



DIVISION OF
CORPORATION FINANCE

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

May 30, 2014

Via E-mail

Mr. Kyle N. Roane
Vice President, General Counsel and Corporate Secretary
Memorial Resource Development Corporation
1301 McKinney Street, Suite 2100
Houston, Texas 77010

**Re: Memorial Resource Development Corporation
Amendment No. 2 to Registration Statement on Form S-1
Filed May 27, 2014
Response Letter Dated May 30, 2014
File No. 333-195062**

Dear Mr. Roane:

We have reviewed your filing and response letter 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 filing and the information you provide in response to these comments, we may have additional comments.

Response Letter Dated May 30, 2014

The Offering, page 18

1. You indicate that you will use proceeds from this offering for the specific purposes cited “and for general corporate purposes.” However, the “Uses of cash” disclosed on page 53 does not appear to contemplate remaining amounts for a general purpose. Please revise your disclosure as necessary.

Summary Historical Consolidated and Combined Pro Forma Financial Data, page 22

2. We note you present Adjusted EBITDA on a pro forma basis for the MRD Segment for the year ended December 31, 2013 and three months ended March 31, 2014. However, it does not appear you have provided a reconciliation of these amounts to net income (loss)

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similar to that presented on page F-45 of your Form S-1 filed on May 27, 2014. Please expand your disclosure to provide this reconciliation.

Business, page 98

Financial strength and flexibility, page 104

3. We note the reference to the pro forma net income of \$360 million for the period ended March 31, 2014 appears to be inconsistent with the Unaudited Pro Forma Condensed Combined Statements of Operations on F-16. Please revise your disclosure as necessary.

Our Operations, page 107

Drilling Locations, page 114

4. We note your revised disclosure relating to the additional 743 gross horizontal drilling locations identified by your management team. Please expand your disclosure to clarify the following:
 - The current status of the state and/or local regulatory approval to drill the 321 identified locations on the reduced 137 acre per well spacing, and
 - The well spacing assumptions associated with the remaining 422 identified locations.

Unaudited Pro Forma Condensed Combined Balance Sheet, page F-8

5. Please reconcile for us the pro forma common stock amount of \$1,954 to the par value of the number of shares you use in pro forma adjustment (n).

Note 3. Pro Forma Adjustments and Assumptions, page F-17

6. Please expand your pro forma adjustment footnote (g) to quantify the amounts of each individual adjustment referenced.

Closing 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 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.

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

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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.

You may contact Svitlana Sweat, Staff Accountant, at (202) 551-3326 or Jennifer O'Brien, Staff Accountant, at (202) 551-3721 if you have questions regarding comments on the financial statements and related matters. You may contact John Hodgin, Petroleum Engineer, at (202) 551-3699 with questions about engineering comments. Please contact Caroline Kim, Attorney-Advisor, at (202) 551-3878 or, in her absence, the undersigned at (202) 551-3740 with any other questions.

Sincerely,

/s/H. Roger Schwall

H. Roger Schwall
Assistant Director