

Jaguar Mining Inc  
Form 20-F  
May 15, 2014

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

FORM 20-F

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

OR

.. ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934  
<sup>X</sup> **FOR THE FISCAL YEAR ENDED DECEMBER 31, 2013**

OR

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

OR

.. 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**

**(647) 494-5524**

(Address of principal executive offices)

**Derrick Weyrauch**

**647-494-5524 (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**

2

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.

**86,396,356**

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

Yes  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.

Yes  No

Indicate by check mark whether 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.

Yes  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).

Yes  No (not required)

Edgar Filing: Jaguar Mining Inc - Form 20-F

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 whether 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  Accelerated filer  Non-accelerated filer

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

U.S. GAAP

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

Other

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.

Item 17  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).

Yes  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  Yes  No

TABLE OF CONTENTS

	<b>Page</b>
Item 1. <u>Identity of Directors, Senior Management and Advisors</u>	9
Item 2. <u>Offer Statistics and Expected Timetable</u>	9
Item 3. <u>Key Information</u>	9
Item 4. <u>Information on the Company</u>	19
Item 4A. <u>Unresolved Staff Comments</u>	65
Item 5. <u>Operating and Financial Review and Prospects</u>	66
Item 6. <u>Directors, Senior Management and Employees</u>	79
Item 7. <u>Major Shareholders and Related Party Transactions</u>	90
Item 8. <u>Financial Information</u>	92
Item 9. <u>The Offer and Listing</u>	93
Item 10. <u>Additional Information</u>	97
Item 11. <u>Quantitative and Qualitative Disclosures about Market Risk</u>	106
Item 12. <u>Description of Securities Other than Equity Securities</u>	109
Item 13. <u>Defaults, Dividend Arrearages and Delinquencies</u>	110
Item 14. <u>Material Modifications to the Rights of Securities Holders and Use of Proceeds</u>	115
Item 15. <u>Controls and Procedures</u>	116
Item 16A. <u>Audit Committee Financial Expert</u>	117
Item 16B. <u>Code of Ethics</u>	118
Item 16C. <u>Principal Accountant Fees and Services</u>	119

Edgar Filing: Jaguar Mining Inc - Form 20-F

Item 16D. <u>Exemptions from the Listing Standards for Audit Committees</u>	120
Item 16E. <u>Purchases of Equity Securities by the Issuer and Affiliated Purchasers</u>	121
Item 16F. <u>Change in Registrant's Certifying Accountant</u>	122
Item 16G. <u>Corporate Governance</u>	123
Item 16H. <u>Mine Safety Disclosure</u>	124
Item 17. <u>Financial Statements</u>	125
Item 18. <u>Financial Statements</u>	125
Item 19. <u>Exhibits</u>	125



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.

7

## 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 refer to 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: 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 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](http://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 2013, Fiscal 2012 and Fiscal 2011 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 2010 and Fiscal 2009 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 31<sup>st</sup>)

	2013	2012	2011	2010	2009 <sup>(1)</sup>
(\$ in ‘000’s)					
Gold sales	134,140	172,430	243,137	170,788	140,734
Gross profit	12,786	6,143	43,352	12,605	42,583
Impairment charges	(145,487 )	(102,997 )	-	313	3,522
Restructuring expenses	(4,632 )	(2,568 )	-	-	-
Net income (loss)	(249,307 )	(84,537 )	(65,623 )	22,177	(7,992 )
Weighted average shares	85,715,349	84,409,569	84,386,569	84,152,914	76,410,916
Basic income (loss) per share	(2.91 )	(1.00 )	(0.78 )	0.26	(0.10 )
Diluted income (loss) per share	(2.91 )	(1.00 )	(0.78 )	0.26	(0.10 )
Net assets	(93,559 )	153,803	237,809	300,470	345,896
Total assets	294,788	503,875	660,666	569,378	550,595
Capital stock	371,077	370,043	370,043	369,747	365,667
Dividends declared per share	-	-	-	-	-

(1) 2009 figures are presented in accordance with Canadian GAAP.

## 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**

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 the exploration 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 appreciation of the Brazilian Real against the U.S. dollar has and could further increase the dollar costs of gold production at Jaguar's mining operations in Brazil, which could materially and adversely 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 risen dramatically due to a variety of factors. Disruptions in supply or increases 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\$1.3 million for the financial year ended December 31, 2013. 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 may need additional capital to accomplish its exploration and development plans or to cover its expenses, and there can be no assurance that financing will be available on terms acceptable to Jaguar, or at all.

Depending on gold prices and Jaguar's ability to achieve its plans and generate sufficient operating cash flow from its existing operations, Jaguar may require substantial additional financing to accomplish its exploration and development plans as outlined or to fund any non-operating expenses that may arise or become due such as interest, tax (in Canada or Brazil) or other expenses. 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, Paciência 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 may be subject to litigation.**

All industries, including the mining industry, are subject to legal claims, with and without merit. The Company may become involved in 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. For example, as a result of uncertainty in the global financial condition in general and the retraction of gold prices and corresponding decrease in equity values in the gold sector, on November 6, 2008, Jaguar announced that the Caeté Project had been delayed until market conditions improve. While Jaguar was able to complete an equity offering to raise the capital needed to restart development at Caeté, if it had to idle any of its producing properties or delay development of any project, there is no assurance that it would be able to restart production or development without undue delay, if at all. 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. As a result of any of these factors, the market price of Jaguar's common shares at any given point in time may not accurately reflect Jaguar's long-term value.

**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 were delisted from the TSX on April 30, 2014. On May 1, 2014, the common shares of the Company commenced trading on the TSXV. 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 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 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.**

The CCAA Plan was designed to reduce the amount of our indebtedness and cash interest expense and improve our liquidity as well as our financial and operational flexibility in order to generate long-term growth. 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's stated goals.

Jaguar believes that the consummation of the CCAA Plan enhanced Jaguar's liquidity and provides it with improved financial and operating flexibility. 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.

## II. Risks Relating to the Gold Industry

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 strong, 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:

- environmental hazards;
- unusual or unexpected geological operating conditions, such as rock bursts, structural cave-ins or slides;
- flooding, earthquakes and fires;
- labor disruptions;
- industrial accidents;
- unexpected mining dilution such as occurred at Turmalina in 2010;
- metallurgical and other processing problems; and
- 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. While we have converted a portion of these resources to proven and probable reserves under SEC Industry Guide 7 reserves, 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 currently 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 “TSXV”), through a reverse take-over. The amalgamated entity adopted the name “Jaguar Mining Inc.” Jaguar was approved for listing on the TSXV on October 14, 2003 and began trading on October 16, 2003. Jaguar subsequently graduated from the TSXV 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 TSXV.

Jaguar’s principal administrative office is located at Rua Levindo Lopes 323, Funcionários, Belo Horizonte, Minas Gerais, CEP 30140-170, Brazil and its telephone number is 55 31 3232-7100. Jaguar’s registered office is located at 67 Yonge Street, Suite 1203, Toronto, Ontario M5E 1J8, Canada, and its telephone number is 647-494-5524. Jaguar also had an administrative office located at 122 North Main Street, 2nd Floor, Concord, New Hampshire, 03301, USA, which it closed at the end of March 2013.

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, 2013, 2012 and 2011:

	2013	2012	2011
(\$ in '000s)			
Turmalina	10,608	15,197	25,733
Paciência	-	12,525	33,579
Caeté	11,949	20,808	35,809
Gurupi Project	807	6,683	13,813
Other spending	481	1,786	1,531
Total capital spending	23,845	56,999	110,465

## B. Business Overview

Business of the Company

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 plans to grow organically through the expansion of its existing operations and the advancement of its exploration properties. In addition, Jaguar may consider the acquisition and subsequent exploration, development and operation of other gold properties.

Jaguar's three mining complexes, Turmalina, Caeté and Paciência 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, Mineração Turmalina Ltda. ("MTL") and MCT Mineração Ltda. ("MCT"), and together with MSOL, MTL and Jaguar, the "Jaguar Group"), Jaguar has interests in, and controls the mineral rights, concessions and licenses to the mineral resources and reserves presented in the tables below under the section entitled "Mineral Resources and Mineral Reserve Estimates".

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.

Mining and mineral processing in Brazil are subject to extensive regulation. In Brazil, mineral resources belong to the State and may only be exploited pursuant to a governmental concession. Government agencies are typically in charge of granting mining concessions and monitoring compliance with mining law and regulations.

In June 2013, the Brazilian government sent to Congress a bill with proposed changes to the Brazilian mining law. This bill provides for: the preservation of the main provisions for existing mining rights as of the date of its enactment; a new royalties regime; a new regime for mining concessions; and the creation of a mining agency. The bill is under discussion in Congress.

Jaguar pays a royalty known as the CFEM (*Compensação Financeira pela Exploração de Recursos Minerais*) on the revenues from the sale of minerals extracted, net of taxes, insurance costs and costs of transportation. The current rate on gold is 1%.

Jaguar is also subject to environmental regulations that apply to the specific types of mining and processing activities it conducts. Jaguar requires approvals, licenses, permits or authorizations from governmental authorities to operate, and in most jurisdictions the development of new facilities requires it to submit environmental impact statements for approval and often to make investments to mitigate environmental impacts. Jaguar must also operate its facilities in compliance with the terms of the approvals, licenses, permits or authorizations.

### Gold Production and Sales

Gold production in 2013 totaled 95,595 ounces at a cash operating cost of \$871 per ounce compared to 102,823 ounces at a cash operating cost of \$1,077 per ounce during 2012.

Gold sales in 2013 totaled 94,850 ounces at an average price of \$1,412 per ounce compared to 103,676 ounces sold at an average price of \$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.

### 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.

### Regulatory Effects

Refer to Item 3 – Risk Factors for information on material effects of government regulations on the Company's business.

## 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 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.

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

## Technical Information

The estimated Mineral Reserves and Mineral Resources for Jaguar's mines and mineral projects set forth in this Annual Report on Form 20-F have been calculated in accordance with the 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.

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.

## Mineral Properties

### Mineral Resource and Mineral Reserve Estimates

In March 2014, Jaguar completed an internal reconciliation of its Mineral Resources and Reserves. The reconciliation was prepared by the Company’s technical services team under the supervision of Wilson Miola, Jaguar’s Director of Engineering. Mr. Miola is a Qualified Person in accordance with NI 43-101.

Based on the reconciliation, as of December 31, 2013, Jaguar’s Mineral Resources are (i) Measured and Indicated Mineral resources of 167,607,470 tonnes with an average grade of 1.19 grams per tonne containing 6,392,430 ounces of gold and (ii) Inferred Mineral resources of 20,743,340 tonnes with an average grade of 2.03 grams per tonne containing 1,352,640 ounces of gold. Jaguar’s Proven and Probable Mineral Reserves, which are included in the Measured and Indicated Mineral Resource figure above, are 69,309,920 tonnes with an average grade of 1.24 grams per tonne containing 2,767,690 ounces of gold.



The tables below set forth Mineral Resource and Mineral Reserve estimates for the Turmalina, Paciência and Caeté operations and the Gurupi Project as of December 31, 2013.

**Table 1 - Summary of Mineral Resources December 31, 2013**

	RESOURCES (tonnage in metric tonnes and grades in grams/tonne)							RESOURCES (ounces Au)		
	Measured (t)	g/t	Indicated (t)	g/t	Measured + Indicated (t)	g/t	Inferred (t)	g/t	Measured+ Indicated	Inferred
Southern Brazil										
Paciência										
Santa Isabel/Córrego Grande	270,120	2.99	616,450	1.93	886,570	2.25	1,231,450	1.73	64,120	68,530
/Marzagão										
Other <sup>(1)</sup>	1,388,880	2.60	1,563,200	3.30	2,952,080	2.97	645,300	4.81	281,800	99,730
Other <sup>(2)</sup>	382,290	5.02	916,300	4.18	1,298,590	4.43	303,000	3.48	184,910	33,920
Total	2,041,290	3.10	3,095,950	3.29	5,137,240	3.21	2,179,750	2.89	530,830	202,180
Caeté Project										
Pilar	869,120	3.56	2,323,790	2.45	3,192,910	2.75	4,293,130	2.03	282,150	279,780
Roça Grande <sup>(3)</sup>	3,755,690	2.96	4,800,910	3.71	8,556,600	3.38	2,347,260	3.18	930,590	239,970
Other <sup>(4)</sup>	529,000	5.48	530,000	5.83	1,059,000	5.66	330,000	6.04	192,630	64,070
Other <sup>(5)</sup>	190,000	7.19	886,800	4.05	1,076,800	4.60	672,600	4.26	159,240	92,050
Total	5,343,810	3.46	8,541,500	3.54	13,885,310	3.50	7,642,990	2.75	1,564,610	675,870
<b><u>Turmalina<sup>(6)</sup></u></b>										
Faina	60,550	7.67	3,206,230	4.13	3,266,780	4.19	1,190,920	3.57	440,190	136,870
Pontal	119,600	2.81	949,900	3.32	1,069,500	3.27	142,400	2.77	112,280	12,660
Ore Body A	417,830	8.50	165,770	5.90	583,600	7.76	222,430	4.29	145,690	30,670
Ore Body B	57,030	2.68	215,080	2.45	272,110	2.50	530,190	2.39	21,850	40,750
Ore Body C	149,740	2.38	606,910	2.36	756,650	2.37	1,115,370	2.46	57,570	88,300
Total	804,750	6.04	5,143,890	3.76	5,948,640	4.07	3,201,310	3.00	777,580	309,250
Total Southern Brazil	8,189,850	3.62	16,781,340	3.56	24,971,190	3.58	13,024,050	2.84	2,873,020	1,187,300
Northern Brazil										
<b><u>Gurupi<sup>(7)</sup></u></b>										
Cipoeiro	25,734,250	0.78	58,494,460	0.87	84,228,710	0.84	7,041,480	0.67	2,272,980	151,930
Chega Tudo	20,923,100	0.66	37,484,470	0.67	58,407,570	0.66	677,810	0.62	1,246,430	13,410
Total Northern Brazil	46,657,350	0.72	95,978,930	0.79	142,636,280	0.77	7,719,290	0.67	3,519,410	165,340
TOTAL MINERAL	54,847,200	1.15	112,760,270	1.20	167,607,470	1.19	20,743,340	2.03	6,392,430	1,352,640

## RESOURCES

### Notes to Tables 1

Mineral Resources listed include Mineral Reserves, and are stated as of December 31, 2013. Some columns and rows may not total due to rounding. These tables differ from those in the 2012 Annual Report on Form 40-F and MD&A reports for Q1, Q2, and Q3 2013 by the discount of resources and reserves mined out in Caeté and Turmalina in 2013, and by revisions of geological models, block models, Resources and Reserves estimates on all ore bodies being mined in Turmalina, Caeté and those mined until 2012 in Paciência.

(1) Geological and block models revised in 2013 and discounted the ore mined out in 2013.

(2) Rio de Peixe, Bahú, and Marzagão discounted for the mined out ore until December 31, 2013.

Geological and block models revised in 2013 and discounted the ore mined out in 2013 for RG1 and RG7. RG2, (3) RG3 and RG6 remain as per TechnoMine NI 43-101 Technical Report on the Quadrilátero Gold Project filed on SEDAR on December 23, 2004 discounted for the mined out ore until December 31, 2013.

(4) Palmital, Ouro Fino, Quati, BIF Norte, and Bocaina discounted for the mined out ore until December 31, 2012.

(5) TechnoMine NI 43-101 Multi-Target Resource Estimate Technical Report filed on SEDAR on June 21, 2011 discounted for the mined out ore until December 31, 2013.

Turmalina Resources and Reserves geological and block models revised in 2013 and discounted the ore mined out in 2013. Faina and Pontal as well as other deposits remain as per TechnoMine NI 43-101 Technical Report on the (6) Turmalina Gold Mining Complex filed on SEDAR on November 9, 2011 discounted for the mined out ore until December 31, 2013.

(7) Gurupi Resources disclosed on Leah Mach (SRK) Resource Statement on the Gurupi Project filed on SEDAR in July, 2012.

**Table 2 - Summary of Diluted Mineral Reserves in December 31, 2013**

	Proven (t)	g/t	Probable (t)	g/t	Proven + Probable (t)	g/t	Ounces Au
<b>Southern Brazil</b>							
<b>Paciência</b>							
CPA <sup>(1)</sup>	107,450	2.26	215,850	1.65	323,300	1.85	19,240
<b>Caeté Project</b>							
Pilar	1,001,050	2.84	2,433,840	2.08	3,434,890	2.30	253,960
Roça Grande <sup>(2)</sup>	142,200	2.14	181,030	2.10	323,230	2.12	22,020
Total	1,143,250	2.75	2,614,870	2.08	3,758,120	2.28	275,980
<b><u>Turmalina</u><sup>(3)</sup></b>							
Ore Body A	300,840	6.24	162,980	4.35	463,820	5.58	83,140
Ore Body B	59,630	2.12	231,600	1.90	291,230	1.95	18,250
Ore Body C	129,800	1.90	586,950	1.87	716,750	1.87	43,150
Total	490,270	4.59	981,530	2.29	1,471,800	3.05	144,540
Total Southern Brazil	1,740,970	3.24	3,812,250	2.11	5,553,220	2.46	439,760
<b>Northern Brazil</b>							
<b><u>Gurupi Project</u><sup>(4)</sup></b>							
Cipoeiro	-	-	45,043,500	1.20	45,043,500	1.20	1,734,860
Chega Tudo	-	-	18,713,200	0.99	18,713,200	0.99	593,070
Total Northern Brazil	-	-	63,756,700	1.14	63,756,700	1.14	2,327,930
TOTAL	1,740,970	3.24	67,568,950	1.19	69,309,920	1.24	2,767,690

Notes to Table 2

Mineral Resources listed include Mineral Reserves, and are stated as of December 31, 2013. Some columns and rows may not total due to rounding. These tables differ from those in the 2012 Annual Report on Form 40-F and MD&A reports for Q1, Q2 and Q3 2013 by the discount of resources and reserves mined out in Caeté and Turmalina in 2013, and by revisions of geological models, block models, Resources and Reserves estimates on all ore bodies being mined in Turmalina, Caeté and those mined until 2012 in Paciência. These reserves are diluted by external dilution and will be revised in 2014 for RG02, RG03 and RG06.

Geological and block models revised in 2013 and discounted for the ore mined out in 2013

(1)

## Edgar Filing: Jaguar Mining Inc - Form 20-F

Rio de Peixe, Bahú, and Marzagão discounted for the ore mined out until December 31, 2013.

- (2) Roça Grande 1 and 7 Resources and Reserves geological and block models revised in 2013 and discounted the ore mined out in 2013. Roça Grande 02, 03 and 06 are not included.
- (3) Turmalina Resources and Reserves geological and block models revised in 2013 and discounted the ore mined out in 2013.
- (4) Gurupi Reserves as for Technomine Feasibility Study Technical Report filed on SEDAR in March 2011.

### 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 level 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

#### Property Description and Location

The Turmalina mining complex is located in the state of Minas Gerais, Brazil, approximately 120 kilometers northwest of the city of Belo Horizonte. Belo Horizonte, the commercial center for Brazil's mining industry, has a population of 5.4 million, outstanding infrastructure and a concentration of skilled mining professionals. The Turmalina mining complex is comprised of 4,908 hectares of mining and exploration concessions.

Jaguar acquired the Turmalina property and associated mining concessions from AngloGold Ashanti Ltd ("AngloGold Ashanti") on September 30, 2004. The property is owned through Jaguar's wholly-owned subsidiary, MTL.

The mining concessions related to Turmalina's Ore Bodies A, B and C are in good standing and Jaguar has all the necessary environmental licenses that are material to the operation of the mining complex.

The Turmalina mining concessions are subject to annual royalties paid to five individuals collectively as follows: five percent (5%) of the first US\$10 million of annual net revenue and three percent (3%) of annual net revenue over US\$10 million. Net revenue for these purposes is calculated as gold sales less the CFEM tax, which is a tax imposed by the Brazilian government on mining companies.

#### Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Turmalina mining complex is accessed from Belo Horizonte by paved highways to the town of Pitangui. The Turmalina deposits are located six kilometers south of Pitangui and less than one kilometer from a state highway.

This mining region has historically produced significant quantities of gold and iron from open pit and large-scale underground mining operations operated by AngloGold Ashanti, Vale and Companhia Siderúrgica Nacional. Belo Horizonte is a well-developed urban metropolis with substantial infrastructure including two airports, an extensive

network of paved highways, a fully-developed and reliable power grid and ready access to processed 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 meters above sea level. The Pitangui area terrain is rugged, with numerous rolling hills. The area experiences six months of warm dry weather (April to November) with the mean temperature slightly above 20°C, followed by six months of tropical rainfall. Annual precipitation ranges from 1,300 millimeters to 2,500 millimeters and is most intense in December and January.

## History

Gold was first discovered in the Turmalina area in the 17th century. During the 17th, 18th and 19th centuries, intermittent small-scale production took place from alluvial terraces and outcropping quartz veins. Historical gold production was based on alluvial or weathered material, including saprolite and saprolite-hosted quartz veins. Records from this historical period are few and incomplete. At the end of the 19th century numerous international companies started underground activities in the district, including AngloGold Ashanti, which operated the Morro Velho Mine, the deepest mine in Brazil. The Morro Velho Mine is reported to have produced more than 16 million ounces of gold during more than 180 years of continuous operation.

AngloGold Ashanti controlled the Turmalina mineral rights from 1978 to 2004 through a number of Brazilian subsidiaries, including MTL.

AngloGold Ashanti explored the Turmalina area extensively between 1979 and 1988 using geochemistry, ground geophysics, and trenching, which led to the discovery of the Turmalina Ore Bodies A, B and C (formerly known as Main, Northeast and Satinoco targets, respectively), Faina, Pontal and other mineralized zones. Exploration work at these mineralized bodies included 22 diamond holes totaling 5,439 meters drilled from the surface to test the downward extension of the sulfide mineralized body.

In 1992 and 1993, AngloGold Ashanti mined 373,000 tons of oxide ore from open pits at the Ore Bodies A, B and C, and the Faina and Pontal zones recovering 35,500 ounces of gold using heap leach technology. Subsequently, AngloGold Ashanti explored a possible downward sulfide extension of the Turmalina Ore Body A deposit by driving a ramp beneath the pit and drifting on two levels in the mineralized zone at approximately 50 meters and 75 meters below the pit floor.

Detailed underground works included collecting approximately 2,000 samples from channels with three meter spacing along all the length of the drifts. Approximately 17,000 tons of ore were mined (trial mine) by AngloGold Ashanti. The ore was transported and treated at their plant located in the town of Nova Lima, near Belo Horizonte.

Jaguar acquired MTL from AngloGold Ashanti in September 2004. In November 2006, the Turmalina underground mines (Ore Bodies A and B) and the Turmalina Plant were commissioned. The first gold pour was conducted in January 2007 and commercial production was declared in August 2007.

During 2008, Jaguar conducted a 12,000 meter in-fill diamond drilling program at Ore Body C as part of an effort to convert mineral resources to mineral reserves to expand the Turmalina operation. In September 2008, Jaguar completed an NI 43-101 compliant feasibility study technical report on the Turmalina Phase I Expansion, which was implemented and completed during the third quarter of 2009, increasing Turmalina's milling capacity to 1,800 tons per day of ore from its previous designed operating level of 1,500 tons per day.

During 2009, exploration efforts were concentrated on three targets that are part of the Turmalina mining complex, Zone D, Faina and Pontal. A total of 17,319 meters of drilling in 72 drill holes were completed in 2009.

During 2010, Jaguar encountered geo-mechanical issues at level 3 in Ore Body A of the mine, which resulted in dilution averaging more than double the anticipated level. Jaguar initiated steps to convert the mining method at Turmalina from selective stoping to cut-and-fill in Ore Body A in the second quarter of 2010. As part of this effort, Jaguar elected to deploy additional personnel and equipment to accelerate forward underground development in Ore Body A. As a result, a total of 5.9 kilometers of underground development was completed in 2010 and the conversion of mining methods was completed during the first quarter of 2011.

During 2012, an operational review of the Turmalina operation determined that operational overhead could be reduced and productivity improved without impacting long-term production capability. It was also determined to transition the operation to smaller ore and waste development headings, reduced stope dimensions and new ground control methodologies in order to improve head grade over historical results through reduced dilution. The new ground control methodology is progressing and work is ongoing on the transition toward smaller ore and waste development headings. The changes are being implemented concurrently with continuing operations and are expected to reduce the

cash operating cost per ounce and allow for increased and more predictable ounce production.

Underground development at the Turmalina mines totaled 6.4 kilometers in 2013, 8.7 kilometers in 2012, 8.2 kilometers in 2011 and 5.9 kilometers in 2010. Underground delineation drilling totaled 24,500 meters in 2013.

Exploration efforts during 2010 and 2011 were concentrated on three refractory ore deposits located near the Turmalina mine, Faina, Pontal and Zone D. Jaguar drilled a total of 46,090 meters in 226 drill holes at these targets. After the completion of the exploration program, Jaguar engaged TechnoMine to prepare a NI 43-101 compliant statement of mineral resources technical report for the Faina, Pontal and Body D targets. The technical report, which was filed on SEDAR on November 9, 2011, added 276,850 ounces of Measured and Indicated Mineral Resources and 127,820 ounces of Inferred Mineral Resources to the Turmalina mining complex.

Additional exploration activity during 2011 included a drilling program to test the continuity of Ore Bodies A and B at Turmalina mine to 250 meters beneath currently known mineral resources. This program returned encouraging intercepts for Ore Bodies A and B at increasing depths. During 2012, a total of 878 meters were completed in 10 drill holes at the Faina deposit as part of a surface diamond drilling campaign. In 2013, a total of 857 meters in 12 drill holes were drilled at the promising Zona Basal target.



Gold production at Turmalina increased to 43,425 ounces in 2013 as compared to 37,840 ounces in 2012.

### Geological Setting

The Turmalina deposit is hosted by rocks of the Archean Rio das Velhas Supergroup greenstone belt in the Iron Quadrangle region. The Rio das Velhas Supergroup is further subdivided into the Nova Lima and Maquiné Groups. The Nova Lima Group, which hosts most of the gold deposits in the region, is comprised of clastic sediments, pyroclastics, volcanic flows, chemical sediments, and banded iron formations (“BIF”). There is no widely accepted stratigraphy for the Nova Lima Group, due to intense deformation, hydrothermal alteration, and weathering.

The Rio das Velhas Supergroup uncomfortably overlies a tonalite, trondjemite basement. The Proterozoic Minas Supergroup overlies the Rio das Velhas Supergroup and consists of clastic and chemical sediments, including a gold reef type of conglomerate at the base, rich hematite mineralization and minor metavolcanics.

Gold mineralization in the Iron Quadrangle is most commonly associated with the BIF, cherts and quartz veins in schists of the Nova Lima Group, which are located along regional structural lineaments. The most important structures are NW and NE striking, thrust-related, oblique ramps or EW-striking transcurrent faults, the latter being the most favored location for gold deposition.

The Turmalina area is underlain by rocks of Archaean and Proterozoic ages. Archaean units include a granitic basement, overlain by the Pitangui Group, a sequence of ultramafic to intermediate volcanic flows and pyroclastics, and associated sediments.

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 Turmalina deposit is hosted by a sequence of rocks within the intermediate unit of the Pitangui Group. Sheared pelitic schists are the dominant rock hosting Ore Bodies A and B. A sequence of sheared, banded, sulfide iron formation intercalated with amphibolites and chert, lying stratigraphically below Ore Bodies A and B, hosts the Satinoco Structure. Gold mineralization is associated with higher levels of sericite, quartz, chlorite, biotite, and pink garnet with disseminated arsenopyrite. Fine banding is likely associated with shearing.

The Satinoco Structure lies in or close to the banded iron formation/chert horizon. Both the banded iron formation/chert and the mineralized zones are located within a shear zone more than one kilometer long that strikes approximately Az 135° and dips to 60° - 70° NE.

## Exploration

Jaguar's initial exploration efforts started in 2004 and focused on the re-interpretation of the AngloGold Ashanti data (trenches, soil geochemistry, and drilling) to better understand the local geology. These efforts were concentrated on the targets previously identified by AngloGold Ashanti, Ore Bodies A, B, and C.

An exploration program was carried out at Ore Body C from March 2006 to April 2008 in order to estimate mineral resources in accordance with NI 43-101. This program included the opening of about 700 meters of trenches and the collection of 146 channel samples crossing the mineralized zone and a complementary diamond drilling program, which consisted of three phases carried out as follows:

Phase I: 5,501 meters drilled in 35 drill holes to test the continuity of the mineralized bodies between the weathered zone and up to 200 meters below the surface.

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

Phase III: An additional drill-hole campaign was carried out in 2007, which consisted of 12,763 meters drilled in 48 holes to estimate gold mineral resources.

Jaguar initially completed Phases I and II at the Ore Body C Target and commissioned TechnoMine to prepare a mineral resource estimate technical report. A technical report was issued in October 2007, based on exploration data achieved until July 2007. Jaguar completed Phase III of the exploration campaign in December 2007. The results generated during Phase III were integrated with the previous exploration database and gave rise to a re-evaluation of the mineral resource base. In February 2008, Jaguar filed a technical report in accordance with NI 43-101 in connection with the upgrade of Inferred to Measured and Indicated Mineral Resources at the Ore Body C Target.

During the fourth quarter of 2007, Jaguar completed an underground crosscut to access Ore Body C mineralization through the existing ramp developed to mine Ore Bodies A and B at Turmalina. The crosscut is utilized to transport ore from Ore Body C through the Turmalina Mine adit. During the excavation process of the crosscut, high grades of gold were discovered in channel samples. During 2008, Jaguar conducted a 12,000 meter in-fill diamond drilling program as part of the feasibility work in an effort to convert mineral resources to mineral reserves to expand Turmalina's operations.

In September 2008, TechnoMine completed the NI 43-101 compliant feasibility study technical report on the Turmalina Phase I Expansion, which converted the Ore Body C mineral resources to mineral reserves. The expansion was completed during the third quarter of 2009.

Jaguar's reported mineral resources for Turmalina extend to a depth of approximately 600 meters from the surface where the mineralized structure is open at depth and along strike. As part of a drilling program to prove the continuity of the mineralization at Ore Body A, Jaguar drilled four holes to depths ranging from 850 meters to 1,100 meters from the surface. Two of these drill holes intersected the mineralized structure of Ore Body A to a depth of approximately 800 meters, thereby confirming the extension of the mineralized structure to a depth of 800 meters. The size of the mineralized structure and mineralization is similar to the existing mineral reserve base in this ore body and is also consistent with the characteristics of other gold mines in the Iron Quadrangle, some of which have operated to depths of 2,400 meters.

As part of the surface exploration program to estimate mineral resource potential in a newly discovered oxide zone at Ore Body B, several trenches were excavated to expose and sample the mineralized zone. Channel samples revealed two separate mineralized areas.

At Ore Body C and Zone D, which is an extension of Ore Body C, additional gold bearing oxide ore has been identified in the weathered rock overlying the sulfide zone. During 2008, 11,698 meters of drilling for a total of 62 drill holes were drilled in this structure to estimate oxide and sulfide mineral resources.

During 2009, Jaguar continued drilling in the Satinoco structure of Ore Body C to estimate oxide and sulfide mineral resources. A total of 5,017 meters of drilling in 31 holes were completed. Mining of these oxide resources commenced in the fourth quarter of 2009.

Jaguar has discovered a new target at the Turmalina mining complex, the Fazenda Experimental Target. This new structure is unrelated to the mineralized on-strike zone associated with Ore Bodies A, B and C and Zone D. The Fazenda Experimental Target is located approximately five kilometers from the Turmalina Plant in a structure parallel to the existing ore bodies and zones. Some limited historical mining at this target had been carried out at shallow depths. Over the past two years, Jaguar has conducted work in the area, including soil sampling, trenching and 668 meters of drilling in four drill holes. Drilling results confirm continuity of the mineralization along strike.

During 2009, drilling activity was also focused on the Faina and Pontal targets. A total of 17,319 meters of drilling in 72 drill holes were completed, with encouraging preliminary results.

Exploration efforts during 2010 and 2011 were concentrated on three refractory ore deposits located near the Turmalina mine, Faina, Pontal and Zone D. Jaguar drilled a total of 46,090 meters in 226 drill holes at these targets. After the completion of the exploration program, Jaguar engaged TechnoMine to prepare a NI 43-101 compliant statement of mineral resources technical report for the Faina, Pontal and Body D targets. The technical report, which was filed on SEDAR on November 9, 2011, added 276,850 ounces of Measured and Indicated Mineral Resources and 127,820 ounces of Inferred Mineral Resources at the Turmalina mining complex.

Additional exploration activity during 2011 included a drilling program to test the continuity of Ore Bodies A and B at Turmalina mine down to 250 meters beneath currently known mineral resources. This program returned encouraging intercepts for Ore Bodies A and B at increasing depths. During 2012, a total of 878 meters were completed in 10 drill holes at the Faina deposit as part of a surface diamond drilling campaign. In 2013, a total of 857 meters in 12 drill holes were drilled at the promising Zona Basal target.

## Mineralization

Gold mineralization in the Turmalina deposits occurs in fine grains associated with sulfides in sheared schists and BIF sequences. Gold particles found within the ore, averaging 10 to 20  $\mu$ m, are mostly associated with arsenopyrite, quartz, and micas (sericite and biotite), as presented in the table below:

### Gold - Mode of Occurrence

Associated to	% of gold content	Notes
Arsenopyrite	61	Occurring both inside and at the borders of the mineral
Quartz	26	Occurring both inside and at the borders of the mineral
Micas	9	Occurring both inside and at the borders of the mineral
Pyrite + Pyrrhotite	4	Occurring only at the borders of the mineral

Coarse gold, on a millimeter scale, is found locally with discrete quartz veins. Overall, this type of occurrence is minor. Typically, these mineralized bodies show a yellowish color produced by weathering in outcrops within the weathered rock zone.

## Drilling

Three different mineralized sectors were defined in Ore Body C by trenches and drilling. These sectors were named Central, NW, and SE and were drilled initially in wide-spaced exploratory holes and then locally on detailed grids. Drill-hole lengths ranged from 32 meters to 453 meters. Core diameters were consistently HQ from surface through the weathered rock to bedrock. At about three meters into bedrock, the holes were reduced to NQ diameter to the final depth.

Following completion of the drill holes, the collars were resurveyed with theodolite and cement markers emplaced. Downhole surveys were completed in all holes with length greater than 100 meters, 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 assay. A total of 2,338 core samples from holes FSN 10 to 113 were collected. The drilling program was carried out by Mata Nativa Comércio e Serviços Ltda. (“Mata Nativa”), a local drilling company, using Longyear drill rigs.

Drilling results have confirmed continuity, both laterally and at depth, and the configuration of the mineralized bodies. Ore Body C is still open at depth and in the NW directions.

#### Sampling Method and Approach

The drill core logging was done by one of Jaguar’s senior geologists at its Caeté facilities, where an exploration office, chemical laboratory, core preparation, and sampling and storage units are located. Diamond drill cores were logged based on lithology, weathering, hydrothermal alteration, and mineralization.

The core sampling intervals were determined according to lithology, mineralization type, and visually anticipated grade. A total of 2,338 intervals were selected for sampling. The sample length varied between 0.8 to 1.2 meters, with 1.0 meter on average. A few samples in barren or poorly mineralized section were slightly larger (maximum 1.5 meters). One or two samples in barren core on the margins of the mineralized zones were systematically collected for the assurance of the complete sampling process.

The cores selected for sampling were halved with a diamond saw. One half was placed in a plastic bag and the other half was returned to the original wooden core box. The samples were transported to the laboratories using a local courier. The assays were made in Belo Horizonte by SGS do Brasil (“SGS”) and Lakefield/Geosol (“LKG”) assay laboratories and by Jaguar’s laboratory in Caeté. In 2006, LKG was bought by SGS. Collar and down-hole survey data, major lithologies, and assay results are stored in a database management system.

#### Sample Preparation, Analysis and Security

Between 1979 and 1988, trenching, drilling and sampling were performed in accordance with AngloGold Ashanti’s controls and standard industry practices at that time (pre NI 43-101).

The following channel sampling procedures were used in trenches by AngloGold Ashanti. First, sites were cleaned with a hoe, exposing the material by scraping. Next, structures were mapped, lithologic contacts were defined, and samples were marked so that no sample had more than one lithology. Samples had a maximum length of one meter and weighed between one and two kilograms. Channel samples were collected from outcrops, trenches, and drift walls. This consisted of manually opening the channels with lengths ranging from 50 centimeters to one meter, average widths between five to ten centimeters, and about three centimeters deep, using a hammer and a chisel. Either an aluminum tray or a plastic canvas was used to collect the material. The samples were then stored in a plastic bag and identified by a numbered label, which was protected by a plastic cover and placed with the sample. At the sampling site, samples were identified by aluminum plates, labels, or wooden poles. Next, sketches were drawn with lithological and structural information. The sample locations were surveyed by theodolite.

The following diamond drill core sampling procedures were adopted by AngloGold Ashanti. Drilling was carried out by their drill operators using their own drill rigs in HQ and NQ diameters. The cores were stored in wooden boxes of one meter length, with three meters of core per box (HQ diameter) or four meters of core per box (NQ diameter). Hole number, depth, and location were identified on the boxes by an aluminum plate on the front of the box. The drilling interval and core recovery were identified inside the boxes by small wooden or aluminum plates.

During logging of the hole, geological information was collected, the interval and recovery were verified, and samples for chemical analysis were defined. Samples were identified in the boxes by highlighting their side or by labels.

## Edgar Filing: Jaguar Mining Inc - Form 20-F

Samples were cut in the middle with a diamond saw or a hammer, at right angles to the structure direction that controls the mineralization. If the samples were of weathered oxide mineralization, either a spatula or a spoon was used to divide and collect the sample. One half was stored in a heavy duty plastic bag, identified by a laminated label, and the other half was kept in the proper box at the core shed. The standard procedure was to cut the core parallel to the long axis. Sampling intervals were generally defined in accordance with the key geological control parameters, as lithologic contacts and structures, marked inside each unit, maintaining the dimensions specified above.

Assays were carried out by AngloGold Ashanti's laboratory in Nova Lima, Minas Gerais, which has international certification. The fire assay/atomic absorption ("AA") method was used. At that time, AngloGold Ashanti's laboratory standard procedure was to re-assay all samples which returned grades greater than three grams per ton. One duplicate was assayed for every 20 samples.

Channel sampling carried out by Jaguar was restricted to the walls of trenches and underground development. First, sites were cleaned with a hoe, exposing the material by scraping surface trenches or, if underground, by water. Next, structures were mapped, lithologic contacts were defined, and samples were marked so that no sample had more than one lithology. Usually, the samples had a maximum length of one meter and weighed between one to two kilograms. Channel samples were taken manually, using a hammer and chisel. The channels had lengths ranging from 50 centimeters to one meter, with averaging width ranging from five to six centimeters and about three centimeters deep. In the drift, samples were collected in channels starting at the floor level on one side and going over the drift section to the floor on the opposite side.



An aluminum tray or a plastic canvas was used to collect the material. The samples were then stored in plastic bags and identified by numbered labels, which were protected by a plastic cover and placed with the sample. Samples were identified at the sampling site by number sequence painted in the drift walls. Sample locations were surveyed by theodolite.

Surface diamond drilling was carried out by Mata Nativa using HQ and NQ tools. The diamond drill core sampling procedures adopted by Jaguar are described below.

Drill-hole deviations were surveyed by Sperry Sun or DDI/Maxibore equipment. The cores were stored in wooden boxes of one meter length with three meters of core per box (HQ diameter) or four meters 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.

During logging of the geological information, progress and recovery measures were verified and chemical analyses samples were defined. Samples are identified in the boxes by highlighting their side or by labels. Samples were cut in the middle with the help of a diamond saw and a hammer. One half was stored in a heavy duty plastic bag, identified by a laminated label, and the other half is kept in the proper box at the core shed.

SGS laboratories in Belo Horizonte prepared and assayed the core samples during Phase I drilling. During Phases II and III, Jaguar used its own laboratory. After Jaguar received the assays results, the mineralized sections were identified in the drill core and sent to SGS for re-assay and inter-laboratories check-control. About 43% of these core samples were submitted for re-assay. Rock Labs standards, blanks, and duplicates were used. No significant assay variations were detected. The SGS laboratory has been assessed by ABS Quality Evaluations, in Houston, Texas, and found to be in compliance with ISO 9001.

Samples were prepared by drying, crushing to 90% minus two millimeters, quartering with a Jones splitter to produce a 250 gram sample, and pulverizing to 95% minus 150 mesh. Gold assay was by standard fire assay procedures, using a 30 gram sample with an AA finish. Analytical results were forwarded to Jaguar's exploration department by email, followed by a hard copy. SGS and Jaguar laboratories used identical sample preparation and analyses methodologies.

Mineral Resource and Mineral Reserve Estimates

As of December 31, 2013, Turmalina has an estimated 5,948,640 tonnes of Measured and Indicated Mineral Resources at an average grade of 4.07 grams per tonne totaling 777,580 ounces of gold and 3,201,310 tonnes of Inferred Mineral Resources at an average grade of 3.00 grams per tonne totaling 309,250 ounces of gold.

Proven and Probable gold Mineral Reserves, which are included in the reported Mineral Resource estimate, are estimated at 1,471,800 tonnes at an average grade of 3.05 grams per tonne totaling 144,540 ounces.

#### Mining Operations and Metallurgical Process

Prior to 2011, Turmalina was an underground mine utilizing the “sublevel stoping” mining method in Ore Body A and the “cut-and-fill” mining method at Ore Bodies B and C with paste fill in all stopes. As of early-2011, all ore bodies are being mined using cut-and-fill and ore produced at the Turmalina Mine was transported to the adjacent 1,800 tons per day Turmalina Plant.

The main access to the levels and sublevels from the surface is provided by a 15% incline five meter x five meter cross-section ramp developed along the footwall of Ore Body A and hanging wall of Ore Body C. The ramp is located at least 90 meters away from the ore bodies.

The underground mine is divided into levels and further into sublevels with floors spaced 15 vertical meters apart. Levels are separated from each other by four-meter (vertical) thick sill pillars. A typical level consists of four sublevels at elevations starting from the base of the panel, totaling 60 meters in vertical span. Ore and waste rock between sublevels is blasted in a retreat fashion using the fan drilling method and frontal attack method for the cut-and-fill stopes. After being mined, panels are filled with paste fill from the current Turmalina paste backfill plant.

The underground mine was developed under a crown pillar of 15 meters vertical thickness that separates underground stopes from the bottom of the open pit.

Drilling is carried out using single boom or twin boom hydraulic jumbos and the haulage of the blasted ore/waste is by five cubic yard LHD wheel loaders and A30 Volvo trucks to the Turmalina Plant.

The mineral processing route consists of the following sequence of macro-unit operations:

- crushing and screening;
- grinding and cycloning;
- leaching and adsorption/desorption/recovery (“ADR”) CIP Process;
- gold recovery by an electrowinning (“EW”) circuit, after elution of the loaded carbon;
- detoxification plant : CyPlus “cold” technology, arsenic removal and cyanide destruction; and
- paste fill plant.

The leaching recovery is 92% based on test work from Dawson Laboratory (“Dawson”) in the United States, while the adopted adsorption-elution to electrowinning-smelting recovery is 97.8%, based on TechnoMine’s assessment. The estimated overall metallurgical recovery is 90% (92% for leaching x 97.8% for adsorption to smelting).

A three-stage crushing and screening plant feeds crushed ROM into a surge silo equipped with two vibrating feeders for three ball mills (two in stand by), in a closed circuit with cyclone clusters. The cyclone overflow is thickened to feed a conventional leaching and the ADR CIP circuit. The CIP tailings pulp, after detoxification with Caros’s Acid (CyPlus “cold” technology), is conveyed to the paste fill plant. Excess paste is conveyed to the geomembrane- lined tailings dam. Gold recovery is performed by a conventional elution and EW circuit.

#### Environmental Considerations

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

#### Taxes

Income taxes are 34% of taxable profit, including a 25% corporate tax rate and a 9% social contribution. In addition to direct operating costs, royalty payments and depreciation are deductible in determining taxable profit.

#### Mine Life

Based on the current mine plan, mining operations at Turmalina will continue through 2025. This figure considers Mineral Reserves and Measured and Indicated Mineral Resources. The ore bodies are open at depth.

#### Markets

All gold produced at the Turmalina operation is transported on a weekly basis to São Paulo for refining and sale at market prices.

