NIRB File No.: 05MN047

Nunavut Impact Review Board

Preliminary Hearing Conference Decision

Concerning

The Doris North Gold Project

Proposed by

Miramar Hope Bay Limited

Date of Hearing: August 25, 2005.
Date of Decision: September 13, 2005.

Nunavut Impact Review Board (NIRB)

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Preliminary Hearing Conference Photos

Photo 1: Preliminary Hearing Conference, Yellowknife September 25, 2005.

(Courtesy of Ramli Halim)

Photo 2: Preliminary Hearing Conference, Yellowknife, September 25, 2005.

(Courtesy of Ramli Halim)

Executive Summary

Pursuant to the *Nunavut Land Claims Agreement*, the function of the Nunavut Impact Review Board is to assess the extent of the regional environmental and socio-economic impacts of the Doris North Gold Project proposal to determine whether it should proceed, and if so, under what terms and conditions. In carrying out this function, the primary objective by law is at all times to protect and promote the existing and future well-being of the residents and communities of Nunavut and the protection of Nunavut's ecosystemic integrity.

On August 25, 2005 the Nunavut Impact Review Board conducted a Pre-Hearing Conference to hear argument on the following five issues:

1. Timing of the Final Environmental Impact Statement Filing;
2. Final Hearing Venue;
3. Final Hearing Format;
4. Timing of the Final Hearing; and
5. Other Issues.

The Nunavut Impact Review Board held that the timing of the filing of the Final Environmental Impact Statement and the process for its preparation is best left to Miramar Hope Bay Limited.

Further, the Nunavut Impact Review Board held that the venue for the Final Hearing is Cambridge Bay. The Nunavut Impact Review Board is committed to taking steps to ensure a broad range of representatives from the communities of Kugluktuk, Gjoa Haven, Taloyoak, Bathurst Inlet, and Umingmaktok are brought to Cambridge Bay to attend the Final Hearing.

Technical presentations will be scheduled to take place first and will be organized by subject. A community consultation session during the Final Hearing will follow the technical presentations. All parties are required to ensure sufficient technical expertise is available for the community consultation portion of the meeting.

The dates for the Final Hearing will be set following the filing of the Final Environmental Impact Statement by Miramar Hope Bay Limited. Once filed, the Final Environmental Impact Statement will be subject to a minimum 60 day review period. The Board reserves the right to extend the review period, establish a process for information requests and motions reviews, as well as schedule another technical meeting, if the Board finds it is necessary to deal with issues arising from the FEIS.

The Nunavut Impact Review Board believes that Miramar Hope Bay Limited. will resolve most of the parties' outstanding concerns by complying with the EIS Guidelines, the Conformity Decision and by implementing the 187 items set out in Appendix 1. In addition, the Nunavut Impact Review Board has requested an updated project description, improved quality of maps, additional information on the winter airstrip and the floating dock, verification of information, further details of consultation, and a general editing review, to which Miramar Hope Bay Limited is expected to respond.

The Nunavut Impact Review Board also reiterates the need for Miramar Hope Bay Limited to ensure the assessment of alternatives in the Final Environmental Impact Statement meets the requirements set out in the Nunavut Impact Review Board Environmental Impact Statement Guidelines for the Doris North Project. Furthermore, while the Board recognizes only the Doris North Gold Project is under review at this time, the Board expects the Proponent to provide more information on its vision for the future exploration and development of the Hope Bay Belt, including how the design of the Doris North Gold Project and future phases might be tied together.

1. Background

1.1 Procedural (Project) History

In 2004 the Nunavut Impact Review Board ("NIRB" or the "Board") conducted a review under Part 5 of Article 12 of the *Nunavut Land Claims Agreement* ("NLCA") for the Doris North Gold Project (the "Project'). On August 12, 2004, the Board issued a Final Hearing Report which recommended that the Project should not proceed at that time. The recommendation was based on the Board's finding that Miramar Hope Bay Limited (the "Proponent") failed to provide the required information necessary for the Board to conduct a full review of the matters relevant to its mandate. On December 6, 2004, pursuant to paragraph 12.5.7(a) of the NLCA, Minister Andy Scott of the Department of Indian and Northern Affairs Canada accepted NIRB's recommendation.

On February 14, 2005, the Proponent, submitted an Updated Preliminary Project Description. After establishing that the Proponent had applications pending with regulators, NIRB proceeded to recommend a screening process leading to the recommendation that the Project to proceed directly to a second review under Article 12 of the NLCA.

On March 7, 2005, the Board, in consultation with the Proponent and Interveners, recommended to Minister Scott that given the circumstances, including the Part 5 Review conducted in 2004, the Project proceed directly to a second review under Part 5 or 6 of Article 12 of the NLCA. In reply, on April 22, 2005, Minister Scott referred the Project to NIRB for a Part 5 Review.

The Proponent filed a Draft Environmental Impact Statement (the "DEIS") on June 13, 2005. A Conformity Review of the DEIS was undertaken by NIRB. NIRB solicited input into the Conformity Review from interested persons including the following Interveners: Indian and Northern Affairs Canada ("INAC"), Department of Fisheries and Oceans Canada ("DFO"), Environment Canada ("EC"), Natural Resources Canada ("NRCAN"), Health Canada ("HC"), Transport Canada ("TC"), Government of Nunavut Department of Environment ("GN-DOE"), Government of Nunavut Department of Culture, Language, Elders and Youth ("GN-CLEY") and Government of Nunavut Department of Economic

Development and Transportation (GN-EDT), Kitikmeot Inuit Association ("KIA"), and Nunavut Tunngavik Incorporated ("NTI").

