



TULSEQUAH CHIEF MINE PROJECT APPROVED

Conditions of certificate

A project approval certificate for the Tulsequah Chief mine has been issued on the basis of clear requirements of Redfern Resources Ltd., the project proponent, in combination with the commitments of the province made to address the concerns of the Taku River Tlingits.

A central issue around the proposed project has been an access road required by the company to access the mine site and its possible impact on wildlife, traditional use and a heritage trail. The northern part runs through an area known as the Spruce-Wilson, which currently has a number of access roads for placer mining. The southern part of the road will be through an area where there is currently no road.

The conditions on Redfern to address concerns are legally binding and include:

- Finalize a detailed plan for the construction and operational phases of the project.
- Limit use of the road, including gates to control authorized vehicles and prohibit unauthorized vehicles.
- Align the road to minimize impacts on the heritage trail, fisheries and wildlife.

The government of B.C. will also put specific regulatory controls in place:

- To restrict road access to minimize impacts of the road on wildlife.
- To prohibit hunting and shooting within the mining access right of way.
- Further control the harvest of particular wildlife such as needed.

As well, the government will contribute a reasonable level of resources – financial and staff – as needed to support the strategy for wildlife protection and management. It will provide reasonable support to train members of the First Nation to assist in wildlife management and to seek work in the mining industry.

Land use plan

The province aims to develop a land use plan in the Atlin area for the future. Developing the plan is not a precondition to the mine approval. The province will work with all First Nations with claims in the region, and will involve participation of other parties including the Yukon, Alaska, U.S., and federal governments, the community of Atlin and interested organizations from the region.

The region included in the proposed plan covers three million hectares centred around the Taku River watershed. It is rich in mineral, fish, wildlife and forest resources. The land use plan will allow for sustainable economic opportunities and benefits to be maximized for all with an interest in the region including the First Nations, and will allow for further consultations with First Nations about their interests.

The province's goal is that the land use plan would provide a broad strategy for regional economic opportunities, social benefits and environmental protection for future decisions involving resources, so that these decisions would not be controversial and would support accepted objectives.

Background

In November 1994, Redfern Resources Ltd. applied for approval to re-open the inactive Tulsequah Chief mine in the Tulsequah River Valley, at the base of Mount Eaton, which is 100 kilometres south of Atlin in northwestern British Columbia and 64 km northeast of Juneau, Alaska. The former Cominco-Tulsequah Chief underground mine had operated in the 1950s.

A project approval certificate was issued in 1998, but was overturned in 2000 by the British Columbia Supreme Court, which directed the province to consider the concerns of the Taku River Tlingits. On Jan. 31, 2002, the British Columbia Court of Appeal directed that the matter should be given directly to the ministers for decision.

Further information on the project and the full certificate and reasons for decision are on the Web at <http://www.eao.gov.bc.ca/project/mining/tulsequa/home.htm>

Visit the province's Web site at <http://www.gov.bc.ca/> for online information and services.

Media contact: Graham Currie
Ministry of Sustainable Resource
Management
250 356-2862

**IN THE MATTER OF
THE ENVIRONMENTAL ASSESSMENT ACT, RSBC 1996, c.119 (“the Act”)**

AND

**IN THE MATTER OF
AN APPLICATION FOR A PROJECT APPROVAL CERTIFICATE BY
REDFERN RESOURCES LTD. (“Redfern”)
FOR THE TULSEQUAH CHIEF MINE PROJECT (the “Project”)
IN NORTHWEST BRITISH COLUMBIA**

**REASONS FOR MINISTERS’ DECISION
UNDER SECTION 30(1)(c) OF THE ACT**

The Minister of Sustainable Resource Management (the Minister) and the Minister of Energy and Mines (the Responsible Minister), considered, in the context of the purposes of the Act, as set out in section 2, and the judgment of the Court of Appeal of British Columbia of January 31, 2002 (file No. CA027488), the following documentation remitted to the Minister and the Responsible Minister on May 31, 2002, by the Executive Director of the Environmental Assessment Office:

