

BIRCH MOUNTAIN RESOURCES LTD.

Suite 300, 250 - Sixth Avenue SW

Bow Valley Square 4

Calgary, AB T2P 3H7

Tel: (403) 262-1838

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ALBERTA SECURITIES COMMISSION

4th Floor, 300 - 5th Avenue S.W.

Calgary, Alberta, T2P 3C4

**BRITISH COLUMBIA SECURITIES
COMMISSION**

P.O. Box 10142 Pacific Centre

701 West Georgia Street

Vancouver, British Columbia, V7Y 1L2

TSX VENTURE EXCHANGE INC.

10th Floor, 300 - 5th Avenue S.W.

Calgary, Alberta, T2P 3C4

Dear Sirs:

Re: BIRCH MOUNTAIN RESOURCES LTD.

Material Change Report Under Section 146 of the *Securities Act* (Alberta) and Section 85 of the *Securities Act* (British Columbia)

This letter is intended as a statement setting forth certain matters that may be a material change in the affairs of BIRCH MOUNTAIN RESOURCES LTD. (the "Corporation" or "Birch Mountain"). For convenience, this letter is itemized in the same manner as Form 27 of the *Securities Act* (Alberta) and Form 53-901F of the *Securities Act* (British Columbia). Concurrent with this filing, this letter is being filed with the TSX Venture Exchange Inc., being the only Exchange on which the Corporation's shares are currently listed.

Item 1 - Reporting Issuer

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Item 2 - Date of Material Change

The material change occurred on January 30, 2004.

Item 3 - Publication of Material Change/Press Release

A press release was issued on February 2, 2004.

Item 4 - Summary of Material Change

Birch Mountain has received the results of an independent technical report conforming to National Instrument 43-101 on a Preliminary Assessment of its Muskeg Valley limestone project in the Fort McMurray region of northeastern Alberta.

Full Description of Material Changes

Birch Mountain has received the results of an independent technical report conforming to National Instrument 43-101, *Standards of Disclosure for Minerals Projects* ("NI 43-101"), on a Preliminary Assessment of our Muskeg Valley limestone project in the Fort McMurray region of northeastern Alberta. The technical report concludes that with continuing test work and market development, the Muskeg Valley limestone project has the potential to be developed into a major producer of quicklime and aggregate in the Fort McMurray region.

"The Preliminary Assessment independently validates the work we've done over the last 18 months," says Doug Rowe, President and CEO of Birch Mountain. "We look forward to supplying the oil sands industry, the major market for quicklime and aggregate. The Preliminary Assessment confirms that the Muskeg Valley limestone project contains a substantial resource and has the potential to supply 350 thousand tonnes per year of quicklime and 6.9 million tonnes per year of construction and concrete aggregates. To take this study to the pre-feasibility level, in February we plan to do additional drilling and testing to advance our aggregate resource to the measured and indicated categories, and to advance more of our calcinable limestone to the measured resource category." Don Dabbs, Vice President and CFO adds, "With the completion of the independent technical report, the development plans and socio-economic components of the Environmental Impact Assessment can be completed in the next several weeks for filing with the Natural Resources Conservation Board and Alberta Environment."

Birch Mountain's Muskeg Valley limestone project is on our mineral leases located approximately 60 km north of Fort McMurray, Alberta. The location is central to existing and planned oil sands mining and in-situ recovery developments. The oil sands industry, a long-term and growing market, uses quicklime to desulphurize flue gases and treat process and tailings water. Construction and concrete aggregates are key components in oil sands development.

FINANCIAL ANALYSIS

The base-case cash flow model is in constant 4Q 2003 Canadian dollars assuming no inflation of prices or costs and is supported by the resource estimate and economic analysis sections, below. The project is assumed to be 100% equity financed. Sales are projected to 2036 based on the quicklime and aggregate production forecasts. On a pre-tax basis, the net present value of the individual and combined quicklime and aggregate projects is as follows:

**Table 1. Pre-Tax Net Present Value ("NPV") of Discounted Cash Flow
(millions of Canadian dollars)**

Net Present Value	Quicklime	Aggregate	Combined
NPV@ 0%	\$842.0	\$752.7	\$1,594.7
NPV@ 5%	\$262.9	\$329.2	\$592.1
NPV@ 7.5%	\$140.5	\$234.0	\$374.5
NPV@ 10%	\$66.6	\$173.2	\$239.8
IRR	14.2%	N/A	25.1%
Payback	8.9 yrs	N/A	8.0 yrs
Product Sales (millions of tonnes)	9.6	209.2	

