

February 28, 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
Form 10-Q for the quarter ended October 31, 2005
File No. 0-25142

Dear Mr. Pugh:

We have reviewed your response to our letter dated January 10, 2006 and have the following comments. We ask that you respond by March 14, 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.

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

Lease pool equipment and new equipment sales

1. We note your responses to prior comments one, seven, eight and nine with regard to your accounting and disclosures surrounding your lease pool equipment and new equipment sales and have the following concerns.

* You indicate that you have not historically differentiated equipment sales as new equipment versus used equipment. Demonstrate how you are able to appropriately classify the cash receipts from the sale of used lease pool equipment within your Statements of Cash Flows. In this regard, we believe that the cash receipts from the sale of used lease pool equipment should be consistently classified and presented with the related cash payments for the purchase of such equipment. Given your response to prior comment two that your primary source of revenues is derived from short-term leasing of equipment and given the fact that you have reflected the purchases of seismic equipment held for lease within financing activities, tell us why you have not presented the cash receipts from the sale of used lease pool equipment within financing activities. Refer to paragraphs 16c and 24 of SFAS 95.

* You indicate in your response to prior comment seven that your cash flow caption "Net book value of equipment sold" should be "Net book value of lease pool equipment sold". However, it is still unclear to us what this line item represents. Is this line item actually the net book value of your lease pool equipment? If so, why is it reflected within cash flows from operating activity and why does it not agree to your cost of equipment sales in your consolidated statements of

operations?

* Demonstrate how you have appropriately reflected your cash receipts and cash payments related to your new equipment sales within your Statements of Cash Flows pursuant to paragraphs 21, 22a and 23a of SFAS 95. In this regard, we note that in your response to prior comment one you indicate that it would take an extraordinary amount of time and resources to review the information within your fixed asset ledger for lease pool equipment to attempt to isolate the sales of new equipment from those of used equipment.

* We note your response to prior comment eight that you only buy equipment for resale for specific customer orders. Tell us why, then, you include new equipment purchases that have been purchased for resale for specific customer orders within your fixed asset ledger for lease pool equipment. Given the fact that you do not appear to have historically maintained inventory and cost of sales information for new equipment sales, help us to understand how you were able to conclude as you did in your response to prior comment eight that you did not have new equipment on hand at any balance sheet date primarily because you sell everything FOB shipping point and sales of new equipment are sporadic.

* You indicate in your response to prior comment nine that you do not take title to equipment on consignment. Tell us the amount of equipment on hand of third parties for which you have not taken title as of each balance sheet date as well as the amount of gross and net consignment sales recognized during each period presented. Tell us how you track and differentiate for reporting purposes inventory held by you on consignment versus inventory purchased by you for resale to your customers. Clarify what commitments you have as a consignee of this inventory.

* You discuss the appropriateness of gross revenue reporting in your response to prior comment nine. We assume that this analysis relates to your SAP equipment sales and not your sales you make as a consignee. Please clarify and separately assess the appropriateness of your revenue presentation of consignment sales.

Management's Discussion and Analysis - Liquidity, page 15

2. Your response to prior comment four indicates that the increase in your cash flows from operations was principally impacted by the increased demand for your equipment (e.g. income from operations). We note however that there were also significant changes in working capital accounts that you should also fully discuss in order to provide a comprehensive discussion of your cash flows from operating activities for each period presented.

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

3. We reviewed your response to our prior comment 11 and have the following additional comments.

* You disclosed in Management's Discussion and Analysis that depreciation expense had decreased significantly during the past three fiscal years because certain equipment had reached the end of its depreciable life coupled with sales of assets with remaining depreciable life. Based on your response, it is unclear to us how you were able to provide these bases for the decrease in depreciation

expense. Specifically, how do you know that depreciation decreased because certain equipment had reached the end of its depreciable life, if, as you indicate in your response, you are unable to identify and disclose the cost basis of the seismic equipment pool that has been fully depreciated? How do you know when fully depreciated equipment is still generating lease revenue and thus positively impacting your results of operations? In addition, how were you able to represent that you sold equipment with remaining depreciable life? How do you identify the net book value of the used leased equipment sold if your revenue system is not integrated with your fixed asset system?

