

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

December 6, 2013

Via E-mail
David Blaiklock
Chief Financial Officer
Primero Mining Corp.
Suite 1640, One Bentall Centre
505 Burrard Street, Box 24
Vancouver, British Columbia, Canada

Re: Primero Mining Corp.

Form 40-F for the Year Ended December 31, 2012

Filed April 2, 2013

Response Dated November 8, 2013

File No. 001-35278

Dear Mr. Blaiklock:

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 40-F for the Year Ended December 31, 2012

Exhibit 99.2

Notes to the Consolidated Financial Statements

3. Significant accounting policies, page 8

(h) Mining interests

(vi) Depreciation and depletion, page 14

1. We have reviewed your response to prior comment 2 and discussed with you on December 3, 2013 the proposed alternate depletion pools methodology that you plan to apply prospectively from October 1, 2013. Please provide us with further clarifications on your proposed accounting policy disclosures to address the following items:

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- Disclose the value amount assigned to the depletable component and non-depletable component of your mining property;
- Disclose the specific amount of the mineral reserves and resources (by category) that are included in the depletion basis for your mining property depletion calculation;
- Disclose the nature and amount of development costs that are included in the depletion calculation. Disclose the amount of future development costs that are included and describe how these costs are determined; and
- Disclose the amount of depletion expense of mining assets for each period presented both with and without the inclusion of inferred resources in the denominator and future development costs in the numerator.

Please provide us with a draft of proposed disclosures to be included in your future filings.

- 2. In connection with the comment above, please revise Management's Discussion and Analysis in future filings to provide a critical accounting policy that addresses your method of depreciating mining-related assets. Please address the following items:
 - Define your accounting policy and describe the methodology used to determine the values assigned to the depletable component and non-depletable component of your mineral property;
 - Discuss how and when you plan to evaluate the non-depletable component for impairment and discuss assumptions used.
 - Describe the circumstances under which each category of resource is included in the
 depletion calculation, describe management's assumptions concerning these resources
 (i.e., circumstances under which the resources may be economically mined, additional
 timing and work to convert the resources to reserves, gold pricing concerns, etc.), and
 describe your history of converting resources to reserves;
 - Disclose the amount of mineral reserves and resources (by category) that were included in the depletion calculation for each year for which an income statement is presented. Discuss the variations in the methodology from year to year;
 - Describe how you risk-weighted the resources included in the depreciation calculation;
 - Disclose the future development costs that are included in the depreciation calculation for each year for which an income statement is presented. Describe how these costs are determined; and

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• Provide all of the requested disclosures on an overall basis and on a mine-by-mine basis as necessary. Discuss the uncertainties surrounding management's estimates and also how changes in the estimates would affect depreciation expense.

Please provide us with a draft of proposed disclosures to be included in your future filings.

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 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.

You may contact Suying Li at (202) 551-3335 or Nasreen Mohammed at (202) 551-3773 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/Tia L. Jenkins

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