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Department of
Sustainable Development

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Ministère du Développement
Durable

Stephanie Briscoe
Executive Director
Nunavut Impact Review Board
P.O. Box 2379
Cambridge Bay, NU
X0E 0C0

Wednesday, November 12, 2003

Tahera, Jericho Diamond Project

Dear Ms. Briscoe:

I am writing this letter as our final submission prior to the Public Hearing regarding Tahera's Jericho Project. Thank you for including us in your review process of this important project.

The Department of Sustainable Development (DSD) has followed this Project from the beginning and has reviewed the various documents filed in support of the Project. We submit this submission in the hope that our comments and recommendations will aid the Nunavut Impact Review Board in constructing a permit that is clear, comprehensive, fair, and contributes to sustainable development.

The Government of Nunavut is of the opinion that the Jericho Diamond Project should proceed to the regulatory approval stage. We congratulate Tahera on their work with NIRB and other regulators and for being the first mining project to have reached this point in the NLCA regulatory process. We feel that this project will meet our goals of sustainable development and will demonstrate that mineral exploration and mining is a temporary use of the land that is not in conflict with protecting and promoting the ecosystemic integrity of Nunavut.

When this project is complete the land will be returned to its natural state, our knowledge of the land and wildlife will be improved, and the strength, capacity, and perception of our communities will be improved.

In summary our comments relate to two broad issues and the conclusions and recommendations are presented below:

Environmental Concerns:

1. Tahera must prepare & distribute a wildlife report on an annual basis.

2. Tahera must prepare & distribute an annual report on the progress of its reclamation trials.
3. Tahera must clearly demonstrate that the project is a temporary use of the land, by reclaiming/recontouring all roads, dumps, etc, to a state consistent with adjacent, undisturbed lands.
4. Tahera must post a reclamation Bond of sufficient value to cover 3rd party reclamation of the site.
5. A more thorough discussion is needed on cumulative effects on wildlife and consideration given to new models developed for Diavik, BHP, and WKSS.
6. NIRB should request of INAC that it build & maintain a sufficient monitoring and enforcement capacity, to oversee the permits issued with regards to mineral activity in general, and this project in particular.

Socio-Economic Concerns:

1. Create a detailed socio-economic monitoring and mitigation plan for the Jericho Diamond Project.
2. Support the establishment of a communities' advisory board.
3. Mandate the board to assess the impact of a broad range of VSECs, including harvesting, community governance, and social and physical infrastructure development.
4. Mobilize the GN, through an interdepartmental committee structure similar to that used for the Nanisivik project, to provide support for communities on socio-economic impact assessment, and the implementation of monitoring and mitigation measures.

In addition to the above comments we have attached detailed comments that support these conclusions and recommendations in two appendices on socio-economic and environmental issues.

Once again, thank you for the opportunity to provide comments, and please feel free to contact me personally concerning any matter in this submission.

Yours truly

A handwritten signature in blue ink, appearing to read 'Bernie MacIsaac', with a long horizontal flourish extending to the right.

Bernie MacIsaac

A/ Director

Environmental and Integrated Resource management Division

Department of Sustainable Development

Government of Nunavut

867-975-5914

bmacisaac@gov.nu.ca

Appendix A

COMMENT ON THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED JERICHO MINING PROJECT

Introduction

This paper is in response to Tahera's Supplemental Report, which itself was a response to the initial comments by DSD on the Jericho project final EIS. Several of DSD's original issues have been adequately responded to in the Supplemental Report. The following is a summary of the issues which DSD still considers to be outstanding, along with a few points that it is believed should be raised.

In general, the project is seen by DSD in a positive light, and while further details and commitments are requested from the proponent, these should not entail significant time effort on Tahera's behalf.

Wildlife

Original DSD Comments 4.5 & 4.6 were not addressed by AMEC. These comments could be summarized as: how can you assess an effect on a population if the size of the population is not known? Tahera must make all efforts possible to quantify the wildlife populations, to assist it in determining the relative importance of the effects of the project. This could be largely addressed by Tahera contributing a yearly report on wildlife within the project area, including species noted and numbers of individuals, along with a report of any incidents involving wildlife other than rodents (roadkills, problem animals, etc.) This annual report is to be submitted to DSD and NIRB until such time as final reclamation is complete.

