



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

DIVISION OF
CORPORATION FINANCE

September 7, 2011

Via E-mail

John A. Weinzierl
President and Chief Executive Officer
Memorial Production Partners LP
1401 McKinney, Suite 1025
Houston, Texas 77010

**Re: Memorial Production Partners LP
Amendment No. 1 to Registration Statement on Form S-1
Filed August 11, 2011
File No. 333-175090**

Dear Mr. Weinzierl:

We have reviewed your amendment 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 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.

Amendment No. 1 to Registration Statement on Form S-1

General

1. We remind you of prior comments 1 through 8, 10, 33, and 46 from our letter to you dated July 22, 2011.
2. We note your response to prior comment 17. Please explain the basis for your conclusions (1) you "carry appropriate levels of insurance;" and (2) your insurance policy and indemnification obligations does not pose any related material risks. Provide quantified information as part of your response.
3. With a view towards disclosure, please provide us with a table that indicates what quarterly distributions would have been for the most recent four fiscal quarters, quantifying any shortfalls or explain to us why you are unable to do so. In that regard, we re-issue prior comments 19, 29, and 30.

4. You indicate in your response to prior comment 18 that you have provided additional information concerning “certain of the chemicals contained in such fluid” on page 144. However, we are unable to locate that disclosure. Please advise or revise.

Our Cash Distribution Policy and Restrictions on Distributions, page 56

5. We note your response to prior comment 28, which specifies how you calculated the \$9.2 million of development costs for the year ended December 31, 2010. Please clarify how the \$6.3 million of exploration costs disclosed on page F-65 impacted your calculation of pro forma cash available for distributions. To the extent that the \$6.3 million of costs represents cash expenditures, tell us, why you have not reduced Estimated EBITDA when calculating your pro forma cash available for distribution. Please also provide an explanation of how exploration costs impact pro forma cash available for distribution of all other periods presented.

Predecessor Combined Balance Sheets, page F-20

Predecessor Combined Statements of Operations, page F-21

6. We note your responses to prior comments 53 and 54, which indicate that the net cash proceeds to be paid to Memorial Resource at the time of the offering represent a portion of the consideration to be paid for the contribution of the Partnership Properties. However, we note that pro forma adjustment (c)(2) on page F-8 reflects a \$140.5 million cash distribution to Memorial Resources which is appropriately recorded as a reduction to equity. We further note that SAB Topic 1B3 specifies that the presentation is appropriate even though the stated use of proceeds is other than for the payment of dividends. We re-issue prior comments 53 and 54.

Note 14 Supplemental Oil and Gas Information, page F-65

Oil and Natural Gas Reserves, page F-66

7. Please provide, here or elsewhere in your filing, the disclosures required by Item 1203 of Regulation S-K

Engineering Comments

8. Regarding our prior comment 62, you disclosed the number of wells you had drilled and completed as of December 31, 2010 as required by paragraph (a)(1)(2) of Item 1205 of Regulation S-K. However, you have not disclosed the number of wells that were currently drilling as of that date as required by paragraphs (a)(b)(c)(d) of Item 1206 of Regulation S-K. Please revise your document to include this information.

9. You state that your production decline rate is approximately 9% for 2011. However, we note that your production actually declined by approximately 11.5% per year in the first six months of 2011. Please revise your document to disclose this.
10. We note in the reserve report numerous Cotton Valley wells that may have only produced a total of a few hundred barrels of NGLs to date since completion but have forecasts which indicate that they will produce in 2011 alone ten to twelve times the cumulative NGL production even though the gas production may be 70% depleted. We could not find anything in the filing that explains this large increase in NGLs from these wells. Please reconcile this or revise your document and reserves as necessary.
11. We note that all of your Cotton Valley proved undeveloped locations are operated by third parties. Many of these wells are not scheduled to be drilled for five years. Please provide to us the evidence you have from these third parties that they are planning to drill these wells at the time you have estimated in the reserve report.
12. We note that you include 19 proved undeveloped horizontal wells in the Cotton Valley, and that you have reserve estimates of approximately 4 BCF of gas, 250,000 barrels of NGLs, and 30,000 barrels of oil. Please provide to us the basis of these estimates.
13. We note that the well life of these 19 proved undeveloped wells in the Cotton Valley is approximately 55 years. We do not agree that the fact that the economic software program indicates that economic production will or can go on for fifty plus years means that it is reasonably certain it will do so. We believe, in relatively new developments or where new technology is being utilized, where no analogy exists for the estimated life of the producing wells, proved reserves should be limited to well lives that are more reasonably certain until such time the evidence for longer well lives is more compelling.

Therefore, please revise your document to limit the proved reserves from the Haynesville Shale horizontal wells to well lives that are more reasonably certain based on what has been demonstrated historically. As these wells exhibit strong hyperbolic declines early in their production history, a shorter more reasonable well life will not necessarily reduce the reserves in the same proportion as the reduction in well life. Please revise your reserves and document accordingly.

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.

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.

You may contact John Cannarella, Staff Accountant, at (202) 551-3337 or Brad Skinner, Senior Assistant Chief Accountant, at (202) 551-3489 if you have questions regarding comments on the financial statements and related matters. You may contact James Murphy, Petroleum Engineer, at (202) 551-3703 with questions about engineering comments. Please contact Caroline Kim, Staff Attorney, at (202) 551-3878 with any other questions.

Sincerely,

/s/ A.N. Parker for

H. Roger Schwall
Assistant Director

cc: John Goodgame
Akin Gump Strauss Hauer & Feld LLP