This chart summarizes proponent commitments and approval requirements to provide Ministers a consolidated list. It may not be comprehensive and the source documents provided for in Schedule A should be relied for details. This summary of commitments will also serve as a basis for post-approval compliance reporting. Not all certificate conditions are summarized in this chart and the certificate should be considered in full before developing a compliance report.

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
MINE S	ITE			
1	ACID ROCK DRAINAGE/METAL LEACHING			
1.1	TEMPORARY PYRITE CONCENTRATE			
1.1.1	Design the impoundment to ensure tailings remain flooded and drainage can be collected. The impoundment will be constructed to ensure tailings remain in a flooded state.	<i>Stage -</i> Permitting <i>Lead agency -</i> MEM	<i>Stage</i> -before <i>Mines Act</i> permit	Outstanding
1.1.2	Any drainage to be primarily routed to the tailings impoundment with contingency routing to pyrite concentrate impoundment if tailings are exposed.	<i>Stage -</i> Permitting <i>Lead agency -</i> MEM	<i>Stage</i> - before <i>Mines Act</i> permit	Outstanding
1.2	PAG WASTE ROCK OUTSIDE UPPER PORTALS			
1.2.1	Conduct detailed material characterization. If it is determined that drainage from this source causes a significant environmental impact, backfill and encapsulate or otherwise mitigate the PAG/ARD-generating portion of the waste rock.	<i>Stage -</i> Permitting <i>Lead agency -</i> MEM	<i>Stage -</i> before <i>Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
1.3	DRAINAGE INPUTS			
1.3.1	Take all reliable measures to grout and seal and divert drainage from entering any openings.	<i>Stage</i> - Permitting/construction <i>Lead agency</i> - MEM	<i>Stage</i> - Exploration Reclamation Permit	2002 - Partially fulfilled
1.4	DRAINAGE DISCHARGE			
1.4.1	Ensure the underground drainage system transports all contaminated water to the collection location for effluent treatment plan.	Stage - Construction and operation	<i>Stage -</i> design before <i>WMA</i> permit/ <i>Mines Act</i> permit	Outstanding
1.4.2	To reduce treatment costs, wherever feasible divert clean water away from areas of potential contamination and, if possible, discharge separately.	Stage - Construction and operation	<i>Stage -</i> design before <i>Mines Act</i> permit	2002 -Partially fulfilled
1.4.3	During the initial phases of mitigation, clear debris from adits and then build temporary dams to divert any contaminated drainage in the upper workings to the raise/stope system.	Stage - Construction and operation	<i>Stage -</i> design before WMA permit / <i>Mines Act</i> permit	Outstanding
1.4.4	Cemented paste backfill to be used to effect permanent drainage control.	Stage - Construction and operation Lead agency - MEM	<i>Stage -</i> before <i>Mines Act</i> permit	Outstanding
1.5	BACKFILL			
1.5.1	The cemented low-S tailings paste used to backfill the historic workings to have a high enough cement or limestone content to be NPAG.	<i>Stage - Operation and closure</i> <i>Lead agency -</i> MEM	<i>Stage -</i> before <i>Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT	IMPLEMENTATION Project stage for	PROPONENT INFORMATION	STATUS OF
	impact management component(s)	implementation of commitment/Lead Agency	Stage for filing of plan/ documentation (if applicable)	WITH COMMITMENT
1.6	CONTINGENCY MEASURES			
1.6.1	If, after all feasible backfilling of ARD generating portions of the historic working, the acid/metal drainage discharge still requires treatment prior to discharge, examine possible additional mitigation measures.	<i>Stage</i> - Operations <i>Lead agency -</i> MEM	Stage - After backfilling	Outstanding
1.6.2	Comply with the Terms of Reference for a Contingency Plan for Tailings Pond Seepage at Shazah Slough found in Appendix 2B of Appendix 11 to the Report and Recommendations of the Project Committee, March 1998.	<i>Stage</i> - Construction and operation <i>Lead agency</i> - MWLAP	<i>Stage -</i> before WMA permit	Outstanding
1.7	HISTORIC WASTE ROCK			
1.7.1	Unless it is demonstrated that there is no significant environmental impact, collect and treat all acidic drainage from the surface waste rock.	Stage - Operations Lead agency -MWLAP/MEM	<i>Stage - Mines Act</i> permit/ WMA permit	Outstanding
1.8	IRON COLLOID SLUDGE			
1.8.1	During full mine operation, either encapsulate iron sludge in the upper- workings backfill and/or use it along with the treatment sludge in the tailings backfill pumped into the new mine workings.	Stage - Operations Lead agency -MEM	<i>Stage - Mines Act</i> permit	Outstanding
1.8.2	Use temporary storage locations, where underground work occurs prior to the construction of the backfill plant or the availability of permanent backfill locations.	Stage - Operations Lead agency -MEM	<i>Stage - Mines Act</i> permit	Outstanding
1.8.3	To avoid release of co-precipitated metals, add limestone to neutralize the acidity and suppress metal release.	Stage - Operations Lead agency -MEM	<i>Stage - Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
1.9	TEMPORARY PAG WASTE ROCK DUMP			