With respect to the cumulative effects assessment, and pertaining to wildlife there is a concern regarding the methodology, use of data, as well as not using the results of previous CEAs that have been done in the Slave Geological Province.

Tahera concluded that the migratory movement of caribou will not be "unduly" hindered. Data presented by the proponent indicated that between a few hundred and several thousand (up to 50,000 caribou) have traveled through the project area. However, the proponent has not provided a quantitative prediction of a decrease in foraging time for those individuals that travel through the zones of influence of the Jericho and other mines within their home range that would result in a reduction in feeding opportunities within the Bathurst Herd. Little quantitative analysis or use of available models was undertaken to support cumulative effect predictions or increase confidence in the proponent's conclusions, even though a benchmark for such quantitative work exists with Diavik, the WKSS and BHP.

Tahera concludes that there will be only minor effects of the project on grizzly bear, wolverine and other carnivore populations over the life of the project. The analysis does not provide any estimate of the additional or cumulative grizzly bear or wolverine mortalities per year (i.e., industry and non-industry) in the Slave Geological Province. The analysis does not refer to recently published information on grizzly bear population demographics and population viability McLoughlin et al. (2003b) nor demonstrate that the Jericho Project will not result in an exceedance of the maximum cumulative removal rate of 15 bears per year as recommended by McLoughlin et al. (2003b). The proponent has not provided sufficient evidence that its mitigation measures at its mine site and other mine sites are effective in minimizing mortality rates of grizzly bear. As such there remains a potential for significant adverse effects on grizzly bear populations. The CEA lacks information regarding the population size and natural variation in wolverine populations. The proponent has not provided sufficient evidence that its mitigation measures at

its mine site and other mine sites are effective in minimizing mortality rates of wolverine. As such there remains a potential for significant adverse effects on wolverine populations."

Re-vegetation

1) A more detailed discussion of the trials to be undertaken towards re-vegetation of the plant communities described in Burt, 1999 should be included. Table 4.2 of Appendix B.3.2 (Mine reclamation plan) is a good basis for this. A few points must be raised in relation to this Table, however: There is no problem with introducing species not present in the immediate area of the project, as long as they are present in the region, however in Table 4.2 several species not native to continental Nunavut/NWT are discussed as options for reclamation, in particular *Phleum pratense*, which is not native to North America. (The only native *Phleum* species is *P. alpinum*)

The following is the list of species/genera considered in Table 4.2.

Calamagrostis
Arctagrostis
Poa pratensis
Festuca ovina
Agropyron trachycaulum
Phleum pratense
Descurainia
Eriophorum
Carex
Puccinellia

More detail, i.e. down to the species level, should be added. Furthermore, a brief review of the literature shows that some modifications could be beneficial. The following is an example of a list that may prove more thorough. The asterisk indicates varieties that are available through Arctic Alpine Seeds, which is a supplier to BHP Diamonds, among others.

<i>Calamagrostis neglecta</i>	
<i>Poa pratensis</i> *	
<i>Poa alpina</i> *	
<i>Descurainia sophoides</i>	Not present locally, may be of limited reclamation value
<i>Agropyron latiglume</i>	A. trachycaulum may not be present regionally
<i>Festuca rubra</i> *	
<i>Phleum alpinum</i> *	
<i>Deschampsia caespitosa</i> *	
<i>Eriophorum scheuchzeri</i>	
<i>Puccinellia pumila</i>	Puccinellia are not present, but are regional
<i>Carex aquatilis</i>	
<i>C. rotundata</i>	
<i>C. bigelowii</i>	Several others would be acceptable as well

Some of the preceding, particularly the Cyperaceae (*Carex* & *Eriophorum*) may be less readily available commercially. Tahera's ongoing reclamation studies will be of great value in determining the final mix. Several of the species mentioned above will benefit from moderate fertilization, and DSD has no issues with the use of fertilizers. The main concern is that no invasive new species be introduced. In the absence of significant competition from foreign species, native species will re-establish themselves in the fullness of time.

