

MEMO

Production Increase Proposal Renewal

This memo is a supplement to Baffinland Iron Mines Corporation (**Baffinland**)’s an application filed on May 20, 2022, the “Production Increase Proposal Renewal” (**PIPR Proposal**), to provide further context for and clarity on commitments for the 2022 operation. This memo includes a summary of:

- Additional procedural background;
- Description of 2022 activities and updated commitments for 2022;
- Summary of relevant previous assessment materials and monitoring reports available on the NIRB registry;
- Summary of key issues to Inuit, including Inuit harvesting
- Summary of Inuit participation and stakeholder engagement; and
- Summary of ongoing compliance with the 2020 Project Certificate amendment monitoring program.

Baffinland has also attached a summary of applicable commitments to the continuing 6 mtpa operation for 2022, highlighting all-new commitments (see Appendix A). Further context for the new commitments is provided in this letter.

A Additional Procedural Background

On May 20, 2022, the Nunavut Impact Review Board (**NIRB**) received the PIPR Proposal application from Baffinland (the **2022 Application**) pursuant to s. 112 of the *Nunavut Planning and Project Assessment Act* (**NuPPAA**). Following an internal completeness check the NIRB requested additional information to determine the full scope and nature of the proposal which was provided by Baffinland via completion of a dedicated dashboard for the NIRB registry on May 30, with updated completed on May 31 and on June 10, 2022. The supplemental information in this document should also be considered by NIRB as part of the 2022 Application.

As the NIRB is also aware, on May 26, 2022, Baffinland asked the Minister to certify under s. 152 of the NuPPAA that an emergency exists and that it is in the interest of ensuring the health and safety of the general public that the 6 mtpa operation be permitted to continue during 2022, to avoid the significant harm to health that will arise in the event of significant workforce reductions at the Mary River Mine if we must operate at 4.2 mtpa during 2022. Under the process and requirements laid out under s.152, there is

a continuing strong regulatory role for NIRB, the Nunavut Planning Commission (NPC) and the Minister post certification of an emergency.

Key points raised in that request are summarized here:

- The emergency is avoiding the issuance of mass layoff notices on May 31, 2022 to up to 1,328 Canadians (which includes at least 209 Inuit), which would be triggered by the imminent stoppage of the production and trucking operation at Baffinland's Mary River Iron Ore Project (which represents 23% of Nunavut's economy).
- Baffinland is respectful of the current socio-economic realities in Nunavut, and the expressed desire of our employees to remain in their home communities. As communicated to NIRB by the Government of Nunavut during the Phase 2 Public Hearings, there are currently limited available alternatives to the jobs at Mary River in the North Baffin.
- Given current economic realities in Southern Canada there is no guarantee that alternative employment is available even if our workers are able and willing to leave their communities.
- Unemployment is associated with a negative impact on mental health and can amplify other stressors related to food security, housing, poverty, etc.
- The Nunavut Food Security Coalition Report states, "*According to the Inuit Health Survey, the three main reasons for food insecurity are unemployment, low incomes, and high costs*" (Nunavut Food Security Coalition Annual Report 2014-2015). Section 7.5 of the Mary River Project Food Security Assessment of the 2018 FEIS Addendum also speaks to the residual effects of employment and harvesting.
- Mary River Inuit workers have Section 35 Constitution Act rights, including rights under the Nunavut Agreement, that will be seriously and directly impacted if the mine is required to revert to a 4.2 mtpa operation during 2022. As an example, job loss will impair their ability to provide for themselves and their families, and to obtain hunting equipment to exercise their harvest rights.
- A reduction from 4.2 mtpa from 6 mtpa results in a reduction in benefits for Inuit under the IIBA. These are economic benefits negotiated by QIA on behalf of Qikiqtani Inuit as of right pursuant to Article 26 of the Nunavut Agreement.

Without a determination under s. 152 of NuPPAA or an amended Project Certificate that would permit 6 mtpa during 2022, on June 3, 2022 Baffinland had to take the first step towards mass workforce reductions by filing the required advance notices with the Government of Nunavut. As a result, confirmation as to whether the Mary River Mine can continue to run at 6 mtpa during 2022 is urgently required.

On June 7, 2022 the NPC issued a positive conformity determination for the PIPR Proposal and referred the proposal to NIRB. In their conformity determination (consistent with previous determinations in 2018 and 2019), the NPC confirmed that **the PIPR Proposal continues to not be considered a significant modification of the Mary River Project** under NuPPAA.

Continuing a 6 mtpa operation in 2022 is integrally linked to the ongoing Mary River Mine and does not require any activity or facility modifications. The PIPR Proposal is not a separate and distinct project from the Mary River Project – i.e. it would not be possible to operate the 6 mtpa operation as an independent proposal from the Mary River Mine.

Baffinland understands that despite the fact that the PIPR Proposal has already been determined by NPC not to be a “significant modification”, in order to proceed with 6 mtpa operations during 2022, two minor administrative amendments are required to Term and Condition 179(a) and (b) of the Project Certificate.

B Description of 2022 Activities and Mitigations

No changes are being proposed to our operations and activities that were previously permitted under Project Certificate No. 005 from 2018 to 2021. In fact, Baffinland is proposing several additional mitigations by design to apply to the 2022 operation that either reduce the overall scope of activities, or further reduce potential project effects. Mitigations by design aimed at reducing or avoiding project effects from occurring are the strongest forms of mitigation and increase the conservatism of our previous effects predictions reflected in the 2018 and 2020 applications.

Key relevant project activities (including where applicable new mitigations by design) include:

- Temporal and Spatial Scope: Continued operations at 6 mtpa for 2022.

If approved, Baffinland would be permitted to maintain the 6 mtpa transportation limits that were in place from 2018 to 2021 through to December 31, 2022. The spatial scale of the proposed activities remains the same as those approved for the current Mary River Mine.

- Ore Extraction and Processing: No change.

Ore extraction would continue from Deposit No. 1 at a rate of 6 mtpa for the purposes of transportation through the Northern Transportation Corridor, as it has previously from 2018 to 2021. This additional 1.8 Mt (i.e., an increase from 4.2 mtpa to 6 mtpa) will continue to require crushing and screening using existing facilities at the Mine Site.

- Ground Transportation of Ore to Milne Port: No change.

Ground transportation of iron ore by truck would continue at a rate of 6 mtpa, as it has previously from 2018-2021. As previously assessed in 2018 and 2020, the additional 1.8 mtpa increase in the amount of ore transported (i.e., an increase from 4.2 mtpa to 6 mtpa) will continue to require approximately 42 daily round trips by truck (84 one way transits) above what was assessed and approved during the ERP.

	ERP	PIP (2018-2021)	PIP (2022)
Daily Round Trips, Average (one way transits, average)	76 round trips (152 one way transits)	118 round trips (236 one way transits)	No change to previously assessed activities

- Stockpiling of Ore at Milne Port: No change to activities, additional design mitigation

Existing stockpile pads will continue to be sufficient to move 6 mtpa between the Mine and the ship loader. No additional stockpile space is required to support the PIP Extension Request.

Since November 2020 Baffinland has applied a spray (DusTreat) to the Milne Port ore stockpiles to reduce the potential for wind to transport dust outside of the Project Development Area (PDA). This program has produced measurable dust emission reductions from the Milne Port ore stockpiles (see 2021 Annual Report to NIRB, which is currently under public review and comment) and DusTreat will continue to be applied through 2022 as part of the PIPR.

- Marine Shipping of Ore from Milne Port: Reduced activities, additional design mitigation.

Marine shipping of iron ore would continue at a rate of 6 mtpa. As assessed previously, the additional 1.8 Mt increase in the amount of ore shipped (i.e., an increase from 4.2 Mtpa to 6 Mtpa) will require up to 22 voyages or round trips above what was assessed and approved during the ERP.

Baffinland is making additional commitments regarding 2022 shipping that were not part of the 2019 production increase application to NIRB. Baffinland has evaluated the mitigation measures proposed by the MHTO in their May 6, 2022 letter to the NIRB to apply to the 2022 shipping season.¹

As a result of the evaluation, Baffinland is proposing to include the following three additional mitigation measures in 2022, which will be included in the updated 2022 Narwhal Adaptive Management Response Plan which will be filed prior to the commencement of the shipping season:

- **No icebreaking to commence the 2022 shipping season.** Vessels will not begin their transit to Milne Port until 3/10ths or less ice is present along the entire shipping route through the Nunavut Settlement Area (NSA).
- **No more than 80 ore carriers will be chartered during the 2022 season to transport 6 mtpa.** This is 6 ore carriers less than the maximum anticipated and approved in the previous Production Increase Proposal (2019) and Extension (2020) requests.
- **Use of convoys throughout the 2022 season to further reduce total sound exposure.** Acoustic monitoring data indicates that if ore carriers transit in convoys with inter-vessel separation less than 10 km, there is an overall reduction of the total sound exposure in the Regional Study Area compared to the separate vessel movements that Baffinland has implemented in previous years. Slight increases of instantaneous sound levels in the regions between the vessels are compensated for by shorter exposure duration, resulting in a net decrease of noise exposure (See Appendix B). The use of convoying will be similar in effect to reducing the overall number of ships.

The implementation of the new 2022 shipping season mitigations represents a significant reduction in many activities compared to the ERP, PIP and PIPE.

	ERP	PIP (2018-2021)	PIP (2022)
Seasonal Voyages (one way transits)	Break up of land fast ice required along entire shipping route to commence shipping*	Break up of land fast ice required along entire shipping route to commence shipping*	Ice coverage of 3/10ths or less required along entire shipping route to commence shipping*
	Up to 58 vessels	Up to 86 vessels	Up to 80 vessels

*As in previous years. confirmation from Pond Inlet that the floe edge has been closed will continue to be a requirement to commence shipping

¹ NIRB Registry, File No. 339606.

C Relevant Previous Assessment Materials and Monitoring Reports Available on NIRB Registry

As noted in our May 20, 2022 Application, a 6 mtpa transportation operation was assessed in the previous PIP (2018) Application and the PIPE (2020) Application. Further, the PIP and PIPE operations have been subject to comprehensive monitoring programs and reporting requirements under the Project Certificate for four consecutive years between 2018 and 2021.

For reference of parties, below is a summary of relevant review processes and/or materials that are available on the NIRB Registry:

i. Production Increase Proposal (PIP) Application (2018) and Production Increase Proposal Extension (PIPE) Application (2020) (also referenced in 2022 Application)

The PIP (2018) and PIPE (2020) both provide assessments of the project activities also contained in the PIPR (2022), consistent with the criteria set out at section 90 of NuPPAA as well as section 112 of NuPPAA. As detailed at Section B of this letter, the activities proposed under the PIPR (2022) are the same as or reduced as compared to the PIP (2018) and the PIPE (2020).

For ease of reference of interested reviewers, previous relevant assessment documents can be found on the NIRB registry as follows:

- Production Increase Proposal Application (2018), NIRB Registry, File Nos. 318140, 318283, and 318295.
 - Baffinland Response to Intervenor Comments (August 9, 2018), NIRB Registry, File No. 319335.
- Production Increase Proposal Extension Application (2020), NIRB Registry, File Nos. 327657, 327951, and 327952.
 - Baffinland Response to Intervenor Comments (February 13, 2020), NIRB Registry, File Nos. 328514 and 328515.

ii. Annual Reports to the NIRB covering PIP and PIPE Activities (2018-2021)

Baffinland recognizes that the topics raised in respect of the 2022 Application will overlap considerably with the current NIRB Annual Report process, which has been actively undergoing a public comment period on the results of the 2021 Project Certificate monitoring programs since April 12, 2022. While the NIRB requested comments on Baffinland's 2021 Annual Report by May 27, 2022, extensions were sought by the QIA and CIRNAC and comments are now anticipated to be submitted by June 30, 2022.

For ease of reference of interested reviewers, relevant documents can be found on the NIRB registry as follows:

- 2018 NIRB Annual Report for the Mary River Project, NIRB Registry, File Nos. 324120, 324121, and 324122.
 - Baffinland Response to Intervener Comments, NIRB Registry, File No. 325930
- 2019 NIRB Annual Report for the Mary River Project, NIRB Registry, File No. 327239.

- Baffinland Response to NIRB Recommendations and Intervener Comments, NIRB Registry, File Nos. 327564 to 327576.
- 2020 NIRB Annual Report for the Mary River Project, NIRB Registry, File No. 332232.
 - Baffinland Response to NIRB recommendations and Intervener Comments, NIRB Registry, File Nos. 333841 and 33851.
- 2021 NIRB Annual Report for the Mary River Project, NIRB Registry, File No. 337185.
 - Baffinland Response to NIRB Recommendations, NIRB Registry, File No. 337505, 337797.

iii. Phase 2 Proposal

While the PIPR Proposal is separate and distinct from the Phase 2 Project Proposal, a three-year 6 mtpa trucking operation is a sub-component activity of the Phase 2 Project Proposal during the construction period and so was considered as part of that assessment.

D Project Monitoring

Baffinland continues to implement a comprehensive environmental management system that has applied to four consecutive years of 6 mtpa activity levels (2018-2021). Provided here is a summary of 2021 monitoring results and 2022 monitoring and mitigations plans for species identified as of heightened importance to Inuit, including narwhal, seal, caribou and Arctic char. An update is also provided on Baffinlands Aquatic Invasive Species (AIS) Program. Baffinland understands the value in continual improvement and to address concerns raised regarding current approaches to adaptive management and administration of the environmental working groups, Baffinland also provides two solutions for consideration.

