



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3561

September 9, 2016

Steven R. Jones
Chief Financial Officer
PennTex Midstream Partners LP
11931 Wickchester Lane, Suite 300
Houston, TX 77043

**Re: PennTex Midstream Partners LP
Form 10-K for the Fiscal Year Ended December 31, 2015
Form 10-Q for the Fiscal Quarter Ended June 30, 2016
Filed February 26, 2016 and August 4, 2016
File No. 1-37412**

Dear Mr. Jones:

We have limited our review of your filing to the financial statements and related disclosures 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended December 31, 2015

Consolidated Statements of Operations, page F-4

1. We note your disclosure on page 36 that you take title to and resell NGLs you process pursuant to interruptible processing agreements. Please tell us the significance of these revenues for the most recent year and what consideration you gave to Rule 5-03(b)1 and 2 of Regulation S-X.

Consolidated Statements of Partners' Capital, page F-5

2. We note that distributions to unitholders and payments for dividend equivalents do not reflect the cash distribution declared for the quarter ended December 31, 2015. However,

it appears the cash distributions declared for the quarter ended December 31, 2015 are included in your calculations of earnings per unit in Note 8 and in the reconciliations of non-GAAP financial measures on page 45. Please tell us your basis in GAAP for omitting the cash distributions declared for the quarter ended December 31, 2015 from the statement.

Form 10-Q for the Quarterly Period Ended June 30, 2016

Note 8 Earnings per Unit, page 11

3. Please tell us when and how you retrospectively applied the guidance in ASU 2015-06, Earnings per Share.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Tony Watson, Accountant, at (202) 551-3318 if you have questions regarding comments on the financial statements and related matters. You may contact me at (202) 551-3344 with any other questions.

Sincerely,

/s/ William H. Thompson

William H. Thompson
Accounting Branch Chief
Office of Consumer Products