3) As discussed in DSD's original comments, a detailed description of re-vegetation planning was indeed absent from the EIS. The position laid out by Tahera was essentially "we'll

figure it out as we go" which is acceptable, as long as a detailed plan of what procedures will be attempted is laid out. In Tahera's EIS, appendix B.3.2 Mine Reclamation Plan, one finds the words: "Conceptually, trials could include...". A firm commitment by Tahera to a detailed course of study must be made. To underscore this, it is recommended that Tahera provide NIRB with an annual report of all research and results on the study of reclamation techniques, appropriate species, and so on.

Final Reclamation Plan & Bonding

While the EIS does discuss re-contouring of waste piles and so on, a commitment must be made by the proponent to returning the project lands to make all roads, dumps, etc., consistent in appearance with the surrounding areas, to demonstrate the concept of temporary use of land for mining operations.

Furthermore, it is recommended that NIRB require the proponent to post a reclamation Bond sufficient to cover complete and thorough reclamation by a third party. As Tahera proposes to carry out reclamation of certain areas prior to final closure & reclamation of the project, the value of this bond would be recalculated every year.

Inspection & Enforcement

Many issues regarding Tahera's proposed Jericho operation will require monitoring on a regular basis. A large number of permits, from a variety of agencies, are required for a project such as this. These permits are issued, without the issuing agencies having much or any capacity to enforce the conditions of the permit. It is therefore recommended that NIRB request INAC to establish a monitoring capability to ensure that the terms & conditions of all permits relating to this and other projects are respected.

Summary:

While the EIS and the Supplemental reports did have a few flaws in terms of content, organization and so on, it is felt by DSD that overall, the quality of the submissions has been adequate. Pending Tahera's response to the issues raised in the present paper, it is DSD's belief that the current plans, as defined in the EIS & subsequent submissions, present enough information toward effective mitigation of adverse effects from the project and that this being the case, the project should proceed to the Regulatory phase.

Recommendation:

Tahera must prepare & distribute a wildlife report on an annual basis.

Tahera must prepare & distribute an annual report on the progress of its reclamation trials.

Tahera must clearly demonstrate that the project is temporary use of the land, by reclaiming/recontouring all roads, dumps, etc, to a state consistent with adjacent, undisturbed lands.

Tahera must post a reclamation Bond of sufficient value to cover 3rd party reclamation of the site.

NIRB should request of INAC that it build & maintain a sufficient monitoring and enforcement capacity, to oversee the permits issued with regards to mineral activity in general, and this project in particular.

Appendix B

COMMENT ON THE SOCIO-ECONOMIC IMPACT ASSESSMENT FOR THE PROPOSED JERICO MINING PROJECT

Purpose of this Comment

We have been asked to comment on the documentation and assessment of the socio-economic impacts of the proposed "Jericho Diamond Project" on Nunavut. Further, we have been asked to comment on the proposals for mitigation of the socio-economic impacts of the proposed mining development.

Summary

The information offered in the socio-economic impact assessment is incomplete. While more information on the socio-economic environment of the area affected by the proposed mining development will be needed, this does not lead to a conclusion that this project proposal should not proceed.

However, the socio-economic impact assessment makes it clear that there will be adverse socio-economic effects if this project proceeds. As a result, a detailed plan for the monitoring and mitigation of these effects during the operation of the Jericho Diamond Project must be prepared now.

Issues with the Socio-economic Assessment

1. The Data Provided

It is difficult to have confidence in the socio-economic data provided here when so much of it is not specific to Nunavut. The socio-economic impact assessment depends entirely on good data for Nunavut, but the authors of this report claim that they cannot provide this information at this time, and that "the exact breakdown between these two territories must await the completion of the Inuit Impact Benefit Agreement..." The deferral of the collection of socio-economic data on Nunavut is not acceptable.¹

2. The Scope of the Socio-economic Impact Assessment

The socio-economic assessment identifies six Valued Socio-Economic Components (VSECs) for assessment: employment opportunities; education & training; contract and business opportunities; community health; crime; demographic impact. The analysis for each of these areas is very uneven.