As noted above and in our letter to NIRB of May 10, 2022 (see NIRB Registry No. [339608](#)), summaries of the draft technical reports for 2021 described below were included in the 2021 Annual Report and copies of the draft technical reports for 2021 were provided to MEWG and TEWG members for review and comment in April 2022.

i. Narwhal Abundance in Eclipse Sound and Milne Inlet

2021 Aerial Survey Results

For the Leg 2 surveys, narwhal summer stock abundance was calculated for the Eclipse Sound stock, Admiralty Inlet stock, and the combined Eclipse Sound and Admiralty Inlet stock. The narwhal abundance estimate for the combined Eclipse Sound and Admiralty Inlet stock during the 2021 open-water season (Leg 2) was 75,177 individuals based on aerial surveys completed on 19 to 21 August 2021. This estimate is statistically higher than the abundance calculated during the previous DFO survey conducted in 2013 (45,532 narwhal), 2019 (38,677), and 2020 (36,044). For the Eclipse Sound stock alone, the narwhal abundance estimate during the 2021 open-water season was 2,595 individuals based on aerial surveys conducted on 20 to 21 August 2021. The 2021 estimate for the Eclipse Sound stock alone is statistically lower than the 2016 DFO estimate of 12,039, the 2013 abundance estimate of 10,489, the 2019 abundance estimate of 9,931, and the 2020 abundance estimate of 5,018.

2022 Monitoring Plans

The following monitoring programs specific to caribou will be carried out by Baffinland in 2022.

- Marine Mammal Aerial Survey Program
 - The 2022 MMASP is proposed to occur during two separate survey legs: Leg 1 (early shoulder season) and Leg 2 (open-water season). The Leg 1 surveys are proposed to occur in early July, when narwhal undergo their spring migration through Eclipse Sound. The objective of the Leg 1 surveys is to collect data on the presence/absence and distribution of marine mammals prior to and during initial shipping operations in the RSA. The Leg 2 surveys are proposed to occur in early August corresponding with the peak open-water period. The objective of the Leg 2 surveys is to obtain an updated abundance estimate for

the Eclipse Sound and Admiralty Inlet narwhal summer stocks and comparison to previously reported abundance estimates.

- Shore-Based Monitoring Program (Bruce Head)
 - The objective of the Bruce Head Shore-based Monitoring Program is to investigate narwhal response to shipping activities along the Northern Shipping Route in Milne Inlet, with data collected annually on relative abundance and distribution (RAD), group composition, and behaviour. Additional data are also collected on environmental conditions and anthropogenic activities (e.g., shipping and hunting activities) to distinguish between the potential effects of Project-related shipping activities and confounding factors which may also affect narwhal behaviour. Unmanned Aerial Vehicle (UAV)-based focal follow surveys will collect fine-scale behavioral response data of narwhal in close proximity to the Northern Shipping Route throughout Milne Inlet.
 - Baffinland plans to investigate the feasibility of collecting morphometric data from narwhal using a calibrated drone system, which could be used to feed into a remote body condition monitoring program. Baffinland collected similar data in 2021 and plans to engage a graduate student to develop the program design, data processing and reporting. It is important to note that this program will only provide insight into overall narwhal health, but it will not be possible to make associations with shipping as body condition of narwhal in August would only be reflective of their life cycle prior to shipping commencing.
- Ship-Based Observer Program
 - The SBO program was suspended in 2020 and 2021 due to Covid-19 restrictions on the Botnica. The program will be implemented again in 2022 when the Botnica is planned to be active in the Project area, which has been reduced to the Fall due to the continued commitment by Baffinland not to break ice to commence the shipping season. The SBO programs ensures that collisions with marine mammals and seabird colonies are observed and reported, as well as any incidental observations that are possible while SBO's are active.
- Passive Acoustic Monitoring (PAM) Program
 - The 2022 Floe Edge PAM Program aims to measure sound levels near the ice floe edge (as requested by the MHTO) in order to understand ship noise levels and the relative presence of marine mammal vocalizations near the entrance of the Regional Study Area (RSA) throughout the fall, winter and spring periods. No recorders will be redeployed for the 2022 Summer season out of respect for concerns raised by residents of Pond Inlet and carried forward by the MHTO

These programs were discussed during the Spring 2022 meeting of the Marine Environment Working Group (MEWG) on June 14th. Recommendations from this meeting will be tracked and either integrated

into the 2022 monitoring program designs, or if the recommendations are not feasible, Baffinland will provide a written response to explain the rationale. All recommendations will be considered and a full tracking table will be provided back to the MEWG.

In the 2022 reporting period the results of Baffinlands programs may be supplemented by other regional monitoring initiatives reported by DFO or other parties. Baffinland continues to be open to engage on regional monitoring initiatives that would support a greater understanding of narwhal generally, and not just in relation to potential project effects.

2022 Narwhal Adaptive Management Response Plan

As referenced above, Baffinland filed a Narwhal Adaptive Management Response Plan (**NAMRP**) with NIRB prior to the 2021 shipping season. The NAMRP was developed as an adaptive management response to 2020 marine mammal monitoring observations of a lower narwhal abundance in the Eclipse Sound summer stock area as compared to 2019. The NAMRP was developed in consultation with the Marine Environment Working Group (**MEWG**) and its individual members, including Fisheries and Oceans Canada (**DFO**), the Qikiqtani Inuit Association (**QIA**), the MHTO, the Hamlet of Pond Inlet and the Government of Nunavut. Baffinland is currently updating the 2021 NAMRP for 2022 to reflect updated monitoring programs and shipping mitigations.

As reflected in the 2021 Annual Report to NIRB and supporting technical reports currently in draft for comment with the MEWG, 2020 and 2021 observations of potential lower narwhal abundance in Eclipse Sound as compared to previous aerial surveys do not reflect an overall reduction of the regional narwhal population and do not appear to be a result of the Project. These observations are more likely the product of natural exchange of the species between Eclipse Sound and Admiralty Inlet, other more global factors that are affecting the Arctic marine area due to climate change i.e. predation, forage availability, ice conditions, etc., and other activities in the area such as construction of the Pond Inlet small craft harbour.

Per Baffinland's letter of May 10, 2020 to NIRB, comprehensive March 2022 submissions by the Qikiqtaaluk Wildlife Board (**QWB**) (which is comprised of the chair from each hunters and trappers organization within the Qikiqtaaluk region) to the Nunavut Wildlife Board support the QWB's view that narwhal move freely throughout the waters of Northern and Eastern Baffin Island (NEBI), and that there is no "Eclipse Sound Stock" of narwhal separate and distinct from the general narwhal population in NEBI. Baffinland will submit the final 2022 NAMRP to the NIRB attached to the Marine Shipping and Vessel Management Report on or before July 15, 2022 (same submission procedure and date as 2021)

ii. Seal Abundance in Eclipse Sound and Milne Inlet

2021 Aerial Survey Results

Two types of analyses were performed on the 2021 dataset. Strip-transect analysis of infrared imagery combined with digital photographs was used to calculate densities of ringed seals in the RSA, and density surface modelling was used to identify ringed seal hotspots in the RSA.

- Results from the 2021 forward-looking infrared (FLIR) survey indicated that ringed seal densities are stable in Eclipse Sound (ES) and Navy Board Inlet (NB) strata and increased in Milne Inlet (MI) stratum compared to surveys flown in 2016.
- Ringed seal hotspots were identified in similar geographic areas in 2021 as in 2016–2017, with hotspots in western Eclipse Sound, southern Milne Inlet and Tremblay Sound. The eastern Eclipse Sound hotspot identified in 2016 and 2017 was not present in 2021. The northern half of Navy Board Inlet had low sightings of ringed seals in all years (2016, 2017, and 2021).

Mitigation measures in place for ringed seal have been carefully developed to completely avoid shipping impacts on ringed seal during periods when they are “grouped up” (i.e., the winter and spring) when group behaviour is critical to reproductive activities such as mating. The timing of the shipping season protects seals during the basking period and aims to avoid impacts on seals at the time when they start maintaining breathing holes during initial ice freeze-up.

The results of the 2021 RSASP showed ringed seal densities have overall remained stable since the onset of shipping operations in 2015, and since Project icebreaking activities began in the shoulder seasons in 2018. These results confirmed that mitigation measures were functioning as intended and that Project activities are being managed in a way that has not adversely affected ringed seals. Given that no changes to icebreaking operations are proposed within Baffinland’s Phase 2 Proposal, these results also lend confidence to predictions made in Phase 2 impact assessment, which states that effects on ringed seal as a result of the Project would not result in population level effects (Golder, 2018).

2022 Monitoring Plans

Ringed seal surveys are not recommended in 2022 for the Eclipse Sound area based on the 2021 survey results.

iii. Caribou Interactions with the Project

2021 Height of Land, Snow Track and Camera Program Results

Caribou monitoring included snow track surveys, height of land caribou surveys and remote wildlife camera installations. No caribou were observed during the height of land surveys in 2021, and no caribou tracks were identified during the snow track surveys. These results are consistent with previous years, and with low regional abundance estimates provided by the Government of Nunavut. Remote wildlife cameras installed in 2021 to address questions from the Terrestrial Environment Working Group on whether caribou were near the Project site when height-of-land surveys were not being run did not detect a single caribou in the over 42,000 photos captured from the 12 cameras. Baffinland remains confident that the results of caribou monitoring programs are a by-product of the low regional abundance numbers in caribou, and not due to a methodological issue with the programs.

Caribou Monitoring Triggers and Recommendations Report

This work aimed to identify triggers for Project-related impact monitoring of caribou on North Baffin Island. Approximately 350 caribou or 35 caribou groups within the Study Area were identified as the

trigger to initiate a collaring program, which would be the primary means of regional-level impact monitoring. This study also revealed that a minimum of 35 collars/year in a spatially limited area (for both the North and South footprints, respectively) is necessary to provide adequate sample sizes for evaluating (1) potential barriers to movement and (2) indirect habitat loss due to the Project.

Although this assessment provides clear recommendations based on known caribou ecology, critical review of the literature, and statistical modelling, it is expected that input from the TEWG and Inuit will refine the triggers for modifications to Baffinland's caribou monitoring programs moving forward.

2022 Monitoring Plans

The following monitoring programs specific to caribou will be carried out by Baffinland in 2022.

- Height of Land Survey and Remote Camera Deployment
- Snow Track Surveys
- Aerial Caribou Survey

These programs will be discussed during the Spring 2022 meeting of the Terrestrial Environment Working Group (TEWG), currently planned for June 23rd. Recommendations from this meeting will be tracked and either integrated into the 2022 monitoring program designs, or if the recommendations are not feasible, Baffinland will provide a written response to explain the rationale. All recommendations will be considered and a full tracking table will be provided back to the TEWG.

In the 2022 reporting period the results of Baffinlands programs may be supplemented by regional caribou monitoring outcomes reported by the GN. Baffinland and the GN are continuing to work on the development of a Caribou Research Agreement and Data Sharing Agreement and look forward to finalizing and implementing the agreements for the benefit of regional caribou monitoring.

iv. Arctic Char Health and Abundance Outside of Project Area

2021 Milne Inlet Freshwater Fish Health Assessment Results

The assessment carried out in August 2021 represented the first year of the Milne Inlet Freshwater Fish Health Assessment. The objective of the program is to determine whether the Milne Port operations have had any negative effects of Arctic Char health. Given the comparison of endpoints between 2021 and historical data, the Milne Port operations did not appear to result in adverse effects on Arctic Char health from the Tugaat and Qurluktuk river systems. Fish growth (length-at-age) of fish captured from both Tugaat and Qurluktuk lakes in 2021 was either greater or not significantly different from those captured historically. Additionally, char body condition was significantly greater in males and females captured from Qurluktuk Lake in 2021 compared to those assessed historically, and no significant differences in condition were indicated between 2021 and historically at Tugaat Lake for males. Finally, the concentrations of mercury in char muscle tissue samples collected in 2021 at both Tugaat and Qurluktuk lakes were generally below federal consumption guidelines, and consistent with baseline values. Moving forward, further consultation with the MHTO is recommended to inform on additional analysis of the 2021 data

prior to report finalization, and to provide input regarding future monitoring as part of the Milne Inlet Freshwater Fish Health Assessment.

2022 Monitoring Plans

Baffinland plans to implement a second year of monitoring in the Tugaat, Robertson (Qurluktuk), and Ikaluit river systems in August 2022 to evaluate fish health based on comparisons to data reported from these systems in 2021 and prior to construction/operation of the Baffinland Milne Port operation. The MHTO has been asked to designate a representative to join the program, which will be carried out in August, similar to 2021. Baffinland will also seek the advice of the MHTO on the 2022 program prior to its final design and implementation.

v. Aquatic Invasive Species

Baffinland has a status update to share from the NIS/AIS Program. The worm initially thought to be *Marenzelleria viridis*, invasive to Northern European waters, has been confirmed to be two species of the same genus – *Marenzelleria arctia* and *Marenzelleria wireni* – which are indigenous to the Arctic Region and, therefore, not invasive to Milne Port.

