

FORM 52-109FV1
CERTIFICATION OF ANNUAL FILINGS
VENTURE ISSUER BASIC CERTIFICATE

I, **Rodney Lamond, President and Chief Executive Officer of Jaguar Mining Inc.**, certify the following:

1. **Review:** I have reviewed the annual financial statements and annual MD&A (together, the "annual filings") of **Jaguar Mining Inc.** (the "issuer") for the financial year ended **December 31, 2015**.
2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.
3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

Date: **March 22, 2016**

"Rodney Lamond"

Rodney Lamond
President and Chief Executive Officer