#### Paciência Mining Complex

##### Property Description and Location

The Paciência mining complex is located in the state of Minas Gerais, Brazil, approximately 80 kilometers southeast of the city of Belo Horizonte. The property is comprised of 6,677 hectares of mining and exploration concessions and is owned through Jaguar's wholly-owned subsidiary, MSOL.

Jaguar acquired the original Paciência concessions (Paciência/Santa Isabel, Bahú and Marzagão) from AngloGold Ashanti in November 2003. Under the terms of the acquisition agreement, AngloGold Ashanti has rights to reacquire up to 70% of any of such concessions at an ascribed value of new mineral reserves found feasible beyond the exhausted contract mineral reserves. Under the terms of the acquisition agreement, Jaguar also pays a sliding scale net smelter return royalty ("NSR"), from 1.5% to 4.5% of gross revenue, on gold and other precious metals produced from the Santa Isabel Mine.

The mining concessions related to Paciência's producing mines are in good standing. Jaguar has all the necessary environmental licenses for the operation of the mining complex.

In 2005, Jaguar acquired rights from IAMGold with respect to properties located in Rio Acima and Itabirito, Brazil. These concessions, known as the "Conglomerates Target", are located approximately 12 kilometers east of the Paciência Plant and represent an opportunity for Jaguar to further explore, upgrade and expand Paciência's mineral resources and production rate.

During 2007, Jaguar successfully concluded a land swap agreement with AngloGold Ashanti whereby Jaguar expanded the concession package at the Paciência mining complex to a contiguous 20 kilometers (17 kilometers today) area adjacent to the São Vicente lineament.

#### Accessibility, Climate, Local Resources, Infrastructure and Physiography

Paciência is located 23 kilometers from the town of Itabirito in the state of Minas Gerais, Brazil. Itabirito has good urban infrastructure, including banks, a hospital, schools, and general commerce. Access to the town of Itabirito is via a good paved highway for about 40 kilometers southeast of Belo Horizonte. The project can be accessed from Itabirito by light vehicles on paved and dirt roads but a four-wheel drive vehicle is preferable during the rainy season.

Belo Horizonte is the major center of the Brazilian mining industry. A large commercial airport with domestic and international flights services the city, which hosts several state and federal government agencies and private businesses that provide services to the mining and exploration sectors. Skilled labor is readily available.

Annual rainfall in the property area averages between 1,300 millimeters and 2,300 millimeters, 84% of which falls during the rainy season between October and March. The months of December and January experience the most intense precipitation. Winds, predominantly from the south and southeast, have a low average speed (<1 m/s). The annual average temperature is slightly above 20°C. Air humidity, even in the summer, does not exceed 90% on average, showing annual average evaporation of approximately 934 millimeters.

A digital telephone communication system is supplied to the Paciência mining complex by Embratel. The system can accommodate a 30-channel link for voice communication and a digital data connection with Jaguar's head office in Belo Horizonte, where a shared link can provide safe Internet and Intranet access.

Fresh water is supplied to the Paciência mine and plant by the Tejuco Creek, a tributary to the das Velhas River. A suction station is located about 2.6 kilometers from the properties' industrial water tank and is the source of fresh water.

Power to the project site is currently supplied by Companhia Enérgica de Minas Gerais S.A. ("CEMIG"). Emergency power is provided by diesel back-up generators.

## History

Gold discoveries in the Itabirito region date from the mid 17th century and are directly attributed to the activity of the "Bandeirantes" (early Portuguese explorers) along the Rio das Velhas. Gold was abundant and triggered a major gold rush which extended into the mid 19th century.

Exploration for gold in the region started in alluvial sites along drainages where simple extraction methods were employed. Modern exploration began in 1979 and has been carried out extensively on or adjacent to the property by AngloGold Ashanti (geochemistry, geophysics, sampling, diamond drilling, and drifts), Rio Tinto Desenvolvidos Minerais Ltda. (trenching, geochemistry and diamond drilling), Vale (formerly Companhia Vale do Rio Doce or CVRD) (sampling, mapping, geophysics, geochemistry, and diamond drilling), and the Anschutz Group/Western Mining and IAMGold (geochemistry, sampling, diamond drilling, and drifts).

From 1981 through 2004, the Paciência property was controlled by AngloGold Ashanti through a number of subsidiaries. Jaguar acquired the property, which included the Paciência/Santa Isabel, Bahú and Marzagão mineral concessions, from AngloGold Ashanti in November 2003.

In March 2004, TechnoMine completed a NI 43-101 technical report on Jaguar's Iron Quadrangle properties, which included mineral resources in these concessions. This technical report was revised in September 2004 and further revised in December 2004.

In 2005, Jaguar acquired rights from IAMGold with respect to properties located in Rio Acima and Itabirito. These concessions, known as the "Conglomerates Target", are located approximately 12 kilometers east of the Paciência Plant and represent an opportunity to further explore, upgrade and expand Paciência's aggregate mineral resources and overall production rate. The property's previous owners, the Anschutz Group and Western Mining, carried out exploration campaigns between 1985 and 1990, which included underground development and channel sampling, surface and underground diamond drilling and geological mapping. Based on their efforts, a pre NI 43-101 gold mineral resource of approximately 110,000 ounces was estimated. Jaguar has been conducting exploration work at the Conglomerates Target since 2007.

During 2007, Jaguar successfully concluded a land swap agreement with AngloGold Ashanti whereby Jaguar expanded the concession package at the Paciência mining complex to a contiguous 20 kilometers area adjacent to the São Vicente lineament. This land area was first mined in the 17th century by the Portuguese and the old workings are clearly visible on satellite images. Jaguar's exploration efforts today are along this same strike.

In August 2007, TechnoMine completed a NI 43-101 compliant feasibility study for the Paciência mining complex. Construction of the Paciência Plant began immediately after the completion of the feasibility study. Mining operations at the Santa Isabel Mine commenced in April 2008 as the new Paciência Plant entered the commissioning phase. In July 2008, Paciência reported its first gold pour and operations were deemed commercial in December 2008.

In December 2008, Jaguar began hauling ore from the Pilar Mine to the Paciência Plant, which is located 130 kilometers away. In July and August of 2009, Jaguar completed the development of the Palmital and Marzagão mines, respectively, and started to process ore from both mines at the Paciência Plant, which has the capacity to process 2,000 tons of ore per day. The Paciência Plant was processing ore from the Santa Isabel, Marzagão (NW1), Ouro Fino and Rio de Peixe mines. In November 2010, Jaguar ceased to process ore from the Pilar Mine at the Paciência Plant as ore haulage was re-directed to the Caeté Mining Complex (see below).

In June 2011, Jaguar filed a NI 43-101 compliant technical report prepared by TechnoMine on a number of targets located within the Paciência mining complex. This technical report added 201,100 ounces of Measured and Indicated

Mineral Resources and 38,860 ounces of Inferred Mineral Resources to the Paciência mining complex.

Gold production at Paciência decreased in 2012 to 9,987 ounces from 39,581 ounces in 2011 as a result of placing the operation on care and maintenance status in May 2012.

#### Geological Setting

The Iron Quadrangle is located in the Precambrian São Francisco craton and is underlain by highly deformed and moderately metamorphosed Archean to Proterozoic rocks. A crystalline basement is overlain by several sequences of supracrustal rocks, as follows, from oldest (Archean) to youngest (Upper Proterozoic).

- Basement complex of tonalite, trondjemite, and gneiss;
- Rio das Velhas Supergroup (Greenstone Belt) – Archean;
- Espinhaço Supergroup, resting uncomfortably on the Rio das Velhas Supergroup;
- Proterozoic Minas Supergroup, overlying the Espinhaço Supergroup along tectonic and angular unconformable contacts; and
- Proterozoic Itacolomi Group, overlying the Minas along both tectonic and angular unconformable contacts.



The Archean Rio das Velhas Supergroup comprises the lower Nova Lima and upper Maquiné Groups. The Nova Lima Group consists of a greater than four kilometer thick eugeosynclinal succession including: metagreywacke, carbonate schist, immature quartzite, quartz schist, metaconglomerate, meta-banded iron formation, schistose tuff, graphitic schist, meta-carbonate chemical sedimentary rock (includes the Lapa Seca unit), phyllite, greenschist, and meta-ultramafic rocks. The Maquiné Group consists of an approximate 1.8 kilometer thick eugeosynclinal molasse including protoquartzite, meta-grit conglomerate, phyllite, meta-greywacke, and minor basal metaconglomerate.

The Proterozoic Minas Supergroup is subdivided in three groups:

- Caraça (lower): Quartzite, with basal conglomerate and graphitic phyllite;
- Itabira (middle): Itabirite (Lake Superior type banded iron formation) and dolomite; and
- Piracicaba (upper): clastic and chemical sequences.

The property is located along the São Vicente/Paciência Lineament (Paciência Trend), which is the most prominent structure in the area. It is a northwest-trending, northeast dipping shear zone that extends for over 60 kilometers across the Iron Quadrangle from near Ouro Preto in the south to Nova Lima in the north. The referred shear zone is located between the Bação Complex to the west and the Vargem do Lima Syncline to the east and is confined to the upper portion of the Nova Lima Group. The Vargem do Lima Syncline, a northwest-trending structure, is overturned to the southwest and the shear zone is in the normal, upright limb of the fold. Initial displacement along the shear zone was as a thrust or reverse movement towards the southwest, during the overturning of the syncline. Subsequent movement may have occurred as normal slip to the northeast. Gold mines and prospects occur along the entire length of the Paciência Trend shear zone.

The Archean Nova Lima Group and Proterozoic Caraça and Itabira Groups underlie the Paciência property. These groups consist of a sequence of intensely folded, faulted, and moderately metamorphosed (upper greenschist facies) volcanic and sedimentary rocks. The protoliths were shale, graphitic shale, mafic volcanic tuff, subordinate conglomerate, dolomite, banded iron formation, and chert.

Gold mineralization in the Paciência area took place in association with banded iron formation and chemical sedimentary rocks (chert), hydrothermal quartz veins (silicification zones), disseminated and massive sulfides in quartz schist and conglomerates.

Metapelites and meta-volcanoclastic rocks are the most common type in the area. Subordinate basic dikes and schists rich in quartz and carbonaceous material are present locally. In the Paciência trend shear zone, the metapelites and meta-volcanoclastic rocks were subjected to strong hydrothermal alteration that resulted in the development of carbonate, chlorite, sericite, and quartz veins. Disseminated sulfides (pyrite, arsenopyrite, stibnite, sphalerite, chalcopyrite, and galena) in the quartz veins are common, but do not exceed 3% of the rock volume.

## Deposit Types

The gold metallogeny in the Iron Quadrangle is complex. Three types of deposits are the major sources for gold in the region. During the deposition of the Archean Nova Lima Group greenstone belt rocks, sea floor volcanic exhalative processes produced narrow BIF and chert that hosted syngenetic sulfide-rich gold deposits. Subsequently, these greenstone belt rocks were deformed and epigenetic shear zone-related gold deposits were formed. The gold source for these epigenetic deposits was quite possibly remobilized gold from the syngenetic exhalative deposits. Most of the gold in the Iron Quadrangle has come from these first two deposit types. The third type of gold deposit is hosted by carbonatized schist within shear zones. All three of these deposit types almost uniformly are coplanar with the regionally dominant foliation of N35°E and a lineation within the foliation that plunges to the southeast at generally moderate angles.

In the Proterozoic rocks in the property area, gold occurs in the basal conglomerate of the Moeda Formation (Caraça Group) and in the Itabirite horizon of the Cauê Formation (Itabira Group) that is associated with fault zones in the iron ore.

## Mineralization

Three main general types of gold mineralization occur in the Iron Quadrangle:

Fresh to limonite-rich sulfide masses, ranging from disseminated to massive, in association with the BIF layers or in hydrothermally altered schists rich in quartz, chlorite, and sericite;

Masses of milky to microcrystalline quartz showing fresh to limonite-rich sulfides and, sometimes, visible gold, hosted by hydrothermally altered schists rich in quartz, chlorite, and sericite; and

Conglomerates with clasts of quartzite, milky quartz, massive and banded chert, felsic volcanic rocks and quartz-schists. The matrix can be quartzitic, arkosic, or carbonaceous. Locally, round (buckshot) pyrite and crystalline pyrite are abundant in the matrix.

Most gold-bearing units in the Iron Quadrangle, with the exception of the gold-bearing conglomerates, are strongly controlled by linear structures such as fold axes stretching lineations and intersection foliations. Ore bodies present a cigar or pencil shape, showing continuity along the plunge and relatively small cross sections. They can be longer than five kilometers, such as at the Morro Velho Mine and Cuiabá Mine, and the thickness of the ore bodies varies from a few centimeters to more than 30 meters.

Gold is associated with sulfides, mainly pyrite and arsenopyrite. The mineralized bodies are controlled by mineral stretching lineations and fold axes that have an average plunge of 1190/200.

Gold mineralization in the property area formed two types of deposits. The dominant type is associated with disseminated sulfides in quartz veins and sericite/chlorite schists, as a result of the hydrothermal alteration development in shear zone. The second type is in the basal conglomerate of the Moeda Formation.

Ore shoots are composed of concentrations of the microcrystalline quartz veins in a sericite/chlorite schist matrix. Gold occurs as small visible particles in quartz or sulfides. These quartz-rich veins exhibit boudinage shapes, with thicknesses ranging from a few centimeters to 30 meters, widths from ten meters to 200 meters, and are continuous down plunge for hundreds of meters, continually following the plunge. Gold grades vary, and grades in the range of 100 grams per ton to 500 grams per ton are not uncommon due to the coarse nature of the gold.

## Exploration and Drilling

Initial exploration surveys at the Paciência property were made between 1979 and 1990 by AngloGold Ashanti. A regional geochemical study followed by aerial photography interpretation singled out the old workings, which gave rise to a detailed channel sampling program covering the entire trend.

Subsequently, a drilling campaign covering about 12 kilometers on a 100 to 200 meter grid was carried out. After defining the best mineralized zones, a ramp was opened and exploration drifts and underground diamond drill holes were completed. Some targets were defined, two of which stood out for more focused exploration: Paciência/Santa Isabel and Bahú.

The underground development in Bahú was performed by AngloGold Ashanti. Toniolo Busnelo S.A., a local company, was contracted for the underground development work at Santa Isabel.

Channel sampling covering the drift section was made at three-meter intervals and horizontal underground diamond drill holes were drilled on a 15-meter grid. The channel samples were collected at right angles to the quartz masses or the foliation developed by the shear zone. All samples were assayed by fire assay methodology at AngloGold Ashanti's laboratory located in Nova Lima in the State of Minas Gerais, which holds international certification.

The exploration campaigns carried out by AngloGold Ashanti are summarized below:

### Santa Isabel Site

Ramp and drifts	1,586 meters
Surface diamond drill holes	8,924 meters and 47 holes
Underground diamond drill holes	2,695 meters and 65 holes
Underground channel samples	3,553 samples
Geological and topography maps	

Bahú Site

Ramp and drifts	540 meters
Surface diamond drill holes	2,025 meters and 10 holes, ranging between 30 meters to to 301.20 meters (HQ & NQ)
Underground diamond drill holes	2,858 meters and 28 holes, ranging between 20.80 meters to 197.37 meters (BQ)
Underground channel samples	4,676 samples
Geological and topography maps	

Other Sites

Surface diamond drill holes	11,249 m and 70 holes ranging between 81.70 m to 300.00 m (HQ & NQ)
Channel samples	Over 5,000 samples
Geological and topography maps	

The results related to the Bahú Site and the several other sites were not included in the mineral resource estimate model, which took into account only data related to the Santa Isabel target. The exploration services carried out at Bahú and other sites are reported above because they were part of the AngloGold Ashanti exploration campaign.

During the 1980s, AngloGold Ashanti completed 47 surface drill holes totaling 8,924 meters and 65 underground drill holes. Surface drill holes were drilled on 40-meter average spaced lines, while underground drill holes were spaced 15 to 25 meters apart. Core samples had variable diameters between HQ and BQ, as a function of the lithology.

The surface drill holes began in HQ and were reduced to NQ after the weathered zone was crossed. The underground holes were drilled in BQ. The drill rigs included Diacore 4, 6, and 8 for surface holes and BBS-01 and JKS-01 for underground holes. Tropany and Sperry Sun survey instruments were used to measure hole deflections.

In 2003, Jaguar bought the property from AngloGold Ashanti and started its mineral resource evaluation in accordance with NI 43-101 guidelines. The exploration effort comprised three phases as described below.

Phase 1: After interpretation of the available data, a complementary underground program was performed in order to test the continuity of the mineralization about 300 meters below Level 1 (930 meters above sea level). The data reinterpretation showed seven ore shoots. During this phase 6,641 meters were drilled in 46 diamond drill holes.

Phase 2: A total of 22 additional holes were drilled, totaling 6,968 meters. Diamond drill hole deflections and road access problems (environmental interferences) made it unfeasible to complete the program.

Phase 3: The necessity of more underground development to allow additional holes to be drilled has been determined to confirm the continuity of mineralization below the elevation 750 meters above sea level and increasing the information density between elevations 850 and 750 meters above sea level. A drift has been opened, which started at the end of the previous AngloGold Ashanti development (Front SE).

The following was achieved during Phase 3:

Drifts	530 meters
Underground drilling	11,070 meters in 50 holes
Channel samples	450 samples
Geological and topography maps	
Mineral Resource Estimate / Categorization	

During 2008, Jaguar conducted extensive underground development and exploration activities at the NW1 Target (Marzagão) and the Conglomerates Target (Palmital) to add additional tons vertically as well as horizontally in an effort to increase the mineral resource base for the Paciência operation. As part of the exploration effort at these two targets, a total of 9,152 meters was drilled in 42 drill holes during 2008.

Overall, the grades and mineralization observed at the NW1 Target are similar to those measured at the Santa Isabel mine. The access ramp, which is five meter x five meter in size, was completed early in 2008. A total of 2,393 meters of ramp and drifts have been developed at the NW1 Target, which is located two kilometers northwest of the Santa Isabel mine. This underground cross cut intersected the second level of the Santa Isabel mine in July 2010.

During 2009, Jaguar continued its exploration program in the NW1 and Conglomerates Targets, as well as other targets, including drifts for mine development, in an effort to increase the mineral resource base for the Paciência operation. A total of nine surface drill holes totaling 1,450 meters were completed at the NW1 Target to better define mineralization detected during the underground drifting process. Underground activities continued with development, drilling and sampling of the drift's face and roof. In 2009, Jaguar also completed 2,812 meters of drilling in 13 drill holes at the Paciência Shear Zone between the NW1 Target and the Santa Isabel mine. Drill hole results confirmed the continuity along strike of the structure between these two areas.

At the Bahú Target, located approximately 6.5 kilometers northwest of the Santa Isabel Mine, exploration works performed by AngloGold Ashanti around the exploration drift defined several ore bodies with 30 to 70 meters in length and 2 to 4 meters in thickness with an average grade of 6.18 grams per ton. Additionally, exploratory drilling to the south pointed out a separate zone, Bahú-Quati, with a group of similar orebodies grading an average of 7.96 grams per ton.

During 2010 and the first quarter of 2011, a drilling program consisting of 16,980 meters in 135 drill holes was completed at the Bahú-Quati target. Encouraging results confirmed the down plunge continuity of the mineralization from a historical pit-bottom outcrop to over 250 meters beneath the surface. The drilling program delineated a series of orebodies with 25 to 60 meters in length and 2 to 8 meters in thickness with an average grade of 4.0 grams per ton. The mineralized structure is open at depth.

During 2011, at the Palmital Mine, Jaguar continued with underground development to access and open Level 4 to expose the conglomerate horizon. An underground exploratory drilling program was also performed with 1,295 meters drilled in 17 drill holes. Channel samples carried out to date confirm the grades and the continuity defined during the surface and underground drilling campaigns.

In June 2011, Jaguar filed a NI 43-101 compliant technical report prepared by TechnoMine on a number of targets located within the Paciência mining complex. This technical report added 201,100 ounces of Measured and Indicated Mineral Resources and 38,860 ounces of Inferred Mineral Resources at the Paciência mining complex.

Also in 2011, as part of Jaguar's mineral resource expansion program, additional deep drilling from an underground exploration drift developed from Level 4 at the Santa Isabel mine was completed. From collar positions along a 530-meter exploration drift at 775 meters above sea level, 4,962 meters in 28 drill holes were completed to delineate the extension of the ore bodies 150 meters below Level 5 of the Santa Isabel mine. Additional underground drilling was conducted at Marzagão early in 2011. This program consisted of 2,610 meters in 29 drill holes below Level 2 (850 meters above sea level) and designed to delineate a new ore panel 50 meters below present mining. Results from the Santa Isabel and Marzagão mines confirmed the plunge extension of the ore bodies.

During 2012, a total of 10,043 meters of underground delineation drilling was performed at the Santa Isabel and Marzagão mines. In 2013 the resource models were revised and are reflected in the Resources and Reserves Tables above.

#### Sample Preparation, Analysis and Security

Trenching, drilling, and sampling were performed during the 1980s in accordance with AngloGold Ashanti's controls and standard industry practices at that time (pre NI 43-101).



The following channel sampling procedures were used in trenches used by AngloGold Ashanti. First, sites were cleaned with a hoe, exposing the material by scraping. Next, structures were mapped, lithologic contacts were defined, and samples were marked so that no sample had more than one lithology. Samples had a maximum length of one meter and weighed between one and two kilograms. Channel samples were collected from outcrops, old excavations, and drift walls. This consisted of manually opening the channels with lengths ranging from 50 centimeters to one meter, average widths between five to ten centimeters, and about three centimeters deep, using a hammer and a steel pointer crowned by a widia. Either an aluminum tray or a plastic canvas was used to collect the material. The samples were then stored in a plastic bag and identified by a numbered label, which was protected by a plastic cover and placed with the sample. At the sampling site, samples were identified by aluminum plates, labels, or wooden pegs. Next, sketches were drawn with lithological and structural information. The sample locations were surveyed by theodolite.

Drilling was carried out by AngloGold Ashanti drill operators using their own drill rigs, HQ and NQ diameter for surface diamond drill holes and BQ for underground drill holes.

The cores were stored in wooden boxes of one meter in length with three centimeters of core per box (H diameter) or four centimeters of core per box (B or N-equivalent diameter). The number, depth and location of holes were identified on the boxes by an aluminum plate. The drilling interval and core recovery were identified inside the boxes by small wooden or aluminum plates.

During logging of the hole, geological information was collected, the interval and recovery were verified, and samples for chemical analyses were defined. Samples were identified in the boxes by highlighting their side or by labels.

Samples were cut in the middle with a diamond saw or a hammer, orthogonally to the structure direction that controls the mineralization. If the samples were of weathered oxide mineralization, either a spatula or a spoon was used to divide and collect the sample. One half was stored in a highly resistant plastic bag, identified by a laminated label, and the other half was kept in the box at a warehouse. The standard procedure was to cut the core parallel to the long axis.

In the case of metallurgical testing, the stored half was subdivided again. One quarter of the original sample was stored, and the other quarter was conveyed to the assigned metallurgical laboratory.

Sampling intervals were generally defined in accordance with the key geological control parameters so that after lithologic contacts were defined, samples could be marked inside each unit, maintaining the dimensions specified above.

The assays were made by AngloGold Ashanti's laboratory in Nova Lima, state of Minas Gerais. The fire assay/AA method was used. At that time, the AngloGold Ashanti laboratory had a standard procedure for all sample assays. They re-assayed all the assays which returned grades more than three grams per ton. One duplicate was assayed for every 20 samples run.

Channel sampling carried out by Jaguar was restricted to the property's underground drifts. First, sites were cleaned with a hoe, exposing the material by scraping it. Next, structures were mapped, lithologic contacts were defined, and samples were marked so that no sample had more than one lithology. Usually, the samples had a maximum length of one meter and weighed between one and two kilograms. Channel samples were taken by manually opening the channels, using a hammer and a chisel or a small jackhammer. The channels had lengths ranging from 50 centimeters to one meter, average widths between five and ten centimeters, and were about three centimeters deep. The channel samples were collected starting at the floor level on one side and circling the drift section to the floor on the opposite side. An aluminum tray or a plastic canvas was used to collect the material. The samples were then stored in plastic bags and identified by numbered labels, which were protected by a plastic cover and placed with the sample. At the sampling site, the samples were identified by number sequence painted in the drift walls. The sample locations were surveyed by theodolite.

Underground drilling was carried out by Geosol Geologia e Sondagens Ltda. and surface drilling was carried out by drilling contractor Mata Nativa. Surface drill holes were drilled with HQ and NQ tools and underground holes were drilled with BQ diameter. Drill holes were accepted only if they had more than 85% of recovery from the mineralized zone. The drill holes executed to evaluate the ore body had their deviations measured by Tropary, Sperry Sun, and DDI/Maxbore survey equipment.

The cores were stored in wooden boxes of one meter with three meters of core per box (H diameter) or four meters of core per box (B or N-equivalent diameter). The hole's number, depth, and location are identified in the boxes by an aluminum plate in 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.

During logging of the geological information, progress and recovery measures were verified and chemical analyses samples were defined. Samples were identified in the boxes by highlighting their side or by labels. Samples were cut in the middle with the help of a diamond saw and a hammer, at right angles to the structure direction that controls the mineralization. One half was stored in a heavy duty plastic bag, identified by a laminated label, and the other half was kept in the proper box at the core shed.

In the case of metallurgical testing, the stored half is subdivided again. One quarter of the original sample is stored and the other quarter is conveyed to the assigned metallurgical laboratory.

Samples were prepared at the SGS and LKG laboratories in Belo Horizonte and at the Jaguar laboratory by drying, crushing to 90% minus two millimeters, quartering with a Jones splitter to produce a 250-gram sample, and pulverizing to 95% minus 150 mesh. Gold assays were by standard fire assay procedures, using a 50 or 30-gram sample with an atomic absorption (AA) finish.

Analytical results were forwarded to Jaguar by email, followed by a paper copy. LKG and Jaguar laboratories used identical sample preparation and analyses methodologies as the SGS facility. The LKG laboratory has been assessed by ABS Quality Evaluations, Houston, Texas, and found to be in compliance with ISO 9001.

Jaguar's Quality Assurance/Quality Control (QAQC) Program consisted of: submission of the blanks, standard reference samples, and duplicate samples to the laboratories; re-submission of selected rejects and pulps to the laboratories for re-assays and checking the original results at an outside accredited assay laboratory.

#### Mineral Resource and Mineral Reserve Estimates

As of December 31, 2013, Paciência has an estimated 5,137,240 tonnes of Measured and Indicated Mineral Resources at an average grade of 3.21 grams per tonne totaling 530,830 ounces of gold and 2,179,750 tonnes of Inferred Mineral Resources at an average grade of 2.89 grams per tonne totaling 202,180 ounces of gold.

Proven and Probable gold Mineral Reserves, which are included in the reported Mineral Resource estimate, are estimated at 323,300 tonnes at an average grade of 1.85 grams per tonne totaling 19,240 ounces.

#### Mining Operations and Metallurgical Process

Paciência's Santa Isabel mine was an underground mine that used the "cut-and-fill" mining method and removed ore in horizontal slices, starting from a bottom cut and advancing upwards (overhand cut-and-fill). The treated tailings from the backfill plant and development waste were used for backfilling. This method allowed for ore selectivity, greater recovery and stability of the openings and reduction of waste and tailings disposed of on the surface.

The main access to the mine is provided by a five meter by five meter ramp with 15% inclination that is connected with the levels and sublevels. The sill pillar between levels is five meters thick.

Drifts were developed to expose the footwall and the hanging wall. The waste layers between the ore lenses excavated and used as rockfill within the stopes. Hydraulic backfill, using cyclone and detoxed tailings to fill the stopes, started when the excavation of the first slice reaches the entire length of the ore body.

Drilling was carried out by hydraulic jumbos with single or twin booms. Haulage of blasted ore and waste was carried out by the two and five cubic yard LHD wheel loaders, respectively, and 16-ton haul trucks.

Ore produced at the Santa Isabel mine was transported to the adjacent 2,000 tons per day Paciência Plant.

The mineral processing route consisted of the following sequence of macro-unit operations:

- Crushing and screening;
- Grinding, cycloning, gravity separation, and thickening;
- Leaching and ADR CIP process.
- Gold recovery by an EW circuit, after elution of the loaded carbon; and
- Cyanide destruction for the leaching tailings and a backfill plant.

The leaching recovery of 89% was based on Dawson test work, while the gravity circuit gold recovery of 40% was based on Knelson Research & Technology Centre – Langley, BC, Canada (“Knelson”) test work and modeling. A 99% efficiency/lockup factor was adopted, in connection with Adsorption/Elution/EW, and other downstream and ancillary operations. The recovery of the leaching was calculated to be  $(89\% - \text{leaching}) * (99\%) = 88\%$ . The estimated overall gold recovery was:  $R = (0.40 \text{ Gravity Circuit}) + (1.0 - 0.40) * (0.8811) = 93\%$ .

A three-stage crushing and screening plant fed crushed ROM into a surge silo equipped with two vibrating feeders for two ball mills (one on stand by) in a closed circuit with cyclone cluster and a gravity concentration (Knelson CD-30) and intensive cyanidation (Acacia) of the concentrate. The cyclone overflow was thickened to feed a conventional leaching and ADR CIP circuit. The CIP tailings pulp, after been detoxified with Caros’s acid (CyPlus “cold” technology), was conveyed to the geomembrane-sheeted tailings dam. Gold recovery was performed by a conventional elution and EW circuit.

In May 2012, Paciência was placed under care and maintenance. As the studies to resume operations progress, changes in mining methods and process routes may be considered in order to reduce operating costs. These changes may require capital expenditures. Jaguar will continue to study improvements to resume cost effective operations.

#### Environmental Conditions

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

#### Taxes

Income taxes are 34% of taxable profit, including a 25% corporate tax rate and a 9% social contribution. In addition to direct operating costs, royalty payments and depreciation are deductible in determining taxable profit.

## Mine Life

Once operations recommence, it is anticipated Paciência will have an effective mine life of 10 years. This figure considers Mineral Reserves and Measured and Indicated Mineral Resources. The ore bodies are open at depth.

## Markets

The gold produced at the Paciência operation during 2012 was transported to São Paulo for refining and sale on a semi-monthly basis at market prices.

## Caeté Mining Complex

### Property Description and Location

The Caeté mining complex, which includes the Pilar and Roça Grande mines and the Caeté Plant, is located in the state of Minas Gerais, Brazil, 50 kilometers to 100 kilometers east of the city of Belo Horizonte. The property is comprised of 9,190 hectares of mining and exploration concessions. The property is owned through Jaguar's wholly-owned subsidiary, MSOL.

In December 2003, Jaguar acquired the Santa Bárbara property, which includes the Pilar mineral concessions, from Vale. In November 2005, Jaguar entered into a mutual exploration and option agreement with Vale with respect to seven concessions, known as the Roça Grande concessions, located on 9,500 acres of highly prospective gold properties along 25 kilometers of a key geological trend in the Iron Quadrangle. The contract between Jaguar and Vale provided Jaguar with the exclusive right over a 28 month period beginning November 28, 2005 to explore and conduct feasibility studies and to acquire gold mining rights in the Vale properties if the studies supported economical mining operations. The contract granted corresponding rights for Vale to explore the Jaguar property for iron and acquire mineral rights in the property during a three-year period. In November 2007, Jaguar notified Vale of its intent to exercise the option to acquire all seven Roça Grande concessions. The final transfers of the Roça Grande concessions to Jaguar were concluded in December 2010 and August 2011.

The mining concessions related to Caeté's Roça Grande and Pilar mines are in good standing. Jaguar has all the necessary environmental licenses that are required for the operation of the mining complex.

#### Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Roça Grande and Pilar mines are located in the municipalities of Caeté and Santa Bárbara, respectively, in the state of Minas Gerais, Brazil. Caeté (35,000 inhabitants) and Santa Bárbara (30,000 inhabitants) are comparable towns, located 55 kilometers and 100 kilometers, respectively, from Belo Horizonte.

The towns have good urban infrastructure, including banks, hospitals, schools and general commerce. Skilled labor is readily available.

The properties can be accessed via a federal highway and state paved roads. A partially paved 27-kilometer secondary road is used to transport Pilar ROM to the Caeté Plant.

Annual rainfall in area averages between 1,300 millimeters and 2,300 millimeters, 84% of which falls during the rainy season between October and March. December and January present the most intense precipitation. Winds, predominantly from the south and southeast, have a low average speed (<1 m/s). The annual average temperature is slightly above 20°C. Air humidity ranges up to 90% even in the summer months. Annual average evaporation is approximately 934 millimeters.

Power to the project site is currently supplied by CEMIG. Emergency power is provided by diesel back-up generators.

#### History

Jaguar acquired the Pilar property from Vale in December 2003 and in November 2005, the two companies entered into a mutual exploration and option agreement with respect to the Roça Grande mineral concessions.

Jaguar initiated exploration activities at Pilar in 2006 and initially contemplated building a sulfide plant on site, but the acquisition of the Roça Grande concessions created an opportunity to develop an expanded project, with greater plant

capacity to receive ore from several mineral properties.

During 2007, a number of key events occurred with respect to the Caeté Project. Jaguar completed a scoping study, received the Implementation License for the Project, secured the power contract for the start-up and commissioned TechnoMine to prepare a NI 43-101 technical report on the Caeté Project mineral resources, which was completed during the year.

In September 2008, expansion plans at the Caeté Project continued as TechnoMine completed the NI 43-101 feasibility study technical report. By the end of the third quarter in 2008, all necessary permits and licenses for the construction and commissioning phase of the Caeté Project had been received and Jaguar initiated civil works for the milling and treatment circuits.

In November 2008, due to the decline in gold prices, the financial markets and worldwide equity values, including the gold sector, Jaguar temporarily suspended development of the Caeté Project pending an assessment of market conditions and the availability of capital to move the project forward. Consistent with the decision to suspend the development of the Caeté Project, underground work at the Roça Grande Mine was temporarily suspended; however, development at the Pilar Mine continued.

In December 2008, Jaguar began transporting ore by truck from the Pilar Mine to the Paciência Plant to supplement the ore being supplied from Paciência's Santa Isabel Mine.

In March 2009, Jaguar completed a Cdn.\$86.3 million equity offering, the proceeds of which were primarily used to restart development and construction at Caeté. During 2009 and part of 2010, Jaguar focused on the implementation and construction of the Caeté Project. The Caeté Plant was commissioned in June 2010. The first gold pour was conducted in August 2010 and commercial production was declared in October 2010. Capital expenditures for the Caeté Project totaled US\$127 million.



In October 2010, TechnoMine completed an amendment to the 2008 feasibility study, which consisted of an enhancement of the process route and updated Mineral Resource and Mineral Reserve estimates afforded by an increase of the gold price over the life of mine (“LOM”).

In June 2011, Jaguar filed a NI 43-101 compliant technical report prepared by TechnoMine on a number of targets located within the Caeté mining complex. This technical report added 159,250 ounces of Measured and Indicated Mineral Resources and 92,040 ounces of Inferred Mineral Resources for the Caeté mining complex.

During 2012, an operational review of the Caeté operation determined that operational overhead could be reduced and productivity improved without impacting long-term production capability. It was also determined to transition the operation to smaller ore and waste development headings, reduced stope dimensions and new ground control methodologies in order to improve head grade over historical results through reduced dilution. The new ground control methodology is progressing and work is ongoing on the transition toward smaller heading. The changes are being implemented concurrently with continuing operations and are expected to reduce the cash operating cost per ounce and allow for increased and more predictable ounce production.

Gold production at Caeté decreased to 52,170 ounces in 2013, as compared to 54,996 ounces in 2012.

## Geological Setting

Shortly after the Portuguese discovered Brazil in 1500, Portuguese explorers known as *Bandeirantes* ventured into the interior of the country from Rio de Janeiro and Salvador and discovered alluvial gold in the mid-16th century. Later on, the *Bandeirantes* ventured into the country’s interior primarily from São Paulo. Gold found in stream drainages in several parts of the Iron Quadrangle was a major factor in the development of the region. During the 17th and 18th centuries, an era commonly referred to as the Brazilian Gold Cycle, mining in the Caeté and Santa Bárbara region included numerous moderate size mines, such as Gongo Soco, Cuiabá, Taquaril, São Bento, Santa Quitéria, Pary, Luis Soares, Juca Vieira, and Brumal.

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 of which was hosted by Archean or Early Proterozoic banded iron-formations contained within greenstone belt supracrustal sequences.

The ore bodies, which are 15 kilometers apart, are emplaced in Archean age meta-volcanic and meta-sedimentary rocks of the Nova Lima Group, folded and sheared along a NE-SW regional trend.

1. Pilar

The Pilar Ore Body is located at the basal unit of the Nova Lima Group, a unit with a predominance of meta-mafic and meta-ultramafic rocks with layers of both clastic and chemical meta-sediments. The volcanic rocks predominantly consist of talc schist, meta-basalts, meta-dunites, meta-peridotites and serpentinites. Secondly, schist occurs with variable amounts of carbonaceous material, sericite, carbonate, chlorite, and quartz. BIF and meta-chert layers are hosted in the meta sediment.

In these layers it is possible to measure the original bedding, with variable directions due to folds, an average axis approximately  $135^{\circ}/45^{\circ}$ . The main BIF layer mapped in the Pilar site is continuous, with length in excess of 10 kilometers and width variable between 5 meters to 50 meters. At the outcropping north extremity of this layer at the site, known as São Jorge, the BIF was intercepted by a shear zone that promotes a strong hydrothermal alteration. On surface, this site contains an increased concentration of gold mineralization related to weathered sulfides and quartz veining (found underground in pyrite, pyrrhotite, and arsenopyrite).

Due to the hydrothermal alteration related to the shear zone, large quantities of sericite, chlorite, carbonate, silic, sulfides and also gold were included in the system.

A preliminary interpretation of the gold mineralization at the Pilar mine is that the BIF and gold were deposited simultaneously in a first phase. Later, due to the shearing events, more gold was intruded in the system and also a remobilization and concentration occurred, creating ore shoots dipping 40° to SSE. The regional foliation (S<sub>2</sub>) is very well preserved in all schists showing regular direction, as N30° -50° E / 40° -65°.

At the western border of the Pilar site, the older rocks (talc schists) were transported over the younger rocks by an inverse fault (thrust fault).

## 2. Roça Grande

In the Roça Grande site, the dominant rock types are meta-volcanoclastics and tuffs, represented by quartz-sericite-chlorite schists with variable amounts of carbonaceous material, BIF, metacherts, and graphite schists. This site is located in the upper unit of the Nova Lima Group. The bedding is well defined by the iron carbonate and siliceous layers found in the BIF horizons, with an average strike of N70° E, dipping about 30° SE.

Folds are very common and present a regular fold axis azimuth approximately 110°/30°. Two important BIF horizons are recognized at the Roça Grande site. They are roughly parallel and are called Structures 1 and 2. The North Structure (Structure 1) hosts the RG-01 mineralized body and the South Structure (Structure 2) hosts the RG-02, RG-03 and RG-06 mineralized bodies. The RG-07 mineralized body is located immediately in the hanging wall of Structure 1.

All rocks examined in the Pilar and Roça Grande Ore Bodies were subjected to different degrees of hydrothermal alteration that resulted in the development of carbonate, chlorite, sericite haloes, and quartz veins. Disseminated sulfides (pyrite, arsenopyrite, stibnite, pyrrhotite, and chalcopyrite) in the quartz veins are common.

### Deposit Types

The gold metallogeny in the Iron Quadrangle is complex. Three types of deposits are the major sources for gold in the region. Initially, during the deposition of the Archean Nova Lima Group greenstone belt rocks, sea floor volcanic

exhalative processes produced BIF and chert that hosted syngenetic sulfide-rich gold deposits. Subsequently, these greenstone belt rocks were deformed and epigenetic shear zone-related gold deposits were formed. The source of the gold for these epigenetic deposits was quite possibly remobilized gold from the syngenetic exhalative deposits. Most of the gold in the Iron Quadrangle has come from these first two deposit types. The third type of gold deposit is hosted by silicified and carbonatized schist within shear zones. All three deposit types are almost uniformly coplanar with the regionally dominant foliation of NE-SW and a lineation within the foliation that plunges to the southeast at generally moderate angles.

## Mineralization

Gold in the Pilar and Roça Grande ore bodies occurs dominantly as sulfidized zones with quartz veins or millimeter to centimeter scale sulfidized layers and lenses within sheared banded iron formations and metacherts, in disseminations or concentrated in fold hinges.

Gold is present in fine grains mainly associated with arsenopyrite and less with pyrite and pyrrhotite. Locally, coarse gold, on a millimeter scale, is found in fractures or in the border of the quartz veins. A significant amount of gold is also emplaced in sulfidized quartz-sericitic-carbonatic lenses resulting from hydrothermal activity within shear zones.

Both types of gold are found in the Pilar and Roça Grande ore bodies. Gold mineralization at Pilar is observed equally in both types. At Roça Grande, gold mineralization is more commonly associated with the BIF horizons. Only in the RG-07 mineralized body can gold be found in quartz veins hosted by sericite (chlorite) schist associated with E-W shear zone. In the RG-01, RG-02, RG-03, and RG-06 mineralized bodies, the gold mineralization is developed roughly parallel to the original bedding and is related to centimeter bands of massive to disseminated sulfides. The RG-07 ore body is located inside the E-W shear zone. All mineralized zones have dimensions variable between 80 meters to 300 meters in width and two meters to ten meters in thickness and all are open at depth.

Three mineralized sectors were defined at Pilar: São Jorge, SW, and PMS-15. São Jorge is the most important sector and the mineralization occurs associated with BIF and with quartz veins in the same proportion. In the SW mineralized sector, all the ore zones are related with BIF while the PMS-15 mineralization occurs inside a shear zone with quartz veins and small pieces of the BIF (breccias). Gold is directly associated with massive and disseminated sulfide, subordinately, it can be found as free/visible in quartz.

### *Exploration*

#### 1. Pilar

In 2004, Jaguar started an exploration campaign at the Pilar property in order to complete a mineral resource evaluation in accordance with NI 43-101 guidelines. The exploration effort comprised three phases as follows:

Phase 1: After interpretation of the available data, an exploratory diamond drilling program was performed to test the control and the continuity of the mineralization to 200 meters below the surface. Ore bodies were mainly ore-shoots within the BIF. The holes intercepted several significant mineralized intervals and pointed out the need for additional investigation of the structural geology of the area. During this phase, 6,489 meters were drilled in 36 diamond drill holes.

Phase 2: Diamond drill holes tested the structural control and the continuity of the mineralization to 300 meters below surface. The ore bodies were both ore-shoots within BIF and ore-shoots within the shear zone. In this phase, 12,926 meters in 41 holes were drilled.

Phase 3: This phase included underground exploration and underground and surface diamond drilling. The objective was to open up and sample the ore bodies at level 693 meters above sea level with the help of infill underground drilling. Surface drilling is oriented to gain more data on structural control and in detailing the main ore-shoots. Through December 2010, Jaguar completed a total of 10,390 meters in ramps and drifts, underground drilling totaling 11,200 meters in 180 holes to detail the ore bodies at levels 1, 2 and 3 and surface drilling totaling 10,186 meters in 19 holes.

Late in 2010 and during 2011, Jaguar completed an underground drilling program to investigate the down plunge continuity of the mineralization between levels 4 and 10 at the Pilar Mine. A total of 12,574 meters in 44 drill holes were completed, confirming the extension at depth of the ore bodies. In 2012 and 2013 delineation drilling underground continued.

## 2. Roça Grande

Jaguar has drilled intensively at the Roça Grande ore bodies. Four mineralized bodies named RG-01/07, RG-02, RG-03, and RG-06 were selected for infill diamond drilling and underground exploration started in the RG-01/07 body.

The following has been completed through December 2010:

- RG-01/07: 10,625 meters in 111 surface and underground drill holes and 5,906 meters in ramps and drifts
- RG-02: 16,580 meters in 59 surface drill holes and 1,168 meters in ramps and drifts
- RG-03: 9,407 meters in 56 surface drill holes
- RG-06: 7,954 meters in 55 surface drill holes

During 2011, Jaguar completed 9,983 meters in 71 drill holes at the RG-01/07 body as part of an underground infill drilling program. In 2012 and 2013, Jaguar performed 13,922 meters and 10,142 meters of underground delineation drilling, respectively, in RG-01/07.