On June 2, 2022, Baffinland received genetic results resolving the identification of *Marenzelleria* specimens collected as part of targeted monitoring efforts in summer of 2021. Molecular analysis confirms these specimens as *Marenzelleria wireni*, which appears to have a broad, pan-Arctic range. In addition, as communicated to the NIRB during the last round of hearings, another species of this genus - *Marenzelleria arctia* - was also identified in sediment samples from Milne Inlet, near Phillips Creek (in addition to *M. wireni*). The *M. arctia* identification was made by the global expert on this type of marine worm based on morphological analysis, not genetic methods so there is slightly less certainty in this identification. This means that all specimens that were originally identified as *M. viridis* between 2019-2021 have now been corrected to either *M. wireni* (high confidence, based on molecular analysis) or *M. arctia* (moderate-high confidence, based on taxonomic methods) meaning that no NIS/AIS species have been confirmed in Milne Port to date. To further support this, we have attached a recently published paper that represents the best available science on the origins of *Marenzelleria* species globally, and lists both *M. arctia* and *M. wireni* as indigenous to the Arctic region (Radashevsky et al. 2022). In 2022, Baffinland will continue to collect samples for molecular analysis to evaluate the distribution of *M. wireni* in Milne Port and to clarify the identification of *M. arctia*.

This experience also serves to highlight the prudent nature of Baffinland's approach to potential NIS/AIS detection, where we believe the first step must be additional information gathering and targeted monitoring until it is confirmed that the species in question is, in fact, non-indigenous AND showing signs of causing harm to the local environment. This is particularly important in the context of the Canadian Arctic, where benthic fauna are understudied and species inventories are incomplete, making it difficult to confirm species identifications and establish species origins and natural ranges. Eradication and control methods should neither be rushed nor undertaken lightly because these methods can be highly indiscriminate and destructive, resulting in the complete eradication or destruction of entire benthic

communities and/or habitats, not just the target species, potentially creating conditions that promote recruitment of AIS. In this case, rushing into intervention without performing the necessary due diligence following detection of a potential NIS/AIS would have unintentionally set off a cascade of long-term consequences on the marine ecosystem of Milne Port in an attempt to eradicate/contain species that have turned out to be indigenous.

vi. *Proposed Modifications to Existing Management Strategies*

Baffinland understands that parties continue to express concerns with existing approaches towards Baffinlands adaptive management framework and administration of the environmental working groups. Baffinland proposes the following two solutions, which may be implemented in 2022 and include:

- Baffinland will implement an interim version of the Adaptive Management Plan originally developed through the Phase 2 Proposal review process to apply to the remainder of 2022.
- Baffinland will agree to amendments to the Terms of Reference for the TEWG and MEWG that provides for consensus based decision making and the transfer of responsibilities for chairing and administering the working groups to either a community representative or a third party facilitator as agreed to between Working Group Members.

Baffinland commits to provide a draft interim Adaptive Management Plan and a revised draft Terms of Reference for the TEWG and MEWG to the NIRB.

D Inuit Harvesting

i. *Baffin Island Caribou*

On May 18, 2022 the GN confirmed the Baffin Island harvest quota of 250 caribou was met and the harvest was closed. The following harvest data for the 2021/2022 season was reported for the nine (9) Nunavut communities subject to the Baffin Island harvest quota:

Community	Tags	Harvest	Surplus/Deficit
Pond Inlet	35	42	120%
Arctic Bay	19	16	84%
Clyde River	31	31	100%
Igloolik	43	45	105%
Sanijarak	4	2	50%
Total North Baffin	132	136	103%
Iqaluit	43	45	105%
Kimmirut	35	35	100%
Kinngait	21	21	100%
Qikiqtarjuaq	19	10	53%
Total South Baffin	118	111	94%
Total Baffin Island	250	247	99%

Based on the table above, it appears that the North Baffin communities were relatively more successful in harvesting compared to their quotas than South Baffin communities and that North Baffin communities overall harvested more caribou than South Baffin communities. Pond Inlet specifically harvested the most caribou compared to their allotted tags, and the third most of all Baffin Island communities, only being passed by an additional 3 caribou in each of Igloolik and Iqaluit, the only two communities larger in population than Pond Inlet.

ii. *Eclipse Sound Summer Narwhal Stock*

On November 6, 2021 and again on January 10, 2022 the GN confirmed that during the 2021-2022 harvesting year a total of 152 tags were issued to Pond Inlet (137 for Summer, and 15 for the Fall/Spring). The entire summer quota of 137 narwhal were successfully harvested and reported to the GN Wildlife Office.

Since the development of the Food Security Assessment for the Phase 2 Proposal, Baffinland has been tracking the annual issuance of narwhal harvest tags to help inform a better understanding of the number of narwhal that are being reported as harvested and available for consumption in Pond Inlet. As presented in the table below, based on 21 years of available harvest and population data for Pond Inlet, an above average number of narwhal have been harvested on a nominal and per capita basis in 6 of the 7 years Project shipping has occurred.

Year	Pond Inlet Population	Narwhal Harvest	Per Capita Narwhal Harvest	Average Narwhal Harvest	Average Per Capita Narwhal Harvest
2001	1282	65	0.051	82	0.056
2002	1307	63	0.048		
2003	1341	67	0.050		
2004	1358	65	0.048		
2005	1375	62	0.045		
2006	1369	88	0.064		
2007	1383	65	0.047		
2008	1400	73	0.052		
2009	1,453	44	0.030		
2010	1482	62	0.042		
2011	1533	112	0.073		
2012	1544	97	0.063		
2013	1579	147	0.093		
2014	1613	135	0.084		
2015	1639	190	0.116	144	0.082
2016	1663	118	0.071		
2017	1790	159	0.089		
2018	1784	64	0.036		
2019	1809	184	0.102		
2020	1835	140	0.076		
2021	1862	152	0.082		
Increase in Harvest (2015-2021 compared to 2001-2014 period)				176%	144%

In the years that Baffinland has carried out commercial shipping of iron ore (2015-2021), an annual average of 144 narwhal were harvested in that time period, and the average narwhal harvested per resident of Pond Inlet was 0.082. In the 14 years prior to commercial shipping the annual average number of narwhal harvested was 82, and on a per resident of Pond Inlet basis it was 0.056. These differences are significant (176% and 144% growth since commercial shipping, respectively) and challenge the concept that there are less narwhal available for consumption since the Project started.

iii. **Support for Harvesters in Inuit Agreements**

When Project activities began in 2013, Inuit and the Company acknowledged that impacts to harvesting may occur from the Project. Specifically, Article 13.1 of the IIBA (QIA & Baffinland, 2018) notes the following:

“The objective of Article 13 hereof is to ensure that any potential incompatibility of the rights of Inuit to free and unrestricted travel and access for harvesting to all lands, water and marine areas within the Nunavut Settlement Area with the Company’s land use activities and rights of

navigation in marine areas may be reduced....The QIA recognizes that the Company's right to operate and manage their activity within the Project area including the rail and shipping corridor, subject to the provisions of this Agreement and QIA recognizes the restriction on Inuit right of access under Sections 5.7.18 and 5.7.25 of the NLCA..."

In consideration of these effects, Article 5 (Financial Participation) ensures that Inuit receive:

- a minimum of \$1,250,000 quarterly, or \$5,000,000 annually, in the form of resource royalties;
- funding for the Wildlife Compensation Fund (Article 17.6 of the IIBA); with distribution of this fund managed directly by the QIA;
- Hunters Enabling Fund which provides 300 Liters of fuel to Inuit over the age of 12 residing in Pond Inlet. (IIBA 17.7, 2018);
- Marine Research Equipment which will provide each North Baffin Community with a marine vessel beginning in 2021 (IIBA 17.9, 2018); and the
- Wildlife Monitoring Program which provides \$200,000 annually to the MHTO to conduct community based research (IIBA 17.8, 2018).

The Marine Research Equipment (IIBA 17.9) and Wildlife Monitoring Program (IIBA 17.8) were developed in part due to the concerns expressed by harvesters and the desire for more community based monitoring that is planned, led, and carried out by Inuit in the North Baffin Communities. This allows for topics of greatest concern to be actively monitored by Inuit.

Moreover, in response to concerns raised during the original PIP, Baffinland, the Mittimatalik Hunter and Trappers Organization, and the Hamlet of Pond Inlet signed the "Agreement to Establish the Pond Inlet Committee". This agreement recognized the desire for improvements to the way in which Project benefits were being distributed to communities. The agreement commits Baffinland to providing \$10,000.00 to the Tasiuqtiit Working Group for every ore carrier required to ship in excess of 4.2 mtpa. Between the 2018 and 2021 shipping seasons, this Agreement has earned the Tasiuqtiit Working Group \$730,000. If Baffinland uses up to 80 ore carriers to transport 6 mtpa, using 58 vessels as the approximate number of vessels required to transport 4.2 mtpa, the Tasiuqtiit Working Group should receive an average of \$220,000 per shipping season.

E Inuit Participation and Stakeholder Engagement

In addition to any process NIRB determines to carry out with respect to the 2022 Application, Baffinland appreciates that the NIRB monitoring process and the Phase 2 Process have also provided an ongoing opportunity for engagement with Inuit, Inuit organizations and regulatory agencies on the 6 mtpa operation.

Baffinland's previous PIPE (2020) Application contains a comprehensive description of how Inuit and Inuit Qauimajatuqangit are integrated into Baffinland's environmental management system, and how it applies to 6 mtpa operations specifically (Section 4.4).

These same commitments and practices will apply to the 2022 period, particularly with respect to Inuit participation in environmental monitoring, and engagement with Inuit on monitoring plans (See Appendix A).

i. Summary of PIPR Specific Engagement to Date

Baffinland has carried out extensive engagement activities in relation to the PIP (2018) and PIPE (2020) that have shaped the project as it has operated between 2018 and 2022, and continues to influence how we are planning for shipping and other project activities in 2022.

For the PIPR (2022) specifically, Baffinland has been communicating with various parties to discuss the need for the continuation of operations at 6 mtpa in 2022. These organizations and engagement dates include:

- Nunavut Tunngavik Incorporated (May 19)
- Qikiqtani Inuit Association (May 17, 25, 30, June 8, 9)
- Government of Nunavut (May 18, 25, June 7)
- North Baffin Hamlets (May 20, 24, 27, 30)
- Mittimatalik Hunters and Trappers Organization (May 24, 27, 31)

Further to the above engagements, Sanirajak has issued an updated letters of support specifically for the 2022 PIPR (see Appendix C). Other organizations have also issued letters of support (see Appendix D).

ii. Baffinland Support for Inuit Led Monitoring Related to Harvesting and Food Security

Baffinland acknowledges that the harvest data reported for caribou and narwhal do not account for harvesting effort. Further to that, harvest data is not available publically for Arctic char or seal, making it difficult to understand harvest effort and success on an annual or overall basis. As a result, Baffinland has already committed to support the reconciliation of differences in experiences between Baffinlands monitoring programs, publically available harvest data and harvesters experience. For clarity this commitment continues to stand for 2022.

Through the Inuit Certainty Agreement, Baffinland agreed to fund in its entirety, regardless of the outcome of Phase 2, a Pond Inlet Country Food Baseline Report, led by the QIA and community of Pond Inlet. The results of this study have yet to be released by the QIA, however, Baffinland is committed to

integrating the findings of this report into its own monitoring programs, annual reports, and adaptive management plans.

Further to the above, Baffinland is also willing to commit to work with QIA and communities to continue to develop Inuit specific indicators and thresholds and integrate them into Baffinlands relevant adaptive management plans, or a dedicated CRLU monitoring program to be administered by Baffinland with the support of an independent Inuit Committee, similar to the Dust Audit Committee, which has been formed to support the ongoing and independent audit of dust sources across the Project. Baffinland is willing, upon agreement with QIA and the North Baffin communities, to initiate this work as soon as Summer 2022, and to have the Inuit indicators and thresholds ready to apply against 2022 monitoring program results where possible, and future monitoring. Should community based monitoring initiatives be required to report on Inuit based indicators and thresholds, Baffinland will provide that funding through the existing Wildlife Monitoring Program or other arrangement as agreed to.

F Ongoing Compliance with the 2020 Project Certificate Amendment Monitoring Program

As part the PIPE (2020), the NIRB determined that certain aspects of the ongoing monitoring program for Project Certificate No. 005 and reporting requirements for the Mary River Project may need to be updated, and/or require additional follow up actions to address potential environmental issues.

The following monitoring and reporting updates were submitted to the NIRB by Baffinland as required by Section 3.1 of Project Certificate 005 (May, 2020).

i. Marine Shipping Report

Baffinland submitted a Marine Shipping and Vessel Management Report to the NIRB prior to the commencement of the shipping seasons in 2020 and 2021, informing the Board of the following:

- Anticipated number of ship transits along the approved shipping route;
- Identification of specific areas to be used for drifting and anchorage of vessels with details of how community feedback and comments from the MEWG has been used to inform the selection of suitable areas;
- Timeline for organizing pre- and post-shipping meetings with the community;
- Plans for preventing or mitigating vessel interference with marine mammals and traditional hunting activities pursuant to term and condition 125(a) of the Project Certificate;
- Evidence of community involvement to review preliminary results of the monitoring programs, and to compare results with experiences of community members and hunters with respect to the marine environment and marine mammals during the shipping season; and
- Evidence of reporting new or non-native species identified as a result of Aquatic Invasive Species monitoring, to MTHO and DFO with confirmation of whether or not this species had been observed in the past or through other community or regional monitoring initiatives.

