



November 8 2013

Brian Aglukark  
Director Implementation  
Nunavut Planning Commission  
PO Box 2101  
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**Re: Joint Review of Transportation Corridor under North Baffin Regional Land Use Plan**

Dear Mr. Aglukark,

Thank you for your letter of October 11, 2013, which requests additional information concerning the Early Revenue Phase ("ERP") in relation to the transportation corridor joint review.

In response to your request for a concise submission which addresses only the specific requirements of the North Baffin Regional Land Use Plan ("NBRLUP"), we are enclosing a "Summary of Information" (the "Summary") which summarizes the information provided in the ERP Addendum in accordance with the specific requirements of Appendices J and K of the NBRLUP. Baffinland notes that no new information regarding the NBRLUP is included within the Summary, but that it provides a "roadmap" which directs the reader to the considerations included in Appendices J and K of the NBRLUP. We hope the Summary will facilitate the joint review process.

In your request for additional information you make reference to the concordance table at Appendix 1B-4 of the ERP Addendum. The attached Summary supersedes the concordance table and should provide a response to your specific requests for further information.

Baffinland notes that on September 23, 2013, the NIRB invited parties to provide their insights into whether the requirements of NBRLUP Appendix J and K have been met by the ERP Addendum and NBRLUP application. In response, several interveners (including Parks Canada and AANDC) referenced the NBRLUP in their technical comments on the ERP Addendum. Baffinland will be including responses to these comments in its submissions due November 17, 2013. No additional information requests were made by any of the parties with respect to Appendices J and K of the NBRLUP.

Baffinland requests that the NPC inform us if any further information is required by the NPC in making its determination with respect to the information required by Appendices J and K of the NBRLUP. Please do not hesitate to contact us should you have any questions with respect to the enclosed.

Yours truly,

A handwritten signature in dark ink, appearing to read 'O. Curran', with a stylized flourish at the end.

Oliver Curran  
Director Sustainable Development

cc. Amanda Hanson (NIRB)



## **EARLY REVENUE PHASE**

### **SUMMARY OF INFORMATION PROVIDED TO THE NPC IN ACCORDANCE WITH**

### **APPENDICES J AND K OF THE NBRLUP**

**November 8, 2013**



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## **A. Introduction**

Baffinland Iron Mines Corporation ("Baffinland") has proposed an Early Revenue Phase (the "ERP") as a change to the development to the Mary River Project. The ERP will enable the Mary River Project to advance in a phased approach.

The Nunavut Impact Review Board ("NIRB") has commenced a reconsideration of the terms and conditions of Project Certificate No. 005 authorizing the Mary River Project, to take into account the proposed ERP. The reconsideration is being conducted by NIRB under Article 12, Part 8, and Section 12.8.2 (b) of the Nunavut Land Claims Agreement ("NLCA"). As part of the reconsideration, NIRB is assessing the environmental and socio-economic impacts associated with the proposed Project amendment for the ERP.

At the request of NIRB, Baffinland prepared a comprehensive addendum ("the ERP Addendum") to the Final Environmental Impact Statement ("FEIS") describing all aspects of the proposed ERP, including updates to relevant baseline data, impact predictions and proposed mitigation measures and monitoring plans. Baffinland filed the ERP Addendum with the Nunavut Planning Commission ("NPC") and the Nunavut Impact Review Board ("NIRB") on June 20, 2013.

The Early Revenue Phase includes the following additional activities:

- a. Mine Site:
  - i. Loading of ore into trucks; and
  - ii. Ore haulage truck fleet and maintenance facilities.
- b. Tote Road:
  - i. Haulage of ore at an average of 76 ore truck transits from the Mine Site to Milne Port per day along the Tote Road.
- c. Milne Port:
  - i. Ore stockpiling and loading into ships.
- d. Marine shipment of ore from Milne Port:

- i. 55 approximate transits of ore carriers (Panamax, Supramax, and Post Panamax) from Milne Port per year during the open water season.

It is anticipated that these activities will continue for the life of the Mary River Project. As stated in Volume 1, Section 2.1, "Based on the iron ore reserves currently defined and under exploration in Deposit No. 1, the Project will operate for about 21 years." With regards to construction and operation of the ERP, Volume 1, Section 2.3 explains that construction is anticipated to commence in 2014 with shipping operations beginning in Q3 2015 for an approximate 21-year operations phase. This 21-year operations phase for the ERP is also described in Table 1-2.1 of Volume 1.