## Drilling

### 1. Pilar

MSOL started exploratory works at Pilar in 2004 and has since been actively drilling from the surface and from underground drifts. From the surface, three sectors of the ore body, Pilar Sul, São Jorge, and São Jorge Extensão were drilled first in exploratory and now in locally detailed grids. Drill hole lengths range from 41 meters to 841 meters. Core diameters are consistently HQ from surface through the weathered rock to bedrock. At one to three meters into bedrock the holes were reduced to NQ diameter to the final depth.

Drill collars were set out by GPS or theodolite surveys. All holes were drilled within three meters 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 surveyed with theodolite and cement markers emplaced. Downhole surveys were completed on 90% of the holes using Tropari (Phase I) or Sperry-Sun and Maxibor equipment (Phases 2 and 3).

Underground drilling is ongoing and is being used as a guide to search for and to detail mineralized bodies laterally to the opening of the drifts. Drill holes are performed in BQ and LTK diameters. Collar location, orientation and downhole surveys follow the same system above.

During 2012 and 2013, totals of 16,504 meters and 19,493 meters, respectively, were performed as delineation underground drilling in the Pilar mine and the results have confirmed the continuity and the configuration of the mineralized bodies, which are still opened at depth and in the SSE direction.

## 2. Roça Grande

Jaguar started diamond drilling at the Roça Grande ore body in August 2006. Following the completion of the first exploratory holes drilled at the RG-01/07, RG-02, RG-03, and RG-06 mineralized bodies, Jaguar carried out an infill program to detail these mineralized bodies.

Hole lengths ranged from 40 meters to 559 meters. Holes were located to investigate the mineralized bodies continuity laterally and at depth. Core diameters are consistently HQ from surface through the weathered rock to bedrock. At one to three meters into the bedrock the holes were reduced to NQ diameter until the final depth.

Drill collars were set out by theodolite or GPS surveys. All holes were drilled within three meters of the intended planned location. Azimuth and inclination for the angle holes were set by brunton compass, deemed accurate to within 2° azimuth and <1° inclination.

Following completion of the holes, the collars were surveyed with theodolite and cement markers emplaced. Downhole surveys were completed on all holes with more than 100 meters in length using Maxibor equipment.

## Edgar Filing: Jaguar Mining Inc - Form 20-F

During 2008, Jaguar completed 31,501 meters of drilling for a total of 92 drill holes in the exploration concessions that are part of the Caeté Project mining complex.

During 2009, Jaguar completed 8,650 meters of drilling for a total of 53 drill holes in the exploration concessions that are part of the Caeté Project mining complex.

During 2010, Jaguar drilled a total of 9,649 meters in 84 surface drill holes at some of these targets. Late in 2010 and during 2011, Jaguar completed an underground drilling program at the Pilar Mine to confirm the continuity of the structure down to Level 11, approximately 860 meters from surface. A total of 12,574 meters were completed in 44 holes from this new exploration drift. Significant intercepts of gold mineralization have been identified at depth, confirming the down plunge continuity to 250 meters below current mining levels. During 2012, underground delineation drilling at the Pilar and Roça Grande mines totaled 30.4 kilometers.

During the third quarter of 2012, Jaguar completed a first-stage diamond drilling campaign at the Moita target, located four kilometers NW of the Caeté Plant. This campaign, which comprised of 1,115 meters in 16 drill holes, was performed to test a 400 meters by 50 meters mineralized zone delineated by soil sampling and trenching, within hydrothermally altered metasediments hosted by a shear zone. Drilling results confirmed the SE down-plunge extension of the mineralization.

In 2013, underground delineation drilling at the Pilar and Roça Grande mines totaled 29,635 meters.



## Sample Preparation, Analysis and Security

Detailed documentation on the diamond drilling logs and gold sample analysis is available for both ore bodies in hard copy files. The majority of the drilling completed on the deposits prior to Jaguar's acquisitions was performed under Vale's control and the methods utilized conformed to standard industry practices from 1989 through 2003. Gold analyses were made internally in the Vale laboratory - SUTEC (*Superintendência de Tecnologia da Companhia Vale do Rio Doce*).

Channel sampling carried out by Jaguar was restricted to the drifts of the Pilar and RG-01/07 ore bodies and locally, on the surface, in the open pits RG-02 and RG-06 excavation made by Vale and at old works in the RG-01/07.

First, the surface was cleaned with a hoe, exposing the material by scraping it. Underground, the drift's walls were cleaned with water. Next, structures were mapped, lithologic contacts were defined, and samples were marked so that no sample had more than one lithology. Typically, the samples had a maximum length of one meter and weighed between one and two kilograms.

Channel samples consisted of manual openings of channels, with lengths ranging from 50 centimeters to one meter, average widths between five centimeters to ten centimeters, and about two and three centimeters deep, using a hammer and a steel pointer crowned by widia or a small jackhammer. Underground, the channel samples were collected starting at the floor level on one side, going over the drift section to the floor on the opposite side.

An aluminum tray or a plastic canvas was used to collect the material. The samples were then stored in a plastic bag and identified by a numbered label, which was protected by a plastic cover and placed with the sample. At the sampling site the samples were identified by number sequence painted in the drift walls. The sample locations were surveyed by theodolite.

The following are the diamond drill core sampling procedures adopted by Jaguar.

Surface drilling is being executed by drilling contractor Mata Nativa and underground drilling is being carried out by Jaguar's team. Surface drill holes are being drilled with HQ and NQ tools and underground holes drilled with BQ diameter.

The drill holes executed to evaluate the ore body have their deviations measured by Maxibore down the hole survey equipment.

The cores are stored in wooden boxes of one meter in length with three meters of core per box (H diameter) or 4 meters of core per box (B or N-equivalent diameter). The hole number, depth and place are identified in the boxes by an aluminum plate in 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. All core intervals selected for sampling have been sawed into equal halves. One-half is then collected for analysis and one-half kept in the core box for storage.

Samples were prepared, partially at the SGS laboratories in Belo Horizonte and partially at Jaguar's laboratory, by drying, crushing to 90% minus two millimeters, quartering with a Jones splitter to produce a 250-gram sample, and pulverizing to 95% minus 150 mesh. Analysis for gold was by standard fire assay procedures, using a 50-gram or 30-gram sample with an AA finish.

Analytical results were forwarded to Jaguar by email, followed by a paper copy.

Both SGS and Jaguar laboratories used identical sample preparation and analysis. The SGS laboratory has been assessed by ABS Quality Evaluations, Houston, Texas, and found to be in compliance with ISO 9001.

#### Mineral Resource and Reserve Estimates

As of December 31, 2013, Caeté has an estimated 13,885,310 tonnes of Measured and Indicated Mineral Resources at an average grade of 3.5 grams per tonne totaling 1,564,610 ounces of gold and 7,642,990 tonnes of Inferred Mineral Resources at an average grade of 2.75 grams per tonne totaling 675,870 ounces of gold.

Proven and Probable gold Mineral Reserves, which are included in the reported Mineral Resource estimate, are estimated at 3,758,120 tonnes at an average grade of 2.28 grams per tonne totaling 275,980 ounces.

### Mining Operations and Metallurgical Process

Caeté's mining complex is composed of two underground mines (Roça Grande and Pilar) that primarily utilize the "cut-and-fill" mining method as well as "sublevel stoping" in some areas. The cut-and-fill method allows for mining selectivity during ore breaking, high recovery, and stability of openings and of the mine as a whole. It also improves environmental conditions by reducing the amount of waste and tailings disposed on the surface.

The Roça Grande mine is divided into levels at 75 meters vertical spacing. The Pilar mine is divided into levels at every 75 meters. Between levels, there is a five-meter-thick horizontal sill pillar at the Roça Grande mine's RG-02 and RG-03 ore bodies, and a three-meter-thick pillar at Roça Grande's RG-01 and RG-07 ore bodies and at the Pilar mine. This design is in accordance with the geomechanical study. A 15-meter-thick crown pillar separates stope top from the surface in addition to structural roll.

Drifts within the ore are developed from the main access ramps to the mineralized ore bodies to expose the hanging wall and the footwall. Drilling is carried out by hydraulic single or twin boom jumbos, the blasted ore/waste is loaded by five cubic yard bucket LHD wheel loaders and hauled by 20-ton trucks to the Caeté Plant.

When the excavation of the first vertical slice reaches the entire length of the body, the hydraulic backfill process utilizing detoxified metallurgical plant tailings and/or waste will start. At first, a draining bund will be built with waste to contain the backfill. After a draining period, the backfill surface at Roça Grande will be leveled and another drilling and blasting cycle will start. Until the crown pillar that separates the underground mine from the surface or until the sill pillar of the next panel is reached, the mine will operate according to the following cycle: drilling, blasting, ventilation, loading, hauling, and backfilling.

Ore produced from the mines is transported to the 2,200 tons per day capacity Caeté Plant, which is adjacent to the Roça Grande mine. The Caeté Plant was declared commercial during the third quarter of 2010.

The mineral processing route consists of the following sequence of macro-unit operations:

Edgar Filing: Jaguar Mining Inc - Form 20-F

Block 1: 100% of the total mill feed (solids) – no cyanide addition.

- Crushing and screening;
- Grinding, cycloning and gravity concentration;
- Flotation of the gravity tailings;
- Backfill plant fed by the flotation tailings (about 90% of the total mill feed).

Block 2: 10% of the total mill feed (solids) – cyanide leaching.

- Regrinding, cycloning and thickening of the flotation concentrate;
- Conventional leaching and ADR CIP;
- Reground/thickened flotation concentrate;
- Recovery by an EW circuit after elution (desorption) of the CIP loaded carbon;
- Cyanide destruction plant for the leaching tailings pulp.

The overall metallurgical recovery (gravity separation/flotation/leaching/ADR) is 91.9%. The metallurgical recovery is based on testwork carried out by Dawson and Knelson.

The Caeté Plant includes five main units: three-stages crushing and screening, grinding, gravity separation, and cycloning, flotation, regrinding-thickening-hydrometallurgy, consisting of a leaching line of the flotation concentrate and an ensuing CIP - ADR circuit, a backfill plant and cyanide-free tailings disposal. The CIP detoxified (hydrogen peroxide) tailings pulp is conveyed to the geomembrane-sheeted Moita tailings dam. Gold recovery is performed by a conventional elution and EW circuit. The cyanide-free flotation tailings feed a backfill plant (cycloning), the overflow of which is thickened for water recovery, while the high-density underflow stream conveyed to a bare (nonlined) tailings dam (former RG-02 open pit). The underflow (68% solids by weight), corresponding to about 56% of the ROM tonnage is directed to the underground mines (Roça Grande and Pilar) and disposed jointly with mining waste.

A three-stage crushing and screening plant feeds crushed ROM into a surge pile equipped with four belt feeders for a ball mill, in closed circuit with a cyclones cluster, a gravity concentration (Knelson XD-40), and intensive cyanidation (Acacia) of the concentrate. The cyclone overflow feeds the flotation plant consisting of fourteen 500- cubic foot conventional flotation cells. The reground-thickened flotation concentrate feeds a conventional leaching and ADR CIP circuit. The CIP tailings pulp, after detoxification with hydrogen peroxide, is conveyed to the Moita geomembrane-sheeted tailings dam. Gold recovery is performed by a conventional elution and EW circuit.

The hydrometallurgical route starts at the flotation plant, which is fed by the grinding plant circuit-closing cyclones overflow. A leaching CIP ADR circuit of the reground flotation concentrate ensues. The process finishes with the smelting of cathodes into gold bullion by means of an induction furnace.

### Environmental Conditions

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

### Taxes

Income taxes are 34% of taxable profit, including a 25% corporate tax rate and a 9% social contribution. In addition to direct operating costs, royalty payments and depreciation are deductible in determining taxable profit.

### Mine Life

Based on the current mine plan, mining operations at Caeté will continue through 2028. This figure considers Mineral Reserves and Measured and Indicated Mineral Resources. The ore bodies are open at depth.

### Markets

All gold produced at the Caeté operation is transported to São Paulo on a weekly basis for refining and sale at market prices.

## Gurupi Project

### Property Description and Location

The Gurupi Project is located in the state of Maranhão, Brazil. MCT controls the Gurupi Project through a total of 32 mineral concessions totaling 138,548 hectares. The Cipoeiro and Chega Tudo deposits, which were the subject of a January 2011 feasibility study filed by Jaguar, are located in two of these 32 mineral concessions. No commercial production of gold has taken place on the Gurupi property.

The mineral rights (applications for mining concessions) in connection with the Cipoeiro and Chega Tudo deposits are in good standing.

The Cipoeiro and Chega Tudo deposits are located in an area that belongs to the National Institute of Colonization and Agrarian Reform (“INCRA”). Jaguar filed a request for release of land tenure from INCRA in February 2010. On December 28, 2010, INCRA issued a ruling that entitles Jaguar to start negotiations with landowners and settlers. Jaguar has carried out a socioeconomic evaluation in the area and completed a comprehensive resettlement project that has been well received by the landowners and settlers. INCRA had issued a memo in late 2013 rejecting Jaguar’s first proposal with respect to land negotiations. Another feasibility study is underway with a lower impact mining method. Jaguar intends to submit a new proposal to INCRA for land easement based on this study., however, 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, claiming, among other matters, that there is no INCRA agreement for MCT’s surface rights, which surface rights include an area in which there is a settlement of inhabitants that will be affected by the proposed project. See “Environmental Licensing” below.

In addition to statutory royalties based on gold production paid to the Brazilian government, Jaguar will be required to pay a 0.75% NSR to Rio Tinto Desenvolvidimentos Minerais Ltda. (“Rio Tinto”) on gold production from six mineral concessions, including Cipoeiro. On December 28, 2012, Jaguar received notice that Rio Tinto had transferred its royalties rights to Vaaldiam Mining Inc.

Jaguar will also be required to pay a sliding scale NSR, which is based on gold price and covers 27 mineral concessions, including Chega Tudo, to Franco-Nevada Corporation (“Franco-Nevada”) as follows:

<u>Scale of</u>	
<u>Franco-Nevada</u>	
<u>NSR</u>	
US\$/ounce (%)	
0-250	0.00
250-300	0.30
300-359	0.40
350-400	0.75
>400	1.00

#### Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Gurupi Project is accessed via the Maracaçumé - Chega Tudo village road, a single lane municipal dirt road. A paved highway, which connects São Luís to Belém, is located approximately 60 kilometers from Gurupi. The international airport of Marechal Cunha Machado is located in São Luis, the state’s capital located 500 kilometers to the northeast of the Gurupi Project. The city of Belém, which is located 383 kilometers from the Gurupi Project, has an international airport with direct daily flights to the United States. There is a small airstrip for light passenger aircraft near the town of Maracaçumé. The São Luis port receives about 50 ships per month and is equipped to handle supplies for the project. Skilled labor is expected to be available upon commencement of mining operations.

The climate is equatorial, dry in winter, and with a rainy period in summer (December to May). Average monthly temperatures range from 25.8°C in March to approximately 27.4°C in October and November. Temperature extremes range from 17.2°C to 37.7°C. Rainfall in the area can range between 1,200 mm and 3,200 mm, averaging 2,000 mm. Climate conditions permit year-round mining operations. Exploration field seasons are usually limited to the dry season as activities can be dependent on rainfall intensity.

The terrain surrounding the deposits is adequate for construction of all required facilities, including administration, camp, mine, plant, tailings and rejects, and waste rock disposal facilities. Power to the project site is currently supplied by the local utility company CEMAR.

Fresh water to the future plant will be provided by the Gurupi River, which is about 14 kilometers from the future plant site. A water treatment system will be installed at the plant site to provide proper potable water supply.

The physical relief in the project area varies from virtually flat to low rounded hills with about 30 meters of relief. Secondary-growth tropical bush and open grass lands cover the vast majority of the area. Most of the area adjacent to the site is used for cattle ranching, farming, and logging activities. Chega Tudo and Cipoeiro areas are crossed by small intermittent streams and have rural villages on the margins of the northern extent of the mineralization.

## History

Gold was first discovered in the project area in the 17th century by colonial settlers. During the early 1900s and again in the mid-1980s, intermittent small-scale production took place as part of a region-wide rush of artisan miners, known in Brazil as *garimpeiros*. Gold was mined from oxidized weathered material, including alluvium, saprolite, and saprolite-hosted quartz veins, mostly from open pits limited to about 40 meters in depth. Underground excavations have been of much lesser importance. Historical records do not exist. However, the production of about 200,000 ounces of gold has been estimated over the past century or so through these small-scale efforts.



CNM Companhia Nacional de Mineração Ltda. (“CNM”), a wholly-owned subsidiary of TVX Gold Inc. (“TVX”), commenced exploration in the project area in 1994. Later that year, a joint venture between TVX and Santa Fe Pacific Gold Corp. (“Santa Fe”) was established.

CNM first drilled the Chega Tudo deposit by targeting the known *garimpo* pits in the vicinity of the Chega Tudo village. At Cipoeiro, mineralization was first drilled in late 1996 following the onset of *garimpeiro* activity. From 1994 to 1997, exploration work programs comprised soil, saprolite, rock chip and channel sampling, information acquisition from airborne-photogrametry programs, topographic data generation, ground magnetic geophysical surveys, reconnaissance geological mapping, airborne magnetic and gamma-ray surveys, core and reverse circulation (RC) drilling, and metallurgical testwork.

In 1997, Newmont purchased Santa Fe and assumed control of the project. Between 1997 and 2000, Newmont conducted exploration work, including geological mapping, geochemical sampling, airborne electromagnetic (“EM”) survey, ground magnetic and induced polarization (“IP”) surveys, diamond drilling and RC drilling, core re- logging program, metallurgical testwork with a strong focus on comminution indices, construction of geological models, and estimation of mineral resource grades and tonnages.

In 1999, TVX entered into a strategic business partnership with Normandy Mining Ltd. (“Normandy”), forming TVX Normandy Americas, which controlled the project. In 2002, Newmont acquired Normandy. As a result, TVX Normandy Americas became 49.9% owned by Newmont and 50.1% owned by TVX.

In 2003, TVX purchased Newmont’s interest in TVX Normandy Americas for US\$180 million. Also in 2003, TVX, Kinross and Echo Bay Mines Ltd. (“Echo Bay”) merged and the resulting entity, Kinross, took ownership control of the project.

Kinross completed infill and definition core drilling programs at the Chega Tudo and Cipoeiro targets, metallurgical testwork, and bulk and solids density determinations. In 2005, an unpublished feasibility study was commissioned and completed by AMEC. The AMEC feasibility study envisioned mining to be performed by conventional open pit techniques, while the process route considered a primary crushing, semi-autogenous grinding mill, ball milling, and a stripping and EW plant following a leaching-CIP circuit.

From 2006 through 2008, Kinross resumed mineral exploration with the intention of investigating other potential targets that could increase mineral resources.

In 2009, Jaguar entered into negotiations with Kinross to acquire the project and commissioned PAH to conduct a review of mineral resources, which was completed in early December 2009. On December 2, 2009, Jaguar acquired 100% of MCT, which holds all of the mineral licenses for the Gurupi Project, from an indirect wholly-owned subsidiary of Kinross. Jaguar satisfied the US\$39 million purchase price for MCT by issuing 3,377,354 common shares in the capital of Jaguar to Kinross, representing approximately 4.07% of Jaguar's outstanding common shares (on a non-diluted basis) as of the date of the acquisition. Shortly thereafter, Jaguar commissioned AMEC to prepare a prefeasibility study to identify cost-saving areas and to identify additional requirements for a feasibility study. AMEC's prefeasibility study was completed in May 2010. Subsequently, Jaguar commissioned TechnoMine to conduct a feasibility study, which was completed in January 2011.

In early January 2012, Jaguar received a partial LI, which authorizes the construction of the processing plant for the project. The LI was a critical step in the development of the Gurupi Project and brings the Company closer to being able to realize the full value of its assets in Northern Brazil.

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, claiming that:

- MCT should be classified as a "foreign company", and therefore be completely restricted from carrying on operations in Brazil and, in particular, at the Gurupi project;
- there are purported irregularities in the environmental licensing, mainly as the installation license previously granted to MCT covers only a fraction of the area in which MCT will operate; and
- there is no INCRA agreement for MCT's surface rights, which surface rights include an area in which there is a settlement of inhabitants that will be affected by the proposed project.

The Public Prosecutor requested an urgent (preliminary) decision from the Court claiming that if MCT's activities continued, it would be prejudicial to the State of Maranhão. In a hearing held in the Federal Court in São Luis on November 13, 2013 at which MCT was neither invited to attend or was present at, the judge decided to:

suspend the environmental licenses granted to MCT;  
prohibit any construction of the gold beneficiation plant; and  
cease any negotiations with local residents without the participation of INCRA.

MCT has not been served with the formal notice relating to the Federal Court's decision. The Company has retained the services of a legal firm to review the claims and prepare a response. The Company intends to vigorously defend its Gurupi interests and believes that the claims are without merit.

#### Geology and Mineralization

The Gurupi Project area lies within an elongate northwest–southeast-trending shear zone developed along the boundary between a Lower Proterozoic metamorphic belt (Gurupi greenstone belt) and the southwestern margin of the Archaean São Luis craton. Most of the gold deposits and showings of the Gurupi greenstone belt, including Chega Tudo and Cipoeiro, are hosted in structures associated with the strike-slip, sinistral Tentugal shear zone. The project deposits are considered to be typical of mesothermal vein-style, or orogenic-style gold deposits.

Chega Tudo is hosted in a dacite metavolcanic unit. Intrusive gabbro, extrusive andesite, and arkosic arenite rocks are in structural contact with the dacite. Rocks in the deposit area have been widely affected by hydrothermal alteration. Mineralization is emplaced mainly in dacite and found solely within zones of quartz–sericite–pyrite alteration and is closely related to the amount of pyrite introduction. Typically, mineralization forms en-echelon pods elongated with the shear foliation and persisting for tens to hundreds of meters of strike and a similar distance down dip. These northwest-trending, steeply southwest-dipping mineralized zones range from a few meters to as much as 30 meters in width and can form multiple pods that can be as much as 100 meters wide.

Two main litho-types are recognized at Cipoeiro, a tonalite and an arkosic fine-grained arenite with thin quartz–pebble conglomerate layers. The primary mineralization is hosted by a coarse equigranular intrusive of tonalitic composition. The hydrothermal system at Cipoeiro was chemically similar to Chega Tudo's. Silica flooding and replacement of the tonalite is more intense and more widespread than seen in the metavolcanics at Chega Tudo. However, gold remains most closely associated with sulfide (pyrite) introduction and quartz–sericite alteration. Two zones of mineralization have been defined, the Contact Ore Zone on the south and the Blanket Ore Zone to the north. The zones are separated by the Central Fault Zone (CFZ).

## Exploration

TVX, Santa Fe, Newmont and Kinross conducted exploration activities on the Gurupi Project, including the acquisition of an airborne photogrammetry base, topographic data, reconnaissance, regional and detailed geological mapping, soil, saprolite, rock chip and channel sampling, ground and airborne geophysical surveys, reverse circulation (“RC”) and diamond drilling, mineralization characterization studies and metallurgical testing of samples. Petrographic, fluid inclusion, stable isotope studies, and density measurements on the different lithologies were also carried out.

During 2004, Kinross performed a two meter resolution topographic survey of the *garimpeiros*’ pits. Topography was checked based on field surveys completed by licensed Brazilian surveyors using modern survey instruments. The field surveys confirmed the current limits of the *garimpeiros*’ pits in the topographic surface.

Regional and detailed geological mapping was completed in several phases. Map scales varied from regional (1:50,000) to local (1:500). Regional scale mapping was based on a photogrammetry base; prospect-scale mapping used grids for control. Map results were used to identify areas of quartz veining, alteration, and sulfide outcrop that warranted additional work. Interpretation of air photos was used to vector into areas that required more detailed geological mapping and sampling.

Soil, saprolite, rock chip and channel sampling were used to evaluate mineralization potential and generate targets for RC and diamond drilling. A total of 42,024 soil, rock chip, and saprolite samples were taken, primarily in areas of known *garimpeiros* workings. Channel sampling of the *garimpeiros* pits and excavations totalled 6,277 samples.

Airborne geophysical surveys, comprising magnetic, radiometric and EM data acquisition, treatment, and interpretation were used to vector into mineralization and generate targets for drilling programs. Surveys were performed by contract expert geophysical firms. The airborne magnetic and radiometric survey covered about 10,180 line km, in an area of about 1,900 km<sup>2</sup>. The EM Survey covered an area of about 497 km<sup>2</sup>, corresponding to approximately 2,655 line km. Airborne geophysical anomalies were checked on the ground using ground geophysics magnetics and IP surveys.

Ground surveys were performed by Newmont and Kinross personnel. Ground magnetic surveys were performed at Chega Tudo, covering 43 line km in an area of approximately 10 km<sup>2</sup>. A total of 64 line km of IP surveys were completed at Cipoeiro and Chega Tudo, covering a total area of 22 km<sup>2</sup>.

Geophysical surveying has been effective in mapping sulfide mineralization that could include gold mineralization associated with regional structural trends and associated splay structures.

The Brazilian Geological Service (“CPRM”) undertook detailed geological, mineralogical, isotopic and age-dating studies on the Gurupi Belt, which included generating chemical data for hydrothermal chlorites and stable isotope (O, H, C, S) compositions of silicate, carbonate, and sulfide minerals from the Chega Tudo and Cipoeiro deposits. These chemical and isotopic results, in addition to field, structural, and petrographic information, enabled the CPRM staff participating in the studies to discuss petrogenesis-related variables of the Cipoeiro and Chega Tudo deposits, including temperature and redox conditions of mineralization, as well as possible sources for fluids and metals. Such data have a major influence on metallogeny models for exploration, and therefore on exploration program layouts.

Five mineralization samples were examined using scanning electron microscopy to aid in gold mineralogy determinations. The results were used to define the Project’s mineralogy.

## Drilling

Drilling on the Project has consisted of 448 core holes over 67,940.70 meters and 258 RC drill holes over 27,518.66 meters for a total of 706 holes drilled over 95,495.36 meters.

The RC holes were drilled using 3.5-inch (88.9 millimeters) rods with a nominal 4.5-inch (114.3 millimeters) diameter hole. RC samples were collected at regular one meter intervals in plastic bags at the sample cyclone. The entire sample was then transported back to the field sample preparation facility for drying, splitting and preparation.

Core diameters are consistently HQ (63.5 millimeters) diameter core from surface through the saprolite to bedrock. At depths of about one meter to three meters into bedrock the holes were reduced to NQ (47.6 millimeters) diameter to the final hole depth.

Core was transferred to wooden core boxes and brought to the Project core processing facility where it was photographed, logged for geological and geotechnical information, and sampled. Transportation of core boxes to the Newmont-built, well-organized and well-maintained core shed was done by the drilling company personnel or the drilling supervisor.

Logging of RC drill cuttings and core utilized standard logging procedures. Initial logging utilized paper forms, with manually-entered data into a database from the form.

Samples were geologically logged with a system for identifying lithologies, alteration assemblage, degree of ductile shearing, quartz veining, and sulfide content. Kinross added geotechnical logging to the program in 2003.

In 1998, Newmont relogged the drill core and select RC hole samples from Cipoeiro. The relogging focused on identifying and coding into a drill core sample database some key features associated with the mineralization, including sulfide percent, quartz-sericite alteration and shear foliation.

Drill cores were photographed prior to splitting and a photographic record is kept of all drill hole and core logs. Drill hole collar coordinates were gathered during the 1990s drilling campaigns using hand-held GPS instruments. Drill collars for the 2003 to 2008 drill holes were surveyed prior to the rig occupying the site and after completion of the hole. Surveys were performed using digital GPS and Total Station instruments. Only the final completed hole survey was used in the project database.

Down-hole surveys of core holes have been performed using Ezy-shot and Tropari instruments. RC holes were not typically down-hole surveyed.

Detailed measurements of core recovery have been routinely recorded on geological logs for virtually all the core holes.

Tonalite and dacite recoveries generally exceeded 95%. Although in near-surface, saprolitic material core recovery varied considerably, the overall recovery consistently exceeded 85% to 90%.

Drill holes have been drilled on oblique northeast–southwest 50-meter drilling fences, with holes drilled at 50-meter intervals along these sections.

At Chega Tudo, the majority of drill holes have angles between 40° to 60° to the southwest; however, due to restrictions on drill hole collar locations in areas close to Chega Tudo village, some drill holes were directed to the northeast. Several holes have been directed in slightly varied orientation to the fences. Mineralization at Chega Tudo typically dips approximately 80°SW with a true thickness of 10–50 meters, comprising individual “lodes” ranging in thickness from 2–20 meters.

Drill holes within the Chega Tudo deposit are based on a grid line that has a baseline with a northwest–southeast orientation. Sections along the base line have irregular spacings, ranging from 25-80 meters. Drill holes are spaced along the lines at 30–60 meter spacings. Drilling that supports estimation comprises 42 RC holes over 3,426 meters and 83 core holes over 11,727 meters.

The majority of drilling directed at the Contact Zone mineralization within Cipoeiro has a 60° angle to the southwest. The drilling directed at the Blanket Zone has a variety of angle due to the varying dip of the deposit. Almost all of the drilling is directed to the southwest. At Cipoeiro, the Contact Zone dips to the NE at approximately 45° to 60°, while the Blanket Zone has a variable dip to the south between 10° to 50°.

The Cipoeiro drill holes fall within two drilling grids. The first grid, covering an area of 2,450 meters x 380 meters within the Contact Zone, has a base line that is oriented north–northwest–south–southeast. Section lines within the grid are irregular; line spacings range between 50 meters and 100 meters. Drill holes are typically spaced at 50 meters along the lines. The second grid covers the Blanket Zone and covers an area of about 1,100 meters x 600 meters. The grid base line has a north–northeast–south–southwest alignment. Section lines are spaced irregularly along the baseline, varying from 60 meters to 90 meters. Drill hole spacing along the lines ranges from 40 meters to 80 meters. Drilling that supports estimation comprises 40 RC holes over 4,086 meters and 124 core holes over 19,164 meters.

Between the third quarter of 2011 and the second quarter of 2012, Jaguar conducted a comprehensive diamond drilling campaign at the Chega Tudo and Cipoeiro deposits within the Gurupi Project. A total of 24,497 meters were drilled in 107 holes for 19,655 samples recovered. The drill results confirmed the extension of the mineralization to a depth of over 350 meters below surface at Chega Tudo and over 300 meters depth at Cipoeiro. Previous drilling programs, which included a total of 75,233 meters drilled in 543 holes, had confirmed the mineralization to depths of approximately 130 meters at Chega Tudo and 170 meters at Cipoeiro. Gold mineralization at both the Chega Tudo and Cipoeiro deposits remains open at depth.

Based on analysis of the recent drilling results, Jaguar increased its estimated Measured and Indicated Mineral Resources at its Gurupi Project by 40% to 3.52 million ounces of gold. The mineral resources, stated at a cut-off grade of 0.21 g/t Au, include 46.66 million tonnes of Measured Mineral Resources at 0.72 g/t Au and 95.98 million tonnes of Indicated Mineral Resources at 0.79 g/t Au, in total of 142,636,280 tonnes of Measured and Indicated Mineral Resources at 0.77g/t and 3,519,410 ounces of gold.

The Mineral Resource estimates for the Gurupi Project were carried out by Ms. Leah Mach, Principal Geologist, at SRK. Ms. Mach is an independent Qualified Person in accordance with NI 43-101.



Work on a revised feasibility study for the development of the Gurupi Project, which intends to revise Gurupi Mineral Reserves estimates, is ongoing. However, it has been delayed as Jaguar continues to focus on completing the restructuring and implementation of the production programs at its operations in Minas Gerais. See also “Environmental Licensing” below.

While the Company has focused recent drilling and exploration on the Chega Tudo and Cipoeiro deposits, the Gurupi concession includes 12 additional identified targets in 32 contiguous mineral rights totaling 138,548 hectares. These additional targets have not been included in any of the Company’s Mineral Resource estimates or feasibility studies related to the Gurupi Project to date. These targets have been identified by favorable geology, structures, old artisan mine works, soil and channel sampling anomalies and exploration drilling, and represent the potential for further increases in mineral resources at Gurupi.

During the third quarter of 2012, Jaguar completed infill and extensional diamond drilling carried out over a 900-meter (along the strike) mineralized sector of one of the 12 additional targets mentioned above. This target, known as the Mandiococal Target, is located approximately one kilometer NW of Gurupi’s Chega Tudo deposit and represents the extension of its mineralized structure. The drilling results, in addition to results obtained by drilling performed by the previous owners, confirm the deposit mineralization extend to the NW.

#### Sampling and Analysis

In 1996, Santa Fe established a sample preparation facility at the project site to handle the core, RC, and surface geochemical samples collected during exploration programs managed by Santa Fe and later Newmont. Company personnel were responsible for sample preparation from 1996–2000.

There is no record of the analytical laboratories prior to 1996. Core, RC, and surface geochemical samples (from the Santa Fe and Newmont programs (1996–2000) were dispatched to Nomos Análises Mineraiis Ltda. (“Nomos”) in Belo Horizonte, Brazil. Samples generated by Kinross exploration and delineation drilling programs between 2003 and 2008 were prepared and analysed by Lakefield–Geosol Laboratories (Lakefield), also in Belo Horizonte. Lakefield is independent of Kinross, and was ISO-certified at the time of analysis. Lakefield was acquired by the SGS Laboratory Group during 2004.

Check sampling has been undertaken by ALS Chemex, Bondar Clegg and Cone Laboratories.

Bondar Clegg was an independent, ISO-certified laboratory group that was acquired by ALS Chemex in 2001. The ALS Chemex laboratories maintain independence and ISO certification. Cone Laboratories certification at the time of analysis is unknown.

Extensive documentation for the sample preparation by Santa Fe and Newmont at the on-site laboratory preparation facility was reviewed for the purposes of the in-house AMEC 2005 feasibility study. Methods utilized conform to standard industry practices.

Drill core samples were crushed to minus 10 mesh; then a two kilogram split was pulverized to a nominal 90% passing 150 mesh using a ring pulverizer. An assay split of 250 grams was collected from the pulp and shipped to Nomos for a 50-gram fire assay digestion, and AA determination for gold. Results greater than 10.0 grams per ton of gold were re-assayed with a gravity finish.

Kinross' diamond core samples were prepared and assayed at Lakefield's Belo Horizonte laboratory. The sample preparation and assay procedures were similar to those used by Santa Fe and Newmont. Samples were crushed and pulverized in their entirety to 95% passing 150 mesh using a ring pulverizer. A 250-gram sample pulp was then collected for analysis. Lakefield employed the same 50-gram fire assay digestion and subsequent AA determination method to complete each analysis.

Blank control samples were typically inserted into the sample stream. Review of the blank results performed by AMEC in 2005 indicated that the sample preparation process was free of contamination.

Entry of information into databases utilized a variety of techniques and procedures to check the integrity of the data entered. The current Project database is in MS Access. Geological data from early drilling programs were entered into spreadsheets in a single pass. Assays were received electronically or by disc from the laboratories and imported directly into the database. Drill-hole collar and down-hole survey data were manually entered into the database.

Data were verified prior to geological modeling and mineral resource estimation by means of in-built program triggers within the software. Checks are performed on surveys, collar co-ordinates, lithology data, and assay data.

Documentation for the pre-Kinross programs is generally available, but not comprehensive. Typically, geological logs, and analytical data are preserved for all drill holes; however collar data is partially missing.

Paper records were kept for all Kinross assay and QA/QC data, geological logging and density information, downhole and collar coordinate surveys. All paper records were filed by drill hole, for quick spotting and retrieval of any information desired. Assays, downhole surveys, and collar surveys were stored in the same file as the geological logging information. In addition, sample preparation and laboratory assay protocols from the laboratories were monitored and kept on file.

Assay pulps and crushed reject material are stored off-site. Core is stored in wooden core boxes on steel racks in the buildings adjacent to the core logging and cutting facilities. The core boxes are racked in numerical sequence by drill hole number and depth.

#### Security of Samples

During the 2003–2004 and 2007–2008 periods of Kinross drilling programs, cores were kept at the drill rig until the end of each shift. They were then delivered to the logging facility and placed on benches for photography and logging. The core was typically sawed and sampled within a three-day period. During the various stages of this process, the access to the core was available to assigned drill crew, supervisors, and project staff.

Sample sacks were typically accessible to a limited number of transportation personnel during shipment of samples to Belo Horizonte. Chain of custody procedures consisted of filling out sample submittal forms that were sent to the laboratory with sample shipments, to assure that all samples were received by the laboratory.

#### Mineral Resource and Mineral Reserve Estimates

As of December 31, 2013, the Gurupi Project has an estimated 142,636,280 tonnes of Indicated Mineral Resources at an average grade of 0.77 grams per tonne totaling 3,519,410 ounces of gold and 7,719,290 tonnes of Inferred Mineral Resources at an average grade of 0.67 grams per tonne totaling 165,340 ounces of gold.

Probable gold mineral reserves, which are included in the reported Mineral Resource estimate, are estimated at 63,756,700 tonnes at an average grade of 1.14 grams per tonne totaling 2,327,930 ounces. Mineral Reserve estimates are based on TechnoMine's 2011 feasibility study and do not contemplate the 2012 SRK Mineral Resource increase.

#### Environmental Licensing

In November 2010, Jaguar filed the required environmental studies with the appropriate environmental agency in the state of Maranhão to obtain the Preliminary License ("LP"). A public hearing in connection with the LP was held on March 16, 2011 and the outcome was positive. As a result of this meeting, Jaguar received the LP in June 2011. After the LP was granted, Jaguar completed the detailed engineering required to obtain the Installation License ("LI"). Jaguar received the LI, which authorizes the construction of Gurupi's processing plant, in January 2012. The licensing decision for the tailings impoundment facility for the project is pending subject to the acquisition by Jaguar of surface land rights for their construction. An Operation License ("LO") will be required after the LI for the tailings impoundment facility is granted and after implementation of the project.

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, claiming that:

MCT should be classified as a "foreign company", and therefore be completely restricted from carrying on operations in Brazil and, in particular, at the Gurupi project;

there are purported irregularities in the environmental licensing, mainly as the installation license previously granted to MCT covers only a fraction of the area in which MCT will operate; and

there is no INCRA agreement for MCT's surface rights, which surface rights include an area in which there is a settlement of inhabitants that will be affected by the proposed project.

The Public Prosecutor requested an urgent (preliminary) decision from the Court claiming that if MCT's activities continued, it would be prejudicial to the State of Maranhão. In a hearing held in the Federal Court in São Luis on November 13, 2013 at which MCT was neither invited to attend or was present at, the judge decided to:

suspend the environmental licenses granted to MCT;

prohibit any construction of the gold beneficiation plant; and

cease any negotiations with local residents without the participation of INCRA.

MCT has not been served with the formal notice relating to the Federal Court's decision. The Company has retained the services of a legal firm to review the claims and prepare a response. The Company intends to vigorously defend its Gurupi interests and believes that the claims are without merit.

#### Summary of Project Economics

In accordance with the 2011 TechnoMine feasibility study, the adopted gold price for the Gurupi Project base case scenario is US\$1,066 per ounce of gold average for the LOM. The Project's estimated non-discounted "monetizable" (salable) total gold production is 1,932,920 ounces of gold, which would yield total non-discounted gross revenue of US\$2,060.5 million. Based on a 13-year LOM, the average annual gross revenue would amount to US\$158.5 million. Below is a summary of the Project economics.

ROM total tonnage:	63,756,700 tons
ROM total contained gold:	2,327,930 ounces
Mill Feed Grade (LOM average):	1.10 grams per ton
Mining Rate:	4,000,000 tons in 2013
	4,500,000 tons in 2014
	5,000,000 tons yearly from 2015 to 2021
	5,200,000 tons in 2022

Edgar Filing: Jaguar Mining Inc - Form 20-F

	5,256,700 tons in 2023
	4,900,000 tons yearly from 2024 to 2025
ROM average “cruise” production:	13,890 tons per day
Metallurgical recovery:	85.60%
Total gold production:	1,932,920 ounces of gold
Gold average annual production:	148,690 ounces per year
Project life (LOM):	13 years
CAPEX (total):	US\$345.7 million (straight)
Average cash cost:	US\$445 per ounce of gold
Average full-loaded cash cost:	US\$676 per ounce, including invested capital
Start of production:	First quarter of 2013
Exchange rate construction period	US\$1.00 = R\$1.80
Exchange rate over LOM	US\$1.00 = R\$1.90

Depreciation and amortization have been prorated over the Gurupi Project mine life. The cumulative operating profit has been estimated at US\$1.1 billion. The after-tax cumulative profit estimate is US\$985 million and the cumulative net cash flow estimate is US\$640 million.

A revised feasibility study is ongoing.

### Mining Operations and Metallurgical Process

In accordance with the 2011 TechnoMine feasibility study, the mining method to be used in the Gurupi Project will be open pit. The saprolite zone will be mined by hydraulic excavator and the bedrock will require drilling and blasting. Haul roads and in-pit ramps are designed at 10% gradient and with a width of 22 meters, based on approximately three and half times the width of a Caterpillar 777 haul truck (approximately 6.1 meters). This will provide sufficient width for two lanes of traffic and also allows space for a drainage ditch and safety berm.

The water management system deals with the drainage of the spring and rain water on the open pit, waste dump areas, process plant area, tailings basin area and on the Chega Tudo to Cipoeiro haul road.

Mining equipment selection was based on the use of diesel-powered, rigid-framed haul trucks, front-end loaders and excavators.

A mine schedule was developed for the three pits, one at Chega Tudo and two at Cipoeiro, based on an assumption of three eight hour shifts per day, seven days per week. The mine schedule was stated using a ten meter operational bench height and ore zones within each of the pits interpreted as being continuous. This allows flexible sequencing of ore and waste as required for mill feed. The ore and waste quantities in the schedule were reported separately for both the saprolite and bedrock material types.

Mining is planned to commence in the Cipoeiro region due to the higher-grade ore in those pits. Chega Tudo mining is scheduled to be initiated during Year 8. Mining will be gradually introduced at Chega Tudo to reduce the impact on the trucking requirements.

The host rock at Cipoeiro is Tonalite, while Dacite is the host rock at Chega Tudo. Dacite will be processed starting in 2020. The mineral processing route will consist of the following sequence of operations:

Concentration: 100% of the total mill feed (solids of tonalite and transition ore) and 100% of the total feed to the saprolite scrubbing and classification plant – no cyanide addition.

- Crushing and screening, including HPGR as tertiary crusher;
- Grinding, cycloning, and thickening;
- Flotation and continuous discharge gravity concentration of the flotation rejects;
- Rejects cycloning and thickening plant fed by the gravity circuit rejects (about 82% of the total mill feed - solids);
- Regrinding, cycloning and thickening of the flotation concentrate;
- Saprolite scrubbing and classification plant.

CIP Plant: 18% of the total mill feed (solids) and 100% saprolite mill feed (solids) – cyanide addition.

Hydrometallurgy - via a conventional leaching and ADR CIP process of the reground/thickened flotation concentrate and saprolite ore feed. Recovery will be performed by an EW circuit, after elution (desorption; stripping) of the CIP loaded carbon;

- Cyanide destruction plant for the CIP tailings pulp.

The adopted overall metallurgical recovery (flotation/gravity separation/leaching/ADR) is 85.6%. The metallurgical recovery was adopted based on testwork carried out by SGS Lakefield, Canada and Knelson Research & Technology Centre – Langley, BC, Canada.



## Taxes

Income taxes are 34% of taxable profit, including a 25% corporate tax rate and a 9% social contribution. For the first ten years of operations, the Federal Government of Brazil offers a 75% tax deduction incentive. In addition to direct operating costs, royalty payments and depreciation are deductible in determining taxable profit.

## C. Organizational Structure

Jaguar has three wholly-owned direct subsidiaries, MSOL, MTL and MCT, all incorporated under the laws of the Republic of Brazil. The registered and head office of each of MSOL, MTL and MCT is located at Rua Levindo Lopes 323, Funcionários, Belo Horizonte, Minas Gerais, CEP 30140-170, Brazil.

## D. Property, Plants and Equipment

### Company's Principal Properties

Jaguar's has three principal mining complexes: Turmalina, Caeté and Paciência-all 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, which it does not consider to be principal mining complexes. The maps below are current as of December 31, 2013.

Refer to Item 4 for detailed descriptions of each principal mining complex.

