



DIVISION OF
CORPORATION FINANCE

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

April 5, 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. 333-155681
Filed March 17, 2010**

**Post-Effective Amendment No. 4 to Form S-3 on Form S-1
File No. 333-144831
Filed March 17, 2010**

**Post-Effective Amendment No. 4 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 filing to the issues we have addressed in our comments. Where indicated, we think you should revise your document 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.

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.

Form S-3, File Numbers 333-155681, 333-144831, and 333-152041

General

1. You incorporate by reference your Annual Report on Form 10-K for the year

ended December 31, 2009. However, Part III of your Form 10-K incorporates by reference your proxy statement which, as of the date of this letter, has not been filed. Please file your definitive proxy statement with the Form 10-K Part III disclosure before your registration statement is declared effective, or include the Form 10-K Part III information in your Form 10-K. See also Securities Act Rule 411. For further guidance, see Securities Act Forms Compliance & Disclosure Interpretations, Question 123.01, available at www.sec.gov.

Exhibits

2. We note that your exhibits to the post effective amendments were included in the filing instead of included as exhibits to the filing. Please file the exhibits as separate exhibits from the filing and include a header for each exhibit on EDGAR.

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

Selling Security Holders

3. For each selling security holder that is an entity and not a person, please identify the person or persons who have voting or investment control over the shares owned by the selling security holders. See Item 507 of Regulation S-K. For further guidance, see Regulation S-K Compliance & Disclosure Interpretations, Question 140.02.

Undertakings

4. We note your inclusion of the undertaking provided by Item 512(i) of Regulation S-K. Please remove the undertaking or, in the alternative, explain why the undertaking is applicable and should be included.

Form S-3, File Number 333-155681

General

5. We note that the post-effective amendment appears to conduct a delayed at the market offering for an unallocated shelf offering. In addition, we note that the company is not eligible to use Form S-3. Please indicate the provision of Rule 415(a)(1) on which the company is relying to offer its own securities on a continuous or delayed basis.
6. Further, in light of Rule 415(a)(4), restricting at the market offerings to offerings that come within paragraph (a)(1)(x) of Rule 415, please indicate how the company is eligible to conduct an at the market offering given that the company's ineligibility to use Form S-3. In the alternative, amend your registration statement to offer the securities at a fixed price.

Exhibit Index

7. We note that your Exhibit Index indicates the Form of Underwriting Agreement and legal opinion are filed as exhibits to the filing. Please file the omitted exhibits or revise your Exhibit Index to indicate clearly whether each exhibit is included in the filing or incorporated by reference.

Closing Comments

Please amend your registration statement 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.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert this action 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the

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securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of an amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

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