- Redfern’s application for a project approval certificate;
- the project report, including a report entitled *Determining the Impact of the Tulsequah Chief Mine Project on the Traditional Land Use of the Taku River Tlingit First Nation: Addendum on Impacts, December, 1997*, prepared by Lindsay Staples;
- the recommendations of the Tulsequah Chief Project Committee (“Project Committee”) and the reasons for its recommendations, given in a report entitled *Report and Recommendations of the Tulsequah Chief Project Committee with Respect to a Decision on a Project Approval Certificate by the Minister of Environment, Lands and Parks and the Minister of Energy and Mines and Minister Responsible for Northern Development and Fulfilling the Requirements of a Screening Report pursuant to the Canadian Environmental Assessment Act* (the Committee Report);
- the recommendations of the Taku River Tlingit First Nation (“TRTFN”) and the reasons for its recommendations, given in a report entitled *Tulsequah Chief Mine Re-Opening Project, Report and Recommendations of the Taku River Tlingit First Nation (Project Committee Member), March 6, 1998*;
- the decision of the Court of Appeal regarding the Tulsequah Chief Mine proposal (*Taku River Tlingit First Nation v. British Columbia*, BCCA, January 31, 2002);
- the Paul decision (*Paul v. Forest Appeals Commission*, BCCA, June 14, 2001);
- the Haida decision (*Haida Nation v. British Columbia and Weyerhaeuser*, BCCA, February 2002);
- Court of Appeal Order (April 22, 2002); and

- Court clarification of Court of Appeal Order (April 22, 2002), Memorandum from Madam Justice Rowles, Court of Appeal, sent to Deputy Registrar Low, dated April 11, 2002.

In fulfilling their statutory authority under the Act, and the Court of Appeal's direction to

“revisit the question of the issuance of the Project Approval Certificate, bearing in mind these reasons for judgment (BCCA, January 31, 2002) including the division of powers question under the *Constitution Act*, 1867, that was explored in the recent decision of this Court in *Paul (Paul v. British Columbia) (Forest Appeals Commission)*, British Columbia Court of Appeal, 2001) and the decisions of the Supreme Court of Canada concerning the Crown's constitutional and fiduciary obligations to aboriginal people in relation to matters that may affect their aboriginal rights”,

the Minister, with the concurrence of the Responsible Minister, issued Project Approval Certificate M02-01 (“the Certificate”) approving the Project, subject to Conditions.

The following are our reasons for issuing the Certificate, based on the above mentioned record:

- All measures relating to the distribution of information specified by the Project Committee about the Project have been carried out by Redfern and there has been adequate consultation by Redfern and the Environmental Assessment Office with the public.
- Issues and concerns identified by the public were duly considered by the Project Committee, and the Committee Report identified these issues and documented how they would be addressed.
- With respect to the consultations with the TRTFN and the concerns raised in their report and recommendations, the Ministers have considered their concerns and the following outlines how those concerns will be addressed.

Mine Road: Management of Access – During Construction and Operational Phases of Project

The access road to the mine site can be effectively managed to ensure protection of wildlife in the region through the measures outlined below.

Province's Measures to Respond to Access Management

- The Minister of Water, Land and Air Protection will make regulations pursuant to the *Wildlife Act* to prohibit hunting or trapping and to prohibit or

restrict access by members of the public in a defined area along the road corridor, while still permitting industrial use of the road.

Redfern's Measures to Respond to Access Management

- The Certificate requires that Redfern finalize a detailed plan for the construction and operational phases of the Project and confirm a strategy for Redfern to manage the access road to prohibit public use.
- Redfern has committed to and is required by the Certificate to develop a detailed plan to control use of the access road, and is required to:
 - Install and manage gates to control authorized vehicles and prohibit unauthorized vehicles:
 - For the north section of the road through the Spruce-Wilson road alignment, gates will be installed that are closed and locked at the start and end of the new 12 km portion of road. Redfern will require mine vehicle operators to lock and unlock these for their use, to maintain these and to report any malfunctions immediately so the road security provided by the gates can be maintained.
 - For the south section of the road, Redfern will install a gate and facilities at the O'Donnel River crossing that will be fully attended on a continuous basis. The attendant will ensure that only authorized road users pass through the gate.
 - Install signs at strategic locations along the road, providing notice of the private and industrial nature of the industrial road and an intention to enforce restrictions on its use.
 - Execute agreements with other industrial users, under the *Mining Right of Way Act*, to require that they abide by the same restrictions on road use as Redfern.
 - Require all industrial users to adopt procedures to ensure restrictions on road use; this will include use of communications tools in vehicles and adoption of a reporting system to remove unauthorized users or to take steps to support enforcement measures.
 - Develop a protocol for vehicle operators and the gate attendant to cooperate with the local RCMP detachment regarding unauthorized road users and develop a protocol with the personnel retained to enforce wildlife regulations to deal with potential infractions under the *Wildlife Act*, observed by persons using the road legitimately.
 - Continue the access road management plan through temporary mine closures or work stoppages.

Mine Road: Management of Access – Road Closure/Decommissioning

The Province will require that Redfern close the access road as a means of ensuring that any impacts to wildlife that result from the use of the access road stop, when the mine closes.

Province's Measures regarding Road Closure

- The Province, as represented by the Regional Manager, Ministry of Forests ("MOF"), responsible for the special use permit for the access road, will require that the road be closed and decommissioned at the end of the life of the Project.

