



DIVISION OF  
CORPORATION FINANCE  
MAIL STOP 7010

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
100 F STREET, N.E.  
WASHINGTON, D.C. 20549-7010

May 14, 2008

Mr. Jason S. Weber  
President and Chief Executive Officer  
Rimfire Minerals Corporation  
700-700 West Pender Street  
Vancouver, BC V6C 1G8, Canada

**Re: Rimfire Minerals Corporation**  
**Form 20-F for Fiscal Year Ended January 31, 2007**  
**Filed May 11, 2007**  
**Response Letter Dated February 28, 2008**  
**Response Letter Dated April 15, 2008**  
**Response Letter Dated May 5, 2008**  
**File No. 000-31100**

Dear Mr. Weber:

We have reviewed your response letters and have the following comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Form 20-F Filed May 11, 2007

Item 11: Quantitative and Qualitative Disclosure about Market Risk

1. In your response to our prior comment number one we note you have asserted that you do not hold any derivative financial instruments. Please confirm that conclusion includes a consideration of derivative features imbedded within other non-derivative agreements or instruments. Please also confirm that your consideration of derivative instruments is within the definition in paragraphs 6 and 12 of FAS 133.

In relation to non-derivative other financial instruments, please confirm that you have considered financial instruments to include all instruments meeting the definition with paragraph 3 of FAS 107.

2. In your response to our prior comment number one we note you have determined that foreign exchange rate risk and interest rate risk are immaterial. Please tell us the qualitative and quantitative factors you have considered as the basis of your conclusion. Refer to “Questions and Answers About the New “Market Risk” Disclosure Rules,” a copy of which can be found on our website at:

<http://www.sec.gov/divisions/corpfin/guidance/derivfaq.htm>

#### Statement of Cash Flows

3. We note your response to our prior comment number two and your proposed revisions to certain line item titles within your statement of cash flows. The proposed revisions do not sufficiently satisfy our prior comment. Please clarify your line item titles within the operating activities section to provide a better indication of the nature of the flow. Commonly used indicators of the nature of direct cash flows consistent with a statement prepared under the direct method include “paid to” and “received from.” Refer to line item titles and examples in Section 1540.16 and Illustrative Example 1 of the CICA Accounting Handbook, as well as paragraph 27 and Appendix C of FAS 95.

If you continue to believe that your line item titles do not necessitate clarification, please provide a basis in Canadian or US GAAP for your conclusion by reference to the appropriate accounting literature.

#### Mineral Property Interests

4. We note your response to our prior comment number four in your letter dated May 5, 2008, which supplements your letter dated April 15, 2008, where you conclude that both US and Canadian GAAP consider acquisition costs of mineral property interests tangible assets. We also note you have asserted that you consider your acquisition costs properly expensed due to impairment.

Please note that under FAS 144 and CICA Handbook Section 3063, the recognition of an impairment loss is a two step process that first requires the identification of the condition of impairment, and then requires measurement of the impairment loss.

We are unable to agree with your assertion that a difficulty or inability in estimating future cash flows from mineral properties is an indication that there are no future cash flows likely from your mineral property interests. The framework for identifying and measuring impairment under either FAS 144 or CICA Handbook Section 3063 does not support the conclusion that difficulties or inability in determining future cash flows is an indication that the fair value of an asset is zero. Furthermore, we are unable to reconcile your assertions regarding full impairment with your continued exploration activities for some of these properties and interests. We do not believe it is reasonable to conclude that the moment after you acquire a mineral property interest that the same property is then fully impaired.

Please tell us whether you have considered using a probability-weighted approach that incorporates the varying scenarios and outcomes for determining the expected future cash flows from your mineral property interests. Refer to paragraphs 17 and 23 of FAS 144 as well as Examples 2 and 4 of Appendix A of FAS 144. Also refer to paragraphs 18 thru 23, paragraphs A1 thru A28 of Appendix A, and Examples 2 and 4 of CICA Handbook Section 3063.

After your consideration of the above, please tell us how you derived estimated future cash flows used in testing the recoverability of your mineral property interest acquisition costs. Please include the significant assumptions and critical estimates underlying your calculations.

#### Foreign Currency Translation

5. In regards to our prior comment number six, please confirm that you have no assets, liabilities, revenues, expenses, gains, or losses recorded in your subsidiary books and records where the functional currency, as defined in FAS 52, is other than your reporting currency (the Canadian Dollar). If the preceding is true, please tell us how you account for your Australian and US exploration activities, including the unit of account, the source of related expenditures, and the currency and manner in which acquisition and exploration expenditures are recorded.

Furthermore, as previously noted, we may have additional comments on this item pending the resolution of comment number four above.

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Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact James Giugliano at (202) 551-3319 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3683 with any other questions.

Sincerely,

Jill Davis  
Branch Chief