

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-7010

February 3, 2009

Mr. Robert P. Capps Executive Vice-President-Finance and Chief Financial Officer, Mitcham Industries, Inc. 8141 SH75 South P.O. Box 1175 Huntsville, TX 77342

Re: Mitcham Industries, Inc. Form 10-K for the year ended January 31, 2008 Form 10-Q for the quarter ended October 31, 2008 File No. 0-25142

Dear Mr. Capps:

We have reviewed your response to our letter dated January 6, 2009 and have the following comments. We ask that you respond by February 18, 2009.

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-K for the fiscal year ended January 31, 2008

<u>Report of Independent Registered Public Accounting Firm on Financial statements, page F-2</u> <u>Report of Independent Registered Public Accounting Firm on Internal Controls, page F-3</u>

1. As previously requested in comment number four of our letter dated January 6, 2008, please request that your auditors revise their reports and <u>amend</u> your filing to include the revised auditor's reports which appropriately reflect the guidance set forth in paragraph 3 of Auditing Standard No. 1.

Mr. Robert P. Capps Mitcham Industries, Inc. February 3, 2009 Page 2

Form 10-Q for the quarter ended October 31, 2008

Condensed Consolidated Statements of Cash Flows, page 3

2. We note your response to our previous comment eight. In future filings please enhance your disclosure to clarify the nature of these short-term investments as well as your basis for including this item in cash flows from financing activities.

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

If you have any questions regarding these comments, please direct them to Mindy Hooker, Staff Accountant, at (202) 551-3732, Jeanne Baker, Assistant Chief Accountant at, (202) 551-3691 or to the undersigned at (202) 551-3768.

Sincerely,

John Cash Branch Chief