



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4628

April 5, 2010

Via U.S. Mail & Facsimile

Mr. David M. Demshur
Chief Executive Officer
Core Laboratories N.V.
Herengracht 424
1017 BZ Amsterdam
The Netherlands

**Re: Core Laboratories N.V.
Preliminary Proxy Statement
Filed March 15, 2010
File No. 1-14273**

Dear Mr. Demshur:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Preliminary Proxy Statement

General

1. It does not appear that you have provided the disclosure required by Items 407(c)(2)(vi) and 402(s), which were adopted in Release No. 33-9089 and are effective as to proxy statements filed on or after February 28, 2010. Please revise your document to include this mandatory disclosure or explain why you are not required to comply.

Item 5. Extension of Authority to Issue Shares of Core Laboratories N.V.

2. We note that you currently do not have any specific plans to issue any of the authorized shares of common stock for purposes other than the proposed stock split. Please clarify whether you have any plans, proposals, or arrangements to issue any of the 3 million preference shares that you are seeking authority to issue. To the extent you do, revise to provide the information required by Item 13 of Schedule 14A, as required by item 11 of Schedule 14A.

Closing Comments

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our 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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in writing, a 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

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Please contact John Lucas at (202) 551-5798 or, in his absence, me at (202) 551-3611 with any questions.

Sincerely,

Anne Nguyen Parker
Branch Chief