## PRINCIPAL PROPERTIES INTERESTS



Turmalina

Location of Turmalina Project, Iron Quadrangle, Brazil

***MTL – Turmalina Mineral Rights***

61

**Caeté**

Location of Caeté Project, Iron Quadrangle, Brazil

***CCA – Caeté Mineral Rights***

62

*Sabara (Caeté Complex) Mineral Rights*

**Paciência**

Location of Paciência Project, Iron Quadrangle, Brazil

*CPA – Mineral Rights, Mine and Plant*

*CPA – Paciência Mineral Rights*

64

Item 4A. Unresolved Staff Comments

Not applicable.

65

Item 5. Operating and Financial Review and Prospects

A. Operating Results

The following discussion and analysis of the results of operations and the Company's financial position should be read in conjunction with the consolidated financial statements and related notes for the years ended December 31, 2013, 2012 and 2011 appearing under Item 17 – Financial Statements and listed under Item 19 – Exhibits.

The Company's consolidated financial statements are stated in US Dollars and have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IASB"). Jaguar's Significant Accounting Policies are outlined in its financial statements, immediately following the text of this Annual Report on Form 20-F.

As of December 31, 2013, the Company was producing gold at its Turmalina and Caeté operations. The Company's Paciência operation was placed on temporary care and maintenance in May 2012. While the Company continues to demonstrate a turnaround at the Turmalina and Caeté operations and is on track to produce sustained positive margins and allow the exploitation of opportunities at core operations, the potential for a significant increase in gold production exists through the development of the Company's Gurupi Project, which contemplates an open-pit gold mining operation in the state of Maranhão in the northeast of Brazil. Upon achieving sustained positive performance, management will turn its attention to growing the business.

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.

Fiscal 2013 compared to Fiscal 2012

The table below sets forth certain operating data for the combined operating performance:

	Three Months Ended							
	Q4 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012	Q2 2012	Q1 2012
Tonnes of ore processed (t)	258,000	298,000	271,000	265,000	285,000	285,000	351,000	447,000
	2.96	3.06	2.96	3.30	2.76	2.85	2.55	2.42



Edgar Filing: Jaguar Mining Inc - Form 20-F

Average recovery grade (g/t) <sup>(**)</sup>																
Average recovery rate (%)	88	%	88	%	88	%	88	%	88	%	88	%	89	%	90	%
Gold (ounces)																
Produced	21,956		26,300		22,503		24,836		21,676		23,026		26,888		31,233	
Sold	22,503		24,111		22,920		25,316		21,298		23,307		28,933		30,138	
Average sales price per oz sold	\$1,263		\$1,331		\$1,415		\$1,626		\$1,714		\$1,648		\$1,608		\$1,691	
Cash operating cost (per tonne processed)	\$78		\$72		\$81		\$77		\$69		\$78		\$84		\$87	
Cash operating cost (per ounce produced)	\$889		\$847		\$931		\$826		\$915		\$963		\$1,162		\$1,268	
All-in cost (per ounce sold) <sup>(***)</sup>	\$1,348		\$1,264		\$1,610		\$1,439		\$1,607		\$1,912		\$2,060		\$2,377	

(\*\*) The Company is now disclosing the average recovery grade instead of the average feed grade, as management believes this information has higher relevance in this table.

(\*\*\*) Relates to the all-in cost disregarding the restructuring expenses that were incurred during Q4 2013, in the amount of \$3.5 million. If the CCAA Proceeding expenses are considered then the all-in cost is \$1,504 per ounce of gold sold.

(\*) Relates to the all-in cost disregarding the restructuring expenses that were incurred during Q4 2013, in the amount of \$3.5 million. If the restructuring expenses are considered then the all-in cost is \$1,504 per ounce of gold sold.

The Company's operating and financial performances are largely determined by the price of gold. The average price of gold sold has declined 14.5% or \$258 per ounce from \$1,669 per ounce in FY 2012 to \$1,411 per ounce in FY 2013. Management has implemented Company-wide initiatives to reduce operating and capital costs to counteract current market conditions while focusing on maintaining current productivity levels.

The result of the continuing effort in cost reduction is evidenced in the table and chart above. Both the cash operating costs per ounce produced and the all-in costs per ounce of gold sold have decreased significantly over the periods being reported. Most of the cost reduction is attributable to the decrease in labour, external services, maintenance and material costs. As Jaguar's mining operations and exploration activities are located in Brazil, a large portion of operating costs and capital expenditures are denominated in Brazilian reais. The recent weakening of the R\$ against the US\$ has made a positive contribution to reducing the cash operating and all-in costs. The average exchange rate for the R\$ per US\$1.00 for FY 2012 and FY 2013 were 1.9550 and 2.1605 respectively, an increase of 10.5% as the US\$ strengthened against the R\$.

The Company's Paciência operation was put on care and maintenance in May 2012, and as a result, the consolidated production level has dropped since Q2 2012. Apart from Paciência, the Company's gold production level has been consistent, except for Q2 2013, where gold production decreased as the Caeté site experienced mill liner failures, lower head grade mill feed, and costly challenges with transportation due to poor road conditions. An action plan was put in place and the production level significantly improved in the following periods.

As a result of the Company-wide cost reduction initiative, some of the primary development and some secondary development in the operations have been deferred. Accordingly, delineation drilling which usually follows the completion of development has also been reduced.

**Turmalina**

	Three Months Ended													
	Q4 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012	Q2 2012	Q1 2012						
Tonnes of ore processed (t)	114,000	122,000	123,000	108,000	113,000	115,000	154,000	157,000						
Average recovery grade (g/t)**)	3.13	3.46	3.01	3.37	2.57	2.78	2.34	2.20						
Average recovery rate (%)	89 %	89 %	88 %	89 %	87 %	89 %	90 %	90 %						
Gold (ounces)														
Produced	10,451	12,308	10,345	10,321	8,206	9,186	10,435	10,014						
Sold	10,850	10,850	10,061	10,850	8,037	9,242	11,252	9,644						
Cash operating cost (per tonne processed)	\$75	\$73	\$78	\$83	\$74	\$80	\$74	\$85						
Cash operating cost (per ounce produced)	\$822	\$758	\$923	\$862	\$1,057	\$991	\$1,125	\$1,342						

(\*\*) The Company is now disclosing the average recovery grade instead of the average feed grade, as management believes this information has higher relevance in this table.

The primary mining method utilized at the Turmalina underground mine is sublevel stoping with a fill program resulting in a modified “cut and fill” mining technique. Ore produced at the Turmalina mine is transported to the adjacent 2,000 tonnes per day (“tpd”) carbon-in-pulp (“CIP”) processing plant.

During FY 2013, Turmalina produced 43,425 ounces of gold at a cash operating cost of \$837 per ounce. This compares to 37,841 ounces at a cash operating cost of \$1,135 per ounce during FY 2012. The \$298 (26.3%) decrease in the Company’s cash operating cost per ounce during FY 2013, as compared to FY 2012 was mainly attributable to the increase in the average recovery grade and the impact of the change in the exchange rate that, together, reduced the cost by \$298 per ounce.

Underground development at the Turmalina mine totaled 6,400 meters during FY 2013, compared to 4,100 meters during FY 2012. Underground delineation drilling at Turmalina totaled 24,500 meters during FY 2013, respectively, compared to 21,700 meters during FY 2012.

**Caeté**

	Three Months Ended													
	Q4 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012	Q2 2012	Q1 2012						
Tonnes of ore processed (t)	144,000	176,000	148,000	157,000	172,000	170,000	160,000	156,000						
Average recovery grade (g/t)**)	2.82	2.78	2.92	3.25	2.88	2.90	2.99	3.10						
Average recovery rate (%)	88 %	88 %	88 %	88 %	88 %	88 %	90 %	89 %						
Gold (ounces)														
Produced	11,505	13,992	12,158	14,515	13,470	13,840	13,804	13,881						
Sold	11,653	13,261	12,859	14,466	13,261	13,692	14,466	12,457						
Cash operating cost (per tonne processed)	\$79	\$71	\$84	\$73	\$66	\$77	\$81	\$96						
Cash operating cost (per ounce produced)	\$950	\$925	\$938	\$801	\$828	\$945	\$953	\$1,118						

(\*\*) The Company is now disclosing the average recovery grade instead of the average feed grade, as management believes this information has higher relevance in this table.

The Caeté mining complex has two underground mines (Roça Grande and Pilar) that primarily utilize the “cut and fill” mining method as well as some “sublevel stoping” at Pilar. Ore produced from these mines is transported to the 2,200 tpd CIP processing plant adjacent to the Roça Grande mine.

During FY 2013, Caeté produced 52,170 ounces of gold at a cash operating cost of \$899 per ounce. This compares to 54,995 ounces at a cash operating cost of \$962 per ounce during FY 2012. The \$63 (6.6%) decrease in cash operating cost is mainly attributable to less volume produced, increase in costs, especially maintenance costs that together, increased the cost by \$63 per ounce. A favourable change in the exchange rate during the same period contributed to reducing the cost by \$126 per ounce.

Edgar Filing: Jaguar Mining Inc - Form 20-F

Underground development at the Pilar and Roça Grande mines totaled 6,300 meters during FY 2013, respectively, compared to 8,400 meters during FY 2012, respectively. Underground delineation drilling at the mines totaled 29,600 meters during FY 2013, compared to 30,400 meters during FY 2012. These figures reflect some of the drilling and mine development which is being deferred at the Pilar and Roça Grande mines.

**Paciência**

	Three Months Ended						Q2 2012	Q1 2012
	Q4 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012		
Tonnes of ore processed (t)	-	-	-	-	-	-	37,000	134,000
Average recovery grade (g/t)**	-	-	-	-	-	-	1.51	1.90
Average recovery rate (%)	-	-	-	-	-	-	87 %	90 %
Gold (ounces)								
Produced	-	-	-	-	-	-	2,649	7,338
Sold	-	-	-	-	-	373	3,215	8,037
Cash operating cost (per tonne processed)	\$-	\$-	\$-	\$-	\$-	\$-	\$140	\$79
Cash operating cost (per ounce produced)	\$-	\$-	\$-	\$-	\$-	\$-	\$2,219	\$1,451

(\*\*) The Company is now disclosing the average recovery grade instead of the average feed grade, as management believes this information has higher relevance in this table.

The Paciência operation continued on care and maintenance during Q4 2013. No gold has been produced since Q2 2012 when it was put on care and maintenance. No underground development or drilling work was carried out by the Company at the Paciência mine during 2013. The Company has not established a timeframe to complete the Paciência remediation plans and restart production.

Fiscal 2012 compared to Fiscal 2011

The following tables set forth certain operating data for Turmalina, Paciência and Caeté for the three and twelve months ended December 31, 2012 and 2011.

Three Months Ended December 31, 2012 Operating Data

	Ore Processed (t000)	Feed Grade (g/t)	Plant Recovery Rate (%)	Production (ounces)	Cash Operating Cost/t	Cash Operating Cost/ounce
Turmalina	113	2.64	87	% 8,206	\$ 74.20	\$ 1,057
Paciência	-	-	-	-	-	-
Caeté	172	3.16	88	% 13,470	66.30	828
Total	285	2.96	88	% 21,676	\$ 69.40	\$ 915

Twelve Months Ended December 31, 2012 Operating Data

	Ore Processed (t000)	Feed Grade (g/t)	Plant Recovery Rate (%)	Production (ounces)	Cash Operating Cost/t	Cash Operating Cost/ounce
Turmalina	541	2.39	89	% 37,840	\$ 78.40	\$ 1,135
Paciência	170	2.15	90	% 9,987	92.30	1,536
Caeté	657	3.13	89	% 54,996	79.50	962
Total	1,368	2.72	89	% 102,823	\$ 80.70	\$ 1,082

Three Months Ended December 31, 2011 Operating Data

	Ore Processed (t000)	Feed Grade (g/t)	Plant Recovery Rate (%)	Production (ounces)	Cash Operating Cost/t	Cash Operating Cost/ounce
Turmalina	181	3.03	87	% 13,470	\$ 87.50	\$ 1,117
Paciência	108	2.63	91	% 6,632	81.40	1,307
Caeté	176	3.15	87	% 13,295	81.70	1,014
Total	465	2.98	88	% 33,397	\$ 83.90	\$ 1,114

Twelve Months Ended December 31, 2011 Operating Data

	Ore Processed (t000)	Feed Grade (g/t)	Plant Recovery Rate (%)	Production (ounces)	Cash Operating Cost/t	Cash Operating Cost/ounce
Turmalina	655	3.32	89	% 61,400	\$ 79.90	\$ 886
Paciência	460	2.97	92	% 39,581	68.90	787

Edgar Filing: Jaguar Mining Inc - Form 20-F

Caeté	674	3.03	87	%	54,783	75.10	912
Total	1,789	3.12	89	%	155,764	\$ 75.30	\$ 870

70



During the quarter ended December 31, 2012, the Company produced a total of 21,676 ounces of gold compared to 33,397 ounces during the same period last year. The decrease in gold production for the quarter compared to the same period in 2011 was primarily attributable to the Company's decision to place the Paciência operation under care and maintenance and the decrease in Turmalina's production as explained below under *Turmalina*.

During the year ended December 31, 2012, the Company produced a total of 102,823 ounces of gold compared to 155,764 ounces in 2011. As in the quarter above, the decrease in gold production for the year compared to 2011 is primarily attributable to the Company's decision to place the Paciência operation under care and maintenance and the decrease in Turmalina's production as explained below. As a result, the Company reported increased cash operating costs for the year ended December 31, 2012 of \$1,082 per ounce compared to \$870 per ounce in the year ended December 31, 2011.

During the year ended December 31, 2012, Jaguar sold 103,676 ounces of gold at an average realized price of \$1,663 per ounce compared to 155,525 ounces of gold at an average realized price of \$1,563 per ounce in the year ended December 31, 2011.

During the year ended December 31, 2012, Jaguar's consolidated mine development totaled 19.9 kilometers, compared to 24.8 kilometers during the year ended December 31, 2011.

## **Turmalina**

The primary mining method utilized at the Turmalina underground mine is "cut and fill" with some sublevel stoping also being employed. Ore produced at the Turmalina Mine is transported to the adjacent 2,000 tonnes per day ("tpd") carbon-in-pulp ("CIP") processing plant.

During the year ended December 31, 2012, Turmalina produced 37,840 ounces of gold at a cash operating cost of \$1,135 per ounce. This compared to 61,400 ounces at a cash operating cost of \$886 per ounce during the year ended December 31, 2011. Cash operating costs increased year over year due to lower production.

Underground development drifts for drilling at the Turmalina Mine totaled 8.7 kilometers during the year ended December 31, 2012. Underground delineation drilling at Turmalina totaled 21.7 kilometers during 2012.

**Paciência**

The Paciência operation continued on care and maintenance during the quarter ended December 31, 2012 and therefore no gold was produced at this operation during this quarter. During the year ended December 31, 2012, Paciência produced 9,987 ounces of gold at a cash operating cost of \$1,536 per ounce compared to 39,581 ounces at a cash operating cost of \$787 per ounce during the year ended December 31, 2011, a fully operational year.

No underground development or drilling work was carried out by the Company at the Paciência mine during the quarter ended December 31, 2012. During the year ended December 31, 2012, underground development drifts for drilling at Paciência totaled 2.7 kilometers and underground delineation drilling totaled 10.0 kilometers.

As previously stated, the Company has not established a timeframe to complete the Paciência remediation plans and restart production.

## Caeté

The Caeté mining complex has two underground mines (Roça Grande and Pilar) that primarily utilize the “cut and fill” mining method as well as some “sublevel stoping” at Pilar. Ore produced from these mines is transported to the 2,200 tpd CIP processing plant adjacent to the Roça Grande mine.

During the year ended December 31, 2012, Caeté produced 54,996 ounces of gold at a cash operating cost of \$962 per ounce. This compared to 54,783 ounces at a cash operating cost of \$912 per ounce during the year ended December 31, 2011.

Underground development drifts for drilling at the Pilar and Roça Grande mines totaled 8.4 kilometers during the year ended December 31, 2012. Underground delineation drilling at the mines totaled 30.4 kilometers during 2012.

## Sabará

The Sabará operation continued on care and maintenance during the quarter ended December 31, 2012.

## B. Liquidity and Capital Resources

### Fiscal 2013

In 2013, the Company continued to actively and closely monitor its cash position and manage its working capital. On April 23, 2014, the Company announced that it had successfully implemented the CCAA Plan with an effective date of April 22, 2014. Please see Item 13 for a full description of the CCAA Proceedings.

## Cash Flow Highlights

Three Months Ended	Twelve Months Ended
December 31,	December 31,

Edgar Filing: Jaguar Mining Inc - Form 20-F

(\$ in '000s)	2013	2012	2013	2012
Operating activities	\$ (3,199 )	\$ 5,380	\$ 12,813	\$ (2,789 )
Financing activities	(968 )	(5,660 )	5,979	(13,306 )
Investing activities	(4,652 )	(6,400 )	(23,211 )	(51,261 )
Effect of foreign exchange on non-US\$ denominated cash and cash equivalents gain	(365 )	545	(422 )	6,737
Decrease in cash for the period	(9,184 )	(6,135 )	(4,841 )	(60,619 )
Beginning cash balance	18,199	19,991	13,856	74,475
Ending cash balance <sup>(1)</sup>	\$ 9,015	\$ 13,856	\$ 9,015	\$ 13,856
Interest paid	\$ 1,017			
Principal repaid	\$ 1,623			
Total Financing activities	\$ 2,640			
Cash generated before interest and principal	\$ (8,216 )			
Cash consumed before interest payment	\$ (7,560 )			
(1) Cash balance excludes \$109,000 of restricted cash on December 31, 2013 (2012 - \$609,000).				

Cash flow from operating activities consumed \$3.2 million of cash during Q4 2013, compared to \$5.4 million generated during Q4 2012. The decrease of \$8.6 million is mainly related to the reduction of the gold price, despite the efforts to reduce costs and expenses. During FY 2013, cash flow from operating activities generated \$12.8 million compared to \$2.8 million consumed during the same period in 2012.

Cash flow from financing activities consumed \$968,000 of cash during Q4 2013, compared to \$5.7 million consumed during Q4 2012, mainly due to renewal of the maturity dates for certain loans outstanding in Brazil. During FY 2013, cash flow from financing activities generated \$6.0 million compared to \$13.3 million consumed during the same period in 2012. The difference of \$19.3 million is mainly related to the draw-down of the \$30.0 million standby credit facility with Renvest Mercantile Bancorp Inc. through its Global Resource Fund (the "Credit Facility").

Investing activities consumed \$4.7 million of cash during Q4 2013 compared to \$6.4 million for Q4 2012. For FY 2013, investing activities consumed \$23.2 million compared to \$51.3 million during FY 2012. The reduction is part of the Company's plan to defer some capital expenditures to 2014 in order to preserve cash.

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 site and by category:

(\$ in 000s)	Three months ended December 31, 2013	Twelve months ended December 31, 2013
Turmalina	\$ 2,351	\$ 10,608
Caeté	1,824	11,949
Gurupi Project	496	807
Other spending	95	481
Total capital spending	\$ 4,766	\$ 23,845

  

(\$ in 000s)	Three months ended December 31, 2013	Twelve months ended December 31, 2013
Mine development	\$ 2,475	\$ 14,053
Sustaining (equipment and services)	812	3,775
Sustaining (engineering)	617	3,008
Exploration	309	2,104
Other	553	905
Total capital spending	\$ 4,766	\$ 23,845
Amount paid in cash	\$ 4,766	\$ 23,845



Fiscal 2012

**Cash Flow Highlights**

(\$ in 000s)	Three months ended Dec 31		Twelve months ended Dec 31	
	2012	2011	2012	2011
Operating activities	\$ 5,380	\$ 889	\$ (2,789 )	\$ 71,919
Financing activities	(5,660 )	(3,053 )	(13,306 )	\$ 78,651
Investing activities	(6,400 )	(30,371 )	(51,261 )	(110,465 )
Effect of foreign exchange on non-US\$ denominated cash and cash equivalents gain (loss)	545	5,285	6,737	(4,853 )
Increase (decrease) in cash for the period	(6,135 )	(27,250 )	(60,619 )	35,252
Beginning cash balance	19,991	101,725	74,475	39,223
Ending cash balance <sup>(1)</sup>	\$ 13,856	\$ 74,475	\$ 13,856	\$ 74,475

(1) Cash balance excludes \$609,000 of restricted cash on December 31, 2012 and \$909,000 on December 31, 2011.

As at December 31, 2012 and 2011, the Company had cash and cash equivalents of \$13.9 million and \$74.5 million, respectively.

Cash flow from operating activities generated \$5.4 million of cash during the quarter ended December 31, 2012, compared to \$889,000 generated during the quarter ended December 31, 2011. Cash flow from operating activities consumed \$2.8 million of cash during the year ended December 31, 2012, as compared to \$71.9 million generated during the year ended December 31, 2011.

Cash flow from financing activities consumed \$5.7 million of cash during the quarter ended December 31, 2012, and \$3.1 million during the quarter ended December 31, 2011. During the year ended December 31, 2012, cash flow from financing activities consumed \$13.3 million versus a \$78.7 million cash generated during the year ended December 31, 2011, primarily as a result of the issuance of the 5.5% Convertible Notes.

Investing activities consumed \$6.4 million of cash during the quarter ended December 31, 2012 (\$51.3 million for the year ended December 31, 2012) compared to \$30.4 million for the quarter ended December 31, 2011 (\$110.5 million for the year ended December 31, 2011). The funds were primarily used for underground development, equipment improvement and replacement throughout the Company's southern operations and exploration and pre-development at Gurupi.

The effect of foreign exchange on non-US\$ denominated cash and cash equivalents was a \$545,000 unrealized gain during the quarter ended December 31, 2012 compared to a \$5.3 million unrealized gain during the quarter ended December 31, 2011. As at the year ended December 31, 2012, this effect was an unrealized gain of \$6.7 million compared to an unrealized loss of \$4.9 million as at the year ended December 31, 2011. This reflects the fluctuations of the R\$ and Cdn\$ versus the US\$ during the respective periods.



Fiscal 2011

**Cash Flow Highlights**

(\$ in 000s)	Quarter Ended		Year Ended	
	December 31		December 31	
	2011	2010	2011	2010
Operating activities	\$889	\$5,983	\$71,919	\$30,726
Financing activities	(3,053 )	9,173	78,651	20,326
Investing activities	(30,371 )	(24,551)	(110,465)	(132,036)
Effect of foreign exchange on non-U.S. dollar denominated cash and cash equivalents	5,285	(559 )	(4,853 )	(1,049 )
Increase (decrease) in cash for the period	\$(27,250 )	\$(9,954 )	\$35,252	\$(82,033 )
Beginning cash balance	101,725	49,177	39,223	121,256
Ending cash balance <sup>1</sup>	\$74,475	\$39,223	\$74,475	\$39,223

<sup>1</sup>Cash balance excludes \$909,000 of restricted cash on December 31, 2011 and \$908,000 on December 31, 2010.

As at December 31, 2011, the Company had cash and cash equivalents of \$74.5 million and \$39.2 million, respectively.

Cash flow from operating activities generated \$889,000 of cash during the quarter ended December 31, 2011 versus \$6.0 million generated during the quarter ended December 31, 2010. Cash flow from operating activities generated \$71.9 million of cash during the year ended December 31, 2011 versus \$30.7 million generated during the year ended December 31, 2010.

Cash flow from financing activities consumed \$3.1 million of cash during the quarter ended December 31, 2011 and generated \$9.2 million during the quarter ended December 31, 2010. During the year ended December 31, 2011, financing activities generated \$78.7 million primarily as a result of the issuance of \$103.5 million of 5.50% senior convertible notes during February 2011.

Investing activities consumed \$30.4 million of cash during the quarter ended December 31, 2011 (\$110.5 million for the year ended December 31, 2011) versus \$24.6 million for the quarter ended December 31, 2010 (\$132.0 million for the year ended December 31, 2010). The funds were primarily used for underground development.

The effect of foreign exchange on non-US\$ denominated cash and cash equivalents was a \$5.3 million gain during the quarter ended December 31, 2011 (\$4.9 million loss for the year ended December 31, 2011), compared to a \$559,000

loss during the quarter ended December 31, 2010 (\$1.0 million loss for the year ended December 31, 2010). This reflects the changes of the R\$ and Cdn\$ versus the US\$ during the respective periods.

**Notes Payable**

	Payable	
	December 31, 2011	December 31, 2012
Bank indebtedness (a)	\$15,667	\$ 25,470
Vale note (b)	1,909	1,918
Renvest credit facility (e)	30,000	-
4.5% convertible notes (c)	165,000	-
5.5% convertible notes (d)	103,500	-
Notes payable - current portion	316,076	27,388
Bank indebtedness (a)	183	368
Vale note (b)	5,728	5,754
4.5% convertible notes (c)	-	145,818
5.5% convertible notes (d)	-	88,218
Notes payable - long-term portion	5,911	240,158
Total notes payable	321,987	267,546
Fair value of notes payable	\$53,487	\$ 128,625
Principal repayments over the next two years:		
	2014	\$ 316,426
	2015	6,946
Total		323,372
Less: unamortized discounts		1,385
		\$ 321,987

**a) Bank indebtedness:**

As at December 31, 2013, bank indebtedness includes \$378,000 of notes payable secured by equipment. The notes bear interest at 6.35% and are repayable semi-annually over the life of the note. The notes mature August 2015 (2012 - \$2.6 million, maturing from February 2013 to August 2015 at interest rates of 4.5% to 6.4%).

Bank indebtedness also includes \$15.5 million of promissory notes secured by future gold sales payable at maturities from March 2014 to August 2014. The notes bear interest at 5.0% to 7.2% (2012 - \$23.2 million, maturing from March 2013 to December 2013 at interest rates of 4.4% to 8.9%).

**b) Vale note:**

The Vale note relates to the purchase of mineral rights for the Roça Grande property for \$13.3 million.

The timing of these payments is dependent upon Vale's registration of the mineral rights transfer with the Departamento Nacional de Produção Mineral ("DNPM"). During 2010, the Company paid \$3.2 million (2009 - \$1.1 million) relating to these mineral rights. The Company expects to execute the final transfer agreement and pay \$2.3 million of the purchase price in 2014 and the remaining balance of \$6.7 million in 2015.

The note payable was recognized at its fair value and the discount is being amortized using the effective interest method.

**c) 4.5% Convertible Notes:**

During September 2009, the Company issued the 4.5% Convertible Notes.

The Company received net proceeds of approximately \$159.1 million. The notes bear interest at a rate of 4.5% per annum, payable semi-annually in arrears on May 1 and November 1 of each year, beginning on May 1, 2010, and mature on November 1, 2014. The Company elected to defer the payment of semi-annual interest on November 1, 2013, and on December 2, 2013, Jaguar committed an event of default under the 4.5% Convertible Notes as a result of its failure to make the interest payment within 30 days as specified by the convertible notes indenture. As a result, the Company recorded additional interest expense of \$9.0 million to recognize the remaining discount and transaction costs on the issuance of the convertible notes. The 4.5% Convertible Notes have an initial conversion rate of 78.4314

Jaguar common shares per \$1,000 principal amount of notes, representing an initial conversion price of approximately \$12.75 per common share. The conversion rate is subject to certain anti-dilution adjustments and adjustments in connection with specified corporate events. The notes are convertible at any time prior to maturity. Upon conversion, Jaguar may, in lieu of delivering its common shares, elect to pay or deliver, as the case may be, cash or a combination of cash and common shares, in respect of the converted notes. Jaguar will be required to make an offer to repurchase the notes for cash upon the occurrence of certain fundamental changes as defined within the terms of the notes.

The Company initially allocated \$42.2 million of the net proceeds to the conversion option component of the 4.5% Convertible Notes since it is treated as a derivative liability and carried at fair value with changes in fair value recorded in the consolidated statements of operations and comprehensive loss. The remaining portion of the net proceeds of \$116.9 million was allocated to the note component of the 4.5% Convertible Notes issuance and the note component is measured at amortized cost using the effective interest method subsequent to the date of issuance.

The 4.5% Convertible Notes were irrevocably and finally cancelled pursuant to the implementation of the CCAA Plan. See Item 13.

d) **5.5% Convertible Notes:**

During February 2011, the Company issued the 5.5% Convertible Notes.

The Company received net proceeds of approximately \$99.3 million. The notes bear interest at 5.5% per annum, payable semi-annually in arrears on March 31 and September 30 of each year, beginning on September 30, 2011, and mature on March 31, 2016. The 5.5% Convertible Notes had an initial conversion rate of 132.4723 Jaguar common shares per \$1,000 principal amount of notes, representing an initial conversion price of approximately \$7.55 per common share.

The Company initially allocated \$18.9 million of the net proceeds to the conversion option component of the convertible notes since it is treated as a derivative liability and carried at fair value with changes in fair value recorded in the consolidated statements of operations and comprehensive loss. The remaining portion of the net proceeds of \$80.4 million was allocated to the note component of the 5.5% Convertible Notes issuance and the note component is measured at amortized cost using the effective interest method subsequent to the date of issuance. The 5.5% Convertible Notes were irrevocably and finally cancelled pursuant to the implementation of the CCAA Plan. See Item 13.

e) **Renvest Credit Facility:**

On October 29, 2012, the Company announced that it had arranged a \$30.0 million standby credit facility (the "Credit Facility") with Renvest Mercantile Bancorp Inc. through its Global Resource Fund (the "Lender").

On January 25, 2013, the Company made an initial drawdown of \$5.0 million on the Credit Facility and concurrently issued 570,919 common shares of the Company to the Lender pursuant to the terms of the Credit Facility. On June 26,

2013, the Company drew down the remaining \$25.0 million on the Credit Facility and issued another 1,315,789 common shares of the Company to the Lender. The initial drawdown and the subsequent drawdown under the Credit Facility mature on July 25, 2014.

Interest is applied to the outstanding balance of all amounts drawn down from the Credit Facility at a fixed rate of eleven percent (11%) per annum, payable monthly in arrears. The Credit Facility includes a general security agreement over all of the Company's and its subsidiaries' present and future assets, delivery of the shares of the Company's subsidiaries and loan guarantees by the Company's subsidiaries.

The default on the payment of the 4.5% Convertible Note interest in December 2013 and the Company entering into CCAA protection on December 23, 2013 caused the Company to commit events of default under the Credit Facility. As a result of the events of default, the principal amount of the notes, plus accrued and unpaid interest, if any, may be declared immediately due and payable (subject to the stay of proceedings under the Initial Order ). Therefore, the Company recorded additional interest expense of \$1.2 million to recognize the remaining transaction costs incurred on the issuance of the debt. In connection with the implementation of the CCAA Plan, certain amendments were made to the Credit Facility. See Item 13.

#### C. Research and Development, Patents and Licenses

The Company conducts no research and development activities, nor is it dependent upon any patents or licenses.

## D. Trend information

Refer to Item 4 for a detailed discussion of Trend Information.

## E. Off-balance Sheet Arrangements

The Company does not have any off-balance sheet investment or debt arrangements.

## F. Contractual Obligations

The Company's contractual obligations as at December 31, 2013 are summarized as follows:

As at December 31, 2013	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
<b>Financial Liabilities</b>					
<b>Notes payable (1)</b>					
Principal	\$ 316,426	\$ 6,946	\$ -	\$ -	\$ 323,372
Interest	19,839	8,565	-	-	28,404
	\$ 336,265	\$ 15,511	\$ -	\$ -	\$ 351,776
<b>Other Commitments</b>					
Operating lease agreements	\$ 263	\$ 189	\$ -	\$ -	\$ 452
<b>Suppliers' agreements</b>					
Mine operations(2)	1,215	-	-	-	1,215
Reclamation provisions(3)	859	5,378	1,728	13,322	21,287
	\$ 2,337	\$ 5,567	\$ 1,728	\$ 13,322	\$ 22,954
<b>Total</b>	<b>\$ 338,662</b>	<b>\$ 21,073</b>	<b>\$ 1,728</b>	<b>\$ 13,322</b>	<b>\$ 374,730</b>

The contractual maturity of the principal portion of the notes payable takes into consideration events of default that (1) have occurred under the relevant debt agreements. Interest amounts are based on contractual terms assuming the principal remains outstanding for its original term.

(2) The Company has the right to cancel the mine operations contracts with 30 days advance notice. The amount included in the contractual obligations table represents the amount due within 30 days.

(3) Reclamation provisions are not adjusted for inflation and are not discounted.

## G. Safe Harbor

Please see the “*Cautionary Note Regarding Forward-Looking Statements*”.



## Item 6. Directors, Senior Management and Employees

## A. Directors and Senior Management

The following is a list of the directors and executive officers of Jaguar as of December 31, 2013 (collectively, the “Directors and Officers”), and information regarding each individual including age, municipality of home address, position with Jaguar, date of appointment to the position with Jaguar and their principal occupation during the past five years. As of December 31, 2013, the directors of Jaguar were George Bee, Richard D. Falconer, Frederick W. Hermann, David Petroff, Luis Ricardo Miraglia, Edward V. Reeser and Derrick Weyrauch. All directors of the Company hold office until the next annual meeting of shareholders or until their successors are elected or until their earlier death, resignation or removal. The executive officers serve at the pleasure of the Board of Directors, subject to the terms of executive compensation agreements. As of December 31, 2013, there were no known family relationships between our directors and officers and there were no arrangements or understandings regarding the selection of directors or executive officers.

<b>Name (Age) &amp; Municipality of Residence</b>	<b>Position and Date of Appointment (Resignation)</b>	<b>Principal Occupation (past five years)</b>
Gordon J. Babcock (57) Vermont, United States	Chief Operating Officer January 8, 2013	Vice President and General Manager of Nyrstar El Mochito, Honduras from May 2010 to December 2012.  Deputy General Manager and Operations Manager of Coeur d’Alene Mining Corporation’s Manquiri Operation in Bolivia from October 2008 to April 2010.  Vice President and General Manager of Coeur d’Alene Mining Corporation’s Mina Martha in Argentina from March 2007 to March 2010.
George Bee (55) Ontario, Canada	Director June 10, 2013	Independent Director.  President and Chief Executive Officer of Andina Minerals Inc. from January 2009 to January 2013.
Marcela Rocha Barbosa de Castro (41) Minas Gerais, Brazil	Vice President of Treasury Management May 22, 2012	Director of Financial Planning and Analysis of Jaguar from October 2006 to May 2012.  Promoted to Vice President of Treasury Management of Jaguar in May 2012.

	Director	
Richard D. Falconer (69)	May 22, 2012	Vice Chairman and Managing Director of CIBC World Markets Inc. from the early 1990's until his retirement in 2011.
Ontario, Canada	Chairman	
	June 29, 2012	
		Principal of Hermann Consulting since September 2011.
Frederick W. Hermann (59)	Director	Chief Operating Officer of Breakwater from 2008 to 2011.
British Columbia, Canada	September 27, 2012	
		Senior Vice President of Sustainability of Breakwater from 2007 to 2008.
Luis Ricardo Miraglia (39)	Director	Partner of Azevedo Sette Advogados, a Brazilian law firm, since 2004.
Minas Gerais, Brazil	September 27, 2012	
		President and Chief Executive Officer of Breakwater from June 2009 to August 2011.
		Chairman of the Board of Directors, Chair of the Audit Committee, Member of the Compensation Committee and Member of the Corporate Governance, Health, Safety, Environment and Nominating Committee of Polar Star Mining Corporation from April 2009 to March 2010.
David M. Petroff (56)	Director and President and Chief Executive Officer	
Ontario, Canada	September 10, 2012	Executive Vice President and Chief Financial Officer of Centerra Gold Inc. from May 2004 to June 2008.

<b>Name (Age) &amp; Municipality of Residence</b>	<b>Position and Date of Appointment (Resignation)</b>	<b>Principal Occupation (past five years)</b>
Edward V. Reeser (61) Ontario, Canada	Director June 10, 2013	Owner and President of Celco Inc. since 2001.  Chief Financial Officer of Temex Resources Corp. since January 2014.  President of Weyrauch and Associates Inc. since May 2010.
Derrick Weyrauch (49) Ontario, Canada	Director June 10, 2013	Chief Financial Officer of Andina Minerals Inc. from November 2010 to January 2013.  Chief Financial Officer of Malbex Resources Inc. from October 2009 until February, 2011.  Director of Finance and Treasury, Corporate Controller and Consultant for Gabriel Resources Ltd. from May 2007 to November 2009.
T. Douglas Willock (60) Ontario, Canada	Chief Financial Officer January 10, 2013	Chief Financial Officer of Jaguar Mining Inc. since January 2013.  Independent business consultant from May 2012 until January 2013.  President and Chief Executive Officer of Polar Star Mining Corporation from November 2006 to January 2009 and April 2009 to May 2012.

In connection with the implementation of the CCAA Plan on April 22, 2014, the Board was reconstituted so as to be comprised of seven individuals, four of whom are incumbent directors of the Company. Messrs. Falconer, Bee, Reeser and Miraglia remained on the Board and were joined by three new directors, being Mr. Stephen Hope, Mr. R. David Russell and Mr. Robert Chadwick. On May 12, 2014, Mr Russell resigned and Mr. Jared Hardner was appointed to the Board. Please see the biographies of Messrs. Hope, Hardner and Chadwick below. In addition, in connection with the CCAA Plan, Mr. David Petroff and Mr. Douglas Willock resigned from their positions as Chief Executive Officer and Chief Financial Officer of the Company, respectively, and Mr. George Bee and Mr. Derrick Weyrauch have been appointed as Chief Executive Officer and Chief Financial Officer. For more detail on the CCAA Proceedings, please see Item 13 below. The following table contains information regarding each new officer and director of the Company including age, municipality of home address, position with Jaguar, date of appointment to the position with Jaguar and their principal occupation during the past five years.

<b>Name (Age) &amp; Municipality of Residence</b>	<b>Position and Date of Appointment (Resignation)</b>	<b>Principal Occupation (past five years)</b>
George Bee (55) Ontario, Canada	Director June 10, 2013	Independent Director.
Robert Chadwick (48) Ontario, Canada	Chief Executive Officer April 22, 2014	President and Chief Executive Officer of Andina Minerals Inc. from January 2009 to January 2013.
Stephen Hope (43) California, United States	Director April 22, 2014	Partner and a member of the Executive Committee at Goodmans LLP.
Jared Hardner (44) New Hampshire, United States	Director May 12, 2014	Portfolio Manager at Outrider Management LLC since 2004.  Managing Partner of Hardner & Gullison Associates, LLC

Name (Age) & Municipality of Residence	Position and Date of Appointment (Resignation)	Principal Occupation (past five years)
Derrick Weyrauch (49) Ontario, Canada	Chief Financial Officer April 22, 2014	<p>Chief Financial Officer of Temex Resources Corp. since January 2014.</p> <p>President of Weyrauch and Associates Inc. since May 2010.</p> <p>Chief Financial Officer of Andina Minerals Inc. from November 2010 to January 2013.</p> <p>Chief Financial Officer of Malbex Resources Inc. from October 2009 until February, 2011.</p> <p>Director of Finance and Treasury, Corporate Controller and Consultant for Gabriel Resources Ltd. from May 2007 to November 2009.</p>

***Current Director and Senior Manager Biographies***

*Richard D. Falconer (Director):* Mr. Falconer was elected to the Board on May 22, 2012 and was appointed Chairman of the Board on June 29, 2012. Mr. Falconer retired from CIBC after 40 years with the bank. At the time of retirement, Mr. Falconer was Vice Chairman and Managing Director, CIBC World Markets Inc. Current directorships include Chorus Aviation Inc., Resolute Forest Products Inc., Bridgepoint Health Foundation; LOFT Community Services; and Member, Shaw Festival Theatre Endowment Foundation Board of Governors. He is a Chartered Financial Analyst and holds a Master of Business Administration degree, York University, and Honours B.A., University of Toronto.

*George Bee (Director and Chief Executive Officer):* Mr. Bee was elected to the Board on June 10, 2013 and was appointed Chief Executive Officer of the Company on April 22, 2014. Mr. Bee is a mining engineer and has over 30 years' experience in the mining industry, developing world-class gold mining projects. Recently, he was the President and Chief Executive Officer and a director of Andina Minerals Inc. Prior to that, Mr. Bee was Chief Operating Officer of Aurelian Resources and spent over 16 years at Barrick Gold Corporation where he was responsible for a number of operating and development projects. Mr. Bee is a graduate of the Camborne School of Mines in Cornwall, United Kingdom. Mr. Bee currently serves on the boards of Stillwater Mining Company and Sandspring Resources Inc. and holds ICD.D designation from the Institute of Corporate Directors.

*Edward V. Reeser (Director):* Mr. Reeser was appointed to the Board on June 10, 2013. Mr. Reeser is the owner and President of Celco Inc. (Food Service Equipment), one of Canada's major commercial food service equipment importers and distributors. Mr. Reeser has been a director and member of the Finance and Audit Committee of Bridgepoint Health since September 2011. Mr. Reeser has over 15 years' experience as a senior financial officer of

TSX-listed companies in the metallurgical, aviation and energy utility industries. Mr. Reeser has also served as a director and officer of a number of private companies and non-profit organizations. Mr. Reeser holds a Master of Business Administration degree (finance concentration) from York University, a Bachelor of Arts from York University and an ICD.D designation from the Institute of Corporate Directors.

*Luis Miraglia (Director):* Mr. Miraglia was appointed as a director of the Company on September 27, 2012. Mr. Miraglia is a native of Minas Gerais, Brazil and is a Partner at the law firm of Azevedo Sette Advogados with 19 years of experience in legal practice specializing in corporate law, mergers and acquisitions, project finance, infrastructure projects and mining. He holds a degree (Juris Doctorate equivalent) from the Universidade Federal de Minas Gerais in Belo Horizonte, Brazil and a Master of Laws degree from the University of Chicago Law School.

*Stephen Hope (Director):* Mr. Hope has worked in fixed-income investment management for over fifteen years. Prior to forming Outrider Management (“Outrider”) in January 2004, he was a portfolio manager with Dalton Investments LLC where he managed a fund with a substantially similar investment strategy to that of Outrider. Prior to joining Dalton, he managed an emerging markets debt fund focused on distressed debt for two years at San Francisco Sentry Investment Group. Prior to San Francisco Sentry, he worked at Bracebridge Capital as an analyst and trader for their Asian operations. From 1995 to 1997, Stephen was a currency and bond trader for the Asian and Dollar Bloc markets for Eaton Vance Management. Stephen began his career at the First National Bank of Maryland as a corporate credit analyst and trader. Stephen Hope holds an Bachelor of Arts in Economics from Princeton University.

*Jared Hardner (Director):* Mr. Hardner has worked in the environmental field for 21 years. Over the past decade his work has focused increasingly on the mining industry and he includes among his clients Rio Tinto, Barrick Gold, Teck, First Quantum, and Newmont Mining. His geographic experience includes the U.S., Canada, Africa, Asia, Australia, and numerous countries in Latin America including Brazil. He holds a Bachelor of Arts in Economics and Certificate in Latin American Studies from Princeton University, and a Masters of Forest Science from Yale University

*Robert J. Chadwick (Director):* Mr. Chadwick is a partner and a member of the Executive Committee at Goodmans. He practices corporate and commercial law and in the areas of corporate restructuring and insolvency, financial services and private equity law. Mr. Chadwick focuses his practice on corporate, banking, private equity, insolvency and reorganization law and mergers and acquisitions. He also has expertise in national, cross-border and international transactions. Mr. Chadwick has participated in significant financings and acquisitions and other transactional matters in various industries on behalf of a diverse group of clients. He has been an advisor in many of the major Canadian and cross-border commercial matters and restructurings. He is a director of TSX-listed Ainsworth Lumber Co. Ltd.

*Derrick Weyrauch (Chief Financial Officer):* Mr. Weyrauch served as an independent director of the Company from June 10, 2013 until April 22, 2014, and was appointed Chief Financial Officer of the Company on April 22, 2014. Mr. Weyrauch is a Chartered Professional Accountant and a Chartered Accountant and has over 15 years' experience as a senior financial officer of TSX/TSXV-listed companies in the mining, contract manufacturing and medical device industries. Mr. Weyrauch is an independent director of Banro Corporation and is currently the Chief Financial Officer of Temex Resources Corp. Prior to its sale in 2013, Mr. Weyrauch served as the Chief Financial Officer of Andina Minerals Inc. Mr. Weyrauch earned his CA designation in 1990 while employed at KPMG LLP. He is a member of the Institute of Chartered Accountants of Ontario, the Institute of Corporate Directors and holds a Bachelor of Arts degree in Economics from York University.

## B. Compensation

The following describes the formal compensation policy of the Company.