On August 13, 2013, the Nunavut Planning Commission issued a determination that the ERP project proposal conditionally conforms to the NBRLUP, and indicated that the ERP transportation corridor requires joint review under Section 3.5.12 of the NBRLUP. Section 3.5.12 of the North Baffin Regional Land Use Plan ("NBRLUP") provides for a joint review to determine whether a proposed transportation corridor meets the guidelines set out in Appendices J and K of the NBRLUP. Appendix J includes information requirements and Appendix K sets out planning guidelines to be used in assessment.

On August 15, 2013 NIRB confirmed that it will engage with the NPC to discuss the requirement for a joint review of the ERP transportation corridor in accordance with Section 3.5.12 of the NBRLUP.

As indicated above, the ERP Addendum is comprehensive. It describes all aspects of the ERP, and includes the information requirements and the assessment issues set out in Appendices J and K of the NBRLUP. By its letter of October 11, 2013, the NPC requested that Baffinland prepare a more concise submission of the information required by Appendices J and K of the NBRLUP for the purposes of the joint review process.

This Summary of Information has been prepared by Baffinland to respond to that request. The Summary of Information addresses each of the components of Appendices J and K of the NBRLUP and provides references and links to the relevant information contained in the ERP Addendum to the FEIS. We hope that this Summary of Information will be of assistance to the NPC and to other parties participating in the review of the ERP.

While this Summary of Information attempts to provide a helpful reference to the relevant information in the ERP Addendum, it should be remembered that the Summary of Information may omit to refer to some relevant information. For the purposes of the ERP review, by NIRB and by the NPC, Baffinland relies on all of the information in the ERP Addendum, and any additional supplementary information which may be presented at technical meetings, the final hearing and at any other stage of the review.

## **B. Information Provided in Accordance with Appendix J**

Appendix J of the NBRLUP is entitled, “Marine and Terrestrial Transportation/ Communications Corridor Alternative Route Assessment”, and sets out the NPC’s information requirements for applicants wishing to develop a transportation and/or communications corridor in the North Baffin region.

The specific information requirements of Appendix J to the NBRLUP are:

1. A description of the proposed corridor, including its use, its general routing, the possible environmental and social impacts, and any seasonal considerations that may be appropriate.
2. A comparison of the proposed route with alternative routes in terms of environmental and social factors as well as technical and cost considerations.
3. An assessment of the suitability of the corridor for the inclusion of other possible communication and transportation initiatives (roads, transmission lines, pipelines etc.). This assessment should include:
  - The environmental, social and terrain engineering consequences, and the cumulative impacts of the project, and
  - The environmental and social impact of the project on nearby settlements or on nearby existing and proposed transportation systems.

The following sections of this Summary of Information address each of the above information requirements of Appendix J, with references to the relevant sections of the ERP Addendum to the FEIS.

### **1. A description of the corridor**

#### **(a) Description of the ERP Corridor, its use and its General Routing**

Within the North Baffin Region, the transportation corridor for the ERP includes the Tote Road from the Mine Site to Milne Port (the “Tote Road”) and the marine shipping route from Milne Port through Eclipse Sound to Baffin Bay (the “Northern Shipping Route”). The facilities at Milne Port will receive the ore transported by truck along the Tote Road year round, and the ore dock will load vessels for shipment of the ore along the Northern Shipping Route during the open water season.



## **Tote Road**

The Tote Road between the Mary River Mine Site and Milne Inlet was established in the 1960s and has been used and operated since that time. The Tote Road is recognised in Part 4, Section 21.4.1 of the Nunavut Land Claims Agreement (“NLCA”) as follows:

### **PART 4: MILNE INLET TOTE ROAD PUBLIC ACCESS EASEMENT**

21.4.1 There shall be a public right of access, as described in Schedule 21-2, on the Inuit Owned Lands described in that Schedule.

Schedule 21-2 to the NLCA provides further particulars of the location of the Milne Inlet Tote Road from the Mary River Mine to Milne Inlet.

Volume 3, Section 2.2 of the ERP Addendum provides details of upgrades to the Tote Road previously approved as part of the Mary River Project (to reduce hazards and risks and to improve stream crossings), and new bridges designed for ore trucks.

The alignment of the Tote Road is shown in the ERP Addendum, Volume 3, Figure 3 – 2.8, with additional Tote Road drawings shown in Appendix 3C. The Tote Road is approximately 100 kilometres long.

