



**THE EXPLORATION EQUIPMENT SUPPLIER™**

February 17, 2009

**VIA EDGAR AND FACSIMILE**

Mr. John Cash  
Branch Chief  
Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, NE  
Washington, D.C. 20549-7010

**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. Cash:

On February 3, 2009, Mitcham Industries, Inc. (the "Company") received the comments of the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") to the Company's response to the Staff's letter dated January 6, 2009, all related to Form 10-K for the fiscal year ended January 31, 2008 (the "2008 Form 10-K") and Form 10-Q for the quarter ended October 31, 2008 (the "Form 10-Q").

The following responses are for the Staff's review. For your convenience we have repeated each comment of the Staff exactly as given in the Staff's comment letter.

**Form 10-K for the year ended January 31, 2008**

**Report of Independent Registered Public Accounting Firm on Financial statements, page F-2**

**Report of Independent Registered Public Accounting Firm on Internal Controls, page F-3**

1. As previously requested in comment number four of our letter dated January 6, 2009, please request that your auditors revise their reports and amend your

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**filing to include the revised auditor's reports which appropriately reflect the guidance set forth in paragraph 3 of Auditing Standard No. 1.**

The auditor's reports have been revised as requested and included in Form 10-K/A dated and filed February 12, 2009.

**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.**

We will enhance our disclosures in future filings to provide the additional information requested.

Should the Staff have any questions or comments, please contact the undersigned at 281.353.4475.

Very truly yours,

**MITCHAM INDUSTRIES, INC.**

By: /s/ Robert P. Capps

Robert P. Capps

Executive Vice President and Chief Financial Officer

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