



DIVISION OF
CORPORATION FINANCE
MAIL STOP 7010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

September 20, 2007

Mr. Stanton E. Ross
Chief Executive Officer
Infinity Energy Resources, Inc
633 Seventeenth Street, Suite 1800
Denver Colorado, 80202

Re: Infinity Energy Resources, Inc
Form 10-K for the Year Ended December 31, 2006
Filed on March 14, 2007
Response Letter Dated September 10, 2007
File No. 000-17204

Dear Mr. Ross:

We reviewed your responses to our prior comments on the above referenced filing as set forth in your letter dated September 10, 2007 and have the following additional comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Form 10-K for the Year Ended December 31, 2006

Oil and Natural Gas Reserves, page 8

1. We note your response to prior comment one of our letter dated August 10, 2007. Please explain why your calculation of SMOG includes no future income tax for 2006. Additionally revise your caption to refer to your measure as SMOG rather than Present value of future net revenue before income taxes to avoid investor confusion.

Oil and Gas Properties, Depreciation and Full Cost Ceiling Test, page 37

2. We note your response to prior comment two of our letter dated August 10, 2007. Please clarify if your seismic costs are directly associated with specific properties and whether such costs are included in the full cost amortization base. Refer to Rules 4-10(c)(3)(ii)(A) and 4-10(c)(7)(ii) of Regulation S-X.

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Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact John Cannarella at (202) 551-3337 if you have questions regarding comments on the financial statements and related matters. You may contact Ronald Winfrey, Petroleum Engineer, at (202) 551-3704 with questions about engineering comments. Please contact me at (202) 551-3683 with any other questions.

Sincerely,

Jill Davis
Branch Chief