## **Northern Shipping Route**

The Northern Shipping Route from Milne Port through Eclipse Sound to Baffin Bay has been used for the transportation of supplies and materials to Milne Port for transport by truck along the Tote Road to the Mary River Mine Site.

As part of the 2007/2008 bulk sampling program, the Tote Road was used for hauling ore by truck from the Mine Site to Milne Port, where the ore was loaded on ships for transport along the Northern Shipping Route.

The alignment of the Northern Shipping Route is shown in Figure 1-1.1 of Volume 1 of the ERP Addendum.

## **(b) Use of the ERP Corridor**

### **Tote Road**

The volume of traffic along the Tote Road as part of the ERP is summarised in the ERP Addendum, Volume 3, Appendix 3B – Key Facts Table. The number of ore trucks trips per day on average is estimated at 76 (152 ore truck transits per day). Non-ore truck vehicle traffic per day is estimated at 30 vehicles.

Additional details of the road haulage equipment are provided in ERP Addendum, Volume 3, Section 2.1.8.

### **Northern Shipping Route**

Under the ERP the volume of vessel traffic along the Northern Shipping Route will include approximately 55 vessels per year carrying ore, and two vessels delivering fuel. Reference: ERP Volume 3, Section 2.4.3 and Appendix 3B. To date, up to 9 vessels per year have delivered freight to Milne Port, and three fuel tankers per year have delivered fuel, while an estimated 23 vessels arriving at Milne Port were assessed and approved under Project Certificate No. 005. Additional details on vessel sizes (Supermax, 55,000 DWT, Panamax, 70,000 DWT and Post-Panamax, 110,000 DWT) is provided at ERP Addendum, Volume 3, Section 2.4.3.

## **(c) Possible Environmental and Social Impacts**

### **Tote Road**

The ERP Addendum addresses the possible environmental impacts of the increased use of the Tote Road for ore shipments under the ERP. Schedule A to this Summary of Information includes references to the assessment of environmental impacts related to the Tote Road, in the ERP Amendment. The references include assessment of the environmental impacts related to the Tote Road in ERP Volume 5 – Atmospheric Environment, Volume 6 – Terrestrial Environment, Volume 7 – Freshwater Environment and Volume 9 – Cumulative Effects and Other Assessments.

## Northern Shipping Route

The ERP Addendum addresses possible environmental impacts of the use of the Northern Shipping Route by ore carriers and other vessels related to the ERP. Schedule B to this Summary provides references to the assessment of environmental impacts related to the Northern Shipping Route. The assessment of possible environmental impacts related to the Northern Shipping Route is found in ERP Addendum Volume 8 – Marine Environment and ERP Volume 9 – Cumulative Effects and Other Assessments.

Shipping is subject to extensive federal laws and regulations including the *Canada Shipping Act*, the *Arctic Waters Pollution Prevention Act*, the *Marine Liability Act* and the *Marine Transportation Security Act*. Project Certificate No. 005 for the Mary River Project also includes extensive terms and conditions relating to shipping, including detailed requirements relating to issues such as ballast water, spill prevention and measures for the protection of marine mammals. The Mary River Project also includes mitigation and management plans reflected in the ERP Addendum, Volume 8 and 9, and in the Emergency Response and Spill Contingency Plan (Appendix 10C-1), the Oil Pollution Emergencies Plan – Milne Port (Appendix 10C-2), the Shipping and Marine Wildlife Management Plan (Appendix 10D-10) and the Environmental Effects Monitoring Framework (Appendix 10D-13). Each of these legislative and regulatory requirements will apply, as appropriate, to the ERP. In addition, the Marine Environment Working Group (MEWG) required under the Project Certificate, will act as a forum for the discussion of ongoing cooperation, communication, reporting and proactive review of environmental effects monitoring, mitigation measures and adaptive management processes in relation to the marine environment.

The ERP Addendum concludes that, with the incorporation of the management and mitigation plans and environmental effects monitoring, the ERP is not predicted to have a significant residual effect on the marine environment.

## Milne Port

The ERP Addendum addresses possible environmental impacts arising from the Milne Port operations of the ERP. Schedule C to this Summary lists references to the assessment of possible environmental impacts in the ERP Addendum, including Volume 5 – Atmospheric Environment, Volume 6 – Terrestrial Environment, Volume 7 – Freshwater Environment, Volume 8 – Marine Environment, and Volume 9 – Cumulative Effects and Other Assessments.