* Tell us supplementally and expand your accounting policy to clarify when fully depreciated seismic equipment lease pool assets are removed from your books. If you are not able to track lease revenues on a per item basis, how are you able to appropriately determine when to remove fully depreciated equipment from your books?

* Given the fact that "the Company has not historically tracked individual assets that have been leased" please explain to us how you have determined that you are depreciating these assets over their useful lives. Your response indicates that "industry trends" do not warrant an increase in the depreciable lives of the equipment in your lease pool. Do you only look to industry trends when determining the appropriate depreciable lives for your equipment lease pool? What is the average total period of time your channel boxes and other peripheral equipment are under lease? Are these periods longer than that suggested by the industry trends you use to assess the appropriateness of the useful lives of your lease pool? If so, please explain.

* Based on the significant impact the depreciation of your equipment lease pool can have on your results of operations, it appears necessary for you to identify this management estimate as a critical accounting policy. Please provide us with your proposed disclosures.

Lease Pool, page F-8

4. We note your response to prior comment 12 and have the following additional comments.

* As previously noted, your discussion within Critical Accounting Policies indicated that the company "...is not assured that their net deferred tax assets will be realized...". We asked you to confirm that an assessment of your deferred tax assets in accordance with paragraph 17c of SFAS 109 would not change the valuation allowance you have recorded as of each balance sheet date presented. That is, did you appropriately reduce your deferred tax assets by a valuation allowance for the portion of your deferred tax assets, which based on the weight of available evidence, is "more likely than not (a likelihood of 50 percent) will not be realized?"

* As previously requested, expand Management's Discussion and Analysis to address the positive and negative available evidence that led you to conclude that a valuation allowance was necessary to reduce

your deferred tax assets to zero. Refer to paragraphs 21 through 24 of SFAS 109.

Additional Comments

Based on your overall response to our prior comment letter, we have the following additional comments:

5. We note that your equipment leasing revenues have increased 66% from 2003 to 2004 and 24% from 2004 to 2005. Please tell us supplementally and expand your disclosures to discuss the utilization rates for your equipment lease pool for each period presented as well as the underlying reasons for the changes in these rates. In addition, discuss the impact the changes in these rates had on changes in your revenues recognized from period to period.

6. We also note that your depreciation decreased 7% from 2003 to 2004 and 23% from 2004 to 2005. Given the fact that depreciation is the most significant expense related to your leasing revenues, your current disclosures within the Costs and Expenses section of your MD&A regarding depreciation expense is not sufficient enough to provide your investors with a comprehensive understanding of these significant fluctuations and the impact they have had on your business. Please provide enhanced disclosures explaining why depreciation expense has continued to decrease even in light of the significant increase in your leasing revenues. In this regard, we note from one of your responses that the cost basis of your equipment has been declining due to quantity purchase arrangements. Have there been any other reasons for the decrease in the cost basis for your equipment? Is the market price of the equipment declining? If so, indicate if this decrease in the cost of leasing equipment could have any impact on the amount of leasing revenue you will be able to generate from that equipment.

7. Revise your statements of operations to include in direct costs -- seismic leasing the appropriate portion of your depreciation expense associated with your seismic equipment lease pool. Alternatively, parenthetically include in direct costs -- seismic leasing line item on the face of your statements of operations, the amount of depreciation expense excluded from such line item, which is included in depreciation and amortization. Refer to SAB Topic 11:B.

Form 10-Q for the quarter ended October 31, 2005

Note 3 - Acquisitions, page 6

8. We note your response to prior comment 14. We note that upon the completion of your valuation study on the intangible assets acquired, you will make an appropriate allocation from goodwill to the intangible assets acquired. It was fully clear from your disclosures that the purchase price had not been finalized. Please confirm that if your final purchase price allocation results in a significant portion of the purchase price being allocated to goodwill that you will provide a description of the factors that contributed to the goodwill being recorded.

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.

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
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Mr. Michael Pugh
Mitcham Industries, Inc.
February 28, 2006
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

DIVISION OF
CORPORATION FINANCE