

Via Facsimile and U.S. Mail
Mail Stop 6010

August 15, 2006

Mr. Michael R. Cox
Vice President, Finance and Chief Financial Officer
Bioanalytical Systems, Inc.
2701 Kent Avenue
West Lafayette, Indiana 47906-1382

**Re: Bioanalytical Systems, Inc.
Item 4.02(b) Form 8-K filed August 15, 2006
File No. 000-23357**

Dear Mr. Cox:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or revisions are unnecessary.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone number listed at the end of this letter.

Item 4.02 (b) Form 8-K Filed August 15, 2006

1. Please revise your disclosure to clarify that investors should no longer rely upon the previously issued financial statements included in your Form 10-Q for the period ended June 30, 2006. Your current disclosure indicates that KPMG LLP did not complete its interim review of the financial statements included therein, which constitutes an Item 4.02(b) Form 8-K event, which fact you should make explicitly clear for investors by professing non-reliance on those financial statements.
2. Please revise your filing to comply with the provisions of Section 4, Item 4.02(c) of the Exchange Act Rules to Form 8-K. Specifically, confirm to us that you have provided KPMG LLP with a copy of the disclosures included in your August 15,

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2006 Form 8-K and amend the filing to include the required letter from KPMG LLP per Item 4.02(c)(3).

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Please provide us the information requested within 10 business days of the date of this letter or tell us when you will provide a response prior to the expiration of the 10-day period. Please furnish a letter with your response that keys your response to our comments. Detailed letters greatly facilitate our review. You should file the letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your response to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that they have provided all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

If you have any questions, please do not hesitate to call me at (202) 551-3657.

Sincerely,

Amy C. Bruckner
Staff Accountant