## **v. Assessment of Possible Social Impacts**

The ERP Addendum at Volume 3 – Project Description, Section 6.0 – Human Resources addresses issues such as workforce numbers, compensation, training and employee relations in relation to the ERP.

The ERP Addendum addresses potential impacts of the ERP in relation to social impacts, in Volume 4 – Human Environment. As indicated in the ERP Addendum Volume 4, Section 1.0 – Introduction, the focus of the ERP assessment is to identify how interactions between the ERP components and the Valued Socio-Economic Components (“VSECs”) may vary from the Approved Project and to assess the degree of any potential resulting effects. The incremental activities considered for the ERP assessment include the construction period for the ERP, and the operating period including haulage of ore along the Tote Road, activities at Milne Port and marine shipping from Milne Port.

Schedule D to this Summary of Information provides references to the Sections of the ERP Addendum Volume 4, which assess potential changes to the impact assessment of the human environment related to the components and activities of the ERP. Schedule D also provides reference for the Consideration for Cumulative Effects Assessment on Valued Social and Economic Components (VSECs) and Culture, Resources and Land Use which are contained in Volume 9 of the ERP Addendum.

## **vi. Seasonal Considerations**

### **Tote Road**

Road haulage of ore will take place throughout the year. A total of 20 road haulage trucks will be required to be in operation to deliver 3.5Mt/a in 330 operating days per year. 35 days are assumed lost for weather and road maintenance. The haul period will allow road maintenance activities during the spring freshet in May/June plus any lost days due to poor visibility during high winds and drifting snow during the winter (see ERP Addendum, Volume 3, Section 2.0, and in particular Sections 2.1.7, and 2.1.8).

## **Northern Shipping Route**

Shipping from Milne Inlet will be limited to the open water season. The open water shipping window in Milne Inlet is 90 days, July 15 to October 15 (see ERP Addendum, Volume 3, Section 2.4.1).

## **Milne Port**

The infrastructure at Milne Port will operate year round except for the ship loading activities which are limited to the shipping window in Milne Inlet of approximately July 15 to October 15 in each year (see ERP Addendum, Volume 3 – Project Description, Sections 2.3-2.6).

## **2. A comparison of the proposed route with alternative routes**

The FEIS for the Mary River Project included, in Volume 3, Section 6.0 – Alternatives, a consideration of a number of transportation route alternatives. These included transportation of ore by rail to Steensby Port, and a consideration of trucking of 3 Mt/a via Milne Inlet (see reference: FEIS Volume 3, Sections 6.7.2 and 6.7.3). Of the several potential port locations identified, only the Steensby Inlet port site and the Milne Inlet port site were identified as technically, environmentally and economically feasible. It was determined that trucking of approximately 3 Mt/a to Milne Inlet could be feasible, where shipping would be limited to the open water season. Consideration was given to the alternative of rail transport to Milne Port (reference: FEIS Volume 3, Section 6.7.3). However, it was determined that the large capital investment required for the construction of a railway (approximately \$15 million per km) could not be justified on the basis of seasonal shipping of 3Mt/a.

As the Tote Road has been established and in operation since the 1960s, consideration of alternative routes (the construction of a new road, rather than using the existing Tote Road) between the Mine Site and Milne Port would not be practical or reasonable, taking into account environmental and social factors as well as technical and cost considerations.

The location of Milne Port means that the Northern Shipping Route from Milne Port through Eclipse Sound to Baffin Bay is the only feasible shipping route. Accordingly, the consideration of alternative shipping routes would not be practical or reasonable, taking into account environmental and social factors as well as technical and cost considerations.

**3. An assessment of the suitability of the corridor for the inclusion of other possible communication and transportation initiatives**

Baffinland is not aware of any other possible communication and transportation initiatives along the Tote Road corridor or the Northern Shipping corridor.

As noted in the ERP Addendum Volume 3, Section 2.3.8, Milne Port will be developed for the exclusive use of Baffinland. No other potential users of this facility have been identified.

As indicated above, the ERP Addendum does include assessment of environmental, social and terrain engineering effects, and the cumulative impacts of the Project (see above under Assessment of Possible Environmental Impacts and Schedules A, B and C attached). As well, the ERP Addendum includes assessment of the environmental, social and economic impacts of the Project on nearby settlements and the use, by hunters and others of the land and water for travel and camps and wildlife harvesting (see above under Assessment of Possible Social Impacts and Schedule D attached).

