



## SCREENING DECISION REPORT NIRB FILE NO.: 12MN001

February 24, 2012

The Honourable John Duncan  
Minister of Aboriginal Affairs and Northern Development  
Executive Offices  
10 Wellington St.  
Gatineau, QC K1A 0H4

Via email: [duncan.j@parl.gc.ca](mailto:duncan.j@parl.gc.ca) and [minister@aandc.gc.ca](mailto:minister@aandc.gc.ca)

**Re: Screening Decision for Hope Bay Mining Ltd.'s "Phase 2 Hope Bay Belt" project proposal, NIRB File No. 12MN001**

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Dear Mr. John Duncan:

As can be seen from the more detailed comments below, the Nunavut Impact Review Board (NIRB or Board) is recommending that Hope Bay Mining Ltd.'s "Phase 2 Hope Bay Belt" project proposal be the subject of a public review pursuant to **Section 12.4.4(b)** of the Nunavut Land Claims Agreement (NLCA).

### LEGAL FRAMEWORK

Subsection 12.4.2(a) of the Nunavut Land Claims Agreement (NLCA) directs the NIRB, when screening a project, to recommend a public review when in its judgement:

- (i) the project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities,
- (ii) the project may have significant adverse socio-economic effects on northerners,
- (iii) the project will cause significant concern, or
- (iv) the project involves technological innovations for which the effects are unknown;

Pursuant to Subsection 12.4.2(b), a review is generally not required when, in NIRB's judgement, the project is unlikely to arouse significant public concern and;

- (i) the adverse ecosystemic and socio-economic effects are not likely to be significant, or
- (ii) the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology

Subsection 12.4.2(c) instructs NIRB to give greater weight to the provisions of 12.4.2(a) in determining whether a review is required or not.

#### PROCEDURAL HISTORY AND BACKGROUND

On December 8, 2011, the Nunavut Impact Review Board (NIRB or Board) received the “Phase 2 Hope Bay Belt” project proposal (the Project) directly from Hope Bay Mining Ltd. (HBML; the Proponent). On January 12, 2012, the NIRB received a request to screen this project proposal from the Kitikmeot Inuit Association (KIA). The NIRB assigned this project proposal file number 12MN001.

This project proposal was distributed to community organizations in Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, Kugaaruk, Bathurst Inlet (Kingaok) and Bay Chimo (Omingmaktok), as well as to relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by February 9, 2012 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before February 9, 2012, the NIRB received comments from the following interested parties (see Comments and Concerns section below):

- Kitikmeot Inuit Association (KIA)
- Government of Nunavut – Executive and Intergovernmental Affairs (GN-EIA)
- Transport Canada (TC)
- Fisheries and Oceans Canada (DFO)
- Environment Canada (EC)

Please note that all materials received and pertaining to the NIRB’s screening of this file can be obtained from the Board’s online public registry at the following link: <http://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/>.

#### INITIAL SCOPE OF PROJECT PROPOSAL

Hope Bay Mining Ltd., a wholly-owned subsidiary of Newmont Mining Corporation with mining development projects around the world, is proposing to construct and operate the “Phase 2 Hope Bay Belt” project approximately 125 kilometres (km) southwest of Cambridge Bay, within the Kitikmeot Region of Nunavut. HBML currently owns and operates the Doris North Project, a prospective gold mining and milling operation located within the Hope Bay greenstone

belt, which has yet to commence full mining and milling. The Hope Bay greenstone belt spans approximately 80 km in length and between 7 and 20 km width, with a total area totaling more than 1,000 km<sup>2</sup> and several identified mineral deposits of interest.

Although the majority of required facilities associated with the Doris North project have been constructed, to date HBML has continued exploration efforts only, and has not yet commenced mining and milling activities. HBML has recently submitted a separate application to the NIRB for amendments to the Project Certificate for the previously reviewed Doris North Project which would allow for an extension of the operational period for the mine and a number of associated infrastructure changes. HBML's "Phase 2 Hope Bay Belt" project proposal is the second proposed mining and milling development along the Hope Bay Belt and would allow for gold mining at the Madrid/Patch and Boston mineral deposits using both open pit and underground methods. It is HBML's intention to have the development pattern along the Hope Bay greenstone belt eventually include several mines concurrently under development, in operation, and in closure at any given time.

For the Phase 2 Hope Bay Belt project proposal the Proponent has estimated a milling rate of up to 2 million tonnes of ore per year, with anticipated total waste rock and tailings production of 350 million tonnes and 25 million tonnes, respectively. The Proponent has also indicated that the project includes subsurface lands owned by both Nunavut Tunngavik Inc. and the federal government and that these mineral rights are overlain almost entirely by 100% Inuit Owned Surface Lands. The majority of project infrastructure associated with this project would be located on Inuit Owned surface and sub-surface lands, with some facilities and infrastructure to be located on Crown lands.

The project proposal includes the expansion of existing infrastructure at the Doris district as well as the development of new infrastructure at the Madrid/Patch and Boston districts to support belt-wide mining operations. The Proponent has indicated that the number of personnel on the site at any given time is not expected to exceed 1,080 with a total of 720 on-site personnel during peak construction and 540 personnel during operations. Personnel at all project phases would be employed on a fly-in/fly-out rotational basis. HBML proposes to commence project development in 2014 – 2015, with a projected mine life of 15 years. The Proponent estimates the total potential value of expenditures associated with Hope Bay Belt development activities in the range of tens to hundreds of million dollars annually to the Kitikmeot, Nunavut, and Canada.

