

Table 1. Dust Management Project Certificate Terms and Conditions

Source Document	Subject Area	TC #	Summary of Term and Condition Requirement
Project Certificate 005, Terms and Conditions	Air Quality	10	<p>The Proponent shall update its Dust Management and Monitoring Plan to address and/or include the following additional items:</p> <ul style="list-style-type: none">· Outline the specific plans for monitoring dust along the first few kilometres of the rail corridor leaving the Mary River mine site.· Identify the specific adaptive management measures to be considered should monitoring indicate that dust deposition from trains transporting along the rail route is greater than initially predicted.· Outline specific plans for monitoring dustfall at intervals along and in the vicinity of the Milne Inlet Tote Road to determine the amount and extent of dustfall.· Identify the specific adaptive management measures to be considered if monitoring indicates that dust deposition from traffic on the Milne Inlet Tote Road is greater than initially predicted. <p>The Proponent shall implement its Dust Management and Monitoring Plan, report all monitoring data to the NIRB annually, and take all adaptive management measures described in its Dust Management and Monitoring Plan if monitoring indicates that dust in the ambient air or dust deposition from the increased traffic associated with the increased volume of ore being shipped is greater than initially predicted.</p>
Project Certificate 005, Terms and Conditions	Groundwater and Surface Waters	21	<p>The Proponent shall ensure that the scope of the Aquatic Effects Monitoring Plan (AEMP) includes, at a minimum:</p> <p>a) Monitoring of non-point sources of discharge, selection of appropriate reference sites, measures to ensure the collection of adequate baseline data and the mechanisms proposed to monitor and treat runoff, and sample sediments</p> <p>b) Measures for dustfall monitoring designed as follows:</p> <p>i. To establish a pre-trucking baseline and collect data during Project operation for comparison</p> <p>ii. To facilitate comparison with existing guidelines and potentially with thresholds to be established using studies of Arctic char egg survival and/or other studies recommended by the Terrestrial Environment Working Group (TEWG)</p> <p>iii. To assess the seasonal deposition (rates, quantities) and chemical composition of dust entering aquatic systems along representative distance transects at right angles to the Tote Road and radiating outward from Milne Port and the Mine Site.</p>
Project Certificate 005, Terms and Conditions	Terrestrial Wildlife and Habitat - Caribou	54	<p>The Proponent shall provide an updated Terrestrial Environmental Management and Monitoring Plan which shall include, but not be limited to the following:</p> <p>Details of the methods and rationale for conducting monitoring prior to the commencement of construction;</p> <p>Monitoring for caribou presence and behavior during railway and Tote Road construction;</p> <p>Description and justification of statistical design or other means of determining effect and proposed analyses to support the conclusions drawn from monitoring impacts of the mine and related infrastructure on wildlife;</p> <p>Details of monitoring and mitigation activities, which should be established in collaboration with the Terrestrial Environment Working Group and are expected to include: Dust fall (fugitive and Total Suspended Particulates), that addresses methods to reduce risk to caribou forage from dust fall;</p> <p>Snow track surveys during construction and the use of video-surveillance to improve the predictability of caribou exposure to the railway and Tote Road. Using the result of this</p>
Project Certificate 005, Terms and Conditions	Terrestrial Wildlife and Habitat - Reporting	58	<p>Within its annual report to the NIRB, the Proponent shall incorporate a review section which includes:</p> <p>An examination for trends in the measured natural variability of Valued Ecosystem Components in the region relative to the baseline reporting;</p> <p>A detailed analysis of wildlife responses to operations with emphasis on calving and post-calving caribou behaviour and displacements (if any), and caribou responses to and crossing of the railway, the Milne Inlet Tote Road and associated access roads/trails;</p> <p>A description of the extent of dust fall based on measured levels of dust fall (fugitive and finer particles such as TSP) on lichens and blueberries, and ash content of caribou fecal pellets;</p> <p>A demonstration and description of how the monitoring results, including the railway, road traffic, air traffic and dustfall contribute to cumulative effects of the project;</p> <p>Any proposed changes to the monitoring survey methodologies, statistical approaches or proposed adaptive management stemming from the results of the monitoring program;</p> <p>Any updates to information regarding caribou migration trails. Maps of caribou migration trails, primarily obtained through any new collar and snow tracking data, shall be updated (at least annually) in consultation with the Qikiqtani Inuit Association and affected communities, and shall be circulated as new information becomes available.</p>
Project Certificate 005, Term and Condition	Verification of Project Monitoring and Mitigation for Potential Effects on Marine Mammals	187	<p>The Proponent is required to resource an annual audit of dust impacts and mitigations associated with project activities to be completed by a third party acceptable to the responsible parties. The dust audit shall evaluate effectiveness of current measures and if necessary, contain recommendations and options to reduce the spread and impacts of dust from project activities.</p>

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Project Certificate 005, Term and Condition	Verification of Project Monitoring and Mitigation for Potential Effects on Marine Mammals	188	The Proponent working with the TEWG is required to develop a program for identification of conditions with high risk for dust dispersal and plan for additional mitigation measures that shall be applied at the times the conditions are present. The program shall also include the use of dust suppressants.