Baffinland will submit a standalone Marine Shipping and Vessel Management Report to the NIRB prior to the commencement of the 2022 shipping season.

ii. Tote Road Monitoring Program

Results of Baffinland's Tote Road Monitoring Program were reported as part of Baffinland's 2020 and 2021 Annual Report to the NIRB. Summaries of the program are provided for in relation to Project Certificate Term and Condition No. 46 and also in the Annual Report for Operations to the NWB/QIA. Reporting has included considerations for the following NIRB recommendations:

- A detailed review of the data collected and indication of whether there are any observed Project-related increases to Total Suspended Solids in surface water as a result of the increased use of the Tote Road; and
- An assessment of whether dust management and mitigation measures committed to are functioning as intended to manage dust emissions along the road and sedimentation impacts on surface water as a result of the potential increase of Project-generated dust deposition associated with the production increase.

During 2022 Baffinland will continue submitting the results of the Tote Road Monitoring Program to the NIRB and NWB through its regular annual reporting obligations.

Baffinland will consider the proactive implementation of recommendations contained in the Interim Dust Audit Report, expected for release following the completion of the Dust Audit Committee Site Visit (June 8-15). Preliminary recommendations have been shared with Baffinland as follows:

- Strategic evaluation and installation of wind fencing
- Application of additional dust suppressants (DustBlok, DusTreat) to the airstrip and other stockpiles
- Revisions to blasting management plans and practices
- Continuous dust monitoring at PDA boundaries
- Ongoing involvement of Inuit in dust management
- Other operational practice improvements

A summary of mitigations related to dust applicable to the PIPR are included in Appendix A

iii. Management Plans

Following the approval of the 2020 (PIPX) application, Baffinland updated the following management plans as required to reflect the scale and scope of the proposed activities and potential impacts, including but not limited to:

- Waste Rock Management Plan;
- Air Quality and Noise Abatement Management Plan;
- Dust Management and Monitoring Plan;
- Shipping and Marine Wildlife Management Plan;
- Tote Road Monitoring and Management Plan;
- Greenhouse Gas Reduction Plan and Climate Change Strategy;
- Spill Contingency Plan;
- Freshwater, Sewage and Wastewater Management Plan, and
- Milne Port Oil Pollution Emergency Plan.

Baffinland is proposing to update additional plans as required to reflect the new mitigations outlined in Appendix A.

F Conclusion

Thank you for the opportunity to provide additional information on the PIPR Proposal. Baffinland would be pleased to provide additional information to NIRB as needed.

Appendix A

Mitigation List

1 ENVIRONMENTAL MITIGATIONS FOR KEY ISSUES

The table below includes mitigation measures relevant to the proposed sustained increase in the production and transportation of iron ore at 6 million tonnes per annum (mtpa). The majority of mitigations are already included in the current Shipping and Marine Wildlife Management Plan (SMWMP), the Terrestrial Environment Mitigation and Monitoring Plan (TEEMP) and the Air Quality and Noise Abatement Management Plan (AQNAMP). Additional mitigations proposed as part of the Production Increase Proposal Renewal (PIPR) are highlighted in yellow. Management plans will be revised as necessary based on agreements developed through the PIPR review process and submitted to NIRB following the issuance of an amended Project Certificate 005.

Project Activity	Mitigation Measure(s)
<p>Mitigation measures to reduce or avoid impacts to marine mammals as a result of shipping</p> <p>Relevant Species: Ringed Seal, Bearded Seal, Walrus, Beluga, Narwhal, Bowhead Whale, Polar Bear</p>	<ul style="list-style-type: none"> • Maintain constant speed and course when possible. • Reduce vessel speed to 9 knots. • Reduce vessel idling • Additional temporary measures have been introduced for 2021 that shipping will not commence a continuous path of 3/10ths or less ice concentrations between the entrance of Eclipse Sound and Milne Port is present. • No breaking of landfast ice will occur in the spring or fall shoulder season. • When marine mammals appear to be trapped or disturbed by Project vessel movements, the vessel will implement appropriate measures to mitigate disturbance, including stoppage of movement until wildlife move away from the immediate area (as safe navigation allows). • All Project vessels will be provided with standard instructions to operate their vessel in a manner that avoids separating an individual member(s) of a group of marine mammals from other members of the group; • All Project vessels will be provided with standard instructions to not approach within 300 m of a walrus or polar bear observed on sea ice; • Vessels awaiting instructions from the Port Captain to enter the RSA will be instructed to wait in Baffin Bay at least 40 km east of the Nunavut Settlement Area. • No icebreaking to commence the 2022 shipping season. Vessels will not begin their transit to Milne Port until 3/10ths or less ice is present along the entire shipping route through the Nunavut Settlement Area (NSA). • No more than 80 ore carriers will be chartered during the 2022 season to transport 6mtpa. This is 6 ore carriers less than the maximum anticipated and approved in the previous Production Increase Proposal and Extension Request. • Use of convoys throughout the 2022 season to further reduce total sound exposure. Acoustic monitoring data indicates that if ore carriers transit in convoys with inter-vessel separation less than 10 km, there is an overall reduction of the total sound exposure in the Regional Study Area compared to multiple individual transits of an equivalent number of vessels. Slight increases of instantaneous sound levels in the regions between the vessels are compensated

Project Activity	Mitigation Measure(s)
	<p>for by shorter exposure duration, resulting in a net decrease of noise exposure (See Appendix B). The use of convoying will be similar in effect to reducing the overall number of ships.</p>
<p>Mitigation measures to reduce or avoid impacts to terrestrial wildlife as a result of operations (mine site, tote road and Milne Port)</p> <p>Relevant Species: Caribou, Wolf</p>	<p>Mitigation measures that will reduce the likelihood of reduced habitat effectiveness for caribou include:</p> <ul style="list-style-type: none"> Sensory disturbances will be limited where possible throughout the year. This can include a quarry blasting program that can restrict blasting when migrating caribou and other wildlife may be negatively affected. Active caribou calving sites (as identified by observations from area hunters, Project biologists or observed by aircraft pilots) will be avoided between May 15 and July 15. Where possible, there will be no increase in construction or operational activity within 3 km of the calving sites during this period. In the Cockburn Lake Area (identified during baseline studies as having the highest occurrence of caribou calving sites), all non-essential activities will cease between May 15 and July 15 (e.g., construction activities will be planned to avoid this area during the calving season). If any females (one or more) are observed within 3 km of a planned Project activity such as drilling or road construction from May 15 through July 15, then the activity location will be moved or the activity deferred as appropriate and, if possible, until a later date when caribou are not present. Should a female caribou or a female with a calf or calves approach within 3 km of Project activities (between May 15 and July 15), the animals will be observed on the ground. If it is obvious that they are being disturbed, the activity will cease until they have moved away by at least 3 km. If caribou approach a Project activity site before work commences, the animals will be observed on the ground, and if it is obvious that they are being disturbed (e.g., hesitating to cross work site, running in the opposite direction, visibly agitated), work will not commence until they have moved on. If caribou approach a Project site while work is in progress, caribou will be observed for signs of disturbance. If the caribou are disturbed, the activity will be modified or cease until the caribou have moved away or they are guided away from the worksite. At such a time when caribou begin to be encountered regularly along the Tote Road, a wildlife monitor will be present on-site during the calving season to detect calving activities near the Tote Road, monitor cow/calf behaviour in relation to traffic, designate a temporary no-stopping zone, guide traffic, and document measures taken to reduce sensory disturbance to calving caribou. <p>Mitigation measures that will reduce the likelihood of the Project being a barrier to caribou movement include the following</p> <ul style="list-style-type: none"> Snow management activities will, throughout the winter season, maintain a snowbank height less than 1 m with smooth tops along the Tote Road. Identified trail crossings along the Tote Road where the physical structure might be a barrier to caribou movement will be constructed of finer fill material to

Project Activity	Mitigation Measure(s)
	<p>replicate natural trail conditions, preventing leg entrapment, and gentler gradients to reduce the visual barrier of the embankments. Any additional (i.e., beyond those already identified) trail crossings identified during construction or operation will also be modified with gentler slopes and finer fill if caribou deflections are detected. In the context of caribou movement monitoring, deflection is defined as “caribou that fail to cross the Tote Road after approaching it.”</p> <ul style="list-style-type: none"> • Wildlife signage could be posted at trail crossings along the Tote Road. Operators will be made aware of the crossing areas along the Tote Road, and daily observations will be reported so operators are aware of a potential presence at crossing sites and other areas. • Based on IQ knowledge provided by hunters and elders and/or site-staff observations, if migratory caribou start to move through the RSA, then the leading caribou will be allowed to cross over the Tote Road undisturbed so that others will follow. • Truck drivers will be provided with wildlife awareness training, including known crossing locations. Drivers will operate in accordance with the Caribou Decision Framework – Tote Road (Figure 3.2). • All site personnel entering and exiting the Tote Road will notify site dispatch and/or security. Notifications to road users will include mandatory wildlife reporting (Appendix C-14 — Wildlife Monitoring: Incidental Observations and Project Mortality Wildlife Log). <p>Mitigation measures implemented to reduce the likelihood of the Project increasing caribou mortality risk include:</p> <ul style="list-style-type: none"> • Wildlife right-of-way policy on Project roads • All site personnel entering and exiting the Tote Road will notify site dispatch and/or security. Notifications to road uses will include mandatory wildlife reporting (Appendix C-14 Wildlife Monitoring: Incidental Observations and Project Mortality Wildlife Log). • Reporting and documentation of all mortalities and near misses is mandatory, and follow-up investigations will be conducted for all mortality events. • When caribou are observed on roads a “caribou advisory” will be issued through the site radio network to alert operators and drivers that caribou are in the area and to maintain extra vigilance while driving in accordance with Baffinland’s Caribou Decision Frameworks. • Speed limits along Project roads are set at a maximum of 55 km/hr, in combination with the Caribou Decision Framework – Tote Road (Figure 3.2). Slow speeds and vehicle operator response to animal presence will allow caribou time to get off the road and will increase the chance of a truck being able to stop before colliding with a caribou. • Any carcasses will be removed from transportation corridors to discourage further collisions (e.g., scavengers).

Project Activity	Mitigation Measure(s)
	<ul style="list-style-type: none"> • A no-hunting policy for Project personnel will be implemented (notwithstanding the accommodation provided for traditional Inuit activities [Human Resource Management Plan SD-SEMP-003]). All site personnel are prohibited from transporting firearms to site. • Whenever practical and not causing a human safety issue, a stop work order will be used when wildlife in the area may become endangered (i.e., risk of physical injury or death) by the work being undertaken.
Mitigation measures to reduce or avoid impacts to marine mammals, terrestrial wildlife, fish and fish habitat, water quality, air quality, etc as a result of operations (mine site, tote road, Milne Port)	<p>Specific actions that have been implemented, or could be further implemented by Baffinland for dust management at Milne Port have included:</p> <ul style="list-style-type: none"> • redesigning the ore pads to position fines in the centre and lump ore around the margins • proper positioning of the conveyors to minimize ore drop distances when stockpiling • installation of rubber bellows at the end of each stacker to minimize dispersion of dust generated during the fall • installation of chutes on the shiploader to prevent windblown dust during loading operations • installation of shrouding at the discharge end of the ore stackers to reduce the effect of windblown dust during stacking activities • installation of downwind fencing • removal of dust impacted snow at strategic locations at the project. • application of a specialized crusting agent (DusTreat®) to the ore stockpile to reduce wind erosion and mobilization of fine iron ore particles. <p>Specific actions that have been implemented, or could be further implemented by Baffinland for dust management for vehicle traffic include:</p> <ul style="list-style-type: none"> • regulating speed limits • utilizing water and dust suppressants during snow free months. • Application of new dust suppression products with increased durability and longevity for site infrastructure and approved for use in Nunavut on unpaved roads (DustBlok®) <p>Specific actions that have been implemented, or could be further implemented by Baffinland for dust management at the crushing facility include:</p> <ul style="list-style-type: none"> • Installation of shrouding and other engineered controls on conveyors and the ship loader • Moving and enclosing secondary crushing facilities to Milne Port. This will additionally increase the size of ore being transported. • Use of de-dusting equipment (e.g. baghouses) in the indoor crushing and screening facilities to reduce fugitive emissions of dust and particulate matter • Minimizing drop distances (i.e., using adjustable stackers) for stockpiling activities

Project Activity	Mitigation Measure(s)
	<p>Baffinland will consider the proactive implementation of recommendations contained in the Interim Dust Audit Report, expected for release following the completion of the Dust Audit Committee Site Visit (June 8-15). Preliminary recommendations have been shared with Baffinland as follows:</p> <ul style="list-style-type: none"> • Strategic evaluation and installation of wind fencing • Application of additional dust suppressants (DustBlok, DusTreat) to the airstrip and other stockpiles • Revisions to blasting management plans and practices • Continuous dust monitoring at PDA boundaries • Ongoing involvement of Inuit in dust management • Other operational practice improvements
Environmental Management Structures and Processes	<ul style="list-style-type: none"> • Recommendations from MEWG/TEWG meetings will be tracked and either integrated into the 2022 monitoring program designs, or if the recommendations are not feasible, Baffinland will provide a written response to explain the rationale. All recommendations will be considered and a full tracking table will be provided back to the MEWG/TEWG. • Baffinland will submit the final 2022 NAMRP to the NIRB attached to the Marine Shipping and Vessel Management Report on or before July 15, 2022 (same submission procedure and date as 2021) • Baffinland will implement an interim version of the Adaptive Management Plan developed through the Phase 2 Proposal review process to apply to the remainder of 2022. • Baffinland will agree to amendments to the Terms of Reference for the TEWG and MEWG that provides for consensus based decision making and the transfer of responsibilities for chairing and administering the working groups to either a community representative or a third party facilitator as agreed to between Working Group Members. • Through the Inuit Certainty Agreement, Baffinland agreed to fund in its entirety, regardless of the outcome of Phase 2, a Pond Inlet Country Food Baseline Report, led by the QIA and community of Pond Inlet. The results of this study have yet to be released by the QIA, however, Baffinland is committed to integrating the findings of this report into its own monitoring programs, annual reports, and adaptive management plans. • Further to the above, Baffinland is also willing to commit to work with QIA and communities to continue to develop Inuit specific indicators and thresholds and integrate them into Baffinlands relevant adaptive management plans, or a dedicated CRLU monitoring program to be administered by Baffinland with the support of an independent Inuit Committee, similar to the Dust Audit Committee, which has been formed to support the ongoing and independent audit of dust sources across the Project. Baffinland is willing, upon agreement with QIA and the North Baffin communities, to initiate this work as soon as Summer 2022, and to have the Inuit indicators and thresholds ready to apply against 2022 monitoring program results where possible, and future monitoring.