### **C. Guidelines to Be Used in Assessment of Corridors under Appendix K**

Appendix K of the NBRLUP is entitled, “Marine and Terrestrial Transportation/ Communications Corridor Guidelines” and sets out the planning guidelines to be used in the assessment of a new transportation/ communications corridor proposal.

The guidelines are:

1. The corridor width shall be a function of:
  - The number and type of identified facilities within the corridor;
  - Physical and biophysical conditions;
  - Availability of detailed engineering data for one or more transportation modes within the corridor;
  - Safe distances between different facilities within the corridor; and
  - Aesthetics.
2. Corridors shall:
  - Minimize negative impacts on community lifestyles;
  - Improve access to other resources having high potential for development, while still maintaining the shortest practicable distance between the primary resource areas and the trans-shipment location;
  - Be designed in accordance with existing and prospective land use capability including topography, soil, permafrost and wildlife; and
  - Be designed in accordance with the availability of granular supplies.
3. In keeping with existing legal and legislative requirements, including the NLCA, corridors shall not negatively impact:
  - Community business, residential and projected expansion areas;
  - Important fish and wildlife harvesting areas;
  - Key habitat for fish and wildlife species, especially areas used by endangered species;
  - Areas of high scenic, historic, cultural and archeological value.

The following sections of this Summary of Information address the above guidelines with reference to the relevant sections of the ERP Addendum.

#### **1. Corridor width**

##### **Tote Road**

The alignment of the Tote Road corridor is shown in Figure 3 – 2.8 of the ERP Addendum. As indicated in the ERP Addendum at Volume 3, Section 2.2, upgrades to the Tote Road were an integral part of the FEIS for the Approved Project.

With reference to guideline 1 of Appendix K, the width of the Tote Road corridor is a function of its use, physical and biophysical conditions, the transportation mode (trucking) and safety. The ERP Addendum considers aesthetics in Volume 6 – Section 2.4.3.

### **Northern Shipping Route**

The alignment of the Northern Shipping corridor is shown in the ERP Addendum Volume 3 at Section 2.4.2, Figure 3 – 2.11. As indicated in Section 2.4.2, bathymetric work has been completed by the Canadian Hydrographic Service (“CHS”) throughout Eclipse Sound and Milne Inlet and shown on charts. The charts show water depths in Milne Inlet ranging from 100 metres to 400 metres, with 50 metres of water depth less than 50 metres from shore at the head of the inlet. Baffinland is confident that the Northern Shipping Corridor meets the principles of Guideline 1 of Appendix K to the NBRLUP, as appropriately applicable to a shipping corridor.

## **2. Corridor design**

### **Tote Road**

Truck traffic on the Tote Road corridor under the ERP will be subject to the Road Management Plan (ERP Addendum, Volume 10, Appendix 10D-8) which includes mitigation measures relating to construction and operation and includes measures for dust control, speed limits, wildlife protection and use of the road by the public and by non-Project individuals. Assessment of environmental impacts are referenced in Schedule A, and assessment of social impacts are referenced in Schedule D. Ongoing monitoring of the use of the Tote Road, and the monitoring of impacts, will be addressed under the terms of the Terrestrial Environment Working Group (TEWG) established as a condition of the Project Certificate. Taking into account these mitigation and monitoring measures, Baffinland is confident that the use of the Tote Road meets the principles of guideline 2 of Appendix K of the NBRLUP including minimising impacts on community lifestyles, maintaining the shortest practicable distance between the mine site and Milne Port, and taking into account land use capability including topography, soil, permafrost and wildlife. Granular supplies from existing quarry and borrow location sites are available for maintenance of the Tote Road.

### **Northern Shipping Route**



The ERP Addendum includes an assessment of the potential impacts on the human environment (ERP Addendum, Volume 4) as referred to above. Shipping activities will be subject to extensive statutory and regulatory provisions for the protection of the environment. In addition, shipping activities will be subject to the Shipping and Marine Wildlife Management Plan (Appendix 10D-10) to the ERP Addendum, which has been updated to include provisions for shipping through the Northern Shipping Route. The Shipping and Marine Wildlife Management Plan includes mitigation measures to minimise impacts on marine mammals and marine birds, and to provide for the safety of persons travelling by snowmobiles and boats along the shipping route (see Section 4.6 of the Shipping and Marine Wildlife Management Plan). The Shipping and Marine Wildlife Management Plan also includes in Section 6.0 performance indicators and thresholds, in Section 7.0 monitoring and reporting requirements, and in Section 8.0 adaptive strategies.