Table 2. Dust Management Commitments

Source Document	Subject Area	Commitment #	Summary of Commitment
Project Certificate 005, Appendix B, Table 1	Dust	4	<p>Baffinland will continue to implement the following 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 dust produced from operations (Mine Site, Tote Road, Milne Port).</p> <ul style="list-style-type: none">• Specific actions that have been implemented, or could be further implemented by Baffinland for dust management at Milne Port have included:<ul style="list-style-type: none">o redesigning the ore pads to position fines in the centre and lump ore around the marginso proper positioning of the conveyors to minimize ore drop distances when stockpilingo installation of rubber bellows at the end of each stacker to minimize dispersion of dust generated during the fallo installation of chutes on the shiploader to prevent windblown dust during loading operationso installation of shrouding at the discharge end of the ore stackers to reduce the effect of windblown dust during stacking activitieso installation of downwind fencingo removal of dust impacted snow at strategic locations at the project.o application of a specialized crusting agent (DusTreat®) to the ore stockpile to reduce wind erosion and mobilization of fine iron ore particles.• Specific actions that have been implemented, or could be further implemented by Baffinland for dust management for vehicle traffic include:<ul style="list-style-type: none">regulating speed limitso utilizing water and dust suppressants during snow free months.o Application of new dust suppression products with increased durability and longevity for site infrastructure and approved for use in Nunavut on unpaved roads (DustBlok®)• Specific actions that have been implemented, or could be further implemented by Baffinland for dust management at the crushing facility include:<ul style="list-style-type: none">o Installation of shrouding and other engineered controls on conveyors and the ship loadero Moving and enclosing secondary crushing facilities to Milne Port. This will additionally increase the size of ore being transported.o Use of de-dusting equipment (e.g. baghouses) in the indoor crushing and screening facilities to reduce fugitive emissions of dust and particulate mattero Minimizing drop distances (i.e., using adjustable stackers) for stockpiling activities.• 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:<ul style="list-style-type: none">o Strategic evaluation and installation of wind fencingo Application of additional dust suppressants (DustBlok®, DusTreat) to the airstrip and other stockpileso Revisions to blasting management plans and practiceso Continuous dust monitoring at PDA boundarieso Ongoing involvement of Inuit in dust managemento Other operational practice improvements
Project Certificate 005, Appendix B, Table 1	Dust	7	Baffinland confirms that it is committed to full consideration of the dust audit suggestions, and will implement accepted recommendations from the Independent Dust Audit at its earliest opportunity.