Project Activity	Mitigation Measure(s)
	<ul style="list-style-type: none">• Should community based monitoring initiatives be required to report on Inuit based indicators and thresholds, Baffinland will provide that funding through the existing Wildlife Monitoring Program or other arrangement as agreed to.

Appendix B

Vessel Convoys as a Means of Noise Mitigation

Memo

DATE: 13 June 2022
FROM: Melanie Austin (JASCO Applied Sciences (Canada) Ltd)
TO: Lou Kamermans (Baffinland Iron Mines Corporation)


Subject: Vessel convoys as a means of noise mitigation

This memo has been prepared to describe how the implementation of vessel convoys can serve as a mitigation measure to reduce cumulative noise exposure from shipping related to the Baffinland Iron Mines Mary River Project. Underwater noise from shipping can be mitigated through several mitigation measures intended to reduce the spatial and/or temporal extent of noise exposure within the Regional Study Area. The spatial extent of noise can be reduced through measures such as slowing vessels to reduce noise output. Baffinland has implemented a strict speed control of 9 kn for all vessels travelling through the Regional Study Area; this is slower than the 11 kn speed limit that is implemented as part of a voluntary vessel slow down measure in the Strait of Georgia (British Columbia) to mitigate noise impacts to Southern Resident Killer Whales. The temporal extent can be mitigated through reducing the number of vessel transits, or by convoying vessels to reduce the total duration of sound exposure. It is the latter measure that is discussed in this memo.

Because sound levels are logarithmic, the combined noise from multiple sound sources does not scale or multiply correspondingly with the number of sources. That is to say that the spatial extent of the combined noise footprint for two vessels travelling in close proximity to one another is not double that of the noise footprint for one vessel. The same is true for the duration of noise exposure for multiple transits of individual vessels in comparison to a single transit of a vessel convoy.

The degree to which a vessel noise footprint is increased by the nearby presence of additional vessels is dependent on the relative sound signatures of the vessels and on the spatial separation between the vessels. If one vessel is significantly louder than the other, then the composite noise footprint for the two overlapping sources will closely resemble that of the louder source (Figure 1, top). Overlapping sound footprints from two vessels that generate underwater noise of similar amplitude will combine in a way that is dependent on the separation between the vessels. The distance from either vessel to the edge of the composite sound footprint is expected to extend minimally compared to that in the absence of the second vessel (Figure 1, bottom). Sound levels in the space between the two vessels would increase by an amount of 3 dB or less (3 dB is the maximum increase caused by adding together sounds of equal amplitude). This would result in a small increase of the instantaneous sound exposure in some areas, but the corresponding decrease in exposure duration would yield an overall reduction of the total sound exposure.

The worst-case scenario, in terms of mitigating noise exposure duration, is for the vessels in convoy to be spaced far enough apart such that the sound footprints do not overlap. In that case, there would be no net

A decorative graphic at the bottom of the page consisting of several overlapping, wavy blue lines that create a sense of motion and depth.

decrease in the total sound exposure achieved through the convoy. In the case of Baffinland's ore carriers, this would occur if the vessels were separated by a distance of approximately 10 km or greater. During shoulder season convoys in 2019 and 2020, the spacing between ore carriers in a convoy was always less than 10 km, in which case one would expect the footprints to overlap and result in an overall decrease in the exposure duration compared to that from two individual vessel transits.

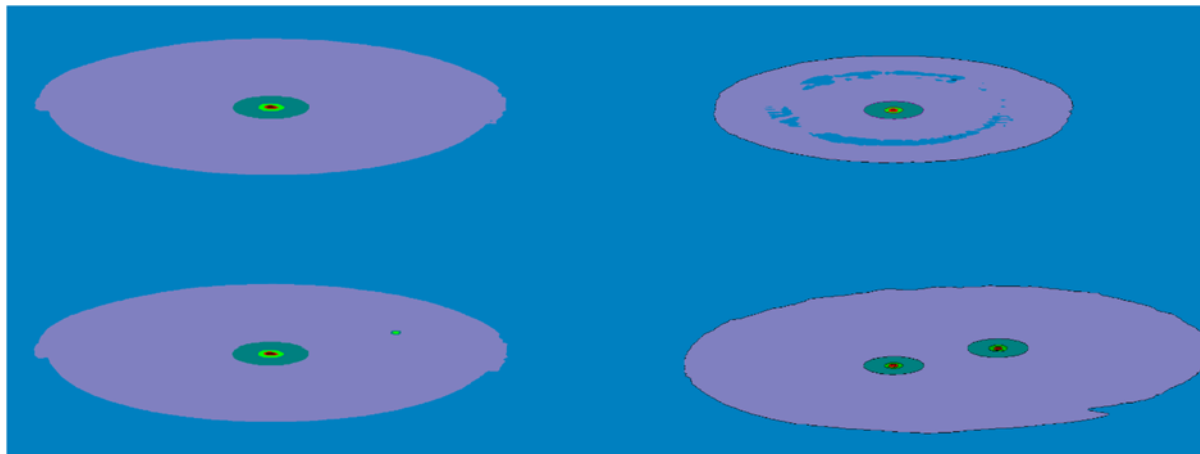


Figure 1 Example schematic of composite vessel footprints for vessels in convoy. The top panels depict individual vessel sound footprints and the bottom panels are sound footprints that overlap. (Left) one vessel is significantly louder than the other. (Right) vessels emit sound of similar amplitude.

In consideration of the benefit of Baffinland potentially using vessel convoys as a means to reduce underwater noise exposure in the Regional Study Area, consider that the duration of exposure from an individual ore carrier transit is approximately 30 minutes. The total duration of exposure for two individual transits (not in convoy) would then be 1 hour. If the vessels were to transit in a convoy, with an inter-vessel separation less than 10 km, it is expected that the duration of exposure for the vessels in convoy would be in between 30 minutes and 1 hour.

This is supported by review of acoustic recordings collected by Baffinland in 2019 and 2020, while the icebreaker MSV *Botnica* escorted vessels to and from Milne Port in convoy. Details about the collection of these data, and how they were processed, were provided in a previous report (Austin and Dofher, 2021). For this memo, we consider from that dataset transits with similar transit speeds, in open water conditions, when the icebreaker transited with between 0 and 3 ore carriers in convoy (Table 1). The sound output from all of these vessels are similar enough that the composite footprint for the convoy is best represented by the concept in the right hand side of Figure 1 (Austin and Dofher 2020).

Table 1 provides the ranges forward and aft from the *Botnica* to the 120 dB sound level threshold associated with marine mammal behavioural disturbance, and the amount of time that the recorded sound levels exceeded this threshold during each convoy transit. As the number of vessels in the convoy increased, the range from the *Botnica* to the 120 dB re 1 μ Pa threshold increased slightly, particularly aft of the vessels. The distance was 5.6 km when the *Botnica* travelled alone and 11.7 km when the *Botnica* escorted three ore carriers in convoy. Correspondingly, the duration of exposure above the 120 dB threshold increased slightly from 18 to 22 minutes when one or two ore carriers were added to the convoy, and to 40 minutes when there were three vessels in convoy with the *Botnica*. Figures showing the sound pressure level, and the distance between the vessels and the acoustic recorder, as a function of time are presented in Figures 2 through 5 for each of these transits.

In summary, acoustic monitoring data collected to date by Baffinland indicate that if ore carriers were to transit in convoys with inter-vessel separation less than 10 km, there would be an overall reduction of the total sound exposure in the Regional Study Area compared to multiple individual transits of an equivalent number of vessels. The composite noise footprint for the convoy of vessels would be slightly larger than that for an individual vessel, but not by a factor of the number of vessels. Slight increases of instantaneous sound levels in the regions between the vessels would be compensated for by shorter exposure duration, resulting in a net decrease of noise exposure. In light of this, vessel convoys appear to provide a viable proposal for reducing total sound exposure, if appropriate inter-vessel separation is maintained optimally with the vessels as close together as safety measures would allow.

Table 1 Examples of ore carrier convoys measured during icebreaker escorts in 2019 and 2020 with correspond distances and durations for exposure to sound levels at or above 120 dB re 1 µPa.

Convoy Details					Range from <i>Botnica</i> to 120 dB (km)		Time > 120 dB (minutes)
Number of Vessels in Convoy	Vessel Name	Vessel type	Distance from <i>Botnica</i> (km)	Speed (kn)	Forward	Aft	
1	<i>Botnica</i>	Icebreaker	–	8.1	1.8	5.6	17.8
2	<i>Botnica</i>	Icebreaker	–	8.6	2.4	8.8	21.7
	<i>Gisela Oldendorff</i>	Ore carrier	2.6	8.1			
3	<i>Botnica</i>	Icebreaker	–	8.3	1.8	7.8	21.7
	<i>NS Yakutia</i>	Ore carrier	2.8	8.5			
	<i>Golden Brilliant</i>	Ore carrier	9.9	8.9			
4	<i>Botnica</i>	Icebreaker	–	8.5	4.0	11.7	40.8
	<i>Golden Ruby</i>	Ore carrier	6.5	8.7			
	<i>NS Yakutia</i>	Ore carrier	6.6	8.6			
	<i>Rio Tamara</i>	Ore carrier	2.8	8.9			

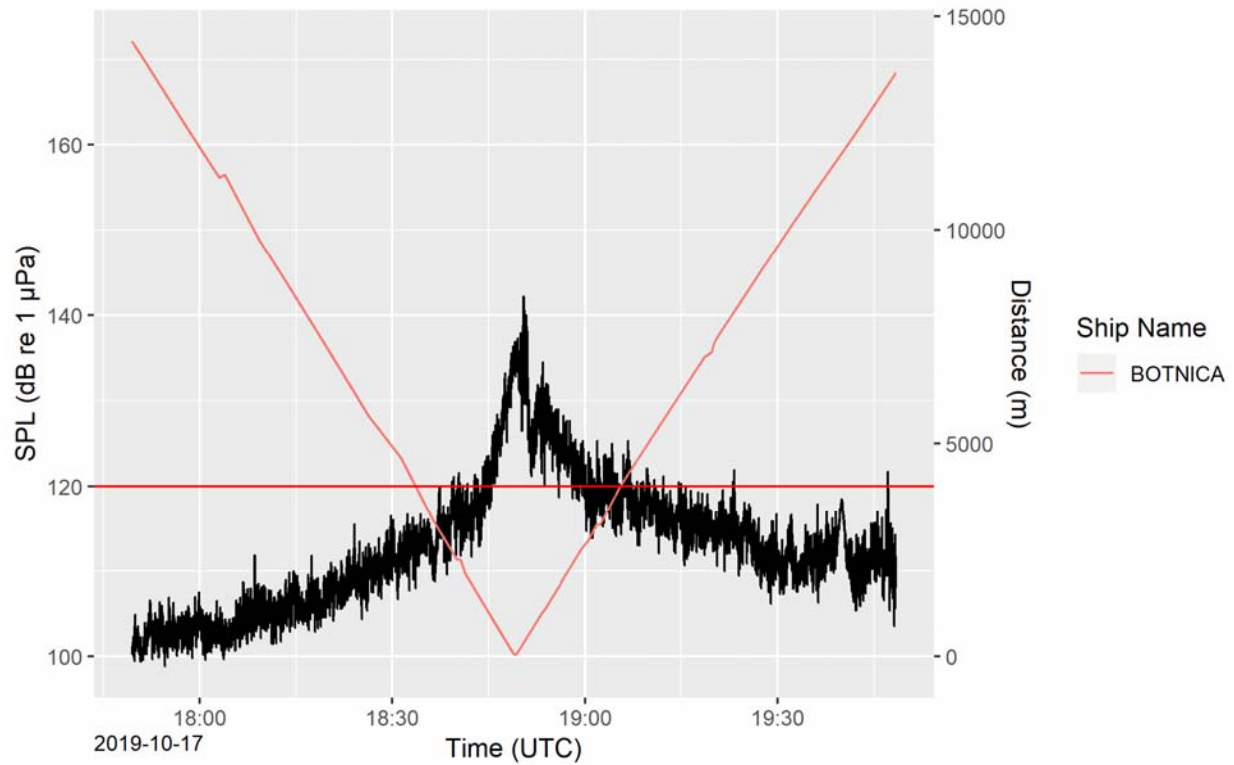


Figure 2 SPL (left axis) as a function of time recorded while MSV *Botnica* transited through Eclipse Sound on 17 Oct 2019 coming to Milne Port, with no vessels in escort and 0/10 ice concentration. The distances (right axis) between the vessels and the recorder are plotted in colour. A solid red horizontal line marks 120 dB re 1 µPa.

