



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

Mail Stop 6010

April 29, 2008

Mr. Larry A. Viano  
Chief Financial Officer  
Semitool, Inc.  
655 West Reserve Drive  
Kalispell, Montana 59901

**Re: Semitool, Inc.**  
**Form 10-K for the Fiscal Year Ended September 30, 2007**  
**Form 10-Q for the Quarter Ended December 31, 2007**  
**File No. 000-25424**

Dear Mr. Viano:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your documents in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comments are 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 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended September 30, 2007

Note 1. Company Organization and Summary of Significant Accounting Policies, page 39

-Revenue Recognition, page 41

1. We note that as a result of substantive acceptance provisions, you defer revenue until customer acceptance. We further note that you present “deferred profit,” which you state represents the deferred revenue from equipment shipped to customers that has not yet been accepted by the customer, less the deferred cost of sales. Please address the following:
  - Tell us the point at which you record the accounts receivable and the related deferred revenue amounts on a sale to a new customer or of a new product to an existing customer requiring customer acceptance. Tell us if the amounts billed represent the full sales price or only a portion of the sales price. Finally, tell us why you believe it is appropriate to record accounts receivable and deferred revenue at this point.
  - It appears that your accounting results in the relief of inventory upon shipment but prior to customer acceptance. In light of the substantive acceptance criteria, tell us why you believe it is appropriate to relieve inventory prior to acceptance. Discuss how you meet the delivery criteria referred to in SAB Topic 13.a.3.b.
  - Notwithstanding the above, tell us how your current presentation of deferred profit complies with paragraph 5 of FIN 39, which permits offsetting of assets and liabilities only when a legal right of setoff exists.

Form 10-Q for the Quarter Ended December 31, 2007

General

2. We note the disclosure in the 10-Q for the quarter ended December 31, 2007, that you recently reported to the Office of Export Enforcement in the Commerce Department’s Bureau of Industry and Security that you may have violated certain export regulations. Please identify for us the countries to which you may have exported your products in violation of those export regulations.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

Semitool, Inc.  
Mr. Larry A. Viano  
April 29, 2008  
Page 3

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 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.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Joe McCann, Staff Attorney, at (202) 551-6262, or Tim Buchmiller, Reviewing Attorney, at (202) 551-3635 if you have questions on any other comments. In this regard, do not hesitate to contact me or Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any questions.

Sincerely,

Kevin L. Vaughn  
Accounting Branch Chief