The Board administers the Company's compensation policy with advice from the Compensation Committee. The Compensation Committee is responsible for ensuring that the Company has in place an appropriate plan for executive compensation and for making recommendations to the Board with respect to the compensation of certain of the Company's executive officers. The Compensation Committee ensures that total compensation paid to the executive officers of the Company is fair, reasonable and consistent with the Company's compensation philosophy.

The Company's compensation policies and practices are based on the following objectives and fundamental principles:

## Edgar Filing: Jaguar Mining Inc - Form 20-F

executives should receive compensation that is competitive in value and structure with the compensation paid by companies of similar size and stature, and the Company should not pay excessively;

the compensation policy should attract, motivate and retain individuals who are highly qualified, experienced, and who will perform according to their individual and corporate objectives;

emphasis should be placed on providing incentive compensation to executives to align their interests with what is in the best interests of the Company instead of copying the compensation practices of competitors and other companies in the industry;



compensation should be based on the Board's consideration of the Company's desired performance and the recommendations of the Compensation Committee instead of developing specific formulae that assign weighting to each element of compensation;

the goals and performance objectives of the executive officers should be aligned with maximizing long term shareholder value; and

compensation should be significantly performance based, linking compensation criteria directly to operation and market performance of the Company.

For the year ended December 31, 2013, the key elements of the Company's compensation policy were base salary and long term incentive plans.

### ***Base Salary***

The Compensation Committee and the Board approved the 2013 salary ranges for the executive officers of the Company. The base salary amount for each executive officer is determined by reference to an assessment of factors such as current competitive market conditions, compensation levels within the peer group and particular skills, such as management effectiveness, experience, responsibility and proven or expected performance of the particular individual. Comparative data for the Company's peer group is also accumulated from a number of external sources. The Compensation Committee, using this information together with budgetary guidelines and other internally generated planning and forecasting tools, performs an annual assessment of the compensation of all executive officers. The salaries paid to each of the executive officers in 2013 are set forth below.

### ***Long Term Incentive Compensation***

The Company believes that security based compensation arrangements and similar plans are a critical component of the Company's compensation arrangements and are necessary and vital to attracting and retaining key individuals. The Company also believes that these plans promote a greater alignment of interests between the plan participants and shareholders and assist in attracting and retaining qualified individuals. As of December 31, 2013, the Company had a stock option plan (the "Old Stock Option Plan"), a restricted share unit plan, a share appreciation rights plan and a deferred share unit plan. As of December 31, 2013, options to purchase an aggregate of 10,500,000 common shares were authorized for issuance pursuant to the Old Stock Option Plan. Options granted and not exercised are considered not issued for this purpose. As of December 31, 2013, a total of 13,175,132 stock options had been granted, of which 5,425,319 had expired without being exercised. Of the options that had been granted as of such date, 6,145,785 options had been exercised.

The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan were cancelled pursuant to the terms the CCAA Plan. The Board has approved a new 10% rolling stock option plan which has received conditional approval from the TSXV and is subject to the approval of disinterested shareholders of the Company. It will be presented for approval at the Company's next annual general meeting of shareholders ("AGM"), which is expected to be held late in the second quarter of 2014. The Board has also approved a new deferred share unit plan (the "DSU Plan"). The DSU Plan has received conditional approval from the TSXV and will be presented for approval by shareholders at the AGM. See also Item 13.

### *Executives' Compensation*

#### *Summary Compensation for the fiscal year ended December 31, 2013*

Executive Officer Name	Year	Annual		Long Term <sup>(1)</sup>			Other (\$)	Total Compensation
		Base	Bonus	Options Awards (#)	Options Modified Options (#)	All Other Compensation		
David Petroff	2013	\$ 600,000	\$ 180,000	-	-	-	\$ 79,500	\$ 859,500
T.Douglas Willock	2013	\$ 292,500	-	200,000	-	\$ 56,909	\$ 29,250	\$ 378,659
Gordon Babcock	2013	\$ 441,657	-	-	-	-	-	\$ 441,657
Marcela Rocha Barbosa de Castro	2013	\$ 208,869	-	-	-	-	-	\$ 208,869

(1) As of the date of the date of this Annual Report on 20-F, these options have been cancelled. The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan were cancelled pursuant to the terms the CCAA Plan. See Item 13.

***Options Granted in the fiscal year ended December 31, 2013***

Executive Officer Name	Options Granted <sup>(1)</sup> (#)	Exercise Price (\$)	Purchase Price (\$)	Expiration Date
David Petroff	-	-	-	-
T. Douglas Willock	200,000	0.61	56,909	April 5, 2018
Gordon Babcock	-	-	-	-
Marcela Rocha Barbosa de Castro	-	-	-	-

(1) As of the date of the date of this Annual Report on 20-F, these options have been cancelled. The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan were cancelled pursuant to the terms the CCAA Plan. See Item 13.

***Non- Executive Directors' Compensation***

***Summary Compensation for the fiscal year ended December 31, 2013***

Director Name	Year	Annual		Long Term <sup>(1)</sup>			Other (\$)	Total Compensation (\$)
		Base (\$)	Bonus (\$)	Options Awards (#)	Options Modified (#)	Options (\$)	All Other Compensation <sup>(2)</sup>	
		33,686	-	-	-	-	3,000	36,686
Richard D. Falconer	2013	80,250	-	-	-	-	17,500	97,750
Frederick W. Hermann	2013	53,662	-	77,778	-	21,000	-	74,662
Luis Ricardo Miraglia	2013	57,415	-	-	-	-	4,000	61,415
Edward V. Reeser	2013	36,738	-	-	-	-	32,840	69,578
Derrick Weyrauch	2013	42,157	-	-	-	-	64,760	106,917

(1) As of the date of the date of this Annual Report on 20-F, these options have been cancelled. The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan were cancelled pursuant to the terms the CCAA Plan. See Item 13.

(2) "All Other Compensation" includes payments associated with membership of special committees of the Board of Directors.

**Options Granted in the fiscal year ended December 31, 2013**

Directors Name	Options Granted <sup>(1)</sup> (#)	Exercise Price (\$)	Purchase Price (\$)	Expiration Date
George Bee	-	-	-	-
Richard D. Falconer	-	-	-	-
Frederick W. Hermann	77,778	0.41	21,000	May 13, 2018
Luis Ricardo Miraglia	-	-	-	-
Edward V. Reeser	-	-	-	-
Derrick Weyrauch	-	-	-	-

(1) As of the date of the date of this Annual Report on 20-F, these options have been cancelled. The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan were cancelled pursuant to the terms the CCAA Plan.

**C. Board Practices**

Please see Item 6.A above for full details on Jaguar's directors during the Financial Year ended December 31, 2013.

This Statement of Board Practices has been approved by the Board.

**General**

The TSX, the TSXV and the applicable Canadian securities law and regulation require that the Company comply with National Instrument 58-101 (*Disclosure of Corporate Governance Practices*) or any replacement of that instrument. The Company is also, under applicable Canadian securities law and regulation, required to comply with National Policy 58-201 (*Corporate Governance Guidelines*). National Instrument 58-101 and National Policy 58-201 (for convenience referred to in the aggregate as the "guidelines") deal with matters such as the constitution and independence of corporate boards, their functions, the effectiveness and education of the board members and other matters. The Company's statement as to compliance with the guidelines and its approach to corporate governance is set forth below.

**Composition of the Board**

As of December 31, 2013, based on the definition of “independence” in National Instrument 52-110, *Audit Committees*, all members of the Board except Mr. Petroff and Mr. Hermann were independent directors of the Company. Independence of the Board from management resulted from (i) a majority of the directors being independent directors; and (ii) an independent Chairman.

A number of the current directors are directors of other listed issuers. Mr. Falconer is a director of Resolute Forest Products Inc. and Chorus Aviation Inc. Mr. Chadwick is a director of Ainsworth Lumber Co. Ltd. Mr. Bee is a director of Stillwater Mining Company and Sandspring Resources Ltd.

Mr. Falconer, an independent director, is the Chairman of the Board. Mr. Falconer’s role as Chairman is to provide leadership to the Board and to be a liaison between the Board and the management of the Corporation. His responsibilities include leading the Board meetings, establishing procedures to assist the Board’s work, facilitating ongoing communication between the Board and the management of the Corporation, overseeing the responsibilities delegated to the Board committees, representing the Corporation in his capacity as Chairman of the Board, and performing such other functions as established in the Corporation’s formation documents and as set forth in the Chairman of the Board position description. Mr. Falconer calls meetings of the independent directors when he determines appropriate. The independent directors hold meetings separately from the other directors from time to time.

The following table reflects the attendance record of each director at the 24 Board meetings held during the period from January 1, 2013 through to December 31, 2013. The frequency of meetings as well as the nature of agenda items change, depending upon the state of the Company’s affairs and in light of opportunities or risks which the Company is subject to.

## Meetings Attended

Director	Number
Richard D. Falconer	24
George Bee	18
Frederick W. Hermann	19
Luis Ricardo Miraglia	23
David M. Petroff	24
Edward V. Reeser	19
Derrick Weyrauch	20

## Mandate of the Board

The Board has expressly assumed responsibility for supervising the management of the business and affairs of the Corporation. It is the Board's policy and goal to enhance shareholder value by careful oversight (including approval of all material actions) of the Corporation's businesses, and by continuously assessing long-range opportunities to expand these businesses. The Board sets long-term goals, reviews strategic planning and policies established by senior management, supervises the implementation of such goals and policies, and critically reviews the progress of such goals and policies at its meetings.

## Nomination of Directors

The Board keeps itself informed of the leaders in the business world and particularly leaders in the mining industry. Any member of the Board may submit a potential candidate to be a nominee for the position of director. The Board reviews the field of potential nominees having regard to the competencies and skills desired of the Board as a whole, and discusses the achievements, skills and competencies, leadership qualities, professional acumen and availability of such potential nominees, and agrees on which candidates are presented as official nominees supported by the Board. The Board currently does not have a nominating committee. The Corporate Governance Committee will continue to examine whether the Board should establish a nominating committee if circumstances warrant.

## Board Assessment

The Corporate Governance Committee of the Board has been tasked with developing a formal process for evaluating individual directors, the entire Board and each committee. In addition, the Board shall annually conduct a self-evaluation.

## **Orientation and Continuing Education**

The Company provides education (through management and outside professional advisers) on specific issues as they arise. The Board's practice is to conduct an initial orientation session for new directors and an annual orientation meeting to update all directors regarding relevant matters. In addition, management presentations are made to the Board as required on developments relating to the business of the Company. The Company also sponsors director attendance at appropriate education seminars. The Corporate Governance Committee maintains responsibility under its written charter to provide orientation training and continuing education to all directors of the Company.

## **Board Committees**

The Board maintains such committees as required by applicable corporate or securities laws and the rules or guidelines of any stock exchange upon which shares of the Company are listed for trading. In addition, the Board maintains any committee it deems appropriate (on an *ad hoc* basis or otherwise) and delegates to such committee such authority as the Board sees fit and as permitted by applicable law. Notwithstanding any such delegation, the Board retains its oversight function and ultimate responsibility for these matters and all other delegated responsibilities. At present, the Board maintains (a) a Compensation Committee, (b) an Audit Committee, (c) a Corporate Governance Committee, and (d) a Health, Safety and Environmental Committee.



#### Compensation Committee

Jaguar's compensation committee considers employment, consulting or other compensation arrangements between Jaguar and its employees. As of December 31, 2013, the members of the compensation committee were Messrs. Bee (chair), Miraglia and Reeser.

#### Audit Committee

As of December 31, 2013, the members of the Audit Committee were Messrs. Reeser (chair), Falconer and Weyrauch (the "**2013 Audit Committee**"). The current members of the Audit Committee are Messrs. Reeser (chair), Hope and Falconer (the "**2014 Audit Committee**"). All members of each of the 2013 Audit Committee and 2014 Audit Committee are independent within the meaning of National Instrument 52-110. All three members are financially literate within the meaning of National Instrument 52-110. The Audit Committee assists the Board in fulfilling its oversight responsibilities by conducting reviews and discussions with management and the independent auditors relating to the audit and financial reporting; assessing the integrity of internal controls and financial reporting procedures of the Company and ensuring implementation of such controls and procedures; monitoring the quality and integrity of the Company's financial statements and other financial information; and selecting and monitoring the independence and performance of the Company's outside auditors. The Audit Committee is also responsible for overseeing the Company's whistleblower procedures and administering the whistleblower policy. As part of its role, the Audit Committee receives recommendations from management and the external auditor appointed by the Shareholders regarding the matters described in the preceding sentence, examines such recommendations and advises the Board concerning actions that should be taken.

#### Corporate Governance Committee

The Corporate Governance Committee assists the Board in discharging its duties relating to the safeguarding of assets, develops, recommends and oversees the operation of adequate corporate governance systems in compliance with applicable laws, stock exchange rules and accounting standards, identifies individuals qualified to become Board members, and assists in the selection of director nominees. In addition, the Corporate Governance Committee is responsible for developing and administering director orientation and continuing education programs, reviewing the size and composition of the Board and its Committees and their functions and effectiveness, making recommendations to the Board with respect to fraud prevention policies, and recommending sound corporate governance practices on an ongoing basis. As of December 31, 2013, the members of the corporate governance committee were Messrs. Miraglia (chair), Falconer and Hermann. The current members of the Corporate Governance Committee are Messrs. Miraglia, Hope and Reeser.

## Health, Safety and Environmental Committee

Jaguar's health, safety and environmental reviews, advises and makes recommendations to the Board concerning the fulfillment of responsibilities relating to various human resources and environmental issues applicable to the Company. As of December 31, 2013, the members of the health, safety and environmental committee were Messrs. Hermann (chair), Bee and Weyrauch.

## Ethical Business Conduct

The Board and the Company have a long-standing commitment to conduct Jaguar's business in compliance with applicable laws and regulations. This commitment helps ensure the Company's reputation for honesty, quality and integrity. The Company requires that all employees respect and obey all applicable laws. Although not all employees are expected to know the details of these laws, it is important to know enough to determine when to seek advice from supervisors, managers or other appropriate personnel. The Company is regulated by a number of laws, rules and regulations. Compliance with these laws, rules and regulations is required and expected. The Board has adopted a whistleblower policy to facilitate anonymous complaints of employees, contractors, directors, officers and the Company's agents against the Company or any of its directors, officers or employees relating to financial statement disclosures, accounting, internal controls and audit matters. The Board has also adopted an insider trading policy which outlines the rules and restrictions applicable to directors, officers and employees of Jaguar and its subsidiaries regarding the trading of securities of the Company.

Directors and officers are expected to act in a manner that avoids even the appearance of conflict between their personal interests and those of the Company. To that end, duties and responsibilities of directors include: (i) preventing personal interests from conflicting with, or appearing to conflict with, the interests of the Company and disclosing details of any such real or perceived conflicts of interest should they arise, and (ii) voting on all matters requiring a decision of the Board or its Committees, except where a conflict of interest may exist. In addition, any member of the Board who finds himself in a real or potential conflict of interest situation must immediately declare his interest to the Board and refrain from participating in any discussion about the conflicting issue or from voting thereon. The directors and officers owe a duty to the Company to advance its legitimate interests when the opportunity to do so arises. The Company's policy is to compete vigorously, aggressively and successfully in today's increasingly competitive business climate and to do so at all times in compliance with all applicable antitrust, competition and fair dealing laws in all the markets in which it operates.

In addition, in 2006, the Corporate Governance Committee recommended, and the Board adopted, a Code of Conduct and Ethics. The Board, through the Corporate Governance Committee, monitors compliance with the Code of Conduct and Ethics. The Board requires the Company's executive management to advise it of any reports received regarding violations of the Code of Conduct and Ethics. The Board is responsible for the granting of any waivers from the Code of Conduct and Ethics to directors or executive officers. Disclosure will be made by the Company as required by law of any waiver from the requirements of the Code of Conduct and Ethics granted to the Company's directors or executive officers in the Company's quarterly report that follows the grant of such waiver.

In accordance with recommendations made by Deloitte, in their capacity as independent consultants to the Company in matters of corporate governance control, the Board instituted additional corporate governance controls during 2007. Included among such controls was delivery of copies of the Company's various policies, including the Code of Conduct and Ethics, to employees of the Company, which must be abided by. Some of these policies have also been made accessible on Jaguar's website. In addition, in September 2007, the Company implemented enhanced controls, on the recommendation of Deloitte, to remediate some perceived weaknesses identified by Deloitte in the Company's internal controls.

Shareholders may request a copy of the Code of Conduct and Ethics by submitting a request in writing to the Corporate Secretary of the Company at 67 Yonge Street, Suite 1203, Toronto, Ontario, Canada M5E 1J8. The Code of Conduct and Ethics may also be accessed on the Company's website at [www.jaguarmining.com](http://www.jaguarmining.com).

## D. Employees

As of December 31, 2013, Jaguar had 1,163 employees, 1,157 of whom are based in Brazil. There are no full time employees in the U.S. 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. There were no significant changes in the number of employees in the financial year ended December 31, 2013.

## E. Share Ownership

**Shareholdings of Directors and Executive Officers as of May 12, 2014**

Title of Class	Name of Beneficial Owner	Amounts and Nature of Beneficial Ownership	Percent of Class*	
Common	Richard D. Falconer	*	*	
Common	George Bee	*	*	
Common	Stephen Hope	36,044,388	(1)	32.4 %
Common	Luis Ricardo Miraglia	*	*	
Common	Jared Hardner	*	*	
Common	Edward V. Reeser	*	*	
Common	Derrick Weyrauch	*	*	
Common	Robert Chadwick	*	*	
Common	Marcela Rocha Barbosa de Castro	*	*	
Common	Total Directors/Officers	36,044,388		

\*This director or officer beneficially owns less than 1% of the class indicated.

(1) Held through Outrider Management, LLC ("Outrider"). Mr. Hope is a principal of Outrider.

Item 7. Major Shareholders and Related Party Transactions

A. Major Shareholders

To the best of the Company's knowledge, the following are the only shareholders of the Company that beneficially own, directly or indirectly, or exercise control over, shares carrying more than 5% of the outstanding voting rights attached to the Company's Common Shares as at May 12, 2014:

Name of Shareholder	No. of Shares	% of Issued Shares	
Revere Partners Investment Adviser LLC	-	(1)	-
Outrider Management, LLC	36,044,388		32.4 %
Dupont Capital Management Corp.	12,037,763	(2)	10.8 %

(1) As of December 19, 2013, Revere Partners Investment Adviser LLC ("Revere") owned 5,150,000 commons shares of the Company representing 6.0% of the issued and outstanding common shares of the Company as of that date. Upon implementation of the CCAA Plan, the common shares of the Company were consolidated as a result of which Revere no longer holds more than 5% of the issued and outstanding common shares of the Company.

(2) Represents aggregate common shares of the Company owned by funds managed by DuPont Capital Management Corp.

The Company's major shareholders do not have different voting rights from other shareholders.

To the best of the Company's knowledge, there are no arrangements which may result in a change in control of the Company.

To the best of the Company's knowledge, the Company is not directly or indirectly owned or controlled by another corporation, any foreign government, or any other natural or legal person, severally or jointly.

Shares held in the United States

As of December 31, 2013, there were 45 holders of record resident in the United States holding common shares equal to approximately 6.3% of the Company's total issued and outstanding common shares at that time.

B. Related Party Transactions

None of the directors, executive officers or principal shareholders of Jaguar and no associate or affiliate of the foregoing persons has or has had any material interest, direct or indirect, in any transaction for the period beginning on January 1, 2013 to April 22, 2014 or in any proposed transaction that has materially affected or will materially affect Jaguar or any of its subsidiaries, except for:

key management includes members of the Board, the Chairman, the President and Chief Executive Officer and the Chief Financial Officer. The compensation of each through December 31, 2013 is disclosed in Item 6. The aggregate compensation paid or payable to key management for their services for the period of January 1, 2014 through April 22, 2014 is set forth below:

(in \$'000s)	
Salaries and short-term employee benefits	\$ 509
Share based compensation	\$-
Directors' fees	\$248
Total	\$757

consulting expenses paid to Hermann Consulting Inc. ("Hermann"), a company owned by Fred Hermann, a former director of Jaguar. Fees paid to Hermann amount to \$397,000 for the year ended December 31, 2013; and

legal fees paid to Azevedo Sette Advogados (“ASA”), a company whose partner is Luis Miraglia, a director of Jaguar. Fees paid to ASA amount to \$149,000 for year ended December 31, 2013.

C. Interests of Experts and Counsel

Not applicable.

## Item 8. Financial Information

### A. Consolidated Statements and Other Financial Information

The financial statements required to be filed as part of this Annual Report on 20-F are filed under Item 18, attached hereto, found immediately following the text of this Annual Report and incorporated herein by reference.

### Legal Proceedings

#### Recapitalization and Emergence from CCAA Proceedings

See Item 13.

#### Daniel Titcomb Litigation

On July 30, 2013, Daniel R. Titcomb (“Titcomb”), the Company’s former President and Chief Executive Officer, and a group of former officers, a former Director and Brazilian, filed a complaint (the “Complaint”) in New Hampshire against the Company and selected current and former directors (the “Named Directors”) of the Company. The Company removed the Complaint to the U.S. District Court for the District of New Hampshire (the “Federal Court”) where it is pending as Civil Action Number: 1:13-cv-00428-JL.

Among other items, the Complaint alleges wrongful termination of Titcomb on December 6, 2011 and mismanagement of the strategic review process regarding a possible change of control of Jaguar which ended May 8, 2012.

Jaguar and the Board of Directors believe the Complaint to be without merit and are taking any steps necessary to protect their interests. On November 1, 2013, the Company and the Named Directors of the Company filed Defendants’ Answer, Affirmative Defenses and Counterclaims (the “Defense”). The Defense denies the allegations in the Complaint and sets out counterclaims against Titcomb for breach of contract, and against Titcomb and the Company’s former Corporate Secretary and General Counsel, Robert Lloyd, for breach of fiduciary duty and fraud.



On November 21, 2013, the Company and the Named Directors filed motions to dismiss various aspects of the Complaint on a number of grounds (the “Motions to Dismiss”).

On December 27, 2013, the plaintiffs in the Complaint filed a motion to (i) stay the Complaint until the Court in Ontario lifts the stay in the CCAA Proceedings or the CCAA Proceedings are concluded; and (ii) stay and suspend the deadline for the plaintiffs in the Complaint to respond to the Motions to Dismiss. The Company and the Named Directors did not object to this motion. An order granting the requested stay was issued by the Federal Court on December 30, 2013.

On February 5, 2014, the Company entered into an agreement with the plaintiffs in the Complaint providing, among other things, that upon implementation of the CCAA Plan the plaintiffs in the Complaint shall have no right to, and shall not, make any claim or seek any recoveries under the Complaint, other than enforcing such plaintiff’s rights, if any, to be paid from the proceeds of an enumerated company or director and officer insurance policy by the applicable insurers. The Company agreed that, upon implementation of the CCAA Plan and if requested by the plaintiffs in the Complaint, it would withdraw its counterclaims against the plaintiffs in the Complaint.

#### 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 after taking into account many factors, including operating results, financial condition, capital requirements, business opportunities and restrictions contained in any financing agreements.

#### B. Significant Changes

See Item 13.

## Item 9. The Offer and Listing

### A. Offer and Listing Details

On December 3, 2012, Jaguar announced that the NYSE had notified the Company that the closing price of its common shares on the NYSE over the past 30 days was less than \$1.00. As of November 30, 2012, the date of the NYSE notice, the 30 trading-day average closing price of Jaguar's common stock was \$0.94 per share. The NYSE's continued listing standards require that the average closing price of a listed company's common shares be above \$1.00 per share over a consecutive 30 trading-day period. Under the NYSE's rules, Jaguar had a period of six months to bring its share price and 30 trading-day average share price back above \$1.00. On June 3, 2013, NYSE Regulations, Inc. ("NYSE Regulation") commenced proceedings to delist the common shares of the Corporation from the NYSE and trading in the common shares was suspended prior to the opening on Friday, June 7, 2013. The Company did not appeal the NYSE Regulation staff's decision and continued to focus on its turnaround and restructuring plan for a long-term financial solution.

Trading in the common shares of Jaguar on the TSX was suspended on December 23, 2013 as a result of the commencement of the CCAA Proceedings. Jaguar's common shares were delisted from the TSX on April 30, 2014. Following the implementation of the CCAA Plan, the common shares of Jaguar began trading on the TSXV on May 1, 2014. See also Item 13.

With respect to each of TSX and NYSE, the following tables set forth information relating to the trading of Jaguar's common shares for the periods indicated. The trading prices and volume data for the TSX was obtained from TMX Datalinx and the trading prices and volume data for NYSE was obtained from Bloomberg Finance L.P.

### **Jaguar Mining Inc.**

#### **Stock Trading Activity**

##### **NYSE MKT**

**(expressed in US\$)**

Year Ended	High	Low
12/31/2013 <sup>(1)</sup>	\$1.01	\$0.37
12/31/2012	\$7.35	\$0.58
12/31/2011	\$8.18	\$4.03
12/31/2010	\$14.01	\$5.67
12/31/2009	\$12.76	\$3.84

(1) FY 2013 covers NYSE trading activity prior to delisting on June 7, 2013.

**Jaguar Mining Inc.**

**Stock Trading Activity**

**The Toronto Stock Exchange**

**(expressed in C\$)**

Year Ended	High	Low
12/31/2013	\$0.99	\$0.045
12/31/2012	\$7.41	\$0.61
12/31/2011	\$8.36	\$4.07
12/31/2010	\$14.18	\$6.02
12/31/2009	\$13.30	\$4.76

The table below lists the quarterly high and low prices for shares of Jaguar common stock on NYSE MKT for the two most recent full financial years. Jaguar's common shares were delisted from the NYSE on June 7, 2013.

**Jaguar Mining Inc.**

**Stock Trading Activity**

**NYSE MKT**

**(expressed in US\$)**

Quarter Ended	High	Low
06/30/2013	\$0.63	\$0.37
03/31/2013	\$1.01	\$0.45

Edgar Filing: Jaguar Mining Inc - Form 20-F

12/31/2012	\$1.30	\$0.58
09/30/2012	\$1.45	\$0.60
06/30/2012	\$4.94	\$1.11
03/31/2012	\$7.35	\$4.59

The table below lists the quarterly high and low prices for shares of Jaguar common stock on TSX for the two most recent full financial years.

**Jaguar Mining Inc.**

**Stock Trading Activity**

**The Toronto Stock Exchange**

**(expressed in C\$)**

Quarter Ended	High	Low
12/31/2013	\$0.210	\$0.045
09/30/2013	\$0.380	\$0.180
06/30/2013	\$0.640	\$0.355
03/31/2013	\$0.990	\$0.460
12/31/2012	\$1.29	\$0.61
09/30/2012	\$1.40	\$0.61
06/30/2012	\$4.95	\$1.14
03/31/2012	\$7.41	\$4.59

The table below lists the high and low prices for shares of Jaguar Mining Inc. common stock on TSX for the most recent four months. Jaguar did not trade on the TSX after December 23, 2013 and did not trade on the NYSE during this period.

**Jaguar Mining Inc.**

**Stock Trading Activity**

**The Toronto Stock Exchange**

**(expressed in C\$)**

Month Ended	High	Low
12/31/2013	\$0.090	\$0.045
11/30/2013	\$0.185	\$0.060
10/31/2013	\$0.210	\$0.145
09/30/2013	\$0.290	\$0.180

B. Plan of Distribution

Not applicable.

C. Markets

Jaguar's common shares were delisted from the NYSE on June 7, 2013 and from the TSX on April 30, 2014. Following the implementation of the CCAA Plan, the common shares of Jaguar began trading on the TSXV on May 1, 2014. See Item 13.

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.



Item 10. Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles

**Articles**

Jaguar was incorporated on March 1, 2002 pursuant to the *Business Corporations Act* (New Brunswick) under corporation number 516303 (the “Articles of Incorporation”). Jaguar was continued into the Province of Ontario in October 2003 pursuant to the OBCA and is currently a corporation existing under the laws of Ontario (the “Articles of Continuance”). On October 9, 2003, Jaguar amalgamated with a New Brunswick corporation pursuant to articles of amalgamation dated July 16, 2003 (the “Articles of Amalgamation”). As discussed in Item 13, on April 22, 2014 the CCAA Plan was implemented and in accordance with the provisions of the CCAA Plan, the common shares of the Company issued and outstanding immediately prior to the implementation of the CCAA Plan were consolidated at a ratio of one (1) post-consolidation common share for each 86.39636 pre-consolidation common shares (the “Consolidation”). Jaguar filed articles of re-organization dated April 22, 2014 to effect the Consolidation (the “Articles of Re-organization” and, together with the Articles of Incorporation, the Articles of Continuance and the Articles of Amalgamation, the “Articles”).

**By-laws**

Jaguar adopted by-law no. 2 on March 18, 2009 and the advance notice by-law on March 20, 2013 (the “By-laws” and together with the Articles, the “Constating Documents”).

**Powers, Functions and Qualifications of Directors**

The powers and functions of directors are set forth in the OBCA, the *Securities Act* (Ontario) and in the Constating Documents.

Under the Constatng Documents, the directors must manage or supervise the management of the business and affairs of the Company and have the authority to exercise all such powers which are not required to be exercised by the shareholders, or as governed by the OBCA. Under the By-laws the directors may, by resolution, create and appoint one or more committees consisting of such member or members of their body as they think fit and may delegate to any such committee such powers of the Board as the Board may designate or prescribe.

The By-laws provide that the quorum necessary for the transaction of the business of the directors is a majority of the directors.

With respect to the voting powers of directors, a director (or senior officer) has a disclosable interest in a contract or transaction if the contract or transaction is material to the Company and the director has a material interest in the contract. A director or senior officer who has, directly or indirectly, a material interest in an existing or proposed material contract or transaction of the Company or who holds any office or possesses any property whereby, directly or indirectly, a duty or interest might be created to conflict with his duty or interest as a director or senior officer, has to disclose the nature and extent of this interest or conflict with his duty and interest as a director or senior officer. A director is also prohibited from voting in respect of any such proposed material contract or transaction and if he does so, his vote shall not be counted, but he shall be counted in the quorum at the meeting at which such vote is taken.

The Articles provide that the directors may, on behalf of the Company:

· borrow money on the credit of the Company;

· issue, reissue, sell or pledge debt obligations of the Company;

subject to the provisions of the OBCA, give a guarantee on behalf of the Company to secure performance of an obligation of any person; and

mortgage, hypothecate, pledge or otherwise create a security interest in all or any property of the Company, owned or subsequently acquired, to secure any obligation of the Company.

The directors may from time to time delegate to such one or more of the directors and officers of the Company as may be designated by the directors all or any one of the powers conferred on the directors (as described above) to such extent and in such manner as the directors shall determine with respect to such delegation.

Subject to the provisions of the Ontario Securities Act, the directors may vote on compensation for themselves or any members of their body. A contract relating primarily to a fiduciary's remuneration as a director, officer, employee or agent of the Company or its affiliates is a permitted conflict of interest under the Company's Corporate Governance Policy.

There are no limitations on the exercise by the Board of the Company's borrowing powers.

There are no provisions for the retirement or non-retirement of directors under an age limit.

There is no requirement for any director to hold any common shares in the Company.

### **Advance Notice By-law**

On March 20, 2013, the Board approved the adoption of an advance notice by-law (the "Advance Notice By-law") which requires advance notice to the Company in circumstances where nominations of persons for election as a director of the Company are made by shareholders other than pursuant to: (i) a requisition of a meeting made pursuant to the provisions of the OBCA; or (ii) a shareholder proposal made pursuant to the provisions of the OBCA. Shareholders confirmed and ratified the Advance Notice By-law at the annual general and special meeting of shareholders on June 10, 2013. Among other things, the Advance Notice By-law fixes a deadline by which shareholders must submit a notice of director nominations to the Company prior to any annual or special meeting of shareholders where directors are to be elected and sets forth the information that a shareholder must include in the notice for it to be valid.

In the case of an annual meeting of shareholders, notice to the Company must be made not less than 30 nor more than 65 days prior to the date of the annual meeting; provided, however, that in the event that the annual meeting is to be held on a date that is less than 50 days after the date on which the first public announcement of the date of the annual meeting was made, notice may be made not later than the close of business on the 10th day following such public announcement.

In the case of a special meeting of shareholders (which is not also an annual meeting), notice to the Company must be made not later than the close of business on the 15th day following the day on which the first public announcement of the date of the special meeting was made. The Company believes that adopting the Advance Notice By-law is considered to be good corporate governance. The Advance Notice By-law facilitates an orderly and efficient annual or special meeting process and it ensures that all shareholders receive adequate notice of director nominations with sufficient information with respect to all nominees. This allows the Company and its shareholders to evaluate the proposed nominees' qualifications and suitability as directors, which further allows shareholders to cast an informed vote for the election of directors.

### **Rights and Restrictions Attached to Common Shares**

Jaguar is authorized to issue an unlimited number of common shares of which there were 86,396,356 issued and outstanding as of December 31, 2013. As of May 12, 2014, and after giving effect to the CCAA Plan, there are 111,111,038 issued and outstanding common shares of the Company. Holders of Jaguar's common shares are entitled to receive notice of any meetings of shareholders, to attend and to cast one vote per common share at all such meetings. Holders of Jaguar's common shares do not have cumulative voting rights with respect to the election of directors, and holders of a majority of Jaguar's common shares entitled to vote in any election of directors may therefore elect all directors standing for election. Holders of Jaguar's common shares are entitled to receive on a pro-rata basis such dividends, if any, as and when declared by the Board at its discretion from funds legally available therefore and upon the liquidation, dissolution or winding up of Jaguar are entitled to receive on a pro-rata basis the net assets of Jaguar after payment of debts and other liabilities, in each case subject to the rights, privileges, restrictions and conditions attaching to any other series or class of shares ranking senior in priority to or on a pro-rata basis with the holders of common shares with respect to dividends or liquidation. Jaguar's common shares do not carry any pre-emptive, subscription, redemption or conversion rights, nor do they contain any sinking or purchase fund provisions. As all of the authorized and issued common shares of the Company are of one class, there are no special rights or restrictions of any nature or kind attached to any of the common shares.

In connection with the CCAA Plan, Jaguar entered into a registration rights agreement with certain Noteholders, dated April 22, 2014 (the "Registration Rights Agreement"), pursuant to which Jaguar is required to file with the SEC a "shelf" registration statement in order to permit re-sales of certain common shares on a non-underwritten basis. Under the Registration Rights Agreement, Jaguar is required to maintain the effectiveness of such registration statement until such time as the common shares covered by such registration statement become freely tradable under the SEC's Rule 144 (but in any event, no longer than one year).

To alter the rights of holders of issued common shares of the Company, such alteration must be approved by a vote of not less than two-thirds of the shareholders voting in person or by proxy at a meeting of the shareholders of the Company.

### **Annual General Meetings**

Annual general meetings are called and scheduled upon decision by the board of directors. The directors may also convene a general meeting of shareholders at any time. There are no provisions in the Company's Bylaws for the requisitioning of special meetings by shareholders. However, OBCA provides that the holders of not less than 5% of the issued shares of the Company may requisition the directors to call a general meeting of the shareholders for the purposes stated in the requisition. All meetings of the shareholders may be attended by registered shareholders or persons who hold powers of attorney or proxies given to them by registered shareholders.

### **Foreign Ownership Limitations**

There are no limitations prohibiting non-residents or foreigners from holding or exercising rights on the common shares of the Company.

### **Change of Control**

There are no provisions in the Company's Articles or Bylaws that would have the effect of delaying, deferring or preventing a change in the control of the Company, or that would operate with respect to any proposed merger, acquisition or corporate re-structuring of the Company.

### **Share Ownership Reporting Obligations**

There are no provisions in the By-laws requiring share ownership to be disclosed. The securities laws of the Province of Ontario and other provinces in Canada having jurisdiction over the Company require disclosure of shareholdings by:

- insiders who are directors or senior officers of the Company; and
- a person who has direct or indirect beneficial ownership of, control or direction over, or a combination of direct or indirect beneficial ownership of and of control or direction over securities of the Company carrying more than 10% of the voting rights attached to all the Company's outstanding voting securities.

The threshold of share ownership percentage requiring disclosure of ownership is higher in the jurisdiction of Ontario than in the United States where United States law prescribes a 5% threshold for ownership disclosure.

#### C. Material Contracts

Other than contracts entered into in the ordinary course of business, the only material contracts that Jaguar has entered into the most recently completed two financial years, or prior thereto and are still in effect, are as follows:

The Support Agreement

See Item 4.

The Backstop Agreement

See Item 4.

The Credit Facility

See Item 5B.

2011 Indenture

The 5.5% Notes were issued pursuant to an indenture (the “2011 Indenture”) between Jaguar and The Bank of New York Mellon and BNY Trust Company of Canada, as trustees (the “Trustees”). Pursuant to the CCAA Plan, the 2011 Indenture was irrevocably and finally cancelled. See also Item 13.

2009 Indenture

The 4.5% Notes were issued pursuant to an indenture (the “2009 Indenture”) dated September 15, 2009, between Jaguar and the Trustees. Pursuant to the CCAA Plan, the 2009 Indenture was irrevocably and finally cancelled. See also Item 13.

D.Exchange controls

Except as discussed above, the Company is not aware of any Canadian federal or provincial laws, decrees or regulations that restrict the export or import of capital, including foreign exchange controls, or that affect the remittance of interest, dividends or other payments to non-Canadian holders of the common shares. There are no limitations on the right of non-Canadian owners to hold or vote the common shares imposed by Canadian federal or provincial law or by the charter or other constituent documents of the Company.

## E. Taxation

### Certain Canadian Federal Income Tax Consequences

The following summary describes the material Canadian federal income tax consequences generally applicable to a holder of common shares who, at all relevant times for purposes of the Income Tax Act (Canada) and the regulations thereunder (collectively, the “Tax Act”), is not, and is not deemed to be, resident in Canada, deals at “arm’s length” and is not “affiliated” with the Company, holds their common shares as capital property and has not and will not enter into a “derivative forward transaction” (as defined in the Tax Act) with respect to their common shares of the Company.

Common shares of the Company will generally be considered to be capital property of a holder unless such common shares is held in the course of carrying on a business in Canada or was acquired in a transaction considered to be an adventure in the nature of trade for purposes of the Tax Act. Special rules, which are not discussed in this summary, may apply to a non-resident holder that is an insurer that carries on and insurance business in Canada and elsewhere.

This summary is based on the current provisions of the Tax Act, all specific proposals to amend the Tax Act or the Regulations publicly announced by or on behalf of the Minister prior to the date hereof (the “Tax Proposals”), and the current published administrative and assessing policies and practices of the Canada Revenue Agency (“CRA”). This summary assumes that all Tax Proposals will be enacted in the form proposed but no assurance can be given that the Tax Proposals will be enacted in the form proposed or at all. This summary does not otherwise take into account or anticipate any changes in law, whether by judicial, administrative or legislative decision or action or changes in CRA’s administrative and assessing policies and practices, nor does it take into account provincial, territorial or foreign income tax legislation or considerations, which may differ from those described herein. This summary is not exhaustive of all possible Canadian federal income tax consequences that may affect holders of common stock. **This summary is of a general nature only and is not, and is not intended to be, legal or tax advice to any particular holder. This summary is not exhaustive of all Canadian federal income tax considerations. Accordingly, holders should consult their own tax advisors with respect to their particular circumstances.**



## Dividends on Common Shares

Under the Tax Act, a non-resident of Canada is generally subject to Canadian withholding tax at the rate of 25 percent on dividends paid or credited or deemed to have been paid or credited by the Company. The Canada-United States Income Tax Convention (the “Convention”) generally limits the rate of withholding tax on dividends to 15 percent if the shareholder is a resident of the U.S., the dividends are beneficially owned by and paid to such shareholder, and such shareholder is entitled to benefits under the Convention. The rate of withholding tax may be reduced to 5 percent if the shareholder is also a company that beneficially owns at least 10 percent of the voting stock of the Company.

## Dispositions of Common Shares

A holder will not be subject to tax under the Tax Act on any capital gain realized on a disposition or deemed disposition of a common share, unless the common share is or is deemed to be “taxable Canadian property” of the holder for the purposes of the Tax Act and the holder is not entitled to relief under an applicable income tax convention between Canada and the country in which the holder is resident.

Generally, provided the common shares of the Company are listed on a “designated stock exchange” (as defined in the Tax Act) (which includes the TSX and the TSXV) at the time of disposition or deemed disposition, a common share will not constitute taxable Canadian property of a holder, unless at any time during the 60-month period immediately preceding the disposition or deemed disposition, (i) the holder, persons with whom the holder did not deal at arm’s length, or partnerships in which the holder or persons with whom the holder did not deal at arm’s length holds a membership interest directly or indirectly through one or more partnerships, or the holder together with all such persons and such partnerships, owned 25% or more of the issued common shares or any other class of shares of the Company, and (ii) more than 50% of the fair market value of the common share was derived, directly or indirectly, from one or any combination of real or immovable property situated in Canada, “Canadian resource property” (as defined in the Tax Act), “timber resource property” (as defined in the Tax Act) or an option in respect of, an interest in, or for civil law rights in, such property. Notwithstanding the foregoing, a Common Share may be deemed to be taxable Canadian property in certain circumstances set out in the Tax Act. Holders whose Common Shares may constitute taxable Canadian property should consult with their own tax advisors.

## Certain U.S. Federal Income Tax Consequences

The following is a discussion of material U.S. federal income tax consequences generally applicable to a U.S. Holder (as defined below) of common shares of the Company. This discussion does not cover any state, local or foreign tax consequences.

The following discussion is based upon the sections of the Internal Revenue Code of 1986, as amended (“the Code”), Treasury Regulations, published Internal Revenue Service (“IRS”) rulings, published administrative positions of the IRS and court decisions that are currently applicable, any or all of which could be materially and adversely changed, possibly on a retroactive basis, at any time. In addition, the discussion does not consider the potential effects, both adverse and beneficial, or recently proposed legislation which, if enacted, could be applied, possibly on a retroactive basis, at any time. The following discussion is for general information only and it is not intended to be, nor should it be construed to be, legal or tax advice to any Holder or prospective holder and not an opinion or representation with respect to the U.S. Federal income tax consequences to any such Holder or prospective holder is made. The following summary was not written and is not intended to be used, and cannot be used, by any person for the avoidance of any penalties with respect to taxes that may be imposed on such person. Holders and prospective holders of common shares of the Company are urged to consult their own tax advisors about the federal, state, local, and foreign tax consequences of purchasing, owning and disposing of common shares of the Company.

## U.S. Holders

As used herein, a U.S. Holder includes a holder of common shares of the Company who is a citizen or resident of the U.S., a company (or an entity which has elected to be treated as a company under Treasury Regulation Sections 301.7701-3) created or organized in or under the laws of the U.S. or of any political subdivision thereof, any estate other than a foreign estate (as defined in Section 7701(a)(31)(A) of the Code or, a trust subject to the primary supervision of a court within the U.S. and control of a U.S. fiduciary as described in Section 7701(a)(30)(E) of the Code). This summary does not address the tax consequences to, and U.S. Holder does not include, persons subject to special provisions of Federal income tax law, such as tax-exempt organizations, qualified retirement plans, financial institutions, insurance companies, real estate investment trusts, regulated investment companies, broker-dealers, non-resident alien individuals, persons or entities that have a “functional currency” other than the U.S. dollar, shareholders who hold common shares as part of a straddle, hedging or conversion transaction, and shareholders who acquired their common shares through the exercise of employee stock options or otherwise as compensation for services. This summary is limited to U.S. Holders who own common shares as capital assets. This summary does not address the consequences to a person or entity holding an interest in a shareholder of the Company or the consequences to a person of the ownership, exercise or disposition of any options, warrants or other rights to acquire common shares of the Company.

## Distribution on Common Shares of the Company

U.S. Holders receiving dividend distributions (including constructive dividends) with respect to common shares of the Company are required to include in gross income for U.S. federal income tax purposes the gross amount of such distributions equal to the U.S. dollar value of such distributions on the date of receipt (based on the exchange rate on such date), to the extent that the Company has current or accumulated earnings and profits, without reduction for any Canadian income tax withheld from such distributions. Such Canadian tax withheld may be credited, subject to certain limitations, against the U.S. Holder’s U.S. federal income tax liability or, alternatively, may be deducted in computing the U.S. Holder’s U.S. federal taxable income. (See more detailed discussion at “Foreign Tax Credit” below). To the extent that distributions exceed current or accumulated earnings and profits of the Company, they will be treated first as a return of capital up to the U.S. Holder’s adjusted basis in the common shares and thereafter as gain from the sale or exchange of the common shares. Dividend income will be taxed at marginal tax rates applicable to ordinary income while preferential tax rates for long-term capital gains are applicable to a U.S. Holder which is an individual, estate or trust. There are currently no preferential tax rates for long-term capital gains for a U.S. Holder which is a company.