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Project Certificate 005, Appendix B, Table 1	Adaptive Management	18	QIA and Baffinland jointly develop and approve, by April 2024, the adaptive management elements for monitoring programs and Inuit Objectives, Indicators, Thresholds and Responses for the Adaptive Management Plan related to narwhal, seal, Arctic char, caribou, dust and culture, resource and land use.
Project Certificate 005, Appendix B, Table 1	Dust	30-31	Baffinland and the TEWG will establish site specific thresholds for conditions that may increase dust dispersion (i.e., wind speed), and corresponding mitigations to implement on days where thresholds are met, which may include, but not limited to, the use of additional dust suppression and operational staged decreased in dust generating site activities. Baffinland will integrate the identified thresholds and response actions into the Air Quality and Noise Abatement Management Plan.
Project Certificate 005, Appendix B, Table 1	Dust	38-39	Baffinland will provide updates on the feasibility and installation of wind fencing at Milne Port at each TEWG meeting until the initiative is complete. Baffinland anticipates on circulating the feasibility study no later than December 31, 2022, and (assuming feasibility evaluation is positive) the subsequent installation of the wind fencing to commence as soon as materials are received on the 2023 sealift. Recognizing the installation of wind fencing in the high Arctic is a novel approach to dust management, and the logistical challenges in procuring and delivering all required materials, Baffinland commits to best efforts to achieve the dates provided in this commitment, however, should unforeseen challenges arise that are outside of Baffinland’s control, Baffinland will immediately engage the QIA in the development of a contingency plan.
Project Certificate 005, Appendix B, Table 1	Dust	40-41	Baffinland will define what other operational practice improvements will be made to minimize dust from Milne Port once the draft Dust Audit Report is received, and clarify how those measures will be implemented. Changes requiring additional infrastructure or materials should be implemented without delay after receiving the materials on the 2023 sealift, and within a reasonable timeframe given the final scope of required work. Baffinland will communicate resulting anticipated construction timelines to QIA once confirmed. Operational changes should be implemented immediately.
Project Certificate 005, Appendix B, Table 1	Dust	46	Baffinland and QIA agree to meet prior to October 31, 2022, unless otherwise agreed, to hold a dust focused meeting with the objective of establishing a reasonable path forward that satisfies this condition. For clarity, the referenced “condition” in this Commitment 046 is as stated by QIA in Appendix A to its letter to the Minister of Sept. 26, 2022 titled Re: Confirmation of the adequacy of consultation and accommodation for Baffinland Iron Mine Corporation’s (“Baffinland”) 2022 Production Increase Renewal Proposal (“2022 PIP Renewal”) for the Mary River Project, NIRB File 08MN053 as follows: “Additional dustfall monitoring locations will help in comprehensively evaluating long-distance dust dispersion. The locations of additional sites should be determined based on results of the updated and expanded isopleth modelling recommended above (see QIA ID-21A).”
Project Certificate 005, Appendix B, Table 1	Dust	47	Baffinland will support the development of a snow quality metric, integrating traditional knowledge, as part of the development of Inuit OITRs related to dust from QIA-ID- 7.
Project Certificate 005, Appendix B, Table 1	Dust	48	Baffinland and QIA agree to meet prior to October 31, 2022, unless otherwise agreed, to hold a dust focused meeting with the objective of establishing a reasonable path forward that satisfies this condition. For clarity, the referenced “condition” in this Commitment 048 is as stated by QIA in Appendix A to its letter to the Minister of Sept. 26, 2022 titled Re: Confirmation of the adequacy of consultation and accommodation for Baffinland Iron Mine Corporation’s (“Baffinland”) 2022 Production Increase Renewal Proposal (“2022 PIP Renewal”) for the Mary River Project, NIRB File 08MN053 as follows: “Dustfall monitoring sites should be added along Milne Inlet to investigate increasing dust extent documented by satellite imagery from 2014 to 2020.”

