



DIVISION OF
CORPORATION FINANCE

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

December 30, 2014

Via E-mail

Robert J. Zatta
Chief Executive Officer
Rockwood Holdings, Inc.
100 Overlook Center
Princeton, New Jersey 08540

**Re: Rockwood Holdings, Inc.
Form 10-K for Fiscal Year Ended December 31, 2013
Filed March 4, 2014
File No. 1-32609**

Dear Mr. Zatta:

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 filings and the information you provide in response to these comments, we may have additional comments.

Lithium Reserves at the Salar de Atacama, Chile and Silver Peak, Nevada, page 6

1. We note your descriptions of non-compliant Industry Guide 7 reserve estimates developed from the public reports of USGS mineral commodities group for your Salar de Atacama and Silver peak facilities. In future filings, please label your reserves from these facilities as mineralized materials instead of non-compliant Industry Guide 7 reserves. Mineralized material is a mineralized body, which has been delineated by appropriate drilling and/or sampling to establish continuity and support an estimate of tonnage and an average grade of the selected minerals. Under SEC standards, such a deposit does not qualify as a reserve until a comprehensive evaluation, based upon unit costs, grade, recoveries, and other factors concludes economic and legal feasibility. Mineralized material should only be reported as an "in place" tonnage and grade, and should not be disclosed as units of product, such as tons or pounds of lithium carbonate.

Talison, page 8

2. We note you report your Talison reserves as combined proven and probable reserves. Combining your proven and probable reserve categories is contrary to the explicit guidance of Industry Guide 7, which provides that reserves may be combined as proven and probable only if proven and probable reserves cannot be readily segregated. In future filings please segregate and report your proven reserves separately from your probable reserves. In addition please report your proven and probable reserves as of your fiscal year end.
3. Please disclose the following information within or adjacent to your reserve tables in your future filings:
 - A statement clarifying the extent to which your reserve estimates incorporate losses for mine dilution and mining recovery.
 - The cutoff grade
 - The metallurgical recovery factor for each of your mines.
 - All historic three-year average commodity prices and currency conversion factors that were used to estimate your reserves.
 - The percentage of your ownership of each mine and a statement clarifying whether quantities disclosed are for the entire mine/deposit or just your share.
4. The cutoff grade is a critical component used to evaluate the potential of the mineral properties. In future filings, please disclose the commodity prices, operating costs and recovery parameters used to determine your cutoff grade estimate. In establishing your cut-off grade, your disclosure must realistically reflect the location, deposit scale, continuity, assumed mining method, metallurgical processes, costs, and reasonable mineral prices, i.e. based on a three-year historic average.
5. In future filings, please disclose your annual production for your Talison facility as required by Item 102 of Regulation S-K Instructions 3.

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.

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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 Tracie Towner, Staff Accountant, at (202) 551-3744, or Alfred Pavot, Staff Accountant, at (202) 551-3738 if you have questions regarding comments on the financial statements and related matters. You may contact Ken Schuler, Mining Engineer, if you have questions concerning engineering comments. You may contact me at (202) 551-3355 with any other questions.

Sincerely,

/s/ John Cash, for

Terence O'Brien
Branch Chief