The ERP Addendum assesses potential impacts of shipping on the environment and the human environment as referred to above and in Schedules C and D attached.

In addition, ongoing review and monitoring of potential impacts will be addressed under the terms of the Marine Environment Working Group.

Taking into account the adoption of these mitigation monitoring measures, Baffinland is confident that the Northern Shipping Route will minimise negative impacts on community lifestyles. In accordance with Section 2 of the corridor guidelines of Appendix K to the NBRLUP the Northern Shipping Route is the shortest practicable distance from Milne Inlet to Baffin Bay.

### **3. Corridor impacts**

The ERP provides a comprehensive assessment of the potential impacts of the ERP on the human environment, fish and wildlife harvesting, and other values reflected in guideline 3 of Appendix K.

Baffinland is confident that, taking into account the information provided in the ERP Addendum, and the assessment of potential environmental and social impacts, and in keeping with existing legal and legislative requirements including the Nunavut Land Claims Agreement, the ERP corridors along the Tote Road and the Northern Shipping Route, will not negatively impact community business, residential and projected expansion areas, important fish and wildlife harvesting areas, key habitat for fish and wildlife species, especially areas used by endangered

species, or areas of high scenic, historic, cultural and archaeological value. ERP Addendum references to impact assessment are listed in Schedules A, B, C and D.

Each of these environmental and social components have been addressed in the ERP Addendum and are the subject of a detailed environmental and socio-economic assessment by the Nunavut Impact Review Board, and in the joint review of the ERP transportation corridor by the Nunavut Impact Review Board and the Nunavut Planning Commission.

## Schedule A

### Specific References to Milne Inlet Tote Road included in ERP Volumes 5-9<sup>1</sup>

#### ***ERP Volume 5, “Atmospheric Environment” and related appendices:***

- Air quality is addressed in Section 2.0.
  - Consideration of potential air quality effects from construction activities at Milne Inlet Tote Road can be found in Section 2.3.
  - Sources of air emissions for operations phase at Milne Inlet Tote Road can be found in Section 2.4.
  - Potential effects and proposed mitigation during construction phase at Tote Road upgrades can be found in Section 2.6.2.2.
  - Potential effects and proposed mitigation during operations phase at Tote Road can be found in Section 2.6.3.2.
  - Assessment of residual effects can be found in Section 2.6.5.
- Noise and vibration is addressed in Section 3.0,
  - Baseline data for noise relating to Tote Road can be found in Section 3.1.
  - The updated estimate of noise effects for Milne Inlet Tote Road can be found at section 3.3.3.4.
  - The updated assessment of residual effects relating to Milne Inlet Tote Road is found at section 3.4.6.

#### ***ERP Volume 6, “Terrestrial Environments”:***

- Landforms, soils and permafrost impacts are considered in Section 2.0.
  - Geochemistry for Milne Inlet Tote Road is found in Section 2.1.4.2.
  - Site specific potential effects and proposed mitigation measures relating to the Milne Inlet Tote Road is found in Section 2.3.2.

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<sup>1</sup> Note these materials are generally available on the NIRB public registry at the following link:  
<ftp://ftp.nirb.ca/03-MONITORING/08MN053-MARY%20RIVER%20IRON%20MINE/01-PROJECT%20CERTIFICATE/04-AMENDMENTS/ERP/03-ADDENDUM>

- Aesthetics of natural environment on the Tote Road are found in Section 2.4.3.
- Vegetation was considered in Section 3.0.
  - Changes to vegetation abundance and diversity arising from the construction of improvements to the Tote Road can be found in Section 3.2.2.1.
  - Consideration of potential impacts on culturally valued vegetation arising from Tote Road can be found in Section 3.2.2.3.
  - Assessment of residual effects is found within Section 3.2.3.
  - Follow up is addressed at Section 3.2.5.
- Migratory birds and habitat was considered in Section 4.0.
  - Raptor habitat near Milne Port and Milne Inlet Tote Road is found within Section 4.5.1.
  - Snow goose habitat near Milne Inlet Tote Road is found within Section 4.6.1.
  - Red-throated loon habitat near Milne Inlet Tote Road is found within Section 4.8.1.
- Potential impacts on caribou from trucking on the Tote Road and the port are considered within Section 5.0.