Redfern's Measures regarding Road Closure

- Redfern has committed to closing the access road in accordance with the detailed plan required by the Regional Manager, MOF, at the end of the life of the mine, and in a manner consistent with the reclamation requirements of Ministry of Energy and Mines ("MEM").

Potential Impacts on Wildlife Arising from the Construction and Use of the Road

The measures outlined below are intended to protect wildlife and are in addition to those provided for above regarding access management.

Province's Measures to Mitigate Impacts

- The Province, under the lead of the Ministry of Water, Land and Air Protection ("MWLAP") and the involvement of MOF, MEM and the Ministry of Sustainable Resource Management ("MSRM"), will establish a committee and will invite the TRTFN to join it. The committee will work with Redfern to develop an adaptive management strategy for the protection of wildlife. MWLAP and other agencies will contribute resources based on their assessment of what is reasonably required to support the adaptive management strategy.
- To date, MWLAP has expended about two million (\$2,000,000) dollars in collecting and analyzing wildlife data which has significantly expanded the data base for Project management. This expenditure of Provincial resources substantially exceeded the level of funding routinely allocated for wildlife monitoring and management in the region. Future support of the adaptive management strategy will likewise require further funding allocations above the apportioned base budget of the Ministry.
- In fulfilling the adaptive management strategy for the access road, the Province will rely on the pre-construction and post-construction data collected through the monitoring programs agreed to by Redfern and enhanced by Provincial contributions of resources.
- The Province, through the Treaty Negotiations Office ("TNO"), will offer financial support as reasonably required for training, to develop capacity within the TRTFN for participation in the wildlife management strategies.
- MWLAP will enforce wildlife protection during the operation of the access road and will adjust the enforcement strategy as necessary throughout the

life of the Project. The strategy will include a community education component about wildlife management and protection.

- The Province, through TNO, will offer support as reasonably required for training two representatives of the TRTFN, to serve as guardians, to enhance provincial enforcement capability.
- MWLAP will continue ongoing consultation with the TRTFN regarding management of several key species of wildlife (e.g., caribou, moose, goats, bears).
- The Minister of WLAP will adopt regulatory controls as necessary for the region under the *Wildlife Act* to protect wildlife. For example, regulations could be adopted following consultation with the TRTFN to address hunt closures for particular species such as goats and caribou, and/or sex and age restrictions on harvest for particular species.

Redfern's Measures to Respond

- Redfern has committed to and is required by the Certificate to adaptively manage the construction and use of the access road to avoid and minimize any potential impacts on wildlife.
- Redfern has cooperated with provincial agencies to collect pre-construction data and information pertaining to wildlife around the proposed road alignment.
- Redfern has committed to and is required by the Certificate to continue to participate with provincial agencies and with the TRTFN, should representatives of the TRTFN choose to join the committee for the management of wildlife, to monitor the results of road construction and operations.
- Redfern has committed to and is required to cooperate with the proposed wildlife committee to develop and adjust a detailed traffic management plan to avoid and manage impacts on wildlife. The plan could include limiting the use of all or parts of the access road by setting appropriate time windows for use and reliance on conveying.

Potential Economic and Community Impacts of the Project on the TRTFN

The measures outlined below are designed to mitigate any potential adverse economic and community impacts to the TRTFN associated with the Project.

Province's Measures to Respond

- The Province, through the Treaty Negotiations Office ("TNO"), will offer financial support as reasonably required for training regarding wildlife protection and management and so that members of the TRTFN can secure employment associated with mineral exploration and mining in the region.

Redfern's Measures to Respond

- Redfern has committed to and is required by the Certificate to enter into negotiations with the TRTFN to develop an agreement to ensure benefits to the TRTFN from the Project.
- Redfern has provided a framework of the agreement to the TRTFN to include training of members of the TRTFN to obtain employment associated with the mine, direct employment opportunities, and to develop counseling and family support programs.

Potential Social Impacts

The measures outlined below are intended to mitigate adverse social impacts to the TRTFN that may arise in relation to the Project.

Province's Measures to Respond

- The specific measures outlined above for wildlife protection in relation to this Project and the wildlife management strategies applied throughout the region, should enable the TRTFN to continue to rely on wildlife as a source of food.

Redfern's Measures to Respond

- Redfern has committed to and is required by the Certificate to establish an employee support and counselling program which will be accessible by all employees, including TRTFN employees, to deal with social issues.

Potential Cultural Impacts

The measures outlined below are designed to mitigate adverse cultural impacts to the TRTFN.