The following is a *summary* of the main project components and activities associated with the Phase 2 Hope Bay Belt project proposal, separated by physical location:

Proposed facilities and activities at Roberts Bay:

- Expansion of existing deep sea and shallow water port facilities;
- Construction of waste management buildings and maintenance shops;
- Installation of moored accommodation barges to house 100 personnel; and
- An additional 60 million litres (ML) of diesel fuel to be stored at the existing site's main fuel storage facility and the establishment of additional dispensing systems.

Proposed use and/or expansion of existing facilities and associated activities at Doris:

- Use of existing camp with up to an anticipated 360 persons to be accommodated during future construction of Phase 2 project);
- Establishment of a heliport;
- Expansion of existing all-weather airstrip;
- Potable water to be sourced from Doris Lake (as previously permitted) with use of existing sewage treatment plants;
- Maintenance shops, administration buildings, mine dry (including lockers, sinks, and changing rooms for personnel);
- Reagent storage;
- Batch plant;
- Underground mining activities;
- Crushing circuit;
- Mineral processing plant;
- Waste rock and ore storage;
- Surface water management (including pollution and sediment control or supernatant ponds);
- Use of previously permitted fuel storage infrastructure (up to 5 ML);
- Tailings conveyance and storage (tailings storage and disposal options include sub-aqueous, sub-aerial, dry-stack and deep sea);
- Landfill at quarried out areas;
- Power generation and distribution;
- Mine water conveyance and treatment facilities; and
- Other miscellaneous support facilities.

Proposed facilities and activities at Madrid/Patch:

- Construction and operation of an all-weather airstrip;
- Establishment of administration buildings; maintenance shops; mine dry (including lockers, sinks, and changing rooms for personnel);
- Diesel fuel power generation and related distribution infrastructure;
- Establishment of fuel storage facilities;
- Multiple open pit and underground mining operations to be in development, operations, and/or closure phases concurrently with one another at any given time;
- Crushing circuit;
- Potable water drawn from Patch Lake
- Establishment of sewage treatment plant and sanitary landfill;
- Ore and waste rock storage areas; and
- Other miscellaneous support facilities.

Proposed facilities and activities at Boston:

- Establishment of camp facility for up to 180 personnel;
- Establishment of heliport and all-weather airstrip;
- Potable water drawn from Aimaokatalok Lake;
- Establishment of sewage treatment plant;
- Establishment of maintenance shops, administration buildings, mine dry (including lockers, sinks, and changing rooms for personnel);
- Reagent storage;

- Batch plant;
- One open pit (with diking of a portion of Aimaokatalok Lake) and multiple underground mining operations;
- Crushing circuit;
- Mineral processing plant;
- Waste rock and ore storage;
- Surface water management (including pollution and sediment control or supernatant ponds);
- Fuel storage;
- Tailings conveyance and storage (land-based dry stack or sub-aerial tailing facilities and/or placement of some tailings underground);
- Landfill at quarried out areas;
- Power generation and distribution;
- Potable water to be drawn from Aimaokatalok Lake;
- Establishment of sewage treatment plant;
- Mine water conveyance and treatment facilities; and
- Other miscellaneous support facilities.

Proposed Mid-belt facilities and activities:

- Mobile exploration camp to accommodate 180 personnel;
- Temporary fuel storage at cache location (to be determined);
- Establishment of heliport, administration buildings and maintenance shops; and
- Potable water and sewage treatment plants using a number of lakes in the region as water sources.

All facilities would be connected by all-weather roads and winter roads, with ongoing project hauling and support provided by road transportation (i.e. trucking of fuel and supplies from Roberts Bay storage to each ancillary facility). Ice airstrips would also be used in support of site activities.

The NIRB has previously reviewed the related, but distinct, Doris North Gold Mine project (NIRB File No. 05MN047) in accordance with Part 5 of Article 12 of the Nunavut Land Claims Agreement (NLCA); the NIRB currently monitors the Doris North project through the provisions of NLCA Article 12, Part 7 and the Doris North Project Certificate [No. 003]. While enough information has been provided to confidently determine that a Review is required to adequately assess the Phase 2 Hope Bay Belt project proposal, it is noted that HBML would likely be required to provide additional clarification regarding the use of existing infrastructure at the Doris North site in support of this proposal prior to the NIRB conducting community scoping sessions, should a review be directed by the Minister.

## COMMENTS AND CONCERNS

Most of the comments received from Parties indicated that due to the nature and scale of the proposed activities and components, the proposed project may cause significant adverse effects on the ecosystem and wildlife habitat and there may be significant adverse socio-economic

effects on northerners. Nearly all of these commenting agencies have suggested that the Board consider recommending this project be subjected to a public review.

The following is a *summary* of the comments and concerns received during the public commenting period for this file; please note that the original comment submissions have been included in **Appendix A**:

**Kitikmeot Inuit Association:**

- Expressed concerns with regards to hydrogeology, water quality and consumption, fisheries, wildlife and wildlife habitat; but indicated that the potential effects on these environmental components are predictable and can be mitigated with known technologies and management actions.
- Concerned with possible reductions in harvest opportunities for hunters and trappers that traditionally use the land where the project is to be developed.
- Expressed concerns regarding the potential for some societal problems resulting from rotation schedules and/or the increased disposable income that may become available in the Kitikmeot communities if the project is developed.
- Noted that the project will result in improved standards of living for Inuit in the Kitikmeot through increased employment and training opportunities.
- Recommended that the project has significant impact potential on ecosystems and socio-economic factors, and that a Part 5 Review will likely be required.
- Expressed support for the option of a coordinated review process involving both the NIRB and the Nunavut Water Board for this project proposal.