***ERP Volume 7, “Freshwater Environment” and related appendices:***

- Freshwater quality is generally considered in section 2.0.
  - Milne Inlet Tote Road LSA residual effects assessment described in Section 2.3.3.5.
- Water and sediment quality is generally considered in section 3.0.
- Section 4.0 considers effects on freshwater aquatic biota and habitat as the approved project evaluated in the FEIS.
  - Key issues relating to the Milne Inlet Tote Road LSA are described in section 4.5.4.

***ERP Volume 9, “Cumulative Effects and Other Assessments” and related appendices:***

- Engineering hazard assessment of ERP components are considered in Section 2.3.
- Accidents and malfunctions are considered in Section 3.0.
- Section 3.1 generally identifies risk and methodology.

- Specific discussion related to ERP is included at Section 3.9.
- Transboundary effects assessment is included at Section 4.0.

## Schedule B

### Specific References to Northern Shipping Route included in ERP Volumes 8-9<sup>2</sup>

#### ***ERP Volume 8, “Marine Environment” and related appendices:***

- Appendix 8B-3: Ballast Water Dispersion.
- Appendix 8B-4: Risk Assessments.
- Appendix 8C: Underwater Noise Modelling.
- Section 1.0 describes the revised port and shipping routes.
- Section 3.0 considers potential for changes to water and sediment quality.
- Section 4.0 considers potential for impacts on marine habitat and biota.
- Section 5.0 considers potential for impacts on marine mammals.

#### ***ERP Volume 9, “Cumulative Effects and Other Assessments” and related appendices:***

- Appendix 9F: Marine Spill Sensitivity Assessment
- Revised shipping routes are considered in Section 1.3.2.9.
- Summary of forecasted shipping activities in Milne Inlet, Lancaster Sound, Baffin Bay included in Section 1.3.3.
- Potential for changes to marine water and sediment quality are considered in Section 1.4.4.2
- Engineering hazard assessment of ERP components are considered in Section 2.3.
- Accidents and malfunctions are considered in Section 3.0.
- Appendix 9D: Oil Tanker Spills Statistics.
- Appendix 9E: Shipping Hazard Assessment Workshop Meeting Minutes.
- Section 3.1 generally identifies risk and methodology.

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<sup>2</sup> Note these materials are generally available on the NIRB public registry at the following link:  
<ftp://ftp.nirb.ca/03-MONITORING/08MN053-MARY%20RIVER%20IRON%20MINE/01-PROJECT%20CERTIFICATE/04-AMENDMENTS/ERP/03-ADDENDUM>

- Specific discussions related to ERP are included at Section 3.9.
- Transboundary effects assessment is included at Section 4.0.
- Changes to navigation of water ways are considered at Section 5.0.

## Schedule C

### Specific References to Milne Port included in ERP Volumes 5-9<sup>3</sup>

#### ***ERP Volume 5, “Atmospheric Environment” and related appendices:***

- Air quality is addressed in Section 2.0.
  - A brief overview of the ambient air quality monitoring program and a discussion of potential air quality effects from construction activities at Milne Port can be found in Section 2.3.
  - Sources of air emissions for operations phase at Milne Port can be found in Section 2.4.
  - Potential effects and proposed mitigation during construction phase at Milne Port can be found in Section 2.6.2.1.
  - Potential effects and proposed mitigation during operations phase at Milne Port can be found in Section 2.6.3.1.
  - Potential effects and proposed mitigation during operations phase at Ship in Transit Milne Port can be found in Section 2.6.3.3.
  - Assessment of residual effects can be found in Section 2.6.5.
- Noise and vibration is addressed in Section 3.0,
  - Baseline data for noise relating to Milne Port can be found in Section 3.1.
  - The updated estimate of noise effects for Milne Port can be found at section 3.3.2.2
  - Noise mitigation measures and operational noise levels for Milne Port can be found at section 3.3.3.2.
  - The updated assessments of residual effects relating to Milne Port are found at section 3.4.6.

#### ***ERP Volume 6, “Terrestrial Environments”:***

- Landforms, soils and permafrost impacts are considered in Section 2.0.

