

Appendix C: QIA PHC Commitment Concordance Table

COMMITMENTS FROM TECHNICAL MEETING (Iqaluit, October 18-20, 2011)

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
DEIS Organization, Alternatives Assessment					
1	Expand alternative assessment to include a rationale for the need for year round shipping. Include discussion on periodic suspensions (i.e. stock piling) and the impact of this approach on the Project economic viability.		Vol 3, Sec 6.0		
2	Discussion on alternatives assessment regarding floating camp at Steensby Inlet.		N/A		
3	Provide information on water management and potential impact on aquatic resources to be provided related to the new option being considered to house the Steensby Port construction camp in floating accommodations.		N/A		
4	Expand alternative assessment on port options and address DFO comments #3.1.		Vol 1, Sec 3.2; Vol 3, Sec 6.4		
5	Cross referencing as outlined within NIRB's EIS guidelines to be applied within the FEIS. Where possible include section number and page number in Table of Concordance.		Vol 1, App 1B		
6	Provide a standalone "Summary Version" of the FEIS. The "FEIS Summary Version" should include all VECs/VSECs and Management Plans. The "FEIS Summary Version" shall be in Inuktitut and English. The DEIS Summary Version should be used as a template. Specific inclusions requested by the Board are as follows:	QIA	Vol 1, App 1E	Y	
6a	Research studies conducted and/or relied upon by Baffinland with discussion of relevant results (VEC Summaries);	QIA	Vol 1, App 1E (See "What was Studied" & "Conclusions" in each section)	Y	
6b	Explanation of how traditional knowledge has been incorporated within the FEIS;	QIA	Vol 1, App 1E; Sec 7.0	Y	
6c	Archeological and paleontological resources that have been identified in the project area, with discussion of how each would be protected and, if artifacts were to be removed, what would happen to them;	QIA	Vol 1, App 1E; Sec 3.0	Y	
6d	Description of the types of jobs and contracts that would become available, how these jobs would be shared amongst Nunavut communities, how and when notice of jobs and contracts would be provided, and overview of the training programs would be made available;	QIA	Vol 1, App 1E; Sec 20.3	Y	
6e	How benefits from the project would be distributed between the Federal Government, the Government of Nunavut, Nunavut Tunngavik Incorporated, the Qikiqtani Inuit Association and individual communities;	QIA	Vol 1, App 1E; Sec 20.10	Y	
6f	How community members would be involved in establishing and implementing monitoring programs and mitigation measures to address potential impacts to wildlife, marine mammals and adverse socio-economic effects;	QIA	Vol 1, App 1E; Sec 7.0 & 16.2	N	QIA-IR-D-01
6g	The emergency spill response plan, including how people would be advised of possible contamination to land use areas, and the potential role of communities in the Proponent's emergency response protocols;	QIA	Vol 1, App 1E; Sec 16.0	Y	
6h	How Inuit harvesters would be compensated for loss of harvesting area and wildlife; and	QIA	Vol 1 - App 1E; Sec 8.4, 9.4 & 18.4	Y	
6i	Use of both traditional and English language place names with minimization of the use of acronyms.	QIA	Vol 1, App 1E	Y	
7	Provide information on where Inuit Qaujimajatuqangit (IQ) was incorporated into the impact predictions and significance determinations. Baffinland to work with QIA on additional information to be submitted in FEIS.	QIA, EC	Vol 2, Sec 3.4 & Figure 2-3.2	Y	
8	Provide a more comprehensive alternatives assessment on the railroad options (including selection on rail, port and shipping options) within the FEIS. Baffinland to append its CanaRail report produced in September 2011 and QIA will provide their independent review of this report to BIM so it too can be included in the FEIS.	EC, QIA	Vol 3, Sec 6 & App 3E; Vol 1, Sec 3.3.2		
9	Provide details regarding the final shipping route and rail route. Include determination and discussion on the selection of final shipping route.		Vol 3, Sec 2.5.1, 3.6.3, 6.4 & 6.5; Figures 3-1.1, 3-2.4 to 3-2.8 & 3-6.3		
10	Provide information regarding security and routine inspection of shipping routes. Discussion to include duties at the selected port including routine inspection.	QIA (Drug Inspections)	Vol 10, 10D-10, Sec 4.4.4	Y	
11	Provide a standalone appendix to address the requirements for the water licence application as part of the FEIS. This appendix should include i) relevant reports and updated management plans in support of the water licence application and which take into consideration the comments and/or recommendations from the DEIS review process; ii) a water quality cross-reference table and corresponding maps in the water licence application, specifying sampling points related to the SNP, discharges or AEMP monitoring; and, iii) supporting engineering reports, stamped drawings, and Operation & Maintenance (O&M) Plans for the relevant facilities.	NWB, QIA(F-1,F-5,F-7)	Vol 3, App 3B		

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12	Clearly define whether the marine mammal impact assessment LSA is as shown in Figure 8-1.1 or Figure 8-2.1 in Volume 8, Section 5 for the FEIS.		Vol 8, Sec 1.2.1		

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Marine Environment, Marine Wildlife, and Marine Shipping					
13	Once the quantities of marine HADD have been determined in consultation with DFO, Baffinland will develop fish habitat compensation options that can address the extent of the HADD.		Vol 10, App 10D-7C; Vol 8, Sec 4.5.2.1		
14	Additional oceanographic data will be collected as required to support detailed design. These data needs will be described in the FEIS. The final EIS will further consider the issues of ice roughness, converging wakes and effects on coastal areas, including walrus haulout sites.		Vol 8, Sec 1.1 & App 8D-2		
15	Baffinland will conduct pre-construction ground searches for eider nests at Steensby port and "control" shoreline to better characterize impact. The area surveyed should include small offshore islands, and coastal areas around the port facilities.		Vol 6, Sec 4.7.4		
16	Complete an assessment of bearded seals and provide a discussion of bearded seals as a VEC.	QIA D-05, GN	Vol 8, Sec 5.12	Y	
17	Include in the assessment Thick-billed Murres as an indicator for seabirds.	QIA D-05	Vol 6, Sec 4.9		
18	Provide an assessment of the habitat in the potentially impacted areas to determine if the loss of this habitat might result in significant negative impacts. This assessment will include a marine benthic species, a marine finfish and arctic char. Baseline data will be included as part of this commitment.		Vol 8, Sec 4.2.1, 4.2.2 & 4.5.2.1		
19	Include within the marine habitat quantification a discussion of a marine benthic species and a marine fin fish species, in addition to a discussion on Arctic char in the adult feeding stage.	Related to QIA D-05; Discussion to include quantification a marine benthic species and a marine finfish species that fulfills other lifecycles in the marine environment	Vol 8, Sec 4.5.2.1	Y	
20	Develop a model for ballast water dispersal.	QIA D-26	Vol 8, App 8B-1	N	QIA-IR-D-02
21	Revise the Ballast Water Management section of the Marine Mammal and Shipping Management Plan as part of the final EIS. This text will describe the process for selection, assessment and regulatory approval of ballast water treatment options.	Related to QIA D-06; QIA D-26; QIA D-27; QIA D-33 and to DFO recommendations under section 5.3.7	Vol 10, App 10D-10, Sec 4.2 & App6	N	QIA-IR-D-02 & QIA-IR-D-03
22	Include increased ballast water releases in cumulative effects assessment.	QIA D-26	Vol 9 , Sec 1.4.4.4	N	QIA-IR-D-04
23	Endeavour to integrate the effects assessment, where possible quantitatively, by key indicators and including cumulative assessment.	QIA D-33	Vol 8, Sec 1.5	N	QIA-IR-D-05
24	The integrated VEC assessment (as requested in the above commitment) will include a more explicit discussion on the interactions between polar bears, seals and ice.	EC, QIA	Vol 8, Sec 5.11.2.1	N	QIA-IR-D-05 & QIA-IR-D-08
25	Provide an overview consideration of effects extending into Davis Strait and northern Labrador Sea regarding marine mammals and birds based on the zone of influence of the vessels and the receiving environment.	QIA D-03	Vol 8 , Sec 5.15		
26	Review the range of interactions with marine mammals including those that could affect marine mammals to the west of Hudson Strait and provide rationale for not extending boundaries of zone of influence. Include a discussion on the interactions along the shipping route including migrating marine mammals within Hudson Strait.		Vol 8, Sec 5.15		
27	Review the selected thresholds and threshold levels for determination of magnitude of effect to ensure that they are appropriately selected and adequately described for the marine environment. Where possible quantitative descriptions should be provided. Issues such as potential Project expansion are addressed as Cumulative Effects and, as such are discrete from the assessment of the Project as defined and proposed in the EIS.	Related to QIA D-7, D-8, D-19 and D-22. Thresholds that relate to population estimate and include within the magnitude of population assessment	Vol 2, Sec 3.8 & Tables 2-3.3 & 2-3.4; Vol 8, Sec 1.5	N	QIA-IR-D-06
28	In the context of monitoring, Baffinland commits to examining marine species from a food chain perspective and incorporating within the discussion a consideration of effects related to chronic spills, wave action, and sedimentation.	Related to QIA D-05; EC 4.7, EC 4.6e, EC 4.9c	Wave Action: Vol 8, App 8D-2 Sedimentation: Vol 8, Sec 3.4 Chronic Spills: Vol 6, Sec 4.3 Appendix 10D-13, App 3 (Tables 2,4,5) and App 8 (Table 1)		
29	A program for screening ballast water and testing ship hulls will be described as required under regulatory standards or other guidance.	Related to QIA D-27	Vol 10, App 10D-10, Sec 4.2.2		
30	Adaptive management will be applied to address unforeseen risks. For foreseeable risks, every effort will be made to identify ahead of time, and apply appropriate mitigation and monitoring measures.	QIA	Vol 10, Sec 2.5.7 & Sec 11.0 Vol 10, App 10D-10, Sec 8.1.4	N	QIA-IR-D-07
31	Provide an estimated inventory of any potential discharges from shipping activities within the Regional Study Area.	Related to QIA D-06; EC 4.6c, EC 4.6d	Vol 8, Sec 2.6.2.2		

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32	Baffinland will provide more detailed description of the pack ice baseline including a review of relevant literature, a 30-year time period that covers the full annual sea ice cycle (i.e., versus winter ice atlases), and provides information on intra- and inter-year variability in sea ice conditions. Baffinland will use available data sources (in addition to CIS charts and RADARSAT images) to examine sea ice characteristics at appropriate spatial scales. Baffinland will clearly explain the methodology used to measure pack ice cover (i.e., area or extent) and provide the necessary detail on analyses methods used. The Proponent will provide predictions of effects on floe size and ice thickness taking into account multiple vessel transits throughout the year. This analysis will be included in the final EIS.	Related to QIA D-06; D-11 to D-16	Vol 8, Sec 2.3 & 2.5.4	N	QIA-IR-D-08
33	Review each of the noted areas as identified in QIA D-06 and provide additional information and analysis as necessary and appropriate in the Final EIS. The items are: Effects on Seabirds, Disruption of pack ice through Hudson Strait and Foxe Basin due to ice-breaking ore carrier passage, potential for Invasive Species from Ballast Water, and Spills, Accidents and Malfunctions.		Seabirds: Vol 6, Sec 4 Pack Ice: Vol 8, Sec 2.5 Ballast Water: Vol 8, Sec 4.4 & Vol 10, App 10D-10, Sec 4.2 Spills: Vol 9, Sec 3 Note: While additional information and analysis has been provided, in no instance has a Subject of Note justified a higher level of evaluation (i.e., as a KI or VEC)	N	QIA-IR-D-08
34	Food chain contaminants will be discussed within the FEIS and the potential of uptake within the food chain will be considered.		Vol 6, Sec 4.3.1; Vol 8, Sec 5; Vol 9, Sec 3.8.7.1		
35	The information in the DEIS will be brought together in an analysis of any areas of particular concern.	Related to QIA D-35	Vol 8, Sec 1.2.1 & Sec 5.4.5		
36	A description of potential route deviations (and their relative effects) will be addressed in the final EIS. Potential mitigation measures will be described in the mitigation and monitoring plan that will be developed to address many of the comments by QIA and other parties.	Related to QIA D-35; DFO recommendation #3.2	Vol 8, Sec 1.2.1; Vol 10, App 10D-0	N	QIA-IR-D-09
37	Incorporate most up-to-date available data for ice climatology modeling in order to ensure that the predictions of ice conditions are accurate and the risks to the environment from ice related accidents are minimized.		Vol 8, Sec 2.3 & Sec 2.5.4	N	QIA-IR-D-08 & QIA-IR-D-11
38	GN and DFO to identify a list of available/suggested baseline data or studies for polar bears and transfer available data to Baffinland by November 15th, 2011.		Partially Addressed		
39	Identify a list of available data to be incorporated within the FEIS regarding ringed seal by November 15th, 2011.		Partially Addressed		
40	Include an updated discussion on baseline data for polar bears and ringed seal based on available baseline data.		Vol 8, Sec 5.1.6; Vol 8, App 8A-2, Sec 2.3.19 & 2.3.22 All data received was used in the assessment		
41	Consider a broad range of parameters beyond density of birth lairs within the follow up and monitoring programs to assist in establishing potential effects of the Project on population structure, pupping rates, litter sizes and recruitment rates for ringed seals.		Vol 10, App 10D-13, App 4, Table 3		
42	Provide additional supporting analysis regarding disturbance effects on ringed seals from construction, shipping, and aircraft over-flights. In particular, Baffinland's analysis should provide answers as to whether project related activities will result in a change in occupancy of an area that has been identified as important for feeding, nursing, breeding, and hauling out.		Vol 8, Sec 5.6.2.1		
43	Within the Environmental Effects Monitoring Framework, provide a marine mammal and marine environment monitoring plan(s).	Related to QIA comment D-21; D-23; D-26	Vol 10, App 10D-13, App 4	N	QIA-IR-D-07
44	Include the risk of marine mortality from vessels strikes within the FEIS. Focus the assessment on bowhead, walrus, beluga, narwhal and ringed seals. Potential mortality from underwater blasting in Steensby Inlet during the ice-covered season has been assessed as was the potential for walrus mortality from stampeding at haulout sites and will be included as a discussion with the FEIS.	Related to DFO IR 18-a; QIA D-23	Vol 8, Sec 5.6.2.4, 5.7.2.2, 5.7.2.4, 5.8.2.5, 5.9.2.3 & 5.10.2.5; Vol 9, Sec 3.6.1.	N	QIA-IR-D-10
45	Carry out a quantitative risk assessment of project induced mortality on marine mammals pending the availability of suitable data. Failing that, a probabilistic risk assessment approach would be taken.	Related to QIA comment D-23	Vol 8, Sec 5.10.1.5. Additional information is provided for bowhead whales. Available data does not support any further discussion for the sections noted in Commitment 44.	N	QIA-IR-D-10
46	Provide available data to Baffinland prior to November 15, 2011.		This is not a Baffinland Commitment		
47	Include shore type mapping of Milne and Steensby Inlets and approaches presented spatially and at sufficient detail to identify shoreline segments susceptible to wake impacts (acceptable formats include ESRI ArcGIS digital data, softcopy or hardcopy maps).		Vol 6, Sec 4.12.8; Vol 8, App 8D-2		
48	Incorporate any new data on the wave regime in Steensby Inlet as available from the recovered wave sensor into baseline data description and impact assessment for ship wakes along the southern shipping route.		Vol 8, App 8D-2		