**Government of Nunavut - Executive and Intergovernmental Affairs:**

- Indicated that the proposed project has potential to provide sustainable social and economic benefits to Nunavummiut and their communities; in addition to significant environmental and socio-economic impacts, both locally and regionally.
- Recommended that the NIRB issue a decision consistent with NLCA 12.4.4(b), specifically that a review, as set out under Part 5, Article 12 of the NLCA, be undertaken.

**Transport Canada:**

- Indicated that it may have interest in several of the main project components associated with the Phase 2 Hope Bay Belt project proposal.
- Noted that the Proponent must deal directly with Navigable Waters Protection Program, the Federal Authority mandated with enforcing the Navigable Waters Protection Act, for any work(s) to be built or placed in, on, over, under, through or across any navigable water.

**Fisheries and Oceans Canada:**

- Commented that the development of the proposed project will cause harmful alteration, disruption or destruction of fish and fish habitat and will require authorization under subsection 35(2) of the Fisheries Act.
- Indicated that there is potential for the proposed project to cause significant adverse environmental impacts to fish and fish habitat and suggested that the proposed project be reviewed under Article 12, Part 5 or 6 of the NLCA.

### **Environment Canada:**

- Noted that the proposed project may cause significant adverse effects on the ecosystem and wildlife habitat including:
  - Surface freshwater and the marine environment as a result of the deposit of treated effluent, nutrient input from blasting and sewage treatment, suspended sediments as a result of construction activities, surface runoff from ore and waste rock, and accidents and malfunctions.
  - Air quality as a result of the increased operation of an incinerator, mine site activities and the equipment and supplies along the all-weather road;
  - Migratory birds as a result of habitat loss and disturbances at the proposed site facilities and roads; and
  - Species at risk as a result of habitat loss and disturbance at proposed site facilities and roads.
- Recommended that, due to the potentially adverse impacts to these ecosystem components resulting from the project, at a minimum, a Part 5 review under Section 12.4.4(b) of the NLCA would be appropriate

### **ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH NLCA 12.4.2**

Subsection 12.4.2(a) of the Nunavut Land Claims Agreement (NLCA) directs the NIRB, when screening a project, to recommend a public review when in its judgement:

- (i) the project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities,
- (ii) the project may have significant adverse socio-economic effects on northerners,
- (iii) the project will cause significant concern, or
- (iv) the project involves technological innovations for which the effects are unknown

Pursuant to Subsection 12.4.2(b), a review is generally not required when, in NIRB's judgement, the project is unlikely to arouse significant public concern and;

- (i) the adverse ecosystemic and socio-economic effects are not likely to be significant, or
- (ii) the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology

Subsection 12.4.2(c) instructs NIRB to give greater weight to the provisions of 12.4.2 (a) in determining whether a review is required or not.

In determining whether or not a public review is necessary, the NIRB considered a number of factors, in addition to soliciting and reviewing comments received from responsible government departments, Inuit organizations and interested parties. Upon completion of the Board's Screening assessment and consistent with the criteria as stated in 12.4.2 (a) of the NLCA, the

NIRB has determined, based on the size and nature of the proposed Phase 2 Hope Bay Belt project, that:

1. The project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities;
2. The project may have significant adverse socio-economic effects on Northerners; and
3. The project will cause significant public concern.

1. The project may have significant adverse effects on the ecosystem - 12.4.2(a) (i):

The NIRB and commenting parties have identified a number of potentially significant adverse effects that could be associated with this project. A selection of those comments identifying such adverse effects is listed below:

“The KIA believes that the development of HBML’s Phase 2 project will result in some impacts on wildlife and wildlife habitat...” - *Kitikmeot Inuit Association*

“The GN believes that this project has potential to provide sustainable social and economic benefits to Nunavummiut and their communities. However, this project could also have significant environmental and socio-economic impacts, both locally and regionally. Therefore, this project proposal should be given thorough consideration by NIRB, the public, and government at the earliest opportunity.” – *Government of Nunavut*

“Based on information provided in the Project Description, it was determined by DFO that the development of Phase 2 of the Hope Bay Belt Project will cause a harmful alteration, disruption or destruction of fish and fish habitat and will require an authorization under subsection 35(2) of the *Fisheries Act*. Based on the information that has been provided by the proponent to date, aspects of the project that will result in impacts to fish and fish habitat include:

- Dewatering of a portion of Aimaokatalok Lake for the construction of an open pit mine at the Boston deposit;
- Infilling of marine fish habitat resulting from the construction of a new port facility in Roberts Bay; and
- Impacts to fish habitat as a result of the construction of water crossings associated with new all-weather roads.” – *Fisheries and Oceans Canada*

“After reviewing the project proposal and supporting documents, Environment Canada is of the opinion that the proposed project may cause significant adverse effects on the ecosystem and wildlife habitat.” – *Environment Canada*

2. The project may have significant adverse socio-economic effects on Northerners - 12.4.2 (a) (ii):

The NIRB and commenting parties, including the Proponent, have identified potential positive and negative socio-economic effects that could be caused by the proposed project. A selection of those comments outlining socio-economic issues is shown below:



“Potential adverse socio-economic effects of the project include: (1) possible reductions in harvest opportunities for hunters and trappers that traditionally use the land where Phase 2 will be developed; and (2) the potential for some societal problems as a result of the rotation schedules and/or the increased disposable income available in the Kitikmeot communities.” – *Kitikmeot Inuit Association*

“Potential Project-related impacts to the socio-economic /cultural environment may be positive or adverse and may include:

- Employment and income opportunities, such as: direct, indirect and induced employment, and associated income generation, as well as issues associated with a transition to a wage economy, changes to cost of living and tax revenue generation.
- Education, training, and skills development opportunities, such as: training programs, on-the-job training, apprenticeships, and work experience.
- Business opportunities and economic development, such as: business opportunities generated by Project supply/service requirements, and economic diversification.
- Community stability and well-being, including potential changes to: population and demography, demand for services and infrastructure, capacity of services and infrastructure, family stability, spending habits, traditional activities and dietary/economic contributions, and cultural/language characteristics.” - *Hope Bay Mining Ltd.*

