



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

DIVISION OF  
CORPORATION FINANCE

February 18, 2011

Mitcham Industries, Inc.  
Robert P. Capps, Executive Vice President – Finance and Chief Financial Officer  
8141 SH 75 South  
P.O. Box 1175  
Huntsville, TX 33742

**Re: Mitcham Industries, Inc.  
Form 10-K for the year ended January 31, 2010 filed April 9, 2010  
Form 10-Q for the quarter ended October 31, 2010 filed December 8, 2010  
File No. 0-25142**

Dear Mr. Capps:

We have reviewed your response to our letter dated February 8, 2011 and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to this comment, we may have additional comments.

Form 10-K for the year ended January 31, 2010

Critical Accounting Policies

Goodwill and Other Intangible Assets, page 34

We have read your response to prior comment one of our letter dated February 8, 2011. Please clarify how you have determined that Seamap UK and Seamap Singapore are not operating segments as defined in ASC 280-10-50-1. In this regard, please specifically confirm, if true, that your chief operating decision maker does not receive and regularly review each subsidiary's operating results to make decisions about resources to be allocated to the subsidiary and assess its performance.

Mr. Robert P. Capps  
Mitcham Industries, Inc.  
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You may contact Mindy Hooker at (202) 551-3732, Jeanne Baker at (202) 551-3691 or me at (202) 551-3768 with any questions.

Sincerely,

John Cash  
Branch Chief