

# CENTRE for SCIENCE in PUBLIC PARTICIPATION

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"Technical Support for Grassroots Public Interest Groups"



Mr. Chris Doiron  
Ms. Cindy Parker  
Mining Section,  
Environment Canada  
351 St Joseph Blvd  
Gatineau, Quebec K1A 0H3

February 16, 2009

Re. MMER schedule 2 review for the Ruby Creek Molybdenum Mine

Mr. Doiron and Ms. Parker,

CSP2 submits these comments on behalf of the Canadian Environmental Network, as a selected NGO delegate on this file. We have asked Don Bachman, a Snow Safety Specialist with 40+ years experience in avalanche assessment, forecasting and control operations to conduct a review of avalanche risks to the mine infrastructure: tailings impoundment structures, treatment facilities and long-term maintenance of the mine infrastructure. We are concerned that impacts from avalanches may not have been fully assessed in the tailings impoundment design. We include Mr. Bachman's report as an appendix to this letter.

### **Environment Canada's review process:**

My experience with Environment Canada's running of this review process was very poor. I never received the project information (a CD that was supposed to be mailed) and my inquiries to Ms. Parker about the missing information went unanswered. I never received confirmation that my contract as a CEN delegate was received or approved, and have been conducting my review on good faith that it is in place.

### **Proceeding with regulatory approvals vs. bankruptcy proceedings:**

Environment Canada is responsible for the protection of the public interests, including freshwater lakes. Environment Canada is not responsible for advancing industry interests. Mr. Doiron stated at the Gatineau hearing that Environment Canada was completing this Environmental Assessment process because it benefits Adanac Molybdenum. We are concerned that Mr. Doiron is placing the interest of an insolvent company ahead of his responsibility to protect public interests.

In December 2008, Adanac Molybdenum filed for bankruptcy protection from their creditors<sup>1</sup> and an \$80 million dollar bridge loan<sup>2</sup>. Adanac received an extension by the Companies' Creditors Arrangement Act to make arrangements to delay bankruptcy proceedings until April 2009<sup>3</sup>. The CEO of Adanac, Peter Jones states "The single biggest asset we have is probably the property itself, and of course the ore reserve. If we can sell the property for enough money, we may be able to pay off the other creditors as well"<sup>4</sup>.

<sup>1</sup> <http://www.kpmg.ca/adanac/creditors.html> see list of creditors (three files), approximately 85 in total.

<sup>2</sup> <http://www.cbc.ca/canada/north/story/2008/12/24/adanac-bankruptcy.html?ref=rss> Adanac may be forced to sell assets, CEO says. December 24, 2008.

<sup>3</sup> [miningweekly.com](http://www.miningweekly.com) Adanac receives extension to creditor protection. Liezel Hill, Published on January 19, 2009

<sup>4</sup> <http://www.cbc.ca/canada/north/story/2008/12/24/adanac-bankruptcy.html?ref=rss> Adanac may be forced to sell assets, CEO says. December 24, 2008.

In Mr. Jone's affidavit dated December 19, 2008<sup>5</sup> he states "The value of the Ruby Creek mineral property, Adana's primary asset, is unknown. That being said, it is undoubtedly worth significantly less now than the amount outstanding to the Lenders. Accordingly, it is in my view clear that it is in the best interests of Adanac's creditors that Adanac in essence attempt to ride out the existing market problems while exploring sales of our excess and redundant mining and processing equipment, and, potentially the mineral assets themselves."

Adanac Molybdenum is clearly a company in severe financial trouble, on the verge of defaulting on many millions of dollars of debt. The CEO of Adanac Molybdenum has publicly stated their desire to sell this property. Environment Canada has full knowledge of the financial precariousness of Adanac Molybdenum, yet continues to process the MMER schedule 2 authorization knowing Adanac Molybdenum is not be able to meet their current financial obligations, let alone those of developing the project, or paying for the monitoring, reporting, and maintenance required in the conditions in their existing Environmental Assessment Office Certification and Ministry of Mines, Energy and Petroleum Resources Mines Act permit.