1.9.1	The dump design to allow drainage from the waste rock and ore to be collected and transported to the effluent treatment plant. The collection system to be capable of operating over the expected range of climatic conditions, capable of withstanding the geotechnical hazards, and have capacity for both expected mass of PAG waste rock and separate storage of ore. An impervious liner to be used in the temporary waste rock dump to prevent drainage migration into underlying porous soils.	<i>Stage -</i> Construction <i>Lead agency -</i> MEM	<i>Stage -</i> before <i>Mines Act</i> permit	Outstanding
1.10	NPAG WASTE ROCK DUMP			
1.10.1	<ul> <li>Conduct the following monitoring to ensure no PAG waste rock is mistakenly classified as NPAG and stored in the NPAG waste rock dump:</li> <li>Detailed pre- and post-blasting ABA monitoring for newly created waste rock; and</li> <li>Detailed ABA monitoring and visual identification to separate PAG and NPAG in historic waste rock.</li> </ul>	<i>Stage -</i> Operations <i>Lead agency -</i> MEM	<i>Stage</i> - before <i>Mines Act</i> permit	Outstanding
1.10.2	NPAG defined as having an adjusted NPR of > 2	Stage - Operations Lead agency -MEM	<i>Stage -</i> before <i>Mines Act</i> permit	Outstanding
1.10.3	Any proposal to refine the PAG/NPAG criteria for all or a potion of the waste will require comprehensive mineralogical and	Stage - Operations	Stage - Operations	Outstanding
	kinetic supporting evidence.			

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
1.11	PLANT SITE			
1.11.1	Drainage to report to a separate sump allowing "if required" collection of contaminated drainage and will not report to the pyrite concentrate impoundment.	Stage -Operations Lead agency- MWLAP/MEM	<i>Stage - WMA</i> permit/ <i>Mines Act</i> permit	Outstanding
1.12	NEW UNDERGROUND WORKINGS			
1.12.1	Prior to closure, refine the predicted rate of flooding.	Stage -Pre-closure	<i>Stage - WMA</i> permit	Outstanding
1.12.2	Monitor water chemistry of drainage to measure progress of weathering and build- up in residual acidity in backfilled PAG waste rock.	Stage - Operations Lead agency -MEM	<i>Stage - WMA</i> permit	Outstanding
1.12.3	Due to the importance of limiting acid build- up prior to flooding, reassess the backfill composition, including its resistance to weathering under the range of possible conditions, determine the necessary minimum cement content and/or take suitable alternative strategies to ensure little or negligible pyrite oxidation will occur in the backfill prior to flooding.	<i>Stage -</i> Operations <i>Lead agency -</i> MEM	<i>Stage - WMA</i> permit	Outstanding
1.12.4	The mine plan will ensure that measures can be taken at the end of mining to ensure neutralization of the mine pond is feasible and loadings from this source will not exceed permitted discharge limits.	Stage - Closure Lead agency -MEM	<i>Stage -</i> pre <i>Mines Act</i> permit	Outstanding
1.13	COLLECTION AND TREATMENT			
1.13.1	Collect and treat all significant ARD	<i>Stage -</i> Operations and closure <i>Lead agency -</i> MEM and MWLAP	Stage - WMA permitting	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
2	TAILINGS POND			
2.1	TAILINGS POND – Stability Testing			
2.1.1	Further sampling of Shazah Fan to determine whether it was created gradually or through a catastrophic event	Stage - prior to mine or road construction commencing <i>Lead agency</i> - MEM	<i>Stage - Mines Act</i> permit <i>Year -</i>	Submission date - Sign-off date - Compliance status -
2.2	MAIN SURFACE TAILINGS IMPOUNDMENT			
2.2.1	To be used only for low-S tailings	Stage - Operation	Stage - Mines Act permit	Outstanding
2.2.2	Add crushed limestone to slurry to achieve minimum NPAG criteria	Stage - Operation	Stage - Mines Act permit	Outstanding
2.2.3	Monitor surface composition of the pond, with possible contingency surface limestone addition if calcite and pyrite are deposited in different locations	Stage - Operation Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding
2.2.4	Use liner to limit drainage prior to sealing by tailings.	Stage -Construction, operation	<i>Stage - Mines Act</i> permit	Outstanding
2.2.5	Only use for temporary ARD disposal as contingency if treatment plan inoperable and U/G storage capacity full	Stage - Operations Lead agency -MEM	Stage - Mines Act permit	Outstanding
2.2.6	Operationally maintain pond in centre to maximize path length for seepage through tailings.	<i>Stage -</i> Operations <i>Lead agency -</i> MEM	<i>Stage - Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
2.2.7	At close, ponded water to be removed and treated prior to discharge. Surface to be mounded to minimize infiltration.	<i>Stage -</i> Closure <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	Outstanding
3	WATER QUALITY - CHRONIC TOXICITY TESTING			
3.1	Chronic toxicity testing to be conducted according to the protocol developed under the lead of MWLAP with the Taku River Tlingits, technical staff from Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, US Fish and Wildlife Service, US Environmental Protection Agency, Environment Canada, and Fisheries and Oceans Canada.	<i>Stage -</i> Permitting <i>Lead agency -</i> MWLAP	<i>Stage -WMA</i> permit <i>Year -</i>	Submission date - Sign-off date - Compliance status -
3.1.1	The program will begin at the next available opportunity for bench scale effluent to be produced. The program would be iterative, and would continue beyond "start up", as a routine part of ongoing permit requirements.	Stage - Pre construction Lead agency - MWLAP	<i>Stage -WMA</i> permit <i>Year -</i>	Submission date - Sign-off date - Compliance status -