Province's Measures to Respond

- No access road route alignment was identified in the course of the assessment or discussions with the TRTFN that could be used to completely avoid some impacts with a heritage trail. These impacts are anticipated to be primarily in connection with the heritage trail extending from the Tulsequah River north to the area of Kuthai Lake.
- MSRM, MOF, and MEM, in evaluating further approvals in connection with the Project, will seek to cooperate with the TRTFN to conserve heritage and cultural resources.

- The strategies for wildlife protection outlined above will respect the TRTFN's way of life, and their use of and dependence on traditional foods.

Redfern's Measures to Respond

- Redfern has committed to and is required by the Certificate to enter into negotiations with the TRTFN to develop an agreement to ensure benefits to the TRTFN from the Project.
- Redfern has committed to and is required by the Certificate to establish an employee support and counseling program which would be accessible by all employees, including TRTFN employees.
- Redfern has committed to and is required by the Certificate to seek the participation of the TRTFN regarding the placement of the final access road alignment, to avoid or minimize direct impacts of the road crossing the heritage trail, especially in the area of Kuthai Lake south to the Tulsequah River. Much of this is dependant on detailed ground work to be completed during road construction.
- Where it is impractical for Redfern to avoid conflict with the heritage trail, Redfern has committed to and is required by the Certificate to seek the participation of the TRTFN to develop road use and management strategies to avoid conflict with trail users. These strategies will take into consideration times when the heritage trail will be used and the levels of use at those times. An effective outcome will require effective communication with the TRTFN.

Other Issues

While the TRTFN did not put the redevelopment of the mine site at issue, we have reviewed all of the information pertinent to the management of the mine site and have concluded that, with the procedural safeguards provided by the Certificate in Conditions 5(1) through 5(4) regarding further consultation about the potential chronic toxicity of the mine discharge and the stability of the proposed site of the tailings impoundment, the Project should proceed to permitting.

It is expected that the resulting mine operations will be effective in managing acid rock drainage currently seeping from the mine site into the Tulsequah River. Management and curtailment of this drainage through the proposed mine development plan will in all likelihood result in environmental benefits to the river system as well as the rich fishery supported by the river. These are key benefits which we anticipate as a result of the Project.

Ministers' Summary Regarding Issuance of a Certificate

We have taken considerable time from May 31, 2002 until now to review the implications associated with making a decision on the proposed Tulsequah Chief Mine Project.

We have considered all the issues presented by the application, Project Report, and Project, reviewed the two reports and recommendations of Project Committee members, received briefings on the court decisions and the direction of the Court of Appeal with regard to discharging the Crown's obligations to the TRTFN. We have met with the TRTFN several times to review their issues of concern directly, and have sought to address those concerns as outlined above.

We have also reviewed the long history of the assessment of the Project and considered the wide and varied interests of the members of the community of Atlin and British Columbia with respect to the Project in the broader context of our mandates as Ministers of the Province. We have considered the interests of our neighbours, the Yukon Territorial Government, the State of Alaska, and the United States and we have considered the interests of our federal government.

We have also considered the financial commitment and expenditures that Redfern has made to explore the resource and to undertake the environmental assessment. In addition to the interests of the TRTFN, we have also considered Redfern's interests in considering the overall public interest of the people of British Columbia, both aboriginal and non-aboriginal.

Taking all of this information into account and in particular bearing in mind the direction of the Court of Appeal, we have decided to issue Certificate M02-01 to Redfern because we believe that with the many measures required of Redfern in connection with the Project and the measures that we have committed to on behalf of the Province, the interests of the TRTFN can be accommodated and the Project developed and managed successfully.

Land Use Plan for Region

In addition to the mitigation measures and accommodations we have taken into account in making our decision to issue the Certificate with Conditions, we have given much consideration to the need for a land use plan for the region.

The Province, under the lead of MSRM, has initiated discussions with the TRTFN to negotiate a protocol agreement to develop a land use plan for the region. The government's goal for a plan is to provide a broad strategy for regional economic opportunities, social benefits and environmental protection. The strategy would be based on an assessment of resources and understanding of First Nation's (including the TRTFN's) asserted rights to and traditional uses of regional resources. Once a protocol is negotiated with the TRTFN for participation and

cost sharing established between government and the TRTFN, MSRM will seek funding approval from government to proceed with developing the plan. It is expected that the plan would be completed in two years.

The region to be planned covers three million hectares centered around the Taku River watershed. It is rich in resources - minerals, fisheries, wildlife and forests. The land use plan will allow for sustainable economic opportunities and benefits to be maximized for all with an interest in the region including the First Nations, and will allow for further consultations with First Nations about their interests.