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49	Provide information recommended by NRCan into the final design of the Milne Port Freight Dock (Items 24 - 30) including: Clarification on the proposal to place a sunken barge at the Milne Port facility; evidence that indications of submarine slope instability are not found at the site of the proposed Milne Port; evidence that over steepening during dredging will not cause slope failure at Milne Port; evidence that loading of the excavated slope with sand-filled caissons will not cause slope failure at Milne Port; evidence that subsea permafrost does not underlie proposed coastal infrastructure at Milne Port; evidence that the design of the caisson structure at Milne Port will not allow scour at the toe of the structure contributing to its potential failure; and evidence that subsea permafrost does not underlie proposed coastal infrastructure at Steensby Port.		Commitment 49 is no longer applicable. The sunken barge and permanent freight dock concepts are removed from project planning. There will be a temporary floating construction dock as detailed in Vol 3, App 3D & App 3I		
50	Develop a detailed landfast ice baseline including a review of relevant literature, a standard 30-year baseline, covering the full annual sea ice cycle (i.e., versus winter ice atlases), and providing the necessary information on intra- and inter-year variability in sea ice conditions.	Related to QIA comment D-16	Vol 8, Sec 2.6.2.1 & Table 8-2.4	N	QIA-IR-D-11
51	Provide more detail on the basking seal surveys, including the date, time of day, weather and sea ice conditions experienced, and the sensitivity of the density estimates to the correction factors used.	Related to QIA comment D-20	Vol 8, App 8A-2 & Table 4.1	N	QIA-IR-D-12
52	As part of the monitoring program consider undertaking field research to find seal birth lairs and study relationships with habitat, and explore the sensitivity of the mortality estimates to spatiotemporal variation in lair density. The description of this proposed monitoring program would be included in the FEIS.	Related to QIA comment D-20; Considered as part of the monitoring program	Vol 10, App 10D-13, App 4		
53	Address potential effects on ringed seals at the local level that might be relevant to resource harvest issues.		Vol 8, Sec 5.6.2.1		
54	Specific mitigation and monitoring measures to minimize mortality events and to assess their occurrence will be discussed in detail in the mitigation and monitoring plan in the FEIS.		Vol 8, Sec 5.6.2.4; Vol 10, App 10D-10, Sec 4.5.1	N	QIA-IR-D-01
55	Include a mitigation and monitoring-based assessment of: 1) Potential impacts of winter shipping on birds due to attraction to ship tracks; 2) Potential impacts of disturbance and displacement of birds when areas of open water are limited (i.e. winter and spring); 3) Potential impacts to the marine food web, including marine birds, caused by the passage of ships through shore leads and polynyas when it is not feasible to avoid these areas; and 4) Mitigation and monitoring to address these potential impacts.	Related to EC recommendation 4.4; QIA-D28	Vol 6, Sec 4.4 (habitat loss, mortality & health) Vol 10, App 10D-10, Sec 4.5.2 (mitigation and monitoring)		
56	Monitoring reports should include: 1) A record of all ship tracks taken along both shipping routes covering the entire shipping season; 2) An overlay of ship tracks onto ice imagery to determine whether ships are effectively avoiding shore leads and polynyas; 3) A comparison of recorded ship tracks to the expected nominal shipping route and probable extent of year-round shipping during periods of ice cover and open-water in order to determine the level of adherence to the nominal shipping route and the spatial extent of the shipping ZOI; and Marine bird species and number of individuals attracted to ship tracks in ice.	Related to EC recommendation 4.4; QIA-D28	Vol 10, App 10D-10, Sec 7.2.1		
57	Clarify whether the expected zone of influence at the southern port site includes the turning radius of ore carriers leaving the ore dock.		Vol 6, Sec 4.7.1		
58	Conduct additional surveys prior to the start of the construction phase to determine the presence of King and Common Eider nests within the expected zone of influence at Steensby port and at control sites in Steensby Inlet. The area surveyed should include small offshore islands, and coastal areas around the port facilities.		Vol 6, Sec 4.7.4		
59	Baffinland will conduct pre-construction ground searches for eider nests at Steensby port and "control" shoreline to better characterize impact. The area surveyed should include small offshore islands, and coastal areas around the port facilities.		Vol 6, Sec 4.7.4 & App 6E, Sec 4.1.1		
60	Conduct a thorough analysis of displacement-based impacts more expressly in the FEIS, including consideration of the effects on repeated or multiple events.		Vol 8, Sec 5.2.1		
61	Assess the effects of vessel traffic and icebreaking for all marine mammals taking into account potential interactions between of vessel traffic and the bowhead nursery area in northern Foxe Basin and overwintering area in Hudson Strait; exposure of beluga, narwhal and other species to vessel traffic on a regular bases when using open areas (e.g. polynyas); icebreaking that might provide access for killer whales which in turn would open access to seals and whales wintering in polynyas and leads; and impact of vessel traffic and icebreaking on bearded seals during the spring breeding season.		Vol 8, Sec 5.4.5 & 5.6.2.4		
62	Consider inclusion of a measure to mitigate the impacts of vessel traffic by slowing the speed of vessel traffic along the Foxe Basin route between the south end of Prince Charles Island and Steensby Port, as was proposed in Milne Inlet.		Vol 10, App 10D-10, Sec 4.5.1.1		
63	Provide a monitoring framework that will outline a commitment to collect additional baseline sampling to verify the predication of the impact assessment of vessel traffic and icebreaking on marine mammals.		Vol 10, Sec 7.3 Vol 10, App 10D-13, App 4		
64	Include within the effects assessment any changes in the shipping route such as might be needed, e.g. should the shallow bathymetry near the mouth of Steensby Inlet warrant re-routing.		Vol 8, Sec 1.2.1		
65	Include a discussion on possible additional pathways in Baffinland assessment as identified in comment 5.3.6 by DFO, including damage to ocular surfaces and interferences with olfactory cues (e.g., mother-young bonds); ingestion or inhalation pathways and sub-lethal effects to seals including in the form of reproductive failures.	Related to DFO recommendations under section 5.3.6; QIA D-06	Vol 9, Sec 3.8		

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66	Prior to the PHC, DFO, QIA, BIM and other regulators will engage in consultation to better define significant gaps identified in technical comments regarding marine baseline information that should be addressed through future monitoring. And if possible provide an update to NIRB prior to the PHC.		Vol 10, App 10D-13		
67	Consider the potential effects in the defined study area and the implications of these effects across the known range of the affected population.	Related to QIA D-01 & D-02	Vol 9, Sec 4		
68	Baffinland commits to working with QIA and other agencies in developing a marine mammal and shipping monitoring and management framework. This framework will include but not be limited to discussing avoidance by marine mammals and address verification of relevant effects predictions.	Related to QIA D-04.1 and replaces Baffinland's commitments #37 & #38	Vol 10, App 10D-13, Sec 1.1 & App 10D-13		
69	A description of feasible mitigation measures and adaptive management approaches for vessel impacts will be included in the Mitigation and Monitoring Plan volume to be included in the FEIS.	Related to QIA D-34 and Baffinland commitment #36	Vol 10, App 10D-13, Sec 2.4		
70	Discuss how sensitive the project is to changes in routing, timing and number of vessel transits.	Related to QIA D-34	Vol 3, Sec 3.6.3	N	QIA-IR-D-13
71	Review the additional material provided by DFO in regarding to guidance for blasting in water, and, as appropriate incorporate the DFO guidance into the final EIS. An appropriate monitoring program will be implemented to confirm the effectiveness of applicable mitigation measures.	Related to DFO recommendation 5.3.3 and QIA D-08	Vol 8, Sec 4.4 Vol 10, Sec 4.3.1	N	QIA-IR-D-01 & QIA-IR-D-14
72	Clearly state what conceptual mitigation measures will be used and under what circumstances they will be used when blasting in or near water.	Related to QIA D-08	Vol 10, Sec 4.3 & 5.3	N	QIA-IR-D-14
73	Consideration of a candidate research program, to establish a meaningful threshold for sediment effects on the embryonic mortality of arctic char, will be included within the Project EEM Framework. A further review of the literature will be completed as part of the final EIS to re-evaluate the selected threshold.	Related to QIA D-09	Vol 10, App 10D-13, App 1, Table 2		
74	Produce a series of impact predictions demonstrating the influence that the number of vessel tracks has on impact predictions for landfast ice. These impact predictions should be presented for lower and higher shipping frequencies than suggested in the Project Description.	Related to QIA D-17	Vol 8, Sec 2.6.2.1 & Vol 9, Sec 1.4.4.1		
75	Describe how sensitive impact predictions are to temporal variability in landfast ice cover and include discussion on possible impacts if the extent of the landfast ice decreases (e.g., due to climate change) such that shipping disrupts a greater percentage of the remaining fast ice, and breeding habitat for the ringed seal becomes more concentrated. Clarification on the actual length of the track is also required.	Related to QIA D-17	Vol 8, Sec 2.5.4.2 & 2.6.2.1		
76	Provide a more comprehensive discussion on the ice thickness sampling program conducted in Steensby Inlet, including discussion on the statistical power behind the collected data.	Related to QIA D-18	Vol 8, Sec 2.3		
77	Summarize the long term data available from the Hall Beach ice thickness station to provide more information on temporal variation in ice thickness.	Related to QIA D-18	Vol 8, Table 8-2.4		
78	Monitoring and mitigation plans will continue to be developed in consultation with QIA and affected communities. The final EIS will address the justification of threshold values and will include additional details on mitigation and monitoring plans for landfast ice.	Related to QIA D-19	Vol 10, App 10D-13, App 7		
79	Consider more precautionary noise exposure levels for seals and walrus. This more precautionary threshold could be used to update impact assessments and mitigation measures.	Related to QIA D-24	Vol 8, Sec 5.6.2 & Table 8-5.3		
80	Develop appropriate thresholds for monitoring of noise-related impacts, which are linked to the segments of the populations being impacted (calving, nursing, etc.).	Related to QIA D-25	Vol 8, Sec 5.6.2 & Table 8-5.3		
81	Consider a comprehensive assessment of noise impacts using a 250 km radius (i.e., expand the LSA).	Related to QIA D-25	Vol 8, Sec 5.5.7		
82	Clarify the number of vessels that are likely to be in the area at a given time and identify the likeliest places where arriving and departing vessels will pass one another.	Related to QIA D-25	Vol 8, Table 8-5.2	N	QIA-IR-D-15
83	In conducting such an analysis the Proponent should identify zones where cumulative noise would be mitigated due to biophysical features (e.g. water depth, distance from migration routes, distance from overwintering areas etc.). Once identified the Proponent should conduct vessel transit planning, for all seasons, to determine the degree to which cumulative sound impacts can be mitigated through the use of zones.	Related to QIA D-25	Vol 8, Sec 5.5.6 & App 8C-4		
84	Examine the impact of chronic noise and describe possible sound levels as two ore carriers approach and overlap each other under different ice conditions and at different speeds.	Related to QIA D-25	Vol 8, Sec 5.5.6 & Vol 9, Sec 1.4.4.4		
85	Discuss the cumulative effects of chronic disturbance on the distribution of marine mammal VECs.	Related to QIA D-25	Vol 8, Sec 5.6.3.2, 5.7.3.2, 5.8.3.2, 5.9.3.2, 5.10.3.2, 5.11.3.2 & 5.12.3.2		
86	Provide information on the noise-related effects of ice impacts to vessel speed and clarify the range of transit speeds expected through pack ice.	Related to QIA D-25	Vol 8, Sec 5.5.6; Vol 10, App 10D-10, Sec 4.5.1.1		

