

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

Mail Stop 4628

September 20, 2016

Greg L. Armstrong Chief Executive Officer Plains GP Holdings, L.P. 333 Clay Street, Suite 1600 Houston, TX 77002

Re: Plains GP Holdings, L.P.

Revised Preliminary Proxy Statement on Schedule 14A

Filed September 9, 2016

File No. 1-36132

Dear Mr. Armstrong:

We have reviewed your September 8, 2106 response to our comment 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 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. Unless we note otherwise, our references to prior comments are to comments in our September 1, 2016 letter.

Opinion of the Financial Advisor to the PAGP GP Board, page 60

- 1. Please disclose all of the analyses that Jeffries presented to the PAGP board in connection with the rendering of its opinion, and include summaries of all the material analyses. In that regard, we note that there appears to be no discussion in the proxy statement of the historical exchange ratio analysis or the accretion / dilution analysis.
- 2. At page 63, you state that the advisor "may have given various analyses more or less weight than other analyses, and may have deemed various assumptions more or less probable than other assumptions, so that the range of valuations resulting from any particular analysis described below should not be taken to be Jefferies' view of the actual value." If the advisor weighted any summarized analysis less than any other analysis, expand the disclosure to briefly identify such analysis or analyses and explain why the advisor weighted it (or them) differently.

Greg L. Armstrong Plains GP Holdings, L.P. September 20, 2016 Page 2

Closing Comments

You may contact Irene Barberena-Meissner, Attorney-Adviser, at (202) 551-6548 or, in her absence, Timothy S. Levenberg, Special Counsel, at (202) 551-3707 with any questions.

Sincerely,

/s/H. Roger Schwall

H. Roger Schwall Assistant Director Office of Natural Resources

cc: Alan Beck, Esq. Vinson & Elkins LLP