In the Department's own examination of key categories that must be included in socio-economic impact assessments two additional areas were recommended for analysis: the continuation of the land-based renewable resource economy as a sustainable livelihood; and, participation in community governance.²

¹ The difficulties of obtaining economic data on Nunavut's economy should not underestimated, but they are surmountable. See The Conference Board of Canada, "Nunavut Economic Outlook May 2001" and the September 2002 update. Neither report is included in the references for the socio-economic impact assessment.

² Department of Sustainable Development, "The Inclusion of Socio-economic Factors in Land Use Planning in Nunavut" (March 2001). This report is not included in the references for the socio-economic impact assessment.

In general, the social aspects of the socio-economic assessment are underplayed. For example, the basic population characteristics of the communities are not examined, community social and physical infrastructure is almost ignored.

3. The Need to Focus on Nunavut

This assessment does not employ many of the available data and analytical approaches that have been developed in Nunavut in the past several years. Chief among them is the attempt to establish indicators for impacts in each of the areas that contribute to the development of the Nunavut economy.

Developments need to be assessed according to their impacts on capital formation in terms of the natural environment, human development, social and organizational development, and physical infrastructure. The socio-economic assessment for the Jericho Diamond Project acknowledges that in Nunavut, the mere existence of employment “opportunities” does not indicate a positive impact without development of the human resources in our communities. Certain thresholds must be attained in education and training first or employment opportunities will remain elusive. The same is true for our natural capital, social capital, and physical capital. The socio-economic impacts of a major development must be seen as investments in each of these forms of capital, if there is to be wealth creation in our communities.

4. The Policy Base

This socio-economic assessment is constrained by the absence of a clear set of policy decisions on the responsibilities of the proponent of the development, and of government, for identifying and implementing mitigation. As a result, mitigative measures are simply listed in the socio-economic impact assessment, and no indication about who takes what specific action is provided.

Throughout the report commitments to mitigation are expressed largely in terms of good intentions but little that might be subject to a specific contract is proposed. This reflects the general absence of policy on responsibilities for socio-economic impacts and their mitigation.

It should be noted that work on policy in this area has been identified as a priority in the *Nunavut Economic Development Strategy*.

5. Definition of Roles

A related issue is the need to define the roles of the proponent, the territorial government, and the community, in terms of the socio-economic impact assessment process – the responsibilities for research and the collection of data, and the analysis of socio-economic impacts.

6. The Need to be Proactive

There is a tendency to rely on socio-economic mitigation measures that are reactive, rather than anticipatory. While the issue of training for employment is clearly recognized, for example, there is no plan recommended to act on the anticipated “opportunities.”

This issue again relates to the policy vacuum described above. Who will take action and when?

The Nature of the Impact this Project Will Have

While incomplete, this socio-economic impact assessment identifies both adverse and positive impacts of the proposed development, and lists mitigation measures that might be undertaken to address these impacts. Enough evidence is provided to permit the project to move forward, but

not without addressing some of the issues outlined above. How can this be done most effectively at this stage in the review process?

The importance of good baseline data and a socio-economic assessment that addresses an appropriate range of VSECs justifies a continuing critique and improvement of the information provided by the authors of this report. Moreover, the current process is the first of its kind, and its weaknesses should not be permitted to affect the standards applied to socio-economic assessments in the future.

Nevertheless, we would recommend that current efforts to improve the socio-economic impact assessment process for this proposal be directed toward moving forward on issues of monitoring, mitigation and reporting, rather than correcting the methods used for data collection and analysis. As a mining development, this proposal is small-scale and limited in scope, which may permit us to focus attention on the future relationships between the proponent, the government, and the community, in the expectation that these will be crucial to the successful management of socio-economic impacts, and of greater importance now than providing improved versions of the socio-economic baseline study and impact assessment reports.