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87	Provide information on the weather conditions that are likely to be experienced and the influence this can and will have on ship movements and subsequent noise impacts.	Related to QIA D-25	Vol 10, App 10D-10, Sec 8.1.2		
88	Conduct a detailed assessment of the conservation and management requirements for Species at Risk that are likely to be impacted by Project activities, based on the definition provided in the NIRB Final Guidelines. This should include the types of information required in a Management Plan for Special Concern species and the information required in a Recovery Plan for Endangered or Threatened species (i.e., defining Critical Habitat for species that will potentially be SARA-listed as Endangered – Ungava Bay and EHB beluga whales). It should also include an assessment of polar bear regulatory requirements under listings of Special Concern (current rank) but also including possible future scenarios where polar bear status is changed to Threatened or Endangered.	Related to QIA D-29	Vol 8, Sec 5.1		
89	Provide a more detailed discussion the risk of shipping accidents.	Related to QIA D-31	Vol 9, Sec 3.6.2, 3.6.4, 3.8.3, 3.8.7 & 3.9		
90	Conduct a thorough assessment of climate change impacts on sea ice and the marine environment, exploring a range of future scenarios and assessing potential impacts, as required under NIRB Final Guidelines.	Related to QIA D-32	Vol 9, Sec 2.2		
91	Consider semi-quantitative assessments to assess the overall impacts of the Project for each of the marine mammal VECs. The objective would be to assess whether a series of non-significant impacts, when considered together, may pose a significant risk to a particular VEC. The potential for interactions among activities, VECs, and VSECs that would increase or decrease impacts should be considered. Baffinland will provide explicit analyses of the question in the FEIS.	Related to QIA D-33	Vol 8, Sec 2.6.5, 3.6 & 5.3		
92	Conduct a risk analysis to assess whether increasing ballast water discharges would significantly increase the potential for species introductions.	Related to QIA D-33	Vol 10, App 10D13, App 3	N	QIA-IR-D-16
93	Provide rationale for the selected sound modelling site in Hudson Strait. Evaluation of the selection of noise source modelling and sound propagation along Hudson Strait to Davis Strait.		Vol 8, Sec 5.5.1		
94	Commit to making sound measurements before and after construction, and before shipping begins, taking into consideration the annual cycle.		Vol 10, Sec 7.2.1; Vol 8, Sec 5.6.2.2		
95	Consider the modelling of potentially overlapping sound fields from the noisier sound sources, and where there is not overlap in space make an effort to determine what the temporal lag might be between such overlaps, including estimation of quiet times/return to ambient.		Vol 8, Sec 5.5.6 & App 8C-4		
96	Clarify ship densities and identify the places where arriving and departing ore carries will pass each other.		Vol 8, Figure 8-5.2		
97	DFO to provide research paper multivariate approach to Baffinland by November 15th, 2011.		Provided		
98	Upon DFO providing research paper on the multivariate approach, Baffinland will consider the approach and either incorporate it into the FEIS or document why it was not incorporated into the FEIS.		Vol 8, Sec 5.5.7		
99	Baffinland will revise the impacts analysis for project effects of shipping on marine mammals taking into account the commitments above in the FEIS.		Vol 8, Sec 5. Residual effects revised		
100	Baffinland will include in the FEIS the response to DFO information request 05E (aircraft noise), and include consideration of relevant aircraft noise studies from other areas (Alaska) as well as the inclusion of mitigation measures in the appropriate management plan.		Vol 8, Sec 5.7.1.2 & App 8D-2		
101	Baffinland will incorporate into the FEIS more details regarding bathymetry, prop wash, cones and speeds of ships and provide a discussion on how these factors affect sediment redistribution.		Vol 8, Sec 3.4 and Table 8-3.7		
102	Develop an environment effects monitoring program for ballast water release into Steensby Inlet. This program will be developed in accordance with the project EEM framework.		Vol 10, App 10D-10, Sec 4.2.2 & 4.2.3; Vol 10, App 10D-12		
103	Provide detailed descriptions of the process for selecting a ballast water treatment system. The system chosen will be based on various parameters including being IMO and North American (Canadian) Coast Guard approved meeting Phase 2 discharge standards system type, size and cost.		Vol 10, App 10D-10, App 6 Note: Regulator is Transport Canada, not CCG		
104	Consider as part of the monitoring program, changes in pupping habitats and the relative merits of this research versus other potential monitoring topics.		Vol 8, Sec 5.6.2.4 & 5.6.5; Vol 10, App 10D-13, Table 3		
105	Provide an assessment to consider the effect of ice pans as a consequence of icebreaking along the route, and place this change in an ecological context.		Vol 8, Sec 5.11.1.1		
106	Provide a table in the FEIS that summarizes project activities at each project component, the applicable management plan(s), and management plan status.	Related to QIA F-5	Vol 3, App 3B, Attachment 5- Management Plans Document Summary Sheet	N	QIA-IR-F-19
107	Provide conceptual management plans and table of contents for EPP for the construction phase.	Related to QIA F-5	Vol 10, Sec 4.3; Vol 3, App 3B, Attachment 5 - Management Plans, Section 1.0 and Table 1.2 of the EPP	Y	

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
108	As part of detailed design, thermal modeling will be conducted to determine whether the proposed berm design would maintain a permafrost barrier and prevent shallow subsurface seepage to the surrounding environment.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Waste Rock Design Criteria - Section 3.6; and Attachment 5 - Waste Rock Management Plan		
109	Provide a description of the volume of sedimented solids expected to be produced and disposed of in the waste rock stockpile and how and where the material will be deposited of and how the disposal of the sedimented solid could affect the short and long term stability and settlement of the waste rock stock pile.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Sec 3.7.1		
110	Confirm in the FEIS that within the quarry management plan it will provide a site wide spill contingency plan for borrow pits.		Vol 10, Sec 7.2.3; Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan, Sec 3.3		
111	Review the approach to determining the active layer for waste rock and discuss rationale in the FEIS. In developing this section will consult with NRCan, EC and AANDC.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Thurber Report - Mary River Project Development of Permafrost in Waste Rock Dumps Preliminary Geotechnical Evaluation Draft for Discussion.		
112	Confirm in the FEIS, whether the rail route selection accounted for watershed delineation to minimize the ponding of water against the rail embankment, minimize flow and erosion along the rail embankment and minimize debris flow and washouts.		Vol 3, Sec 2.5 & 3.5		
113	Will provide information regarding permafrost considerations relevant to waste rock pile, the rail line and the dykes (for sedimentation ponds) in the FEIS, as well as geotechnical information related to stability analysis for the rock pile, railway and mine pit.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Thurber Report- Mary River Project Development of Permafrost in Waste Rock Dumps Preliminary Geotechnical Evaluation Draft for Discussion and Mary River Slope Stability for the Waste Rock Dump Sec 8, Stability of Mine Pit Wall Adjacent to Waste Rock Dump		
114	Provide a description of mitigation and contingency planning for sensitive land forms and soils sensitive to thawing.		Vol 6, Sec 2.3.2; Vol 10, Sec 3.1; Vol 3, App 3B, Attachment 4 - Design Criteria - Sec 3.4.5 - Thermal Barrier; Waste Rock Dump Design Criteria, Sec 3.4.5; Thurber - Initial Geotechnical Recommendations, Rockfill Embankments and Overburden Cuts; Attachment 5 - Waste Rock Management Plan, Annex 1		
115	Provide stability analyses to support the design for the waste rock stockpile and demonstrate that the waste rock stockpile will be stable during the warming of the permafrost and after the foundations thaws.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Slope Stability Analysis Report, Sec 8.0 - Stability of Mine Pit Wall Adjacent to Waste Rock Dump		
116	Provide the thermal modeling results demonstrating the efficiency and robustness of the proposed encapsulation designs of the waste rock pile.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Annex 2		
117	Provide the long-term closure and post-closure stability of the pit walls especially with regard to the presence of the pit lake and its impact on stability.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Slope Stability Analysis Report Section 8 - Stability of Mine Pit Wall Adjacent to Waste Rock Dump and Section 9 - Conclusions and Recommendations		
118	Provide further analysis showing that the design of the pit is stable and that the vicinity of the waste rock pile to the pit has been taken into account.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Mary River - Slope Stability Analysis Report Sec 8.0 - Stability of Mine Pit Wall Adjacent to Waste Rock Dump and Sec 9 - Conclusions and Recommendations		
119	Include details of the ice monitoring program including but not limited to the following a) the area being monitored, b) the techniques to be used to gather monitoring data, c) the frequency of monitoring, d) how the data will be shared and e) how the data will be used to assess/mitigate impacts to the ice regime.		Vol 10, App 10D-13, App 7		

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Railway Construction and Operation					
120	Provide for 6 types of stream crossing designs and cross reference all stream crossings to these types of crossing designs. As design progresses, additional information will be provided to the regulatory authorities for each stream crossing.		Vol 3, App 3B, Attachment 7- Water Crossing Documents		
121	Assess the need for ventilation in the railway tunnels during construction and operation.		Vol3, Sec 3.5.2.1		
122	Provide the results of the preliminary information related to thermal analysis and stability analysis for the railway.		Vol 3, App 3B, Attachment 4 - Site Specific Documents - Railway-Thurber Engineering Ltd., 2011. Mary River Project, Initial Geotechnical Recommendations, Rock Fill Embankments and Overburden Cuts, Mary River Railway		
123	Provide a summary of the regulatory inspection requirements for the rail line.		Appendix 10D-9 Railway Management Plan, Section 5 - Inspection Strategy		
124	Provide information on the rockfall hazard assessment.		Vol 6, Sec 2.3.1.1 (Railway Alignment); Vol 9, Sec 2.1, Table 9-2.4		
125	In the detailed design stage, carry out a geotechnical investigation in areas where there are potential instabilities, and incorporate the results in the detailed design phase.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan - Sec 1.3 Baffinlands Commitments		
126	Provide an updated draft railway infrastructure management plan that includes the approach to be taken in the detailed design stage to consider NRCan recommendations related to instrumentation for monitoring ground thermal conditions, slope stability/movements and tunnel sections particularly in areas where there is potential for instability, and the definition of triggers for criteria for selection of management techniques.		Vol 10, App 10D - 9 - Railway Management Plan, Sec 6, Maintenance Strategy & Sec 6.2 Infrastructure		
127	Incorporate IQ in consideration of caribou crossings in its railroad design.		Vol 6, Sec 5.2.1, Movement & Figure 6-5.3; App 6F, Sec 3.4 & Figure 6		
128	Provide an analysis and discussion to support the proposed side slope design criteria for borrow pits.		Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan - section 4.3 and in Section 4.1 of each of the individual quarry Management and Operations Plan (for Steensby, Milne, Mary River, Q7, Q77 and Q133)		

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Atmospheric Environment (Climate, Air Quality, Noise and Vibration)					
129	The emission inventory for the Project will be updated in the FEIS.		Vol 5, Sec. 2.4 & App 5C-4		
130	Air quality modelling assessment will be redone for the Mine Site and Steensby Port. Ships emissions will be taken into consideration at the port and results to be presented within the FEIS.		Vol 5, Sec 2.6 & App 5C-5		
131	Photographs of the auto-station installations and detailed discussion of auto station maintenance, calibration, and quality assurance procedures will be provided.		Vol 5, Sec. 1.1 & App 5A		
132	Baffinland to look at recommendations for the design and construction of the waste rock stockpile. Baffinland's Engineer will assess and implement these recommendations. Where Baffinland's Engineer disagrees with a specific recommendation, a rationale will be provided for the disagreement.		Vol 3, App 3B, Attachment 5 Waste Rock Management Plan		
133	As part of detailed design, thermal modelling be conducted to determine whether the proposed berm design would maintain a permafrost barrier and prevent shallow subsurface seepage to the surrounding environment.		Vol 5, Sec 1.2.3.10		
134	Installation of tide gauges at Steensby Port site to monitor relative sea level and storm surges.		Vol 5, Sec 1.2.3.8		
135	Include in FEIS the design basis of the ore dock and freight dock (Steensby docks) and discussions to be conducted prior to completion of FEIS with NRCan.		Vol 3, App 3D - Steensby Documents - Design Basis Ore Dock and Design Basis Freight Dock. NRCan will be consulted as required during detailed design.		
136	Installation of continuous GPS or similar means at Port sites to monitor vertical motion and constrain uplift estimates;		Vol 5, Sec 1.2.3.8		
137	Where possible to maintain a minimum flying altitude of 2,000 feet when in the air space over the park except for approach to land, take-off or for safety reasons.		Vol 5, Sec 3.3.3		
138	Ensure certification of noise compliance, if applicable, is current.		Vol 5, Sec 3.3.3		
139	Provide Parks Canada with regular flight and shipping schedules that can be used to brief visitors to the park. Within this commitment Baffinland will present Parks Canada with a revised estimate of vessels and flights if it changes substantially so that appropriate mitigations can be explored.		Vol 4, Sec 5.5; Vol 5, Sec 3.3.3		
140	With respect to shipping into Milne Port, provide due consideration to wilderness experience during open water especially during August which is the high use by sea kayakers.		Vol 4, Sec 5.5		
141	Assess the potential ambient air quality impacts from ship emissions. A new transient CALPUFF model scenario will be completed using the Steensby Port model domain, CALMET data, and emissions from all sources at the port. In addition, emissions from a fully loaded ore ship pulling away from the port will be included. The ship emissions will be estimated assuming that fuel containing 3.5%. Since the ship emissions will be infrequent and transient only short term (1-hr) ambient concentrations of as sulphur dioxide (SO ₂), nitrogen oxides (NO _x), and nitrogen dioxide (NO ₂) will be analysed. The emission input data will be reviewed by Environment Canada prior to completing this model simulation.		Vol 5, Sec 2.6 & App 5C-5		