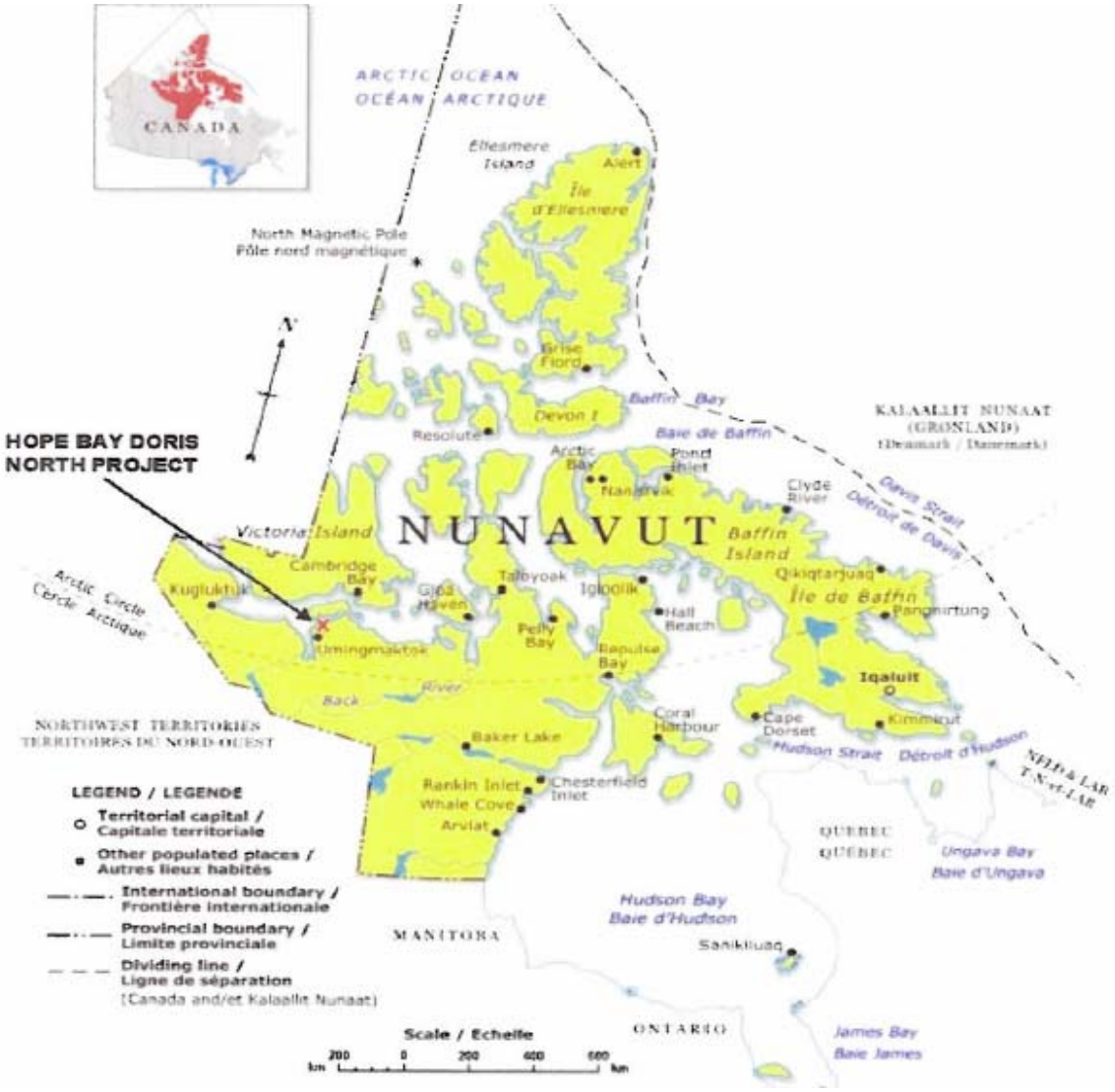
On July 8, 2005, NIRB advised the Proponent of deficiencies in the DEIS. On July 21, 2005, the Proponent filed a supplemental submission to address these deficiencies. The supplemental submission was reviewed by NIRB and on July 22, 2005, NIRB advised the Proponent that the DEIS conformed to the EIS Guidelines, and set the deadline for Parties to submit technical review comments prior to holding a Technical Meeting.

On August 23 to 25, 2005, NIRB staff held a Technical Meeting with the Proponent, and Interveners from INAC, DFO, NRCAN, EC, HC, GN-DOE, NTI, KIA, and Acres International. In addition, four representatives from each of the Hamlets of Cambridge Bay, Gjoa Haven, Kugluktuk, and Taloyoak attended the Technical Meeting. The purpose of the meeting was to discuss and resolve significant technical issues prior to the Preliminary Hearing Conference (the "PHC"). The PHC was held on August 25, 2005, in Yellowknife.

1.2 Project Description

The Project consists of the construction, operation, and reclamation of an underground gold mine in the West Kitikmeot region of Nunavut, approximately 110 km southwest of Cambridge Bay and 65 km east of Umingmaktok. The Project is located on Inuit Owned Lands. Approximately 54 ha are expected to be disturbed through the life of the Project.

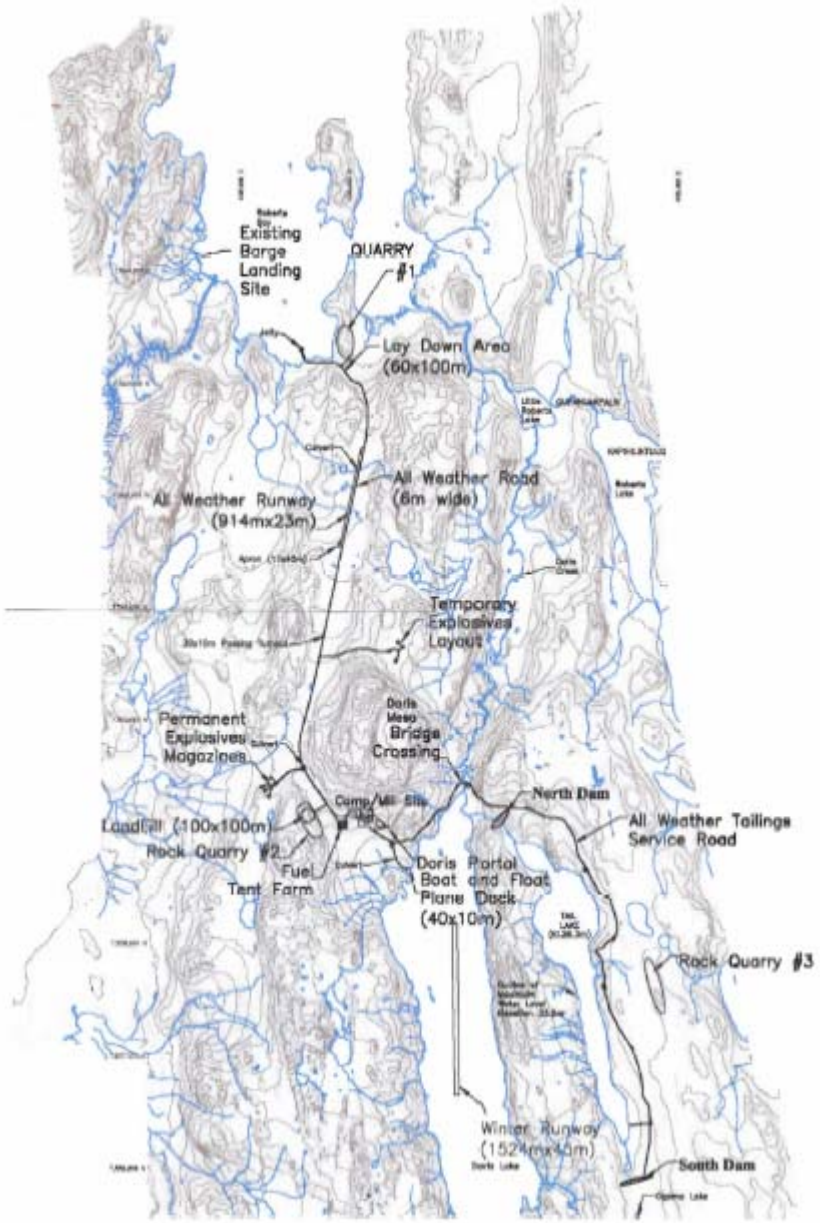
Figure 1: Project Location (Extracted from the Doris North DEIS, 2005)



The Project includes an underground mine with a single adit and ramp access. The ore will be brought to the surface where it will be stock piled and processed through a crushing and milling plant with a design capacity of 800 tonnes per day. The product will be shipped from the site in the form of dore bars. The Project is expected to operate for

24 months, commencing in late 2007, processing 467,000 tonnes of ore to yield approximately 306,830 ounces of gold.