The plan is not a precondition to the approval of the Tulsequah Chief Mine. The plan will be based on the presence of the Project, access road and mine site, as defined in the Certificate. We believe that this region which encompasses a vast area with a rich variety of resources, can accommodate the Tulsequah Chief Mine Project and other opportunities both for the population of the TRTFN and the citizens of British Columbia. Accordingly, the plan will provide a basis for negotiating appropriate measures with the TRTFN to enable future economic opportunities associated with the resources in the region. The plan will review the current requirement for closure of the access road.

We will involve other provincial agencies, federal agencies, other First Nations with claims in the area covered by the plan, the community of Atlin and interested groups working in the area, in finalizing the protocol for developing the plan. Representatives from the governments of the Yukon Territory, the State of Alaska, and agencies of the US federal government will also be invited to participate in the plan.

Honourable Richard Neufeld
Minister of Energy Mines

Honourable Stan Hagen
Minister of Sustainable Resource
Management

Dated: _____

Dated: _____

**IN THE MATTER OF
THE *ENVIRONMENTAL ASSESSMENT ACT*, RSBC 1996, c. 119 (the “Act”)**

AND

**IN THE MATTER OF
AN APPLICATION FOR A PROJECT APPROVAL CERTIFICATE BY
REDFERN RESOURCES LTD. (“Redfern”)
FOR THE TULSEQUAH CHIEF MINE PROJECT (the “Project”),
IN NORTHWEST BRITISH COLUMBIA**

PROJECT APPROVAL CERTIFICATE M02-01

Whereas,

- A. In September 1994, Redfern submitted an application for a mine development certificate for the Tulsequah Chief Mine Project pursuant to the *Mine Development Assessment Act*, SBC 1990, c. 55;
- B. On June 30, 1995, pursuant to s. 93(5) of the Act, the Project was transferred to the environmental assessment process at a step known as “Draft Project Report Specifications”;
- C. After the Executive Director referred the Project Application for decision under s. 30 of the Act in March 1998, the Minister of Environment, Lands and Parks with the concurrence of the Minister of Energy and Mines issued a Project Approval Certificate (M98-02) with conditions to Redfern on March 19, 1998;
- D. The British Columbia Supreme Court quashed Project Approval Certificate M98-02 on June 28, 2000, and on July 29, 2000, directed that the Project Committee for the Project be reconvened to further consider and address the concerns of the Taku River Tlingits and that an amended Recommendations Report be provided to the Minister of Environment, Lands and Parks and the Minister of Energy and Mines as a basis for them to reconsider whether or not to issue a Project Approval Certificate for the Project;
- E. The Project Committee was reconvened on September 19, 2000, and began to further consider and address the concerns of the Taku River Tlingits, and to incorporate data collected since March 1998 regarding wildlife, fisheries and water quality into its considerations;

- F. Before the Project Committee had completed a full consideration of the concerns of the Taku River Tlingits, on January 31, 2002, the British Columbia Court of Appeal directed that the matter should be remitted directly to Ministers;
- G. On May 31, 2002, the Executive Director remitted:
- the Proponent's application for a Project Approval Certificate;
 - the Project Report, including a report entitled *Determining the Impact of the Tulsequah Chief Mine Project on the Traditional Land Use of the Taku River Tlingit First Nation: Addendum on Impacts, December, 1997*, prepared by Lindsay Staples;
 - the recommendations of the Tulsequah Chief Project Committee ("Project Committee") and the reasons for its recommendations, given in a report entitled *Report and Recommendations of the Tulsequah Chief Project Committee with Respect to a Decision on a Project Approval Certificate by the Minister of Environment, Lands and Parks and the Minister of Energy and Mines and Minister Responsible for Northern Development and Fulfilling the Requirements of a Screening Report pursuant to the Canadian Environmental Assessment Act* (the Committee Report);
 - the recommendations of the Taku River Tlingit First Nation and the reasons for its recommendations, given in a report entitled *Tulsequah Chief Mine Re-Opening Project, Report and Recommendations of the Taku River Tlingit First Nation (Project Committee Member), March 6, 1998*;
 - the decision of the Court of Appeal regarding the Tulsequah Chief Mine proposal (*Taku River Tlingit First Nation v. British Columbia*, BCCA, January 31, 2002);
 - the Paul decision (*Paul v. Forest Appeals Commission*, BCCA, June 14, 2001);
 - the Haida decision (*Haida Nation v. British Columbia and Weyerhaeuser*, BCCA, February 2002);
 - Court of Appeal Order (April 22, 2002); and
 - Court clarification of Court of Appeal Order (April 22, 2002), Memorandum from Madam Justice Rowles, Court of Appeal, sent to Deputy Registrar Low, dated April 11, 2002,

to the Minister of Sustainable Resource Management (the "Minister") and to the Minister of Energy and Mines (the "Responsible Minister") to assist in the reconsideration of the question of the issuance of a Project Approval Certificate, bearing in mind the Court of Appeal's reasons for judgment;