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Cumulative Effect Assessment, Transboundary Impact Assessment					
142	Include in the cumulative effects assessment for marine mammals the interaction of single effects within the Project. The analyses will include consideration of sound levels from two ore carriers as they approach and pass one another along the shipping route, particularly in areas of high ice concentration (such as North Foxe Basin).	Related to QIA 25#7	Vol 8, Sec 5.5.6		
143	Address the uncertainty in the significance determination of cumulative effects. The overall rating of significance to be included in the effects assessment summary tables outlining significance criteria. Provide a verbal discussion to support each significance determination. In addition, provide overall arching commentary on how uncertainty was addressed in the cumulative effects assessment.		Vol 9, Sec 1.2.6		
144	Baffinland is to outline its experience and track record and identify the safeguards that will be put in place to compensate for any lack of experience in similar environments, more specifically providing updated information in relation to its experience in mining projects in the same region or similar environments.		Vol 1, Sec 1.2.6; Vol 10, App 10A-2		
145	Provide a commentary on how transboundary effects of the project could result on marine habitats, animal populations and the harvesters relying upon them which are located in other jurisdictions.		Vol 8, Sec 5.14 & 5.15; Vol 6, Sec 4.5 & 4.8		
146	Re-evaluate the significance of cumulative effects on caribou taking into consideration both the combined and synergistic effects of the project on population dynamics.		Vol 9, Sec 1.4.2.2		
147	Re-evaluate the cumulative effects analyses to integrate caribou habitat, movements and mortality at the scale of the north Baffin Island herd range.	Related to QIA E-8(1)	Vol 6, Sec 5.2.1, <u>Assessment Methods</u> ; Vol 9, Sec 1.4.2.2		
148	Re-evaluate the cumulative effect assessment to address the effects on caribou harvesting related to escalated project activities, including establishment of a long-term transportation network and marine shipping routes with ice breaking as ice breaking could cause additive mortality.	Related to QIA E-8(2)	Vol 6, Sec 5.2, <u>Mortality</u> ; Sec 5.2.3 Overall Project Effects & Sec 5.2.4; Vol 9, Sec 1.4.2.2		

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Birds, Terrestrial Vegetation, Terrestrial Wildlife					
149	Provide information on the monitoring of raptor species that differ in their ecology (e.g., migratory and nesting patterns).		Vol 10, App 10D-11, Sec 4.4		
150	Update the DEIS to reflect the most current data collection and any impact this may have on the effects analyses.		Vol 6, Sec 4.5		
151	The efforts undertaken to improve nest searching and determine occupancy and productivity be continued within the TEMMP. The final EIS should also incorporate the data collected in 2011 to strengthen the baseline data already gathered. In addition develop monitoring program for raptors.		Vol 6, Sec 4.5; App 6E		
152	Address all items identified under Section 6: Terrestrial Environment regarding EC's comments.		Vol 6, Sec 4.6.1, 4.7.1, 4.8.1, 4.10.1, 4.11.1 - 4.11.4, 4.12.2, 4.12.5 & 4.12.7		
153	In collaboration with EC, Baffinland will develop a marine bird monitoring program that considers the following: a) The program for monitoring marine birds along the shipping route should follow methodology and protocols similar to those outlined in Firfield et al. 2009 so that results can be combined with previous marine bird surveys in the Eastern Arctic (e.g. McKinnon et al. 2009 and the PIROP database) and contribute to regional marine bird baseline data and monitoring; b. Data collected during monitoring should include the reaction of birds to approaching vessels (e.g. flight, diving, collisions), the distance at which they react, the time required to resume normal activity once disturbed, and the attraction of birds to ship tracks during periods of ice cover; c. To the extent possible, bird mortality due to collisions with ships should be recorded and included in monitoring reports. Information recorded should include species, number of individuals, age and sex (when feasible), date, time, location, and meteorological conditions; d. A framework on methods, protocols, duration and frequency of ship-based monitoring for birds and marine mammals should be provided in the FEIS.		In collaboration with EC, Baffinland is developing a marine bird monitoring program which considers items a) to d) in commitment # 153. With respect to reporting requirements for marine birds, refer to Vol 10, App 10D-10, Sec 4.5.2		
154	Apply general mitigation measures for all migratory birds species as well as additional migration measures recommended by EC in issues 6.2, 6.5, 6.7 and 6.8.		Vol 6, Sec 4.12		
155	Acknowledge the potential for an increase in the number of predators because of both an increase in potential attractants and an increase in the availability of nesting, roosting, and denning sites. Identify mitigations where known such as design structures in such a way as to reduce or eliminate denning, roosting, and nesting sites for avian predators and arctic foxes. Baffinland may consult with EC-CWS staff regarding design measures that could be taken.		Vol 6, Sec 4.6.1, 4.10.1 & 4.12.5		
156	Expanding statements regarding proper containment and disposal of food to include other edible attractants (e.g. plastics, motor oil, etc.).		Vol 6, Sec 4.3 & 4.12.5 Vol 10, App 10D-4; Vol 10, App 10D-11, Sec 3.3.5, Table 3-2		
157	Acknowledge the potential for an increase in the number of predators because of both an increase in potential attractants and an increase in the availability of nesting, roosting, and denning sites. Identify mitigations where known such as design structures in such a way as to reduce or eliminate denning, roosting, and nesting sites for avian predators and arctic foxes. Baffinland may consult with EC-CWS staff regarding design measures that could be taken.		Vol 6, Sec 4.12.5		
158	Including a commitment to audit waste management practices to ensure that waste streams are properly segregated at the source and that potential wildlife attractants are diverted from the landfill.		Vol 10, Sec 11.4 & App 10D-11, Sec 3.3.5		
159	Ensuring that orientation for project personnel includes best practices with regard to waste management and avoiding wildlife.		.Vol 10, App 10D-11, Sec 3.3.5		
160	Conducting surveillance or regular scheduled site audits of facilities and project waste sites for the presence of wildlife to ensure that predator control measures are effective.		Vol 10, Sec 2.5.6 & App 10D-11, Sec 3.2 & 3.3		
161	Provide reports regarding deterrence of roosting scavengers such as ravens and previous reports that have been published including mitigation measures by November 15th, 2011.		Reports were provided to Baffinland by CWS		
162	Baffinland's spill contingency plan(s) will include a section that outlines how they would protect wildlife in the event of a spill. The plan should include, but not be limited to a description, with maps, of the migratory bird resources at risk (including CWS Key Terrestrial and Marine Habitat Sites for Migratory Birds, Migratory Bird Sanctuaries, National Wildlife Areas and National Parks).		Vol 10, Sec 6.3.4 & App 10D-11, Sec 3.2.1		
163	Baffinland will correct the bird baseline with a re-evaluation of data collected to date, and confirmation of raptor data beginning in 2011 and review potential project impacts and potential monitoring and mitigation.	EC, QIA	Vol 6, App 6E		
164	Assess the significance of shipping impacts on migrating, foraging, nesting, and wintering seabirds.		Vol 6, Sec 4.9		
165	Baffinland will note the molting area noted in EC 6.7 in the baseline and impact assessment, and consider mitigations for overflights in that area.		Vol 6, Sec 4.6.1 & 4.12.1		
166	Identify potential measures to that could be used to reduce Project activities and noise emissions during the period when migratory birds are present and a breakdown of when these activities would likely occur to assist with EC and BIM in identifying how mitigation could best be implemented.		Vol 6, Sec 4.5.1, 4.6.1, 4.7.1, 4.8.1, 4.9.1, 4.10.1 & 4.12.1; Vol 10, App 10D-11, Sec 3.2.1		
167	include a statement of the potential effects and mitigation for Red Knot in the Species at Risk section of Vol. 6 of the FEIS.		Vol 6, Sec 4.11.3		
168	Provide a detailed analysis of calving sites and areas, habitat selection and annual fidelity including the 2009-2011 calving locations from the GN collar dataset by using a closer resolution of the dates (-3-14 June data range) to pinpoint the timing and location of calving sites. A comparison should be made with the aerial survey data on calving.	Related to QIA E-1(1)	Vol 6, App 6F, Sec 3.3.1 & 4.2		

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169	Determine which potential calving locations are within the mine zone of influence (ZOI). This will include mine infrastructure such as tote road, mine and railroad to quantify a baseline to assess the potential impact of the project on the extent of calving.	Related to QIA E-1(2)	Vol 6, Sec 5.2.1, Habitat & Sec 5.2.2 Habitat		
170	Acknowledge the increased vulnerability to disturbance by cows and young calves (nursery groups), including options to detect and address areas used by calving caribou, and to propose adaptive mitigation measures to reduce potential impacts.	Related to QIA E-1(3); GN R62	Vol 6, Sec 5.2, Habitat	N	QIA-IR-E-24
171	Caribou Protection Measures will be implemented and will include mitigation measures with respect to caribou calving grounds.	Related to GN R62, QIA E-1(4)	Vol 6, Sec 5.2.2, Habitat	N	QIA-IR-E-24
172	Monitoring and adaptive management for caribou movement, calving and post-calving caribou will be clarified based on further discussion with QIA and other agencies. This will include providing a discussion on potential significant changes in movements and migration across roads and railroad, and designing methods for monitoring relative to adaptive mitigation measures during the calving and post-calving periods to reduce the potential impact on construction and operation of the mine on calving caribou. The proposed monitoring program should be scaled to changes in caribou density during the caribou cycle and local versus regional perspective (North Baffin).	Related to QIA E-1(5), QIA E-2(3), QIA E-3(5, 6), QIA E-7(1, 2, 3)	Vol 10, App 10D-11, Sec 4.5.1, Table 4-9	N	QIA-IR-E-24
173	Where more information is available, provide further justification of the level of confidence for project effects (i.e., linear mine infrastructure, especially the railroad) on movement of caribou and enhance discussion on the low and high cycles of caribou populations and quantify effects where possible.	Related to QIA E-2(1)	Vol 6, Sec 5.2.4		
174	Reassess the harvest data and Inuit knowledge to include the islands and sea ice as caribou habitat in the FEIS. Regional assessment area will include the islands.	Related to QIA E-5(1); Data deficiency of movement of caribou to these islands might limit assessment	Vol 6, Sec 5.2.2, Movement		
175	Provide an assessment of the literature on ice crossings and the effect of ice-breaking ships.	Related to QIA E-5(2)	Vol 6, Sec 5.2.2, Movement		
176	Collect baseline samples of lichens to ensure an adequate reference point is available (as part of a future statistically designed monitoring program to track any changes in the lichens).	Related to QIA recommendation E-06(4); Baffinland will conduct items 1-3 in recommendation E-06, if possible. In addition, see QIA Caribou table.	Vol 10, App 10D-11, Sec 4.3		
177	Propose additional monitoring (rather than the current "wait and see" approach and relying on employee sighting reports to establish increased or decreased habitat use) that will be able to detect changes in abundance (detection of a ZOI), impacts to movements, and reduce uncertainty for North Baffin caribou distribution and abundance.	Related to QIA recommendation E-04(2). Monitoring and Adaptive management for caribou response with change in abundance can be clarified based on further discussion with QIA. In addition, see QIA Caribou table.	Vol 10, Table 10-3.1 & Vol 10, App 10D-11, Sec 4.1 & 4.5	N	QIA-IR-E-24
178	Section 3.0 of the DEIS should be revised to provide a comprehensive summary of the findings and key elements of the Vegetation Baseline Study Report.		Vol 6, Sec 3.0. Findings of baseline studies are in Vol 6, App 6C, Sec 4.0		
179	Within the updated abandonment and reclamation plan, Baffinland will commit to examination of re-vegetation success including the use of plots on previously disturbed sites near Mary River.		Vol 6, Sec 3.2 & Vol 3, App 3B, Attachment 10, Sec 5.0		
180	Calculate the footprint of the existing disturbance within the PDA.		Vol 6, Sec 3.2.2.1		
181	Note the potential invasive species that are of greatest concern in the RSA and/or PDA and the risks they pose to vegetation abundance, diversity, and wildlife habitat.		Vol 10, Sec 7.2.7 & Vol 9, Sec 3.5.5 & 3.5.6		
182	Demonstrate how Baffinland intends to comply with the invasive species provisions of the Nunavut Wildlife Act, Section 91(2), which states, "No person shall release a member of a species into a habitat in which that species does not belong or never naturally occurred".		Vol 10, Sec 7.2.7		
183	Ensure that the range of caribou has been defined using all available data, including multi-year radio collaring data. Within this range, Baffinland shall describe where caribou use space on a seasonal basis, including the calving, summer and winter seasons (where relevant) based on available radio collaring data.		Vol 6, Sec 5.2.1; App 6F, Sec 2.0 & Figure 15		
184	Include an overview of the habitat features or characteristics that are potentially important to caribou in general, such as but not limited to vegetation, topography, aspect and snow depth based on available literature and data.		Vol 6, Sec 5.2; App 6F, Sec 2.1.4		
185	Describe the other project- specific sources of effects that may affect caribou, such as noise from mining and transportation operations.		Vol 6, Sec 5.2.1, Habitat		
186	Identify and describe the potential for indirect effects on caribou health and mortality such as loss of body condition, reproduction and calf survival; loss of habitat; and increased harvesting access.		Vol 6, Sec 5.2.2; App 6F & App 6H		
187	Acknowledge that caribou have historically and currently exist and use the RSA.		Vol 6, Sec 5.0; App 6F		
188	Identify the geographic area (i.e. range and areas used by caribou seasonally) defined using available radio-collar data and provide the spatial context for the effects analysis.		Vol 6, App 6F		