Figure 2: Doris North Project Site (Extracted from the Doris North DEIS, 2005)



The site is remote with no permanent or winter roads linking it to local communities. The primary access to the property will be sealift via the Arctic Ocean. A 103-m jetty will be constructed approximately 5 kilometres north of the site at Roberts Bay along with a rock fill lay down area. An all-weather road will be constructed to link Roberts Bay and the

mine site. Equipment will be offloaded and stored (temporarily) at the lay down area close to the shore. Fuel will be pumped from the sealift vessels to an 8 million litre capacity fuel storage tank farm constructed within a quarry site near the south end of Robert's Bay.

At the mine site, a 175-person accommodation camp, an office complex and workshop, a 0.5 million litre fuel storage tank farm, power generation plant, and sewage treatment plant, will be constructed. A 914-m all-weather airstrip, suitable for small aircraft will be constructed along the alignment of the all-weather road. During summer months the site will also be accessed by float planes using a dock constructed on Doris Lake. During winter months, an airstrip capable of handling larger aircraft will be constructed on the ice of Doris Lake.

Tailings from the mill will be pumped through a pipeline for discharge into the south end of Tail Lake, located approximately 5 kilometres south of the mine site. Tailings deposition will be sub-aqueous, and will require the construction of two low permeability frozen core dams at Tail Lake. A clear-span bridge over the Doris Lake outlet and an all-weather service road will be constructed along the east side of Tail Lake, with the tailings pipeline following the roadway. Four tailings pipeline dump catch basins will also be constructed along the pipeline.

Water discharged from Tail Lake into Doris Creek will meet the Metal Mining Effluent Regulation discharge standards. The water quality within Doris Creek, downstream of the Doris Creek waterfall, will meet Federal water quality guidelines for the protection of freshwater aquatic life.

The Proponent views this Project as the first phase of development in the Hope Bay Belt. The Proponent intends to continue work to justify the development of other deposits in the area. The Proponent's intention is to truck ore from these deposits to the Doris North Project mill, with supplies continuing to arrive at Roberts Bay and tailings deposited at an expanded impoundment area at Tail Lake. The development of additional deposits may also require expanded infrastructure. These developments would be fully assessed as new projects along with their potential cumulative effects with the current Project.

2. Summary of the Submissions from Parties

2.1 Kitikmeot Inuit Association and Nunavut Tunngavik Incorporated

KIA presented on behalf of NTI as well. They commented that the timing for the filing of the Final Environmental Impact Statement (FEIS) be left up to the Proponent. KIA suggested that holding a Final Hearing 90 days following the receipt of the FEIS would be sufficient time. Regarding the Final Hearing format, KIA recommended that technical sessions be held in Cambridge Bay or Kugluktuk followed by a community session. The suggestion on final hearing venue was such that NIRB take into consideration the high cost of holding hearings in each of the affected communities of Kugluktuk, Cambridge Bay, Gjoa Haven, and Taloyoak. KIA indicated that they would support holding the Final Hearing in one central location as long as community representatives from each of the communities were able to attend.

2.2 Government of Nunavut

The GN commented that the timing for the filing of the FEIS should be left up to the Proponent and recommended that the final hearing be held 90 days after the filing of the FEIS. The GN suggested that the final hearing be formatted so that the focus is on the five key areas that were discussed at the technical meeting. Regarding the Final Hearing venue, the GN indicated they would be in favour of holding the Final Hearing in one community such as Cambridge Bay.

2.3 Department of Fisheries and Oceans

DFO suggested the filing of the FEIS be left up to the Proponent and that 60 days be given to Interveners to undertake a technical review of the document. DFO mentioned that the Final Hearing format should be similar to what NIRB has used in the past, that is, by Intervener as opposed to by subject. Regarding the Final Hearing venue, DFO commented that the venues should be the communities visited during the 2004 review. DFO also commented that they would support a condensed schedule.

2.4 Environment Canada

EC mentioned that it was up to the Proponent to prepare the FEIS and submit it when complete. It was also mentioned that the Proponent should incorporate into the FEIS, the DEIS supplemental information submitted following NIRB's initial conformity determination and the technical matters resolved during the technical meeting. Regarding the timing of the Final Hearing, EC urged NIRB not to set the date until the FEIS had been received. EC also mentioned that there is usually a time lag between NIRB receiving documents and the time other Interveners receive their copies. EC asked that NIRB consider this when setting the timeframe for the technical review of the FEIS and recommended a minimum of 60 days. For the Final Hearing venue selection, EC supported re-visiting the communities from the 2004 final hearing.

2.5 Health Canada

HC commented that they would not be able to participate in a Final Hearing located in all of the affected communities due to the financial cost.

2.6 Indian and Northern Affairs Canada

INAC commented that the timing for the filing should be left up to the Proponent. Once submitted, INAC recommended a review period of at least 90 days with a 10 day period between the time interventions were due and the date of the Final Hearing. INAC indicated that the technical portion of the hearing could be held in Cambridge Bay and Kugluktuk with non-technical visits to the other communities visited during the last hearing. INAC recommended the Final Hearing be conducted by subject.

2.7 Natural Resources Canada

Regarding the timing for the filing of the FEIS, NRCAN commented that this should be left in the hands of the Proponent and that Interveners be allowed a 90 day review period. NRCAN mentioned that the format should focus on the five key areas but allow for other issues to be brought forward. NRCAN recommended that the communities visited during the 2004 review be revisited again for the Final Hearing.

2.8 Hamlets of Cambridge Bay, Gjoa Haven, Kuglutuk, and Taloyoak

Comments from the communities focused on the selection of the Final Hearing venue. Representatives requested that the communities be involved in the Final Hearing.

Representatives acknowledged the high travel cost and indicated it would be feasible to have the Final Hearing in one central location only if representatives from each of the Hamlets were flown to the Final Hearing location.

2.9 Miramar Hope Bay Limited

The Proponent indicated that they would submit the FEIS as soon as possible, endeavouring to submit in mid-October of 2005. The Proponent suggested that NIRB could perhaps hold a Final Hearing 60 days following the submission of the FEIS and that the Final Hearing venue could be located in one community to reduce costs to all Parties. The Proponent recommended that the Final Hearing be formatted by subject in the same manner the technical meeting was conducted.

