



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

August 15, 2011

Via E-mail

Mr. Nathan Ticatch
President and Chief Executive Officer and Director
PetroLogistics LP
909 Fannin Street, Suite 2630
Houston, TX 77010

Re: PetroLogistics LP
Amendment No.1 to Registration Statement on Form S-1
Filed: August 8, 2011
File No.: 333-175035

Dear Mr. Ticatch:

We have reviewed your registration statement and have the following comments. 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.

General

1. Please note that comments regarding your confidential treatment request, if any, will be sent under separate cover and we will not be in a position to consider a request for acceleration of effectiveness of the registration statement until we resolve all issues concerning the confidential treatment request.
2. Please continue to monitor your requirement to provide updated financial information. Refer to Rule 3-12 of Regulation S-X.
3. Please provide a currently dated, signed auditors' consent with your next amendment.

Organizational Structure, page 7

4. We note your revised disclosure in response to comment 12 in our letter dated July 18, 2011. We note that PetroLogistics LP, the registrant, is missing from the

pre-offering organizational structure. In the second paragraph of the introduction to your unaudited pro forma consolidated financial statements on page P-1 you disclose that prior to the offering you were an entity wholly-owned by Propylene Holdings LLC. Please advise or otherwise revise your disclosure accordingly.

The Offering, page 10

Units Outstanding After this Offering, page 10

5. Please revise your disclosure to state that the right to receive additional units in the absence of the underwriters' exercise of their over-allotment option stems from the terms of the contribution agreement pursuant to which Propylene Holdings will contribute PL Propylene to the registrant. In this regard, we note your response to comment 14 in our letter dated July 18, 2011 and your revised "Use of Proceeds" disclosure on page 42.

The Transactions and Our Structure and Organization, page 40

6. Please revise the fourth and the fifth bullet points to clearly indicate the timeframe during which the noted distributions will occur.

Dilution, page 44

7. We note your response and revised disclosure in response to comment 23 in our letter dated July 18, 2011. With a view towards disclosure, please tell us where in your calculations you reflect the common units you will issue Propylene Holdings as consideration for the contribution of PL Propylene to you. Refer to disclosure in the first sentence of the last paragraph on page 42. We may have additional comments following the review of your response.

Forecasted Available Cash, page 47

8. We note that you have updated your actual financial results through the six months ended June 30, 2011. We further note your forecast period is for the twelve month period October 1, 2011 through September 30, 2012. If you anticipate your transaction may be effective prior to the requirement to update your document for actual third quarter financial results, please include a narrative discussion of your estimated available cash for the three and nine month period ended September 30, 2011.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Six Months Ended June 30, 2011 Compared to Six Months Ended June 30, 2010, page 61

9. We note your expanded disclosure related to comment 27 in our letter dated July 18, 2011. Please clarify whether the dollar amount of the "Change in inventory" recognized as part of cost of sales in a period is the total inventory revaluation for the period, or only the portion of the revaluation relating to actual inventory quantities sold.

Board Committees, page 98

10. We note your response to comment 40 in our letter dated July 18, 2011. To the extent known, please identify the individuals who will serve on the audit committee prior to the registration statement becoming effective.

Compensation Discussion and Analysis, page 102

Elements of Compensation, page 104

Discretionary Bonus Awards, page 105

11. We note your response to comment 42 in our letter dated July 18, 2011; however, your disclosure appears fairly broad and does not address how the board determined the size of the bonus awards based on the factors it considered. Please address prior comment 42 in full.

Executive Compensation, page 107

12. Based on your response and revised disclosure in response to comment 44 in our letter dated July 18, 2011, it appears that the disclosure in this section is no longer relevant. Please remove.

Certain Relationships and Related Party Transactions, page 116

13. Refer to comment 45 in our letter dated July 18, 2011. To the extent that the agreements referenced therein will be executed in final form prior to the effectiveness of the registration statement, please ensure that final executed copies of these agreements and not "forms of" are filed as exhibits to the registration statement.
14. Refer to comment 46 in our letter dated July 18, 2011. We continue to note that the last two paragraphs of your disclosure on page F-22 discuss matters which are not currently reflected in your disclosure here. Please advise or revise.

Mr. Nathan Ticatch
PetroLogistics LP
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You may contact Kevin Stertzel, Staff Accountant, at (202) 551-3723 or John Cash, Accounting Branch Chief, at (202) 551-3768 if you have questions regarding comments on the financial statements and related matters. Please contact Era Anagnosti, Staff Attorney, at (202) 551-3369 or me at (202) 551-3760 with any other questions.

Sincerely,

/s/ Pamela A. Long

Pamela A. Long
Assistant Director

cc: Via E-mail
Mike Rosenwasser, Esq.
James J. Fox, Esq.
Vinson & Elkins L.L.P.