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189	Identify and describe each of the parameters incorporated in the Resource Selection Probability Function (RSPF) and describe the strengths and limitation of the data used for each RSPF parameter such that the implications to the model outcome are fully understood.		Vol 6, App 6F, Sec 4.2, Spatial Data Layers		
190	Provide the updated RSPF analyses that includes caribou collar data through to April 2011 to determine the extent of migration or movement by collar animals over this longer time period. Maps of seasonal ranges should be provided and used to develop criteria for categorizing caribou as resident or migratory.	Related to QIA E-2(2)	Vol 6, Sec 5.2.2, <u>Habitat</u> ; App 6F, Sec 4.2		
191	Redefine the Zone of Influence (ZOI) on the basis of anticipated project-specific effects rather than replying entirely on Boulanger et al (2011) or justify the application of the 14km ZOI for this project.		Vol 6, Sec 5.2.1, <u>Habitat</u>		
192	Include an assessment of the caribou movement that incorporates an analysis of available radio-collar data in addition to the proponents identification of caribou trails. This will consider the analysis and mapping of the movements of collared individuals.		Vol 6, Sec 5.2.2, <u>Movement</u>		
193	Consider modifications to the design for the typical caribou crossing site to improve its potential to be effective by increasing their width to the maximum degree possible (as a minimum).	Related to GN R58a; QIA E-3(4)	Vol 6, Sec 5.2.2, <u>Movement</u>	N	QIA-IR-E-24
194	Clarify how a concept ("let the leaders pass") derived from an Inuit harvesting practice is applicable to mitigation to caribou movement effects from rail operations.		Vol 10, App 10D-11, Sec 3.3.2		
195	Re-evaluate the RSPF using geographic areas (i.e. range and areas used by caribou seasonally) defined using available radio-collar data.		Vol 6, App 6F, Sec 4.2		
196	Changes in the RSPF based on the ZOI must be considered in relation to the various habitat probability categories that were derived by the model. The loss of high quality habitat, including areas used for calving, is of particular interest.		Vol 6, Sec 5.2.1, Figures 6-5.4, 6-5.5 & 6-5.6; App 6F, Sec 4.0		
197	Review the caribou protection measures contained in the Environmental Protection Plan, including Appendix 10B. There will be clear and unambiguous statements regarding the measures to be undertaken and the triggers for their application to meet the spirit and intent of the provisions of the North Baffin Regional Land Use Plan, Section 3.3.7 and Appendix I regarding caribou calving areas.		Vol 10, Sec 4.3; Vol 3, App 3B, Attachment 5 - Environmental Protection Plan, Sec 2.12, Caribou Protection Measures		
198	Re-evaluate the significance assessments for habitat loss, movement and mortality and health.		Vol 6, Sec 5.4		
199	Provide an updated version of its project-specific follow-up program that commits to the undertaking of project-specific monitoring during each phase of the project.		Vol 10, App 10D-11, Sec 4.5		
200	Include an additional review of literature relevant to the permeability, accessibility and use of the rail line by caribou. All assumptions related to the assessment of the permeability, accessibility and use of the rail line by caribou will be clearly identified and explained.		Vol 6, Sec 5.2.1, <u>Movement</u> & Vol 6, Sec 5.2.2, <u>Movement</u>		
201	GN will provide Baffinland with references for any GN known sources of relevant literature related to the permeability, accessibility and use of the rail line by caribou by the end of October 2011.		Literature provided to Baffinland and cited throughout Vol 6, Sec 5.0		
202	Provide a review of the relevant literature (e.g., pronghorn or moose on railway lines) and demonstrate the application of the precautionary principle in the design of the number of crossing sites and design characteristics of the caribou crossings to minimize the barrier effect of the railway infrastructure to caribou.	Related to GN R62b; QIA E-3(1, 3)	Vol 6, Sec 5.2.2, <u>Movement</u>		
203	Identify the range of variation in the frequency of the trains passing a particular point, and address the implications to caribou crossings and monitoring.	Related to QIA E-3(7)	Vol 6, Sec 5.2.2, <u>Movement</u>		
204	Include a discussion on the frequency of deeper than average snow winters or winters with fall icing to assess how winter conditions may affect caribou crossing and travel along the railway and roads.	Related to QIA E-3(2)	Vol 6, Sec 5.2.2, <u>Movement</u>		
205	Provide an updated version of its project-specific follow-up program that commits to the undertaking of project-specific monitoring during each phase of the project. Regional-level monitoring requirements could be integrated with the ongoing activities of the GN.		Vol 10, App 10D-11, Sec 4.0		
206	Provide an updated version of its project-specific follow-up program that commits to the undertaking of project-specific monitoring during each phase of the project. The follow-up program will identify objectives, monitoring activities, frequency of data collection, and thresholds.		Vol 10, App 10D-11, Sec 4.0		
207	Evaluate the project's potential to generate indirect impacts on caribou mortality, including: from increased assess, increased information regarding caribou locations, and increased support for hunters (e.g., fuel), changed predator-prey interactions. Additional sources of effects will be acknowledged. Additionally, remove reference to a no hunting policy for beneficiaries from the FEIS, and address the potential effects on caribou mortality.		Vol 6, Sec 5.2.1, <u>Mortality</u> & Vol 6, Sec 5.2.2 <u>Mortality</u>		
208	Additional analysis of potential impacts to caribou health (i.e. body condition, reproduction and calf survival) will be undertaken. Consider indirect effects on caribou energetics.		Vol 6, Sec 5.1 & 5.2; App 6H		
209	Categorise the RSPF to quantify habitat quality and quantity and impacts associated in the ZOI. Design and apply multiple scenarios of caribou abundance to its impact assessment and ensure that scenarios span the range of possible changes in population over the life of the project rather than applying a single baseline scenario.		Vol 6, Sec 5.2.1. Analysis remains using quantification of continuous habitat variable		

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210	Re-evaluate the barrier effect of the railway infrastructure over its entire length to better locate and mitigate potential barriers to caribou movement (e.g. embankments, heights and slopes). A sensitivity analysis of the parameters used in the initial evaluation (i.e., embankment, heights and slope) could be undertaken to provide additional insight.		Vol 6, Sec 5.2.2, <u>Movement</u>		
211	Clarify under what circumstances would trigger the application of limiting train traffic as a mitigation measure for caribou and provide information in mitigation plans to limit train traffic.		Vol 6, Sec 5.2.2, <u>Mortality</u> ; Vol 10, App 10D-11, Sec 3.3.3		
212	Re-evaluate the ELCs fundamental deficiencies identified as: 1) Lack of variability in observed vs. predicted values (table 3.14 of ELC baseline); 2) The predictive variable (surficial geology) is proved to be significant even with apparent data deficiencies; and 3) Assess the resulting cascading error from missing surficial geology data (figure 3.9 of the ELC baseline).		Vol 6, App 6D		
213	Confirm if dust suppressants are or are not going to be used, and if used, examine what influence the dust suppressants may have on the thermal regime of the road embankment and its integrity.		Vol 10, Sec 7.2.1; Appendix 10D-8 - Roads Management Plan, Section 3.2.1		
214	Describe all sources of dust from the various project components, physical works and activities throughout each project phase so that they can be considered in subsequent effects assessment.		Vol 10, Sec 7.2.1; Vol 3, App 3I - Mine Site Emission Sources for Air Dispersion- H337697-4210-07-014-0001& Steensby Emission Sources for Air Dispersion - H337697-4510-07-014-0001		
215	Re-assess the geographic extent of dust fall. Where possible and appropriate use the experience and data for tundra mines (e.g. Ekati, Snap Lake, Diavik).	Related to QIA E-6(1)	Vol 5, Sec 2.3 & 2.4; Vol 6, App 6G-2		
216	Re-assess various caribou abundance cycles and movements including how it relates in the ZOI. Consider comparing and contrast collar data versus traditional knowledge.	Related to QIA E-4(1)	Vol 6, Sec 5.2		
217	Based on current and predicted soil metals concentrations assess the range of potential metal levels in caribou forage including lichens. This re-assessment would include thresholds of possible toxicity to plants and risk assessment for caribou.	Related to QIA E-6(2). Require more feedback from QIA	Vol 6, App 6G-2		
218	Analyze the probability of caribou exposure to metals in forage relative to the zone of influence.	Related to QIA E-6(3). Require more feedback from QIA	Vol 6, Sec 5.2.1, <u>Health</u> & Sec 5.2.2, <u>Health</u> ; App 6G-2		

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Freshwater Environment, Freshwater Biota and Habitat					
219	The waste rock management plan will discuss alternatives to encapsulation for treating effluents from waste rock.		Vol 10, Sec 7.2.4.1; Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan		
220	Waste rock characterisation will be an ongoing program for the life of the Project.		Vol 10, Sec 7.2.4.1		
221	A detailed waste rock characterisation and monitoring program will be presented in the FEIS.		Vol 10, Sec 7.2.4.1; Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan		
222	As-built site drainage plans will be incorporated into a future surface water management plan, once constructed.		Vol 10, Sec 7.4.2.2		
223	Baffinland will include a geochemistry testing protocol in an updated Borrow Sites and Quarry Management Plan.		Vol 10, Sec 7.2.3; Vol 3, App 3B, Attachment 6 - Quarries- Quarry Management Plan, App B		
224	Environment Canada's Green Kenue software coupled with a DEM of the Phillips Creek watershed will be used to compare more accurately the watershed characteristics of the tributary and Phillips Creek watersheds to determine the applicability of the Mean Annual Unit Runoff data to the entire watershed. Text will be added to the FEIS to include this additional level of analysis.		Vol 7, Sec 1.2, <u>Mine Port</u>		
225	Update surface water quality and sediment quality baseline data with new data collected in 2011 and revise water quality effects assessment.		Vol 7, Sec 3.2; App 7B-1 (updated to include 2011 data)		
226	Define minor versus major wetlands within water quality assessment section of the DEIS.		Minor vs. major wetlands is not an appropriate term and has been removed from the FEIS.		
227	The resultant effects of the redistribution of water on freshwater biota and water quality will be discussed in Sections 3 and 4 of Volume 7.		Vol 7, Sec 2.3.2.1, 3.4.1.2, 3.4.2.1, 4.3.1 & 4.5		
228	Baffinland will review the recommended 50 kPa instantaneous pressure change threshold recommended by DFO and consider its adoption in the FEIS.		Vol 7, Sec 4.4, Potential Effects of Blasting on Arctic Char. Baffinland will adhere to existing guidelines	N	QIA-IR-D-14
229	Provide an updated wastewater management plan for future larger construction and operation camps within the FEIS. The plan will describe how equalization tanks will be used at the Mine Site and Steensby Site to accommodate surges in sewage received from the satellite construction camps.		Vol 3, App 3B, Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Sec 5.4.2 to 5.4.5		
230	Clarify how propylene glycol used for aircraft de-icing is to be managed and how downstream receivers will be protected against potential dissolved oxygen depletion.		Vol 3, App 3B, Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Sec 6.2.1 & 6.2.2		
231	Quantities of hazardous waste produced and storage locations will be updated and presented within the waste management plan.		Vol 10, Sec 6.2; Vol 3, App 3B, Attachment 5 - Hazardous Materials and Hazardous Waste Management Plan, Table 4.2		
232	Waste rock characterisation will be ongoing throughout the life of the Project (#220). Available additional static test and humidity cell results from studies conducted during 2011 will be presented in the FEIS.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Annex 3		
233	A sampling and testing program for the characterization of the waste rock for the period of 2012-2014 will be developed and will involve devising a representative sampling program for the waste rock based on the configuration of the ore body and the mining plan; analysis of the lithology, morphology and mineralogy of the waste rock; additional testing (both static and humidity cell). An independent expert will review and provide guidance for this program. The characterisation program will be ongoing for the Life of the Project and will guide the development adaptive management strategies for waste rock management (should this be required over the life of the Project). This program will be presented in the FEIS.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Annex 3		
234	Outline the basis for their selection of wastewater treatment technology for waste rock and ore stockpile drainage considering the need to meet both MMER at end of pipe and site specific receiving water quality criteria (#268) for in stream water quality guidelines in the receiver.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan - Sec 3.7.5	Y	
235	Update and revise the project site water balances to address issues identified in AANDC comment #22. Includes reflecting the updated project description, ensuring volumetric "balance" on some of the system components, verifying consistency of potable water and sewage volumes, labeling balances for year of development and providing corresponding water balances representative of current conditions).		Vol 3, App 3B, Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Table 4-1		
236	Continue to operate a hydrological monitoring program in order to develop a long-term record suitable for the design of future infrastructure.		Vol 7, Sec 1.2 & 2.3.1		
237	FEIS will consider more recent hydrological data and revise storm water management pond, accordingly, if warranted based on the new data.		Vol 3, App 3B, Attachment 5 - Surface Water and Aquatic Ecosystem Management Plan		
238	Include baseline data collected between 2005-2008 and 2011 (with potential 2012 data) within the freshwater baseline assessment.		Vol 3, App 3B, Attachment 5 - Surface Water and Aquatic Ecosystem Management Plan; Vol 7, App 7A		
239	Continue to engage EC on the subject of water quality monitoring with a focus on compliance monitoring of discharges and aquatic effects monitoring, prior to FEIS submission.		Vol 7, Sec 3.4.4.3; Vol 10, Sec 7.4		