A Socio-economic Monitoring Plan

1. Impacts on People are Important Too

The socio-economic environment is of equal importance to the biophysical environment in the environmental assessment process. One element of the assessment done on the biophysical environment, which is lacking for the socio-economic environment, however, is the provision of environmental management and environmental monitoring plans. We would recommend that these plans be enhanced to include the socio-economic aspects of the environment.

2. The Proposed Socio-economic Monitoring Committee

The socio-economic impact assessment does provide a brief section on monitoring, including the recommendation that a socio-economic monitoring committee be established. (4-19) (A community liaison committee is referred to in the outline for the environmental monitoring program although it is not clear whether this is the same group as the monitoring committee.)

The Department supports the creation of such a committee. Moreover, we would support a structure for the committee similar to an advisory board, with a majority membership from community governments, similar to the communities' advisory board established in the NWT for the Diavik project. (A representative from Kugluktuk is also included on the Diavik project communities' advisory board.)

The establishment of such a committee should not be deferred until after the negotiation of an Inuit Impact Benefit Agreement. Indeed, like in the NWT, the committee structure should be determined as part of a broader agreement between the Jericho Diamond Project and the Government of Nunavut. This agreement would provide provisions for the monitoring of capital formation in the communities affected by the mine, and establish indicators to help assess impacts on these communities.

A crucial aspect of this agreement will be the reporting requirements, and the development and implementation of a communications plan. In addition, the agreement will define the roles of the proponent, the government, and the communities.

The monitoring of the impacts of the project and the mitigation of the impacts will be hampered by the incompleteness of the baseline data and the accompanying analysis for the Jericho Diamond Project. For example, unless sufficient information has been provided about the expected levels of purchases of goods and services by the mine and the degree to which these purchases can be

expected to benefit local business, it will be difficult to monitor the progress of local business development. The socio-economic monitoring committee will have to ensure that sufficient information is collected to assess and mitigate impacts in this sector of the local economy. Resources that might be used now for improving the baseline data should instead be made available to the monitoring committee to conduct their work.

3. The Role of Government of Nunavut

A greater emphasis on monitoring, mitigation and reporting will place a considerable burden on the Government of Nunavut. The GN's participation in socio-economic assessment of development proposals to date has been limited by capacity issues, and a lack of policy.

These issues might be addressed in at least three ways.

First, the interdepartmental nature of socio-economic monitoring must be recognized. Areas that will be impacted by the mine include culture (CLEY), community governance and infrastructure development (CG&T), health (H&SS) education and training (Education), and economic and business development (DSD). An interdepartmental structure could be created to support the environmental impact assessment process that would limit the current burden on DSD.

Secondly, an interdepartmental structure does exist within the GN that might be used for this purpose – the interdepartmental committee overseeing the Nanisivik mine closure. This committee might be asked to extend its mandate to include new large-scale development proposals in the mining industry. The knowledge and working relationships created in the effort at Nanisivik will be very useful in supporting socio-economic impact assessments throughout the Territory.

Thirdly, the GN has the mandate to support community development, and has made a major commitment in this area in *The Bathurst Mandate*. The policy base for GN support is currently undeveloped, and it is likely that the next territorial government will make the preparation of policy to ensure greater support for community development a priority. In addition, the *Nunavut Economic Development Strategy* has recommended that communities become involved from the earliest stage of development for major projects, and that action be taken to ensure that local citizens are able to participate in the economic benefits. This will provide another impetus to the GN to develop policy that clarifies the roles of proponent, government, and the communities.

Conclusion

5. Create a detailed socio-economic monitoring and mitigation plan for the Jericho Diamond Project.
6. Support the establishment of a communities' advisory board.
7. Mandate the board to assess the impact of a broad range of VSECs, including harvesting, community governance, and social and physical infrastructure development.
8. Mobilize the GN, through an interdepartmental committee structure similar to that used for the Nanisivik project, to provide support for communities on socio-economic impact assessment, and the implementation of monitoring and mitigation measures.