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Project Certificate 005, Appendix B, Table 1	Dust	51	<p>Baffinland and QIA agree to meet prior to October 31, 2022, unless otherwise agreed, to hold a dust focused meeting with the objective of establishing a reasonable path forward that satisfies this condition.</p> <p>For clarity, the referenced “condition” in this Commitment 051 is as stated by QIA in Appendix A to its letter to the Minister of Sept. 26, 2022 titled Re: Confirmation of the adequacy of consultation and accommodation for Baffinland Iron Mine Corporation’s (“Baffinland”) 2022 Production Increase Renewal Proposal (“2022 PIP Renewal”) for the Mary River Project, NIRB File 08MN053 as follows: “A desktop study on dust duration on the land should be designed to identify locations likely to experience longer-term dustfall effects. The study should describe the relative role of runoff and wind in dispersing dust from the land, and consider site-specific factors, such as wind, precipitation, topography, snowpack conditions, and vegetation. These modelling and monitoring recommendations should be implemented by BIMC as a condition of receiving approval from the NIRB for the PIP Renewal.”</p> <p>Within 30 days of QIA providing additional details on their expectations regarding the requested desktop study, Baffinland will circulate an action plan to complete the study with the TEWG prior to the next meeting. Baffinland will include an anticipated completion date at that time.</p> <p>Note – Baffinland is still unclear on some aspects of this proposal, for example, is the focus on areas where dustfall may accumulate, or areas that are more sensitive to dustfall? We’ve also highlighted additional research may be required, which may not be amenable to the timeframes requested of QIA to complete the work. Once additional details are provided we will be in a better position to provide an action plan and a timeframe to complete the work.</p>
Project Certificate 005, Appendix B, Table 1	Dust	52	<p>Baffinland and the TEWG will establish site specific thresholds for conditions that may increase dust dispersion (i.e., wind speed), and corresponding mitigations to implement on days where thresholds are met, which may include, but not limited to, the use of additional dust suppression and operational staged decreased in dust generating site activities.</p> <p>Baffinland will integrate the identified thresholds and response actions into the Air Quality and Noise Abatement Management Plan.</p>
Project Certificate 005, Appendix B, Table 1	Dust	53	<p>Baffinland will include dust fall monitoring station locations within the scope of the annual dust audit, required under term and condition 187</p> <p>Note – Baffinland can confirm that our terrestrial, freshwater and atmospheric monitoring programs are robust and capture effects that occur within a 5km radius of the Project. It should also be noted that modifying sampling locations will impact ability to complete year over year comparison or trending and should only be reserved for extenuating circumstances.</p>
Project Certificate 005, Appendix B, Table 1	Dust	55	<p>Baffinland will work with NRCan on a pilot program to install and test their passive vertical monitors at the Mary River Project.</p> <p>Note – Baffinland and NRCan have already initiated planning for the installation of NRCan owned dust monitors at Mary River. Inuit will be involved in location selection. QIA will be consulted on this program bilaterally and as a member of the Terrestrial Environment Working Group.</p>
Project Certificate 005, Appendix B, Table 1	Dust	57	<p>Baffinland and QIA agree to meet prior to October 31, 2022, unless otherwise agreed, to hold a dust focused meeting with the objective of establishing a reasonable path forward that satisfies this condition.</p> <p>For clarity, the referenced “condition” in this Commitment 057 is as stated by QIA in Appendix A to its letter to the Minister of Sept. 26, 2022 titled Re: Confirmation of the adequacy of consultation and accommodation for Baffinland Iron Mine Corporation’s (“Baffinland”) 2022 Production Increase Renewal Proposal (“2022 PIP Renewal”) for the Mary River Project, NIRB File 08MN053 as follows: “Finalize methods for bi-weekly regional dustfall extent monitoring using satellite imagery.”</p>
Project Certificate 005, Appendix B, Table 1	Dust	58	<p>Baffinland will implement other recommendations for dust monitoring improvements contained within the final Dust Audit Report.</p>
Project Certificate 005, Appendix B, Table 1	Dust	60	<p>Baffinland will review dust controls at all locations where ore is moving or being handled at the mine and port sites for the purpose of determining if additional controls are required.</p>

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Project Certificate 005, Appendix B, Table 1	Dust	61	Baffinland and the TEWG will establish site specific thresholds for conditions that may increase dust dispersion (i.e., wind speed), and corresponding mitigations to implement on days where thresholds are met, which may include, but not limited to, the use of additional dust suppression and operational staged decreased in dust generating site activities. Baffinland will integrate the identified thresholds and response actions into the Air Quality and Noise Abatement Management Plan.
Project Certificate 005, Appendix B, Table 1	Dust	63	The MEWG and TEWG will retain dust as a standing agenda item going forward.
Project Certificate 005, Appendix B, Table 2	Dust	2	Baffinland will provide sufficient funding for the Dust Audit Committee to continue to support the annual dust audit and associated reporting for the life of the Project, and for any other work of the Dust Audit Committee where it supports other areas of the project. Specifically, the second annual dust audit report will include a one-time retrospective review of the Objectives, Indicators, Thresholds and Responses related to dust in the most up to date version of the Air Quality and Noise Abatement Management Plan, unless the Dust Audit Committee independently determines it does not wish to carry out such review. It is acknowledged that the Dust Audit Committee name and duties may change or expand in future to other topics, and will continue to carry out annual dust auditing until such time as Baffinland and QIA agree such audits are no longer needed.
Project Certificate 005, Appendix B, Table 2	Dust	5	Baffinland and the Qikiqtani Inuit Association commit to meet by September 30, 2023, November 30, 2023 and January 31, 2024 to discuss dust dispersion data from the following sites being monitored in 2023: • Deposit 1 blasting • mine site crusher • OHT transport along the Tote Road • OHT offloading point at Milne Port • Stacking at Milne Port • The highest point of the conveyor system at Milne Port Baffinland commits to providing NIRB and all Parties with a final version of the site-specific thresholds for dust dispersion by March 30, 2024.
Project Certificate 005, Appendix B, Table 2	Dust	23	Baffinland will continue to confirm through annual monitoring and reporting if dust deposition is negatively affecting surface water quality and confirm that the adaptive management components of the Surface Water and Aquatic Effects Ecosystems Management Plan (SWAEMP) and Air Quality and Noise Abatement Management Plan (AQNAMP) will be implemented, if necessary, to adaptively manage impacts on surface water and sediment quality.