



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

DIVISION OF
CORPORATION FINANCE

March 3, 2011

Mr. Richard F. Miles
President and Chief Executive Officer
Geokinetics Inc.
1500 CityWest Blvd., Suite 800
Houston, Texas 77042

**Re: Geokinetics Inc.
Form 10-K/A for the Fiscal Year Ended December 31, 2009
Filed August 9, 2010
Definitive Proxy Statement filed March 29, 2010
Response Letter Dated October 20, 2010
File No. 001-33460**

Dear Mr. Miles:

We have reviewed your response letter, and we 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.

Definitive Proxy Statement filed March 29, 2010

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1. We note your response to comment 6 in our letter dated September 24, 2010. Please confirm that you will also disclose in your 2011 proxy statement the aggregate number of stock option awards outstanding at fiscal year end, or explain why you believe this is not required. In this regard, we note that your proposed disclosure submitted in response to our comment was limited to restricted stock awards.

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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.

Please contact John Lucas at (202) 551-5798, or in his absence, Laura Nicholson at (202) 551-3584 with any questions. If you require further assistance, you may contact the undersigned at (202) 551-3740.

Sincerely,

H. Roger Schwall
Assistant Director

cc: Via Facsimile
William B. Nelson, Esq.
Haynes and Boone, LLP
(713) 236-5557