

## **Presentation to COFEX and COMEV Panels Reviewing the Matoush Uranium Exploration Project**

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Good evening. I'd like to begin by recognizing the Cree Nation of Mistissini on whose territory we are conducting this hearing and thank them for welcoming us to their beautiful land. I'd also like to acknowledge the Chief and elders present. Thank you also to the panel and the staff for your dedication and attention to the important matters we are here to discuss.

I work for MiningWatch Canada, a small non-profit organization that aims to improve mining practices and policy across Canada and where Canadian companies operate internationally – which is pretty much all around the world. As Canada program coordinator I've had the honour to work with communities such as the Norway House Cree Nation, Innu, Tsilhqoti'n, and Carrier Sekani to analyze proposed mining projects. My personal background is in environmental science and ecology – so I am more comfortable speaking to the impacts of mining development than the technical engineering aspects, though have certainly become knowledgeable about the basic concepts and issues through my work with MiningWatch.

As I mentioned our mandate is to improve mining – not to stop all mines as some have characterized us on occasion. We do however have perspectives on two minerals that have led us to the conclusion that they are both best left in the ground – asbestos and uranium. Our position on uranium is that given the long term risks and impacts associated with mining, processing and eventual use of uranium a further expansion of uranium mining is not responsible to present and future generations.

In my written submission I will elaborate on our general concerns about the uranium fuel cycle but for the moment I'd like to focus on the adequacy of the environmental impact

statement. The guidelines set out in the Directives have clearly not been met by the proponent, and where they may have been met in the table of contents and section numbers the quality of the work is not sufficient for you, the communities of Mistissini, Cree Regional Authority, Chibougamau residents or other stakeholders to really assess the potential impacts and benefits of this project. The document is full of gaps, and statements and conclusions that are not supported. Given these deficiencies I submit that the panels cannot recommend approval for the project.

The specific issues I will address this evening are:

- Project justification and contextual information
- Project description
- Evaluation of risks to ground and surface water from mine dewatering
- Description and assessment of an operating mine.

Other reviewers contracted by the Cree Regional Authority have drawn attention to other fundamental deficiencies in the baseline data<sup>1</sup> and monitoring programs, and of the cumulative effects assessment<sup>2</sup>. I would like to state my agreement with their assessments and add that the additional information provided by the proponent since these reviews has done nothing to address these deficiencies.

Unfortunately the time provided does not allow me to include concerns I have regarding the social impacts and impacts on fish and wildlife. I would also like to stress that I do not consider this presentation or my written submission to be a comprehensive list of the faults and weaknesses of the EIS, but those that I have found based on my own abilities and limited time to review the documentation.

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<sup>1</sup> M. Dubé and A. Harwood. Conformity Analysis for the Matoush Underground Exploration Program. January, 2010.

<sup>2</sup> R. Creasey and N. Roe, Brief Review of the Cumulative Effects Assessment for Strateco Resources' Matoush Underground Uranium Exploration Program, Québec. December 11, 2009

## Context and Justification

I would like to begin with one of the contextual aspects and justifications for the project—that nuclear power is the clean energy source of the future. I know others will be addressing this point as well so I won't belabor the point but do want to note that MiningWatch shares the opinions of analysts like Amory Lovins<sup>3</sup> of the Rocky Mountain Institute, David Suzuki<sup>4</sup> - Canada's godfather of environmentalism, others that you will hear tonight, and the 300 Quebec municipalities who have signed a resolution calling for a moratorium on uranium mining and phasing out nuclear power. We are convinced that the so-called nuclear renaissance is more hype than reality. The risks and demonstrated impacts associated with each step of the nuclear fuel chain, the economic costs, and the large, centralized and inflexible nature of nuclear power generation mean that it can not be considered a viable part of a sustainable future.

While there may be *plans* for new reactor builds, the actual amount of power produced at reactors has peaked and is expected to decline precipitously over the next 20 years<sup>5</sup>. If the nuclear renaissance is not at our doorstep than the proponent's hope that the price of uranium is going to rise enough to make their project viable is also in question. The EIS comments on a “dazzling” increase in uranium price but in fact the uranium spot price peaked sharply in 2007 and has since dropped to less than half the maximum price. While the current price is still well above the price at the start of the decade, many projects conceived and financed during the price bubble are now having a hard time. Marginal projects are at risk of failing once started, or being temporarily shut down either of which jeopardizes their ability to meet stated commitments and creates significant challenges for employees, their families and the communities associated with the project.