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<sup>3</sup> Note these materials are generally available on the NIRB public registry at the following link:  
<ftp://ftp.nirb.ca/03-MONITORING/08MN053-MARY%20RIVER%20IRON%20MINE/01-PROJECT%20CERTIFICATE/04-AMENDMENTS/ERP/03-ADDENDUM>



- Site specific potential effects and proposed mitigation measures relating to the Milne Port is found in Section 2.3.2.
- Aesthetics of natural environment on Milne Inlet are found in Section 2.4.3.
- Vegetation was considered in Section 3.0.
  - Changes to vegetation abundance and diversity arising from the construction of Milne Port can be found in Section 3.2.2.1.
  - Consideration of potential impacts on culturally valued vegetation arising from Milne Port can be found in Section 3.2.2.3.
  - Assessment of residual effects is found within Section 3.2.3.
  - Follow up is addressed at Section 3.2.5.
- Migratory birds and habitat was considered in Section 4.0.
  - Raptor habitat near Milne Port is found within Section 4.5.1.
  - Snow goose habitat near Milne Port is found within Section 4.6.1.
  - Common and king eider habitat near Milne Port is found at section 4.7.1.
  - Red-throated loon habitat near Milne Port is found within Section 4.8.1.
  - Thick-billed murre habitat within the marine RSA is found within Section 4.8.1.
- Potential impacts on caribou from the port are considered within Section 5.0.

***ERP Volume 7, “Freshwater Environment” and related appendices:***

- Freshwater quality is generally considered in section 2.0.
  - Changes to freshwater quality as a result of the Milne Port camp as well as the stockpile area is summarized within Section 2.0.
  - Changes to surface water quantity at Milne Port are described in Section 2.3.2.3.
  - Milne Port residual effects assessment described in Section 2.3.3.1.
- Water and sediment quality is generally considered in section 3.0.
  - Dustfall monitoring for Milne Port is described at Section 3.4.4.5.
  - Section 3.5 summarizes the impact statement
- Section 4.0 considers freshwater aquatic biota and habitat

- Key issues relating to the Milne Port LSA are described in section 4.5.3.

***ERP Volume 8, “Marine Environment” and related appendices:***

- Section 1.0 describes the revised port and shipping routes.
- Section 3.0 considers potential for changes to water and sediment quality
- Section 4.0 considers potential for impacts on marine habitat and biota.
- Section 5.0 considers potential for impacts on marine mammals.

***ERP Volume 9, “Cumulative Effects and Other Assessments” and related appendices:***

- Appendix 9F: Marine Spill Sensitivity Assessment
- Revised shipping routes are considered in Section 1.3.2.9.
- Summary of forecasted shipping activities in Milne Inlet, Lancaster Sound, Baffin Bay included in Section 1.3.3.
- Potential for changes to marine water and sediment quality are considered in Section 1.4.4.2
- Engineering hazard assessment of ERP components are considered in Section 2.3.
- Accidents and malfunctions are considered in Section 3.0.
- Section 3.1 generally identifies risk and methodology.
- Specific discussion related to ERP is included at Section 3.9.
- Transboundary effects assessment is included at Section 4.0.
- Changes to navigation of water ways are considered at Section 5.0.

## Schedule D

### Specific References to Socio-Economic Factors included in ERP Volumes 3, 4 and 9<sup>4</sup>

#### ***ERP Volume 3, “Project Description” and related appendices:***

- Section 6.0 (Human Resources) addresses issues such as workforce numbers, compensation, training and employee relations.

#### ***ERP Volume 4, “Human Environment” and related appendices:***

- Section 1.0 Introduction addresses the focus of the ERP assessment, to identify how interactions between ERP and VSECs may vary from Approved Project and to assess the degree of any potential resulting effects.
- Section 4.0 (Livelihood Employment) – describes changes in the overall labour demand profile during the construction phase
- Section 5.0 (Economic Development and Self Reliance) – describes potential effects on the “wilderness experience” of tourists
- Section 6.0 (Human Health and Well Being) – change to dust disposition at Milne Camp
- Section 10.0 (Potential changes to resources and land use) – potential changes to resource and land use, with reference to the effects on harvesting, travel and camping.

#### ***ERP Volume 9, “Cumulative Effects and Other Assessments” and related appendices:***

- Section 1.3.2 identifies other Projects and Activities of Consideration.
- Section 1.3.3 provides a summary of other Projects and Activities
- Section 1.3.4 provides a screening of VEC and VSECs for Potential Cumulative Effects
- Section 1.4.6 makes reference to the assessment completed for Culture, Resources and Land Use effects

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