3.1.2	In addition to ongoing routine toxicity testing, testing may be triggered by other events such as changes in effluent chemistry during mine operations, to assist in determining whether aquatic resources may be affected by such changes. Each round of test results will then be used to fine tune discharge requirements in the WMA permit.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	<i>Stage -WMA</i> permit <i>Year -</i>	Submission date - Sign-off date - Compliance status -
4	DISCHARGE OF MINE WATER			
4.1	Develop a discharge system appropriate for water quality objectives and hydrodynamics, approved by MWLAP	Stage - Construction Lead agency - MWLAP	Stage - WMA permitting	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
4.2	Baseline water quality sampling to focus on better defining the currently affected zone below existing mine water discharges	Stage - Operations Lead agency -MWLAP/MEM	Stage - WMA permitting/ <i>Mines Act</i>	2002 - Complete
4.3	In case of a temporary shutdown of the effluent treatment plan, the mine water will be stored within a dammed portion of the 5400 level (north drift in hangingwall - non PAG rocks). In case more storage is required, mine water will be pumped to the final tailing pumpbox where lime will be added before being discharged into the tailing impoundment.	<i>Stage -</i> Operations (temporary shut down) <i>Lead agency -</i> MWLAP/MEM	<i>Stage -</i> WMA permitting/ <i>Mines Act</i> permit	Outstanding
4.4	Construction of an interim treatment plant to begin treatment of the PAG and 5400 level waste dumps and as much minewater as possible, when plant infrastructure, access, and suitable sludge storage locations permit.	Stage - Operations Lead agency - MWLAP	<i>Stage -</i> WMA permit	Outstanding
4.5	Propose water quality objectives for parameters such as aluminum which naturally occur in high concentrations in the watershed.	Stage - Pre construction Lead agency - MWLAP	<i>Stage -</i> WMA permit	Outstanding
4.6	Assess the Big Bull mine water discharge to determine whether there is sufficient dilution in the Taku River to effectively minimize unacceptable impacts on the environment	Stage - Pre construction Lead agency - MWLAP	<i>Stage -</i> WMA permit	2002- Partially fulfilled
4.7	In the event of the pyrite storage liner leaking, maintain a water cover to reduce the potential for ARD generation, or if this is not possible, move the material underground and store it in a flooded storage state.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
4.8	For contaminated site surface water run-off, pump overflow water to the effluent treatment mix tank or process water storage as a separate settling pond facility.	Stage - Operations Lead agency - MWLAP/MEM	<i>Stage - WMA</i> permit/ <i>Mines Act</i> permit	Outstanding
4.9	In the event of a temporary mine closure, continue to store pyrite concentrate remaining on surface in the pyrite storage pond.	Stage - Operations Lead agency -MWLAP/MEM	<i>Stage - WMA</i> permit/ <i>Mines Act</i> permit	Outstanding
4.10	If the shutdown is permanent, return all the pyrite concentrate and rock in the PAG stockpile underground.	<i>Stage -</i> Closure <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	Outstanding
5	CONTINGENCY PLAN			
5.1	The degree of risk associated with seepages of tailing pond water into Shazah Slough is governed by inputs to the tailings pond. This dictates that inputs will occur according to a set of criteria which will guarantee acceptable volumes of high quality (low concentrations of contaminants) seepage.	Stage -Pre construction to post operation Lead agency - MWLAP/MEM	<i>Stage - WMA</i> permit/ <i>Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
5.2	Seepage quality, quantity and movement will be tracked by monitoring wells. The number and locations of these wells and sampling frequency, chemical analyses of samples and flow measurements from them will be sufficient to ensure the following: - the potential for impacts to aquatic life in Shazah Slough is understood at any given time, and tracked so that contingencies may be initiated in time to eliminate or mitigate impacts prior to their occurrence. Tracking of chemical parameters of potential concern will include, but not necessarily be limited to Cd, Cu, Pb, Zn, Sb, Al, CN and SO <sub>4</sub> . - the degree of potential impact is estimated so that an appropriate level of effort is determined and expended through employing contingencies.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP/MEM	<i>Stage -</i> WMA permit/ WMA permit	Outstanding
5.3	The EEM program set out by the proponent to be approved in a <i>Waste Management Act</i> permit will be used to provide a second means of determining when, for how long and to what degree contingencies need to be employed to protect aquatic life in Shazah Creek.	<i>Stage -</i> Plan <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	2002 - Partially fulfilled
5.4	Objectively defined triggers for action must be developed by the proponent and accepted through technical review, prior to seepages occurring. Triggers must be based on limits of acceptable change such as those provided by established provincial and national water and sediment criteria, or as established by the state of scientific knowledge of toxicity thresholds for aquatic life.	Stage - Plan Lead agency -MWLAP	<i>Stage</i> -WMA permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