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240	Provide information on the reference sites selected for sediment and water quality in order to aid in providing a true picture of baseline and provide framework for the aquatic effects monitoring plan by 2012.	Related to EC item 5.1 and QIA D-4.2	Vol 7, Sec 3.2.1, 3.2.3 & 3.4.4.3		
241	EC commits to reviewing the standard operation procedures for sediment sampling developed by Baffinland, as Baffinland has committed to collecting top 1-2 centimetres of sediment as opposed to standard 5 centimetres for sediment quality characterization going forward. A standard protocol does not exist for such sampling and further discussions will be needed between EC and Baffinland.		Noted		
242	Site specific water quality objectives will be developed for, but not limited to, aluminum, chromium, uranium, and selenium.	Related to QIA F-2 & F-3 and EC 5.3c	Vol 7, Sec 3.4.1.1	Y	
243	Define minimum mixing zones for the receiving environment and consider low flow and average case scenarios. Provide revised mine contact water and treated sewage discharge quality criteria using worst case assumptions (i.e. For mine contact water discharge criteria, use 90th percentile of baseline data as opposed to means. For prediction of treated sewage discharge quality criteria, use 90th percentile for sewage monitoring data and baseline data for Sheardown Lake, Mary River and Nivek Lake and delineate minimum mixing zone as opposed to using entire lake volume for dilution). In addition, provide baseline data for sampling stations L1-02, L1-08, G0-09, F0-05, E0-10, Sheardown Lake and Nivek Lake in a modifiable format (i.e. excel).		Vol 7, Sec 3.4.1.6	Y	
244	Provide estimates of expected pit water quality in the FEIS including the acid and metal contributions made by the pit walls and adjacent waste rock piles. The FEIS will also include an assessment of the ability of proposed mine water treatment options to deal with the expected pit water quality. If necessary, alternative treatment options will be described.		Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Annex 5		
245	Develop explosives handling procedure (similar to Diavik) and provide a plan within FEIS to manage ammonia releases associated with blasting.		Vol 10, Sec 4.3;		
246	A protocol for executing ARD/ML testing as part of quarry development will be included in an updated Borrow Pit and Quarry Management Plan in the FEIS.		Vol 10, Sec 8.2.3; Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan, App B: Acid Rock Drainage Testing Protocol		
247	Provide a discussion on alternative disposal methods for brine (<i>leftover from tunnelling activities</i>) and alternatives to the use of brine for dust suppression.		Vol 3, App 3B, Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Sec 4.2 & 6.2.3		
248	Provide an update and discussion on uses of calcium chloride (CaCl) at the Mary River site.		Vol 3, App 3B, Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Sec 4.2, 6.2.2 & 6.2.3		
249	Provide information on how the fish passage flow (3Q10) was calculated for the railway water crossings given the limited stream gauge data.		Vol 7, Sec 4.5.6.4		
250	Use the recently acquired stream flow data to assess and update the earlier flow models that were used to develop the peak flow equations for return periods of 2 years, 5 years, 10 years, 25 years and 100 years.		Vol 10, App 10D-7, App 2 & Tables A2.2 & A2.3		
251	Provide the equation for the 200 year return period flow and the list of peak flow equations identified in the DEIS as the design flow for the railway crossings.		Vol 3, App 3B, Attachment 3 - Project Wide Documents - Section Summary Sheet - H337697-0000-07-248-0003 - Section 1.2 - Additional information		
252	Assess fish passage for low and average flows as part of the culvert design process.		Vol 10, App 10D-7A, Sec 3.0		
253	Expand the following tables: A 2.1, A 2.2, and A 2.3 from Appendix 2, Volume 10, Appendix D7 of the DEIS to include average water depth and velocity estimates for the culvert and channel for various (2,5,10, 25,100 and 200 year) flow estimates and the fish passage flow (3Q10) as well as a summary of the available fish habitat located upstream and downstream of potential crossing locations.		Vol 10, App 10D-7, App 2 & Tables A2.1, A2.2 & A2.3		
254	Provide more detailed information related to the criteria used to determine if fish passage is required at a watercourse crossing to better understand the decision making process and potential risk to fish.		Vol 7, Sec 4.5.6.4		
255	Provide a more detailed explanation on the criteria used to develop table 7-4.9, in order to understand the relationship between culvert size, slope and passage ability for the target fish species.		Vol 7, Table 7-4.10		
256	Clarify what criteria will be used to determine which mitigation measures are appropriate at each crossing. A monitoring program will be developed to determine if the mitigation measures installed are functioning as intended and this will include a contingency plan if found that fish passage was not maintained as predicted.		Vol 7, Table 7-4.10 & Vol 10, App 10D-7		
257	Demonstrate that Baffinland has considered feasibility of using culvert shapes other than circular pipes that have been proposed as the design standard.		Vol 7, Sec 4.5.6.3		
258	Provide an effects assessment on the impacts of the stream water diversions in the mine LSA, including mitigation measure which will be implemented to mitigate negatives impacts to fish and fish habitat.		Vol 7, Sec 4.5.5.10 & Table 7-4.15; App 10D-7		
259	Provide a review of quarry locations relative to fish habitat and assess effects on fish and fish habitat if warranted.		Vol 7, Sec 4.4; Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan		

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260	Provide the rationale for the thresholds used for productive capacity to determine the magnitude of effect on Arctic Char habitat in the determination of significance.	QIA interest	Vol 7, Sec 4.5.1	N	QIA-IR-D-06
261	When the freshwater HADD resulting from the mine site diversions has been quantified, Baffinland will develop fish habitat compensation options.		Vol 10, App 10D-7 Fish Habitat Compensation		
262	Review the selected thresholds and threshold levels for determination of magnitude of effect to ensure that they are appropriately selected and adequately described for the freshwater environment. Where possible quantitative descriptions should be provided. Issues such as potential Project expansion are addressed as Cumulative Effects and, as such are discrete from the assessment of the Project as defined and proposed in the EIS.	Related to QIA D-7	CCME PAL (and MMER, CWQB, NWB) used to define thresholds. Vol 7, Sec 3.4.1.1; 2.3.1.1 & 4.5.1; Table 7-3.8; Table 7-2.3 & Tables 7-4.2 to 7-4.5	N	QIA-IR-D-06
263	Provide mass balance modeling estimates of nitrate losses from the use of explosives into the aquatic environment, with sufficient detail that modeling methods and assumptions can be assessed. In addition, assess the adverse effects and identify treatment options for nitrate if the mass balance modelling suggests there may be chronic sub-lethal effects on the aquatic biota (for example, hormonal disruption in arctic char).	Related to QIA D-10	Vol 7, Sec 3.4.1.6	N	QIA-IR-D-117
264	Provide the following within the FEIS: the source characteristics and quantities of each effluent discharge to water, as well as maps; maps showing locations of discharge points; and effluent discharge criteria.	Related to QIA F-2	Vol 3, App 3B: • For water characteristics refer to Attachment 3 (Design Basis - Potable Water Treatment, Sec 4.2). • For effluent quantities refer to Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Table 4-1 • For Maps with discharge points refer to Attachment 9 (Stensby Inlet Environmental Monitoring Plan Site Layout, H337697-4610-07-042-0003; Mine Site Environmental Monitoring Site Layout, H337697-4610-07-042-0002 & Milne Inlet Environmental Monitoring Plan Site Layout, H337697-4610-07-042-0001) • For effluent discharge criteria Attachment 3 (Design Basis - Sewage Treatment Plant, Table 4-6 and Design Basis - Wastewater Treatment Plant (Oily Water) Table 4-7)	N	QIA-IR-F-20
265	NWB will endeavour to provide to the QIA information on the outcome of the meeting held in Edmonton on July 21, 2011 in which issues related to Engineering Drawings and Standards for Water Licensing were discussed.	Related to QIA F-2 & F-4	Noted	N	QIA-IR-F-21
266	Identify in a summary table the agency and regulatory instrument associated with each effluent discharge.	Related to QIA F-2	Vol 3, App 3B, Attachment 3 - Environmental Design Basis, Table 2, Table 3, Table 4, Table 5 & Table 6	N	QIA-IR-F-22
267	Carry out acute and chronic toxicity testing of effluent as required by MMER.	Related to QIA F-2	Vol 10, Sec 7.4; App 10D-14	N	QIA-IR-F-23
268	Site-specific guidelines will be developed, as the basis of the assessment of environmental effects to water quality as a result of discharge of mine effluents.	Related to QIA F-2 & F-3. Refer to # 270	Vol 7, Sec 3.4.1.1 & 4.1.1.6	Y	
269	Additional explanation will be provided to justify mixing assumptions between the point of discharge and the receiving environment.	Related to QIA F-3	Vol 7, Sec 3.4.1.6, Mining Assumptions	Y	
270	Use the CWQG, or any site-specific guidelines developed, as the basis of the assessment of environmental effects to water quality as a result of discharge of mine effluents.		Vol 7, Sec 3.4.1.1 & 3.4.1.6	Y	

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Socio-Economic Environment					
271	The FEIS will reference the establishment of an Executive Committee to oversee the implementation of the IIBA, in line with the IIBA.	QIA Interest	Vol 4, Sec 13.2; Vol 10, Sec 2.2	Y	
272	The FEIS will reference the establishment of a Management Committee within the framework of the IIBA to monitor the Project on a continuous basis and provide ongoing Inuit input for environmental and social monitoring of the management plans.	QIA Interest	Vol 4, Sec 13.2; Vol 10, Sec 2.2	Y	
273	The FEIS will reference the maintenance of an active stakeholder management plan to inform and involve Inuit communities with the Mary River Project.	QIA Interest	Vol 10, Sec 2.4 & 9.2	Y	
274	The FEIS will identify that compensation will be negotiated with QIA on behalf of those individuals who are unable to pursue travel activities across Steensby Inlet due to the ice track.	QIA Interest	Vol 4, Sec 10.5.2	Y	
275	Baffinland commits to develop a conceptual monitoring framework that will be included in the FEIS. This framework will include the foundation for public monitoring initiatives, development of indicators, and adaptive management that could utilize data and data sharing.	QIA Interest	Vol 4, Sec 15.0	Y	
276	The socio-economic monitoring framework set out in the FEIS will address the establishment of data-sharing relationships with key departments so that appropriate data can be utilized in both our EH&S-focused monitoring as well as in joint Executive Committee activities and public monitoring activities. We recognize these will need to take into account issues of data confidentiality. Partnerships with GN HSS, GN Education, among others, are anticipated.	QIA Interest	Vol 4, Sec 15.4	Y	
277	The FEIS will note Baffinland's intent to establish relationships with key service providers who have mandates to build capacity in Nunavut, for example Kakivak Association, Department of Education, and Arctic College to ensure Baffinland's initiatives related to human capacity development are supportive with other initiatives, and to build partnerships for joint initiatives where these are appropriate.	QIA Interest	Vol 4, Sec 3.4.2	Y	
278	The FEIS will note Baffinland's commitment to work with QIA through the IIBA business support provisions, along with local Economic Development Officers, Kakivak Association, the Baffin Regional Chamber of Commerce, the Baffin and the Department of Economic Development and Transportation to improve the success of business development opportunities presented by the Project.	QIA Interest	Vol 4, Sec 8.3.2	Y	Technical Meeting: continue to encourage all agencies to plan and develop capacity to deliver programs and services that will ensure Inuit realize project benefits
279	The FEIS will note how Baffinland will work with local and regional partners who have identified skills shortages to identify if and how Project labour needs might align with these strategic labour force development areas.	QIA Interest	Vol 4, Sec 3.5	Y	Technical Meeting: continue to encourage all agencies to plan and develop capacity to deliver programs and services that will ensure Inuit realize project benefits
280	The FEIS will make reference to Baffinland's commitment to develop a Project-focused human resources management system to meet its operational labour force needs and to assist in achieving the mutually defined objectives arising from the IIBA and overseen by the joint Inuit – Baffinland Executive and Management committees. This system will include activities to identify individuals who are interested in working in various positions of the Project so that as opportunities arise, people can be recruited by the company and by its major contractors.	QIA Interest	Vol 4, Sec 4.4.2; Vol 10, App 10F-3	Y	Technical Meeting: check for progress on implementation
281	The FEIS will address, in general terms, how Baffinland will work with its monitoring partners to identify indicators related to versatile and sustainable skills and capacities.	QIA Interest	Vol 4, Sec 3.5 & 15.4.1	Y	Socio-economic Monitoring Meeting: discuss collaborative interests and capacity issues
282	The FEIS will note Baffinland's intent to meet with key service providers (including RCMP and GN Departments of Health & Social Services and Justice) to share information, within bounds of confidentiality, and mutually seek to ensure employee access to services intended to enhance the relevant initiatives of these respective parties.	QIA Interest	Vol 4, Sec 6.3.2	Y	Technical Meeting: continue to encourage all agencies to plan and develop capacity to deliver programs and services that will ensure Inuit realize project benefits
283	The FEIS will note Baffinland's intent to work with GN Health and Social Services and Department of Justice to discuss issues related to emergency and medical services and protocols. If these discussions indicate that a formal memorandum of understanding (MOU) will facilitate smooth coordination in these areas that could be arranged.	QIA Interest	Vol 4, Sec 6.3.2 & 7.4.2	Y	Technical Meeting: continue to encourage all agencies to plan and develop capacity to deliver programs and services that will ensure Inuit realize project benefits
284	The FEIS will note Baffinland's intent to work with the Iqaluit Airport Division to discuss the proposed use of the Iqaluit airport. If substantial use of the Iqaluit airport is identified the include as subject of note within the FEIS.		Vol 4, Sec 7.4.2		