This leads me to the topic of jobs - another justification for the project. The proponent has put a particular emphasis on employing members of the Cree communities and local

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<sup>3</sup> A. Lovins et. al. Forget Nuclear. 2008. [http://www.rmi.org/rmi/Library/E08-04\\_ForgetNuclear](http://www.rmi.org/rmi/Library/E08-04_ForgetNuclear)

<sup>4</sup> D. Suzuki. A Nuclear Reaction. 2008. <http://www.davidsuzuki.org/blogs/science-matters/2008/06/a-nuclear-reaction/>

<sup>5</sup> Nuclear Training Centre, Nuclear Power Plants in the World. 2001  
<http://www.icjt.org/an/tech/jesvet/jesvet.htm>

residents in Chibougamau. Job creation targets are optimistic with little in the way of supporting analysis about how the targets will be met.

The proponent aspires to 15% indigenous employment for the exploration phase and 35% employment for the operational phase. It is not clear why the company has not yet reached 15% in its exploration work and even less clear is how it will attain 35% during operation. Even with considerable efforts and policies in place and as they near the end of their operating lives, the Troilus Mine the Raglan Mine have achieved indigenous employment rates of 14 % and 16%<sup>6</sup>. How would this project double these numbers? The proponent provides no details about specific barriers to employment of either Cree or Chibougamau area residents and no concrete plan for addressing them. Without this kind of analysis there is little reason to believe that they will reach the targets they have set.

The EIS states a commonly used 2 for 1 multiplier for additional job creation but provides no reference or justification for the use of this figure. The EIS doesn't provide any information regarding where these additional jobs might occur, or in what sector.

Taxes and royalties paid to the province of Quebec are also included as justification for the project. Quebec, however, does not have a good record of capturing revenues from mineral extraction. It ranks last in Canada in terms of royalties and the Quebec Auditor General has expressed significant concern over low or non-existent payments of mineral royalties to the government<sup>7</sup>. These findings must be considered in qualifying the relative social impact of the project. Of course, no mining royalties will be paid during the exploration phase.

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<sup>6</sup> Natural Resources Canada, Aboriginal Participation, Partnership Agreements. 2007  
<http://www.nrcan.gc.ca/smm-mms/abor-auto/htm/tro-07-eng.htm>  
<http://www.nrcan.gc.ca/smm-mms/abor-auto/htm/rgl-07-eng.htm>

<sup>7</sup> MiningWatch Canada. Quebec Auditor General Finds Trouble in Mining Paradise.  
<http://www.miningwatch.ca/en/quebec-auditor-general-finds-trouble-mining-paradise> April 2009.  
CPQMM. Redevances Minières : Le Québec dernier de classe.  
[http://www.quebecmeilleuremine.org/sites/default/files/CO10-09-16\\_ConferenceMines.pdf](http://www.quebecmeilleuremine.org/sites/default/files/CO10-09-16_ConferenceMines.pdf) Sept 2010

The proponent provides justification for the project based on the need to better understand the local geological conditions and perform additional drilling to better define the uranium resource. Some economic and technical rationales are provided. While I do not have the technical background to question the need to excavate a ramp rather than continue with drilling I can question the proponents assertion that constructing the ramp would have less environmental impact (pg. 36). Given the greater volume of rock to be removed, the additional infrastructure required for the ramp and the fact that the proponent commits to filling all drill holes, from underground and surface, I see no justification for the statement that the ramp will have less impact – and none is offered within the EIS.

### **Project Description**

There are two aspects of the Project Description that I would like to flag for your attention. The first is the construction of a landing strip.<sup>8</sup> The strip is referenced twice in the EIS, however its exact location is not given, there is no discussion of impacts or alternatives to its construction and there is no consideration of potential impacts of increased flights on sensitive wildlife. There is a mention that the landing strip reduce the use of float planes (pg. 26) but the relative advantages of the landing strip are not discussed.

The panel has already flagged the issue of the borrow pits the proponent will need to develop and requested additional information on them. Extracting the needed material from these pits could cause important localized impacts and yet we are not even given an estimate about how much material will be needed. In the Additional Information document provided by Strateco they provide a list of possible sites but no detail about site selection criteria. The list of possible sites in the Additional Information document includes sites which would have direct impacts on aquatic and wetland habitat and yet the

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<sup>8</sup> It has come to my attention that since the writing of the EIS the landing strip was constructed and therefore is not part of the core project for the environmental assessment process. This is regrettable and it should be considered part of the project however at minimum it should be better described and included in the cumulative effects assessment.

text following states that the proponent will respect “minimal distances required between the borrow pits and wetlands/water bodies” and that “No loss of wetlands is anticipated” (pg. 22).

### **Mine Dewatering**

Nowhere in the EIS could I find an estimate of the volume of water the proponent expects to need to evacuate from the ramp. There is no detail of pumping capacity required and the treatment capacity required is based on a blue sky estimate of 100 m<sup>3</sup>/hr. (In reviewing the April 2010 feasibility statement I did find reference to an estimate of an inflow rate of at least 0.5 m<sup>3</sup>/s (or 1,800 m<sup>3</sup>/hr) for 1km long mine and this estimate assumes no connection to nearby lakes.)