5.4.1	These triggers should include (but not necessarily be limited to): measures of seepage quality and quantity as monitored through wells and/or in the immediate vicinity of groundwater discharge to the slough; measures of potential or actual aquatic ecosystem health, such as chronic toxicity testing, measures of mining related changes in aquatic ecosystem dynamics such as aquatic species diversity and abundance (fish, invertebrates, macrophytes and algae); and measures of metals accumulation in aquatic plants.	Stage - Operations Lead agency -MWLAP	<i>Stage</i> - pre WMA permit	Outstanding
5.5	Established experimental design principles for environmental effects monitoring and contingency effectiveness monitoring will be used to ensure that:	Stage - Plan Lead agency-MWLAP	<i>Stage -</i> WMA permit	Outstanding
5.5.1	- the monitoring and assessment system includes adequate reference sites to differentiate between natural and mining related changes in impact indicator parameters	Stage - Operations Lead agency-MWLAP	<i>Stage -</i> WMA permit	Outstanding
5.5.2	<ul> <li>the degree of sensitivity of the impact monitoring and assessment tools and methods are sufficient to detect meaningful change.</li> </ul>	Stage - Operations Lead agency-MWLAP	<i>Stage -</i> WMA permit	Outstanding
5.5.3	- impact indicators are chosen and used so that contingencies are employed prior to unacceptable changes occurring to aquatic life.	Stage - Operations Lead agency- MWLAP	<i>Stage -</i> WMA permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if	STATUS OF COMPLIANCE WITH COMMITMENT
5.6	As a contingency, remove ground water through pumping if water quality poses a	Stage - Operations	applicable) Stage - WMA permit	Outstanding
	threat to Shazah Slough. Pump to either Shazah Creek or Tulsequah River depending on available dilution.	Lead agency- MWLAP		
6	RECLAMATION AND ABANDONMENT - Mine Site			
6.1	Develop detailed reclamation plan to return the disturbed lands to their predevelopment state as best as practicable	Stage - Permitting Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.2	The reclamation plan will include: Surface waste rock dumps, comprised of only neutral non acid generating material will be recontoured to a stable slope at the end of the project	Stage - Closure Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.3	All surface disturbed areas will store salvaged soil for use in subsequent reclamation	Stage - Closure Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.4	Potentially acid generating products and waste rock will be returned to the underground stopes and be sealed with cement back-fill to minimize oxidation.	Stage - Closure Lead agency- MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.5	At closure, the mine will be flooded to further preclude acid generation.	Stage - Closure	Stage - Mines Act permit	Outstanding
6.6	Further comply with reclamation and decomissioning plan as outlined in Project Report Volume V, section 8	Stage - Closure	<i>Stage - Mines Act</i> permit	Outstanding
6.7	Revegetate along the cleared road side areas within approximately one year of construction at the mine site.	Stage - Operations       Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
6.8	Prior to major surface disturbance the proponent will collect more baseline information, including:	Stage - Pre construction Lead agency - MEM	Stage - Mines Act permit	Outstanding
6.8.1	- additional baseline vegetation metals data in and around the minesite to better represent the potentially impacted areas and to provide for a basis for statistically valid comparisons	Stage - Pre construction Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.8.2	- comprehensive solid metals sampling in all areas with potential for elevated metal levels as a result of mining activities, to address requirements of the contaminated sties legislation	Stage - Pre construction Lead agency - MEM	Stage - Mines Act permit	Outstanding
6.8.3	- completing a 1:5000 scale TEM mapping of the mine site area to establish a basis for determining end land use objectives reclamation activities and monitoring for reclamation success	<i>Stage</i> - Pre construction <i>Lead agency</i> - MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.8.4	- providing cross sections of the waste dumps showing adjacent topography and final regraded configurations at closure, to ensure that dump closure configurations would allow for placement of suitable reclamation growth media; and	<i>Stage</i> - Pre construction <i>Lead agency</i> - MEM	<i>Stage - Mines Act</i> permit	Outstanding
6.8.5	- more detail on soil salvage mapping, proposed training and supervision of operators of the salvage, and details of a soils handling plan	Stage - Pre construction Lead agency - MEM	<i>Stage - Mines Act</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT	IMPLEMENTATION Project stage for	PROPONENT	STATUS OF COMPLIANCE
	impact management component(s)	implementation of commitment/Lead Agency	Stage for filing of plan/ documentation (if applicable)	WITH COMMITMENT
ACCES	S ROAD			
7	LOCATION			