3. The project will cause significant public concern - 12.4.2 (a) (iii):

After soliciting comments from the public and interested parties, and completing an internal technical review, it is the opinion of the NIRB that the size and nature of the Phase 2 Hope Bay Belt project will cause significant public concern, and that this would be best addressed through the course of a public review pursuant to Part 5 or 6 of NLCA Article 12. A number of commenting parties and the Proponent have also recommended to the NIRB that the Phase 2 Hope Bay Belt project be subject to review, with several parties indicating their preference specifically for a review pursuant to NLCA Article 12, Part 5:

“KIA believes that a Part 5 review will allow for a more appropriate assessment of the effects on ecosystems and socio-economic factors, rather than a Part 4 Screening” – *Kitikmeot Inuit Association*

“The GN recommends that NIRB issue a decision consistent with the NLCA 12.4.4 (b). Furthermore, as has been the case with other mining projects reviewed by NIRB in recent years, the GN believes that most of the environmental and socio-economic impacts will be felt within the Nunavut Settlement Area and therefore recommends that the project proceed to a review as set out under Part 5, Article 12 of the NLCA.” – *Government of Nunavut*

“DFO suggests that Phase 2 of the Hope Bay Belt Project be reviewed under Article 12, Part 5 or 6 of the Nunavut Land Claim Agreement.” - *Fisheries and Oceans Canada*

“Due to the potentially significant adverse impacts to these ecosystem components resulting from the project, it is EC’s opinion that at a minimum a Part 5 Review under Section 12.4.4(b) of the Nunavut Land Claim Agreement would be appropriate.” – *Environment Canada*

“Due to the size and scope of the Phase 2 Hope Bay Project, it is HBML’s expectation that a Part 5 review is appropriate” – *Hope Bay Mining Ltd.*

Following the NIRB’s technical review of the project proposal and consideration of the potential impacts associated with this type of project development (gold mining and milling) and associated infrastructure, as well as the public concerns expressed, there are a number of issues which require further attention and clarification by the Proponent in order to ensure a thorough environmental impact assessment. The NIRB believes that this would best be done through the public review process pursuant to Part 5 or 6 of Article 12 of the Nunavut Land Claims Agreement.

#### ADDITIONAL ISSUES OF CONCERN TO NIRB

In addition to the potential ecosystemic and socioeconomic impacts identified by parties which the NIRB must consider pursuant to NLCA Section 12.4.2, the NIRB has also identified several other important issues which a Review of the Phase 2 Hope Bay Project should take into consideration:

### **1. Geochemical Characterization of Waste Rock and Mitigation Measures for Potential Acid Rock Drainage and Metal Leaching**

HBML’s conclusions from analyses of potential waste and quarry rock have indicated that most of it has low probability of generating acid rock drainage. This conclusion will need to be assessed comprehensively, especially given the anticipated waste rock production (300 – 400 million tonnes) and the relatively high sulphur content identified in ores and surrounding host rocks in the proposed project area.

### **2. Hope Bay Mining Ltd.’s Proposed Tailings Management Strategies**

HBML has proposed options for tailings management and disposal of the estimated 25 million tonnes of tailings to be produced from the Madrid/Patch and Boston districts. The effectiveness of any tailings management strategy, including the adequacy of any proposed monitoring program, particularly for benthic (sea bottom-dwelling) organisms in the proposed option to dispose of tailings water at sea, will require the level of further scrutiny best provided through an NLCA Part 5 or 6 Review.

### **3. Potential Cumulative Effects of Increasing Mineral Development in the Kitikmeot Region**

The proposed Phase 2 Hope Bay Belt project adds to the number of potential and/or developed mines in the Kitikmeot Region. The NIRB is aware of a large number of mineral exploration and development projects currently operating or under Review by the Board throughout the Kitikmeot Region, including:

- Hope Bay Mining Ltd.'s Doris North Gold Mine, currently being monitored by the Board through NLCA Article 12, Part 7 (NIRB File No. 05MN047);
- Shear Diamonds Corp.'s Jericho Diamond Mine, currently being monitored by the Board following public Review (NIRB File No. 00MN059) and subsequent mineral exploration within the vicinity of the Jericho Diamond Mine (NIRB File No. 11EN009);
- North Arrow Mineral Inc.'s Hope Bay exploration project (NIRB File No. 11EN001);
- Guyana Precious Metal Inc.'s Dismal Lakes exploration project (NIRB File No. 11EN033);
- Elgin Mining Ltd.'s mineral exploration activities near the former Lupin Mine (NIRB File No. 11EN047);
- North Arrow Mineral Inc.'s Torp Lake exploration project (NIRB File No. 09EN059);
- Sabina Gold and Silver Corp.'s Back River exploration project and related activities (NIRB File Nos. 04RN015; 04RN101; 06EN033; 08EA084; 09RN066);
- Xstrata Zinc Canada's Hackett River project, currently under review by the Board (NIRB File No. 08MN006), and related exploration activities (NIRB File Nos. 04EN012; 08EA084; 09RN066);
- Mineral and Metal Group's High Lake Mine proposal, currently under review by the Board (NIRB File No. 06MN082); and
- Sabina Gold and Silver Corp.'s Bathurst Port and Road Project (NIRB File No. 03UN114) currently under review by the Board.