- H. On June 20, 2002, the Minister met with representatives of the Taku River Tlingits in Atlin, British Columbia, to discuss their concerns with respect to the Project including the possibility of an acceptable route for an access road to the Tulsequah Chief mine site. The access road is about 160 kilometres in length, and is within the Main Access Corridor (East Route) as shown in Figure 3 of the Committee Report. Following that meeting, the Taku River Tlingits advised the Minister in writing on July 23, 2002, that the Tlingits did not have a proposal for a road alignment, were not interested in working on a proposal for one, and that the Project should be considered in the context of a land use plan for sustainable economic development in the watershed as a whole, or within the context of Treaty negotiations;
- I. On September 14, 2002, the Minister and the Responsible Minister met with representatives of the Taku River Tlingits in Atlin, British Columbia, during which time, their discussions included the potential of working cooperatively on a land use planning initiative and the potential for economic development opportunities for the Tlingits in the region;
- J. On October 9, 2002, in Victoria, British Columbia, the Minister met again with representatives of the Taku River Tlingits regarding a proposal for land use planning and after that meeting the Minister wrote to the Taku River Tlingits on November 13, 2002, offering to meet again to partner a planning protocol;
- K. On November 21, 2002, the Taku River Tlingits wrote to the Minister suggesting a date of December 4, 2002, for a further meeting to discuss planning, and to discuss corresponding and proceeding on a “without prejudice basis”;
- L. Although the Province remains willing to continue discussions regarding a land use plan, no further steps regarding land use planning have taken place;
- M. The Province of British Columbia intends to consult with the Taku River Tlingits, the relevant agencies within the governments of Canada, the Yukon Territorial Government, the United States, and the State of Alaska, during the final design and implementation of the Project;
- N. The Minister and the Responsible Minister have considered all of the documents remitted to them by the Executive Director on May 31, 2002, and itemized in G above;

Now Therefore,

The Minister, with the concurrence of the Responsible Minister, pursuant to section 30(1)(b)(i) of the Act and pursuant to the January 30, 2002 direction of the British Columbia Court of Appeal, hereby issues this Certificate to Redfern subject to the following conditions (the Conditions):

A. Conditions

- 1 Redfern must cause the Project to be designed, located, constructed, operated, dismantled and/or abandoned in accordance with the Conditions of this Certificate and the documents and correspondence listed in Schedule A, and must comply with all of the Conditions of this Certificate to the reasonable satisfaction of the Minister.
- 2 Where, in the reasonable opinion of the Minister, there is a conflict or inconsistency between any of the documents listed in Schedule A and this Certificate, Condition 1 must be interpreted so that the contents of the later dated document will vary, repeal, rescind or supersede, as the case may be, the contents of earlier dated documents listed in Schedule A.
- 3 Where, in the reasonable opinion of the Minister, there is a conflict or inconsistency between any of the documents listed in Schedule A and the Conditions which follow, these Conditions must take precedence over and supersede the contents of the documents listed in Schedule A.
- 4(1) Despite Condition 1 above, if prior to the start of production from the Project, Redfern proposes a change to the design, location, construction, operation, dismantling and/or abandonment of the Project as described in the documents listed in Schedule A, and the change may in the opinion of the Executive Director, have the potential for significant adverse effects, even if the change is not a project modification as defined by the provisions of the Environmental Assessment Reviewable Projects Regulation as amended or replaced, Redfern must then provide the Executive Director with:
 - a. notice of the proposed change; and
 - b. plans, analysis, records and other information necessary for an effective assessment by the Executive Director of the proposed change.
- 4(2) Where the Executive Director, following receipt of and evaluation of information with respect to an item under Condition 4(1), and in consultation with the appropriate authorities, considers that the proposed change does not have the potential to cause significant adverse effects,

the Executive Director may approve the change to the Project and amend this Certificate.

- 4(3) Where the Executive Director, following receipt of and evaluation of information with respect to an item under Condition 4(1), and in consultation with the appropriate authorities, considers that the proposed change could cause significant adverse effects, the Executive Director may:
- a. establish a review process for an effective assessment of the potential effects of the change and cause it to be conducted;
 - b. on conclusion of the review process, make a recommendation to the Minister and Responsible Minister regarding the proposed change to the Project; and
 - c. on receipt of the recommendation of the Executive Director, the Minister and the Responsible Minister may approve the change to the Project and amend this Certificate.