7.1	Ensure, during final alignment studies, that the access road utilized existing access wherever possible to minimize total access	<i>Stage -</i> Permitting <i>Lead agency -</i> MoF	Stage - SUP	Outstanding
7.2	Ensure that the final alignment studies include assessment of important grizzly bear patch habitat, avoid heritage resources including the TRTFN historic trail where possible, and incorporate winter construction to the extent possible within the access right- of-way	<i>Stage -</i> Permitting <i>Lead agency -</i> MoF	Stage - SUP	Partially fulfilled
8	ATLIN - WHITEHORSE ROAD			
8.1	Reach agreement with the Yukon government regarding the costs of upgrading the Atlin public highway and maintaining it while ore hauling is in progress.	Stage - Pre-construction Lead agency - YTG	<i>Stage -</i> Before use of the road for ore hauling	Outstanding
8.2	Upgrade the Yukon portion of the Atlin road as negotiated with YTG.	Stage - Construction Lead agency - YTG	Stage - Before use of the road for or hauling	Outstanding
8.3	Upgrade the BC portion of the Atlin road to accommodate mine related traffic in a safe and cost effective manner: - The gravel portion must be strengthened (base = 350 mm SGSB + 150 mm CBC), widened (8.2 m top), and hard surfaced (graded aggregate seal coat). - Minor realignments (80 kmph standard where cost effective) are required.	<i>Stage</i> - Construction <i>Lead agency</i> - MoT	Stage - The improvements, or equivalent cash contribution for the proponent's share of the costs, must be in place before the mine begins ore haul.	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
8.4	Reach agreement with BC MoT regarding responsibility for additional costs that would be incurred to meet the needed specifications and schedule, above and beyond MoT's existing plan to improve the highway.	<i>Stage -</i> Pre-construction <i>Lead agency -</i> MoT	Stage - Agreement to be reached pre construction	Outstanding
9	ROAD OPERATION AND MAINTENANCE			
9.1	Conduct road maintenance in accordance with section 6.5 Volume IV Project Report and in accordance with the plan approved by the District Manager, MoF, substantially as outlined in the Environmental Supervision Plan, dated May 21, 1999.	<i>Stage</i> -Operations <i>Lead agency -</i> MoF		Outstanding
10	DEACTIVATION - ACCESS ROAD			
10.1	Deactivate the access road (both "north" and "south" sections) at the end of the project, by ripping, regrading and contouring the road prism in areas of high erosion potential, removal of bridges and culverts, and restoring of watercourse to the satisfaction of the District Manager, MoF, unless Redfern is directed to transfer control of road management to another entity or agency.	<i>Stage -</i> Closure <i>Lead agency -</i> MoF	Stage - SUP	Outstanding
10.2	Provide a bond as security for road deactivation, such bond amount to be determined by the District Manager, MoF.	Stage - Pre construction Lead agency -MoF	Stage - SUP	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
WATER	QUALITY			
11.1	QUALITY ASSURANCE/QUALITY CONTROL			
11.1.1	Conduct further QA/QC monitoring as outlined in the Aquatic Environmental Effects Monitoring Plan found in Appendix 2A of Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	<i>Stage</i> - Operations <i>Lead agency</i> -MWLAP	<i>Stage - WMA</i> permit	2002 - Partially complete
11.2	AQUATIC ENVIRONMENTAL EFFECTS MONITORING			
11.2.1	Conduct the work outlined in the Environmental Effects Monitoring Plan found in Appendix 2A of Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	Stage - Plan Lead agency -MWLAP	<i>Stage - WMA</i> permit	Partially fulfilled
11.2.2	Conduct further EEM work which will include fish tissue metals concentrations and sedimentation impacts along the access roads in steeper terrain and other sensitive areas along the Nakonake River as requested by DFO	<i>Stage -</i> Operations <i>Lead agency -</i> DFO	<i>Stage - WMA</i> permit	Partially fulfilled
11.2.3	Ongoing monitoring of water quality in the tailings containment areas, the mine water discharge, selected stream crossings of greater fisheries significance associated with the access road.	Stage -Operations Lead agency -MWLAP	<i>Stage - WMA</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
11.2.4	Conduct sampling according to Potential Sampling Framework for Years 1 and 2 (Table 1 to 1998 Aquatic Effects Monitoring Program) or similar framework, to the acceptance of MWLAP	<i>Stage -</i> Plan <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	Outstanding
11.2.5	Finalize impact indicators in consultation with DFO and MWLAP (preliminary list in 1998 Aquatic Effects Monitoring Program)	Stage - Plan Lead agency -MWLAP	<i>Stage - WMA</i> permit	Outstanding
11.2.6	Link environmental effects monitoring to impact mitigation or contingency measures which would be triggered when a component or parameter of the monitoring program exceeded some predetermined level or range. Finalize contingency measures with MWLAP and DFO.	<i>Stage -</i> Plan <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	Outstanding
11.2.7	Measurements for receiving water flows	Stage - Plan Lead agency - MWLAP	<i>Stage - WMA</i> permit	Outstanding
11.2.8	Measurements for discharge flows	<i>Stage -</i> Plan <i>Lead agency -</i> MWLAP	<i>Stage - WMA</i> permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