3. Nunavut Impact Review Board Analysis & Decision

3.1 Issues to be decided

Parties were directed to address the following five issues:

1. Timing of the Final Environmental Impact Statement Filing;
2. Final Hearing Venue;
3. Final Hearing Format; and
4. Timing of the Final Hearing; and
5. Other Issues.

3.2 Jurisdiction of the Board

NIRB conducted the PHC under the authority of Article 12, Part 5 of the NLCA.[1] NIRB generally conducts a PHC in order to identify and limit the issues of divergence among parties to the hearing, and to promote the efficient use of time at the final hearing.

3.3 Issues

Taking into account parties' submissions and comments from the public at the PHC, the Board's decision on the five issues follows:

3.3.1 Timing of the Final Environmental Impact Statement filing

The Board has decided that because of the lengthy list of commitments to be met in the FEIS and the importance of a complete FEIS, the timing of the filing of the FEIS is best left to the Proponent. Accordingly, the Board declines to set a date for the FEIS submission.

The Board acknowledges the request made by Indian and Northern Affairs Canada for bi-monthly technical meetings on the technical issues regarding the FEIS. However, the Board believes the Conformity Decision and the Technical Meeting, as evidenced by the 187 items set out in Appendix 1, provide the Proponent with extensive feedback on outstanding technical issues. In addition, the FEIS will be subject to a review period, discussed further below, and ultimately to a Final Hearing. Most importantly, it is the

[1] Section 12.5.3 states "NIRB may conduct its review by means of correspondence, public hearings or such other procedures as it deems appropriate to the nature of the project and the range of impacts."

Proponent who bears the burden of meeting NIRB's information requirements. For these reasons, the Board also declines to set out a process for the FEIS review at this time.

The Board does accept that cooperation *prior* to the submission of the FEIS may help to ensure the FEIS meets NIRB's requirements. Accordingly, the Board encourages the Proponent to consult with interested parties during the preparation of the FEIS, where and if the Proponent feels it is required. The Board notes NIRB staff are available to assist the Proponent with this consultation if the Proponent requires assistance.

3.3.2 Final Hearing Venue

The Board has decided the venue for the Final Hearing is Cambridge Bay. All of the parties agreed that at least the technical portion of the Final Hearing should be held at Cambridge Bay. The Proponent requested the Final Hearing be held entirely in Cambridge Bay. Health Canada stated it was not possible to attend all of the locations previously visited. KIA stated that holding the entire Final Hearing in Cambridge Bay would reduce the cost to interveners.[2] The Board also considered that the Project was the subject of five days of public hearings held in four communities in 2004.

However, the Board agrees with the representatives of the Hamlets and KIA that it is acceptable to hold the Final Hearing in its entirety in Cambridge Bay only if arrangements are made to ensure affected communities are well represented at the Final Hearing. In the 2004 Final Hearing Report for the Doris North Gold Project, the Board discussed the effect of the evidence provided by community members and the importance of consultation with affected communities:

> On the basis of the evidence provided at the Hearing, in order for the Board to fulfill the requirement in section 12.5.5(a) to take into account whether the project would enhance and protect the existing and future well-being of residents and communities of Nunavut, the Board requires further and better information on the socio-economic aspects of this project. In particular, the Hamlets must be consulted on potential adverse socio-economic effects and on related mitigation and monitoring plans.[3]

[2] KIA noted that one venue would help to reduce its costs.
[3] Final Hearing Report for the Doris North Gold Project, August 11, 2004, at p. 72.

For these reasons, NIRB is committed to bringing community representatives, including Elders, and representatives of Hunting and Trapping Organizations and community service organizations, to Cambridge Bay to participate in the Final Hearing. The Board notes that the attendance list and hearing transcript for the 2004 hearing, which are held in NIRB's Cambridge Bay office and in the Hamlets of Gjoa Haven, Kugluktuk, and Taloyoak, provides NIRB with a "starter" list of individuals that are informed about the Project and may be willing to attend the Final Hearing as community representatives. In addition, NIRB's Hearing Coordinator will consult with these communities, and the communities of Bathurst Inlet and Umingmaktok, to provide and promote public awareness of the Project, NIRB's process and the Final Hearing. Representatives from Bathurst Inlet and Umingmaktok will also be brought to Cambridge Bay for the Final Hearing.

3.3.3 Final Hearing Format

The Board agrees with the submission of the Proponent and the majority of the parties that the Final Hearing should be conducted by subject rather than by intervenor.[4] The Board has decided that technical presentations will be scheduled first and organized by subject.[5]

Community representatives are welcome to participate throughout all portions of the Final Hearing. In addition, a specific portion of the Final Hearing will focus on community concerns. This portion will follow the technical presentations. All parties are required to ensure sufficient technical expertise is available for the community consultation portion of the meeting to respond to technical issues arising from this consultation.

3.3.4 Timing of the Final Hearing

[4] EC, INAC, NRCan, and GN-DOE submitted the Final Hearing should be organized by subject. DFO submitted the Final Hearing should be organized by party.

[5] The key areas are:

- The assessment of alternatives to the use of Tail Lake for tailings disposal;
- The Tail Lake water quality and water management plan;
- The design of the jetty and related issues including affects on fish habitat, shoreline erosion, and the sea bed;
- The wildlife mitigation and monitoring plan including cumulative effects assessment;
- The socio-economic impact of the project on affected residents and communities of Nunavut; and
- Other issues.

The Board has decided to await the filing of the FEIS before setting the dates for the Final Hearing. While acknowledging the Proponent's desire to hold a Final Hearing as soon as possible after the FEIS is submitted, the Board believes the parties must be given a reasonable period of time to review the FEIS.

Upon receipt of the FEIS, NIRB will conduct a five day internal review of the document to ensure it has conformed to the PHC Decision. Provided the FEIS is submitted substantially complete, the Board accepts the view of a number of the parties that an appropriate period of time for review by the parties is 60 days.[6]

If NIRB's initial assessment of the FEIS is that it does not meet the requirements of this decision, the Board reserves the right to establish a longer period of time for review. The Board reserves the right to establish a process for information requests and motions reviews, as well as schedule another technical meeting, if the Board finds it is necessary to deal with issues arising from the FEIS. Final directions for the review period and process will be issued by the Board after its initial assessment of the FEIS.

Depending on the quality of the FEIS, the Board will make every effort to schedule the Final Hearing within a total of 90 days of the receipt of the FEIS.

3.3.5 Other Issues

Subject to the requirements set out by the Board later in this section, and in the EIS Guidelines and the Conformity Decision, the Board believes the Proponent will resolve most of the parties' concerns by implementing the 187 items set out in the *List of Commitments for the Doris North Gold Project FEIS* developed by the parties during the Technical Meeting. The Board accepts the list of commitments and specifically incorporates these commitments, as set out in Appendix 1, as a key part of the FEIS requirements. The Board thanks the Proponent for committing to the list.

