

NORTHERN
ORION
RESOURCES INC.

August 17, 2007

Via EDGAR and Facsimile

Mr. Karl Hiller
Branch Chief, United States Securities and Exchange Commission
Division of Corporate Finance
100 F Street, N.W., Stop 7010
Washington, DC 20549

Re: Northern Orion Resources Inc.
Form 40-F for Fiscal Year Ended December 31, 2006
Filed April 3, 2007
File No. 1-31927

Dear Mr. Hiller:

Northern Orion Resources Inc. ("Northern Orion" or the "Company") is responding to your letter dated July 17, 2007, relating to the above-referenced filing (the "Filing"). The comments contained in that letter and Northern Orion's responses are set forth below.

In providing the responses below, the Company acknowledges that:

- The Company is responsible for the adequacy and accuracy of the disclosure in the Filing;
- Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the Filing; and
- The Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

FORM 40-F FOR THE FISCAL YEAR ENDED DECEMBER 31, 2006

CONTROLS AND PROCEDURES

MANAGEMENT REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

SEC COMMENT:

1. You state, "Management has concluded that, as of December 31, 2006, our internal controls over financial reporting is effective based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO")...". However, you disclose two "weaknesses" in your internal controls over financial reporting. Please tell us whether the weaknesses identified are material as defined by PCAOB Auditing Standard

No.2. To the extent these weaknesses are material you may not conclude that your internal control over financial reporting is effective. Refer to General Instruction B(6)(c)(3) of Form 40-F for additional guidance.

In addition, we note your certifying officers also concluded that your disclosure controls and procedures were effective as of December 31, 2006. Please expand your disclosure to explain how your disclosure controls and procedures were determined to be effective in light of the identified weaknesses.

NORTHERN ORION'S RESPONSE:

The two weaknesses identified related to Canadian taxation matters, specifically future income taxes, and U.S. GAAP review. In the Company's opinion, these weaknesses were not material as defined by PCAOB Auditing Standard No. 2 as they did not result in more than a remote likelihood that a material misstatement of the Company's annual or interim financial statements would not be prevented or detected. However, in the interest of full and complete disclosure, the Company believed that it was preferable to make reference to these weaknesses rather than to remain silent in the Filing.

The Company's internal controls over financial reporting includes a process whereby the Company's controller prepares the financial statements, including the tax and U.S. GAAP reconciliation notes to the financial statements and the Company's Chief Financial Officer (the "CFO") reviews the controller's work for completeness and accuracy. The Company believes that both its controller and its CFO have a fundamental knowledge of tax and U.S. GAAP necessary to ensure that the Company's financial reporting is sufficient in these areas. Further, in the context of the Company's tax note, the Company engaged a third-party expert who was formerly a senior tax manager at a major accounting firm to review the tax note prior to it being provided to the Company's auditors, Deloitte & Touche ("D&T").

During the audit of Northern Orion's 2006 year-end financial statements, D&T identified two highly complex accounting issues that the Company had not considered. The issues were deferred income tax on capitalized stock-based compensation and U.S. GAAP valuation of share purchase warrants denominated in a currency other than the entity's functional currency. The former issue resulted in an adjustment to the Company's financial statements, while no adjustment was required as a result of the latter issue, as the requirement for U.S GAAP valuation of such warrants was delayed for foreign private issuers until additional guidance is issued.

As a result of these issues, the Company determined that it had a deficiency in the areas of taxation and U.S. GAAP, but concluded that the deficiencies were not significant such that they should be classified as material weaknesses since the basic disclosure controls and procedures for taxation and U.S. GAAP were in place. Therefore, the Company's certifying officers were able to conclude that the Company's disclosure controls and procedures were effective as of December 31, 2006.

Despite the Company's opinion that these weaknesses were not material, during 2007, the Company resolved these weaknesses by engaging Grant Thornton LLP to assist in reviewing the Company's tax and U.S GAAP disclosures in future filings with the SEC.

The Company does not believe any adjustment or amendment to the 2006 Form 40-F is required.

DOCUMENT 3 – AUDITED ANNUAL FINANCIAL STATEMENTS
NOTE 16 – DIFFERENCES IN GENERALLY ACCEPTED ACCOUNTING PRINCIPLES
BETWEEN CANADA AND THE UNITED STATES, PAGE 19

SEC COMMENT:

2. We note that you hold a 12.5% indirect interest in the Bajo de la Alumbrera mine held by Minera Alumbrera Ltd. and account for this investment under the equity method. Please tell us the extent to which you considered, identified, and adjusted for material U.S. GAAP differences in this equity method investment's financial statements when preparing your U.S. GAAP reconciliation.

NORTHERN ORION'S RESPONSE:

On acquisition of its 12.5% indirect interest in Minera Alumbrera Ltd. ("MAL") and as part of the due diligence process, the Company completed a process through consultation of the MAL auditors to identify any U.S. GAAP differences. This review did not identify any significant GAAP differences other than as reflected in the financial statements of the Company.

On an ongoing basis, the Company receives monthly financial statements and operating reports from MAL and has in place a process of identifying and reporting for U.S. GAAP differences for its equity investment in MAL which involves the following:

- a) Holding discussions with MAL's finance director to address any new operating circumstances that might impact financial reporting practices, including review of any new sales contracts;
- b) Reviewing monthly financial statements and operating reports to identify potential transactions and trends that may lead to GAAP differences;
- c) Holding discussions with the other Canadian co-venturer, also an SEC registrant, to consider Canadian/U.S. GAAP differences, to consider new accounting pronouncements and to maintain, as much as appropriate, consistency of reporting; and
- d) Conducting continuous reviews and monitoring of other mining (foreign private issuer) filers to identify reported GAAP differences and to consider whether similar circumstances would or could give rise to a GAAP difference with respect to MAL.

For the years ended December 31, 2006 and 2005, no U.S. GAAP differences in the Company's accounting for its equity investment in Alumbrera were identified that required disclosure. For the year ended December 31, 2004, the Company identified a difference relative to accounting for derivatives which gave rise to a U.S. GAAP reconciling item.

**EXHIBIT 99.6 – CONSENT OF INDEPENDENT REGISTERED CHARTERED
ACCOUNTANTS**

SEC COMMENT:

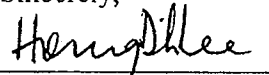
3. Please obtain a signed consent from your auditors and include it in an amendment to your filing in accordance with General Instruction D-(9).

NORTHERN ORION'S RESPONSE:

On July 18, 2007, the Company filed Amendment No. 2 to the Filing, which includes a signed consent from the Company's auditors. A copy of the amended Filing can be obtained from the Securities and Exchange Commission's website at www.sec.gov.

Northern Orion welcomes the opportunity to discuss the foregoing points further and clarify any open questions you may have at your convenience. I can be reached at (604) 689-9663.

Sincerely,



Horng Dih Lee
Chief Financial Officer

cc: Mary Collyer, DuMoulin Black LLP
Thomas M. Rose, Troutman Sanders LLP