

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

August 20, 2010

Geovanni Barris Vice President The Bank of New York Mellon, Trustee 101 Barclay Street New York, New York 10286

Re: BP Prudhoe Bay Royalty Trust

Form 10-K for the Fiscal Year Ended December 31, 2009

Filed March 1, 2010 File No. 1-10243

Dear Mr. Barris:

We have reviewed your filing 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.

BP Prudhoe Bay Royalty Trust August 20, 2010 Page 2

Form 10-K

Reserve Estimates, page 17

- 1. Please disclose and describe the internal controls you use in your reserves estimation effort. See Item 1202(a)(7) of Regulation S-K.
- 2. We note that your proved undeveloped reserves ("PUDs") increased from 8.858 million barrels as of December 31, 2008 to 11.067 million barrels as of December 31, 2009 after approximately 10.8 million barrels of PUDs allocated to you were converted to proved developed reserves in 2009. Please describe the reasons for the material changes in PUD balances, such as drilling activity, improved recovery, extensions or discoveries.
- 3. Please discuss investments and progress made during the year to convert proved undeveloped reserves to proved developed reserves, including, but not limited to, capital expenditures. See Item 1203(c) of Regulation S-K.
- 4. We note that you have not included much of the disclosure required by Items 1205 to 1208 of Regulation S-K. Please explain to us your basis for not providing such disclosure.

Risk Factors, page 22

5. We note your statement that "[t]his Item describes several such risks and uncertainties, but not necessarily all of them." Please eliminate the suggestion in the introductory paragraph that you have not included all material risks in this section.

Liquidity and Capital Resources, page 27

6. Please provide a more detailed discussion of the changes in the cash balances of the trust corpus, including a discussion of the increases or decreases in the various line items in the Statements of Changes in Trust Corpus contained in the financial statements.

Exhibit 31, Certification

7. We note that you do not provide the certification required by part 4(b) of Item 601(b)(31)(i) of Regulation S-K regarding the trustee's responsibility for designing internal controls over financial reporting. Given your status as a large accelerated filer and the inclusion of the trustee's report on internal control over financial reporting pursuant to Item 308(a) of Regulation S-K, please revise your certifications to include paragraph 4(b) of Item 601(b)(31)(i).

BP Prudhoe Bay Royalty Trust August 20, 2010 Page 3

Exhibit 99.1

8. Please provide a discussion of the possible effects of regulation on the ability of the registrant to recover the estimated reserves. See Item 1202(a)(8)(vi) of Regulation S-K.

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 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.

Please contact Sean Donahue at (202) 551-3579, Alexandra M. Ledbetter at (202) 551-3317, or me at (202) 551-3745 with any questions.

Sincerely,

H. Roger Schwall Assistant Director