



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

DIVISION OF
CORPORATION FINANCE

May 14, 2015

Thomas F. Karam
Chairman and Chief Executive Officer
PennTex Midstream Partners, LP
11931 Wickchester Ln., Suite 300
Houston, TX 77043

**Re: PennTex Midstream Partners, LP
Amendment No. 5 to Registration Statement on Form S-1
Filed May 7, 2015
File No. 333-199020**

Dear Mr. Karam:

We have reviewed your amended registration statement 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. Unless we note otherwise, our references to prior comments are to comments in our April 30, 2015 letter.

Use of Proceeds, page 52

1. We note you intend to use a portion of the proceeds to fund certain remaining capital expenditures. Please disclose the approximate amount intended to be used for this purpose. Please refer to Item 504 of Regulation S-K.

Dilution, page 54

2. Please update the disclosure to be consistent with the most recent balance sheet included in the prospectus.

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Our Cash Distribution Policy and Restrictions on Distribution

Our Minimum Quarterly Distribution

Estimated Cash Available for Distribution through June 30, 2016, page 60

3. We note your response to comment 1 and the inclusion of footnote 9. Please disclose the amounts of expansion capital expenditures to be funded from proceeds of the offering and with borrowings under your new credit facility. Also, please disclose the amount of borrowings you have assumed.

Assumptions and Considerations

Financing, page 68

4. Please quantify the amounts of expansion capital expenditures to be funded from proceeds of the offering and with borrowings under your new credit facility. Please also disclose whether you have a commitment for the interest rates on drawn and undrawn portions of your new revolving credit agreement. If actual interest rates can vary from those disclosed, please disclose the effect on income of a 1/8 percent variance in rates.

Please contact Scott Stringer, Staff Accountant, at (202) 551-3272 or William Thompson, Accounting Branch Chief, at (202) 551-3344 if you have any questions regarding comments on the financial statements and related matters. Please contact Jacqueline Kaufman, Staff Attorney, at (202) 551-3797, or Liz Walsh, Staff Attorney, at (202) 551-3696, or me at (202) 551-3720 with any other questions.

Sincerely,

/s/ Elizabeth C. Walsh for

Mara L. Ransom
Assistant Director

cc: Ryan J. Maierson
Latham & Watkins LLP