As a result of listening to the views of the parties and Hamlet representatives, and in addition to the Proponent's commitments set out in Appendix 1, the Board would like the Proponent to include the following in the FEIS:

[6] DFO, EC requested a minimum 60 day review period, while INAC, NRCan and the GN-DOE requested a minimum 90 day review period. KIA requested the review period not exceed 90 days.

(a) Ensure that the information contained in the Updated Preliminary Project Description (January 2005) is included in the FEIS and is that it is still up to date.

(b) Improved quality of maps

- All maps should be in color with an appropriate scale, north arrow, title and color scheme.

(c) Additional information on the winter airstrip including:

- The effects on fish and suspended sediments;
- Review of literature and/or case studies on the use of shallow lakes for winter airstrips for Hercules aircraft; and
- Contingency plans for refuelling and de-icing.

(d) Additional information on the floating dock including:

- An explanation of the need for a 40m x 10m rock-filled structure as a contingency measure referred to in EIS SDA7.

(e) Environmental Assessment Methodology

- Ensure that the definitions of:
    - environmental effects criteria (magnitude, geographic extent, timing/duration/frequency, reversibility, and ecological/social/cultural context);
    - probabilities of occurrence;
    - effect on ecosystem functioning and integrity; and
    - capacity of resources to meet present and future needs;

  are clearly defined and appropriate for *each individual* VEC/VSEC providing detailed or quantitative definitions where possible for expressions such as “some”, “long-term”, “to a certain extent”.
- Clearly indicate the link between the environmental effects criteria ratings and the significance determination.

(f) Consultation

- Discuss the specific consultation undertaken with residents of Bathurst Inlet and Umingmaktok.
- Confirm the additional consultation was carried out in the assessment of tailings disposal alternatives.

(g) Verification

- Verify that sufficient quantities of clean material are available for erosion control around Tail Lake.
- Verify the list of all Transport Canada permits and authorizations that are required.

(h) Carry out a general editing review of the FEIS

Here the Board also finds it especially appropriate to re-iterate the need for a full assessment of alternatives as required by NIRB's Environmental Assessment Guidelines.[7] Since the assessment of alternatives is the backbone of an environmental impact statement it is significant to the Board that the alternatives to this Project be fully canvassed in the FEIS.

Furthermore, while the Board recognizes only the Doris North Gold Project is under review at this time, the Board expects the Proponent to provide much more information on the potential for future exploration and development of the Hope Bay Belt. This includes the vision the Proponent has for the design of future phases and how these phases might be tied into the Project. The Board believes the potential cumulative effects from various phases of the Hope Bay Belt exploitation, along with other reasonably foreseeable projects in the region, are important considerations at the earliest phase of development in order to ensure the greatest numbers of alternatives for the design of future phases of development are left open.

[7] Section 4.11 of the *Environmental Assessment Guidelines for the Doris North Project*, dated October 14, 2002, states:

> 4.11 Alternatives
>
> The Proponent shall describe alternatives to the Project, including the "No-go" or no-project alternative and other locations within the Kitikmeot Region or Nunavut, if any, where the Proponent could conduct the types of activities proposed. It shall also consider alternative ways of carrying out the Project (i.e., alternatives to Project components or activities, including different locations or timings for such activities or components, that might have differing environmental or socio-economic effects). In each case, the Proponent shall give the reasons for selecting the preferred alternative and for rejecting the others, including economic and technical analyses of each alternative and the associated biophysical, social, economic, and cultural impacts.
>
> The Proponent shall present the preferences of those consulted respecting alternatives to the Project including the "no-go" alternative.

4. Conclusions of the Board

The venue for the Final Hearing will be Cambridge Bay. The Board is committed to taking steps to ensure a broad range of representatives from the communities of Kugluktuk, Gjoa Haven, Taloyoak, Bathurst Inlet, and Umingmaktok are brought to Cambridge Bay to attend the Final Hearing.

The primary technical presentations will take place first and will be organized by subject. The portion of the Final Hearing focusing on community consultation will follow the technical presentations. All parties are required to ensure sufficient technical expertise is available for the community input portion of the meeting.

The Proponent bears the burden of meeting NIRB's information requirements, and accordingly the Board declines to set out a process or precise schedule for the submission of the FEIS.

The Board also declines to set the date for the Final Hearing until the FEIS has been filed. Once the FEIS has been filed, there will be a minimum 60 day review period. The Board reserves the right to extend the review period, establish a process for information requests and motions reviews, as well as schedule another technical meeting, if the Board finds it necessary to deal with issues arising from the FEIS. The Board will make every effort to schedule the Final Hearing within 90 days following the FEIS receipt.

The Board believes the Proponent will resolve most of the parties' outstanding concerns by complying with the EIS Guidelines, the Conformity Decision and by implementing the 187 items set out in Appendix 1. In addition, the Board has requested an updated project description, improved quality of maps, additional information on winter airstrip and the floating dock, verification of some submissions, further details of consultation, and a general editing review, to which the Proponent is expected to respond.

The Board also reiterates the need for the Proponent to ensure the assessment of alternatives in the Final Environmental Impact Statement meets the requirements set out in the Nunavut Impact Review Board Environmental Assessment Guidelines for the Doris North Project. Furthermore, while the Board recognizes only the Doris North Gold

Project is under review at this time, the Board expects the Proponent to provide more information on its vision for the potential for future exploration and development of the Hope Bay Belt, including how the design of the Project and future phases might be tied together.

Signed this 12th day of September, 2005.

(*Original signed by*)

_____

Albert Ehaloak
Acting Chairperson

Appendix 1– List of Commitments for the Doris North Gold Project FEIS Technical Meeting August 23 to 25, 2005

LIST OF COMMITMENTS FOR DORIS NORTH GOLD PROJECT FEIS

Identify in a concordance table (indicating report, section and page number) where information concerning each commitment can be found in the FEIS.

Assessment of Alternatives to the use of Tail Lake for Tailings Disposal

1. Document the conclusion that the concerns of Site 5 would be the same as Site 2 to provide clarity on the alternatives choice. Proper evaluation of this in FEIS. (DFO)

2. Document the environmental (especially birds and wildlife, other VECs) considerations and social aspects as part of the alternatives assessment for Tailings, augmenting the engineering and economic considerations in SD A3. Provide a summary table emphasizing all considerations in a format similar to the decision table in 2004 Doris EIS

3. Include the potential for dusting in the wintertime for land-based options in the alternatives for Tailings.

4. Provide a more descriptive explanation of what the vision for Tail Lake is with respect to future mining activity in the Hope Bay Belt including a discussion on the capacity, depositional strategy, anticipated dam height etc. It is understood that this decision will be conceptual but should describe the likely approaches.

