

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-4631

VIA FACSIMILE AND U.S. MAIL

December 18, 2009

Robert L. Clayton Chief Financial Officer Spherix, Inc. 6430 Rockledge Drive, Suite 503 Bethesda, Maryland 20817

RE: Spherix, Inc. Form 10-K for the Year Ended December 31, 2008 Forms 10-Q for the Periods Ended March 31, 2009, June 30, 2009 and September 30, 2009 File No. 0-05576

Dear Mr. Clayton:

We have reviewed your filings and have the following comments. If you disagree with a comment, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-Q FOR THE PERIOD ENDED SEPTEMBER 30, 2009

Item 4T - Controls and Procedures, page 14

1. Please confirm that there were no changes in internal control over financial reporting during the quarter ended September 30, 2009 that have materially affected or are reasonable likely to materially affect your internal controls over financial reporting. In future filings, please revise your disclosure accordingly to clarify this. Refer to Item 308(c) of Regulation S-K.

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Exhibits 31.1 and 31.2

2. You have replaced the word "report" with "annual report" in paragraphs 3 and 4 of your certifications. Form 10-Q is not an annual report. In future filings, please revise your certifications to just use the word "report" instead of "annual report" or "quarterly report". Your certifications should be in the exact form shown in Item 601(b)(31) of Regulation S-K. Please show us what your revised certifications would look like.

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Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses 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 the filing includes 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 writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- 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. Mr. Robert L. Clayton December 18, 2009 Page 3

You may contact Ernest Greene, Staff Accountant, at (202) 551-3733, or the undersigned at (202) 551-3769, if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Rufus Decker Accounting Branch Chief