11.2.9	Include these conceptual sampling locations associated with the mine: 1a) ground water monitor upgradient from tailings area (background) 1b) ground water monitoring wells down gradient from tailings containment areas (source) (pond contents will be sampled according to the Permit to Discharge) 2) Shazah Creek upstream of tailings area (lotic background) 3) Shazah Slough down gradient of tailings area (mixing zone) 4) "Airstrip Slough" on opposite side Shazah Slough (lentic slough background) 5) Shazah Creek adjacent to slough mixing zone (creek mixing zone) 6) Shazah Creek immediately down gradient of Shazah tributary upgradient (E.) from tailings area (2 <sup>nd</sup> lotic background) 8) Shazah tributary above confluence with Shazah Creek (2 <sup>nd</sup> lotic mixing zone) 9) Shazah Creek at mouth above confluent with Tulsequah 10) Additional slough environment (2 <sup>nd</sup> lentic background) 11) Tulsequah River upstream of Shazah Creek (far field site) 12) Tulsequah River downstream of Tulsequah Chief Mine (far field site) 13) Tulsequah River within Initial Dilution Zone of treated process water (mixing zone; treated effluent will be sampled according to requirements of Permit to Discharge)	Stage - Plan Lead agency -MWLAP	Stage - WMA permit	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
11.2.10	Sampling sites associated with the access road will focus on the six crossings where there is potential for moderate to high downstream sedimentation impacts	Stage - Operations Lead agency -MWLAP	<i>Stage - WMA</i> permit	Outstanding
11.2.11	Tailings pond seepage: monitor groundwater quality throughout the life of the project.	Stage - Operations Lead agency -MWLAP	<i>Stage - WMA</i> permit	Outstanding
12	ENVIRONMENTAL SUPERVISION PLAN			
12.1	Comply with the Environmental Supervision plan found in Appendix 1 to Appendix 11 of the Report and Recommendations of the Tulsequah Chief Project Committee March 1998.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	Stage - Pre certification commitment	Outstanding
FISH AN	ND FISH HABITAT			
13	FISH AND FISH HABITAT MITIGATION AND COMPENSATION PLAN			
13.1	Comply with the Fish and Fish Habitat Mitigation and Compensation Plan found in Appendix 6 to Appendix 11 of the Report and Recommendations of the Tulsequah Chief Project Committee March 1998.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	Stage - Pre certification commitment	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
WILDLI	FE			
14	TRAPPING			
14.1	Conduct annual consultations with current trapline owners and local hunters to assess actual impacts and conduct appropriate mitigation or compensation where needed.	Stage - Operations Lead agency - MWLAP	Stage - Wildlife Act	Outstanding
15	CUMULATIVE EFFECTS ASSESSMENT GRIZZLY BEAR TERMS OF REFERENCE PLAN			
15.1	Comply with the Grizzly Bear Cumulative Effects Analysis Terms of Reference found in Appendix 3 to Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	<i>Stage</i> - Operations <i>Lead agency</i> - MWLAP	<i>Stage</i> - Pre certification commitment	2002 -Proponent financial commitment to plan fulfilled. Provincial commitments partially fulfilled
16	GRIZZLY BEAR LONG TERM MONITORING PLAN			
16.1	Comply with the Grizzly Bear Long-term Monitoring Plan Appendix 4 to Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	Stage - Operations Lead agency -MWLAP	Stage - Pre certification commitment	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
17	WILDLIFE (UNGULATE) MONITORING PLAN			
17.1	Comply with the Ungulate Monitoring Plan found in Appendix 5 to Appendix 11 of the Report and Recommendations of the Project Committee, March 1998.	Stage - Operations Lead agency- MWLAP	<i>Stage -</i> Pre certification commitment	2002 - Partially fulfilled
18	WILDLIFE MITIGATION - ACCESS MANAGEMENT <sup>1</sup>			
18.1	Education of construction personnel and contractors on the requirement to adhere to the corporate policy and commitments made by the proponent and the specific environmental mitigation practices to be incorporated in road construction including, for example: siltation reduction and capture methods, stream crossing guidelines for equipment, spill abatement, wildlife species and habitat issues, firearm, hunting and fishing prohibitions for all personnel.	<i>Stage -</i> Construction <i>Lead agency -</i> MWLAP	<i>Stage -</i> Pre certification commitment	Outstanding
18.2	Install locked gates at beginning and end of new 12 km stretch of road through Spruce- Wilson	Stage - Construction Lead agency –MoF; MWLAP	<i>Stage -</i> Pre certification commitment	Outstanding
18.3	Develop and adopt further access and use controls specified in the operations phase as soon as practicable once construction segments are completed.	Stage - Construction Lead agency -MWLAP	<i>Stage -</i> Pre certification commitment	Outstanding
18.4	Begin identification of sensitive wildlife habitat and crossing locations and adjust traffic control as necessary.	Stage - Construction Lead agency -MWLAP	<i>Stage -</i> Pre certification commitment	Outstanding

<sup>&</sup>lt;sup>1</sup> No access management measures outlined in this document restrict human access by means currently available (foot, plane, boat, or helicopter to the project area. Restrictions would only apply to the mine access road and the enclosing right-of-way as established under the Special Use Permit and *Mining Right of Way Act* authorization.

