



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

November 30, 2015

Via E-mail

Ryan Ashton
Chief Executive Officer
Great Basin Scientific, Inc.
2441 South 3850 West
Salt Lake City, UT 84120

**Re: Great Basin Scientific, Inc.
Registration Statement on Form S-1
Filed November 3, 2015
File No. 333-207761**

Dear Mr. Ashton:

We have limited our review of your registration statement to those issues we have addressed in our 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 by amending your registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Revise your filing to include all information except that which can be excluded pursuant to Rule 430A. We note for example only that you have omitted the volume of securities being offered and the exercise price of your warrants.
2. Before you request acceleration of your registration statement, please tell us the date that you received shareholder approval of the reverse split and/or increase in authorized shares to ensure that you have sufficient authorized capital to undertake the registered offering.

Fee Table

3. Please revise your fee table to separately indicate the proposed maximum aggregate offering price of each class of securities registered, rather than solely the aggregate amount for all securities. Also, please address the warrant exercise price in your fee table. Refer to Securities Act Rules Compliance and Disclosure Interpretations Question 240.06.

Prospectus Cover

4. Please identify who the “selected purchasers” are.
5. We note that each common share is being offered together with a Series D warrant. Please briefly describe whether and when these two securities will trade separately. In addition, it appears that you should register, as a separate security, the combined share and warrant. Please revise or advise.
6. Identify the placement agent as an underwriter.
7. Please include on your one page prospectus cover, the date the offering will end and any instance in which the offering may be closed prior to this date. Also, if the offering may be terminated at any time prior to closing, describe the mechanics of such termination. Further, given that you have not made arrangements to place the proceeds in escrow prior to the completion of this offering, please describe the effect of this on investors. Refer to Item 501(b)(8) of Regulation S-K.

Use of Proceeds, page 39

8. Given that you are planning to conduct your offering on a best efforts basis, please quantify how you will allocate the proceeds for each disclosed purpose assuming that you sell less than the maximum amount of securities offered. Include a reasonable range of potential outcomes regarding the number of securities that you might sell.

Dilution, page 42

9. We note the last sentence of this section. Please show us how your dilution disclosure would differ if all of the securities underlying the pre-funded rights were exercised.

Pre-Funded Rights, page 110

10. Please revise your disclosure to clarify the purpose of offering the pre-funded rights and the associated risks. For example, more clearly describe what you mean when you say that the rights are “pre-funded,” the purpose of “pre funding” the rights, and how the rights you are offering achieve this purpose. Likewise, describe the purpose of the

ownership threshold included in the prefunded rights as mentioned on the prospectus cover.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement, please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Ryan Ashton
Great Basin Scientific, Inc.
November 30, 2015
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Please contact Heather Percival at (202) 551-3498 or me at (202) 551-3528 with any questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Jason K. Brenkert
Dorsey & Whitney LLP