5. Provide discussion of the no dam option of SATD in Tail Lake.

6. Address how tailings storage volumes are affected by the reduced dry tailings density as the result of ice entrapment. (Acres)

7. Provide in the alternatives assessment, consideration for how the use of hydrometric records from the larger watershed(s) may affect tailings disposal options and operations. (INAC)

Tail Lake Water Quality and Management Strategy

Water Quality

1. Include information on settling tests which have been completed for both tailings and shoreline soil samples around Tail Lake. (EC)

2. Examine the effects of nutrient loadings on downstream environment, given that the current plan is based on MMER EEM which does not include measurements of biological change. (EC)

3. Provide discussion on how tailings deposition will take place. (INAC)

4. Provide a justification for using only the 2004 water quality results in the water quality model including a discussion of the variability within all other applicable data.

5. Provide a summary table in FEIS of solute loadings in from the water quality model. Also include full tables in Appendix (INAC)

6. Provide sensitivity analysis of the loadings from the mill to Tail Lake, and the downstream effects on Doris Creek. Describe how this will affect the discharge strategy. Run the results of the downstream effects through risk assessment model. (INAC)

7. Provide TSS wave resuspension calculations. (KIA)

8. Explain in detail and justify why MHBL has not done 3D numerical simulation for wave resuspension (KIA clarify tailings or sediment).

9. Provide a clear non-technical summary of why MHBL feels there will be no metal leaching from the tailings placed in Tail Lake. (KIA)

10. Present yearly water balance and Copper load balance into tablular and/or graphical form (i.e. flowchart) for the proposed discharge scenario under average conditions. (Acres)

11. Describe in detail how water will be discharged to Doris Creek from Tail Lake. Show discharge line in drawing. (Acres)

12. Provide results of 2005 settling tests from soil samples collected along the shoreline of Tail Lake. (Acres)

13. Include description in FEIS of tailings properties. (DOE)

14. Run TSS through water quality model to illustrate sensitivity analysis.(INAC)

15. Correct pg 56 of SD A2 – Typo regarding predicted TSS concentrations. (INAC)

16. Provide summary table in FEIS identifying maximum predicted concentration for the proposed discharge scenario in Tail Lake. (INAC)

17. Determine total mass of sediment material from shoreline erosion that could settle over the tailings. Include monitoring for and measuring depth of sediment deposition on top of tailings in monitoring program. (INAC)

18. Greater discussion and detail of all-encompassing adaptive management plan (incorporating water quality management plan and shoreline erosion adaptive management plan) with discussion of triggers. Discuss trigger threshold levels within the adaptive management plan. Provide statement that final plan will be completed before mine operation. (INAC, NRCAN)

19. Provide sample calculations to show how MHBL determined the TSS concentration of 10.3 mg/L from the estimated rate of erosion rate of 0.3 m3/m. (Acres)

20. Incorporate information from risk assessment report into water quality section of FEIS to show impacts of predicted concentrations in Doris Creek.

21. Clearly state commitment to meet CCME in receiving environment with the exception of Nitrite.

22. Determine if coastal shoreline erosion studies for Roberts Bay can be effectively used as a site-specific analog for comparison studies in Tail Lake. If determined to be effective, discuss the implications for Tail Lake (INAC, NRCAN)

23. Provide succinct list of predicted constituents in Tail Lake.

24. Provide a justification for ammonia estimates and discuss monitoring for ammonia levels.(EC)

25. Correct the error in SD A2 in which phosphorus concentrations are listed as the bio-available ortho-phosphate (PO4) rather than total phosphorus (TP). (EC)

26. Provide technical rationale for the depth of water cover required over the tailings. (INAC)

27. Provide conceptual plans showing preventative measures and mitigation measures proposed for stabilizing the shoreline of Tail Lake at closure. Indicate under what circumstances (trigger events) preventative measures and/or

mitigation measures would be implemented. Incorporate slope stabilization around Tail Lake into the proposed site specific reclamation criteria. (INAC)

28. Provide further justification to support the DEIS conclusions associated with the risk of sedimentation associated with short and long term shoreline erosion. (INAC)

Hydrology

29. Incorporate into FEIS the information from MHBL presentation on flow velocities and depth in Doris outflow. (DFO)

30. Provide qualitative description on the manual method of measuring Doris Lake outflows to determine spring discharge rates. Provide a detailed description of the methods for analyzing water samples on ice. (INAC)

31. Provide characterization of the ice in Doris Creek including the timing and mechanisms for ice clearing. (INAC)

32. Provide information on the continuance of snowcourse surveys undertaken by MHBL as part of on-going water management strategy. Include as part of decant discussion. (INAC)

33. Include minimums and maximums over the period of study in Tables 3 to 6 of supporting document SDB1. (INAC)

34. Include in the FEIS the comparison of the overlapping record of the two hydrometric stations (Gordon River and Ellice River) to indicate if runoff differs greatly. (INAC)

Dam Design

35. State justification and assumptions on the settlement estimate in relation to the determination of the crest of the core of the dam. (Acres, NRCAN)

36. Provide information on how the number 33.5m was determined for the dam FSL. Explain how inflows vs outflows, tail lake capacity, and operational schedule lead to this determination. (INAC)

37. Rationalize the GCL height in the dam design with the maximum design wave height to avoid the potential for overtopping and thermal degradation. (INAC, NRCAN)

38. Provide a descriptive checklist of all fieldwork, analysis, monitoring, etc that would be done to support the dam design prior to the licensing stage. Include a

conceptual thermosyphon design that supports the permafrost prediction model for the FEIS. (INAC, NRCAN)

39. Discuss how the above information will ensure that the integrity of the dam core is maintained throughout the operation and post closure period. (INAC, NRCAN)

40. Discuss in FEIS the decision for timing of spillway construction and provide a trigger for initiating a "developed" construction. (INAC)

41. MHBL will provide data on addition fieldwork as it becomes available.

Surface Infrastructure

42. Clarification of runoff water management for the mill site. (INAC)

43. Clarify sewage and sludge disposal strategy during construction season – look at Windy Camp results to determine impact on the environment during construction phase. (GN-DOE)

Groundwater

44. Verification needed on the absence of hydraulic connection in the Doris vein structure and explanation of measures that will be taken if water is encountered. Provide description of how the talik will be avoided.

45. Need for future monitoring via thermistors between the Doris Lake and Tail Lake to ensure no movement of groundwater is taking place. (GN-DOE Explanation of how geothermal model determines the depth of permafrost)

46. Given that the current Doris North project does not extend under Doris Lake, provide statement on the applicability of SD B5 (Groundwater Inflow Study) for Doris North. (Acres)

47. Explain in FEIS the assessment of potential groundwater contaminant movement. (GN-DOE)

ARD

48. Provide data and discussion on Franklin Diabase sample from the portal and provide Quarry 4 data and discussion.

49. Identify and explain variations in Quarry NPR values and fizz test results listed in Tables 3.1, 3.2 and 3.3 of SDB2. Confirm whether the relatively large variation is a result of sampling the materials. Explain how the variation effects the quarry material characterization (Acres and INAC)

50. Provide a graphical presentation of how kinetic test samples fit in the range of geological and geochemical properties of ore and waste rock.

51. Clearly state in FEIS that Iron Tholeiites Basalt rock will be stockpiled temporarily near the portal and then placed back underground and that this material will not be used in construction.