The NIRB's Screening assessment has also considered the potential for cumulative impacts to wildlife, including barren-ground caribou populations, particularly the Ahiak, Dolphin and Union, and Bathurst herds, from habitat loss and disruption of migration patterns as a result of HBML's proposal to concurrently operate multiple mines in the Hope Bay Belt area in association with other mineral exploration activities in the area.

Given the relatively small combined population<sup>1</sup> of communities in the Kitikmeot region, and the importance of the caribou calving and post-calving areas located in the region, the NIRB believes that the potential cumulative ecosystemic and socio-economic effects must factor prominently in any further assessment of the Phase 2 Hope Bay Belt Project.

#### **4. Availability of Participant Funding**

It is the NIRB's opinion that given the range and scope of the potential impacts of the proposed project, participant funding will likely be required to promote effective participation by potentially affected groups in the environmental assessment process. The Board notes that there is a precedent for the award of this type of funding in previous Reviews conducted by the NIRB.

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<sup>1</sup> The 2010 population estimate for the Kitikmeot region was 5,974 (Nunavut Bureau of Statistics)

Accordingly, the NIRB recommends that the Minister consider this matter in making his determination.

## **5. Recent Announcement Regarding Care and Maintenance at Doris North**

On January 31, 2012 HBML wrote to the NIRB and advised that its parent company, Newmont Mining Corporation had made the decision to place the development of the Doris North Project (NIRB File No. 05MN047) and further exploration of the Hope Bay belt into care and maintenance. All development and surface exploration activities at Hope Bay were consequently postponed until further notice.

While on-site activities are currently in care and maintenance, HBML has requested that the NIRB continue to process the two regulatory applications relating to the Doris North and Hope Bay Belt Projects currently under consideration, namely:

- The Doris North Mine Modifications and Related Amendments to Project Certificate No. 3 and Nunavut Water Board Type A Water Licence No. 2AMDOHO713; and
- The Phase 2 Hope Bay Belt Project Proposal (NIRB File No. 12MN001).

It is HBML's expressed belief that the NIRB's continued attention to these applications will support project development should the Doris North and Hope Bay Belt Projects be brought out of care and maintenance at some, as yet undetermined future date. The NIRB notes with concern however that there are difficulties associated with proceeding with an environmental assessment of a project proposal with indeterminate development timelines, including the following:

- A review of the Phase 2 Hope Bay Belt project proposal may be influenced by significant public concern associated with the sudden termination of employment for residents in the Kitikmeot region as the Doris North Project transitions into care and maintenance;
- It may be difficult to engage the general public in the review of a project where there is uncertainty regarding whether the development will proceed in the near future;
- Any assessment of cumulative effects will be hampered by a lack of certainty regarding proposed start dates for mine development;
- Many aspects of the negotiations for an Inuit Impact and Benefits Agreement required for this major project development will likely not progress until greater certainty regarding proposed start dates for mine development are established, and this may limit the socioeconomic analysis of the project proposal; and,
- Federal and territorial government agencies and departments and Inuit organizations are currently experiencing capacity challenges in addressing the ongoing assessments of multiple mining and milling proposals in the Nunavut Settlement Area and, as a result, may choose to allocate their limited resources to engaging only in those processes where the project development timelines are more immediate and certain.

In addition, the NIRB is also currently experiencing capacity challenges, and given the Board's current workload with active Reviews for several project proposals with project development timelines that are more immediate (for example, with project construction to commence immediately upon receipt of the required approvals), resource constraints are necessitating that

the Board consider prioritizing as it attempts to co-ordinate the scheduling of multiple Reviews. As a result, with the recognition that the Phase 2 Hope Bay Belt project proposal has a less immediate project development timeline, the timeline associated with a Review of this proposal could be considered to be a lower priority than those timelines for the Reviews with more definite and immediate development frameworks.

#### RECOMMENDATION TO THE MINISTER

Collectively, the Board has carefully considered the factors set out in sections 12.4.2(a) and 12.4.2(b) of the NLCA. The Board has no doubt, based on the submissions of the Parties as set out in the preceding sections of this Screening Decision, that this Project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities; adverse socio-economic effects on northerners; and will cause significant public concern.

**Therefore, pursuant to Section 12.4.4(b) of the NLCA, the Board recommends to the Minister that Hope Bay Mining Ltd.'s "Phase 2 Hope Bay Belt" project proposal requires review under Part 5 or 6 of NLCA Article 12.**

The NIRB looks forward to receiving your decision and will act quickly to address the next steps in any subsequent Review of the "Phase 2 Hope Bay Belt" project proposal.

Yours truly,



Lucassie Arragutainaq  
Chairperson  
Nunavut Impact Review Board

cc: Honourable Peter Kent, Government of Canada, Minister of Environment  
Honourable Keith Ashfield, Government of Canada, Minister of Fisheries and Oceans  
Honourable Denis Lebel, Government of Canada, Minister of Transport, Infrastructure and Communities  
Honourable Joe Oliver, Government of Canada, Minister of Natural Resources  
Thomas Kabloona, Chairperson, Nunavut Water Board  
Charlie Evalik, President, Kitikmeot Inuit Association

Att.: Appendix A: Comment Submissions (NIRB File No. 12MN001)

**Appendix A**  
Comment Submissions (NIRB File No. 12MN001)

## COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board (NIRB) has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. To assess the environmental and socio-economic impacts of the project proposal, NIRB would like to hear your concerns, comments and suggestions about the following project proposal application:

