



DIVISION OF
CORPORATION FINANCE

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

May 21, 2010

Fred A. Lodzinski
Chief Executive Officer
GeoResources, Inc.
110 Cypress Station Drive, Suite 220
Houston, TX 77090

**Re: GeoResources, Inc.
Post-Effective Amendment No. 5 to Form S-3 on Form S-1
File No. 333-144831
Filed March 17, 2010**

**Post-Effective Amendment No. 5 to Form S-3 on Form S-1
File No. 333-152041
Filed March 17, 2010**

Dear Mr. Lodzinski:

We have limited our review of your filings to the issues we have addressed in our comments. Where indicated, we think you should revise your documents in response to the comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. After reviewing this information, we may raise additional comments.

Form S-3, File Numbers 333-144831, and 333-152041

1. We note your response to our prior comment 4 and the removal of the undertaking provided by Item 512(h) of Regulation S-K. Please revise to include the undertaking provided by Item 512(h) or explain why it is no longer applicable.

Form S-3, File Number 333-152041

2. We note the removal of a selling shareholder and other adjustments to the selling shareholder table. Please revise the table to accurately reflect the column totals. Further, revise the filing to include the current total number of shares being offered pursuant to this post-effective registration statement.

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Closing Comments

Please amend your registration statements in response to these comments. 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 supplemental 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.

Please contact Douglas Brown at (202) 551-3265 or, me at (202) 551-3611 with any questions.

Sincerely,

Anne Nguyen Parker
Branch Chief

cc: Reid Godbolt
(303) 573-1600