In the case of foreign currency received as a dividend that is not converted by the recipient into U.S. dollars on the date of receipt, a U.S. Holder will have a tax basis in the foreign currency equal to its U.S. dollar value on the date of receipt. Gain or loss may be recognized upon a subsequent sale or other disposition of the foreign currency, including the exchange for U.S. dollars.

Dividends paid on the common shares of the Company will not generally be eligible for the dividends received deduction provided to companies receiving dividends from certain U.S. companies. A U.S. Holder which is a company may, under certain circumstances, be entitled to a 70% deduction of the U.S. source portion of dividends received from the Company (unless the Company qualifies as a “foreign personal holding company” or a “passive foreign investment company”, as defined below) if such U.S. Holder owns shares representing at least 10% of the voting power and value of the Company. The availability of this deduction is subject to several complex limitations which are beyond the scope of this discussion.

#### Foreign Tax Credit

A U.S. Holder who pays (or has withheld from distributions) Canadian income tax with respect to the ownership of common shares of the Company may be entitled, at the option of the U.S. Holder, to either a deduction or a tax credit for such foreign tax paid or withheld. Generally, it will be more advantageous to claim a credit because a credit reduces U.S. Federal income taxes on a dollar-for-dollar basis, while a deduction merely reduces the taxpayer’s income subject to tax. This election is made on a year-by-year basis and applies to all foreign income taxes (or taxes in lieu of income tax) paid by (or withheld from) the U.S. Holder during the year. There are significant and complex limitations which apply to the credit, among which is the general limitation that the credit cannot exceed the proportionate share of the U.S. Holder’s U.S. income tax liability that the U.S. Holder’s foreign source income bears to his/her or its worldwide taxable income. The various items of income and deduction must be classified into foreign and domestic sources. Complex rules govern this classification process. In addition, this limitation is calculated separately with respect to specific classes of income such as “passive income”, “high withholding tax interest”, “financial services income”, “shipping income”, and certain other classifications of income. Dividends distributed by the Company will generally constitute “passive income” or, in the case of certain U.S. Holders, “financial services income” for these purposes. The availability of the foreign tax credit and the application of the limitations on the credit are fact specific and holders and prospective holders of common shares of the Company should consult their own tax advisors regarding their individual circumstances.

For individuals whose entire income from sources outside the U.S. consists of qualified passive income and whose total amount of creditable foreign taxes paid or accrued during the taxable year does not exceed \$300 (\$600 in the case of a joint return) and for whom an election is made under section 904(j), the general limitation on the foreign tax credit under section 904(a) does not apply.

#### Disposition of Common Shares of the Company

A U.S. Holder will recognize gain or loss upon the sale of common shares of the Company equal to the difference, if any, between (I) the amount of cash plus the fair market value of any property received, and (ii) the shareholder's tax basis in the common shares of the Company. Preferential tax rates apply to long-term capital gains of U.S. Holders which are individuals, estates or trusts. This gain or loss will be capital gain or loss if the common shares are capital assets in the hands of the U.S. Holder, which will be a short-term or long-term capital gain or loss depending upon the holding period of the U.S. Holder. Gains and losses are netted and combined according to special rules in arriving at the overall capital gain or loss for a particular tax year. Deductions for net capital losses are subject to significant limitations. For U.S. Holders which are not companies, any unused portion of such net capital loss may be carried over to be used in later tax years until such net capital loss is thereby exhausted, but individuals may not carry back capital losses. For U.S. Holders which are companies (other than companies subject to Subchapter S of the Code), an unused net capital loss may be carried back three years from the loss year and carried forward five years from the loss year to be offset against capital gains until such net capital loss is thereby exhausted.

#### Other Considerations

In the following circumstances, the above sections of the discussion may not describe the U.S. federal income tax consequences resulting from the holding and disposition of common shares of the Company.

#### Passive Foreign Investment Company

As a foreign company with U.S. Holders, the Company could potentially be treated as a passive foreign investment company ("PFIC"), as defined in Section 1297 of the Code. Section 1297 of the Code defines a PFIC as a company that is not formed in the U.S. and, for any taxable year, either (i) 75% or more of its gross income is "passive income", which includes among other types of income, interest, dividends and certain rents and royalties or (ii) the average percentage, by fair market value (or, if the company is a controlled foreign company or makes an election, by adjusted tax basis), of its assets that produce or are held for the production of "passive income" is 50% or more.

The rule governing PFICs can have significant tax effects on U.S. shareholders of foreign companies who are subject to U.S. Federal income taxation under one of three alternative methods at the election of each such U.S. shareholder. As a PFIC, each U.S. shareholder's income or gain, with respect to a disposition or deemed disposition of the PFIC's shares or a distribution payable on such shares will generally be subject to tax at the highest marginal rates applicable to ordinary income and certain interest charges as discussed below, unless the U.S. shareholder has timely made a "qualified electing fund" election or a "mark-to-market" election for those shares.

Under one method, a U.S. shareholder who elects in a timely manner to treat the PFIC as a Qualified Electing Fund ("QEF"), as defined in the Code, (an "Electing U.S. Holder") will be required to currently include in his income for any taxable year in which the company qualifies as a PFIC his pro-rata share of the company's (i) "net capital gain" (the excess of net long-term capital gain over net short-term capital loss), which will be taxed as long-term capital gain to the Electing U.S. Holder, and (ii) "ordinary earnings" (the excess of earnings and profits over net capital gain), which will be taxed as ordinary income to the Electing U.S. Holder, in each case, for the U.S. Holder's taxable year in which (or with which) the Company's taxable year ends, regardless of whether such amounts are actually distributed. A QEF election also allows the Electing U.S. Holder to (i) generally treat any gain realized on the disposition of his common shares (or deemed to be realized on the pledge of his common shares) as capital gain; (ii) treat his share of the company's net capital gain, if any, as long-term capital gain instead of ordinary income, and (iii) either avoid interest charges resulting from PFIC status altogether (see discussion of interest charge below), or make an annual election, subject to certain limitations, to defer payment of current taxes on his share of the company's annual realized net capital gain and ordinary earnings which will then be subject, however, to an interest charge.

The procedure a U.S. Holder must comply with in making a timely QEF election will depend on whether the year of the election is the first year in the U.S. Holder's holding period in which the Company is a PFIC. If the U.S. shareholder makes a QEF election in such first year, (sometimes referred to as a "Pedigreed QEF Election"), then the U.S. shareholder may make the QEF election by simply filing the appropriate documents at the time the U.S. Holder files its tax return for such first year. If, however, the Company qualified as a PFIC in a prior year during the U.S. shareholder's holding period, then the U.S. shareholder may make a retroactive QEF election, provided he has preserved his right to do so under the protective statement regime or he obtains IRS permission.

If a U.S. shareholder has not made a QEF Election at any time (a "Non-electing U.S. Holder"), then special taxation rules under Section 1291 of the Code will apply to (i) gains realized on the disposition (or deemed to be realized by reason of a pledge) of his common shares and (ii) certain "excess distributions" by the company. An excess distribution is a current year distribution received by the U.S. shareholder on PFIC stock to the extent that the distribution exceeds its ratable portion of 125% of the average amount received by the U.S. shareholder during the preceding three years.

A Non-electing U.S. shareholder generally would be required to pro-rate all gains realized on the disposition of his common shares and all excess distributions over the entire holding period for the common shares. All gains or excess distributions allocated to prior years of the U.S. shareholder (other than years prior to the first taxable year of the Company during such U.S. Holder's holding period and beginning after January 1, 1987 for which it was a PFIC) would be taxed at the highest marginal tax rate for each such prior year applicable to ordinary income. The Non-electing U.S. shareholder also would be liable for interest on the foregoing tax liability for each such prior year calculated as if such liability had been due with respect to each such prior year. A Non-electing non-corporate U.S. shareholder must treat this interest charge as "personal interest" which is wholly non-deductible. The balance of the gain or the excess distribution will be treated as ordinary income in the year of the disposition or distribution, and no interest charge will be incurred with respect to such balance.

If a company is a PFIC for any taxable year during which a Non-electing U.S. shareholder holds common shares, then the company will continue to be treated as a PFIC with respect to such common shares, even if it is no longer by definition a PFIC. A Non-electing U.S. shareholder may terminate this deemed PFIC status by electing to recognize a gain (which will be taxed under the rules discussed above for Non-Electing U.S. Holders) as if such common shares had been sold on the last day of the last taxable year for which it was a PFIC. If the company no longer qualifies as a PFIC in a subsequent year, then normal Code rules and not the PFIC rules will apply with respect to a U.S. shareholder who has made a Pedigreed QEF election.

If a U.S. shareholder makes a QEF Election that is not a Pedigreed Election (i.e., it is made after the first year during which the company is a PFIC and the U.S. shareholder holds shares of the company) (a "Non-Pedigreed Election"), the QEF rules apply prospectively but do not apply to years prior to the year in which the QEF first becomes effective. U.S. Holders are encouraged to consult their tax advisors regarding the specific consequences of making or not making a QEF Election.

Under an alternative method, U.S. Holders who hold (actually or constructively) marketable stock of a PFIC may elect to mark such stock to the market annually (a “mark-to-market election”). If such an election is made, such U.S. Holder will generally not be subject to the special taxation rules of Section 1291 discussed above. However, if the mark-to-market election is made by a Non-Electing U.S. Holder after the beginning of the holding period for the PFIC stock, then the Section 1291 rules will apply to certain dispositions of, distributions on and other amounts taxable with respect to the Company common shares. A U.S. Holder who makes the mark-to-market election will include in income for each taxable year for which the election is in effect an amount equal to the excess, if any, of the fair market value of the common shares of the Company as of the close of such tax year over such U.S. Holder’s adjusted basis in such common shares. In addition, the U.S. Holder is allowed a deduction for the lesser of (i) the excess, if any, of such U.S. Holder’s adjusted tax basis in the common shares over the fair market value of such shares as of the close of the tax year, or (ii) the excess, if any, of (a) the mark-to-market gains for the common shares in the Company included by such U.S. Holder for prior tax years, including any amount which would have been treated as a mark-to-market gain for any prior tax year but for the Section 1291 rules discussed above with respect to Non-Electing U.S. Holders, over (b) the mark-to-market losses for shares that were allowed as deductions for prior tax years. A U.S. Holder’s adjusted tax basis in the common shares of the Company will be adjusted to reflect the amount included in or deducted from income as a result of a mark-to-market election. A mark-to-market election applies to the taxable year in which the election is made and to each subsequent taxable year, unless the Company’s common shares cease to be marketable, as specifically defined, or the IRS consents to revocation of the election. U.S. Holders should also be aware that if we were a PFIC, they would generally be required to file IRS Form 8621, which is also where they would make a QEF election, if applicable. The Treasury and IRS continue to issue new guidance regarding these information reporting requirements, and U.S. Holders should consult their own tax advisors regarding the application of the information reporting rules to our common shares and their particular situations.



### Controlled Foreign Company

If more than 50% of the voting power of all classes of stock entitled to vote is owned, actually or constructively, by U.S. Holders, each of whom own actually or constructively 10% or more of the total combined voting power of all classes of stock of the Company, the Company would be treated as a “controlled foreign company” or “CFC” under Subpart F of the Code. This classification would effect many complex results, one of which requires such 10% U.S. Holders to include in their income their pro rata shares of the Subpart F income of the CFC and the CFC’s earnings invested in U.S. property. The foreign tax credit described above may reduce the U.S. tax on these amounts. In addition, under Section 1248 of the Code, gain from the sale or exchange of shares by a U.S. Holder of common shares of the Company which is or was a U.S. Shareholder at any time during the five-year period ending with the sale or exchange is treated as ordinary income to the extent of earnings and profits of the Company (accumulated only while the shares were held by the U.S. Shareholder and while the Company was a CFC attributable to the shares sold or exchanged. If a foreign company is both a PFIC and a CFC, the foreign company generally will not be treated as a PFIC with respect to certain 10% U.S. Shareholders of the CFC. This rule generally will be effective for taxable years of U.S. Shareholders beginning after 1997 and for taxable years of foreign company’s ending with or within such taxable years of U.S. Shareholders. The PFIC provisions continue to apply in the case of a PFIC that is also a CFC with respect to the U.S. Holders that are less than 10% shareholders. Because of the complexity of Subpart F, a more detailed review of these rules is outside of the scope of this discussion.

### Filing of Information Returns

Under a number of circumstances, U.S. persons acquiring shares of the Company may be required to file an information return with the Internal Revenue Service Center where they are required to file their tax returns with a duplicate copy to the Internal Revenue Service Center, Philadelphia, PA 19255. In particular, under Section 6046 of the Code, any U.S. person who becomes the owner, directly or indirectly, of 10% or more of the shares of the Company will be required to file such a return. Other filing requirements may apply, such U.S. persons should consult their own tax advisors concerning these requirements.

### F.Dividends and Paying Agents

Not applicable.

### G. Statement by Experts

Not applicable.

H. Documents on Display

Any of the documents referred to above can be viewed at the principal executive office of the Company located at 67 Yonge St., Suite 1203, Toronto, ON M5E 1J8 Canada.

This Annual Report on Form 20-F and the Company's recent 6-K filings can be viewed on the U.S. Securities and Exchange EDGAR web-site at [www.sec.gov](http://www.sec.gov).

I. Subsidiary Information

Not applicable.

## Item 11. Quantitative and Qualitative Disclosures about Market Risk

The Company's activities expose it to a variety of financial risks, including but not limited to: credit risk, liquidity risk, currency risk, interest rate risk and price risk.

### **Credit risk:**

Credit risk arises from cash held with banks, derivative financial instruments with positive fair values and credit exposure to customers. The credit risk is limited to the carrying amount on the balance sheet.

The Company is exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments, but does not expect any counterparties to fail to meet their obligations. The Company's cash and cash equivalents are held through large financial institutions in Brazil, Canada and the United States. The Company manages its credit risk by entering into transactions with high-credit quality counterparties, limiting the amount of exposure to each counterparty where possible, and monitoring the financial condition of the counterparties.

### **Liquidity risk:**

As at December 31, 2013, the Company had a working capital deficiency of \$316.5 million and an accumulated deficit of \$483.7 million. The Company incurred a loss for the year ended December 31, 2013 amounting to \$249.3 million.

On April 23, 2014, the Company announced that it had successfully implemented the CCAA Plan effective April 22, 2014. See Item 13.

### **Derivative financial instruments:**

The Company assesses its financial instruments and non-financial contracts on a regular basis to determine the existence of any embedded derivatives which would be required to be accounted for separately at fair value and to ensure that any embedded derivatives are accounted for in accordance with the Company's policy.

Forward sales contract: During 2013, the Company entered into forward contracts to hedge against the risk of declining gold prices for a portion of its forecasted gold sales during the period. The unrealized gain in the amount of \$508,000 is recorded as derivative assets. Included in the consolidated statements of operations and comprehensive loss are realized gains of \$65,000 (2012 – realized gains of \$600,000). The following are the outstanding contracts as of December 31, 2013:

Settlement date	Ounces hedged	\$ per ounce
March 31, 2014	589	\$ 1,342
March 31, 2014	2,000	\$ 1,346
March 31, 2014	1,000	\$ 1,348
Total	3,589	\$ 1,346

Forward foreign exchange contracts: As at December 31, 2013, no forward foreign exchange contracts were outstanding. Included in the consolidated statements of operations and comprehensive loss are realized gains of \$479,000 related to the contracts settled during the year ended December 31, 2013 (2012 - unrealized gain of \$43,000 and realized gains of \$77,000). As at December 31, 2012, derivative assets included \$43,000 of unrealized foreign exchange gains relating to the forward foreign exchange contracts outstanding at that time.

**Currency risk:**

The Company is exposed to the financial risk related to the fluctuation of foreign exchange rates. Financial instruments that impact the Company's net earnings due to currency fluctuations include: Brazilian reais and Canadian dollar denominated cash and cash equivalents, recoverable taxes, accounts payable and accrued liabilities, income taxes payable, reclamation and other provisions, and deferred compensation liabilities.

The table below summarizes a sensitivity analysis for significant unsettled currency risk exposure with respect to the Company's financial instruments as at December 31, 2013 and 2012 with all other variables held constant. It shows how income before taxes would have been affected by changes in the relevant risk variables that were reasonably possible at that date.

Exchange Rates	Change for Sensitivity Analysis	Impact of Change to 2013 Foreign Exchange Gain/Loss	Impact of Change to 2012 Foreign Exchange Gain/Loss
U.S. dollar per Brazilian reais	10% change in Brazilian reais	\$ 1,884	\$ 1,971
U.S. dollar per Canadian dollar	10% change in Canadian dollar	121	56

#### **Interest rate risk:**

The Company is exposed to interest rate risk on its outstanding borrowings and short-term investments. The Company managed its risk by entering into long-term agreements with fixed interest rates on 100% of its debt with interest rates ranging from 0% to 11.0% per annum (2012 – 0% to 8.9% per annum).

#### **Price risk:**

The Company is exposed to price risk with respect to gold prices on gold production. The Company entered into hedge contracts during 2013 to manage this risk. As at December 31, 2013, the Company had 3,589 ounces of gold hedged. No gold hedges were in place as at December 31, 2012.

#### **Financial instruments:**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In assessing the fair value of a particular contract, the market participant would consider the credit risk of the counterparty to the contract. Consequently, when it is appropriate to do so, the Company adjusts its valuation models to incorporate a measure of credit risk.

The fair value of the following financial assets and liabilities approximate their carrying amount due to the limited term of these instruments:

- a. Cash and cash equivalents
- b. Other accounts receivable
- c. Restricted cash
- d. Accounts payable and accrued liabilities
- e. Other provisions
- f. Deferred compensation liabilities

*Fair value estimation:*

IFRS 7 Financial Instruments - Disclosures prescribes the following three-level fair value hierarchy for disclosure purposes based on the transparency of the inputs used to measure the fair values of financial assets and liabilities:

a. Level 1 – quoted prices (unadjusted) of identical instruments in active markets that the reporting entity has the ability to access at the measurement date.

b. Level 2 – inputs are quoted prices of similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; inputs other than quoted prices used in a valuation model that are observable for that instrument; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

c. Level 3 – one or more significant inputs used in a valuation technique that are unobservable for the instruments.

Determination of fair value and the resulting hierarchy requires the use of observable market data whenever available. The classification of a financial instrument in the hierarchy is based upon the lowest level of input that is significant to the measurement of fair value.

As at December 31, 2013, the option component of the Notes was measured at fair value as follows:

	December 31, 2013	December 31, 2012
Option component of convertible notes	\$ -	\$ 4,458

The option component of the convertible notes is fair valued using the Crank-Nicolson valuation model which requires inputs, such as volatility and credit spread, which are both unobservable and significant, and therefore are categorized as Level 3 in the fair value hierarchy.

*Inter-relationship between key unobservable inputs and fair value measurements:*

The table below summarizes a sensitivity analysis for the inputs of volatility and credit spread as at December 31, 2013 and 2012 with all other variables held constant. It shows how the option component of the convertible notes and income before taxes would have been affected by changes in these relevant risk variables that were reasonably possible at that date.

Impact to option component of convertible notes:

Assumption	Change for Sensitivity Analysis	Impact of Changes as at December 31, 2013	Impact of Changes as at December 31, 2012
Volatility	5% increase	-	\$ 457
	5% decrease	-	(456 )
Credit spread	1% increase	-	\$ 40
	1% decrease	-	(42 )

The carrying amount of the option component of the convertible notes was \$nil as at December 31, 2013 (2012 - \$4.5 million). The change in fair value of \$4.5 million for the year ended December 31, 2013 is shown as a gain on

conversion option embedded in convertible debt in the consolidated statements of operations and comprehensive loss (2012 - \$75.5 million gain).

**Restricted cash:**

As at December 31, 2013, \$109,000 was held in a Certificate of Deposit as security for corporate credit card (2012 - \$109,000). In addition, as at December 31, 2012, \$300,000 was restricted as collateral for the foreign exchange contracts. Also as at December 31, 2012, \$200,000 was restricted as collateral for the Credit Facility.



Item 12. Description of Securities Other than Equity Securities

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

Not applicable.

## PART II

### Item 13. Defaults, Dividend Arrearages and Delinquencies

#### *CCAA Proceeding*

The CCAA Proceedings were commenced in contemplation of the CCAA Plan which was the result of Jaguar's review of strategic alternatives and negotiations conducted by representatives of Jaguar, its legal and financial advisors and a number of stakeholders with an economic interest in Jaguar. In developing the CCAA Plan, Jaguar sought to treat all stakeholders fairly and reasonably while providing for the financial stability and future economic viability of its business.

The CCAA Plan was designed to respond to Jaguar's operating liquidity and leverage concerns and to provide additional capital for future investment.

#### Jaguar's Financial Circumstances Prior to the CCAA Proceedings

In May 2012, Jaguar announced the implementation of a comprehensive restructuring and turnaround plan to improve costs and efficiency at its operations. The plan incorporated objectives and initiatives identified by Jaguar's management and a number of expert industry consultants who were retained to assist with operational and cost improvements. Key elements of the plan were administrative cost reductions, improved safety, optimization of the workforce, converting to properly scaled mining methodology, advanced development and definition drilling, and the continuation of the Paciência operations of MSOL on care and maintenance.

As is typical for companies engaged in the operation and development of gold producing properties, the price of gold is the largest single factor in determining profitability and cash flow from operations. The financial performance of the Company has therefore been, and is expected to continue to be, closely linked to the price of gold. Historically, the price of gold has been subject to volatile price movements over short periods of time and is affected by numerous macroeconomic and industry factors that are beyond the Company's control. Major influences on the gold price include currency exchange rate fluctuations and the relative strength of the U.S. dollar, the supply of and demand for gold, interest rates and inflation expectations. The Company's mines (including the Paciência mine, which is now on care and maintenance) are not low-cost gold producers, despite recent cost reductions. For this reason, the operations of the Company are particularly sensitive to gold prices. The average price of gold declined substantially since September of 2011, from nearly \$2,000 per ounce at that time to \$1,231 per ounce as of December 17, 2013, just prior to the commencement of the CCAA Proceedings, which impacted the Company significantly. At the commencement

of the CCAA Proceedings in December of 2013, Jaguar forecasted that it would face a liquidity crisis in the very near future and that additional liquidity would be required to preserve operations in a lower gold price environment. Moreover, Jaguar's mining operations and exploration activities are located in Brazil and a portion of operating costs and capital expenditures are denominated in Brazilian reais which has weakened against the U.S. dollar in 2013.

Despite its cost reduction efforts, Jaguar was not able to generate sufficient net revenues to optimally fund its operations, or generate sufficient net revenues to service its substantial debts going forward. As of December 31, 2013, the Company had outstanding funded debt obligations of approximately US\$323 million in principal value. Jaguar incurred interest payments of approximately US\$13.7 million in 2013. On November 1, 2013, Jaguar deferred payment of approximately US\$3.7 million of interest on the 4.5% Notes and the deferral eventually resulted in an event of default under the indenture governing such notes. Excluding the consideration of any events of default or acceleration obligations, Jaguar would be obligated to repay or refinance approximately US\$195 million in principal value of debt under the Credit Facility and the 4.5% Convertible Notes in the year ended December 31, 2014.

Continued investment in Jaguar's mines and exploration properties is needed. Capital investment is required in the long term to: (i) continue operations in the normal course; (ii) continue the care and maintenance of the Paciência mine; (iii) update mine plans and ensure appropriate mine development; and (iv) continue stabilization of operations. Further, if the Company's operations are to be optimized, capital is also required to increase production at existing operating mines, invest in equipment, and to allow the Company to obtain technical reports and commercial feasibility studies with respect to its development assets. Due to liquidity issues and cost-reduction efforts, Jaguar's capital investments in 2013 were postponed.

### Strategic Review

For the reasons outlined above, Jaguar concluded that additional restructuring efforts would be required to address Jaguar's financial needs. Canaccord Genuity Corp. ("Canaccord Genuity") was engaged as Jaguar's financial advisor in May 2013 in connection with the design and implementation of a recapitalization strategy for Jaguar. The scope of Canaccord Genuity's assignment was to:

- review Jaguar's business plans, budgets and financial projections and conduct appropriate sensitivity analyses;
- assess the capital structure of Jaguar with a view to determining an appropriate debt load and debt structure for Jaguar;
- advise Jaguar on the design and execution of potential transactions to improve Jaguar's capital structure;
- conduct a process to raise new money capital; and
- advise Jaguar on the implementation of a recapitalization plan, and conduct negotiations with Jaguar's stakeholders.

With the assistance of Canaccord Genuity, Jaguar analyzed the possibility of divesting certain of its assets in order to provide increased liquidity to sustain the Company during a period of unfavourable gold prices and to allow continued investment in cost reduction options. However, Jaguar and the Board of Directors did not believe that such a transaction was feasible.

Canaccord Genuity had discussions with potential sources of third party financing. Those parties who expressed interest in potentially providing financing were not willing to provide financing in the amount, of the type or on the timeline required by Jaguar at that time.

### Reasons for the CCAA Plan

The review of potential alternatives showed that a comprehensive restructuring involving a debt to equity exchange and an investment of new money was the best available alternative to address Jaguar's financial situation. The Board created a special committee ("SC") on October 30, 2013 to consider and advise the Board on strategic matters relating to Jaguar's financial difficulties. The Board and SC determined that the completion of a recapitalization transaction

offered substantial benefits to the Company and was in the best interests of the Company and its stakeholders. The Company concluded that it would be important to deleverage its balance sheet and to reduce the debt service payments that it must make to the extent possible in the circumstances. The process ultimately led to the negotiations of the Support Agreement and the Backstop Agreement and the resulting terms of the CCAA Plan and the commencement of the CCAA Proceedings. On December 23, 2013, the Company filed for protection under the CCAA. A full description of events that have occurred under the CCAA Proceedings is set out below under “*CCAA Proceeding Events*”. Additional information about the CCAA Proceedings, including copies of all Court orders, are available at the following website <http://cfcanada.fticonsulting.com/jaguar> (which materials are not incorporated by reference herein).

#### CCAA Proceeding Events

On December 23, 2013, the Company filed for protection under the CCAA and an Initial Order, Claims Procedure Order and Meeting Order were granted by the Court.

Among other things, the Initial Order imposed a general stay of proceedings against Jaguar as well as a stay of proceedings against Jaguar’s subsidiaries with respect to any guarantee, contribution or indemnity obligation, liability or claim in respect of, or that relates to, any agreement involving the Company, or the obligations, liabilities and claims of, against or affecting the Company or its business. The Claims Procedure Order provided for, among other things, the establishment of a claims procedure for the identification, quantification and determination of certain claims against the Company.

Pursuant to the Meeting Order, Jaguar was authorized to call a meeting (the “Meeting”) of Affected Unsecured Creditors (as defined in the CCAA Plan) to consider and, if deemed advisable, to pass a resolution approving the CCAA Plan. The Meeting was held on January 31, 2014 and the CCAA Plan was approved by 100% of the Affected Unsecured Creditors that voted, in person or by proxy, at the Meeting. Following the Meeting, Jaguar obtained an order from the Court on February 6, 2014 sanctioning the CCAA Plan.

On April 22, 2014, the Company implemented the CCAA Plan and emerged from CCAA protection. A full description of the steps of the CCAA Plan is set out below under “Effect of the Implementation of the CCAA Plan”.

#### Effect of the Implementation of the CCAA Plan

The purpose of the CCAA Plan was to facilitate the continuation of the business of Jaguar as a going concern, address certain liabilities of the Company, and effect a recapitalization and financing transaction on an expedited basis to provide a stronger financial foundation for Jaguar going forward and additional liquidity to allow the Company to continue to work towards its operational and financial goals from and after its implementation in the expectation that all persons with an economic interest in Jaguar will derive a greater benefit from the implementation of the CCAA Plan than would otherwise result.

Common shares of the Company were issued as follows as a result of the implementation of the CCAA Plan:

Holders (the “Noteholders”) of the Notes and other affected unsecured creditors of the Company with proven claims received their pro rata share of 14,000,000 common shares of the Company in exchange for their Notes and in satisfaction of their claims, respectively, and Noteholders who signed the Support Agreement, or a consent agreement thereto, as of November 26, 2013 received their pro rata share of an additional 5,000,000 common shares of the Company in exchange for their Notes. Pursuant to the CCAA Plan, the Notes and the indentures governing such Notes were irrevocably and finally cancelled and all unsecured claims of affected unsecured creditors of the Company were fully and finally released.

Noteholders who elected to participate in a backstopped US\$50 million share offering (the “Share Offering”) purchased up to their pro rata share of 70,955,797 common shares of the Company (the “Offering Shares”) and such Noteholders received their pro rata share of 9,044,203 common shares of the Company (the “Accrued Interest Offering Shares”) (based on the percentage that the unpaid interest on their Notes bore to the aggregate of all unpaid interest owing to all Noteholders who participated in the Share Offering as at December 31, 2013) in exchange for their Notes.

Noteholders who agreed to backstop the Share Offering by committing to purchase their pro rata share (based on their backstop commitments) of the Offering Shares not subscribed for under the Share Offering received their pro rata share of an additional 11,111,111 common shares of the Company (the “Backstop Commitment Shares”) in exchange for their Notes.

In connection with and as a step in the CCAA Plan, the common shares of the Company issued and outstanding immediately prior to the implementation of the CCAA Plan were consolidated at a ratio of one (1) post-consolidation common share for each 86.39636 pre-consolidation common shares (the “Consolidation”). Any fractional common shares of the Company resulting from the Consolidation were rounded down to the next whole share without any

additional compensation therefor. As a result of the implementation of the CCAA Plan, such shareholders represent approximately 0.9% of the equity of Jaguar in the aggregate. The shareholder rights plan dated May 2, 2013 and all rights issued thereunder were cancelled pursuant to the terms of the CCAA Plan.

The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan were cancelled pursuant to the terms the CCAA Plan. The Board has approved a new 10% rolling stock option plan (the "New Stock Option Plan"). The New Stock Option Plan has received conditional approval from the TSXV and is subject to the approval of disinterested shareholders of the Company. It will be presented for approval at the Company's next annual general meeting of shareholders ("AGM"), which is expected to be held late in the second quarter of 2014. The Board has also approved a new deferred share unit plan (the "DSU Plan"). The DSU Plan has received conditional approval from the TSXV and will be presented for approval by shareholders at the Company's AGM.

In connection with the CCAA Plan, Jaguar negotiated amendments (the "Renvest Amendments") to certain terms of the Credit Facility. The Renvest Amendments provide, among other things, that:

the maturity date of the Credit Facility is extended to December 31, 2015 from July 25, 2014;

mandatory repayments of US\$1.0 million of principal amount plus accrued and unpaid interest shall be made each month from and including July 2014 to and including November 2015, with the balance of all outstanding obligations to be repaid on December 31, 2015;

the Lender shall have a right to convert up to \$5.0 million of the outstanding obligations under the Credit Facility into equity at a specified conversion price (subject to certain anti-dilution protections);

the Lender shall have a right to participate in certain offerings of equity securities by the Company if the offering occurs at a prescribed price;

the Company shall maintain certain minimum levels of cash on hand;

Renvest shall be entitled to appoint an observer to the Board of Directors;

the Company and the Lender entered into a Right of First Refusal Agreement with respect to assignments of the Credit Facility by the Lender; and

existing breaches, defaults and events of default under the Credit Facility were waived by the Lender. Certain events of default under the Credit Facility were also amended to reflect the Company's current financial circumstances.

The Company will pay a fee of US\$1.0 million in connection with the amendments to the Credit Facility (\$0.6 million payable in cash and \$0.4 million payable as an increase in the principal amount of the Credit Facility).

In connection with the above amendments, the Company agreed to repay immediately to the Lender \$10.0 million on account of the outstanding obligations under the Credit Facility. The above amendments were conditional upon, among other things, this repayment.

In connection with the above amendments, the Lender waived its rights under the Credit Facility to receive any portion of the net proceeds of the Share Offering, with the exception of the agreed upon US\$10.0 million repayment described above.

Directors and Senior Management of Jaguar



The Board was reconstituted in connection with the implementation of the CCAA Plan so as to be comprised of seven individuals, four of whom are incumbent directors of the Company. In addition, in connection with the CCAA Plan, Mr. David Petroff and Mr. Douglas Willock resigned from their positions as Chief Executive Officer and Chief Financial Officer of the Company, respectively, and Mr. George Bee and Mr. Derrick Weyrauch were appointed as Chief Executive Officer and Chief Financial Officer, respectively. Please see Item 6 – *Directors, Senior Management and Employees* for biographies of the current directors and executive officers of the Company.

Implementation of the CCAA Plan resulted in two unrelated investment managers each owning or exercising control or direction over in excess of 10% of the outstanding common shares of the Company: (i) Outrider Management, LLC has beneficial ownership, or exercises control or direction, directly or indirectly, over approximately 32.4% of the common shares of the Company; and (ii) an unrelated investment manager exercises control over approximately 10.8% of the common shares of the Company. Mr. Stephen Hope, one of the new directors of the Company, is the principal of Outrider Management, LLC.

Listing of the Common Shares

In connection with the CCAA Plan, trading in the common shares of the Company was suspended on December 23, 2013. The common shares were delisted from the TSX on April 30, 2014 and commenced trading on the TSXV on May 1, 2014. See also Item 4.

Item 14. Material Modifications to the Rights of Securities Holders and Use of Proceeds

A shareholder rights plan (the "Shareholder Rights Plan"), effective May 2, 2013, was approved by shareholders at the annual general and special meeting of shareholders on June 10, 2013.

The Shareholder Rights Plan was intended to: (a) ensure, to the extent possible, that all holders of common shares and the Board had adequate time to consider and evaluate any unsolicited take-over bid for the common shares of Jaguar; (b) provide the Board with adequate time to identify, solicit, develop and negotiate value-enhancing alternatives, as considered appropriate, to any such unsolicited take-over bid; (c) provide the Board with adequate time to continue to identify, solicit, develop and negotiate value-enhancing transactions, as considered appropriate; (d) encourage the fair treatment of Jaguar's securityholders in connection with any unsolicited take-over bid made for its common shares; and (e) generally assist the Board in enhancing shareholder value. The rights issued under the Shareholder Rights Plan would have become exercisable if a person, together with its affiliates, associates and joint actors (all as defined in the Shareholder Rights Plan), acquired or announced an intention to acquire beneficial ownership of common shares of the Company which, when aggregated with its current holdings, totaled 20% or more of the Company's outstanding common shares (determined in the manner set out in the Shareholder Rights Plan) without complying with the "Permitted Bid" provisions of the Shareholder Rights Plan or without approval of the Board. In the event that the rights became exercisable, the rights would have entitled shareholders, other than the acquiring person and its affiliates and associates and persons acting jointly or in concert with it, to purchase additional common shares at a substantial discount to the market price of the Company's common shares at that time.

The Shareholder Rights Plan was cancelled pursuant to the terms of the CCAA Plan. Please See Item 13 for more information.

## Item 15. Controls and Procedures

### Disclosure Controls and Procedures

Based on their evaluation as of the end of the period covered by this report, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission ("SEC") rules and forms.

### Management's Annual Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining a system of disclosure controls and procedures to provide reasonable assurance that all material information relating to the Company is gathered and reported to senior management on a timely basis so that appropriate decisions can be made regarding public disclosure. Management is also responsible for establishing and maintaining adequate internal controls over financial reporting (as such term is defined under rules adopted by the SEC and National instrument 52-109 as issued by the Canadian Securities Administrator). Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. There have been no changes during the quarter and year ended December 31, 2013 that, in management's view, would have materially affected, or that are reasonably likely to materially affect, the Company's internal control over financial reporting.

### Changes in Internal Control Over Financial Reporting

There were no changes in the Registrant's internal control over financial reporting that occurred during the period covered by this report that have materially affected or are reasonably likely to materially affect the Registrant's internal control over financial reporting.

Item 16.

Item 16A. Audit Committee Financial Expert

The Board of Directors of the Company has determined that each of the members that served on the 2013 Audit Committee and each of the members that serves on the 2014 Audit Committee, is an audit committee financial expert, within the meaning of applicable U.S. securities rules and regulations. Each of the members of the 2013 Audit Committee was independent and each of the members of the 2014 Audit Committee is independent, as that term is defined in rule 803 of the NYSE and Rule 10A-3 of the Exchange Act.

117

Item 16B. Code of Ethics

The Company has adopted a Code of Conduct and Ethics Policy (“Code”). This policy applies to all directors, officers, employees, contractors, consultants, temporary worker, and other workers including personnel affiliated with related parties. The Code is included in Exhibit 11.1 to this Annual Report on Form 20-F, which is incorporated by reference herein. The Code has also been posted to the Registrant’s website at [www.jaguarmining.com](http://www.jaguarmining.com).

All amendments to the Code and all waivers of the Code with respect to any of the officers covered by it will be posted on the Company’s website within five business days of the amendment or waiver, and provided in print to any shareholder who requests them.

There have been no amendments, waivers or implicit waivers to the Code during the Company’s fiscal year ended December 31, 2013.

Item 16C. Principal Accountant Fees and Services

Audit Fees

During the fiscal years ended December 31, 2013 and December 31, 2012, KPMG LLP, Chartered Accountants (“KPMG”), charged Jaguar a total of Cdn.\$706,400 and Cdn.\$804,000 respectively, for audit services.

Audit-Related Fees

During the fiscal years ended December 31, 2013 and December 31, 2012, KPMG charged Cdn. \$25,000 and Cdn. \$0 respectively, for assurance and related services that are reasonably related to the performance of audit-related services but are not reported above in “Audit Fees”.

Tax Fees

During the fiscal years ended December 31, 2013 and December 31, 2012, KPMG billed Cdn. \$76,000 and Cdn.\$0 respectively, for tax compliance, tax advice and tax planning services.

All Other Fees

In each of the fiscal years ended December 31, 2013 and December 31, 2012, KPMG billed Cdn.\$0 and Cdn.\$0 respectively, for services other than those reported under “Audit Fees”, “Audit-Related Fees”, and “Tax Fees”.

Pre-approval Policies and Procedures

We have adopted certain policies and procedures intended to ensure our principal accountants will maintain objectivity and independence in their audit of our financial statements. To minimize relationships that could appear to impair the objectivity of our principal accountants, our Audit Committee has restricted the non-audit services that our

principal accountants may provide to us primarily to tax services and review assurance services.

In general, we seek to obtain non-audit services from our principal accountants only when the services offered by our principal accountants are more effective or economical than services available from other service providers, and, to the extent possible, only after competitive bidding. The Board has adopted policies and procedures for pre-approving work performed by our principal accountants.

After careful consideration, the audit committee of the Board has determined that payment of the above audit fees is in conformance with the independent status of our company's principal independent accountants. Before engaging the auditors in additional services, the Audit Committee considers how these services will impact the entire engagement and independence factors.



Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

120

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The Company did not repurchase any common shares in the fiscal year ended December 31, 2013.

121

Item 16F. Change in Registrant's Certifying Accountant

Not applicable.

122

Item 16G. Corporate Governance

Not applicable.

123

Item 16H. Mine Safety Disclosure

Not applicable.

124

PART III

Item 17. Financial Statements

The Company's consolidated financial statements and notes thereto are stated in U.S. Dollars and are prepared in accordance with International Financial Reporting Standards as issued by the IASB.

Item 18. Financial Statements

The Company has provided financial statements pursuant to Item 17.

Item 19. Exhibits

The financial statements and notes thereto as required under Item 17 are attached hereto and found immediately following the text of this Annual Report.

<b>Exhibit</b>	<b>Notes</b>
Exhibit 1.1	Articles of Incorporation
Exhibit 1.2	Articles of Continuance
Exhibit 1.3	Articles of Amalgamation
Exhibit 1.4	Articles of Reorganization
Exhibit 1.5	Bylaw No. 2
Exhibit 1.6	Advance Notice Bylaw
Exhibit 1.7	Support Agreement (and all amendments thereto)
	Previously filed as exhibits to the Company's Form 6Ks filed on November 18, 2013, November 22, 2013, December 27, 2013, January 9, 2014, February 10, 2014 and April 30, 2014 and incorporated by reference herein.

Edgar Filing: Jaguar Mining Inc - Form 20-F

Exhibit 1.8	Backstop Agreement (and all amendments thereto)	Previously filed as exhibits to the Company's Form 6Ks filed on November 18, 2013, November 22, 2013, December 27, 2013, January 9, 2014, February 10, 2014 and April 30, 2014 and incorporated by reference herein.
Exhibit 2.2	CCAA Plan	Filed under Exhibit 1.1.
Exhibit 4.3	Credit Facility	Previously filed as an exhibit to the Company's Form 6K filed on February 1, 2013 and incorporated by reference herein.
Exhibit 4.4	Stock Option Plan	
Exhibit 4.5	DSU Plan	
Exhibit 8.1	Subsidiary list	
Exhibit 11.1	Code of Ethics	
Exhibit 12.1	Certification	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 12.2	Certification	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 13.1	Certification	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 13.2	Certification	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

**SIGNATURES**

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

Jaguar Mining Inc.  
Registrant

/s/George Bee  
George Bee, CEO

Dated: May 13, 2014



**KPMG LLP** Telephone (416) 777-8500  
Bay Adelaide Centre Fax (416) 777-8818  
333 Bay Street Suite 4600 Internet www.kpmg.ca  
Toronto ON M5H 2S5  
Canada

## **REPORT OF REGISTERED PUBLIC ACCOUNTING FIRM**

To the Shareholders of Jaguar Mining Inc.

We have audited the accompanying consolidated statements of financial position of Jaguar Mining Inc. as of December 31, 2013 and December 31, 2012 and the related consolidated statements of operations and comprehensive loss, cash flows and changes in equity for each of the years in the three-year period ended December 31, 2013. These consolidated financial statements are the responsibility of Jaguar Mining Inc's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Jaguar Mining Inc. as of December 31, 2013 and December 31, 2012, and its consolidated financial performance and its consolidated cash flows for each of the years in the three-year period ended December 31, 2013 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Chartered Professional Accountants, Licensed Public Accountants

May 13, 2014

Toronto, Canada

KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (“KPMG International”), a Swiss entity.

KPMG Canada provides services to KPMG LLP.

Jaguar Mining Inc.

Consolidated Financial Statements

**For the years ended December 31, 2013 and 2012**

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As at December 31, 2013 and 2012

*(Expressed in thousands of US dollars)*

	December 31, 2013	December 31, 2012	December 31, 2011
Assets			
Current assets:			
Cash and cash equivalents	\$ 9,015	\$ 13,856	\$ 74,475
Inventory	23,080	26,342	34,060
Other accounts receivable	5,866	7,983	7,236
Recoverable taxes	3,985	9,031	17,013
Prepaid expenses and sundry assets	2,181	3,055	1,292
Derivatives	508	43	-
	44,635	60,310	134,076
Prepaid expenses and sundry assets	951	2,428	350
Restricted cash	109	609	909
Assets held for sale	36	612	-
Recoverable taxes	25,220	54,458	47,718
Property, plant and equipment	155,952	301,383	388,675
Mineral exploration projects	67,885	84,075	88,938
	\$ 294,788	\$ 503,875	\$ 660,666
Liabilities and Shareholders' deficiency			
Current liabilities:			
Accounts payable and accrued liabilities	\$ 24,651	\$ 29,745	\$ 34,922
Notes payable	316,076	27,388	22,517
Income taxes payable	11,642	15,451	18,953
Reclamation provisions	826	4,124	2,082
Other provisions	7,981	4,796	4,347
Deferred compensation liabilities	3	105	2,953
Other liabilities	1	20	1,475
	361,180	81,629	87,249
Notes payable	5,911	240,158	228,938
Option component of convertible notes	-	4,458	79,931
Deferred income taxes	6,350	6,624	8,635
Reclamation provisions	14,844	16,927	15,495
Deferred compensation liabilities	8	216	2,270
Other liabilities	54	60	339
Total liabilities	388,347	350,072	422,857
Shareholders' deficiency:			

Edgar Filing: Jaguar Mining Inc - Form 20-F

Share capital	371,077	370,043	370,043
Stock options	917	2,137	14,207
Hedging reserve	508	-	-
Contributed surplus	17,638	16,015	3,414
Deficit	(483,699 )	(234,392 )	(149,855 )
Total deficiency	(93,559 )	153,803	237,809
	\$ 294,788	\$ 503,875	\$ 660,666

The accompanying notes are an integral part of these consolidated financial statements.

