

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

August 31, 2010

Ben Mathews Secretary Rio Tinto plc and Rio Tinto Limited 2 Eastborn Terrace London, W2 6LG, United Kingdom

Re: Rio Tinto plc and Rio Tinto Limited

Form 20-F for Fiscal Year Ended December 31, 2009

Filed May 27, 2010

File No. 1-10533 and 1-34121

Dear Mr. Mathews:

We have reviewed your response letter and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 20-F for the Fiscal Year Ended December 31, 2009

Note 1 Principal Accounting Policies, page A-9

(j) Determination of Ore Reserves, page A-15

- 1. We note your response to prior comment number one. Please provide us with a table that details the prices used to establish reserves for each of your commodities in the last five fiscal years compared to the three year average price at each reserve determination date. As part of your response, please tell us if you considered disclosing the specific price you used to establish reserves at your reporting date.
- 2. We also note that your reserves are used in the calculation of depreciation, amortization and impairment charges, the assessment of life of mine stripping ratios and for forecasting the timing of the payment of close down and restoration costs and clean up

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costs. Please tell us how you consider amounts produced that were outside the scope of your mine plan based on your long-term pricing assumptions when calculating the aforementioned items.

Closing Comments

You may contact Mark Wojciechowski at (202) 551-3759, or Mark Shannon, Branch Chief, at (202) 551-3299 if you have questions regarding comments on the financial statements and related matters. Please contact Sean Donahue at (202) 551-3579, or in his absence, Timothy Levenberg, Special Counsel at (202) 551-3707, or me at (202) 551-3745 with any other questions.

Sincerely,

H. Roger Schwall Assistant Director