

STATUS OF COMMITMENTS UNDER THE NIRB CERTIFICATE RELATING TO ISSUES OF WATER USE, WATER QUALITY AND WASTE CONTROL

The following is a summary of the requirements in the NIRB Project Certificate relating to issues of water use, water quality and waste control and the status of those requirements as requested by the Water Board.

Project Certificate Numbered Commitments	Status
Tail Lake Water Quality and Water Management Strategy	
8 through 18	<p><u>Requirement 8</u>: HBML is in compliance with this requirement to install a weather station at the mine site. HBML has two meteorological stations operating on the Hope Bay Belt that meet this requirement – one at Doris Camp and the other at Boston Camp.</p> <p><u>Requirements 9-10</u>: These requirements are not applicable to HBML’s current operations because HBML is not using Tail Lake as a tailings impoundment area at this time. The Requirements are each conditioned upon “commencement of operation”.</p> <p><u>Requirement 11</u>: HBML is in compliance with this requirement to ensure that the monitoring information collected under the terms of the Project Certificate contain the listed information.</p> <p><u>Requirement 12</u>: HBML is in compliance with this requirement to maintain and archive the results of its monitoring, data and analysis for the life of the Project. The information will also be incorporated into the new project information and monitoring data.</p> <p><u>Requirement 13</u>: HBML is in compliance with this requirement to collect additional water quality data and incorporate the data into its model submitted to the NWB. The revised water quality model was submitted to the NWB as part of the water license application. HBML is now reviewing and will soon submit to the DFO and NIRB certain Doris North Aquatic Study Reports for 2006, 2007 and 2008 This will complete</p>

	<p>a commitment that was not complete at the time HBML assumed control of the Project.</p> <p><u>Requirement 14:</u> HBML is in compliance with this requirement to collect precipitation, evaporation and run-off data to submit to the NWB. This data was provided as part of the Type A Water License application submitted to the NWB.</p> <p><u>Requirement 15:</u> HBML is in compliance with this requirement to not allow the water discharged into Doris Creek to exceed the criteria set by the NWB. Because HBML has deferred the Doris North Project and its operations only involve advanced exploration, there is no water being discharged from the proposed tailings facility at Tail Lake to Doris Creek.</p> <p><u>Requirement 16:</u> HBML's current operations are in compliance with this requirement to prevent any Tail Lake discharge in violation of the Project Certificate or other regulations as such may have a negative effect on wildlife, fisheries aquatics and human health. Because HBML has deferred the Doris North Project and its operations only involve advanced exploration, there is no water being discharged from the proposed tailings facility at Tail Lake to Doris Creek.</p> <p><u>Requirement 17:</u> HBML is in compliance with this requirement.</p> <p><u>Requirement 18:</u> HBML is in compliance with this requirement to submit to the NWB a program detailing the methodology for testing quarried rock for acid generation and metal leaching potential. HBML met this requirement as part of its Type A Water Licence application and is continuing to perform these analyses for new projects.</p>
Appendix A relating to Water Quality	See Appendix C, Water Quality – TSS and Runoff below.
Appendix B	
Section 4.0 of the Project Certificate requires that HBML comply with or obtain all applicable licences, orders, permits and	HBML is complying with all applicable licences, orders, permits and directions in relation to its current activities.

directions identified in Appendix B and C.	
Appendix C - Commitments relating to water use, water quality and waste disposal	
<i>Air Quality</i>	
5. Apply water to roadways to reduce dust	In compliance
8. Submerge release of Tailings Deposition	Not applicable to HBML's current operations
<i>Water Quality -TSS</i>	
1. Install silk curtains in localized areas of permafrost degradation	Not applicable to HBML's current operations; commitment relates to TIA
2. Apply geo-textile materials or rip rap to areas where slumping is observed to stabilize the shoreline	Not applicable to HBML's current operations; commitment relates to TIA
<i>Water Quality - Runoff</i>	
3. Identifying and using quarry rock that has a low acid generation and metal leaching potential	HBML is identifying and using quarry rock that has a low acid generation and metal leaching potential.
4. Implementing industry best practice for explosive use, limiting residual nitrite and nitrite present in quarried and waste rock	HBML has implemented industry best practice methods for explosives use.
5. Completing winter construction of the roads and building pads which will mitigate the risk of sediment release during construction.	HBML has followed commitments respecting construction of roads and building pads to mitigate the risk of sediment release during construction.

6. Implementing industry best practice for sediment control and storm water management during and after construction to collect surface run-off, and discharging runoff to the tailings containment area, where the sediments would have the opportunity to settle out.	HBML is implementing industry best practices for sediment control and storm water management. Currently, HBML has not established a tailings containment area.
<i>Permafrost</i>	
1. Additional thermistors will be installed during construction.	Not Applicable to HBML's current operations.
2. Reading of thermistors will be included in routine site monitoring programs to ensure maintenance of permafrost integrity	Not Applicable to HBML's current operations.
<i>Vegetation</i>	
3. Implement dust suppression on airstrip and roads during snow/ice free period	In compliance
4. Apply water to roadways to reduce dust	In compliance
5. Install dust covers and sonic sprays to reduce dust	Not Applicable to HBML's current operations.
7. Re-contour closure landforms and placing materials so that final topography and site conditions are similar to other sites of same type in region	Not Applicable to HBML's current operations.
8. Allow and promote areas to revegetate	Not Applicable to HBML's current operations.