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285	The FEIS will note Baffinland's intent to work with the Department of Economic Development & Transportation (along with other agencies) within the context of IIBA commitments to business support.	QIA	Vol 4, Sec 8.3.2	Y	Technical Meeting: continue to encourage all agencies to plan and develop capacity to deliver programs and services that will ensure Inuit realize project benefits
286	The socio-economic monitoring framework set out in the FEIS will address how Inuit will be involved in the development of effective monitoring plans and in the development of adaptive management strategies.	QIA	Vol 4, Sec 15.8.1	Y	Socio-economic Monitoring Meeting
287	The socio-economic monitoring framework set out in the FEIS will address how annual reporting will be accomplished with regard to valued socio-economic components.	QIA	Vol 4, Sec 15.9	Y	
288	Baffinland commits to develop a conceptual monitoring framework that will be included in the FEIS. Baffinland will collaboratively work together, as possible, with the QIA, GN, AANDC in the development of this framework. Baffinland anticipates that the following will be taken into consideration in constructing this framework: human health and well being, social services, education, employment, demographics, life skills, substance abuse, crime (including family violence), food security, land use & harvesting and associated culture and skills.	Related to QIA C-02 to C-10, C-12, C-16, C-17 & C-21; AANDC item #7 & #9; AANDC recommendation 90, 98, 100; GN R1, R3, R10 to R13, R24, R26, R27 & R31, R34	Vol 4, Sec 4.3.5, 15.0 & 15.4.1	Y	
289	Baffinland will describe in the FEIS how information related to the reasons employees terminate their employment with the Project will be monitored. This will be addressed in the monitoring framework outlined above.	QIA Interest	Vol 4, Sec 4.4.5 & 15.3.1	Y	Socio-economic Monitoring Meeting: discuss "how" (proven problematic on other projects)
290	The FEIS will address the means by which QIA and Baffinland will work collaboratively with the GN in areas related to health and social services, and education.	Related to QIA C-12, C-17 & C-21	Vol 4, Sec 6.3.2	Y	Technical Meeting: continue to encourage all agencies to plan and develop capacity to deliver programs and services that will ensure Inuit realize project benefits
291	Review and consider socio-economic cumulative effects assessment in light of AANDC comments #8.	QIA Interest	Vol 4, Sec 10.6 & 13.4; Vol 9, Sec 1.4.5.2	Y	Technical Meeting: QIA in consultation with communities may decide to disagree with BIMC's conclusion of non-significant cumulative effects
292	Provide reference socio-economic monitoring information related to other mining projects in remote locations. This information will be provided by November 11th so that Baffinland can consider it in its preparation of the socio-economic monitoring framework to be included in the FEIS.	QIA Partly	Vol 4, Sec 15.5	Y	
293	In finalizing the FEIS, Baffinland will consider recent data presented at the 2011 Kivalliq SEMC meeting in Baker Lake related to the social effects of Meadowbank Mine, as well as a closer consideration of the social interactions addressed in the 2007 socio-economic monitoring report for the Jericho mine that was published in 2009. Other recent reports of relevant projects that are provided by AANDC prior to November 11th may also be considered.	QIA Partly	Vol 4, Sec 6.2 & 6.2.1	Y	
294	Baffinland will provide new estimates in the FEIS of tax revenues to Nunavut based on updated assumptions.		Vol 4, Sec 12.3.1		
295	The FEIS will address how Baffinland will meet with Transport Canada's marine surface and inter-modal security branch to discuss and gather required information in respect to shipping and security monitoring, and to identify relevant information to be shared with the RCMP and/or GN Department of Justice.	QIA Interest (Smuggling)	Vol 4, Sec 6.4.2 & 6.4.3	Y	
296	Baffinland will clarify in the FEIS who will be eligible to participate in the pre-employment training activities described in Appendix 10F-3 of the DEIS.	QIA Interest	Vol 4, Sec 3.4.2	Y	
297	Expand the discussion currently addressed under the DEIS Volume 4 Section 4.5.3 'Boom and Bust' heading to include further analysis of temporary shut-down effects.	QIA Partly	Vol 4, Sec 4.6.3	Y	
298	Consider including a discussion related to the effects of temporary and permanent closure of the mine and the associated economic, social and cultural effects within the FEIS.	QIA Partly	Vol 4, Sec 4.6.3	Y	
299	Review the contents of Appendix A of QIA's Technical Submission to NIRB for the purpose of facilitating discussions with QIA's EA/IIBA Review Committees during future community engagement sessions.	QIA	Vol 2, App 2A-3	Y	
300	Baffinland will include in the FEIS more information of the effects of potential in-migration into Iqaluit from outside the local study area, including effects on communities experiencing out-migration and effects on local housing issues.	QIA Interest	Vol 4, Sec 2.4	Y	
301	Provide information on status and future plans for all archaeological sites listed in Appendix 4D as having been 'partially mitigated'.		Vol 4, App 4D, Sec 5.1		

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
302	Clarify plans to undertake radiometric or other technical analyses as a means of refining the temporal framework for the archaeological resources, and for incorporating the results into the recommendations for mitigation.		Vol 4, App 4D, Sec 3.1		
303	The Proponent must provide a final footprint for the project.		Vol 3, App 3A		
304	Provide a synthesis of the archaeological resource base (i.e., the prehistory of the development area), including an assessment of the heritage value of the archaeological component of the Mary River project cultural landscape.		Vol 4, Sec 9.1.1 & 9.3.2		
305	Include a discussion of the important timing considerations associated with SDR, and how the proposed mitigation will address this issue.		Vol 4, App 4D, Sec 3.1		
306	Clarify why an additional 19 sites are recommended for SDR along the Tote Road; specifically, why these sites could not be protected/avoided through minor realignments of the road.		Vol 4, App 4D, Sec 5.1		
307	Clarify the extent to which recommendations made by consulting archaeologists formerly associated with the project have been actioned or otherwise incorporated into the proposed mitigation recommendations.		See Page 44 - 48 of "Mary River Review Comments" submitted to the NIRB on October 14, 2001; available online at www.nirb.ca		
308	Expand on the mitigation recommendations for Steensby Island; specifically, (i) why 63% of the sites are proposed for SDR, and (ii) how 'off-limits' mitigation will protect 36 other sites identified as being at 'increased risk' of impacts.		Vol 4, App 4D, Sec 8.2		
309	Clarify the status of the Tote Road. CLEY agreed to a variance on the 30m buffer for staking sites located along the road on the understanding that it was a temporary (two year) road.		Vol 4, Sec 9.6.2; App 4D, Sec 5.2		
310	Identify the sites at Milne Port for which the SDR might change upon finalization of the planning for the port. Explain how and why the SDR would change.		Vol 4, App 4D, Sec 4.2		
311	Provide greater clarity concerning the mitigation terminology being used, and the application of specific measures on a case by case basis.		Vol 4, App 4D, Sec 3.1		
312	Clarify whether shovel testing of the main beach ridges in Milne Inlet was done and the results of that work.		Vol 4, App 4D, Sec 4.0		
313	Include the assessed significance of all sites in the summary tables.		Vol 4, App 4D, Sec 3.2		

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
Environmental, Health and Safety Management System					
314	Provide a comprehensive, stand-alone Monitoring Plan to address monitoring requirements specific to water use and waste disposal activities.		Vol 10, Sec 7.4; Vol 3, App 3B, Attachment 5 - Environmental Monitoring Plan	Y	Response provided but adequacy of information requires additional analysis from QIA.
315	The comments and recommendations made by AANDC and QIA (QIA-F-02, QIA-F-03 and QIA-F-05) will be taken into account during the revision/update of the various EMMPs. These include: 1) clearly identify what mitigation measures will be implemented, how these measures will be monitored to confirm their performance, the data gaps and uncertainties identified in the DEIS and how these will be addressed through monitoring or mitigation. The revised EMMP could form the basis for a project commitments register.		Vol 10, Sec 2.0	Y	Response provided but adequacy of information requires additional analysis from QIA.
316	Implement this Environmental Health and Safety (EHS) Management Framework which is based on the principle of adaptive management and continuous improvement.	QIA Interest	Vol 10, Sec 1.0 & 1.2	Y	
317	Provide adequate resources to implement and maintain the EHS Management System, including the necessary human, material, and financial resources.	QIA Interest	Vol 10, Sec 1.0, 1.7 & 1.8	Y	
318	Integrate the application of the Precautionary Principle into the fabric of its EHS Management Framework.	QIA Interest	Vol 10, Sec 1.2	Y	
319	As part of Baffinland's EHS framework a sustainability plan will be prepared that outlines objectives, indicators and specific measurements as part of long-term environmental and socio-economic monitoring.	QIA Interest	Vol 10	Y	
320	Baffinland will be self sufficient for Search and Rescue operations (SAR) and response to environmental emergencies as it relates to Mary River Project activities, but will share relevant information with the RCMP and GN Department of Justice.		Vol 10, Sec 6.3;		
321	Maintain necessary equipment and trained personnel at the Steensby Port at all times to enable the Company to respond effectively to SAR or sea borne environmental emergencies.		Vol 10, Sec 6.3.4		
322	Include ongoing hazard and risk assessment as part of Baffinland EHS Management Framework (as outlined in Volume 10 of the DEIS) which is the basis of the Emergency Response and Spill Contingency Plan;	Baffinland commitment #42; related to QIA D-06	Vol 10, Sec 2.5; App 10A-2; App 10A-3		
323	Maintain an Emergency Response and Spill Contingency Plan that is current and adapted to the level of activities at the Mary River Project;	Baffinland commitment #43; related to QIA D-06	Vol 10, Sec 6.3.9; Vol 3, App 3B, Attachment 5 - Emergency and Spill Response Plan		
324	Provide adequate resources to implement and maintain the Emergency Response and Spill Contingency Plan, including the necessary human, material, and financial resources;	Baffinland commitment #44; related to QIA D-06	Vol 10, Sec 6.3.4; Vol 3, App 3B, Attachment 5 - Emergency and Spill Response Plan, Sec 4.0		
325	Implement annual training programs (classroom and hands-on deployment field exercises) for emergency responders to ensure that emergency response and spills contingency procedures are effective and up to date;	Baffinland commitment #45; related to QIA D-06	Vol 10, Sec 6.3.5; Vol 3, App 3B, Attachment 5 - Emergency and Spill Response Plan, Sec 4.3		
326	Invite external organization (Transport Canada, CCG, community representatives) to participate in the training exercises;	Baffinland commitment #46; related to QIA D-06	Vol 10, Sec 6.3.6		
327	Distribute its Emergency Response and Spill Contingency Plan to all relevant stakeholders.	Baffinland commitment #47; related to QIA D-06	Distributed in FEIS; future version of the plan will be distributed as noted Vol 10, Sec 6.3.8 & 6.3.9; Vol 3, App 3B, Attachment 5 - Emergency Response and Spill Contingency Plan, Table 1.0		
328	Develop a centralized data repository and data management system for all project monitoring efforts; develop integrated assessments of project environmental impact from multiple monitoring results; develop consistent protocols for community engagement and IQ integration in monitoring.	QIA	Vol 10, Sec 11.3; Vol 3, App 3B, Attachment 5- Environmental Monitoring Plan	Y	Socio-Economic Monitoring Meeting
329	Wastewater management plan will be updated for the FEIS and will reflect the requirements and design details for all phases of the proposed project (i.e. construction, operations and closure).		Vol 3, App 3B, Attachment 5 - Fresh Water Supply, Sewage and Wastewater Management Plan, Table 4.1 & Table 5.3. Requirements and design details for closure phase are covered in the Preliminary Mine Closure and Reclamation Plan.		
330	This ties in with # 244. An enhanced description of waste rock runoff treatment alternatives will be presented in the FEIS.		Vol 10, Sec 7.2.4.4; Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan, Sec 3.8.5		
331	Handling and storage of hazardous waste is part of the Waste Management Plan. Quantities of hazardous waste produced and storage locations will be updated and presented in the FEIS, as well as description of the purpose and design of all waste management facilities.		Vol 10, Sec 3.7 & 6.2; Vol 3, App 3B, Attachment 5 - Waste Management Plan, Sec 4.0		

