



DIVISION OF
CORPORATION FINANCE

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

August 17, 2012

Via E-mail

Jeffrey Finkelstein
Chief Financial Officer
Argentex Mining Corporation
Suite 835
1100 Melville Street
Vancouver, British Columbia, V6E 4A6

Re: Argentex Mining Corporation
Form 20-F for the Fiscal Year Ended January 31, 2012
Filed May 10, 2012
File No. 000-49995

Dear Mr. Finkelstein:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 20-F for the Fiscal Year Ended January 31, 2012

Item 15. Controls and Procedures

Internal Control Over Financial Reporting

1. Please confirm to us that you will include the following statement in future filings to the extent applicable, "This annual report does not include an attestation report of the company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the company's registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit the company to provide only management's report in this annual report." Refer to Item 15T(b)(4) of Form 20- F.

Item 19. Exhibits

2. We note that your Form 20-F does not include an accountant's consent relative to the Form S-8 filed on January 31, 2011. Please explain to us the basis for this omission. Please also tell us whether any shares were sold with respect to the Form S-8.

Item 17. Financial Statements

Notes to Consolidated Financial Statements, page F-10

Note 2 – Summary of Significant Accounting Policies, page F-15

Change in Accounting Policy – Functional Currency, page F-15

3. We note that in the quarter ended October 31, 2011, management determined that during the fourth quarter of its fiscal year ended January 31, 2010, the parent company's (Argentex's) functional currency became the Canadian dollar whereas its subsidiary (SCRN Properties Ltd.) remained functionally denominated in U.S. dollars. We further note your disclosures that this change in accounting policy is being applied prospectively; management has determined that retroactive restatement of the Company's financial statements is not required; and that the effect of the change on the financial statements issued since January 31, 2010 was \$28,325. Please advise us of the following:
- Further explain to us in sufficient detail the nature and timing of management's determination of the change (third quarter ended October 31, 2011) and when the actual change occurred (fourth quarter ended January 31, 2010), the actual and reasonably likely effects of the change, and the economic facts and circumstances that led management to conclude that the change was appropriate.
 - Tell us how your prospective application of the change in accounting principle complies with the requirements of ASC 250-10-45-5, which requires retrospective application of the new accounting principle to all prior periods. You may refer to ASC 830-10-45-8 for additional guidance.
 - Quantify for us the effect of the change if it were retrospectively applied to all prior periods, and not just to the financial statements issued since January 31, 2010.
 - Tell us what consideration your independent accountant gave to the inclusion of an explanatory paragraph to its audit report for the change in accounting principle. Refer to AU Section 508.11(c) and 508.17A through 508.17E.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are

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in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Brian McAllister at (202) 551-3341 or John Archfield at (202) 551-3315 if you have questions regarding comments on the financial statements and related matters. Please contact me with any other questions.

Sincerely,

/s/Tia L. Jenkins

Tia L. Jenkins
Senior Assistant Chief Accountant
Office of Beverages, Apparel, and
Mining