



DIVISION OF
CORPORATION FINANCE

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

October 22, 2012

Via E-mail

Mr. Morgan F. Johnston
Senior Vice President, General Counsel, and Secretary
GreenHunter Energy, Inc.
1048 Texan Trail
Grapevine, TX 76051

**Re: GreenHunter Energy, Inc.
Amendment No. 3 to Registration Statement on Form S-3
Filed October 18, 2012
File No. 333-183292**

Dear Mr. Johnston:

We have reviewed your response letter and the amendment to your registration statement, and we have the following comments.

General

1. We note your revised disclosure in the penultimate risk factor on page 15 stating that since March 2011, you have failed to pay your interest obligations on your outstanding 9% Series B Senior Secured Redeemable Debentures. It appears that a new material event of default has occurred after the fiscal year ended December 31, 2011, which audited financial statements have been incorporated by reference in the filing. The occurrence of a material default would render you ineligible to use Form S-3 until the filing of your next Form 10-K. Please provide us with your analysis of your ability to register securities on Form S-3 at this time. Refer to General Instruction I.A.5 of Form S-3. For additional guidance, please see Question 115.16 of Securities Act Forms Compliance and Disclosure Interpretations.

Please contact Jessica Dickerson, Staff Attorney, at (202) 551-3749 or, in her absence, Era Anagnosti, Staff Attorney, at (202) 551-3369 with any questions.

Sincerely,

/s/ Era Anagnosti

for Pamela Long
Assistant Director

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cc: David E. Morrison, Partner (*via e-mail*)
Fulbright & Jaworski L.L.P.