<b>Project Proposal Title:</b> <b>Phase 2 Hope Bay Belt</b>																			
<b>Proponent:</b> <b>Hope Bay Mining Ltd.</b>																			
<b>Location:</b> <b>near Hope Bay, Kitikmeot region</b>																			
<b>Comments Due By:</b> <b>February 9, 2012</b>	<b>NIRB #:</b> <b>12MN001</b>																		
<p><b>Indicate your concerns about the project proposal below:</b></p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> no concerns</td> <td><input type="checkbox"/> traditional uses of land</td> </tr> <tr> <td><input type="checkbox"/> water quality</td> <td><input type="checkbox"/> Inuit harvesting activities</td> </tr> <tr> <td><input type="checkbox"/> terrain</td> <td><input type="checkbox"/> community involvement and consultation</td> </tr> <tr> <td><input type="checkbox"/> air quality</td> <td><input type="checkbox"/> local development in the area</td> </tr> <tr> <td><input type="checkbox"/> wildlife and their habitat</td> <td><input type="checkbox"/> tourism in the area</td> </tr> <tr> <td><input type="checkbox"/> marine mammals and their habitat</td> <td><input type="checkbox"/> human health issues</td> </tr> <tr> <td><input type="checkbox"/> birds and their habitat</td> <td><input type="checkbox"/> other: _____</td> </tr> <tr> <td><input type="checkbox"/> fish and their habitat</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> heritage resources in area</td> <td>_____</td> </tr> </table> <p><b>Please describe the concerns indicated above:</b></p>		<input type="checkbox"/> no concerns	<input type="checkbox"/> traditional uses of land	<input type="checkbox"/> water quality	<input type="checkbox"/> Inuit harvesting activities	<input type="checkbox"/> terrain	<input type="checkbox"/> community involvement and consultation	<input type="checkbox"/> air quality	<input type="checkbox"/> local development in the area	<input type="checkbox"/> wildlife and their habitat	<input type="checkbox"/> tourism in the area	<input type="checkbox"/> marine mammals and their habitat	<input type="checkbox"/> human health issues	<input type="checkbox"/> birds and their habitat	<input type="checkbox"/> other: _____	<input type="checkbox"/> fish and their habitat	_____	<input type="checkbox"/> heritage resources in area	_____
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<input type="checkbox"/> fish and their habitat	_____																		
<input type="checkbox"/> heritage resources in area	_____																		
<p><b>Do you have any suggestions or recommendations for this application?</b></p> <p>Transport Canada may have an interest in several of the main project components associated with the Phase 2 Hope Bay Belt Project Proposal:</p> <p>Navigable Waters Protection Program (NWPP);</p> <p>The NWPP is the Federal Authority mandated with enforcing the Navigable Waters Protection Act (NWP). Proponents must deal directly with the NWPP for any work(s) to be built or placed in, on, over, under, through, or across any navigable water. The Proponent will need to submit formal applications to the NWPP in order to obtain an approval, promulgation, or exemption for each specific work. The proponent shall also inform the NWPP of any design, construction or operational changes accordingly.</p> <p><a href="http://www.tc.gc.ca/eng/marinesafety/oep-nwpp-menu-1978.htm">http://www.tc.gc.ca/eng/marinesafety/oep-nwpp-menu-1978.htm</a></p> <p>Transport Canada – Marine Safety: Operations and Environment</p> <p>The Operations and Environment branch (OEP) manages and enforces programs, guidelines and standards for safe ships, navigation and environmentally responsible marine operations.</p> <p><a href="http://www.tc.gc.ca/eng/marinesafety/oep-menu.htm">http://www.tc.gc.ca/eng/marinesafety/oep-menu.htm</a></p>																			

8. Comment Form Distribution

<b>Do you support the project proposal? Yes <input type="checkbox"/> No <input type="checkbox"/> Any additional comments?</b>	
<b>Name of person commenting:</b> <u>John Cowan</u> <b>of</b> <u>Environmental Affairs</u>	
<b>Position:</b> <u>Environmental Officer</u>	<b>Organization:</b> <u>Transport Canada</u>
<b>Signature:</b> _____	<b>Date:</b> <u>February 7, 2012</u>





Environmental Assessment North  
Environmental Protection Operations (EPO)  
Qimugjuk Building 969  
PO Box 1870  
Iqaluit, NU X0A 0H0  
Tel: (867) 975-4631  
Fax: (867) 975-4645

3 February 2012

EC file: 4703 001 006  
NIRB file: 12MN001

Kofi Boa-Antwi  
Technical Advisor  
Nunavut Impact Review Board  
29 Mitik, PO Box 1360  
Cambridge Bay, NU X0A 0C0

Via email: [info@nirb.ca](mailto:info@nirb.ca)

**RE: Notice of Part 4 Screening for Hope Bay Mining Ltd.'s "Phase 2 Hope Bay Belt" Project Proposal**

Thank you for the opportunity to provide input into the Nunavut Impact Review Board's (NIRB) Part 4 Screening decision for Hope Bay Mining Ltd.'s (HBML) Phase 2 Hope Bay Belt project proposal. The following specialist advice has been provided pursuant to the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

After reviewing the project proposal and supporting documents, Environment Canada (EC) is of the opinion that the proposed project may cause significant adverse effects on the ecosystem and wildlife habitat. This advice is based on the scale of the proposed project and the anticipated environmental impacts that may occur if the project proceeds. As outlined in the project proposal, the Phase 2 Hope Bay Belt proposal includes the following new developments:

- Construction, operation and closure of new underground mines and open pit mines in the Madrid/Patch and Boston districts over a 15 year period. This will include airstrips, winter roads, all-weather roads, residential camps, portable construction camps, and storage areas for fuel and waste.
- In both districts, mining will start underground and be followed by open pit mining. One open pit in the Boston district may encroach on a shallow area of Aimaokatalok Lake. This will be managed by a ring dike.
- A new all-weather road to connect the Doris and Madrid/Patch districts with the southern Boston district.
- Expansion of infrastructure in the Doris district to support mining operations in the Madrid/Patch and Boston districts. This includes expanded port facilities in Roberts Bay
- Increase in the number of personnel on site to a maximum of 1,080.