Jaguar Mining Inc. | 1

## CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

For the years ended December 31, 2013 and 2012

*(Expressed in thousands of US dollars)*

	Year Ended December 31,		
	2013	2012	2011
Gold sales	\$ 134,140	\$ 172,430	\$ 243,137
Production costs	(89,319 )	(127,851 )	(153,331 )
Stock-based compensation	15	457	(347 )
Depletion and amortization	(32,050 )	(38,893 )	(46,107 )
Gross profit	12,786	6,143	43,352
Operating expenses:			
Exploration	944	700	1,953
Paciência shut down & care and maintenance	2,529	4,350	-
Stock-based compensation (recovery)	356	(1,864 )	2,970
Reversal of former CEO bonus accrual and other accruals	-	(3,089 )	-
Restructuring fees	4,632	2,568	-
Administration	16,652	19,437	28,522
Amortization	1,138	1,168	1,249
Impairment of properties	145,487	102,997	-
Provision for VAT and other taxes	26,701	-	-
Other	8,758	3,595	2,596
Total operating expenses	207,197	129,862	37,290
Loss before the following	(194,411 )	(123,719 )	6,062
Loss (gain) on derivatives	(543 )	(720 )	420
Loss (gain) on conversion option embedded in convertible debt	(4,458 )	(75,473 )	32,250
Foreign exchange loss	4,137	5,882	8,480
Change in ARO (recovery)	(604 )	3,585	2,454
Interest expense	54,851	28,511	27,001
Interest income	(744 )	(3,168 )	(9,237 )
Loss on disposition of property	4,108	2,805	(2,029 )
Other non-operating expenses (recoveries)	(1,502 )	1,164	453
Total other expenses	55,245	(37,414 )	59,792
Loss before income taxes	(249,656 )	(86,305 )	(53,730 )
Income taxes			
Current income tax expense (recovery)	(921 )	(466 )	3,450
Deferred income tax expense (recovery)	572	(1,302 )	8,443
Total income tax recovery	(349 )	(1,768 )	11,893
Net loss for the year	\$(249,307 )	\$(84,537 )	\$(65,623 )

Edgar Filing: Jaguar Mining Inc - Form 20-F

Other comprehensive income	508	-	-
Total comprehensive loss for the year	\$(248,799 )	\$(84,537 )	\$(65,623 )
Basic and diluted loss per share	\$2.91	\$1.00	\$(0.78 )
Weighted average number of common shares outstanding - basic and diluted	85,715,349	84,409,569	84,386,569

The accompanying notes are an integral part of these consolidated financial statements.

Jaguar Mining Inc. | 2

## CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31, 2013 and 2012

*(Expressed in thousands of US dollars)*

	Year Ended December 31,		
	2013	2012	2011
Cash provided by (used in):			
Operating activities:			
Net loss and comprehensive loss for the year	\$(249,307)	\$(84,537)	\$(65,623)
Adjustments to reconcile net earnings to net cash provided by (used in) operating activities:			
Unrealized foreign exchange loss (gain)	1,514	(4,184)	11,618
Stock-based compensation expense (recovery)	341	(2,321)	3,317
Interest expense	54,851	28,511	27,001
Change in ARO	(604)	3,585	2,454
Accretion of interest income			(188)
Deferred income taxes expense (recovery)	572	(1,302)	8,443
Depletion and amortization	33,188	40,061	47,356
Provision and loss on disposition of property, plant and equipment	2,951	4,460	1,618
Write-down of inventory	3,459	1,825	2,242
Impairment of properties	145,487	102,997	-
Impairment mineral exploration projects	-	-	528
Provision for VAT and other taxes	26,701	-	-
Unrealized loss (gain) on derivatives	43	(43)	168
Unrealized gain on option component of convertible note	(4,458)	(75,473)	32,250
Current income tax paid	-	-	(140)
Reclamation expenditure	(287)	(298)	(556)
	14,451	13,281	70,488
Change in non-cash operating assets and liabilities:			
Inventory	779	7,146	286
Other accounts receivable	2,117	(1,117)	(1,164)
Recoverable taxes	3,032	(1,187)	1,478
Prepaid expenses and sundry assets	2,574	(9,879)	(9,159)
Accounts payable and accrued liabilities	(9,345)	(5,597)	8,419
Income taxes payable	(3,809)	(3,502)	2,416
Other provisions	3,185	449	1,725
Deferred compensation liabilities	(171)	(2,383)	(2,570)
	12,813	(2,789)	71,919
Financing activities:			
Issuance of common shares	-	-	164
Repayment of debt	(22,139)	(20,703)	(24,163)
Increase in debt	41,306	23,200	115,313
Decrease in restricted cash	500	300	-



Edgar Filing: Jaguar Mining Inc - Form 20-F

Interest paid	(13,663 )	(14,370 )	(13,276 )
Other liabilities	(25 )	(1,733 )	613
	5,979	(13,306 )	78,651
Investing activities:			
Mineral exploration projects	(806 )	(8,554 )	(15,723 )
Purchase of property, plant and equipment	(23,039 )	(44,263 )	(95,107 )
Proceeds from disposition of property, plant and equipment	634	1,556	365
	(23,211 )	(51,261 )	(110,465)
Effect of foreign exchange on non-U.S. dollar denominated cash and cash equivalents	(422 )	6,737	(4,853 )
Decrease in cash and cash equivalents	(4,841 )	(60,619 )	35,252
Cash and cash equivalents, beginning of year	13,856	74,475	39,223
Cash and cash equivalents, end of year	\$9,015	\$13,856	\$74,475

The accompanying notes are an integral part of these consolidated financial statements.

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' DEFICIENCY

For the years ended December 31, 2013 and 2012

*(Expressed in thousands of US dollars)*

	Common Shares		Stock Options		Hedging Contributed		Total	
	Shares	Amount	Options	Amount	Reserve Surplus	Deficit		
Balance, January 1, 2011	84,373,648	\$369,747	3,777,500	\$13,054	\$ -	1,901	(84,232 )	\$300,470
Stock options granted	-	-	880,000	2,798	-	-	-	2,798
Exercise of stock options	36,000	296	(36,000 )	(132 )	-	-	-	164
Vested options expired	-	-	(616,500 )	(1,513 )	-	1,513	-	-
Net loss	-	-	-	-	-	-	\$(65,623 )	(65,623 )
Balance, December 31, 2011	84,409,648	\$370,043	4,005,000	\$14,207	\$ -	\$ 3,414	\$(149,855)	\$237,809
Balance as at January 1, 2012	84,409,648	\$370,043	4,005,000	\$14,207	\$ -	\$ 3,414	\$(149,855)	\$237,809
Stock options granted	-	-	1,326,250	531	-	-	-	531
Vested options expired	-	-	(3,495,000)	(12,601)	-	12,601	-	-
Net loss	-	-	-	-	-	-	(84,537 )	(84,537 )
Balance as at December 31, 2012	84,409,648	\$370,043	1,836,250	\$2,137	\$ -	\$ 16,015	\$(234,392)	\$153,803
Balance as at January 1, 2013	84,409,648	\$370,043	1,836,250	\$2,137	\$ -	\$ 16,015	\$(234,392)	\$153,803
Shares issued	1,986,708	1,034	-	-	-	-	-	1,034
Stock options	-	-	277,778	403	-	-	-	403
Vested options forfeited	-	-	(70,000 )	(231 )	-	231	-	-
Vested options expired upon termination	-	-	(440,000 )	(1,392 )	-	1,392	-	-
Other comprehensive income	-	-	-	-	508	-	-	508
Net loss	-	-	-	-	-	-	(249,307)	(249,307)
Balance as at December 31, 2013	86,396,356	\$371,077	1,604,028	\$917	\$ 508	\$ 17,638	\$(483,699)	\$(93,559 )

The accompanying notes are an integral part of these consolidated financial statements.

Jaguar Mining Inc. | 4

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

### 1. Nature of business:

Jaguar Mining Inc. (the “Company” or “Jaguar”) is a corporation continued under the *Business Corporations Act* (Ontario) engaged in the acquisition, exploration, development and operation of gold producing properties in Brazil. The address of the Company’s registered office is 67 Yonge Street, Suite 1203, Toronto, Ontario, M5E 1J8, Canada.

These consolidated financial statements of the Company as at and for the years ended December 31, 2013 and 2012 include the accounts of the Company and its wholly-owned subsidiaries: Mineração Serras do Oeste Ltda. (“MSOL”), Mineração Turmalina Ltda. (“MTL”) and MCT Mineração Ltda. (“MCT”). All significant intercompany accounts and transactions have been eliminated on consolidation.

### 2. CCAA Proceedings:

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 (together with the 4.5% Convertible Notes, the “Notes” – see Note 12) 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 \$50.0 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”). The Court granted an Initial Order, Claims Procedure Order and Meeting Order.

Among other things, the Initial Order of the Court imposed a general stay of proceedings against Jaguar as well as a stay of proceedings against Jaguar's subsidiaries with respect to any guarantee, contribution or indemnity obligation, liability or claim in respect of, or that relates to, any agreement involving the Company, or the obligations, liabilities and claims of, against or affecting the Company or its business.

The Claims Procedure Order provided for, among other things, the establishment of a claims procedure for the identification, quantification and determination of certain claims against the Company. Pursuant to the Meeting Order, Jaguar was authorized to call a meeting (the "Meeting") of Affected Unsecured Creditors (as defined in the CCAA Plan) to consider and, if deemed advisable, to pass a resolution approving the CCAA Plan. The Meeting was held on January 31, 2014 and the CCAA Plan was approved by 100% of the Affected Unsecured Creditors that voted, in person or by proxy, at the Meeting. Following the Meeting, Jaguar obtained an order from the Court on February 6, 2014 sanctioning the CCAA Plan.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

On April 23, 2014 the Company announced that it had successfully implemented the CCAA Plan dated February 5, 2014 with an effective date of April 22, 2014.

The CCAA Plan implemented a series of steps leading to an overall capital reorganization of Jaguar. These steps included, among other things:

The common shares of the Company issued and outstanding immediately prior to the implementation of the CCAA Plan were consolidated at a ratio of one (1) post-consolidation common share for each 86.39636 pre-consolidation common shares (the "Consolidation"). Any fractional Common Shares resulting from the Consolidation were rounded down to the next whole share without any additional compensation therefore. A total of 995,151 common shares were outstanding as a result of the consolidation.

The Noteholders and certain other Affected Unsecured Creditors of the Company with proven claims received their pro rata share of 14,000,000 common shares of the Company in exchange for their Notes and in satisfaction of their claims, respectively, and Noteholders who signed the Support Agreement, or a consent agreement thereto, as of November 26, 2013 received their pro rata share of an additional 5,000,000 common shares of the Company in exchange for their Notes. Pursuant to the CCAA Plan, the Notes (and the indentures under which such Notes were issued) have been irrevocably and finally cancelled and all unsecured claims of certain affected unsecured creditors of the Company are fully and finally released.

Noteholders who participated in the Share Offering purchased up to their pro rata share of 70,955,797 common shares of the Company (collectively, the "Offering Shares") and such Noteholders received their pro rata share of 9,044,203 common shares of the Company (the "Accrued Interest Offering Shares") (based on the percentage that the unpaid interest on their Notes bore to the aggregate of all unpaid interest owing to all Noteholders who participated in the Share Offering as at December 31, 2013) in exchange for their Notes.

Noteholders who backstopped the Share Offering pursuant to the Backstop Agreement purchased their pro rata share (based on their backstop commitments) of the Offering Shares not subscribed for under the Share Offering and received their pro rata share of an additional 11,111,111 common shares of the Company in exchange for their Notes.

The equity-based compensation arrangements of the Company existing immediately prior to implementation of the CCAA Plan (see Note 15b) and 17) were cancelled pursuant to the terms the CCAA Plan. The Board of Directors (the

“Board”) has approved a new 10% rolling stock option plan (the "New Stock Option Plan"). The New Stock Option Plan has received conditional approval from the TSX Venture Exchange (the “TSXV”) and is subject to the approval of disinterested shareholders of the Company. It will be presented for approval at the Company's next annual general meeting of shareholders (“AGM”), which is expected to be held late in the second quarter of 2014. The Board has also approved a new deferred share unit plan (the “DSU Plan”), which reserves a maximum of 11,111,111 common shares for issuance under the plan. The DSU Plan has received conditional approval from the TSXV and will be presented for approval by shareholders at the Company’s AGM.

In connection with the CCAA Plan, the Company negotiated amendments to certain terms of the Facility (as defined in Note 12e). The Facility amendments provide among other things, that:

the maturity date of the Facility is extended to December 31, 2015 from July 25, 2014;

mandatory repayments of \$1.0 million of principal amount plus accrued and unpaid interest shall be made each month from and including July 2014 to and including November 2015, with the balance of all outstanding obligations to be repaid on December 31, 2015;

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

the Lender shall have a right to convert up to \$5.0 million of the outstanding obligations under the Facility into equity at a specified conversion price (subject to certain anti-dilution protections);

the Lender shall have a right to participate in certain offerings of equity securities by the Company if the offering occurs at a prescribed price;

the Company shall maintain certain minimum levels of cash on hand;

the Lender shall be entitled to appoint an observer to the Board of Directors;

the Company and the Lender entered into a Right of First Refusal Agreement with respect to assignments of the Facility by the Lender; and

existing breaches, defaults and events of default under the Facility were waived by the Lender. Certain events of default under the Facility were also amended to reflect the Company's current financial circumstances.

The Company will pay a fee of \$1.0 million in connection with the amendments to the Facility (\$0.6 million payable in cash and \$0.4 million payable as an increase in the principal amount of the Facility).

In connection with the above amendments, the Company agreed to repay immediately to the Lender \$10.0 million on account of the outstanding obligations under the Facility. The above amendments were conditional upon, among other things, this repayment.

In connection with the above amendments, the Lender waived its rights under the Facility to receive any portion of the net proceeds of the Share Offering, with the exception of the agreed upon \$10.0 million repayment described above.

The Company believes that the implementation of the CCAA Plan will result in a number of benefits to the Company, including, among other things, a significant reduction of the Company's debt, increased liquidity for operations and facilitation of the Company's ability to make certain necessary capital investments and accelerate operational improvements allowing it to continue operations for the foreseeable future.



3. Basis of preparation:

a) **Statement of compliance:**

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board.

These consolidated financial statements were authorized for issue by the Board of Directors on March 27, 2014.

Jaguar Mining Inc. | 7

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

**b) Basis of measurement:**

These consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments and liabilities associated with certain long-term incentive plans and reclamation provisions, which are stated at fair value.

**c) Functional and presentation currency:**

These consolidated financial statements are presented in U.S. dollars, which is the Company's functional currency. All financial information presented in U.S. dollars has been rounded to the nearest thousand.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

### **d) Use of estimates and judgments:**

The preparation of consolidated financial statements in conformity with IFRS requires management to make estimates, judgments and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Certain estimates, such as those related to the valuation of mineral exploration projects, recoverability of property plant and equipment, recoverable taxes, deferred tax assets and liabilities, reclamation provisions, derivatives, liabilities associated with certain long-term incentive plans, measurement of inventory and disclosure of contingent assets and liabilities depend on subjective or complex judgments about matters that may be uncertain. Changes in those estimates could materially impact these consolidated financial statements.

The judgments that management has applied in the application of accounting policies and related estimates that have the most significant effect on the amounts recognized in these consolidated financial statements are discussed below:

#### **(i) Unit of production depletion and amortization:**

The Company's mineral exploration projects and mining properties are depleted and amortized on a unit-of-production basis, using the expected amount of recoverable reserves. Changes to these estimates, which can be significant, could be caused by a variety of factors, including future production differing from current forecasts, expansion of mineral reserves through exploration activities, differences between estimated and actual costs of mining and other factors impacting mineral reserves or the expected life of the mining operation.

#### **(ii) Inventory:**

Gold in process and ore in stockpiles are stated at the lower of average production cost and net realizable value. Production costs charged to earnings include labour, benefits, material and other product costs. The assumptions used in the impairment assessment of gold in process inventory include estimates of gold contained in the ore stacked, assumptions of the amount of gold stacked that is expected to be recovered and an assumed gold price expected to be realized when the gold is recovered. If these estimates or assumptions prove to be inaccurate, the Company could be required to write-down the recorded value of its work-in-process inventory, which could reduce the Company's earnings and working capital.

The nature of the leaching process inherently limits the ability to precisely monitor inventory levels. As a result, the metallurgical balancing process is monitored and the engineering estimates are refined based on actual results over time. The ultimate recovery of gold from a leach pad will not be known until the leaching process is concluded.

Jaguar Mining Inc. | 9

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

(iii) Mine reserve estimates:

A mine reserve estimate is an estimate of the amount of product that can be economically and legally extracted from the Company's mining properties. In order to calculate reserve estimates, assumptions are required about a range of geological, technical and economic factors, including: quantities, grades, production techniques, recovery rates, production costs, transportation costs, commodity demand, commodity prices and exchange rates. The Company is required to determine and report mine reserves in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum standards.

Estimates of mine reserves may change as estimates and assumptions change and as additional geological data is generated during the course of operations. Changes in mine reserve estimates may affect carrying values of the Company's inventory, property, plant and equipment, mineral exploration projects, reclamation provisions and deferred income taxes.

(iv) Capitalization of mineral exploration projects:

The Company's accounting policy for exploration costs results in certain items being capitalized according to the expected recoverability of the projects. This policy requires management to make certain estimates and assumptions as to future events and circumstances, in particular whether an economically viable extraction operation can be established. Any such estimates and assumptions may change as new information becomes available. If, after having capitalized the costs, a judgment is made that recovery of the costs is unlikely, the relevant capitalized amount will be written off to earnings.

The recoverability of the amounts shown for mineral exploration projects is dependent on the existence of economically recoverable reserves, the ability to obtain financing to complete the development of such reserves and meet obligations under various agreements, and the success of future operations or dispositions. If a project does not prove viable, all unrecoverable costs associated with the project net of any related existing impairment provisions are written off.

(v) Production start date:

The Company assesses the stage of each mineral exploration project to determine when a mine is substantially complete and ready for its intended use. Once this stage is obtained, amortization of the mine will commence. The Company considers various criteria to assess when the mine has reached the production stage, including completion of a reasonable amount of testing of the mine plant and equipment, and the ability to sustain ongoing production of gold in a saleable form. The judgment used to apply these criteria could impact the amortization commencement date.

(vi) Reclamation provision:

The Company's mining and exploration activities are subject to various laws and regulations governing the protection of the environment. In general, these laws and regulations are continually changing and, over time, becoming more restrictive which impacts the cost of retiring assets at the end of their useful lives. The Company recognizes liabilities for reclamation provisions in the period in which they are incurred. A corresponding increase to the carrying amount of the related asset, where one is identifiable, is recorded and amortized over the life of the asset. Where a related asset is not easily identifiable with a liability, the change in fair value over the course of the period is expensed. Over time, the reclamation provision will be increased each period to reflect the interest element (accretion) reflected in its initial measurement at fair value, and will also be adjusted for changes in the estimate of the amount, timing and cost of the work to be carried out. Additionally, future changes to environmental laws and regulations could increase the extent of reclamation and remediation work required to be performed by the Company.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

(vii)

Stock-based compensation:

The Company includes an estimate of forfeitures, share price volatility, expected life and risk-free interest rates in the calculation of the liability for certain long-term incentive plans. These estimates are based on previous experience and may change throughout the life of an incentive plan. Such changes could impact the carrying value of the deferred compensation liability, mineral exploration projects, inventory and earnings.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

### (viii) Determination of functional currency:

The functional currency of the Company has been assessed by management based on consideration of the currency and economic factors that mainly influence the Company's gold sales, production and operating costs, financing and related transactions. Changes to these factors may have an impact on the judgment applied in the determination of the Company's functional currency.

### (ix) Capitalization of borrowing costs:

Borrowing costs are identified for capitalization to property, plant and equipment construction projects until such time that the constructed asset is substantially complete and ready for its intended use. Borrowing costs related to specific borrowings are identified for capitalization to mineral exploration projects until such time that the mine is substantially complete and ready for its intended use. Amounts to be capitalized are estimated based on costs incurred to date and the interest rate of specific borrowings or the weighted average borrowing costs of general borrowings. The judgment used to identify mines or assets that require capitalization of borrowing costs could impact the carrying value of those assets, depletion and amortization and interest expense.

### (x) Identification of impairment:

The Company considers, at the end of each accounting period, whether or not there has been an impairment of the capitalized mineral exploration projects, or property, plant and equipment. For producing and non-producing mining properties, this assessment is based on the expected future cash flows to be generated from the asset. Assumptions, such as gold price, discount rate, foreign exchange rate and expenditures underlying the fair value estimates are subject to risks and uncertainties. If the Company determines there has been an impairment because its prior estimates of future cash flows have proven to be inaccurate, due to reductions in the price of gold, increases in the costs of production, reductions in the amount of reserves expected to be recovered or otherwise, the Company would be required to write-down the recorded value of its mineral explorations projects, or property, plant and equipment, which would reduce the Company's earnings and net assets.

### (xi) Recoverable taxes:



In Brazil, the Company is due refunds of certain taxes based on consumption, of which the timing of realization is uncertain. If these recoverable taxes are not collected, it could reduce the carrying value of these assets. Given limited methods available to recover these taxes and the length of time it takes to recover them, management estimates their present value based on the manner and timing of expected recovery.

(xii)Deferred taxes:

The Company recognizes the deferred tax benefit related to tax assets and tax losses to the extent recovery is probable. Assessing the recoverability of deferred income tax assets requires management to make significant estimates of future taxable profit and expected timing of reversals of existing temporary differences. To the extent that future cash flows and taxable profit differ significantly from estimates, the ability of the Company to realize the deferred tax assets recorded at the balance sheet date could be impacted. In addition, future changes in tax laws could limit the ability of the Company to obtain tax deductions in future periods from tax assets and tax losses.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

### (xiii) Other provisions and contingent liabilities:

On an ongoing basis, the Company is subject to various claims and other legal disputes, the outcomes of which cannot be assessed with a high degree of certainty. A liability is recognized where, based on the Company's legal views and advice, it is considered probable that an outflow of resources will be required to settle a present obligation that can be measured reliably.

By their nature, these contingencies will only be resolved when one or more future events occur or fail to occur. The assessment of such contingencies inherently involves the exercise of significant judgment of the potential outcome of future events.

#### 4. Significant accounting policies:

##### a) Existing accounting policies:

### (i) Basis of consolidation:

Subsidiaries are entities controlled by the Company. The financial statements of the subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. The accounting policies of the subsidiaries have been changed when necessary to align them with the policies adopted by the Company.

### (ii) Cash and cash equivalents:

The Company considers deposits in banks, certificates of deposit and short-term investments with remaining maturities of three months or less at the time of acquisition to be cash and cash equivalents. Cash held on deposit as security is classified as restricted cash.

(iii)

Short-term investments:

Short-term investments include short-term money market instruments with terms to maturity at the date of the acquisition of between three and twelve months. Short-term investments are classified as fair value through profit or loss (“FVTPL”) and recorded at fair value.

(iv)

Inventory:

Gold in process and ore in stockpiles are stated at the lower of the average total production cost or net realizable value. Production costs include direct labour, employee benefits, direct material and other direct product costs including depletion and amortization. Net realizable value represents estimated selling price in the ordinary course of business, less any further costs expected to be incurred to completion.

Raw materials and mine operating supplies are stated at the lower of weighted average cost, and net realizable value.

Jaguar Mining Inc. | 13

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

(v) Property, plant and equipment:

The Company's property, plant and equipment are recorded at cost less accumulated amortization and accumulated impairment losses. Amortization is recorded over the estimated useful lives of the assets, after taking into account residual values as follows:

Processing plants	- over plant life, straight-line basis
Vehicles	- 5 years, straight-line basis
Equipment	- 5 -10 years, straight-line basis
Leasehold improvements	- over term of lease, straight-line basis
Mining properties	- unit-of-production method <sup>(1)</sup>

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment. Amortization is adjusted prospectively if there is a change in useful lives, reserve base or residual values.

<sup>(1)</sup> Depletion of mining properties and amortization of pre-production and development costs are calculated and recorded on the unit-of-production basis over the mine's estimated and economically proven and probable reserves and the portion of mineralization resources expected to be classified as reserves.

(vi) Stripping costs:

Stripping costs incurred in the production phase of a mining operation are accounted for as production costs and are included in the costs of inventory produced, unless the stripping activity can be shown to be a betterment of the mineral property, in which case the stripping costs are capitalized. Betterment occurs when the stripping activity increases future output of the mine by providing access to additional reserves. Capitalized stripping costs are amortized on a unit-of-production basis over the economically recoverable proven and probable reserve ounces of gold to which they relate.

(vii) Impairment:

The carrying value of all categories of property, plant and equipment and mineral exploration projects are reviewed at each reporting date for impairment whenever events or circumstances indicate the recoverable amount may be less than the carrying amount. The recoverable amount is the greater of its value-in-use and its fair value less cost of disposal.

Value-in-use is based on estimates of discounted future cash flows expected to be recovered from an asset or the smallest group of assets that largely generates independent cash inflows (cash generating units or “CGUs”) through their use. Estimated future cash flows are calculated using estimates of future recoverable reserves and resources, future commodity prices and expected future operating and capital costs. Once calculated, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Fair value less cost of disposal is the amount obtainable from the sale of an asset or CGU in an arm’s length transaction between knowledgeable, willing parties, less the costs of disposal. Costs of disposal are incremental costs directly attributable to the disposal of an asset or CGU, excluding finance costs and income tax expense.

An impairment loss is recognized when the carrying value of an asset held for use exceeds its estimated recoverable amount. Impairment losses recognized in respect of CGUs are allocated to reduce the carrying amounts of the other assets in the unit (group of units) on a pro-rata basis. Impairment losses are recognized in operating expenses. Impairment charges are recorded in the reporting period in which determination of impairment is made by management.

Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount and only to the extent that the asset’s carrying amount does not exceed the carrying amount that would have been determined, net of depletion or amortization, if no impairment loss had been recognized.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

(viii) Mineral exploration projects:

The Company classifies exploration costs as green field or brown field according to the expected recoverability of the projects. Green field exploration costs are exploration costs from the first evaluation of the target area through to the completion of a scoping/feasibility study. All costs related to green field are expensed and included in exploration costs in the consolidated statements of operations and comprehensive loss.

Exploration costs incurred subsequent to confirmation of an area's potential are classified as brown field exploration costs. The Company considers its brown field exploration costs to have the characteristics of property, plant and equipment. As such, the Company defers brown field exploration costs, including acquisition costs, field exploration and field supervisory costs relating to specific properties until those properties are brought into production.

After a mine property has been brought into production the related costs will be transferred to property, plant and equipment and the deferred costs will be amortized on a unit of production basis based on their estimated economic lives or until the properties are abandoned, sold, or considered to be impaired in value, at which time an appropriate charge will be made.

(ix) Income taxes:

Income tax expense comprises current and deferred income taxes. Income tax expense is recognized in the consolidated statements of operations and comprehensive loss except to the extent that it relates to items recognized directly in equity.

*Current income taxes*

Current income taxes are the expected taxes payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to taxes payable in respect of previous years.

*Deferred income taxes*

The Company accounts for deferred income taxes under the asset and liability method. Under this method of tax allocation, deferred income and mining tax assets and liabilities are determined based on differences between the financial statement carrying values and their respective income tax bases (temporary differences).

Deferred income taxes are measured using the tax rates that are expected to be in effect when the temporary differences are likely to reverse, based on the laws that have been enacted or substantively enacted by the reporting date. The effect on deferred income tax assets and liabilities of a change in tax rates is included in earnings in the period in which the change is substantively enacted. The amount of deferred income tax assets recognized is limited to the amount that is probable to be realized.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

(x) Reclamation provisions:

The Company recognizes a provision arising from legal and constructive obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and/or normal operation of a long-lived asset. A reclamation provision is a monetary item that is recorded in the period in which it is incurred and is estimated based on the present value of the expenditures expected to settle the obligation, using estimated cash flows based on current prices adjusted for inflation. These estimates are discounted at a pre-tax rate that reflects current market assessments of the time value of money and risks specific to the liability. When the reclamation provision is initially recorded, the cost is capitalized by increasing the carrying amount of the related long-lived asset. The Company amortizes the amount added to the asset using the amortization method established for the related asset. The amortization expense is included in the consolidated statements of operations and comprehensive loss and accounted for in depletion and amortization. An accretion expense in relation to the discounted provision over the remaining life of the mining properties is accounted for in the consolidated statements of operations and comprehensive loss and added to the reclamation provision. The provision is adjusted at the end of each reporting period to reflect the passage of time, changes in foreign exchange rates, specific risks, changes in discount rates and changes in the estimated future cash flows underlying the obligation. Upon settlement of the liability, a gain or loss is recorded.

(xi) Other provisions:

Provisions are recorded when a legal or constructive obligation exists as a result of past events where it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made. The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation estimated at the end of each reporting period, taking into account the risks and uncertainties surrounding the obligation and is measured using the present value of cash flows estimated to settle the present obligation.

(xii) Foreign currency translation:

The U.S. dollar is considered to be the functional currency of the Company and of its subsidiaries. Monetary assets and liabilities of the Company's Brazilian operations are translated into U.S. dollars at the rate of exchange in effect at the balance sheet date, and non-monetary assets and liabilities are translated at the historical rate of exchange. Transactions in foreign currencies are translated at the actual rates of exchange. Foreign currency gains and losses are recognized in the consolidated statements of operations and comprehensive loss.



(xiii)

Revenue recognition:

The Company produces gold doré which is further refined by a third party. Revenue from gold doré is recognized when title is transferred, delivery is completed, and when the Company has reasonable assurance with respect to measurement and collectability.

(xiv)

Stock-based compensation:

The Company has stock-based compensation plans, which are described in Note 16 and 17. The Company accounts for all equity-settled stock-based payments using a fair value based method incorporating the Black-Scholes model.

Under the fair value based method, compensation cost attributable to options granted is measured at fair value at the grant date and amortized on a straight-line basis over the vesting period. The amount recognized as an expense is adjusted to reflect any changes in the Company's estimate of the shares that will eventually vest and the effect of any non-market vesting conditions.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

The Company treats awards that call for settlement in cash, including share appreciation rights and performance awards, as liabilities. The value of these liabilities is re-measured at each reporting period at fair value. Any gains or losses on re-measurement are recorded in the consolidated statements of operations and comprehensive loss. For any changes in the estimated forfeiture of the awards, the accrued compensation cost will be adjusted in the period in which the change of estimate is determined.

Share-based payment arrangements in which the Company receives goods or services as consideration are measured at the fair value of the good or service received, unless that fair value cannot be estimated reliably.

(xv) Earnings (loss) per share:

Basic earnings (loss) per share is computed by dividing the net income (loss) available to common shareholders by the weighted average number of common shares outstanding during the period. The dilutive effect of outstanding options and their equivalents are reflected in diluted earnings (loss) per share by the application of the treasury method. The computation of diluted earnings (loss) per share assumes conversion, exercise or contingent issuance of securities only when such conversion, exercise or issuance would have a dilutive effect on earnings per share.

(xvi) Financial instruments - recognition and measurement:

The Company classifies all financial instruments as either held-to-maturity, FVTPL, loans and receivables, available-for-sale, or other financial liabilities.

Held-to-maturity financial assets are initially recognized at their fair values and subsequently measured at amortized cost using the effective interest method. Impairment losses are charged to earnings in the period in which they arise.

FVTPL financial instruments are carried at fair value with changes in fair value charged or credited to earnings in the period in which they arise.

Loans and receivables are initially recognized at their fair values, with any resulting premium or discount from the face value being amortized to earnings using the effective interest method. Impairment losses are charged to earnings

in the period in which they arise.

Available-for-sale financial instruments are carried at fair value with changes in the fair value charged or credited to other comprehensive income. Impairment losses are charged to earnings in the period in which they arise.

Other financial liabilities are initially measured at cost or amortized cost, net of transaction costs and any embedded derivatives that are not closely related to the financial liability, depending upon the nature of the instrument with any resulting premium or discount from the face value being amortized to earnings using the effective interest method.

Jaguar Mining Inc. | 17

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

The following is a summary of the financial instruments outstanding and classifications as at December 31, 2013:

Cash and cash equivalents	- Loans and receivables
Other accounts receivable	- Loans and receivables
Derivative assets and liabilities	- FVTPL
Restricted cash	- Loans and receivables
Accounts payable and accrued liabilities	- Other financial liabilities
Notes payable	- Other financial liabilities
Other provisions	- Other financial liabilities
Option component of convertible notes	- FVTPL

The Company has used certain derivative financial instruments, principally forward sales contracts and commodity option contracts to manage commodity price exposure on gold sales, and forward foreign exchange contracts to manage exposure to changes in foreign exchange rates. Derivative financial instruments are used for risk management purposes and not for generating trading profits. Derivative instruments are recorded at fair value. Changes in the fair values of derivative instruments are recognized in interest income/expense in the consolidated statements of operations and comprehensive loss with the exception of derivatives designated as effective cash flow hedges.

For cash flow hedges that qualify under the hedging requirements of IAS 39 Financial Instruments: Recognition and Measurement (“IAS 39”), the effective portion of any gain or loss on the hedging instrument is recognized in OCI and the ineffective portion is reported as an unrealized gain (loss) on derivatives contracts in the consolidated statement of operations and comprehensive loss.

Unrealized gains and losses on forward sales contracts are a result of the difference between the forward spot price of the gold and the forward sales contract price. Unrealized gains and losses on forward foreign exchange contracts are primarily a result of the difference between the forward currency contract price and the spot price of the Brazilian reais (R\$).

(xvii)

Borrowing costs:

Borrowing costs directly related to the financing of qualifying capital projects under construction are added to the capitalized cost of those projects during the construction phase, until such time that the assets are substantially ready for their intended use or sale, which in the case of mining properties is when they are capable of commercial

production. Specific borrowings to finance a project are capitalized as the actual borrowing costs are incurred. Interest expense on general borrowings is capitalized to qualifying capital projects using a weighted average of the borrowing costs applicable to the Company during the period.

All other borrowing costs, including the foreign currency translation on the principal borrowed, are recognized in the consolidated statements of operations and comprehensive loss in the period in which they are incurred.

**b) Accounting standards and interpretations implemented during 2013:**

Consolidated Financial Statements

IFRS 10 Consolidated Financial Statements (“IFRS 10”) introduces a new approach to determining which investees should be consolidated, and provides a single model to be applied in the control analysis for all investees. In addition, the consolidation procedures are carried forward substantially unmodified from IAS 27 Consolidated and Separate Financial Statements. The adoption of IFRS 10 was effective for the annual period beginning on January 1, 2013. There was no impact on the Company’s financial statements upon adoption of IFRS 10.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

### Joint Arrangements

IFRS 11 Joint Arrangements (“IFRS 11”), published in May 2011, replaces IAS 31 Interests in Joint Ventures and SIC-13 Jointly Controlled Entities – Non-Monetary Contributions by Venturers. IFRS 11 changes the accounting for joint ventures and removes the free choice between using the equity method and using proportionate consolidation. IFRS 11 was effective for reporting years beginning on or after January 1, 2013. There was no impact on the Company’s financial statements upon adoption of IFRS 11.

### Disclosure of Interests in Other Entities

IFRS 12 Disclosure of Interests in Other Entities (“IFRS 12”) was issued by the IASB in May 2011. IFRS 12 requires enhanced disclosures for entities that have an interest in subsidiaries, joint arrangements, associates or unconsolidated structured entities. IFRS 12 was effective for annual periods beginning on or after January 1, 2013. There was no impact on the Company’s financial statements upon adoption of IFRS 12.

### Fair Value Measurement

IFRS 13 Fair Value Measurement (“IFRS 13”), published in May 2011, provides a single source of guidance for defining fair value, measuring fair value, and disclosing fair value measurements. IFRS 13 was effective for annual periods beginning on or after January 1, 2013. This standard is adopted prospectively as of the beginning of the 2013 annual period. There was no impact on the Company’s financial statements upon adoption of IFRS 13.

### Stripping Costs in the Production Phase of a Surface Mine

IFRIC 20 Stripping Costs in the Production Phase of a Surface Mine (“IFRIC 20”) was issued by the IASB to address accounting issues regarding waste removal costs incurred in surface mining activities during the production phase of a mine, referred to as production stripping costs. The new interpretation addresses the classification and measurement of production stripping costs as either inventory or as a tangible or intangible non-current “stripping activity asset”. The

standard also provides guidance for the depreciation or amortization and impairment of such assets. IFRIC 20 was effective for reporting years beginning on or after January 1, 2013. There was no impact on the Company's financial statements upon adoption of IFRIC 20.

**c) Accounting standards and interpretations issued but not yet implemented:**

On May 21, 2013, the IASB issued IFRIC 21 *Levies* ("IFRIC 21"), an interpretation on the accounting for levies imposed by governments. IFRIC 21 is an interpretation of IAS 37, *Provisions, contingent liabilities and contingent assets*. IAS 37 sets out criteria for the recognition of a liability, one of which is the requirement for the entity to have a present obligation as a result of a past event (known as an obligating event). The interpretation clarifies that the obligating event that gives rise to a liability to pay a levy is the activity described in the relevant legislation that triggers the payment of the levy. IFRIC 21 is effective for annual periods beginning on or after January 1, 2014. The Company is assessing the impact on its consolidated financial statements from the adoption of IFRIC 21 effective January 1, 2014.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

The IASB has issued IFRS 9 Financial Instruments (“IFRS 9”) which proposes to replace IAS 39 Financial Instruments Recognition and Measurement. The replacement standard has the following significant components: establishes two primary measurement categories for financial assets — amortized cost and fair value; establishes criteria for classification of financial assets within the measurement category based on business model and cash flow characteristics; and eliminates existing held to maturity, available-for-sale and loans and receivable categories. The amendments made to IFRS 9 in November 2013 removed the mandatory effective date from IFRS 9. However, entities may still choose to apply IFRS 9 immediately. The Company does not intend to adopt IFRS 9 in its financial statements for the annual period beginning January 1, 2014 but will continue to monitor and evaluate the impact of any required changes to its consolidated financial statements based on the characteristics of its financial instruments until the adoption time.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

## 5. Inventory:

Inventory is comprised of the following:

	December 31, 2013	December 31, 2012
Raw material	\$ 2,852	\$ 3,483
Mine operating supplies	7,456	9,221
Ore in stockpiles	871	1,308
Gold in process	11,901	12,330
Total Inventory	\$ 23,080	\$ 26,342

In 2013, raw material, mine operating supplies, and changes in ore in stockpiles and gold in process included in "production costs" amounted to \$85.2 million (2012 - \$118.2 million).

In addition, during 2013, the Company incurred an inventory write-down of \$3.5 million (2012 - \$1.8 million).

## 6. Recoverable taxes:

	December 31, 2012	Additions	Sale of credits	Applied to payroll taxes	Foreign exchange	December 31, 2013
Value added taxes ("VAT") and other (i)	\$ 47,229	\$ 5,890	\$ -	\$ (3,412 )	\$ (6,066 )	\$ 43,641
Provision for VAT and other (ii)	-	(26,701 )	-	-	-	\$ (26,701 )
ICMS (iii)	19,182	3,765	(6,153 )	-	(2,267 )	14,527
Reserve for ICMS (iii)	(2,922 )	(69 )	617	-	112	(2,262 )
	63,489	(17,115 )	(5,536 )	(3,412 )	(8,221 )	29,205
Less: current portion	9,031					3,985
Long-term portion	\$ 54,458					\$ 25,220

(i) The Company is required to pay certain taxes in Brazil that are based on purchases of consumables and property, plant and equipment. These taxes are recoverable from the Brazilian tax authorities through various methods.

(ii) The Company recorded a provision against its recoverable taxes given limited methods available to recover such taxes and the length of time it will take to recover such taxes. The provision reduces the net carrying value of value added taxes and other to their estimated present value based on the manner and timing of expected recovery, discounted at a rate of 9.9%.

(iii) ICMS – *Imposto sobre circulação de mercadorias e prestação de serviços* is a type of value added tax which can either be sold to other companies (usually at a discount rate of 15%) or be used to purchase specified machinery and equipment. The ICMS credits can only be realized in the state they were generated, in the case of Jaguar, in the State of Minas Gerais, Brazil.

Recorded as other accounts receivable is \$5.9 million related to a receivable from sales of ICMS tax credits to other companies (2012 - \$8.0 million).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

7. Financial risk management and financial instruments:

The Company's activities expose it to a variety of financial risks, including but not limited to: credit risk, liquidity risk, currency risk, interest rate risk and price risk.

**a) Credit risk:**

Credit risk arises from cash held with banks, derivative financial instruments with positive fair values and credit exposure to customers. The credit risk is limited to the carrying amount on the balance sheet.

The Company is exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments, but does not expect any counterparties to fail to meet their obligations. The Company's cash and cash equivalents are held through large financial institutions in Brazil, Canada and the United States. The Company manages its credit risk by entering into transactions with high-credit quality counterparties, limiting the amount of exposure to each counterparty where possible, and monitoring the financial condition of the counterparties.

**b) Liquidity risk:**

As at December 31, 2013, the Company had a working capital deficiency of \$316.5 million and an accumulated deficit of \$483.7 million. The Company incurred a loss for the year ended December 31, 2013 amounting to \$249.3 million. The Company's financial liabilities and other commitments are listed in Note 20.

On April 23, 2014, the Company announced that it had successfully implemented the CCAA Plan with an effective date of April 22, 2014. Please refer to Note 2.

**c) Derivative financial instruments:**

The Company assesses its financial instruments and non-financial contracts on a regular basis to determine the existence of any embedded derivatives which would be required to be accounted for separately at fair value and to ensure that any embedded derivatives are accounted for in accordance with the Company's policy.

***Forward sales contract:***

During 2013, the Company entered into forward contracts to hedge against the risk of declining gold prices for a portion of its forecasted gold sales during the period. The unrealized gain in the amount of \$508,000 is recorded as derivative assets. Included in the consolidated statements of operations and comprehensive loss are realized gains of \$65,000 (2012 – realized gains of \$600,000). The following are the outstanding contracts as of December 31, 2013:

Settlement date	Ounces hedged	US\$ per ounce
March 31, 2014	589	\$ 1,342
March 31, 2014	2,000	1,346
March 31, 2014	1,000	1,348
Total	3,589	\$ 1,346

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

***Forward foreign exchange contracts:***

As at December 31, 2013, no forward foreign exchange contracts were outstanding. Included in the consolidated statements of operations and comprehensive loss are realized gains of \$479,000 related to the contracts settled during the year ended December 31, 2013 (2012 - unrealized gain of \$43,000 and realized gains of \$77,000). As at December 31, 2012, derivative assets included \$43,000 of unrealized foreign exchange gains relating to the forward foreign exchange contracts outstanding at that time.

**d) Currency risk:**

The Company is exposed to the financial risk related to the fluctuation of foreign exchange rates. Financial instruments that impact the Company's net earnings due to currency fluctuations include: Brazilian reais and Canadian dollar denominated cash and cash equivalents, recoverable taxes, accounts payable and accrued liabilities, income taxes payable, reclamation and other provisions, and deferred compensation liabilities.

The table below summarizes a sensitivity analysis for significant unsettled currency risk exposure with respect to the Company's financial instruments as at December 31, 2013 and 2012 with all other variables held constant. It shows how income before taxes would have been affected by changes in the relevant risk variables that were reasonably possible at that date.

Exchange Rates	Change for Sensitivity Analysis	Impact of Change to 2013 Foreign Exchange Gain/Loss	Impact of Change to 2012 Foreign Exchange Gain/Loss
U.S. dollar per Brazilian reais	10% change in Brazilian reais	\$ 1,884	\$ 1,971
U.S. dollar per Canadian dollar	10% change in Canadian dollar	121	56

**e) Interest rate risk:**

The Company is exposed to interest rate risk on its outstanding borrowings and short-term investments. The Company managed its risk by entering into long-term agreements with fixed interest rates on 100% of its debt with interest rates ranging from 0% to 11.0% per annum (2012 – 0% to 8.9% per annum).

**f) Price risk:**

The Company is exposed to price risk with respect to gold prices on gold production. The Company entered into hedge contracts during 2013 to manage this risk. As at December 31, 2013, the Company had 3,589 ounces of gold hedged (Note 7(c)). No gold hedges were in place as at December 31, 2012.