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
	SOUTH AREA (O'Donnel River to Mine)			
18.5	Install a gate at the O'Donnel river bridge crossing (near km 105) and ensure it is attended full-time to supervise and control access to the road south of the O'Donnel river to the mine site.	<i>Stage -</i> Operations <i>Lead agency –</i> MWLAP; MoF	Stage - Pre certification commitment	Outstanding
18.6	Restricted use of the road will be authorized under <i>the Mining Right of Way Act</i> and other applicable legislation as deemed appropriate and necessary by regulatory authorities. ( <i>Forest Act, Environment and Land Use Act,</i> <i>Wildlife Act.</i> ) The intention will be to use the legislation to restrict use of the road to mine vehicles, to the extent possible. As the deemed owner of the access road under the MRWA, the proponent has the right to charge such users for access rights and to require the permitted party to abide by all applicable restrictions governing the use of the road, including firearm and hunting/fishing prohibitions and other restrictions.	<i>Stage -</i> Operations <i>Lead agency -</i> MEM	<i>Stage -</i> Pre certification commitment	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
18.7	Non-industrial tenure holders must apply to the Minister of Energy and Mines for authorisation to use the road, without charge, to access their tenures for their permitted purposes. The proponent retains the right and will strictly prohibit access to all parties who do not have such authorisation. Authorised users will be required to abide by all road use restrictions and operating procedures or will be denied access. The proponent considers that this provision would apply equally to all current non-industrial tenure holders	Stage - Operations Lead agency - MEM	Stage - Pre certification commitment	Outstanding
19	WILDLIFE AND FISHERIES - OTHER MITIGATION MEASURES			
19.1	Prohibition against carrying firearms on all mine or mine contractor vehicles using the access road. Defense of Life and Property measures to use non-lethal deterrent measure to the full extent possible and control by wildlife conservation officers as necessary. Under exceptional circumstance, the Mine Manager or delegate may authorize the carrying of a firearm by mine personnel for defence and preservation of life purposes only.	<i>Stage -</i> Operations <i>Lead agency -</i> MEM	<i>Stage -</i> Pre certification commitment	Outstanding
19.2	Prohibition against all hunting or shooting within the mine access road right of way, by <i>Wildlife Act</i> order if required	Stage - Operations Lead agency MWLAP	<i>Stage -</i> Pre certification commitment	Outstanding
19.3	Prohibition of fishing within the right of way for all authorized users of the access road.	Stage - Operations Lead agency - MWLAP	<i>Stage -</i> Pre certification commitment	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
19.4	No recreational use of the access road right of way by all mine employees, contractors and visitors.	Stage - Operations Lead agency - MWLAP	Stage - Pre certification commitment	Outstanding
19.5	The road will be posted as a restricted road accessible only to authorized users. Two- way radio use will be required for all traffic on the road for vehicle location identification and traffic safety management. Base radios will be located at the mine site and the access control gate to monitor traffic.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	Stage - Pre certification commitment	Outstanding
19.6	All mine traffic will be required to report and identify unauthorised road traffic in order to enforce the access management restrictions. Mine security personnel will intercept unauthorized traffic and escort them to the security gate and will contact appropriate provincial enforcement authorities as necessary.	Stage - Operations Lead agency	Stage - Pre certification commitment	Outstanding
19.7	Access road priority of right of way will be 1) wildlife, 2) loaded concentrated trucks, 3) loaded supply trucks, 4) personnel transport bus, and 5) light vehicles. Radio calls of vehicle locations at kilometre signposts will allow vehicles to identify proximity to approaching vehicles and lower priority vehicles will be required to pull aside into turn-out locations to allow priority vehicles to pass. All vehicles will cede right of way to wildlife.	Stage - Operations Lead agency	<i>Stage</i> - Pre certification commitment	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT
	NORTH AREA (Atlin Highway to manned gate at O'Donnel)			
19.8	Where the proponent's access road overprints the existing road system, the road will be radio controlled and will be posted to ensure that all potential users comply with the road usage safety restrictions to avoid collision with mine vehicles.	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	Stage - Pre certification commitment	Outstanding
19.9	For safety reasons, the proponent will seek designation from MWLAP of a "no shooting" zone for the entire access road pursuant to the provisions of the <i>Wildlife Act</i>	Stage - Operations Lead agency-	Stage - Pre certification commitment	Outstanding