52. Determine the percentage of iron carbonate and/or ineffective NP in kinetic test sample on tailings. Incorporate result into the tailings characterization.

53. Provide schedule, logistics and location for waste rock removed from underground and ramp decline.

54. Confirm the source of kinetic test data in Table 3.2 of SD A2. Justify use of Boston data if applicable. Provide rationale for why the values were averaged.

55. Provide a description of how the geochemical characterization data supports the use of selected classification criteria (DIAND) for suitable for mine construction considering both ABA and metal leaching potential materials.

56. Provide rationale for why leach extraction tests from quarries is representative of the ramp construction rock. Also, provide rationale for why leach extraction tests from quarries 1, 2 and 3 are representative of quarry 4. (INAC)

57. Explain and justify that the geochemical characteristics of the chip samples taken from the various quarry sites are sufficient to represent the characteristics of the subsurface rock mass encountered at the quarry sites. (Acres)

58. Confirm that runoff from ore and waste rock stockpile will be collected and pumped to Tail Lake.

59. Provide Final Humidity Cell Report in FEIS.

60. Provide a table compiling descriptions of past sample classifications into the current classifications as best as possible, and sort ABA data in a manner consistent with current classifications, highlighting samples from the immediate project area and those from outside the project area but thought to be representative of project materials. Include a significance column indicating the potential for ARD by rock type. (Acres)

61. Provide explanation and justification for the reason why small scale field trials of crushed run-of-mine rock taken from the development adit has not been done. (Acres)

62. Provide explanation why overburden material that may be disturbed as a result of mine development has not been characterised. (Acres)

The design of the Jetty and Related Issues

1. Describe Fish Compensation Monitoring Program details. (DFO)

2. Provide justification and rationale regarding the chosen length of the 103m jetty, and indicate the commitment to look at 60m jetty in the detailed design stage based on optimization results. (DFO)

3. Provide specifications for the geogrid used under the rock fill and describe and assess any potential impacts to fish habitat. (DFO)

4. Provide case studies where geogrid has been used in arctic environment. (Acres)

5. Indicate the monitoring plan for potential sediment deposition and erosion around/near jetty and the adaptive management plan to deal with potential impacts. (Acres, NRCAN)

6. Provide explanation on the 50cm settlement shown in the figure of the Jetty Structure. (Acres)

7. Provide further explanation on the char run along the jetty area and the potential impacts to the char from seal predation. (Attima)

8. Indicate the commitment that community members may use the jetty (when safe to do so) during operation of the mine. (Joseph)

9. Ensure that clarifications from the MHBL presentations at the Technical Meeting (August 23-25, 2005) are clearly stated in FEIS. (KIA)

10. Provide a better explanation on the predicted life of the jetty, and the potential effects from frost heave, traffic-ability, etc. (NRCan)

11. Quantify the load from the blasting residues on the quarried rock used for the jetty, and describe the potential aquatic effects on Roberts Bay. (NIRB)

Wildlife Mitigation and Monitoring and Cumulative Effects Assessment

1. Verify impact area for waterfowl in Supporting Document D5. (EC)

2. Verify that the table containing habitat classes for the Habitat Suitability Model is included in the impact assessment and clarify this point in the FEIS. (EC)

3. Provide a map of different habitats overlayed by project footprint. (EC)

4. With respect to the monitoring program, provide more information on study design and triggers for mitigation measures. (EC)

5. Revise the CEA to include migratory bird within the HBB. (EC)

6. Revise the site infrastructure diagram with appropriate scale for distance from mine site to the mesa. (EC)

7. Provide rational for species based study areas in the monitoring program, based on ZOI data collected from other mines including Ekati and Diavik, for the purpose of the WMMP.

8. Due to the short mine life, provide both long and short term monitoring objectives. (GN)

9. Incorporate local scale monitoring of muskoxen distribution and abundance and provide potential mitigation measures. (GN)

10. Provide information and results from other studies undertaken in the Arctic on the establishment of Zones of Influence (ZOIs).

11. Air photo imagery with improved resolution (1 x 1m) is to be used for monitoring vegetation.

12. Monitoring of natural revegetation process will be undertaken and details of the monitoring will be stated in the FEIS WMMP.

13. The timing for the commencement of caribou monitoring surveys will be refined and established according to baseline information.

14. Raptors will be included in the CEA for the HBB area.

15. Contingency measures for incinerator malfunction will be established and described in the FEIS.

16. Discuss applicability of using information from the Northern Contaminants Program to establish baseline contaminants levels in caribou.

17. Discuss how tissue from animals killed on-site, or found dead on site will be analyzed for contaminants. Define what is considered “on-site”.

18. Continue to collect baseline data in 2005 and 2006 for all breeding birds. (EC)

19. Strengthen the monitoring program for all breeding birds due to the lack of baseline data. This includes clarifying the methodology that will be used for bird surveys in the WMMP. Examine EC-CWS protocols for waterfowl survey methodology for on-going baseline data collection and monitoring (e.g. PRISM). (EC)

20. Determine if appropriate and if so, incorporate findings from the breeding bird publication in the Journal entitled “Arctic” into the monitoring and mitigation plan. (EC)

21. Re-evaluate the habitat assessment to include the non-shrubby habitats (tussock, emergent marsh, and wet meadow) as high quality habitat for non-waterfowl birds.

22. Discuss how the Tail Lake outflow will be monitored for impacts to wetlands due to decreased flow and discuss the significance of its loss for the HBB region.

23. Discuss how Elders or other community members will contribute collecting monitoring data.

24. Assure that sampling is established to be able to detect biologically significant changes in population sizes.

25. Identify threshold levels at which adaptive management and mitigation will be triggered for VECs.

26. Monitor the effects of air traffic and provide all flight information including those scheduled for the winter airstrip. Discuss how a record book of all flights (landings and take-offs of all aircraft in the region) will be kept and corresponding wildlife reactions.

27. Identify in the WMMP the responsible person from MHBL and their contact information.

28. Discuss timing of monitoring for each species and identify sensitive periods to limit the disturbance during monitoring. Present overview in a table.

29. Monitor the population demographic for caribou during ground surveys or explain the rational for not being able to do so.

30. Check wording for the duration of time grizzlies spend in dens.

31. Provide more information on whether mine site will attract or deter bears.

32. Remove mention of relocation for bears and other problem wildlife.

33. Update information on the defence kill which occurred at the Windy camp exploration drill site.

34. Verify existence/location of grizzly den photo located in appendix to the baseline vegetation study undertaken by Outcrop.

35. For the monitoring program, provide rational for sample plot sizes, number of plots, and timing for surveys.

36. Provide map a plots sampled during vegetation baseline study.

37. Provide mitigation measures for wolverine avoidance of site.

38. Review data from other mine sites which have used Hair Snags for wolverine counts.

39. Reword mitigation measures for raptors who have taken up nests on mine infrastructure.

40. Revise wildlife health monitoring program using human health triggers as the priority mitigative thresholds.

41. Acknowledge the potential confusion between island caribou and mainland caribou during aerial surveys due to overlapping home ranges.