Adanac Molybdenum received their Ministry of Mines, Energy and Petroleum Resources Mines Act permit on June 16, 2008<sup>6</sup>. The permit includes many requirements to provide reports, monitoring and provide financial assurances in a timely manner to document and reclaim the impacts of the mine's development. One example is the requirement for the permittee to prepare and file with the Chief Inspector, the Environmental Management System (EMS) within 60 days after the issuance of this permit consisting of the environmental protection plans that establish proactive polices and plans to direct operational management and monitoring.<sup>7</sup> This report was due September 16, 2008, but MEMPR staff has not received it.

The MEMPR Mines Act permit required Adanac Molybdenum to deposit additional security for the proper performance of the monitoring, closure and reclamation of the mine with the Minister of Finance in accordance with a specified schedule<sup>8</sup>. Adanac Molybdenum is not in compliance with the permit requirements to deposit 4,500,000.00 on or before December 31, 2008.

It is not in the public interest to continue to process the MMER schedule two authorization for this file when the applicant is in violation of currently held permits. You are putting public interests at risk through authorizing the destruction of a lake by an insolvent company that can not afford the costs of the habitat restoration plan required by the MMER schedule two authorization. This is placing unacceptable risk of damage without mitigation and restoration on the public, not on the owners and shareholders of Adanac Molybdenum- where it belongs. Will public and the Taku River Tlingit First Nation get stuck with the costs of remedying environmental destruction?

This project is now on hold due to global market conditions and the Proponent's possible bankruptcy. The EAO certificate gives the proponent five years to start the project or the certificate becomes invalid. The costs of operation, closure, reclamation and long-term maintenance and treatment may change a great deal over this five year period. The entire finances and bonding requirements need to be re-evaluated at the

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<sup>5</sup> <http://www.kpmg.ca/adanac/documents/AffidavitofPeterJonesdatedDecember192008.pdf>

<sup>6</sup> PROVINCE OF BRITISH COLUMBIA, MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES MINE PERMIT-APPROVING MINE PLAN AND RECLAMATION PROGRAM, Mines Act R.S.B.C. 1996, c. 293)Permit M-231 Issued to Adanac Molybdenum Corporation for work located at the Ruby Creek Mine Issued at Victoria, British Columbia this 16th day of June in the year 2008.

<sup>7</sup> Ibid at page 9 of 23.

<sup>8</sup> Ibid at page 19 of 23.

time the proponent decides to move forward with its development. The EAO must act when the proponent's bankruptcy procedures are finalized to cancel or suspend the EAO certification.

We hope these comments are considered by Environment Canada. Please contact me with any questions.

Sincerely,

A handwritten signature in black ink that reads "Amy Crook". The signature is written in a cursive, slightly slanted style.

Amy Crook  
BC Program Director

Cc: CEN delegates to Ruby Creek MMER consultation

## Appendix A

### **AVALANCHE RISK REVIEW OF RUBY CREEK MOLYBDENUM PROJECT – ATLIN, BRITISH COLUMBIA**

Don Bachman  
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Bozeman, Montana 59715  
avalpro@theglobal.net

(The reviewer is a Snow Safety Specialist with 40+ years experience in avalanche assessment, forecasting and control operations. I have visited and worked on mine properties in avalanche terrain and am familiar with mine facilities and operational requirements. Resume on request.)

**A.** The Terrain Hazard Assessment – for the proponent by Qcd Geotechnics – Robert F. Gerath P. Geo, 2/19/07 identifies avalanche tracks in Figure 5.1 and in Section 5 and Section 6. Figure 5.3 is helpful in depicting the avalanche terrain above km 14 –km 15 which is the location of the proposed mine facilities. The report in 5.3 recommends further assessment of “*avalanche source areas, transport zone and runout limits along the Project access road ... between km 9 to 12 and km 13 to 15*”; further: “*Assessment work in the km 15 area should also address possible hazards to mine building locations as noted in Section 6.1*”. I concur with these recommendations.