during operations and throughout mine life	
9. Use adaptive management approaches to ensure advances in revegetation research included in final closure planning	Not Applicable to HBML's current operations.
<i>Grizzly Bear</i>	
2-7, 10. Educate and reinforce proper waste management practices with site workers and visitors. Implement appropriate waste management protocols, including burning all food wastes in oilfield incinerator. Eliminate attractants (e.g. food waste, oil products) at landfill site. Fence landfill area appropriately. Burn waste oil in waste-oil furnaces or take off-site for recycling. On-going review of efficacy of waste management program and adaptive improvement.	In compliance
<i>Health Services</i>	
3. Have emergency response and contingency plans in place for possible medical evacuation	In compliance
<i>Fish</i>	
5. Design all water intake structures to meet DFO Freshwater Intake End-Of-Pipe Fish Screen Guidelines	In compliance
6. Install culverts to provide cross drainage	In compliance

along roadways. After mine closure, breach culverts and re-establish natural drainage and flow	
7. Construct single span bridge crossing Doris Outflow at north end of Doris Lake in winter	Not Applicable to HBML's current operations.
8. Follow federal blasting guidelines of Wright and Hopky (1998) and DFO guidelines for blasting in the Arctic	In compliance
10. Monitor water quality in Tail Lake prior to release, and decant water released to Doris Outflow to meet requirements of federal Metal Mining Effluent Regulations (MMER)	Not Applicable to HBML's current operations.
11. Monitor water quality at discharge release into Doris Outflow and downstream of the waterfall to meet requirements of Canadian Council of Ministers of the Environment (CCME)	Not Applicable to HBML's current operations.
<i>Additional Commitments</i>	
<u>DFO</u>	
1. Miramar will commit to place as much tailings as reasonable underground as backfill and conduct a mine and process engineering study to develop protocols for prioritizing material types and quantities to be placed underground. Miramar will give considerable weight to minimize impact of tailings on fish habitat	Not Applicable to HBML's current operations.

2. Miramar will monitor stage and discharge in Doris Outflow upstream and downstream of decant discharge point to provide accurate impact predictions on fish habitat downstream	Not Applicable to HBML's current operations.
7. Miramar commits to prepare a single comprehensive summary of tailings alternatives assessment, in consultation with DFO and EC, to use in regulatory phase for scheduling under MMER	In compliance
<u>EC</u>	
8. Miramar has committed to monitoring of operational permafrost thermistors in vicinity of North and South dams to ensure seepage conditions meet design criteria. Monitoring measures will be further defined in regulatory phase.	Not Applicable to HBML's current operations.
9. Miramar will update modelling of water quality and water management prior to start-up as further defined in regulatory phase, and under Water Licence	Not Applicable to HBML's current operations.
<u>EC-INAC</u>	
21. Miramar will commit to review internal aspects of water quality model relating to source release rates prior to regulatory phase and correct as necessary	In compliance

<u>GN</u>	
22. Miramar will update Hazardous Materials Management Plan as part of water license application to clarify issues in design and operation of landfarm to remediate any hydrocarbon contaminated soils, treatment of snowmelt and precipitation runoff collected in diesel fuel tank farm containment berm to remove oil prior to release	In compliance
23. MHLB will consult with GN DOE and EC to determine most appropriate methods and measured variables for monitoring during construction, operation and closure before final submission of WMMP	Ongoing Compliance
<u>INAC</u>	
29. Miramar commits to do all necessary site studies, thermal modelling and sensitivity analyses to ensure dam safety and stability, during regulatory phase and prior to construction	Not Applicable to HBML's current operations. There are no dams.
30. Miramar commits to develop a detailed Water Quality Data Analysis and Management Plan including procedures for: initial start up and ongoing calibration of analytical equipment; collection, preservation, storage and handling of samples; analytical procedures (e.g. standard	Not Applicable to HBML's current operations.

methods), checking for outliers; internal reporting and accountability for analytical data and follow-up actions	
31. Miramar commits to develop adaptive management plan to prevent and mitigate shoreline erosion as part of regulatory (water license) process	In compliance
32. When Doris North Mine is operating Miramar will initiate additional kinetic and static test work to further characterize acid generating – metal leaching potential of mine rock and tailings to provide additional data for adaptive management should conditions change or mine life be extended	Not Applicable to HBML's current operations.
<u>KIA</u>	
34. Miramar will commit to revisit TSS calculations and reassess as necessary	Ongoing Compliance
35. Miramar will commit that spill containment measures will be put in place to prevent ammonium nitrate spilt during handling being lost to groundwater or surface water runoff	Not Applicable to HBML's current operations.
36. Miramar will consider doing additional shoreline characterization of shoreline materials around Tail Lake, including possible drilling, test pitting, observations or geophysical testing necessary to complete	Not Applicable to HBML's current operations.

final detailed designs	
37. Miramar is committed to do all necessary and reasonable monitoring after closure to ensure compliance to regulatory permits	Not Applicable to HBML's current operations.
38. Miramar will consider doing additional dam foundation characterization, including drilling, test pitting, observations or geophysical testing to complete final detailed designs	Not Applicable to HBML's current operations.