The EIS provides some very basic information about the hydraulic conductivity of the rock concluding that “These hydraulic conductivity values are found at one end of the range of sandstone permeability values, and are therefore indicative of a semi-permeable rock.” (pg. 89) It is only later in the document that it is clarified the sandstone at Matoush is on the high end of the spectrum. The fact that the rock is quite permeable is further attested to by the fact that above the water table, in the first few metres of drilling “all the holes lose 100% of the water circulation” (pg. .89).

Given that one of the primary concerns of those who made comments to Strateco about the project is water conservation, one might hope for an elevated attention to potential impacts of water quality from the project. As there will be no processing on site, the most important source of possible water pollution is from dewatering the ramp. To properly evaluate the impacts of the project the assessment should include an estimation of the volume of water that will be discharged from the ramp into the environment. No such analysis has been undertaken by Strateco. Instead the EIS uses the arbitrary capacity of the treatment plant for the amount of water being discharged (pg. 149).

Of particular concern are the elevated levels of copper found in the ground water (pg. 90) due to the toxicity of copper to aquatic ecosystems. Exposure of the bedrock to the atmosphere from the ramp construction and drill holes into the ore body could result in further metal leaching ex. aluminum that could further affect surface and groundwater quality.

Based on modeling done on questionable assumptions the EIS predicts significant impacts on the water quality of Lake 5. “Modeled lake concentrations of copper nickel and zinc are above acute water quality guidelines.” (pg. 150) This is a fairly startling admission from the proponent and needs further elaboration and discussion within the document

Because we have no estimate of the amount of water that will be dewatered from the ramp it is also not possible to evaluate potential impacts of a drawdown of the local water table. This issue is handled in a very cursory way with a so-called analysis that determines there will be no impact (pg. 158). The proponent states that water “might” enter the underground ramp – in an area with permeable sandstone, high precipitation, high water table, a landscape full of lakes and wetlands, it’s not a question of whether water enters the ramp but how much. Strateco concludes that drawdown would only have a very minor impact due to the fact that there are no wells for human consumption in the area . What about potential impacts to changes in the discharge of groundwater to springs, wetlands, streams and lakes?

Dewatering of underground infrastructure is a fundamental aspect of mine planning and has posed significant hurdles to mine development including in Saskatchewan uranium mines. The lack of rigorous consideration in this EIS is a fatal flaw.

## **Uranium Mining**

The final deficiency of the EIS that I would like to highlight is the proponent’s continued failure to provide information about having an operating uranium mine at the Matoush

site. This is a requirement that is repeated throughout the Directive and one which the proponent has not met in any serious way.

Some information about an eventual mine is can be found in the latest feasibility study on the SEDAR website<sup>9</sup>. For example this report proposes to shorten the mine life to 7 years, by increasing the processing capacity of the mill. The feasibility study also identifies the need to store approximately 2,000,000 tonnes of tailings waste and that two nearby lakes are being considered as the preferred location for dumping the wastes. Dumping mine waste into healthy lakes is a controversial option and finding an acceptable, cost-effective and environmentally sound way of dealing with mine waste can make or break a project. There is no point in proceeding with an advanced exploration project, or a mine development project if there is not an acceptable way to deal with the mine wastes. This should be part of the discussion and analysis we are undertaking at this time and not be waiting until the proponent has spent tens of millions of dollars more, creates more expectations, and gets its leg any further into the door.

## **Conclusion**

In the short time I have tonight, I've laid out some of the principle deficiencies of Strateco's EIS for this project. There are many others. Given the extent and nature of the deficiencies this EIS cannot be accepted and the proponent cannot be given the go ahead for this project.

In your response to the proposal the panel could consider rejecting the current EIS and insist on a process to assess the full mining project. You could also recommend that the project not be given further approval until there is a Quebec-wide debate on uranium mining. Such a decision would be in the interest of Quebec as it would reduce any future liability of Quebec should the moratorium being demanded be put in place. Finally the

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<sup>9</sup> Scott Wilson Roscoe Apostle Associates Inc. Updated Preliminary Assessment of the Matouch Project, Central Québec Canada. April 2010. Available at [www.sedar.com](http://www.sedar.com)



panels could simply reject the project outright as unsustainable and not in the public interest.

What the panel cannot do is accept this EIS as is. Doing so would jeopardize the integrity of this important process and send a message that following guidelines is optional and that substandard efforts to document baseline conditions and describe potential impacts is acceptable. Regardless of ones conclusions about uranium, I think we can agree on the need to uphold the expectations that many people and organizations have of this process. Thank you and I'd be happy to take any questions you may have for me.