A total of 200 to 250 million tonnes (Mt) of waste rock will be produced in the Madrid/Patch district and 100 to 150 Mt in the Boston district. Analysis of this rock shows that most of it has low probability of generating acid rock drainage. The majority of the waste rock from underground mining will be used as backfill and some will be used for construction purposes on the surface. A maximum of 3.5 million tonnes of ore will be processed each year (Mtpa) with a

combined 2 Mtpa coming from the Madrid/Patch and Boston districts and up to 2 Mtpa from the Doris district. Alternatives studies are underway to identify the preferred milling locations and the level of processing that will be done at each facility. A total of 25 Mt of tailings is anticipated to be produced from the Madrid/Patch and Boston districts. HBML is currently considering several tailings disposal options.

EC is of the opinion that there is potential for this project to cause significant adverse environmental impacts. Potentially impacted ecosystem components include, but may not be limited to:

- Surface freshwater and the marine environment as a result of the deposit of treated effluent, nutrient input from blasting and sewage treatment, suspended sediments as a result of construction activities, surface runoff from ore and waste rock, and accidents and malfunction;
- Air quality as a result of the increased operation of an incinerator, mine site activities and the equipment and supplies along the all-weather road;
- Migratory birds as a result of habitat loss and disturbances at the proposed site facilities and roads; and,
- Species at risk as a result of habitat loss and disturbance at proposed site facilities and roads.

Due to the potentially significant adverse impacts to these ecosystem components resulting from the project, it is EC's opinion that at a minimum a Part 5 Review under Section 12.4.4(b) of the *Nunavut Land Claim Agreement* would be appropriate.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact the undersigned with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at [Paula.C.Smith@ec.gc.ca](mailto:Paula.C.Smith@ec.gc.ca).

Yours truly,



Margaret Fairbairn  
A/Manager  
Environmental Assessment and Marine Programs  
Prairie and Northern Region

cc: Carey Ogilvie (Head, Environmental Assessment-North, EPO, Yellowknife, NT)  
Allison Dunn (Sr. Environmental Assessment Coordinator, EPO, Iqaluit, NU)  
Paula C. Smith (Environmental Assessment Coordinator, EPO, Iqaluit, NU)





Fisheries and Oceans Canada    Pêches et Océans Canada

Eastern Arctic Area    Region Arctique de L'est  
Iqaluit Office    Bureau de Iqaluit

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Fax: (867) 979-8039    Téléc: (867) 979-8039

*Your file    Votre référence*  
12MN001

*Our file    Notre référence*  
NU-07-0117

February 9, 2012

Kofi Boa-Antwi  
Technical Advisor  
Nunavut Impact Review Board  
PO Box 1360  
Cambridge Bay, NU X0B 0C0

Dear Kofi Boa-Antwi:

**Subject: DFO Comments: Phase 2 Hope Bay Belt Project Description**

Fisheries and Oceans Canada (DFO) received a letter from the Nunavut Impact Review Board (NIRB) on January 19, 2012 regarding the commencement of the Part 4 Screening Review for Hope Bay Mining Ltd.'s Phase 2 Hope Bay Belt Project.

Based on information provided in the Project Description it was determined by DFO that the development of Phase 2 of the Hope Bay Belt Project will cause a harmful alteration, disruption or destruction to fish and fish habitat and will require an authorization under subsection 35 (2) of the *Fisheries Act*. Based on the information that has been provided by the proponent to date, aspects of the project that will result in impacts to fish and fish habitat include:

- Dewatering of a portion of Aimaokatalok Lake for the construction of an open pit mine at the Boston deposit;
- Infilling of fish habitat resulting from the construction of a new port facility in Roberts Bay;
- Impacts to fish habitat as a result of the construction of water crossings associated with new all weather roads.

It is requested that Hope Bay Mining Ltd. inform DFO of any potential impacts to fish habitat as location options for waste rock and tailings storage are developed.

After reviewing the scope of information that has been presented by the proponent to date, including mitigation measures and best management practices, DFO is of the opinion that there is potential for Phase 2 of the Hope Bay Belt Project to cause significant adverse environmental impacts to fish and fish habitat. DFO suggests that Phase 2 of the Hope Bay Belt Project be reviewed under Article 12, Part 5 or 6 of the *Nunavut Land Claim Agreement*.

DFO is committed to working with NIRB, Hope Bay Mining Ltd. and other Federal and Territorial Agencies during the regulatory review of this development proposal. If you have any questions

concerning the above or would like to discuss in greater detail please contact Lyndon Kivi directly by telephone at (807) 468-6441 or by email at [lyndon.kivi@dfo-mpo.gc.ca](mailto:lyndon.kivi@dfo-mpo.gc.ca)

Sincerely,



Beverley Ross  
Regional Manager, Environmental Assessment  
Fisheries and Oceans Canada

cc.     Derrick Moggy, Fisheries and Oceans Canada  
          Chris Hanks, Hope Bay Mining Ltd.  
          Eric Kan, Fisheries and Oceans Canada  
          Jim Elliot, Fisheries and Oceans Canada  
          Julie Dahl, Fisheries and Oceans Canada  
          Dale Nicholson, Fisheries and Oceans Canada



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KAVAMALIQUIYIKKUT

Ministère de l'Exécutif et des Affaires Intergouvernementales

Department of Executive & Intergovernmental Affairs

February 9<sup>th</sup>, 2012

Kofi Boa-Antwi  
Technical Advisor  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU X0A 0H0

*via Email to: [info@nirb.ca](mailto:info@nirb.ca)*

**RE: NIRB: 12MN001 – GN Comments on Part 4 Screening for Hope Bay Mining Ltd.'s Phase 2 Hope Bay Belt Project Proposal**

Dear Kofi Boa-Antwi:

The Government of Nunavut (GN) has reviewed Hope Bay Mining Ltd.'s Phase 2 Hope Bay Belt Project Proposal.

