

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

Mail Stop 7010

March 9, 2007

By U.S. Mail and Facsimile

Mr. Jerry W. Fanska Senior Vice President – Finance and Treasurer Layne Christensen Company 1900 Shawnee Mission Parkway Mission Woods, Kansas 66205

Re: Form 10-K for the Fiscal Year Ended January 31, 2006

Form 10-Q for the Fiscal Quarter Ended April 30, 2006 Form 10-Q for the Fiscal Quarter Ended July 31, 2006 Form 10-Q for the Fiscal Quarter Ended October 31, 2006

File No. 000-20578

Dear Mr. Fanska:

We have reviewed your response letter dated February 13, 2007 and have the following additional comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. After reviewing this information, we may or may not raise additional comments.

Form 10-K for the Fiscal Year Ended January 31, 2006

Note 2 – Acquisitions, page 43

1. Based on your response to our prior comment two, it appears that you valued the backlog acquired in the Reynolds transaction at less than 1% of the gross backlog amount. In this regard, we note that the gross acquired backlog was approximately \$195 million, and you valued this backlog in your purchase accounting at \$227,000. Please provide us with a more detailed description of your valuation methodology and the various assumptions that went into your valuation to help us better understand how you determined that the fair value of this backlog is so much less than the gross backlog amount.

Form 10-Q for the Fiscal Quarter Ended October 31, 2006

Note 10 – Operating Segments, page 15

2. We note your response to our prior comment four. Although the aggregation of your geoconstruction and water and wastewater infrastructure segments remains unclear to us, given the size of the geoconstruction segment and the information

Mr. Jerry W. Fanska Layne Christensen Company March 9, 2007 Page 2

provided in your response, we will not pursue this issue further at this time. In this regard, we note that the determination of reportable segments under SFAS 131 requires considerable judgment, and we believe that management is in the best position to determine your reportable segments. Please confirm that you will continue to consider the requirements of SFAS 131 as you determine your segments going forward. Please also consider whether additional disclosures would be appropriate under paragraph 37 of SFAS 131.

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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 response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please furnish your 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, you may contact Dale Welcome, Staff Accountant, at (202) 551-3865, Jennifer Thompson, Senior Staff Accountant, at (202) 551-3737 or, in their absence, to the undersigned at (202) 551-3768.

Sincerely,

John Cash Accounting Branch Chief