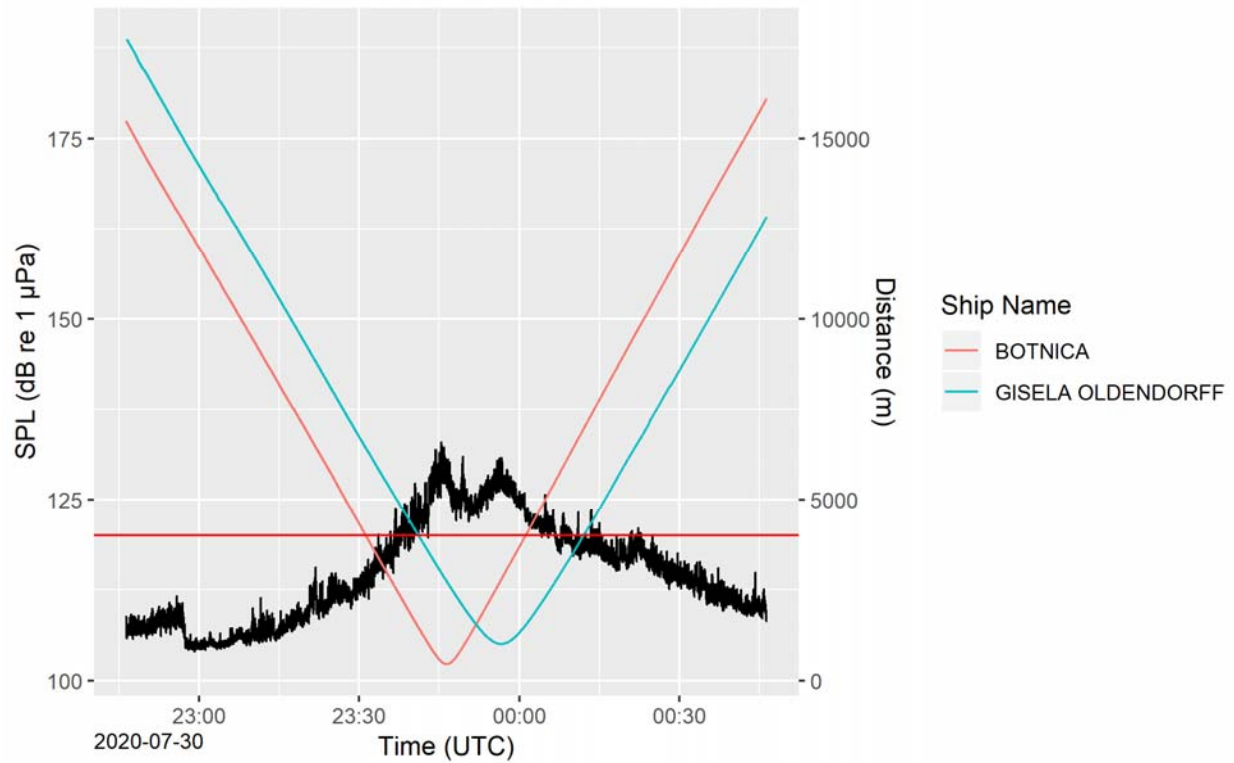


Figure 3 SPL (left axis) as a function of time recorded while MSV *Botnica* transited through Eclipse Sound on 30 Jul 2020 leaving Milne Port, with 1 vessel in escort and 0/10 ice concentration. The distances (right axis) between the vessels and the recorder are plotted in colour. A solid red horizontal line marks 120 dB re 1 μ Pa.

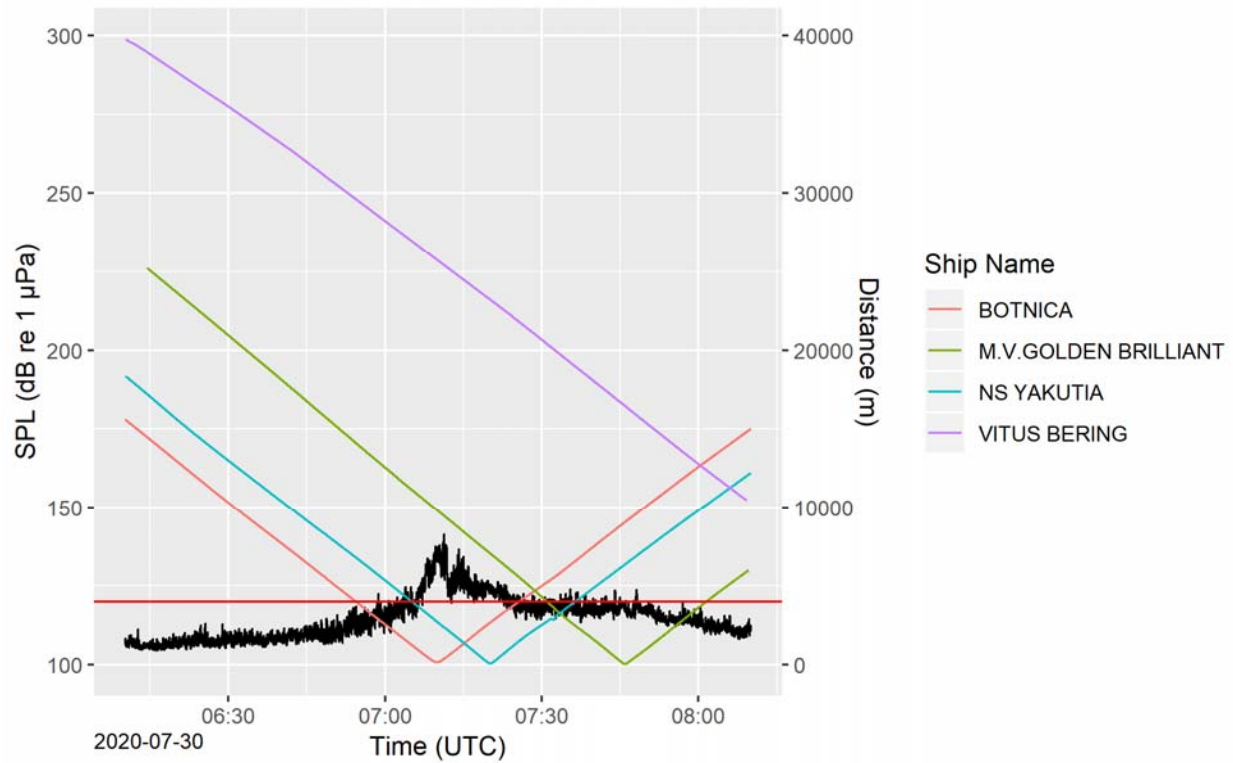


Figure 4 SPL (left axis) as a function of time recorded while MSV *Botnica* transited through Eclipse Sound on 30 Jul 2020 coming to Milne Port, with 2 vessels in escort and 0/10 ice concentration. The distances (right axis) between the vessels and the recorder are plotted in colour. A solid red horizontal line marks 120 dB re 1 μ Pa.

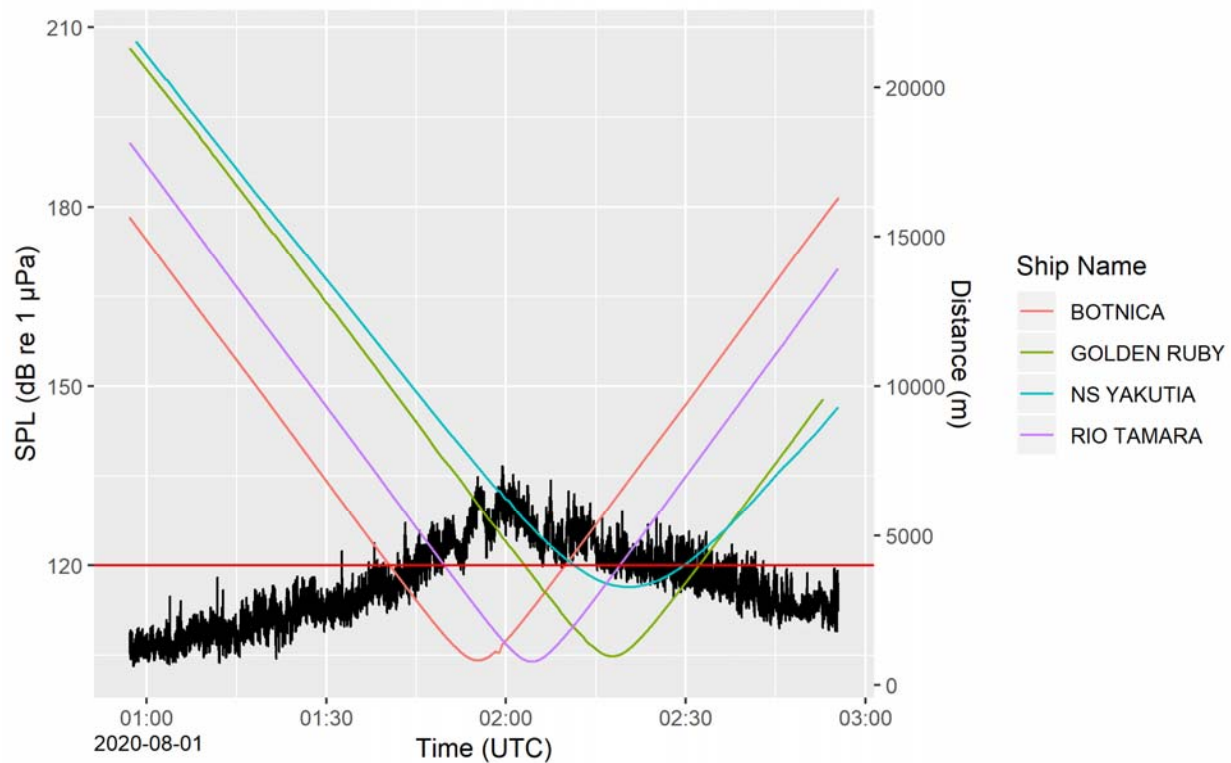


Figure 5 SPL (left axis) as a function of time recorded while MSV *Botnica* transited through Eclipse Sound on 1 Aug 2020 coming to Milne Port, with 3 vessels in escort and 0/10 ice concentration. The distances (right axis) between the vessels and the recorder are plotted in colour. A solid red horizontal line marks 120 dB re 1 μ Pa.

References

- Austin, M and T. Dofher. 2020. *Technical Memorandum - Vessel Source Level Estimates for the 2018 and 2019 Shipping Seasons: Baffinland Mary River Project*. Document 02235, Version 2.0. Technical Memorandum by JASCO Applied Sciences for Golder Associates Ltd.
- Austin, M.E. and T. Dofher. 2021. *Underwater Acoustic Monitoring: Baffinland Iron Mines Shoulder Season Shipping 2019–2020*. Document 02330, Version 1.0. Technical report by JASCO Applied Sciences for Golder Associates, Ltd.

Appendix C

Community Support Letters



Hamlet of Sanirajak

P.O. Box 198

Sanirajak, NU Ph: 867-928-8829

X0A 0K0 Fax: 867-928-8871

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X0A 0K0 ᐱᐱᐱᐱᐱᐱ: 867-928-8871

May 26, 2022

Nunavut Impact Review Board

P.O. Box 1360

Cambridge Bay, NU

X0B 0C0

Attention: Chairperson, Kaviq Kaluraq

Via Email: info@NIRB.ca

NIRB File No.: 08MN053

Letter of Support for Baffinland Iron Ore Mines Request to Continue Shipping 6.0 Million mtpa

As you are no doubt aware, the Hamlet of Sanirajak supports Baffinland Iron Mines Corporation's Phase 2 application. After the issuance of the N.I.R.B. final report and ministerial recommendations on this file, the Hamlet contacted the company to find out what next steps might be taken. They advised that they had requested support from the federal ministers for a direction to the Board to modify Project Certificate No. 005 to authorize the transportation and shipment of 6 million tonnes of iron ore per annum (mtpa), and that term and condition 179 (a) and (b) of the Project Certificate be updated to reflect such an authorization. In addition, they provided a copy of the Honourable Minister Daniel Vandal, P.C., M.P.'s response dated May 20, 2022 in which he advised that, "Baffinland can request from the Board a reconsideration of the Project Certificate pursuant to section 112 of the Nunavut Planning and Project Assessment Act".

At the Council meeting last night, Council passed a motion in support of Baffinland's application, which reads:

"Whereas Baffinland Iron Mines Corporation (B.I.M.) has indicated that they are applying to the Nunavut Impact Review Board (N.I.R.B.) to have permission to ship 6.0 million metric tons per annum (mtpa) through Milne Inlet continued for the 2022 shipping season; and Whereas BIM is requesting that community organizations from impacted communities consider providing them with a letter of support for their application to N.I.R.B.; Therefore, I move that the Council authorize the Mayor to sign a letter of support for B.I.M.'s application to N.I.R.B."

In discussions with Baffinland, they indicated that they require a positive decision on their application to be able to continue to operate through to the end of June and beyond. As such, I would like to encourage the N.I.R.B. Board to review this matter on an urgent basis.

As a percentage of the local population, Sanirajak has more employees per capita working for Baffinland than any of the other communities. As a small community that does not have many other opportunities for employment, Sanirajak is highly reliant on the mine's continuing ability to operate. If the mine must go into care and maintenance because of not receiving a timely, positive response to their application, it will have a devastating impact of this community.

