



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4628

September 28, 2009

Mr. Ben Brigham
President and Chief Executive Officer
Brigham Exploration Company
6300 Bridge Point Parkway, Building Two, Suite 500
Austin, TX 78730

**Re: Brigham Exploration Company
Amendment No. 1 to Registration Statement on Form S-3
File No. 333-161455
Filed September 16, 2009**

Dear Mr. Brigham:

We have reviewed your response letter and amended filing, and we have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. 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.

Exhibit 5.1

1. Please obtain and file a revised legal opinion that clarifies that the opinion addresses the statutory laws of Texas, New York, Nevada and Delaware that are referenced in the opinion, all applicable provisions of the Constitution of each such jurisdiction, and reported judicial decisions interpreting such laws.
2. We note that counsel has changed the legal opinion with respect to the legality of the units. The revised opinion to be filed with your next amendment should opine on the legality of the units.
3. We note the statement in the opinion that, “[t]his opinion letter has been prepared, and is to be understood, in accordance with customary practice of lawyers who regularly give and lawyers who regularly advise recipients regarding opinions of

- this kind, is limited to the matters expressly stated herein, and no opinions may be inferred or implied beyond the matters expressly stated herein.” Please advise what this statement means, why it was included in the opinion, and whether its purpose is to qualify or create assumptions in the legal opinion not expressly included. We may have further comments.
4. Please ensure that the revised legal opinion does not include any suggestion that investors are not entitled to rely on the opinion. In that regard, we note the new language in the opinion that limits reliance on the opinion.
 5. Each time that you do a takedown of any of the securities from this shelf registration, you must file a “clean” opinion of counsel as an exhibit for any securities you are taking down. See Securities Act Rules Compliance and Disclosure Interpretation Question 212.05 (available on the SEC website at <http://www.sec.gov/divisions/corpfin/guidance/securitiesactrules-interps.htm>). Please confirm that you will file the appropriate clean opinions.

Closing Comments

Please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

Please contact Douglas Brown at (202) 551-3265 or, in his absence, Laura Nicholson at (202) 551-3584 with any questions.

Sincerely,

H. Roger Schwall
Assistant Director

cc: Kari Potts
(512) 482-5055