This proposed mining and milling development is located in the Kitikmeot Region approximately 125 kilometers southwest of Cambridge Bay. Hope Bay Mining Ltd. is proposing to develop and operate a large gold mine and mill. The mine would be expected to combine both open pit and underground mining techniques.

The GN believes that this project has a potential to provide sustainable social and economic benefits to Nunavummiut and their communities. However, this project could also have significant environmental and socio-economic impacts, both locally and regionally. Therefore, this project proposal should be given thorough consideration by NIRB, the public, and government at the earliest opportunity.

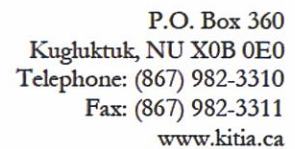
The GN recommends that NIRB issue a decision consistent with the Article 12.4.4 (b) of the Nunavut Land Claim Agreement (NLCA). Furthermore, as has been the case with other mining projects reviewed by NIRB in recent years, the GN believes that most of the environmental and socio-economic impacts will be felt within the Nunavut Settlement Area and therefore recommends that the project proceeds to a review as set out under Part 5 of Article 12 of the NLCA.

We thank NIRB for providing the GN with the opportunity to review and provide comments. We look forward to receiving further information on this project. Please do not hesitate to contact the me at (867) 975-6071 if you have any questions or comments.

Qujannamiik,

John Price  
Avatiliriniq (Environment) Coordinator






Kugluktuk  
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Ryan Barry  
Executive Director  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU X0B 0C0

Bathurst Inlet  
Kingaok  
ᑭᐅᐱᐅᐱ

Dear Mr. Barry:

Bay Chimo  
Umingmaktok  


**Re: Notice of Part 4 Screening for Hope Bay Mining Ltd.'s "Phase 2 Hope Bay Belt" Project Proposal – 12MN001**

Cambridge Bay  
Ikaluktutiak  
 $\Delta^{\text{q}}\text{b}\_{}^{\text{b}}\dot{\text{J}}^{\text{c}}\cap\triangleleft^{\text{qb}}$

On January 19, 2012, the Kitikmeot Inuit Association (KIA) received a Part 4 screening request from the Nunavut Impact Review Board (NIRB) for Hope Bay Mining Ltd.'s (HBML) Phase 2 project proposal for the Hope Bay district. NIRB's screening notice requested that parties provide comment on four specific questions. The KIA provides this letter in response to those questions.

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Okhoktok  
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**1. Whether the project proposal is likely to arouse significant public concern; and if so, why?**

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The KIA is pleased to see that HBML is proceeding with its intent to further develop the mineral opportunities in the Hope Bay Belt. HBML has invested a considerable amount of time and effort to produce its Phase 2 proposal, and HBML merits recognition for that. The KIA agrees with HBML that the proposal has significant impact potential, and that a Part 5 Review will likely be required.

Kugaaruk  
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The KIA has not conducted any consultation with Inuit beneficiaries to assess public concern. However, items within the Phase 2 project proposal that arouse concern for the KIA itself relate to hydrogeology, water quality and consumption, fisheries, wildlife and wildlife habitat, and traditional knowledge.

**2. Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why?**

As stated under Question 1 above, the KIA believes that the development of HBML's Phase 2 project will result in some impacts on wildlife and wildlife habitat. Potential adverse socio-economic effects of the project include: (1) possible reductions in harvest opportunities for hunters and trappers that traditionally use the land where Phase 2 will be developed; and (2) the potential for some societal problems as a result of the rotation schedules and/or the increased disposable income available in the Kitikmeot communities (if and when Phase 2 is developed). However, the Phase 2 project will result in increased employment and training opportunities and thereby an improved standard of living for Inuit in the Kitikmeot. The KIA believes that a Part 5 Review will allow for a more appropriate assessment of the effects on ecosystems and socio-economic factors, rather than a Part 4 Screening.



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Telephone: (867) 982-3310  
Fax: (867) 982-3311  
[www.kitia.ca](http://www.kitia.ca)

3. Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures)?

KIA concurs that HBML's Phase 2 proposal will result in a substantial impact on the land. KIA has concerns with HBML's Phase 2 project proposal, including hydrogeology, engineering, water quality, wildlife and wildlife habitat. The KIA believes that these effects are predictable and mitigable with known technologies and management actions.

The KIA believes that mitigation measures would be more appropriately addressed during a Part 5 Review rather than a Part 4 Screening. The KIA has worked and will continue to work closely with HBML to address and mitigate adverse effects as this process moves forward.

**4. Any matter of importance to the Party related to the project proposal.**

As previously stated, KIA agrees with HBML's assessment that a Part 5 Review will be required for its Phase 2 proposal. The KIA looks forward to working with the NIRB, HBML and other parties regarding this project proposal. Should HBML, the NIRB and the Nunavut Water Board (NWB) investigate opportunities for a coordinated review process for the Phase 2 project proposal, the KIA would be supportive as we believe a coordinated process would be a benefit to all parties involved.

The KIA would like to thank the NIRB for the opportunity to provide comments on this file. Please feel free to contact us if you have any questions.

Sincerely,

*[Handwritten signature]*

**Luigi Torretti, MSc, BComm**  
Senior Environment Officer  
Kitikmeot Inuit Association