRL to the US dollar at the time of reporting. A majority of Turmalina costs are denominated in BRL, which means that the US dollar costs stated in this report are likely to be conservative estimates.

An incremental cut-off grade of 1.5 g/t Au was estimated using variable costs only. Some stopes with diluted grades between 1.5 g/t Au and 2.9 g/t Au were included in Mineral Reserves. For Orebody A, incremental-grade stopes make up approximately 10% of the total, a proportion that RPA considers to be reasonable. For Orebody C, approximately 50% of stopes are incremental-grade – a higher proportion than is typical.

Although the cost data available from Turmalina is not easily categorized by Orebody, it is reasonable to assume lower costs in Orebody C, given better ground conditions and shorter haulage to surface.

The mill has excess production capacity, not otherwise put to use. Additional incremental ore will not displace better grade material. On this basis, RPA considers the high proportion of incremental material (approximately 20% of total reserves) to be acceptable.

Mining Operations and Metallurgical Process

The Turmalina Mine Complex consists of a number of tabular bodies known as Orebodies A, B, and C. Two satellite deposits, Faina and Pontal are located along strike to the northwest.

The main production of the mine has been from Orebody A, which is folded, steeply east-dipping, with a strike length of approximately 250 m to 300 m, and an average thickness of six metres. Mineralization has been outlined to depths of 700 m to 750 m below surface. The southern portion of Orebody A is composed of two parallel narrow veins. The northern portion of Orebody A is much the same as the southern, however, the two parallel zones nearly or completely merge and therefore the zone is much wider overall (up to 10 m).

Orebody B includes three thinner, lower-grade lenses parallel to Orebody A. Two of the lenses are located approximately 50 m to 75 m in the structural hanging wall and are accessed by a series of cross-cuts that are driven from Orebody A. The third lens is located possibly along the axial plane. The mineralization in this deposit has been outlined along a strike length of approximately 350 m to 400 m and to depths of 650 m to 700 m below surface. Orebody B is narrow along its entire strike length.

Orebody C is a series of 14 lenses that are located to the west in the structural footwall of Orebody A and are generally of lower grade. They strike northwest and dip steeply to the northeast. A minor amount of production has been achieved from these lenses to date. The mineralization in this deposit has been outlined along a strike length of approximately 800 m to 850 m and to depths of 400 m to 450 m below surface.

Mining Method

The mining method currently in use is longhole sublevel stoping with delayed backfill. For the fill material, a paste fill product is prepared from detoxified CIP tailings in a plant located near the mill.

The mine is accessed from a five metre by five metre primary decline located in the footwall of the deposit. The portal is located at elevation 695 m. The mine is divided into levels with Level 01 established at elevation 626 MASL (Table 16-1). Starting at this level, the vertical clearance between levels is 114 m in the upper portions of the mine (i.e., Level 02 is at elevation 512 m). Five sublevels, spaced 20 m apart vertically, are driven from the main ramp. Since the initial development phases, level spacing has been modified so that the mining method could more easily adapt to changing conditions and modifications to the mining method. The current level spacing is 75 m with sublevels placed every 15 m vertically. A three metre thick sill pillar is left at each level, except for Level 3.

At each level and sublevel, drifts are developed in the mineralized zone to expose the footwall and the hangingwall contacts. The drift is extended in both directions along strike, under geological control for alignment, continuing to expose the contacts until the limits of the orebody are reached.

Orebodies A and C are the primary structures being mined, while mining in Orebody B has recently been halted. Orebody A is located in the footwall of the shear zone and Orebody B in the hangingwall of the shear structure.

Orebody A is closest to the main ramp and is accessed first. Development is currently progressing to Level 9 in Orebody A.

Orebody C is a secondary system being mined to the west of the portal. It is of lower grade than Orebodies A or B. Orebody C is accessed from the main ramp at Level 02. A separate internal ramp is near completion, which will reduce haul distance to the run-of-mine ore stockpile.

Past mining used a longitudinal retreat sequence for Orebodies A and B – stope extraction began at the ends of the levels and retreated back towards the access. Stopes are 50 m in length along strike and separated by a five metre to ten metre wide pillar, depending on the thickness of the zone. Once mining of each longhole stope has been completed, the excavation is filled using a combination of development waste and pumped paste fill. A bund is constructed using development waste to contain the backfill. Once the cement content of the paste fill has been allowed to set, the next stope in the sequence can be mined. The sequence continues until the entire level/sublevel is mined. Mining then proceeds upward to the next sublevel until the sill pillar is reached. Stopes are mined from several individual levels simultaneously in order to provide the required number of active workplaces needed to meet production targets.

The retreat sequence, and the need to complete Orebody B mining before cutting off access by mining Orebody A, reduced productivity by limiting the number of stopes available for mining at a given time.

The current LOMP does not consider mining of Orebody B, and involves a change in mine design. Orebody A will be mined in a primary / secondary sequence via transverse access to the thick centre portion of Orebody A, requiring additional accesses developed in waste. Each primary or secondary stope is 15 m along strike, with no pillars. The design change has the effect of increasing the number of available workplaces, and de-links the narrow, lower-productivity ends from the centre.

Although Orebody B is not in the LOMP, and no longer included in Mineral Reserves, future access is possible, either by mining through cemented paste fill and supporting appropriately, or by mining concurrently with the thinner ends

of Orebody A.

Environmental Considerations

Environmental studies related to the acid mine drainage potential are been made as requested by SUPRAM on LO 012/2008 (“Licença de Operação” - Operation License). Those studies will be performed until the end of mining and milling operations at Turmalina. All the environmental costs for the Turmalina Project are associated with obligations laid out in the various licenses.

Jaguar has all the necessary environmental licenses for the operation of the Turmalina mining complex.