

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

April 25, 2006

Mr. Michael A. Pugh Chief Financial Officer, Mitcham Industries, Inc. 8141 SH 75 South P.O. Box 1175 Huntsville, TX 77342

Re: Mitcham Industries, Inc.

Form 10-K for the fiscal year ended January 31, 2005

File No. 0-25142

Dear Mr. Pugh:

We have reviewed your response to our letter dated April 6, 2006 and have the following comments. We ask that you respond by May 9, 2006.

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.

Statement of Consolidated Cash Flows
Lease pool equipment and new equipment sales

1. We have reviewed the comparison of summarized annual consolidated statements of cash flows, original vs. restated as well as the additional information sent to us via facsimile on April 25, 2006. As of the date of this letter, we are awaiting further information regarding your 2004 and 2005 restated amounts. In light of your request that we assist you in meeting your filing timetable for your 2006 Form 10-K we will separately address any additional concerns or comments we may have on your 2004 and 2005 restated amounts once you have provided us with the requested additional information.

Mr. Michael Pugh Mitcham Industries, Inc. April 25, 2006 Page 2

Note 1 – Organization and Summary of Significant Accounting Policies – Seismic Equipment Lease Pool, page F-8

- 2. Based on your response to prior comment three we have the following additional comments:
- We note your policy regarding the removal of assets that are fully depreciated from your books is, "if an asset is fully depreciated and is still expected to generate revenue, then the asset will remain on [your] books. However, if a fully depreciated asset is not expected to have any revenue generating capacity, then [you] will remove the asset from [your] books." We also note that you are "unable to determine whether a particular asset is generating revenues." We assume therefore that your policy regarding the removal of assets that are fully depreciated from your books is done at the "major category" of assets level rather than at an individual asset level. Please ensure your stated policy in future filings is clear. Also, please expand your policy to discuss when and how you assess your lease pool assets to determine whether your fully depreciated assets are still generating revenue.
- We note that at January 31, 2005 you had \$24.3 million of assets on your books which were fully depreciated. We assume that you will revise your January 31, 2005 balance sheet to comply with your stated policy regarding the removal of assets that are fully depreciated but not expected to have any revenue generating capacity.
- Expand Management's Discussion and Analysis to quantify the amount of gross assets which were fully depreciated but still generating revenue at January 31, 2005 and January 31, 2006. We believe that this disclosure will enhance an investors understanding of your results of operations as well as your liquidity.
- We note that you have recorded an impairment charge relating to your lease pool in fiscal 2006. In your disclosure regarding this impairment, please ensure that you identify the nature of the asset impaired (the major category of assets impaired) and you include all of the disclosures required by paragraph 26 of SFAS 144.

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 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.

Mr. Michael Pugh Mitcham Industries, Inc. April 25, 2006 Page 3

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require. 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.

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