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
332	Enhance the description of the railway management plan, including scheduling of trains, emergency equipment at sites and the specifications of tank cars that are designed to withstand the impact of derailment.		Vol 10, Sec 7.2.5; App 10D-9 Railway Management Plan, Sec 4.0		
333	An enhanced discussion of Baffinland's spill response plan to meet the challenges of the remoteness of the project site and the often severe weather which prevails, including those aspects of the Arcelor-Mittal experience pertinent to the Baffinland rail line.		Vol 9, Sec 3.4; Vol 3, Sec 2.5.2; App 3B, Attachment 5 - Emergency Response and Spill Contingency Plan; Vol 10, App 10D-9.1		
334	Baffinland will work with Transport Canada and the Canadian Coast Guard to develop emergency and spill response plans.		Noted; Meetings held after hearings and will continue as plans are finalized. Vol 10, Sec 6.3.3 Vol 3, App 3B, Attachment 5- Mary River Section Summary- H337697-0000-07-238-0005 - Section 1.3 Additional Information		
335	Clarify the types of fuel it uses with the project and the types of fuel ships will be using for powering and whether an accidental spill would require specific clean-up.		Vol 3, App 3B, Attachment 3 - Fuel System Design Criteria - Sec 3.8		
336	Assess all opportunities for relocation, redesign and mitigation to avoid negative impacts to fish and fish habitat.		Vol 10, Sec 3.5; Vol 3, App 3B - Attachment 7		
337	Based on DFO's HADD determination, Baffinland will identify a selection of concepts for fish habitat compensation, taking into consideration the hierarchy of preferences outlined in the DFO's Policy for the Management of Fish Habitat.		Volume 10 EHS Management - Appendix 10D-7 Fish Habitat Compensation		
338	Provide the following management plans as required by the NIRB's EIS guidelines. If these plans have been incorporated into other plans, provide a reference to these plans and rationale for not providing these plans as stand-alone documents. 1) Follow-up and Adaptive Management Plan; 2) Risk Management and Emergency Response Plan; 3) Shipboard Oil Pollution Emergency Plan (it is understood that this plan is developed by the ship owner, however a generic Table of Content of a SOPEP will be presented); 4) Incineration Management Plan; 5) Hazardous Materials Management Plan; 6) Air Quality Monitoring Plan; and 7) Noise Abatement Management Plan.		Vol 3, App 3B, Attachment 5 - Management Plans; Vol 10, App 10D-1 to 10D-14		
339	Present a Table of Content for Environmental Protection Plan (EPP) to reflect additional procedures likely to be incorporated as the Project moves into the construction and operation phases.		Vol 10, Sec 4.3; Vol 3, App 3B, Attachment 5 - Environmental Protection Plan		
340	Present a distinct Vegetation Management Plan as per the requirements of NIRB EIS Guidelines, and provide a more comprehensive Wildlife Mitigation and Monitoring Plan targeting terrestrial wildlife VECs (Caribou) and birds VECs (i.e. Raptor species).		Vol 10, App 10D-11, Terrestrial Environment Management Plan, Sec 4.3		

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
Abandonment, Closure and Reclamation					
341	Abide by existing regulations, policies and guidelines as they relate to mine closure in Nunavut.		Vol 3, App 3B, Attachment 10, Table 1.1		
342	Implement a progressive rehabilitation approach.		Vol 3, App 3B, Attachment 10, Sec 2.2		
343	Update its Abandonment and Closure Plan on a regular basis.		Vol 3, App 3B, Attachment 10, Sec 2.2		
344	Actively address, minimize and mitigate environmental effects as much as technically and economically feasible.		Vol 3, App 3B, Attachment 10, Sec 2.4		
345	In terms of re-vegetation, Baffinland will describe and rationalize its strategy of encouragement and enhancement of natural re-vegetation in the FEIS.		Vol 3, App 3B, Attachment 10, Sec 5.0		
346	Address comments made by QIA (F-06) and AANDC (comments #60 to 84) where appropriate regarding specific aspects of the conceptual closure plan within an updated Abandonment and Closure Plan which will be presented in the FEIS.	QIA	See below	Y	Response provided but adequacy of information requires additional analysis from QIA.
	a) The closure plan will include a cross-reference table with the QIA closure guidelines and INAC 2007 closure guidelines.		Vol 3, App 3B, Attachment 10, App C		
	b) Actively address, minimize, and mitigate the adverse environmental effects as much as technically and economically feasible.		Vol 3, App 3B, Attachment 10, Sec 2.4		
	c) Specific objectives and targets will be outlined in the closure plan.		Vol 3, App 3B, Attachment 10, Sec 11.0		
	d) The closure plan will outline objectives and targets.		Vol 3, App 3B, Attachment 10, Sec 11.0		
	e) The closure plan will address all Project components.		Vol 3, App 3B, Attachment 10, Sec 5.0		
	f) The closure plan will provide estimates of surface areas to be rehabilitated at final closure.		Vol 3, App 3B, Attachment 10, App A		
	g) At final closure, Baffinland will undertake a comprehensive site environmental assessment to determine extent of contaminated areas and appropriate techniques and methods to deal with such sites.		Vol 3, App 3B, Attachment 10, Sec 8.8 & 8.10		
	h) The closure plan will address all facilities included in the Project. The quarry management plan and quarry permit application address closure of quarries.		Vol 3, App 3B, Attachment 10, Sec 3.2		
	i) At final closure, Baffinland will undertake a comprehensive site environmental assessment to determine extent of contaminated areas and appropriate techniques and methods to deal with such sites.		Vol 3, App 3B, Attachment 10, Sec 8.8 & 8.10		
	j) Modelling of the pit water quality will be presented in the FEIS. Predictions of pit water quality will be updated throughout the life of the Project as more information comes available on the geochemistry of the waste rock and the pit wall.		Vol 3, App 3B, Attachment 10, Sec 9.2		
	k) The closure plan will present a time frame for the expected release of ARD and discuss the impact of ARD release on final closure (need for ongoing monitoring, treatment, and, potential mitigations).		Vol 3, App 3B, Attachment 10, Sec 8.11		
	l) The Closure Plan will explain what is meant by inert waste.		Vol 3, App 3B, Attachment 10, Sec 14.1		
	m) At the onset, the waste rock pile is designed for closure considerations. The FEIS will provide design criteria for the waste rock dump, a waste rock management plan (deposition strategy), stability analysis of the waste rock dump as well as discussion on thermal profile within the waste rock.		Vol 3, App 3B, Attachment 10, Sec 8.11; Attachment 5 - Waste Rock Management Plan		
	n) The Closure Plan will address all the management of all wastes generated at temporary or final closure.		Vol 3, App 3B, Attachment 10, Sec 6.2, 7.5, 7.6, 7.7, 8.8, 8.9 & 8.11		
	o) The Management Plan are "life of Project" commitments and address VECs, VSECs or specific activities. Management Plans remain in force during "Temporary Closure". Baffinland will comply with the terms and conditions of its water license with respect to ongoing monitoring and reporting obligations.		Vol 3, App 3B, Attachment 10, Sec 9.0		
	p) Provide a detailed description with clear commitments of how tunnels will be closed to protect humans in the long term.		Vol 3, App 3B, Attachment 10, Sec 8.5		
	q) Each quarry permit application presents a quarry development plan, drainage information as well as a closure plan.		Vol 3, App 3B, Attachment 6 - Borrow Pit and Quarry Management Plan, Sec 1.1		
	r) The Closure Plan will provide justification for the proposed duration of port closure monitoring. A final closure plan will be submitted 6 month prior to final closure. Baffinland will comply with the terms and conditions of the final closure plan.		Vol 3, App 3B, Attachment 10, Sec 9.0		
	s) Re-examine the list of parameters to be monitored to include any constituents that potentially could be released (based on what is used and disposed of on-site) and all potential sources of effluents.		Vol 3, App 3B, Attachment 10, Table 8-1		
	t) Provide supporting information on how creeks and rivers will be returned to pre-development conditions.		Vol 3, App 3B, Attachment 10, Sec 8.12		
	u) The cross-reference tables will be updated.		Vol 3, App 3B, Attachment 10, Sec 13.0 & App C		
	v) Conceptual reclamation method will be discussed in the closure plan.		Vol 3, App 3B, Attachment 10, Sec 5.0		

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
346	w) Provide more details and specifics within the Closure Plan including a description of the size of impacts and mitigation plans and provide a discussion of how permanent closure is defined.		Vol 3, App 3B, Attachment 10, Sec 8.0 & 11.0		
	x) Provide a separate section of the Closure Plan that is dedicated to health and safety of workers and the public during closure and post-closure activities.		Vol 3, App 3B, Attachment 10, Sec 8.1		
	y) Expand the monitoring section of the Closure Plan in scope and detail including linkages to specific objectives and major targets for reclamation and closure.		Vol 3, App 3B, Attachment 10, Sec 9.0		
347	Stability of the waste rock pile and pit wall will be addressed in the FEIS.		Vol 3, App 3B, Attachment 10, Sec 8.1		
348	The discussion and requirements for "Temporary Closure" and "Long Term Closure" will be expanded in the updated Abandonment and Closure Plan submitted with the FEIS. For Closure, either temporary or long term, all hazardous waste will be shipped off site to a licensed hazardous waste treatment facility. Inert waste will be disposed of in the landfill sites at the Mine Site or Steensby Port and discussed within the FEIS.		Vol 3, App 3B, Attachment 10, Sec 6.0, 7.0, 6.2, 7.6 & 7.5		
349	In the updated Closure Plan, Baffinland will discuss conceptual reclamation methods, time frames and schedules, including notice periods to employees and public. The updated Abandonment and Closure Plan presented in the FEIS will also contain a cost estimate for abandonment and reclamation.	Related to AANDC #81 & QIA F-06	Vol 3, App 3B, Attachment 10, Sec 5.0, 6.7, 7.9, 8.14 & 12.0	Y	Response provided but adequacy of information requires additional analysis from QIA.
350	QIA will provide Baffinland with board approved A&R plan by November 15th, 2011.		Vol 3, App 3B, Attachment 10, Table C-1		
351	Baffinland will consider QIA's A&R plans before implementing within abandonment and closure plan.	QIA	Vol 3, App 3B, Attachment 10, Table C-1	Y	Response provided but adequacy of information requires additional analysis from QIA.

Commitment #	Commitment	QIA Related Commitment	FEIS Section	FEIS Response Adequate? (Y/N)	QIA FEIS Information Request (IR#)
Commitments to Support NRCAN Requests					
352	"Baffinland will consult NRCAN on an approach to conduct a shoreline change analysis at Milne and Steensby Port sites, provide some lines describing this approach in the FEIS and include further details of a practical method after consultation with NRCAN experts in the Marine Mammal and Shipping Management Plan."		Vol 8, Sec 3.4 (Potential Effects of Circulation Alteration by Offshore Structures)		
353	"Baffinland will have ore carriers be subject to sea trials to measure wake characteristics at various vessel speeds and distances from the vessel. NRCAN understands that these trials will occur after the EIS is finalized, however FEIS will indicate the plans for such trials. Since NRCAN understands that chartered freight vessel characteristics may not be known until shortly before use, Baffinland will use estimates, some conservatism, and experience from elsewhere instead of field trials for approximation of wake chartered freight vessels."		Vol 8, App 8D-2 (Ship Wake Effects on Shoreline)		
354	"Baffinland will address potential mitigation measures for nourishment of the shoreline fronting the airstrip at Milne Port in the FEIS."		Vol 8, Sec 3.4 (Run-off From Terrestrial Areas)		
355	"NRCAN suggest Baffinland further clarify in the FEIS how long sedimentation and erosion at Milne Inlet will be interrupted/changed due to existence of a causeway."		Vol 8, Sec 3.4 (Milne Inlet)		
356	"Baffinland will provide in the FEIS a first order evaluation of the hydrodynamics and sediment transport at Milne Port. In addition in the first order evaluation indicates that considerable changes in erosion and sedimentation would result from the Milne Inlet dock and causeway infrastructure, Baffinland will provide further information and Baffinland will consult NRCAN technical experts as required."		Vol 8, Sec 3.4 (Milne Inlet)		