



DIVISION OF
CORPORATION FINANCE

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

December 23, 2013

Via E-mail

Robert J. Zatta
Senior Vice President and Chief Financial Officer
Rockwood Holdings, Inc.
100 Overlook Center
Princeton, New Jersey 08540

**Re: Rockwood Holdings, Inc.
Form 10-K for Fiscal Year Ended December 31, 2012
Filed February 25, 2013
Response dated December 13, 2013
File No. 1-32609**

Dear Mr. Zatta:

We have reviewed your response letter dated December 16, 2013, and have the following additional 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Item 1. Business, page 3

Raw Materials, page 17

1. We note your response to comment 3 in which you state that your primary business is the marketing and sales of lithium products and that you are not engaged in significant mining operations. We re-issue comment 3. Your responses to comment 2 indicate your mining operations/processing operations are material and disclosure requirements for industrial minerals under Industry Guide 7 are applicable. We also note numerous mining operations worldwide, including your competitor's, process brines from the groundwater/lakewater by pumping the brine to evaporation ponds for concentration and further processing. Products extracted in this manner include iodine, lithium, potash, salt, and numerous other industrial minerals. These minerals may then undergo additional processing before a salable product is produced, as a result our definition of mining/processing operations/facilities may also include all the later-stage value-added processing facilities in vertically integrated company until the point of significant external sales is achieved. We also note that U.S. Geologic Survey receives its reserve information from the Silver Peak operation in Nevada, but those

reserves have not changed since 1999 despite continued production at the mine site. We also note your description of the assumed Chilean reserves does not meet the definition of a proven and/or probable reserve under Industry Guide 7. In future filings please briefly describe the basis for your mineral rights and provide brief description of each of your mining/processing facilities. Unless you have information to the contrary, please include a statement with that you do not have an estimate of your proven and/or probable reserves that complies with Industry Guide 7, but state the duration (number of years) management believes your property could support the current levels of production and state these production levels.

2. We note your response to comment 4 in which you supplementally provided your production and installed plant capacity information for your mining facilities, but you do not intend to disclose your plant capacity and resulting capacity utilization information as this may do competitive harm to your company. Please explain exactly how this plant capacity utilization information would benefit your competition in detail, especially since your competitors' provide this same information in their public filings.

You may contact Tracey Smith, Staff Accountant, at (202) 551-3736, or in her absence, Jeanne Baker, Assistant Chief Accountant, at (202) 551-3691, or me at (202) 551-3355, if you have questions regarding comments on the financial statements and related matters. Please contact George K. Schuler, Mine Engineer, at (202) 551-3718, with any engineering questions. Please contact Sherry Haywood, Staff Attorney, at (202) 551-3345, or in her absence, Era Anagnosti, Staff Attorney, at (202) 551-3369, with any other questions.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien
Accounting Branch Chief