**B.** The Mining Road and Worksite Avalanche Appraisal – Ruby Creek Molybdenum Project was submitted on June 14, 2007 by David McClung, P. Eng. He confirms the hazard assessment observations and estimates that “*...an average of one avalanche per year is assumed to have reached the position where gentler terrain starts (about 10 degree slope angle) between km 14 to km 15*” (the location of the mine facilities). He states that “*One viable option would be not to build the plant facilities/worksites above the 1420 m contour line between km 14 and km 15 at this location.*” He briefly examines other options including avalanche control by a fixed gas exploder and recommends against such methods due to uncertain effectiveness and starting zone defenses which would be highly expensive. I would concur with those conclusions. He states that runout zone “*...defenses would have to be approximately 500m long to be effective for protection of the planned facilities and worksites...*”. Another viable option would be a “*...full time forecasting and control program*”, including “*...the continuous presence of a forecaster*”. “*Avalanche structural design consideration including an earthen berm upslope of the buildings may be required for the proposed plant facility and surrounding buildings.*” He states that active avalanche control methods delivered by gunfire or helicopter could be in a plan. His recommendation at 5.4 Section III km 14-15 is “*An avalanche control program that includes protective work in the form of an earthen berm upslope of plant facilities...*” He states that the recommendations are based on proposed road and mine facilities location and that “*...a full runout analysis may be required and should then be conducted.*” Such an analysis was initiated September 20, 2007 by McClung and Alan Dennis with a site visit conducted October 5 to 7, 2007 (Oct. 22, 2007 letter from Ryan Todd [for company] to Lisa Walls, Environment Canada.) That assessment is unavailable for review.

In the course of preparing this review, I have also looked beyond these reports to specific available facility design discussions and figures including drainage maps, facility placement, tailings and waste rock impoundments and open pit parameters to, in part, base my conclusions.

**Review observations:**  
**Comments:**

1. David McClung is an avalanche professional with whom I've had contact on numerous occasions. He is well respected by his peers for the extensive academic, research and operational accomplishments achieved throughout his career.
2. I have not visited this site.
3. The final assessment by McClung and Dennis (whom I also know) which was unavailable, may cover the points of my review, and should be read and understood prior to using the my following comments and recommendations as a reference for response to the Proposal.

### **Conclusions:**

The mine processing and adjacent facilities are in several avalanche run-out zones and will be affected by avalanche impact if they remain as located in the reports I have reviewed. Relocation to a lower elevation out away from the run out zones, may partially mitigate this risk, but would still require, in my opinion, further engineering study to ensure safety for mine workers and facility infrastructure. This protection may best be afforded by an array of berms and/or run out zone mounds to slow and stop the avalanche debris. Mounds may not be effective depending on run-out zone gradient. Berms/dams to protect the structures could be feasibly constructed from available waste rock but must be designed and located by a professional engineer with experience in this work. Specific attention should be given to the potable water supply location which is above the site and appears vulnerable to avalanche impact.

The open pit perimeters may intersect avalanche terrain and should be assessed for this potential. Avalanche events from terrain above the pit rim may pose a hazard to workers and equipment. Avalanche potential from excavation within the pit between benches should also be assessed and planned for. Note that blasting activities may have sufficient shock impact on avalanche starting zones in the vicinity of the pit to cause avalanches. While this may not be an issue, there should be an awareness of that potential.

Long-term avalanche impact potential on road and drainage infrastructure after closure and decommission should be assessed. Avalanche debris may sweep into diversion channels, but the probability of plugging and resultant overtopping of the channels is remote. Nevertheless, an engineering assessment calculating run out zone, avalanche debris volume, and winter/early spring stream flow should be made. Any infrastructure such as a treatment plant in avalanche runout zones should be assessed for potential damage. Avalanche debris should not adversely affect the waste rock impoundment or the tailing bench/wetland which remains after closure. Should a lake develop behind the tailings impoundment there may be the potential of avalanche debris displacing ice/water with a resultant overtopping of the dam? This possibility may be remote, but should be recognized.