



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549-4628

December 31, 2009

Via U.S. Mail

William R. Broaddrick
Chief Financial Officer
Arena Resources, Inc.
6555 South Lewis Avenue
Tulsa, Oklahoma 74136

Re: Arena Resources, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed March 2, 2009
File No. 001-31657

Dear Mr. Broaddrick:

We have reviewed your filing and have the following comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Item 11. Executive Compensation, page 42

Base Salaries, page 44

Equity-Based Compensation, page 44

1. You reference the use of peer company data in making your base salary and equity-based compensation decisions. You also reference "the salaries of comparable executives of peer companies" on page 43. Please identify the companies that comprise the peer group. Please also explain in sufficient detail the basis for selecting these specific companies for inclusion in the peer group.

2. In addition, discuss how you used the peer company data to establish base salaries and equity-based compensation for your fiscal year ended 2008. For example, disclose whether you set elements of compensation of your executive officers within a specified range of such compensation of your peer company group, and if so, where your compensation fell within such range. Refer to Item 402(b)(2)(xiv) of Regulation S-K.
3. In addition, if you have benchmarked different elements of your compensation against different groups of peer companies, please identify the companies that comprise each such group.

Summary Compensation Table, page 46

4. Provide summary compensation information for the last three completed fiscal years. Refer to Item 402(c)(1) of Regulation S-K.

Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a 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

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by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Please contact Tracey L. McNeil at (202) 551-3392, Michael Karney at (202) 551-3847, or me at (202) 551-3740 with any questions.

Sincerely,

H. Roger Schwall
Assistant Director