RESOURCE ESTIMATE

Limestones of the Moberly Member of the Devonian Waterways Formation in our project area include high-calcium limestone, nodular limestone and calcareous shale. The Moberly Member is up to approximately 45 m thick and has been subdivided into 4 units; from bottom to top these are: Unit 1, Unit 2 (“Middle Quarry Unit” or “MQU”), Unit 3, and Unit 4 (“Upper Quarry Unit” or “UQU”). Birch Mountain has drilled a total of seven holes at a nominal 500 m spacing in the northern part of the project area and one hole in the southern part. Detailed field mapping and sampling has been done in the northern project area. Additional information on the exploration conducted on the Muskeg Valley limestone project is provided in the technical report available for review at www.sedar.com.

Measured and Indicated Limestone Resources

Measured and indicated limestone resources are that part of the limestone resource for which quantity and quality can be estimated with a level of confidence sufficient to allow the application of technical and economic parameters to support mine planning and evaluation of the economic viability of the deposit. Inferred limestone resources do not have the same level of confidence.

Measured and indicated calcinable limestone resources include both the MQU and UQU (Table 2). Limestone assigned to the measured resource category gave positive and internally consistent calcining test results in drill core. Limestone assigned to the indicated resource category gave positive and internally consistent geochemical test results in outcrop and/or drill core. No measured or indicated limestone resources meet either NI-43-101 or U.S. Securities and Exchange Commission (“SEC”) Industry Guide 7 definitions of proven and probable mineral reserves.

Cautionary Note to U.S. Investors Concerning Estimates of Measured and Indicated Resources:
This news release uses the terms “measured resource” and “indicated resource”. We advise U.S. investors that while such terms are recognized and permitted under Canadian regulations, the U.S. Securities and Exchange Commission does not recognize them. U.S. investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves.

**Table 2. Measured and Indicated Limestone Resource Estimate
(millions of metric tonnes)**

Limestone Type	Unit	Tonnage (millions)	
		Measured	Indicated
Calcinable	MQU	13.15	17.77
Calcinable	UQU	0.80	5.40

Inferred Limestone Resources

The inferred limestone resource includes calcinable limestone from the MQU and UQU and A-grade aggregates of Unit 1 and Unit 3; lower quality B- and C-grade aggregates are excluded from the resource estimate (Table 3). Rocks included in the inferred resource category are interpreted to be present from surface and subsurface geological information derived from drill and outcrop studies and limited geochemical testing. No inferred limestone resources

met either NI-43-101 or U.S. SEC Industry Guide 7 definitions of proven and probable mineral reserves.

Cautionary Note to Canadian Investors: *The Preliminary Assessment incorporates inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them to be categorized as mineral reserves. Consequently, there is an inherent risk in the financial analysis that the value of these inferred mineral resources might not be realized.*

Cautionary Note to U.S. Investors Concerning Estimates of Inferred Resources: *This news release uses the term “inferred resource”. We advise U.S. investors that while such term is recognized and permitted under Canadian regulations, the U.S. Securities and Exchange Commission does not recognize it. “Inferred resources” have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. U.S. investors are cautioned not to assume that any part or all of an inferred resource exists, or is economically or legally minable.*

**Table 3. Inferred Limestone Resource Estimate
(millions of metric tonnes)**

Limestone Type	Unit	Tonnage (millions)
		Inferred
Calcinable	MQU	6.83
Calcinable	UQU	4.48
Aggregate	U1	330.5
Aggregate	U3	161.7

The total measured plus indicated calcinable limestone resource is 37.12 million tonnes, with an inferred resource of 11.31 million tonnes. The total inferred limestone aggregate resource is 492.2 million tonnes. Both the limestone aggregate and calcinable limestone resources identified in the Preliminary Assessment exceed the amounts required over the life of the project used in the financial analysis.

For definitions of “Measured Resource,” “Indicated Resource,” and “Inferred Resource,” please see the Canadian Institute of Mining, Metallurgy and Petroleum publication, “*Standards on Mineral Resources and Reserves, Definitions and Guidelines*,” available at www.cim.org.