**g) Financial instruments:**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In assessing the fair value of a particular contract, the market participant would consider the credit risk of the counterparty to the contract. Consequently, when it is appropriate to do so, the Company adjusts its valuation models to incorporate a measure of credit risk.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

The fair value of the following financial assets and liabilities approximate their carrying amount due to the limited term of these instruments:

- a. Cash and cash equivalent
- b. Other accounts receivable
- c. Restricted cash
- d. Accounts payable and accrued liabilities
- e. Other provisions
- f. Deferred compensation liabilities

The fair value of the notes payable is based on their market price, if available, and it is disclosed in Note 12.

### *Fair value estimation:*

IFRS 7 Financial Instruments - Disclosures prescribes the following three-level fair value hierarchy for disclosure purposes based on the transparency of the inputs used to measure the fair values of financial assets and liabilities:

- a. Level 1 – quoted prices (unadjusted) of identical instruments in active markets that the reporting entity has the ability to access at the measurement date.
  
- b. Level 2 – inputs are quoted prices of similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; inputs other than quoted prices used in a valuation model that are observable for that instrument; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
  
- c. Level 3 – one or more significant inputs used in a valuation technique that are unobservable for the instruments.

Determination of fair value and the resulting hierarchy requires the use of observable market data whenever available. The classification of a financial instrument in the hierarchy is based upon the lowest level of input that is significant to the measurement of fair value.

As at December 31, 2013, the option component of the convertible notes was measured at fair value as follows:

	December 31, 2013	December 31, 2012
Option component of convertible notes	\$ -	\$ 4,458

The option component of the convertible notes is fair valued using the Crank-Nicolson valuation model which requires inputs, such as volatility and credit spread, which are both unobservable and significant, and therefore are categorized as Level 3 in the fair value hierarchy.

*Inter-relationship between key unobservable inputs and fair value measurements:*

The table below summarizes a sensitivity analysis for the inputs of volatility and credit spread as at December 31, 2013 and 2012 with all other variables held constant. It shows how the option component of the convertible notes and income before taxes would have been affected by changes in these relevant risk variables that were reasonably possible at that date.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

Impact to option component of convertible notes:

Assumption	Change for Sensitivity Analysis	Impact of Changes as at December 31, 2013	Impact of Changes as at December 31, 2012
Volatility	5% increase	\$ -	\$ 457
	5% decrease	-	(456 )
Credit spread	1% increase	\$ -	\$ 40
	1% decrease	-	(42 )

The carrying amount of the option component of the convertible notes was \$nil as at December 31, 2013 (2012 - \$4.5 million). The change in fair value of \$4.5 million for the year ended December 31, 2013 is shown as a gain on conversion option embedded in convertible debt in the consolidated statements of operations and comprehensive loss (2012 - \$75.5 million gain).

8.

Restricted cash:

As at December 31, 2013, \$109,000 was held in a Certificate of Deposit as security for corporate credit card (2012 - \$109,000). In addition, as at December 31, 2012, \$300,000 was restricted as collateral for the foreign exchange contracts. Also as at December 31, 2012, \$200,000 was restricted as collateral for the Renvest Credit Facility (Note 12(e)).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

## 9. Property, plant and equipment ("PPE"):

Property, Plant and Equipment	Processing plant	Vehicles	Equipment	Leasehold improvements	Assets under construction	Mining properties	Total
<b>Cost</b>							
Balance at January 1, 2012	\$ 13,865	\$ 14,442	\$ 220,431	\$ 2,744	\$ 11,772	\$ 283,709	\$ 546,963
Additions	25	3,164	3,855	6	10,379	32,531	49,960
Disposals	-	(3,820 )	(7,020 )	(430 )	-	-	(11,270 )
Transfer to assets held for sale	-	(154 )	(1,748 )	-	(998 )	-	(2,900 )
Reclassify within PPE	1,790	2	16,924	44	(18,760 )	-	-
Reclassify from MEP	-	-	-	-	-	2,230	2,230
Balance at December 31, 2012	\$ 15,680	\$ 13,634	\$ 232,442	\$ 2,364	\$ 2,393	\$ 318,470	\$ 584,983
Balance at January 1, 2013	\$ 15,680	\$ 13,634	\$ 232,442	\$ 2,364	\$ 2,393	\$ 318,470	\$ 584,983
Additions	19	156	2,199	16	3,421	15,261	21,072
Disposals	-	(131 )	(8,088 )	-	(397 )	-	(8,616 )
Transfer from assets held for sale	-	134	1,680	-	397	-	2,211
Reclassify within PPE	18	-	2,646	-	(2,664 )	-	-
Balance at December 31, 2013	\$ 15,717	\$ 13,793	\$ 230,879	\$ 2,380	\$ 3,150	\$ 333,731	\$ 599,650
<b>Accumulated amortization and impairment</b>							
Balance at January 1, 2012	\$ 7,789	\$ 7,041	\$ 57,295	\$ 963	\$ -	\$ 85,200	\$ 158,288
Amortization for the year	868	2,226	18,563	461	-	19,158	41,276
Impairment loss	681	1,085	47,020	-	-	42,810	91,596
Transfer to assets held for sale	-	(96 )	(982 )	-	-	-	(1,078 )
Disposals	-	(2,622 )	(3,430 )	(430 )	-	-	(6,482 )
Balance at December 31, 2012	\$ 9,338	\$ 7,634	\$ 118,466	\$ 994	\$ -	\$ 147,168	\$ 283,600
Balance at January 1, 2013	\$ 9,338	\$ 7,634	\$ 118,466	\$ 994	\$ -	\$ 147,168	\$ 283,600
Amortization for the year	1,077	1,932	16,074	465	-	14,540	34,088
Impairment loss	1,192	-	-	-	-	127,299	128,491
Disposals	(716 )	(81 )	(2,761 )	-	-	-	(3,558 )
Transfer from assets held for sale	-	90	987	-	-	-	1,077
Balance at December 31, 2013	\$ 10,891	\$ 9,575	\$ 132,766	\$ 1,459	\$ -	\$ 289,007	\$ 443,698

Carrying amounts

At December 31, 2012	\$ 6,342	\$ 6,000	\$ 113,976	\$ 1,370	\$ 2,393	\$ 171,302	\$ 301,383
At December 31, 2013	\$ 4,826	\$ 4,218	\$ 98,113	\$ 921	\$ 3,150	\$ 44,724	\$ 155,952

As at December 31, 2013, mining properties include the following properties which are in production, or are under development:

**a) Turmalina Project – Turmalina mine:**

The terms of the acquisition of MTL include a royalty payable by the Company to an unrelated third party. The royalty is a net revenue interest of 5% of annual net revenue up to \$10 million and 3% thereafter.

**b) Paciência Project - Santa Isabel, Palmital, Marzagão, Rio de Peixe Oxide, Chame and Bahú mines:**

In November 2003, the Company closed on a property acquisition agreement dated April 17, 2003 whereby the Company acquired certain mineral rights from AngloGold for \$818,000. The mineral rights acquired relate to the following properties in the Paciência Project, Santa Isabel, Morro do Adão, Bahu and Marzagão and the following properties in the Caeté Expansion Project, Catita and Camará. The Company will also pay a sliding scale NSR, from 1.5% to 4.5% of gross revenue, on gold and other precious metals produced from the properties, based on precious metal prices at the time of production.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

If the Company discovers, on a concession basis, in excess of 750,000 ounces of gold over the measured and indicated resources used in the agreement, AngloGold has the right to buy-in up to 70% of that concession for a predetermined price. If this were to occur, the Company would retain a 30% interest and would receive the same sliding scale NSR payment from AngloGold as the one mentioned above.

On November 21, 2007, the Company reached an agreement with AngloGold whereby it transferred Zone C to AngloGold for an agreed upon value of \$8.1 million. Part of the purchase price was satisfied by the settlement of \$350,000 in existing liabilities payable by MSOL to AngloGold. The remaining balance will be paid through a reduction of future royalty payments on the sliding scale NSR for the properties purchased from AngloGold in 2003. MSOL will not be required to make royalty payments on the equivalent of approximately 280,000 ounces of gold. As at December 31, 2007, the Company recorded a gain of \$381,000 based on the difference between the carrying value of Zone C and the amount of the liabilities settled in the transaction. Since the future royalty payments are contingent on the production and sale of gold at the related properties, the Company is recognizing additional gains over the life of the mine as the royalty obligation is reduced. Since the Paciência operation was placed on temporary care and maintenance in May 2012, no gains were recorded during the year ended December 31, 2013 (2012 - additional gains of \$400,000 were recognized relating to this property).

**c) Caeté Project - Roça Grande and Pilar mines:**

The Company is required to pay royalties of 0.5% of revenue to the land owners of the Pilar mine site.

**d) Impairment:**

During the year ended December 31, 2012, the Company recorded impairment charges in the amount of \$90.1 million for the Paciência property and \$12.9 million for the Turmalina property. The total impairment charge for the year ended December 31, 2012 was \$103.0 million. During the year ended December 31, 2013, the Company updated its impairment test based on current estimates of recoverable mineral reserves and mineral resources, and due to the decrease in gold price. This reassessment generated an increase of \$145.5 million in the impairment charge, being \$37.3 million related to the Paciência project, \$18.7 million related to the Turmalina project and \$89.5 million for the Caeté project.

The Paciência, Turmalina and Caeté projects are cash generating units (“CGUs”) which include property, plant and equipment, mineral rights, deferred exploration costs, and asset retirement obligations net of amortization. The CGUs also include mineral exploration project assets relating to properties not in production such as mineral rights and deferred exploration costs.

The impairment loss of \$145.5 million was allocated to the following balance sheet lines: \$128.5 million was allocated to property, plant and equipment and \$17.0 million of the loss was allocated to mineral exploration projects. The recoverable amount of the properties was determined using a fair value less cost of disposal approach (“FVLCD”). FVLCD for the properties was determined by considering the net present value of future cash flows generated by the properties. Net future cash flows were derived from life of mine plans for the properties. The following significant assumptions were used to value the properties:

Discount rate: 9.63 %

Gold price: \$1,300

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

Expected future cash flows used to determine the FVLCD used in the impairment testing of the Paciência, Turmalina and Caeté properties are inherently uncertain and could materially change over time. The cash flows are significantly affected by a number of factors including estimates of production levels, operating costs and capital expenditures reflected in the life of mine plans, as well as economic factors beyond management's control, such as gold prices and discount rates. Should management's estimate of the future not reflect actual events, further impairments may be identified or reversal of the existing impairment may occur.

## 10. Mineral exploration projects:

Mineral Exploration Projects	Paciência	Turmalina	Caeté	Gurupi	Pedra Branca	Total
Balance at January 1, 2012	\$ 3,616	\$ 8,865	\$ 16,381	\$ 60,076	\$ -	\$ 88,938
Additions	439	711	529	7,050	39	8,768
Impairment loss	(3,302 )	(8,099 )	-	-	-	(11,401)
Reclassify to PPE	(753 )	(1,477 )	-	-	-	(2,230 )
Balance at December 31, 2012	\$ -	\$ -	\$ 16,910	\$ 67,126	\$ 39	\$ 84,075
Balance at January 1, 2013	\$ -	\$ -	\$ 16,910	\$ 67,126	\$ 39	\$ 84,075
Additions	-	82	4	368	352	806
Impairment loss (Note 9(d))	-	(82 )	(16,914)	-	-	(16,996)
Balance at December 31, 2013	\$ -	\$ -	\$ -	\$ 67,494	\$ 391	\$ 67,885

## a) Paciência Project:

The Paciência Project includes the following properties: Santa Isabel, Morro do Adão, Rio de Peixe Oxide and Sulphide, Palmital, Marzagão, Bahú and Chamé.

Morro de Adão and Rio de Peixe Sulphide are recorded as mineral properties, as they are not in production. All the other properties currently are in care and maintenance, and included in property, plant and equipment.

b) Turmalina:

The costs relate to the Satinoco property (Ore Body D) and Faina and Pontal, adjacent to the Turmalina plant and mine, not currently in commercial production. The property is subject to a royalty payable to a third party (Note 9(a)).

c) Caeté:

The project includes the following properties: Pilar-sulphide, Catita-sulphide, Camará, Roça Grande, Serra Paraíso-sulphide, Juca Vieira and Trindade. The Roça Grande and Pilar mines are included in property, plant and equipment.

d) Gurupi:

Jaguar has a 100% equity ownership of MCT, which holds all of the mineral licenses for the Gurupi Project, a gold project located in the state of Maranhão, Brazil.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

## e) Pedra Branca:

The Company is engaged in gold exploration at a green field site, the Pedra Branca Project (the “Project”), in the State of Ceará in Northeastern Brazil, covering 87,000 acres. The Project used to be a joint venture with Glencore Xstrata plc. (formerly known as Xstrata plc.) On March 7, 2012, Jaguar executed a binding Memorandum of Understanding (“MOU”) with Glencore Xstrata plc. to acquire the remaining 40% interest in the Project. In accordance with the terms of the MOU, Jaguar committed to (a) a staged cash consideration in the amount of \$400,000; (b) a NSR of 1.00% (one percent) payable to Xstrata on future gold production; and (c) rights of first refusal on any Base Metal Dominant Deposit (as defined in the MOU) discovered. Upon such discovery, Glencore Xstrata plc. may elect to form a new company owned 30% by MSOL and 70% by Glencore Xstrata plc., by paying 300% of MSOL’s exploration expenditures incurred exclusively on the relevant Base Metal Dominant Area of the property.

As at December 31, 2013, the Company has paid \$391,000 relating to mineral rights (2012 - \$39,000) capitalized to mineral properties.

## 11. Accounts payable and accrued liabilities:

	December 31, 2013	December 31, 2012
Accounts payable (suppliers)	\$ 9,237	\$ 17,582
Interest payable	7,468	3,217
Accrued payroll	7,730	7,793
Other	216	1,153
	\$ 24,651	\$ 29,745



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

12.	Notes payable:	
	December 31, 2013	December 31, 2012
Bank indebtedness (a)	\$ 15,667	\$ 25,470
Vale note (b)	1,909	1,918
Renvest credit facility (e)	30,000	-
4.5% convertible notes (c)	165,000	-
5.5% convertible notes (d)	103,500	-
Notes payable - current portion	316,076	27,388
Bank indebtedness (a)	183	368
Vale note (b)	5,728	5,754
4.5% convertible notes (c)	-	145,818
5.5% convertible notes (d)	-	88,218
Notes payable - long-term portion	5,911	240,158
Total notes payable	321,987	267,546
Fair value of notes payable	\$ 53,487	\$ 128,625
Principal repayments over the next two years:		
	2014	\$ 316,426
	2015	6,946
Total		323,372
Less: unamortized discounts		1,385
		\$ 321,987

**a)****Bank indebtedness:**

As at December 31, 2013, bank indebtedness includes \$378,000 of notes payable secured by equipment. The notes bear interest at 6.35% and are repayable semi-annually over the life of the note. The notes mature August 2015 (2012 - \$2.6 million, maturing from February 2013 to August 2015 at interest rates of 4.5% to 6.4%).

Bank indebtedness also includes \$15.5 million of promissory notes secured by future gold sales payable at maturities from March 2014 to August 2014. The notes bear interest at 5.0% to 7.2% (2012 - \$23.2 million, maturing from March 2013 to December 2013 at interest rates of 4.4% to 8.9%).

**b)**

**Vale note:**

The Vale note relates to the purchase of mineral rights for the Roça Grande property for \$13.3 million.

The timing of these payments is dependent upon Vale's registration of the mineral rights transfer with the Departamento Nacional de Produção Mineral ("DNPM"). During 2010, the Company paid \$3.2 million (2009 - \$1.1 million) relating to these mineral rights. The Company expects to execute the final transfer agreement and pay \$2.3 million of the purchase price in 2014 and the remaining balance of \$6.7 million in 2015.

The note payable was recognized at its fair value and the discount is being amortized using the effective interest method.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

c) **4.5% convertible notes:**

During September 2009, the Company issued \$165.0 million of 4.5% senior unsecured convertible notes.

The Company received net proceeds of approximately \$159.1 million. The notes bear interest at a rate of 4.5% per annum, payable semi-annually in arrears on May 1 and November 1 of each year, beginning on May 1, 2010, and mature on November 1, 2014. The Company elected to defer the payment of semi-annual interest on November 1, 2013, and on December 2, 2013, Jaguar committed an event of default under the 4.5% Convertible Notes as a result of its failure to make the interest payment within 30 days as specified by the convertible notes indenture. As a result of the events of default, the principal amount of the notes, plus accrued and unpaid interest, if any, may be declared immediately due and payable (subject to the stay of proceedings under the Initial Order – see Note 2). As a result, the Company recorded additional interest expense of \$9.0 million to recognize the remaining discount and transaction costs on the issuance of the convertible notes. As of December 31, 2013, the Noteholders had not called the loan and are stayed from doing so as a result of the stay of proceedings under the Initial Order.

On April 23, 2013 the Company announced that it had successfully implemented the CCAA Plan with an effective date of April 22, 2014. Please refer to Note 2.

The 4.5% Convertible Notes have an initial conversion rate of 78.4314 Jaguar common shares per US\$1,000 principal amount of notes, representing an initial conversion price of approximately US\$12.75 per common share. The conversion rate is subject to certain anti-dilution adjustments and adjustments in connection with specified corporate events. The notes are convertible at any time prior to maturity. Upon conversion, Jaguar may, in lieu of delivering its common shares, elect to pay or deliver, as the case may be, cash or a combination of cash and common shares, in respect of the converted notes. Jaguar will be required to make an offer to repurchase the notes for cash upon the occurrence of certain fundamental changes as defined within the terms of the notes.

The Company initially allocated \$42.2 million of the net proceeds to the conversion option component of the 4.5% Convertible Notes since it is treated as a derivative liability and carried at fair value with changes in fair value recorded in the consolidated statements of operations and comprehensive loss (see Note 7(g)). The remaining portion of the net proceeds of \$116.9 million was allocated to the note component of the convertible notes issuance and the note component is measured at amortized cost using the effective interest method subsequent to the date of issuance.

**d) 5.5% convertible notes:**

During February 2011, the Company issued \$103.5 million of 5.5% senior unsecured convertible notes.

The Company received net proceeds of approximately \$99.3 million. The notes bear interest at 5.5% per annum, payable semi-annually in arrears on March 31 and September 30 of each year, beginning on September 30, 2011, and mature on March 31, 2016. The 5.5% Convertible Notes have an initial conversion rate of 132.4723 Jaguar common shares per US\$1,000 principal amount of notes, representing an initial conversion price of approximately US\$7.55 per common share. The conversion rate is subject to certain anti-dilution adjustments and adjustments in connection with specified corporate events. The notes are convertible at any time prior to maturity. Upon conversion, the Company may, in lieu of delivering its common shares, elect to pay or deliver, as the case may be, cash or a combination of cash and common shares, in respect of the converted notes. The Company will be required to make an offer to repurchase the notes for cash upon the occurrence of certain fundamental changes as defined within the terms of the notes.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

The Company initially allocated \$18.9 million of the net proceeds to the conversion option component of the convertible notes since it is treated as a derivative liability and carried at fair value with changes in fair value recorded in the consolidated statements of operations and comprehensive loss (see Note 7(g)). The remaining portion of the net proceeds of \$80.4 million was allocated to the note component of the convertible notes issuance and the note component is measured at amortized cost using the effective interest method subsequent to the date of issuance.

The default on the payment of the 4.5% Convertible Note interest in December 2013 and the Company entering into CCAA protection on December 23, 2013 caused the Company to commit events of default under the 5.5% Convertible Note indenture. As a result of the events of default, the principal amount of the notes, plus accrued and unpaid interest, if any, may be declared immediately due and payable (subject to the stay of proceedings under the Initial Order – see Note 2). As a result, the Company recorded additional interest expense of \$10.8 million to recognize the remaining discount and transaction costs on the issuance of the convertible notes. As of December 31, 2013, the Noteholders had not called the loan and are stayed from doing so as a result of the stay of proceedings under the Initial Order.

On April 23, 2013 the Company announced that it had successfully implemented the CCAA Plan with an effective date of April 22, 2014. Please refer to Note 2.

### e) **Renvest Credit Facility:**

On October 29, 2012, the Company announced that it had arranged a \$30.0 million standby credit facility (the “Facility”) with Renvest Mercantile Bancorp Inc. through its Global Resource Fund (the “Lender”).

On January 25, 2013, the Company made an initial drawdown of \$5.0 million on the Facility and concurrently issued 570,919 common shares of the Company (Note 16(a)) to the Lender pursuant to the terms of the Facility. On June 26, 2013, the Company drew down the remaining \$25.0 million on the Facility and issued another 1,315,789 common shares of the Company (Note 16(a)) to the Lender. The initial drawdown and the subsequent drawdown under the Facility mature on July 25, 2014.

Interest is applied to the outstanding balance of all amounts drawn down from the Facility at a fixed rate of eleven percent (11%) per annum, payable monthly in arrears. The Facility includes a general security agreement over all of the Company's and its subsidiaries' present and future assets, delivery of the shares of the Company's subsidiaries and loan guarantees by the Company's subsidiaries. Loan covenants include restrictions on additional borrowing and granting of security and a requirement that the Company use commercially reasonable efforts to maintain the listing of its common shares on the TSX during the term of the loan.

The default on the payment of the 4.5% Convertible Note interest in December 2013 and the Company entering into CCAA protection on December 23, 2013 caused the Company to commit events of default under the Renvest Credit Facility Agreement. As a result of the events of default, the principal amount of the notes, plus accrued and unpaid interest, if any, may be declared immediately due and payable (subject to the stay of proceedings under the Initial Order – see Note 2). Therefore, the Company recorded additional interest expense of \$1.2 million to recognize the remaining transaction costs incurred on the issuance of the debt. As of December 31, 2013, the lender had not called the loan and is stayed from doing so as a result of the stay of proceedings under the Initial Order.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

In connection with the implementation of the CCAA Plan, certain amendments were made to the Facility. Please refer to Note 2.

13. Income taxes:

a) **Income tax expense:**

The following table shows the components of current and deferred tax expense:

	December 31, 2013	December 31, 2012
Current tax recovery	\$ (921 )	\$ (466 )
Deferred tax expense (recovery)	572	(1,302 )
Total income tax recovery	\$ (349 )	\$ (1,768 )

b) **Tax rate reconciliation:**

The provision for income taxes differs from that which would be expected by applying the combined Canadian federal and provincial statutory income tax rate to income before income taxes. A reconciliation of the difference is as follows:

	December 31, 2013	December 31, 2012
Loss before income taxes	\$ (249,656 )	\$ (86,305 )
Combined federal and provincial income tax rate	26.50 %	26.50 %
Expected income tax expense	\$ (66,159 )	\$ (22,871 )

Increase (decrease) in tax expense resulting from:

Edgar Filing: Jaguar Mining Inc - Form 20-F

Foreign exchange	14,369		8,762	
Change in benefit of non-capital losses not recognized	5,290		28,364	
Change in benefit of other temporary differences not recognized	55,329		11,980	
Difference in foreign tax rates and future enacted tax rates	(15,216	)	(11,766	)
Other non-deductible (taxable) expense	4,948		(17,453	)
Withholding tax on inter-company interest	1,090		1,216	
Income tax recovery	\$ (349	)	\$ (1,768	)

Jaguar Mining Inc. | 33



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

**c) Deferred tax assets:**

Deferred tax assets have not been recognized in respect of the following items:

	December 31, 2013	December 31, 2012
Deductible temporary differences	\$ 589,525	\$ 225,350
Tax losses	196,341	178,166

**d) Tax losses:**

The tax losses not recognized expire as per the amounts and years noted below. The deductible temporary differences do not expire under current tax legislation. Deferred tax assets have not been recognized in respect of these items because it is not probable that future taxable profit will be available against which the Company can utilize the benefits there from. The following table summarizes the Company's non-capital losses that can be applied against future taxable profit:

Expiry year	Amount
2014	\$3,568
2015	5,396
2026	1,527
2027	5,717
2028	1,860
2029	18,709
2030	8,870
2031	18,968
2032	14,598
2033	16,854
	\$96,067

The Company also has non-capital losses of \$102.6 million (equivalent to R\$228.7 million) in Brazil which can be carried forward indefinitely, however only 30% of the taxable income in one year can be applied against the loss carry-forward balance.

The CCAA Plan mentioned in Note 2 and 15, if implemented, is expected to reduce the available income tax losses carried forward and other tax attributes.

**e) Movement in net deferred tax liabilities:**

	2013	2012
Balance at the beginning of the year	\$(6,624)	\$(8,635)
Recognized in profit and loss	(572 )	1,302
Other	846	709
Balance at the end of the year	\$(6,350)	\$(6,624)

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

f) **Recognized deferred tax assets and liabilities:**

The following table summarizes the types of recognized deferred tax assets and liabilities:

	December 31, 2013	December 31, 2012
Deferred tax assets		
Non-capital losses	\$ 852	\$ 3,547
Amounts not deductible until paid	2,100	1,540
Inventory	-	456
Other	-	432
Unrealized foreign exchange loss	306	358
Total deferred tax assets	\$ 3,258	\$ 6,333
Deferred tax liabilities		
Other	-	(471 )
Property, plant and equipment	(7,128 )	(10,423 )
Deferred revenue	(2,480 )	(2,063 )
Total deferred tax liabilities	\$ (9,608 )	\$ (12,957 )
Deferred tax liabilities - net	\$ (6,350 )	\$ (6,624 )

14. **Reclamation provisions:**

	December 31, 2012	Additions/ (Decrease)	Accretion	Payments	Foreign exchange	December 31, 2013
Reclamation provision	\$ 21,051	(4,436 )	1,864	(287 )	(2,522 )	\$ 15,670
Less: current portion	4,124					826
Long-term portion	\$ 16,927					\$ 14,844

The reclamation provisions relate to the cost to reclaim land that has been disturbed as a result of mining activity. The estimated future cash flows have been discounted using a rate of 9.9% and the inflation rate used to determine future expected cost ranges from 5.0% to 5.8% per annum.

The Company expects to spend approximately \$21.3 million (amount not discounted or adjusted for inflation) which will be incurred between 2014 and 2026 to reclaim the areas explored (2012 - \$26.9 million).

15. Other provisions and contingent liabilities:

Various legal, environmental and regulatory matters are outstanding from time to time due to the nature of the Company's operations. In the event that management's estimate of the future resolution of these matters changes, the Company will recognize the effects of the changes in its consolidated financial statements on the date such changes occur.

As of December 31, 2013, the Company has recognized a provision of \$8.0 million (2012 - \$4.8 million) representing management's best estimate of expenditures required to settle present obligations, as noted in the table below. The ultimate outcome or actual cost of settlement may vary materially from management estimates.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

	December 31, 2012	Additions	Reversals	Payments	Foreign exchange	December 31, 2013
Labour litigation	\$ 2,500	\$ 6,436	\$ (2,685 )	\$ (470 )	\$ (625 )	\$ 5,156
Civil litigation	1,727	1,052	(678 )	-	(240 )	1,861
Other provisions	569	650	(120 )	-	(135 )	964
	\$ 4,796	\$ 8,138	\$ (3,483 )	\$ (470 )	\$ (1,000 )	\$ 7,981

On July 30, 2013, Daniel R. Titcomb (“Titcomb”), the Company’s former President and Chief Executive Officer, and a group of former officers, a former Director and a former related party (Brazilian Resources Inc. - “BZI”), filed a complaint (the “Complaint”) in New Hampshire against the Company and selected current and former directors (the “Named Directors”) of the Company. Among other items, the Complaint alleges wrongful termination of Mr. Daniel R. Titcomb on December 6, 2011 and mismanagement of the strategic review process regarding the possible change of control of Jaguar which ended May 8, 2012. Jaguar and its Board of Directors believe the Complaint to be without merit and are taking any steps necessary to vigorously defend the lawsuit and protect its interests. No accrual has been made related to this lawsuit.

On November 21, 2013, the Company and the Named Directors filed motions to dismiss various aspects of the Complaint on a number of grounds (the “Motions to Dismiss”).

On December 27, 2013, the plaintiffs in the Complaint filed a motion to (i) stay the Complaint until the Ontario Superior Court of Justice (Commercial List) lifts the stay in the CCAA proceeding or the CCAA proceeding is concluded; and (ii) stay and suspend the deadline for the plaintiffs in the Complaint to respond to the Motions to Dismiss. The Company and the Named Directors did not object to this motion. An order granting the requested stay was issued by the U.S. District Court for the District of New Hampshire on December 30, 2013.

On February 5, 2014, the Company entered into an agreement with the plaintiffs in the Complaint providing, among other things, that upon implementation of the CCAA Plan the plaintiffs in the Complaint shall have no right to, and shall not, make any claim or seek any recoveries under the Complaint, other than enforcing such plaintiff’s rights, if any, to be paid from the proceeds of an enumerated company or director and officer insurance policy by the applicable insurers. The Company agreed that, upon implementation of the CCAA Plan and if requested by the plaintiffs in the Complaint, it would withdraw its counterclaims against the plaintiffs in the Complaint.

16.

Capital stock:

a)

**Common shares:**

The Company is authorized to issue an unlimited number of commons shares. All issued shares are fully paid and have no par value.

On January 14, 2013, 100,000 inducement shares, valued at \$69,000, were granted to the new Chief Operating Officer of the Company.

On January 25, 2013, 570,919 shares, valued at \$491,000, were granted to Renvest Mercantile Bancorp Inc. (the “Lender”) upon the initial drawdown of \$5.0 million of the Facility. On June 26, 2013, 1,315,789 shares, valued at \$474,000, were granted to the Lender upon the subsequent drawdown of \$25.0 million of the Facility (Note 12(e)).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

**b) Stock options:**

Under the Jaguar Stock Option Plan (the "Plan"), the Company may grant options to directors, officers, employees and consultants of the Company and its subsidiaries. The maximum number of Company shares that have been reserved under this plan is 10,500,000.

The following table shows the roll-forward and the stock options outstanding as at December 31, 2013:

Common Share Options	Number	Weighted Average Exercise Price (Cdn\$)
Balance, December 31, 2011	4,005,000	\$ 7.13
Issued during the year	1,326,250	1.07
Options expired	(3,495,000)	7.25
Balance, December 31, 2012	1,836,250	\$ 2.52
Issued during the year	277,778	0.55
Options expired	(510,000 )	6.28
Balance, December 31, 2013	1,604,028	\$ 0.98

Exercise Price (Cdn\$)	Outstanding December 31, 2013	Weighted Average Remaining Life in Years	Number Exercisable
\$ 1.05	1,200,000	3.70	800,000
\$ 1.26	126,250	3.74	126,250
\$ 0.61	200,000	4.26	66,666
\$ 0.41	77,778	4.37	77,778
	1,604,028	3.80	1,070,694

Exercise Price (Cdn\$)	Outstanding December 31, 2012	Weighted Average Remaining Life in Years	Number Exercisable
\$ 6.28	510,000	3.71	510,000
\$ 1.05	1,200,000	4.70	400,000
\$ 1.26	126,250	4.74	126,250
	1,836,250	4.43	1,036,250

Stock compensation expense of \$403,000 is included in stock-based compensation for the year ended December 31, 2013 (2012 - \$531,000).

On April 5, 2013, 200,000 stock options were granted to the Chief Financial Officer, at a strike price of Cdn\$0.61. One-third of the options vested immediately. One-third will vest after one year and one-third after two years. The options expire April 5, 2018.

On May 13, 2013, 77,778 stock options were granted to consultants at a strike price of Cdn\$0.41. The direct method was used to value the consultant's options (using the value of the services to be rendered). The weighted average grant date fair value of these options was Cdn\$0.27. One-third of the options vested immediately, one-third vested after one month and one-third after two months. These options expire May 13, 2018.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

During September 2012, 1,200,000 inducement options were granted to the new CEO of the Company at a strike price of Cdn\$1.05. These options are not subject to the plan maximum limitation. One-third of the options vested immediately. One-third vested after one year and one-third will vest after two years. The options expire September 10, 2017.

During September 2012, 126,250 options were granted to consultants at an exercise price of Cdn\$1.26. The options vested during the fourth quarter of 2012 and expire September 27, 2017. The direct method was used to value the consultant's options (using the value of the services to be rendered). The weighted average grant date fair value of these options was Cdn\$0.80.

The following table is a summary of stock options granted during the year ended December 31, 2013 and 2012, the fair values and the assumptions used in the Black-Scholes option pricing formula:

	Number of options	Weighted Average Exercise price (Cdn\$)	Dividend yield	Risk-free interest rate	Forfeiture rate	Expected life (years)	Volatility factor	Fair value
Granted in 2013	277,778	\$0.55	-	1.09	% 0.00	% 2.9	82	% \$0.27
Granted in 2012	1,326,500	\$1.07	-	1.25	% 0.00	% 3.0	80	% \$0.71

The expected volatility used in the Black-Scholes option pricing model is based on the historical volatility of the Company's shares.

In connection with the implementation of the CCAA Plan equity based compensation arrangements existing immediately prior to the implementation of the CCAA Plan were cancelled. Please refer to Note 2.

c)

**Hedging reserve:**

The hedging reserve represents hedging gains and losses recognized on the effective portion of cash flow hedges. The cumulative deferred gain or loss on the hedge is recognized in the consolidated statements of operations and comprehensive loss when the hedged transaction impacts the consolidated statements of operations and comprehensive loss, or is recognized as an adjustment to the cost of non-financial hedged items (Note 7(c)).

17. Long-term incentive plan:

The Company has three long-term incentive plans for directors, senior officers, employees and consultants of the Company:

a) Deferred Share Units (“DSUs”):

A Deferred Share Unit Plan was established which allows the Company to grant its directors performance awards. DSUs are fully vested on issuance with eventual settlement in cash on resignation. The intrinsic value of the DSU liability is equal to its fair value and it is determined by multiplying the number of DSUs outstanding by the weighted average market price of the shares on the TSX. As at December 31, 2013, the Company has an \$8,000 liability represented by 163,392 DSUs outstanding (2012 - \$203,000 liability represented by 273,479 DSUs outstanding).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

b) Restricted Stock Units (“RSUs”):

A Restricted Stock Unit Plan was established which allows the Company to grant performance awards to senior officers, employees and consultants of the Company. RSUs call for eventual settlement in cash based upon the price of the Company’s common stock at a future vesting date. The intrinsic value of the RSU liability is equal to its carrying value and it is determined by multiplying the number of RSUs outstanding by the share price at the end of the reporting period. As at December 31, 2013, the Company has a \$3,000 liability represented by 86,500 RSUs outstanding (2012 - \$107,000 liability represented by 217,375 RSUs outstanding).

c) Stock Appreciation Rights (“SARs”):

A Stock Appreciation Rights Plan was established which allows the Company to grant performance awards to senior officers, employees or consultants of the Company. SARs call for eventual settlement in cash based upon the increase in price of the Company’s common stock from the grant date to a future vesting date.

SARs typically vest such that one-third will vest upon issuance, one-third will vest one year after grant, and one-third will vest two years after grant. SARs participants are permitted to select a pre-determined price at which the SARs would be paid an amount equal to the difference between the market price at the date of grant and the pre-determined price upon both the pre-determined price being attained and the vesting of the SARs. If no pre-determined price is selected by the participant or if the pre-determined price is not attained before the three year period, the payout amount will be the increase in price of the Company’s common stock from the grant date to the expiry date.

The fair value of the SARs liability is estimated at the reporting date using the Black-Scholes option-pricing model with the following assumptions:

Year	Number of SARs	Weighted Average Exercise price (Cdn\$)	Dividend yield	Risk-free interest rate	Forfeiture rate	Expected life (years)	Volatility factor	Fair value
------	----------------	---	----------------	-------------------------	-----------------	-----------------------	-------------------	------------

Edgar Filing: Jaguar Mining Inc - Form 20-F

2013	75,000	\$0.05	-	1.07	%	0.00	%	0.4	136	%	\$ -
2012	420,050	\$6.79	-	1.10	%	0.00	%	1.4	103	%	\$ 11

The expected volatility used in the Black-Scholes option pricing model is based on the historical volatility of the Company's shares.

The expected life of the SAR is estimated as the mid-point between the expiry and vesting dates of each SAR granted. In cases where the right is outstanding past the mid-point between the expiry and vesting dates, the mid-point between the measurement date and the expiry date is used unless circumstances at the measurement date indicate an alternate date is more appropriate.

As at December 31, 2013, the fair value amount related to SARs is \$nil (2012 - \$11,000 recorded as deferred compensation liabilities).

In connection with the implementation of the CCAA Plan equity based compensation arrangements existing immediately prior to the implementation of the CCAA Plan were cancelled. Please refer to Note 2.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

18. Basic and diluted earnings per share:

Dollar amounts and share amounts in thousands, except per share amounts.

	2013	2012
Numerator		
Net loss for the period	\$(249,307)	\$(84,537)
Denominator		
Weighted average number of common shares outstanding - basic	85,715	84,410
Dilutive effect of options	-	-
Weighted average number of common shares outstanding - diluted	85,715	84,410
Basic and diluted loss per share	\$(2.91 )	\$(1.00 )

The determination of the weighted average number of common shares outstanding for the calculation of diluted earnings per share does not include the following effect of options and convertible notes since they are anti-dilutive:

	2013	2012
Options	1,720	2,921
Convertible notes	26,650	26,650
	28,370	29,571

19. Capital disclosures:

The Company manages its capital structure in order to support the acquisition, exploration and development of mineral properties, and to maximize return to stakeholders through a flexible capital structure which optimizes the costs of capital and the debt and equity balance. The Company sets the amount of capital in proportion to risk by managing the capital structure and making adjustments in light of changes in economic conditions and the risk characteristics of the underlying assets. To adjust or maintain its capital structure, the Company may adjust the amount of long-term debt, enter into new credit facilities or issue new equity.

The capital structure of the Company consists of notes payable (Note 12) and all of the components of shareholders' equity.

The Company is not subject to externally imposed capital requirements.

20.

Commitments:

In the normal course of business, the Company enters into contracts that give rise to commitments for future minimum payments. The following table summarizes the remaining undiscounted contractual maturities of the Company's financial liabilities and other commitments.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

As at December 31, 2013	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
<b>Financial Liabilities</b>					
Accounts payable and accrued liabilities	\$ 24,651	\$ -	\$ -	\$ -	\$24,651
Notes payable (a)					
Principal	316,426	6,946	-	-	323,372
Interest	19,839	8,565	-	-	28,404
Other liabilities	1	54	-	-	55
	\$ 360,917	\$ 15,565	\$ -	\$ -	\$376,482
<b>Other Commitments</b>					
Income taxes payable	\$ 11,642	\$ -	\$ -	\$ -	\$11,642
Other provisions	7,981	-	-	-	7,981
Operating lease agreements	263	189	-	-	452
Suppliers' agreements					
Mine operations (b)	1,215	-	-	-	1,215
Reclamation provisions (c)	859	5,378	1,728	13,322	21,287
	\$ 21,960	\$ 5,567	\$ 1,728	\$ 13,322	\$42,577
<b>Total</b>	<b>\$ 382,877</b>	<b>\$ 21,132</b>	<b>\$ 1,728</b>	<b>\$ 13,322</b>	<b>\$419,059</b>

As at December 31, 2012	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
<b>Financial Liabilities</b>					
Accounts payable and accrued liabilities	\$ 29,745	\$ -	\$ -	\$ -	\$29,745
Notes payable					
Principal	27,736	\$ 172,138	\$ 103,500	-	303,374
Interest	14,008	18,836	2,862	-	35,706
Other liabilities	20	60	-	-	80
	\$ 71,509	\$ 191,034	\$ 106,362	\$ -	\$368,905
<b>Other Commitments</b>					
Income taxes payable	\$ 15,451	\$ -	\$ -	\$ -	\$15,451
Other provisions	4,796	-	-	-	4,796
Operating lease agreements	271	185	92	-	548
Suppliers' agreements					
Mine operations (b)	2,672	-	-	-	2,672
Reclamation provisions (c)	4,219	3,093	5,337	14,293	26,942
	\$ 27,409	\$ 3,278	\$ 5,429	\$ 14,293	\$50,409
<b>Total</b>	<b>\$ 98,918</b>	<b>\$ 194,312</b>	<b>\$ 111,791</b>	<b>\$ 14,293</b>	<b>\$419,314</b>

Edgar Filing: Jaguar Mining Inc - Form 20-F

- The contractual maturity of the principal portion of the notes payable takes into consideration events of default that
- (a) have occurred under the relevant debt agreements. Interest amounts are based on contractual terms assuming the principal remains outstanding for its original term.
  - (b) The Company has the right to cancel the mine operations contracts with 30 days advance notice. The amount included in the commitments table represents the amount due within 30 days.
  - (c) The reclamation provisions are not adjusted for inflation and are not discounted.



NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

21. Supplemental cash flow information:

Cash and cash equivalents:

Cash and cash equivalents include R\$11.9 million (\$5.1 million) in bank certificates of deposit (2012 - R\$22.7 million (\$11.1 million)).

22. Related party transactions:

a) Transactions with subsidiaries:

The Company has transferred funds to its subsidiaries MSOL, MTL and MCT in the form of loans at a rate of three-month LIBOR plus 4% and export loans at a rate of six-month LIBOR plus 4%. During 2013 and 2012 the Company received interest and loans repayments. All transactions with the subsidiaries have been eliminated upon consolidation.

b) Transactions with directors and key management:

The Company transacts with key individuals from management and with its directors who have authority and responsibility to plan, direct and control the activities of the Company. The nature of these dealings were in the form of payments for services rendered in their capacity as director (director fees, including share-based payments) and as employees of the Company (salaries, benefits and share-based payments).

Key management personnel are defined as the executive officers of the Company including the President and Chief Executive Officer, Chief Operating Officer, Chief Financial Officer and Corporate Secretary.

During 2013 and 2012, remuneration to directors and key management personnel were as follows:

## Compensation of directors

Compensation of directors comprised:

	2013	2012
Fees earned and other compensation <sup>(1)</sup>	\$512	\$638
Share-based compensation (recovery)	(117)	(1,385)
	\$395	\$(747 )

(1) Fees earned and other compensation paid represents fees paid to the non-executive chairman and the non-executive directors during the financial year.

A portion of the directors' compensation is settled with the Company's share-based plans (the Jaguar Stock Option Plan, Deferred Stock Unit Plan and Stock Appreciation Rights Plan) according to the election of the directors (Note 17).

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2013 and 2012

(Tabular dollar amounts in thousands of US dollars, except per share amounts)

Compensation of key management personnel

Compensation of key management personnel comprised:

	2013	2012
Fees earned and other compensation	\$1,892	\$1,395
Post-employment benefits	-	7
Share-based compensation	381	(324 )
	\$2,273	\$1,078

Share-based compensation includes the recognized cost (recovery) to the Company of senior management's participation in share-based payments plans, as measured by the fair value of options, RSUs and SARs granted, accounted for in accordance with IFRS 2 Share-based Payments (Note 17).

During the second quarter of 2013, 77,778 options were granted to Fred Hermann Consulting at an exercise price of Cdn\$0.41. Fred Hermann is a director of Jaguar. The options vested during the second quarter of 2013 and expire May 13, 2018. The direct method was used to value the consultant's options (using the value of the services to be rendered). The weighted average grant date fair value of these options was Cdn\$0.27. Excluded from the directors' share-based compensation is \$21,000 relating to these options.

During the third quarter of 2012, 100,000 options were granted to Fred Hermann at an exercise price of Cdn\$1.26. The options vested during the fourth quarter of 2012 and expire September 27, 2017. The direct method was used to value the consultant's options (using the value of the services to be rendered). The weighted average grant date fair value of these options was Cdn\$0.80. Excluded from the directors' share-based compensation is \$21,000 relating to these options.

c) Other related party transactions:

The Company incurred consulting expenses from Hermann Consulting Inc. ("Hermann"), a company owned by Fred Hermann, a director of Jaguar. Fees paid to Hermann are recorded at the exchange amount – being the amount agreed to by the parties and included in administration expenses in the statements of operations and comprehensive loss - and

amount to \$397,000 for the year ended December 31, 2013 (\$120,000 for the year ended December 31, 2012).

The Company also incurred legal fees from Azevedo Sette Advogados (“ASA”), a company whose partner is Luis Miraglia, a director of Jaguar. Fees paid to ASA are recorded at the exchange amount – being the amount agreed to by the parties and included in administration expenses in the statements of operations and comprehensive loss - and amount to \$149,000 for year ended December 31, 2013 (\$47,000 for the year ended December 31, 2012).

23.

Subsequent event:

On April 23, 2014 the Company announced that it had successfully implemented the Plan with an effective date of April 22, 2014. Please refer to Note 2 for further details.