42. Clarify from a cost/benefit standpoint the applicability of weekly aerial surveys.

43. Evaluate from a cost/benefit standpoint undertaking sediment sampling/monitoring in Tail Lake as a justification for not requiring wildlife deterrent measures for the TIA.

44. Discuss mitigation measures for seas birds.

45. Provide a full page map showing all activities for the CEA.

46. Review dispersal information for wolverines.

47. Undertake CEA based on seasonal ranges of caribou during the following stages: calving/post calving; migration; winter range. Provide details on the CEA methodology for caribou. (INAC)

48. For CEA during winter range, include projects which are seasonally shutdown but still maintain infrastructure on-site.

49. Indicate limitation of the HSI and RSF and explain that it was the best available model at the time of application.

50. Explain the HSI values for different classes.

51. Replace reference to Iqaluit with Kugluktuk.

52. Rework CEA study boundaries for grizzlies.

53. Correct the spelling of Mathieu Dumond's name.

The Socio-economic impact of the Project on affected residents and communities of Nunavut

1. MHBL commits to include in the FEIS a framework for a VEC socioeconomic monitoring program. (MHBL-from presentation)

2. MHBL commits to working with the participating Hamlets and the KIA to continue dialogue on the draft Community Relations Plan (MHBL – from presentation)

3. MHBL commits to participating in training initiatives and will outline same in FEIS. (MHBL – from presentation) (document better)

4. MHBL commits to continue its work on the Community Investment Policy and will outline details of same in FEIS. (MHBL – from presentation) (document better)

5. MHBL commits to continue working on relationships with various training groups in the Region (i.e., Nunavut Mine Training Group; Multiple Graduations Options Pilot Project; Drilling Assistants Training Program at Windy Camp; Kitikmeot Employment and Training Partnership and will outline details of same in FEIS. (MHBL – from presentation)

6. MHBL to indicate in FEIS any community consultations with technical experts in attendance, to take place prior to FEIS (MHBL – from presentation)

7. MHBL commits to the development of a Wellness Strategy for MHBL employees

8. MHBL commits to outlining in the FEIS how MHBL proposes to work with the Kitikmeot businesses in the area of capacity building

9. MHBL will provide a draft Kitikmeot Employment Strategy for the FEIS

10. MHBL will provide a document titled “Socio-Economic Impact Assessment, Doris North Project”. (MHBL-from presentation)

11. MHBL will provide a document titled “Appendix A – Concerns and SEIA Addendum Response Matrix”. (MHBL-from presentation) Presented August 24, 2005.

12. MHBL will provide a document titled “Socio-Economic Assessment Methodology”. (MHBL – from presentation) Presented August 24, 2005.

13. Discuss the assumptions made regarding labour force supply based on the Gjoa Haven skills survey and discuss the likelihood of meeting the northern hire goal. (INAC)

Other Issues

Fish

1. Verify area (ha) of Tail Lake. (DFO)

2. Provide data on wetland at Doris Lake and Tail Lake outflows pertaining to fish and fish habitat and comment on whether the de-watering of Tail Lake outflow could negatively impact fish habitat. (DFO)

3. Confirm in AEMP that ammonia will be monitored and at what locations. (DFO)

4. Cumulative effects from Roberts Bay and Ida Bay contaminated sites to be included in cumulative effects assessment for FEIS (MHBL)

5. Summarize the concern of contamination of fish in Roberts lake and the expected Risk to fish compensation program (DFO)

6. Bridge – correct discrepancy between bridge length and watercourse full bank width (14 m) (DFO)

7. MHBL to work with DFO on monitoring framework issues (DFO)

8. Stream enhancement – provide map of stream E14 at larger scale to see sections of stream to be enhanced. (NIRB)

Health

Provide more detail on the following (9-14) as per MHBL presentation:

9. Human use of study area will be provided in FEIS (MHBL)

10. Show exposure ratios for each exposure media (MHBL)

11. Include section on monitoring for human health (MHBL)

12. Mercury and monitoring of fish tissue (MHBL)

13. Description of project components which could affect environmental components (MHBL)

14. Clarify that there will be noise monitoring in mill area for occupational health and safety. (NIRB)

Air Quality

15. More detail in FEIS with respect to mitigation of dust and how mitigation measures were incorporated into calculations of particulate matter in air (MHBL)

16. Differences in wind rose plots between Doris North site and Boston sites, assess over longer period to assess if it is a result of local topography? (EC) Will be brought back (MHBL)

17. Under CCME there are standards for dioxins and furans with respect to incineration. Nunavut will be including these in its EPA. Look into that standard for any incinerator to be used on site. (CCME website) (GN DOE)

18. Guidelines for dust suppression under Nunavut EPA, update FEIS to include (GN DOE)

19. Clarify in SD B3 that chemical dust suppressants will not be used, and that dust control efficiency will remain at 80% using water for dust control. (NIRB)

Hazardous Waste Issues

20. More detail on what hazardous wastes will be generated (MHBL)

21. More detail on how hazardous waste will be managed (MHBL)

22. More detail in hazardous waste plan for FEIS (MHBL)

23. Incorporate GN regulations and guidelines into hazardous waste management plan (MHBL)

Closure and Reclamation Issues

24. Encourage natural re-vegetation at site, will look at current research (MHBL)

25. Include some detail in FEIS on how further mining in area will affect closure plan (EC)

26. Clarify whether mine workings will be flooded upon closure (EC)

27. Will provide plan drawing and description of site after closure. (MHBL)

28. Include sufficient detail on landfarm in FEIS for environmental impact assessment, include location, case studies (NIRB)

29. More detail in post-closure monitoring plan in FEIS (GN DOE)

30. Include landfill monitoring in post-closure monitoring plan (NIRB)

31. Clarify that permafrost encapsulation is not necessary to prevent leaching of contaminants from non-hazardous landfill. (NIRB)

32. Specify criteria to be used for clean-up of contaminated soil in closure plan. (NIRB)

Emergency Response Plan

33. Further detail and clarification in emergency response plan as per Environment Canada's tech report comments.

34. Look at tech comments as submitted (GN DOE)

35. Note that Emergency Action Plan for dam failure will be completed before operations begin. (NIRB)

Infrastructure

36. Thickness of pad to maintain permafrost – details of thermal modeling for pads will be included in FEIS (Acres)

37. Add to drawing of detailed mine layout in FEIS, - consideration for control of runoff water in the area of waste rock stockpile (berm on uphill side of pile) (INAC)

38. Avoid close contact between accommodations and explosives transport in mill site design (NRCan)

39. Include temporary explosives area in closure plan (NIRB)

40. Include anticipated volume of rock for mitigation of shoreline in FEIS table (NIRB)

41. Need to discuss with elders what would be the appropriate means for deterring animals from Tailings area.(MHBL)