



DIVISION OF
CORPORATION FINANCE

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

July 17, 2013

Via E-mail

Robert C. Reeves
President and Chief Executive Officer
Athlon Energy Inc.
420 Throckmorton Street, Suite 1200
Fort Worth, Texas 76102

**Re: Athlon Energy Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed July 12, 2013
Responses Dated July 12, 15 and 17, 2013
File No. 333-189109**

Dear Mr. Reeves:

We have reviewed your filings 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. 2 to Registration Statement on Form S-1

Summary Consolidated Financial, Reserve and Operating Data, page 12

Non-GAAP Financial Measures, page 14

1. We have read your responses to prior comments two and three and understand your computation of Adjusted EBITDA is intended to reflect cash flow associated with derivatives settled during the period, although limited to the cumulative gain or loss recognized under GAAP since the instruments were acquired, i.e., not including any amounts representing a recovery of cost. If this is correct, you should revise your reconciliation to replace the line item "Non-cash mark-to-market derivative loss (gain)" with two separate line items, one for the total derivative loss (gain) reported in your Statements of Operations, and another for the net cash receipts (payments) for derivatives settled during the period. Please contact us by telephone if you require further clarification or guidance.

2. We note that you have references to realized gains (losses) and unrealized gains (losses) in various sections of your filing. Since you are not applying hedge accounting, you should replace these disclosures with a discussion of the total periodic gain or loss recognized under GAAP, supplemented if pertinent with disclosure of the cash effects of settlements. Alternatively, if you are able to articulate the meaningfulness of the realized and unrealized distinctions, you should revise to ensure that amounts associated with such references are calculated in a manner that is consistent with FASB ASC 815-10-35, i.e. reflect only the periodic change in value recognized under GAAP.
3. We understand that the adjustment you will present in your reconciliation for current period settlements of derivative contracts will reflect only the cumulative gain or loss reported since you acquired the derivatives, and that no portion of these amounts will represent a recovery of cost (e.g. recovery of premiums that were paid). Please include a footnote to your non-GAAP reconciliations to clarify these points, also to explain your rationale for including these cumulative adjustments for settled contracts. Please ensure that your disclosure clarifies that your adjustments for current period settlements of derivative contracts are limited to cumulative gains and losses that have been reported in prior periods in accordance with GAAP, reflect settlement activity for all commodity derivatives that were settled during the respective periods, whether received or paid, and will not include any portion representing recovery of cost. Please advise if you believe we have misunderstood your computation or if your intentions are not consistent with this explanation.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 55

Results of Operations, page 61

4. We understand that the line item in the table on page 68 identified as "cash settlements" reflects gains (losses) recorded in the period for derivatives that have settled, Please revise both line items to distinguish between gains (losses) on derivatives that continue to be held and those that have settled; or combine these in a single measure of gain or loss as reported in your financial statements.

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.

Mr. Robert C. Reeves
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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 Jenifer Gallagher, Staff Accountant, at (202) 551-3706 or John Cannarella, Staff Accountant, at (202) 551-3337 if you have questions regarding comments on the financial statements and related matters. You may contact Ronald Winfrey, Petroleum Engineer, at (202) 551-3704 with questions about engineering comments. Please contact Caroline Kim, Staff Attorney, at (202) 551-3878 or, in her absence, the undersigned at (202) 551-3611 with any other questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Branch Chief