Technical Report

The independent technical report was prepared by AMEC E&C Services Ltd. (“AMEC”) and Russ Gerrish Consulting (“RGC”). AMEC reviewed the calcinable limestone resource estimate and completed the preliminary economic assessment of the quicklime component based on these resources. RGC directed preliminary aggregate testing, reviewed the aggregate resource estimate and developed the aggregate production and cost forecasts for the economic model. The technical report was completed under the direction of Mark Pearson, P.Eng., Senior Mining Engineer of AMEC, and Russ Gerrish, P.Eng., of RGC, each of whom qualifies as an independent qualified person as defined by NI 43-101. AMEC E&C Services Limited is a division of AMEC plc, an international engineering services company with more than 45,000 employees in 40 countries.

ECONOMIC ANALYSIS

In evaluating the Muskeg Valley limestone project, AMEC reviewed Birch Mountain's market-demand model for quicklime and RGC developed a market-demand model for aggregate in the region. Currently, quicklime is supplied by truck from Exshaw, Alberta, at a market price in Fort McMurray of approximately \$175 per tonne. Based on an analysis of current and developing markets, the base-case for quicklime assumed Birch Mountain would initially produce 70,000 tonnes per year in 2006, rising to 350,000 tonnes by 2010 and continuing at this rate out to year 30 at an unescalated price of \$170 per tonne. Although it is anticipated that the project life will exceed 30 years, this was selected as the cut-off for the financial analysis.

The capital cost estimate pertains only to the quicklime operation because it is assumed we will contract the aggregate production. The base-case anticipates two phases of capital expenditures. Phase I involves construction of a single kiln with a capacity of 175,000 tonnes per year with quicklime production from the UQU beginning in 2006. Phase 2 involves installation of a second kiln with an additional 175,000 tonnes per year of quicklime production from the MQU beginning in 2009. For Phase 1, direct and indirect capital expenditures are estimated at \$87.4 million, including a \$10.6 million contingency allowance. In Phase 2, direct and indirect capital expenditures are lower, estimated at \$75.6 million, including a \$9.9 million contingency allowance. AMEC categorizes the capital cost estimate as Class 4, pre-feasibility study level, with a nominal expected accuracy of +35%/-25%, as defined by the AACE Cost Estimate Classification System.

AMEC, in calculating our operating costs for quicklime production, included expenses for mining, processing and site G&A in the Fort McMurray area. The total operating cost is estimated to be \$57.97 per tonne of quicklime produced. AMEC states the operating cost estimate is at the scoping study level of accuracy; i.e., $\pm 35\%$. No contingency was applied.

RGC developed an aggregate production forecast taking into account the relative advantage of the location of the Muskeg Valley project versus alternate aggregate supplies and using available information on current and projected aggregate demand in the region. Long-term aggregate production is estimated to be 400,000 tonnes per year of rock for concrete aggregate, 5,200,000 tonnes per year of coarse aggregates and 1,300,000 tonnes per year of fine aggregates. Base prices for concrete, coarse, and fine aggregates are \$20.00, \$6.00 and \$6.50 per tonne, respectively, with a general increase of \$0.50 per tonne in 2011 and increases of \$2.00, \$1.00 and \$1.25 per tonne, respectively, incorporated in 2009 and 2014 to account for future demand related to available supplies. Over the life of the project, the average operating cost for aggregate production is estimated to be \$5.56 per tonne produced.

PRE-FEASIBILITY STUDY

Based on the recommendations of the Preliminary Assessment, Birch Mountain intends to take the Muskeg Valley limestone project to the pre-feasibility level by conducting additional drilling and testing of the limestone, upgrading the geological modeling, conducting market surveys to better forecast quicklime and aggregate demand, and refining the capital and operating cost projections. A drill program is planned for February 2004 with the objectives of better defining both the calcinable limestone and aggregate resources. We intend to conduct a comprehensive aggregate and quicklime testing program and the results will be incorporated into a pre-feasibility level study.

Item 6 - Reliance on Section 146(2) of the *Securities Act* (Alberta) or Section 85(2) of the *Securities Act* (British Columbia)

Not applicable

Item 7 - Omitted Information

Not applicable

Item 8 - Senior Officer

The name of a Senior Officer of the Corporation who is knowledgeable about the material change and who can be contacted by the Commission is:

Douglas J. Rowe, President and Chief Executive Officer or Donald L. Dabbs, Vice-President and Chief Financial Officer, telephone (403) 262-1838.

Item 9 - Statement of a Senior Officer

The foregoing accurately discloses the material change referred to in this report.

DATED at Calgary, Alberta, this 2nd day of February, 2004.

Yours truly,

BIRCH MOUNTAIN RESOURCES LTD.

Per: “Donald L. Dabbs”
Donald L. Dabbs,
Vice-President and Chief Financial Officer