

FIRST AMENDMENT TO THE BACKSTOP AGREEMENT

This First Amendment (this “**First Amendment**”) dated as of December 3, 2013, among (a) Jaguar Mining Inc. (“**Jaguar**” or the “**Company**”), (b) its subsidiaries, MCT Mineração Ltda., Mineração Turmalina Ltda. and Mineração Serras do Oeste Ltda. (collectively, the “**Subsidiaries**”), and (c) each of the other signatories hereto (each a “**Backstopper**” and collectively the “**Backstoppers**”), amends the Backstop Agreement dated as of November 13, 2013, among the Company, the Subsidiaries and the Backstoppers party thereto (the “**Backstop Agreement**”) to the extent, and on the terms and conditions, set forth herein. The Backstoppers, the Company and the Subsidiaries are collectively referred to in this First Amendment as the “**Parties**” and each (including each Backstopper, individually) is a “**Party**”.

WHEREAS the Company, the Subsidiaries and certain holders of the Company’s 4.5% Senior Unsecured Convertible Notes due November 1, 2014 and/or 5.5% Senior Unsecured Convertible Notes due March 31, 2016 (collectively the “**Consenting Noteholders**”) entered into a Support Agreement dated as of November 13, 2013 (the “**Support Agreement**”), pursuant to which the Consenting Noteholders agreed to support a series of transactions, including a share offering (collectively, the “**Transaction**”) that is to be implemented pursuant to a recapitalization and restructuring plan to be filed in respect of the Company in proceedings under the *Canada Business Corporations Act* or the *Companies’ Creditors Arrangement Act*, as applicable;

WHEREAS in connection with the Support Agreement and the Transaction, the Company, the Subsidiaries and the Backstoppers entered into the Backstop Agreement, pursuant to which the Backstoppers agreed to purchase from the Company their *pro rata* share of the Offering Shares (as defined in the Backstop Agreement) that are not validly subscribed for and taken up pursuant to the Subscription Privilege (as defined in the Backstop Agreement) on the terms and conditions under the Backstop Agreement;

AND WHEREAS the Parties wish to make certain amendments to the Backstop Agreement in accordance with the terms thereof;

AND WHEREAS capitalized terms used but not otherwise defined in this First Amendment shall have the meanings ascribed to them in the Backstop Agreement;

AND WHEREAS all sections and paragraphs referenced herein are to the Backstop Agreement unless stated otherwise.

NOW THEREFORE, for good and valuable consideration, the receipt of which are hereby acknowledged, the Parties hereby amend the Backstop Agreement as follows:

1. Amendments

(a) Section 2(a)(i) of the Backstop Agreement is hereby amended by deleting the words “Total Offering Size” and replacing such words with the words “aggregate Backstop Commitments (as may have been reduced in accordance with and subject to Section 1(c)(ii))”.

2. Mutual Representations and Warranties. Each of the Parties hereby represents and warrants severally and not jointly to each other Party (and acknowledges that each of the other Parties is relying upon such representations and warranties) that:

(a) This First Amendment has been duly executed and delivered by it, and, assuming the due authorization, execution and delivery by each of the other parties hereto, this First Amendment constitutes the legal, valid and binding obligation of it, enforceable against it in accordance with its terms, subject to laws of general application and bankruptcy, insolvency and other similar laws affecting creditors' rights generally and general principles of equity.

(b) It is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization and has all necessary power and authority to execute and deliver this First Amendment and to perform its obligations hereunder and consummate the transactions contemplated hereby.

3. Full Force and Effect. The Backstop Agreement shall not be amended or otherwise modified by this First Amendment except as set forth in Section 1 of this First Amendment. Except as amended by this First Amendment, the Backstop Agreement shall continue to be and shall remain in full force and effect in accordance with its terms, and the Parties hereto hereby ratify and confirm the Backstop Agreement in all respects, as amended hereby. All references to the "Agreement", "herein", "hereof", "hereunder" or words of similar import in the Backstop Agreement shall be deemed to include the Backstop Agreement as amended by this First Amendment.

4. Reservation of Rights. Nothing contained in this First Amendment constitutes a waiver of any default that may heretofore or hereafter occur or have occurred and be continuing under the Backstop Agreement. Except as expressly provided herein, the execution and delivery of this First Amendment does not: (i) extend the terms of the Backstop Agreement; (ii) give rise to any obligation on the part of any Party to extend, modify, alter, amend or waive any term or condition of Backstop Agreement or otherwise prejudice any rights or remedies which any Party now has or may have in the future; or (iii) give rise to any defences, setoffs, reductions or counterclaims to any Party right to enforce, exercise and enjoy the benefits of their respective rights and remedies under the Backstop Agreement.

5. Miscellaneous

(a) The headings of the Sections of this First Amendment have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

(b) Unless the context otherwise requires, words importing the singular shall include the plural and vice versa and words importing any gender shall include all genders.

(c) This First Amendment shall be governed by the laws of the State of New York and the federal laws of the United States applicable therein.

(d) This First Amendment may be signed in counterparts, each of which, when taken together, shall be deemed an original. Execution of this First Amendment is

effective if a signature is delivered by facsimile transmission or electronic (e.g., pdf) transmission.

[Remainder of this page intentionally left blank; signature pages follow]

This First Amendment has been agreed and accepted on the date first written above.

JAGUAR MINING INC.

By: “T. Douglas Willock”
Name: T. Douglas Willock
Title: Chief Financial Officer

MCT MINERAÇÃO LTDA.

By: “T. Douglas Willock”
Name: T. Douglas Willock
Title: Director

MINERAÇÃO TURMALINA LTDA.

By: “T. Douglas Willock”
Name: T. Douglas Willock
Title: Director

MINERAÇÃO SERRAS DO OESTE LTDA.

By: “T. Douglas Willock”
Name: T. Douglas Willock
Title: Director

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Name of Backstopper:

[Redacted]

Per:

[Redacted]

Name: [Redacted]

Title: [Redacted]

- * **The Signature, Name and Title of each of the Backstoppers has been redacted pursuant to Section 13 of the Backstop Agreement.**

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