19.10	Where the access road departs from the existing unregulated road network and is considered "new" road access for the purposes of the mine access traffic requirements (upper Wilson Creek to Spruce Creek crossing), the proponent will install unmanned locked gates to restrict access to the new road to authorized users only. Location of these gates will be subject to consultation with the District Manager of the Ministry of Forests. Signs will be posted advising of the presence of the gates and that access is restricted to only authorized users pursuant to the applicable legislation and road safety and usage requirements.	Stage - Operations Lead agency -MoF	Stage - Pre certification commitment	Outstanding

Commit-	PROPONENT COMMITMENT		PROPONENT	STATUS OF
ment #	Impact Management Component(s)	Project stage for implementation of commitment/Lead Agency	INFORMATION Stage for filing of plan/ documentation (if applicable)	COMPLIANCE WITH COMMITMENT
19.11	Access will be restricted in the gated portions of the northern section of the road. Use of the road will be monitored by all mine traffic and unauthorized users will be identified and required to leave the access road with enforcement and penalties by provincial enforcement bodies as deemed applicable and necessary. The additional impact mitigation measure described for the south portion of the access road will be applied identically to the northern road sections.	<i>Stage</i> - Operations <i>Lead agency</i> -MWLAP	Stage - Pre certification commitment	Outstanding
19.12	In the event of temporary mine closure, all access restrictions will be maintained as a care and maintenance cost including the manned security gate and regular patrols by supervisory staff to maintain monitoring of access road conditions and usage	<i>Stage</i> - Operations (temporary closure) <i>Lead agency</i> - MoF	Stage - Pre certification commitment	Outstanding
19.13	Finalize deactivation plan in accordance section 64 of the <i>Forest Practices Code Act</i> and will include removal of all major bridges and culverts, pull back to contour in areas of high erosion potential, scarification of the road prism, replacement of salvaged topsoil and revegetation.	<i>Stage -</i> Post operations <i>Lead agency -</i> MoF	Stage - Pre certification commitment	Outstanding
MALFU	NCTIONS AND ACCIDENTS			
20.1	Comply with the spill contingency plan as outlined in Volume IV, section 3.2 of the Project Report	Stage - Operations Lead agency - MWLAP	Stage - Project Report	Outstanding
AIR ANI	DNOISE			
21.1	Comply with the air quality and noise management plans as outlined in Volume IV, section 7.3 of the Project Report	<i>Stage -</i> Operations <i>Lead agency -</i> MWLAP	Stage -Project Report	Outstanding

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT	
CULTURAL AND HERITAGE EFFECTS					
22.1	Apply for a permit under section 12 of the <i>Heritage Conservation Act</i> prior to road construction, which would affect the three recorded trails	Stage - Pre construction Lead agency - MSRM (Archaeology Planning and Assessment)	Stage - Permitting (Heritage Conservation Act)	Outstanding	
22.2	Apply for a permit under section 14 of the <i>Heritage Conservation Act</i> if further archaeological assessment is undertaken	<i>Stage -</i> Pre construction <i>Lead agency -</i> MSRM (Archaeology)	Stage - Permitting (Heritage Conservation Act)	Outstanding	
22.3	If archaeological material is discovered, cease all work at that site and contact the Archaeological Planning and Assessment Branch of MSRM	<i>Stage -</i> Operations <i>Lead agency -</i> MSRM (Archaeology)	<i>Stage</i> - Operations (permit under <i>Heritage</i> <i>Conservation Act</i> )	Outstanding	
22.4	Avoid one site at approximately km 11.5 during construction because of its cultural significance (location identified in Point West Heritage Consulting entitled Atlin Road Upgrading km 0 to km 42, Heritage Investigations 1995)	<i>Stage</i> - Construction <i>Lead agency</i> - MSRM (Archaeology)	<i>Stage -</i> Pre certification commitment	Outstanding	
22.5	Implement a salvage of archaeological resources, if heritage resources are encountered in the archaeological impact assessment of new, borrow sources or realignment, and if avoidance of these sites is not possible	<i>Stage</i> - Construction <i>Lead agency</i> - MSRM (Archaeology)	Stage - Pre certification commitment	Outstanding	
22.6	Heritage trail : seek the participation of the TRTFN in ground-truthing the location of the historic trail, the more detailed alignment studies, and proposed mitigation measures	<i>Stage -</i> Permitting <i>Lead agency -</i> MoF	Stage - SUP	2002 -Fulfilled to the extent possible by the proponent.	

Commit- ment #	PROPONENT COMMITMENT Impact Management Component(s)	IMPLEMENTATION Project stage for implementation of commitment/Lead Agency	PROPONENT INFORMATION Stage for filing of plan/ documentation (if applicable)	STATUS OF COMPLIANCE WITH COMMITMENT		
SOCIO ECONOMIC EFFECTS						
23.1	Implement a socioeconomic transition plan and monitoring plan in accordance with Project Report Volume V, Part 5 - Socioeconomic Impacts and Mitigation	<i>Stage -</i> Construction, Operations, and closure <i>Lead agency -</i> MEM	<i>Stage - Mines Act</i> permit	Outstanding		