Further, the company must raise huge amounts of capital necessary to finance the railway from the mine to the Steensby Inlet Port. To make that feasible, the company's continued ability to function as an operating mine is essential. If the mine is forced to go into care and maintenance due to not being approved to mine and ship 6.0 million mtpa, its ability to ever finance the infrastructure that is required to build the railway across the island and the port at Steensby Inlet would be in severe jeopardy.

It is worth noting that the most notable concern from the community of Pond Inlet seems to be the potential loss of narwhal that might in part be due to the mine's shipping activities. I would assume that you are aware that there is an ever-increasing prevalence of killer whales in the arctic resulting from increased open water caused by climate change. These apex predators are known to chase a pod of narwhal for hundreds of miles, chase them into an inlet from which they cannot escape and then kill the entire pod. It would be truly unfortunate if the mine is forced to close over such concerns and then subsequently there are no narwhal in Pond Inlet anyway because they have fled the area to seek ice cover from killer whales.

For these and many more reasons, I urge the N.I.R.B. to quickly approve the mine's ability to continue to produce and ship 6.0 million mtpa through Milne Inlet for 2022. Perhaps a fast decision approving their request for this year could be made without a protracted review process and if a detailed review on the requested activity level is desirable, perhaps that could be applied to years after 2022 only.

Thank you in advance for your consideration of this mater.

Yours truly,



Mayor Jaypetee Audlakiak

CC: Brian Penney, Chief Executive Officer, BIMC
Udlu Hanson, Vice-President, Community & Strategic Development

Appendix D

Other Support Letters

1121 Mivvik Street, P.O. Box 697, Iqaluit, Nunavut X0A 0H0 • T: (867) 979-3799 • F: (867) 979-2535 • E: nssi.iqaluit@ArcticCo-op.com

Ste-Catherine, May 31, 2022

The Honourable Dan Vandal
House of Commons
Ottawa, Ontario K1A 0A6
Canada

Subject: Support for Baffinland's Request for Emergency Order

Mr. Vandal

We hereby wish to confirm our support for Baffinland's Request for an Emergency Order to allow the company to truck and ship 6.0 million tonnes of iron ore during the 2022 calendar year, in compliance with all environmental permit limits, as the company has done since 2018.

We understand that Baffinland has committed to working with the Federal government to avoid layoffs and protect communities as clearly stated in their request, *"Baffinland is committed to working with the Federal government and all stakeholder groups to do everything possible to avoid the necessity of layoffs and to protect our employees and their communities."*

In our opinion, this request should be supported in an interim measure that will allow Baffinland and all its employees and contractors to continue working through the end of 2022 based on Baffinland continuing to actively work with the Federal Government, regulators, and Inuit Organizations to identify a longer-term solution.

We sincerely hope that all efforts will lead to a positive result.

Kindly accept our best regards.

NUNAVUT SEALINK AND SUPPLY INC.



Daniel Desgagnés,
Managing Director

1121 Mivvik Street, P.O. Box 697, Iqaluit, Nunavut X0A 0H0 • T: (867) 979-3799 • F: (867) 979-2535 • E: nssi.iqaluit@ArcticCo-op.com

About NSSI

Nunavut Sealink and Supply Inc. (NSSI), is an Inuit Majority Owned Nunavut-based firm having its Head Office in Iqaluit. NSSI is a partnership between Arctic Co-operatives Limited (Arctic Co-ops), Desgagnés Transarctik Inc. (DTI), Qikiqtaaluk Corporation (QC), Sakku Investment Corporation (Sakku) and Kitikmeot Corporation (KC). NSSI offers dry cargo and bulk fuel sealift services throughout Nunavut and is Baffinland's dedicated sealift carrier.

For more about NSSI, please visit our website: <https://www.arcticsealift.com>

Baffinland Submits Request for Emergency Order to Federal Government

Iqaluit, NU [May 26, 2022] – Today, Baffinland submitted a request for an emergency order from the Minister of Northern Affairs, the Honourable Dan Vandal that would allow the company to truck and ship 6.0 million tonnes for the 2022 calendar year, in compliance with all environmental permit limits, as the company has done since 2018. This request was made in order to protect our employees and the economy of North Baffin. Baffinland currently represents 23% of Nunavut's economy

Should the order not be granted, once production reaches 4.2 million tonnes, the Company will be required to suspend operations for the balance of 2022. This will result in the layoff of over 1,300 Baffinland employees and impact more than 400 contract employees, many of whom work for Inuit businesses.

“Baffinland is committed to working with the Federal government and all stakeholder groups to do everything possible to avoid the necessity of layoffs and to protect our employees and their communities.”

Given the uncertainties of the permitting process and the emergency order application, Baffinland is preparing to file a notice with the Nunavut Labour Standards Compliance Office (“LSO”) of termination of staff at its Mary River operations and Nunavut offices. Should this step be necessary, Baffinland will notify the more than 1,300 employees, including 209 Inuit employees, 16 weeks after its notice to the LSO.

In the letter submitted to the Minister, the Company stated: “This request is based on the significant negative impact on mental health that will occur both directly to workers and their families and communities that receive termination notices if they are sent next week, as well as on our remaining workers that experience concern for their colleagues, an increase in their employment burden and ongoing employment insecurity as the overall workforce is downsized. Additionally, there is a recognized positive correlation between wage employment and food security.”

The request for an emergency order is an interim measure that will allow Baffinland and all of its employees and contractors to continue working through the end of 2022. Baffinland continues to actively work with the Federal Government, regulators and Inuit Organizations to identify a longer term solution.

“We request that the Minister use this legal authority granted under NuPPAA, which would enable Baffinland to maintain the status quo and avoid the significant negative impacts on the health of the workers at Mary River that will be directly and indirectly impacted by the layoffs and of Nunavut communities more broadly,” stated in the letter.

We are taking the actions we are taking today so that the company can continue to operate into the future.

“Baffinland is requesting that the Minister choose to exercise his power to extend the approval until December 31, 2022. This is a targeted exercise of this power, the use of which is justified in the circumstances to prevent harm,” stated in the letter.

For more information:

Peter Akman | Head of Stakeholder Relations & Communications

C: +1 289 834 0744

E: peter.akman@Baffinland.com

2275 Upper Middle Road East, Suite 300, Oakville, Ontario, Canada, L6H 0C3

www.baffinland.com

About Baffinland Iron Mines Corporation

Baffinland Iron Mines Corporation is jointly owned by The Energy and Minerals Group and ArcelorMittal, and operates a high-grade iron ore mine located on Baffin Island, Nunavut. The Mary River Mine produces the highest grade of direct shipping iron ore in the world. Baffinland is committed to operating in an environmentally and socially responsible manner that benefits all stakeholders. Learn more at baffinland.com and follow us on [Twitter](#), [Facebook](#) and [LinkedIn](#)



June 12, 2022

Honourable Dan Vandal
Minister for Northern Affairs
Room 434, Confederation Building
229 Wellington Street
Ottawa, Ontario K1A 0A6
By email to: dan.vandal@parl.gc.ca

Dear Minister Vandal,

We are writing to express our support for Baffinland Iron Mine's application to maintain annual ore production and shipping from the Mary River mine at 6 million tonnes.

This mine produces some of the highest-grade iron ore in the world and requires no concentrating, no processing and produces no tailings. This single mining operation currently contributes ~25% of Nunavut's GDP. In 2019, the year where Baffinland came closest to hitting its 6Mtpa transportation limit, Baffinland's Inuit employees earned over \$20M, Inuit firms were awarded contracts worth \$288M, Inuit labour force participated in more than 44,000 hrs of training, Baffinland paid the GN \$15.6M in payroll and gas taxes and Baffinland paid out \$12M in royalty and program payments. This high grade iron ore deposit has the potential to continue to provide substantial benefits to Nunavummiut and Canada for many decades to come. It is for this reason, that our Chamber is gravely concerned that the continued operation of this mine is at risk.

Mr. Minister, the fate of the Mary River Project, as of any mine in Canada, is bound to the price of the commodity being mined. Over the past 10 years, the price of iron ore has varied wildly. In 2012, the price of iron ore was approximately US\$145 per ton. By 2016, the price of iron ore declined dramatically to less than US\$50/t. From 2016 to 2021, the iron ore price see-sawed and then more than rebounded to over US\$200/t. Today the price sits at around US\$145/t, however, long term forecasts continue to see iron ore settling under US\$100/t, a price that Baffinland has publically explained on multiple occasions is on the wrong side of their break-even point to support a trucking operation. Companies like Baffinland are challenged to design developments and match production to the price at hand, and reasonably considered future demand. In the case of Baffinland their product is in fact a high value, ethical Canadian export necessary for society's shift to the Green Economy.

For the Nunavut regulatory regime to be workable and effective, it must allow developers the flexibility to adapt to variations in commodity prices. The 2018 NIRB Project Certificate Amendment approving a production level of 6Mtpa was a positive step and Baffinland's subsequent request to maintain this production level if Phase II was not approved was intended to maintain the viability of the mine. The current situation where Baffinland must go before the NIRB yet again to seek approval to maintain the 6Mtpa production level represents a grave risk to the future of the project.

Given that the NIRB has not identified any significant adverse effects of the Mary River Mine operating at 6Mtpa in its annual reports, it is unclear why Baffinland should be subject to further substantive NIRB review to maintain existing production levels. This situation is particularly hard to understand because

without maintenance of current production levels precious Nunavut jobs and contracts and benefits are put in jeopardy.

Mr. Minister, development and operation of mining projects in the north requires that large capital investments that are mobile on a global basis are attracted to a region which has some of the highest development and operating costs in the world. In order to do this successfully, it is critical that Nunavut and other northern and remote jurisdictions in Canada provide certainty of process. It is therefore important to note that the 2021 Fraser Institute Survey of Mining Companies indicates Nunavut's attractiveness for investment continues to slip due to concerns with process transparency, timelines and approval risks. We are concerned that the protracted NIRB rejection of the Mary River Phase II proposal will send a further chill through the investment and mining community at a time when there is so much opportunity to develop a vibrant and sustainable mining sector in the territory.

The Nunavut Agreement coupled with the significant mineral wealth and precedent setting Inuit co-management regime of resources has tremendous potential to support prosperity and growth for Nunavummiut. These attributes lay the groundwork for responsible mineral development that can help to support the future of Nunavut's communities, while also supporting energy transition in Canada and beyond.

Based on these factors, and in support of responsible resource development in Nunavut, we urge you to do what you can to support a timely review process that permits Baffinland to maintain its existing production levels. We strongly believe that keeping mining at Mary River strong, healthy, beneficial and environmentally responsible is in Canada's and Nunavut's best interests.

If there is anything we can do to help, please do not hesitate to reach out to us.

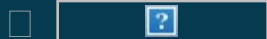
Yours truly,

NWT & NUNAVUT CHAMBER OF MINES



Tom Hoefer
Executive Director

c.c.: Honourable P.J. Akeeagok, Premier of Nunavut
Olayuk Akesuk, President Qikiqtani Inuit Association
Aluki Kotierk, President of Nunavut Tunngavik Inc.
Honourable Dennis Patterson, Senator of Nunavut
Brian Penney, President and CEO, Baffinland Iron Mines
Paula Isaak, Associate Deputy Minister, Crown-Indigenous Relations & Northern Affairs Canada



Send a Release

FR



Hundreds of skilled unionized jobs at risk without approval of an increase in production at Baffinland's Mary River Mine

NEWS PROVIDED BY

International Union Of Operating Engineers - Local 793

May 27, 2022, 20:20 ET

SHARE THIS ARTICLE



OAKVILLE, ON, May 27, 2022 /CNW/ - The International Union of Operating Engineers, Local 793 ("Local 793") and International Union of Operating Engineers ("IUOE") urge the federal government to approve Baffinland's request for an emergency order to allow the company to increase production at the Mary River Mine through to the end of 2022. This step is needed to safeguard the jobs of hundreds of skilled unionized workers, many of whom reside in Nunavut.

Our union represents workers in a wide variety of occupational categories in the construction, industrial and mining sectors, which in this case at the Mary River Mine includes over 1,000 heavy machinery operators, heavy haul truck drivers, millwrights, electricians, welders, mechanics, crane operators, labourers, warehouse technicians and many other occupations. In total, Baffinland employs over 2,500 employees and contractor workers.

Since its inception, the Mary River Mine has provided good paying jobs for highly trained and skilled Canadian workers from across the country, including hundreds of workers from Nunavut who continue to be prioritized for training opportunities. The mine provides royalties and community benefits that directly benefit the local Inuit

communities. We understand that the mine represents nearly 23% of the GDP for Nunavut and is a vital component for Nunavut's future economic growth.

Baffinland's Inuit workers residing in Nunavut were sent home during most of the pandemic to ensure their communities' safety. It has only been in the last few months that all Inuit workers living in Nunavut have returned to the mine to continue their apprenticeships and skills upgrading. Having any reduction in the workforce would drastically undermine this progress. For the rest of Local 793 members working at the mine, losing their employment when the cost of living has skyrocketed, and good paying jobs are scarce in many parts of Canada would be devastating. "Recovery from the pandemic requires maintaining and more importantly growing quality jobs, not losing them", said Mike Gallagher, Local 793 Business Manager.

"If Baffinland is not granted an emergency order to increase production to 6 million tonnes we are very concerned there will be significant layoffs for our members at the mine," said Gallagher. "This would have a devastating impact on the mine's workers, including many Inuit, and their ability to provide for themselves, their families, and their communities."

