



DIVISION OF  
CORPORATION FINANCE

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

February 9, 2011

Mr. Michael A. Gerlich  
Vice President and Chief Financial Officer  
Gastar Exploration Ltd.  
1331 Lamar Street  
Houston, TX 77010

**Re: Gastar Exploration Ltd.**  
**Form 10-K for Fiscal Year Ended December 31, 2009**  
**Filed March 25, 2010**  
**File No. 1-32714**

Dear Mr. Gerlich:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

Sincerely,

Ethan Horowitz  
Branch Chief