

September 7, 2010

Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549-7010
Attention: H. Roger Schwall
Assistant Director

Re: Transocean Ltd.'s Response to the Staff's Comment Letter dated August 4, 2010 Form 10-K for the Fiscal Year Ended December 31, 2009
Filed February 24, 2010
Form 10-Q for Fiscal Quarter Ended June 30, 2010
Filed August 4, 2010
Response letter dated August 16, 2010
File No. 0-53533

Dear Mr. Schwall:

The following is in response to the additional comments of the Staff of the Division of Corporation Finance (the "Staff") contained in the letter dated August 26, 2010, from H. Roger Schwall, Assistant Director, with respect to the above referenced filings of Transocean Ltd. (the "Company"). For your convenience, each of our responses is prefaced by the Staff's comment.

Form 10-K for the Fiscal Year Ended December 31, 2009

Management's Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations, Historical 2009 Compared to 2008

Income Tax Expense, page 47

Comment:

1. We note your responses to comments two and three from our letter dated August 4, 2010 and your revised disclosures in your Form 10-Q for the quarterly period ended June 30, 2010. Please confirm that in future filings you will provide enhanced disclosure that will enable investors to understand a) which of your significant taxing jurisdictions have enacted taxes based on gross revenues versus income before taxes; and b) how your rig operating structures impact your effective tax rate.

Company Response:

We hereby confirm that in future filings we will provide enhanced disclosure that will enable investors to better understand a) which of our significant taxing jurisdictions have enacted taxes based on gross revenues versus income before taxes; and b) how our rig operating structures impact our effective tax rate.

Closing Comments

In connection with this response, we acknowledge that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the Company's filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Securities and Exchange Commission (the "Commission") from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

By: /s/ Heather G. Callender

Heather G. Callender
Associate General Counsel