The request for an emergency order is an interim measure that will allow Local 793 members to continue working through to the end of 2022. "We know that the company cannot compete on a global scale if it is unable to grow and increase its production at the mine," said Lionel Railton, IUOE Canadian Regional Director. "We encourage the federal government to work with Baffinland to identify and develop a long-term solution so to ensure the company is able to maintain employment for Local 793 members and all other workers into the future."

For the sake of our members, including our Inuit workers, and Nunavut's economic future, we are urging the federal government to do the right thing, and approve Baffinland's requested emergency order to increase production to 6 million tonnes so that our members can have the certainty of their continued and future employment at the mine.

SOURCE International Union Of Operating Engineers - Local 793

For further information: Local 793 Business Manager, Mike Gallagher, 905-469-9299, ext. 2202, IUOE, Director - Canadian Region, Lionel Railton, 604-308-1678

Organization Profile

International Union Of Operating Engineers - Local 793

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May 30, 2022

Delivered via Email: dan.vandal@parl.gc.ca

The Honourable Dan Vandal
Minister of Northern Affairs
House of Commons
Ottawa, Ontario
K1A 0A6

Dear Minister Vandal:

RE: Letter of Support – Baffinland Iron Mine Corporation
Mary River Project – 6 Million Tonnes per Annum Permit Amendment

I am writing to you today on behalf of Nuna East Ltd., to express our support for Baffinland Iron Mine Corporation's request to amend their permit to enable an increase in production to 6 million tonnes per annum at the Mary River Project. Nuna East is a partnership between the 3 Arctic Co-operatives of Sanirajat (Hall Beach), Pond Inlet, and Igloolik; and Nuna Logistics Limited.

As Chairperson of the 3 co-operatives comprising Nuna East (collectively, 1641170 Alberta Ltd.), I recognize the critical importance of the Mary River Project and what it means for Inuit employment for current and future generations. In addition to the tremendous impact on employment, if the Project is not successful, the members of the co-operatives will lose out on dividend payments generated through the contracts Nuna East executes.

Our members lose on both fronts – loss of income from direct employment and loss of revenue sharing opportunities through our ownership position in Nuna East. I am therefore respectfully requesting your full support in approving the permit amendment requested by Baffinland Iron Mines.

Thank you for your consideration in this critically important request.

Sincerely,



Anne Curley
Director, Nuna East Ltd.
Chairperson of the Board, 1641170 Alberta Ltd.

cc: Udlu Hanson, Vice President, Community & Strategic Development, Baffinland Iron Mines Corporation
(udlu.hanson@baffinland.com)

May 27, 2022

Delivered via Email: dan.vandal@parl.gc.ca

The Honourable Dan Vandal
Minister of Northern Affairs
House of Commons
Ottawa, Ontario
K1A 0A6

Dear Minister Vandal:

RE: Letter of Support – Baffinland Iron Mine Corporation
Mary River Project – 6 Million Tonnes per Annum Permit Amendment

I am writing to you on behalf of Nuna East Ltd. to express our support for Baffinland Iron Mines Corporation's (BIM) request to amend their permit, which expired in December 2021, to allow the increase in their production to 6 million tonnes per annum.

Nuna East Ltd. (NEL), a member of the Nuna Group of Companies (Nuna), is a majority Inuit-owned construction company that has been extensively engaged at the Mary River Project since 2007. NEL's Inuit ownership comprises Kitikmeot Corporation and the Arctic Cooperatives of Hall Beach, Igloodik, and Pond Inlet.

In addition to our long history of training and employing Inuit, our unique ownership structure provides direct benefits to the community members that belong to the cooperatives indicated through dividends paid on revenue generated from contracts awarded to NEL.

As the preferred contractor awarded the Mary River Phase 2 expansion work upon regulatory approval, the recent NIRB recommendation to reject the Phase 2 expansion application was a devastating blow to the Project and to our company directly. This decision will cause a loss in projected revenue of hundreds of millions of dollars over the next several years and eliminates the opportunity to employ Inuit as anticipated through the multiple job opportunities that Phase 2 would require – peak employment indicated as follows:

Year 1	250
Year 2	600
Year 3	500

In addition to the loss in direct employment, at least 25% of which would be Inuit, the recommendation also significantly reduces the opportunity for Co-op members to financially benefit through their dividend payments.

Nuna has been engaged on every major mining project across the Northwest Territories and Nunavut for the past 29 years and on many occasions have provided the flexibility required in order to support our clients as they scale their projects up or down. We recognize the challenges that operating in the North represents due to high fixed overhead costs and the realities of operating in a location that solely relies on sea transport during a narrow annual operating window.

In lieu of a positive NIRB recommendation, we believe that BIM's request to increase to 6 million tonnes per annum reflects the realities of operating in such an environment and considers the economies of scale required to maintain a minimum viable operation and continued opportunities for meaningful employment in the Region. On behalf of all the Inuit that work for NEL and for those that will not be provided the opportunity due to the NIRB recommendation, we respectfully request your full support in approving BIM's request for a permit amendment.

If you have any questions regarding our support for this amendment or more specifically to discuss the negative impact of the recent NIRB recommendation on Phase 2, please do not hesitate to contact me directly at 780 886 4431 or by email at miless@nunalogistics.com.

Sincerely,

NUNA EAST LTD.

per:

A handwritten signature in blue ink, appearing to read 'Miles Safranovich', with a stylized flourish at the end.

Miles Safranovich, P.Eng.
President

cc: Udlu Hanson, Vice President, Community & Strategic Development, Baffinland Iron Mines Corporation
(udlu.hanson@baffinland.com)



SUMMIT AIR LTD.
27 YELLOWKNIFE AIRPORT
100 DICKINS STREET
YELLOWKNIFE, NT
CANADA X1A 3T2

P 867 873 4464
E info@summitair.net
www.summitair.net

May 30, 2022

House of Commons
Ottawa, Ontario,
Canada
K1A 0A6

Attention: The Honourable Dan Vandal

Re: Letter of Support

Good afternoon Minister Vandal,

My name is Matthew McElligott and I serve as VP, Commercial for the Summit Aviation Group – comprised of sister companies Summit Air and Summit Helicopters. I'm writing you today to express the Summit Aviation Group's support for Baffinland's application to continue to truck and ship 6 million tonnes of iron ore for the 2022 calendar year.

Summit Air is responsible for the movement of freight and groceries between Yellowknife and the Baffinland Iron Ore Mine at Mary River. We are also responsible for the provision of a site-based aircraft that facilitates the movement of Baffinland's Nunavummiut workforce between site and the north Baffin communities of Clyde River, Pond Inlet, Arctic Bay, Hall Beach and Igloolik. The site-based Dornier is also relied upon for emergency patient transfers and the movement of vaccines and test results between Mary River and Igloolik.

We are deeply concerned at the prospect of Baffinland being forced to lay off more than 1,300 employees, including 209 Inuit employees. Summit also employs over 200 northerners, most based in Yellowknife. Such a scale back related to our support of the Baffinland project would result in layoffs of our own workforce. As Summit is also contracted for the delivery of groceries, general merchandise and emergency supplies into most communities in the NWT



and Nunavut this would also reduce our ability to perform that service and would drive up costs substantially for all northerners.

We ask that your office take whatever actions are within your power to prevent this outcome as it will have significant mental health and economic consequences to those living in the north.

Sincerely,

Matthew McElligott
Vice President, Commercial
Summit Aviation Group

The Honourable Dan Vandal
House of Commons
Ottawa, Ontario,
Canada
K1A 0A6

May 30, 2022

Re: Baffinland Iron Mines- Mary River Mine

Dear Honourable Minister,

I am writing this letter on behalf of Dyno Nobel Canada and its over 20 direct employees working at the Mary River Mine. Dyno Nobel has been providing BIM the explosives and blasting services since the Mine started in 2014. Dyno Nobel employees' people from across Canada including from the local communities in Nunavut. These employees depend on the Mary River Mine for the economic benefit it brings them and their families. Should BIM need to close or suspend the operations at Mary River we would have no choice but to issue layoffs to our direct employees as well as several indirect employees that support our operations. The loss of these high paying jobs would be devastating to our people, their families, and the communities in which they live.

Since 2018 BIM has been producing and trucking 6M tonnes of ore to Milne. Dyno Nobel fully supports BIM in maintaining this production level through 2022 and beyond.

Sincerely



Jim Kasemets
General Manager-NL and Baffin
Dyno Nobel Canada



May 30, 2022

The Honourable Dan Vandal
House of Commons
Ottawa, Ontario,
Canada
K1A 0A6

Re: Letter of Support for our client Baffinland Iron Mines Corporation

Honourable Minister Dan Vandal,

Atelihai.

Minister Dan Vandal, we are writing to you today to express our support to our client Baffinland Iron Mines Corporation in their objective to continue trucking & shipping 6 million tonnes of iron ore.

QAJAQ Northern Builders Inc was born in 2020. We now have an established office in Iqaluit and we have secured good work with Baffinland Iron Mines Corporation. With strong encouragement, and empowerment from the senior management at Baffinland, we are a proud supplier of personnel for the mine's Crusher Rebuild Project, Freshet and Shiploader projects and we recently began supporting construction activities at the site. We are hoping to establish QAJAQ as an integral Nunavut-based staffing and logistics provider.

Needless to say, we are all very concerned to hear about the request for Emergency Order submitted by the client. Our employees, land beneficiaries and our sister companies are extremely worried at the prospect of massive lay offs at the mine.

QAJAQ NORTHERN BUILDERS INC.

Building 1088, Noble House, Block E, Iqaluit, Nunavut, X0A 0H0
867-979-4550
www.qajaqnorthern.com



We are emailing this urgent letter to you in the hopes that our client, Baffinland Iron Mines Corporation, will be allowed to truck and ship 6 million tonnes and can continue contributing to the economic and wholistic well being of the Nunavut communities.

We are grateful for Baffinland's encouragement to these Inuit-owned-owned businesses like ours, who were created and will continue to see investment into the communities as they are grow.

With hope and prayers, we remain.

Yours Truly,

Jena Merkosak
Vice President
jena@qajaqnorthern.com

Cc Udlu Hanson

QAJAQ NORTHERN BUILDERS INC.

Building 1088, Noble House, Block E, Iqaluit, Nunavut, X0A 0H0
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ECLIPSE
CAMP SOLUTIONS

May 37, 2022

Honourable Minister Dan Vandal
Federal Minister of Northern Affairs
dan.vandal@parl.gc.ca

Dear Minister,

Respectfully, I am writing to you today on behalf of **Eclipse Camp Solutions** in support of the Baffinland Iron Mine (BIM) request to be allowed to transport 6.0 million tonnes of iron ore in 2022, as they have done since 2018.

Eclipse Camp Solutions, (ECS), is 60% owned by four of the North Baffin Community Coops, (Pond Inlet, Arctic Bay, Igloolik and Sanirajak), and as such, the economic benefits of our ECS partnership radiate out to virtually every family in the four Hamlets.

Approval of the 6.0 million tonne transport permit will result in continued and sustained operations of the 386-person Milne Port camp. Our services include supply of camps and ancillary support equipment and the management and execution of hospitality services, (food services, housekeeping and janitorial), as well as maintenance and utilities, (potable water treatment, wastewater treatment and solid waste management). Our operations employ over 60 people of which more than 60% are Nunavummiut and thus, providing careers for several generations of Qikiqtani Inuit and injecting over \$1,500,000 yearly into this economy in wages and enhanced patronage dividends.

ECS provides meaningful employment, career advancement and wealth creation for Nunavummiut but we need a customer with a project in order to exist. We believe in Baffinland's commitment to the stewardship of our environment; "employing a balance of scientific and Inuit knowledge known as Inuit Qaujimajatuqangit (IQ)" and we believe in Baffinland's social commitment to the North Baffin communities; "collaborating with Inuit to deliver long-term benefits".

On behalf of Inuit who work for Eclipse Camp Solutions and our Directors, ECS would like to respectfully encourage you to support approval of the 6.0 tonne transport permit through to the end of 2022 for the long-term security of our people and our communities.

Sincerely,

Anne Curley
Chairman, Eclipse Camp Solutions Inc.

cc. Udlu Hanson, Fred Hunt, Andrew Desilets, Jennifer Keith, Warren Murray and Pat Hammerschmidt

May 30, 2022

Attention: The Honourable Dan Vandal

House of Commons
Ottawa, Ontario,
Canada
K1A 0A6

Dear Minister Vandal,

Fountain Tire has been informed that Baffinland submitted a request for an emergency order from yourself that would allow Baffinland to truck and ship 6.0 million tonnes for the 2022 calendar year, in compliance with all environmental permit limits, as Baffinland has done since 2018. Fountain Tire would be concerned if the order was not granted.

Fountain Tire has been the sole provider of tires and service at Baffinland for many years and we currently employ **26 full time associates** at Baffinland. Secondly, Fountain Tire has over **\$6M of consigned inventory** on site today and this inventory was sent to Baffinland based on a forecast of the site being fully operational (i.e. 6.0 million tonnes). Lastly, we have more products being delivered daily from all parts of the world to arrive in time for the upcoming sea lift to go to Baffinland. Many of these resources (people, and product) will not be fully required if Baffinland does not receive the emergency order. This will be highly disruptive to our employees, their families, and our business.

Minister Vandal, please grant the request for an emergency order to protect the numerous employees and businesses serving Baffinland.

Thanks for your consideration,



Nelson Tonn
Vice President Sales and Mine Service
D 780.410.2253 | M 780.464.3700 | C 780.916.5232

Cc: Udlu Hanson (Vice President, Community and Strategic Development Baffinland)