

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

November 27, 2013

Via E-mail
Karen L. Power
Senior Vice President &
Principal Financial Officer
Syntroleum Corporation
5416 S. Yale Suite 400
Tulsa, OK 74135

Re: Syntroleum Corporation

Annual Report on Form 10-K Filed March 15, 2013

File No. 1-34490

Dear Ms. Power:

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.

Annual Report on Form 10-K filed March 15, 2013

Business, page 2

1. On page F-15, you disclose that two customers made up 97% of revenues in 2012 and 99% in 2011. In the business section, please disclose this information, including the names of the customers. In addition, tell us whether you have agreements with these customers that would need to be filed pursuant to Item 601 of Regulation S-K. Finally, please expand your risk factors to discuss your dependence on these customers.

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Management's Discussion & Analysis, page 15

2. Please expand your overview to provide insight into material opportunities, challenges and risks, such as those presented by known material trends and uncertainties, on which the company's executives are most focused for both the short and long term. See Section III.A of SEC Release 33-8350 (Nov. 29, 2003). For example, discuss your future obligations with respect to Dynamic Fuels for any possible start-up costs or additional working capital loans or investments to the plant, if material. As another example, we note significant fluctuation in your technology revenue and technical services revenue in each of the three reported years. If these are due to material trends and uncertainties, discuss these and the attendant risks or challenges.

In this regard, we note your discussion on page 18 that the changes in revenue are due in part to recognition from earned deferred licensee income and recognition of revenue that had been previously unrecognized. Please expand your MD&A to provide further insight into the reasons for the deferred and previously unrecognized income.

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 PJ Hamidi at (202) 551-3421 or, in his absence, the undersigned at (202) 551-3611 with any questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker Branch Chief