5 Redfern must:

- 5(1) Finalize a protocol for chronic toxicity testing of the mine effluent discharge for the Project by,
- a. completing and entering into an agreement with the Environmental Quality Section Head, Skeena Region, Ministry of Water, Land and Air Protection, Smithers, incorporating the terms and conditions substantially as outlined in the draft agreement listed in Schedule A to this Certificate, and
 - b. consulting with the following entities under the lead of the Environmental Quality Section Head, Skeena Region, Ministry of Water, Land and Air Protection, Smithers, or designate:
 - i. representatives of the Taku River Tlingits;
 - ii. representatives of the Fisheries and Oceans Canada and Environment Canada, Pacific Region;
 - iii. representatives of the Department of Fish and Game and the Department of Environmental Conservation, State of Alaska;
 - iv. representatives of the Environmental Protection Agency (Region 10), United States;
- 5(2) Complete the protocol referred to in Condition 5 (1) to the satisfaction of the Environmental Quality Section Head, Skeena Region, Ministry of Water, Land and Air Protection, Smithers, prior to the construction of the access road;
- 5(3) Finalize a protocol, to the satisfaction of the Chief Inspector of Mines, Ministry of Energy and Mines, Victoria, for further testing of the alluvial fan of the Shazah Creek valley, to confirm the prediction that the alluvial fan at

the site of the tailings pond impoundment, results from post-glacial sedimentation as opposed to debris torrents, with the resulting degrees of stability, after consulting with the following entities under the lead of the Chief Inspector of Mines, Ministry of Energy and Mines, or designate:

- i. representatives of the Taku River Tlingits;
- ii. representatives of Natural Resources Canada, Pacific Region, and any other federal agency the Chief Inspector determines to be appropriate;
- iii. representatives of the Department of Fish and Game and the Department of Environmental Conservation, State of Alaska; and
- iv. representatives of the Environmental Protection Agency (Region 10), United States;

- 5(4) Implement the terms of the protocol referred to in Condition 5(3) to the satisfaction of the Chief Inspector of Mines, prior to the construction of the access road;
- 5(5) For purposes of this Condition, construction of the access road does not include works and activities undertaken to develop the design of the access road or to undertake further studies and information gathering obligations in respect of this Certificate and any other permits issued by the Province of British Columbia;
- 5(6) Implement the environmental management commitments described in the documents listed in Schedule A, to the reasonable satisfaction of the Director of Regional Operations, Environmental Protection Division and the Director of Regional Operations, Environmental Stewardship Division, Ministry of Water, Land and Air Protection, Victoria;
- 5(7) Implement to the reasonable satisfaction of the Director of Regional Operations, Environmental Protection Division and the Director of Regional Operations, Environmental Stewardship Division, Ministry of Water, Land and Air Protection, Victoria, Redfern's component of the Environmental Follow-up and Monitoring Program, contained in Appendix 11 of the Committee Report, prepared by the Environmental Assessment Office on behalf of the majority of the members of the Project Committee;
- 5(8) Implement to the satisfaction of the Chief, Major Projects Review Unit, Habitat and Enhancement Branch, Fisheries and Oceans Canada, Pacific Region, the Fish and Fish Habitat Mitigation and Compensation plan, outlined in the Environmental Follow-up and Monitoring Program referred to in Appendix 11 of the Committee Report, prepared by the

Environmental Assessment Office on behalf of the majority of the members of the Project Committee;

- 5(9) Ensure that the firearms, hunting, fishing and vehicle use policy listed in Schedule A is actively enforced and complied with by Redfern employees and its contractors and agents;
 - 5(10) Implement the access management plan for the access road, included in Volume IV of the Project Report listed in Schedule A, as further developed by Redfern in a report, Tulsequah Chief Project Access Road Management, listed in Schedule A, to the satisfaction of the Director of Regional Operations, Environmental Stewardship Division, Ministry of Water, Land and Air Protection, Victoria;
 - 5(11) Participate with the Province, First Nations and third parties in a management process, established by the Province, to oversee and monitor the construction, operation, decommissioning and abandonment phases of the Project, including the monitoring and management of the potential for Project related community impacts;
 - 5(12) To the satisfaction of the Regional Director, Northern Region, Ministry of Transportation (MoT), reach an agreement regarding responsibility for the additional costs that would be incurred beyond the existing MoT Atlin highway improvement program, to meet the required specifications identified in the Committee Report for the Project ore transportation on the British Columbia portion of the Atlin highway.
- 6
 - (a) Subject to Conditions 1, 2 and 3, Redfern must fulfil all commitments and proposed mitigation and compensation measures as documented in the Application and the Project Report, including supplementary documents and correspondence listed in Schedule A, to the reasonable satisfaction of the Minister.
 - (b) Redfern's commitments are summarized for ease of reference in Schedule B to this Certificate. Where in the reasonable opinion of the Minister there are conflicts or inconsistencies between Schedule B and any commitments outlined in the documents of Schedule A, the commitments as outlined in Schedule A and this Certificate take priority and the rules of interpretation outlined in Conditions 1, 2 and 3 apply.
 - 7 This Certificate is of no force or effect until validly executed by Redfern and signed by the Minister and the Responsible Minister.

- 8(1) This Certificate does not constitute a permit, licence, approval or any other authority required under any other enactment.
- 8(2) Redfern must comply with all applicable orders, directions and conditions, and obtain and comply with all applicable tenures, licences, regulations, approvals, standards and permits, or other authorities, which may include or result from, but are not necessarily limited to, the following provincial enactments:
- a. *Commercial Transport Act*, RSBC 1996, c. 58;
 - b. *Electrical Safety Act*, RSBC 1996, c. 109;
 - c. *Environmental Assessment Act*, RSBC 1996, c. 119 and the *Environmental Assessment Reviewable Projects Regulation*, B.C. Reg. 275/95;
 - d. *Fire Services Act*, RSBC 1996, c. 144;
 - e. *Fish Protection Act*, RSBC 1997, c. 21;
 - f. *Forest Act*, RSBC 1996, c.157;
 - g. *Forest Land Reserve Act*, RSBC 1996, c.158;
 - h. *Gas Safety Act*, RSBC 1996, c. 169;
 - i. *Health Act*, RSBC 1996, c. 179;
 - j. *Heritage Conservation Act*, RSBC 1996, c. 187;
 - k. *Highway Act*, RSBC 1996, c. 188;
 - l. *Land Act*, RSBC 1996, c. 245;
 - m. *Mines Act*, RSBC 1996, c. 293;
 - n. *Mineral Tenure Act*, RSBC 1996, c. 292;
 - o. *Mining Right of Way Act*, RSBC 1996, c. 294;
 - p. *Motor Vehicle Act*, RSBC 1996, c. 318;
 - q. *Pesticide Control Act*, RSBC 1996, c. 360;
 - r. *Pipeline Act*, RSBC 1996, c. 364;
 - s. *Power Engineers and Boiler and Power Pressure Vessel Safety Act*, RSBC 1996, c. 368;
 - t. *Transport of Dangerous Good Act*, RSBC 1996, c. 458;
 - u. *Utilities Commission Act*, RSBC 1996, c. 473;
 - v. *Waste Management Act*, RSBC 1996, c. 482;
 - w. *Water Act*, RSBC 1996, c. 483;
 - x. *Water Utility Act*, RSBC 1996, c. 485;
 - y. *Wildlife Act*, RSBC 1996, c. 488.
- 9 Redfern must, except in connection with granting security to Project lenders or other financing entities or financing facilities, obtain the written consent of the Minister, such consent not to be unreasonably withheld, prior to disposing, whether legally, beneficially or otherwise, of:
- a. this Certificate, or any right, title or interest or mineral tenure underlying the Project conferred by this Certificate, or
 - b. the Project.

- 10 Redfern must have, in the reasonable opinion of the Minister, substantially started the Project by commencing the construction of the Project within five years of the date of issue of this Certificate.
- 11 Redfern must submit reports to the Environmental Assessment Office, regarding:
 - a. the results of the chronic toxicity testing referred to in Condition 5(1) of this Certificate and the alluvial fan testing referred to in Condition 5(3) of this Certificate, within three months of the completion of the testing and prior to construction of the access road,
 - b. compliance with the Conditions of this Certificate to the date of the completion of the testing referred to in Condition 11(a) of this Certificate, and particulars that appropriately describe the schedule for construction of the Project and start-up of Project operations, and particulars that describe the monitoring requirements during construction, when the report referred to in Condition 11(a) of this Certificate is submitted,
 - c. the results of all monitoring conducted during construction in a consolidated form, within three months of substantially completing construction of the Project, and
 - d. compliance with the Conditions of this Certificate within three months of the end of the first year of mining operations, and annually during the life time of the Project.

B. Suspension and Cancellation of Certificate

This Certificate may be subject to cancellation, suspension in whole or in part, amendment, or the attachment of new Conditions, for any of the following reasons:

- a. construction of the Project is not, in the reasonable opinion of the Minister, substantially started within five years of the date of issue of this Certificate,
- b. the Minister has reasonable and probable grounds to believe that Redfern is in default of:
 - i) an Order of the Supreme Court under section 69(2), 80 or 82 of the Act;
 - ii) an Order of the Minister made under section 68 or 70 of the Act; or
 - iii) one or more requirements or Conditions of this Certificate,
- c. Redfern, or its officers or employees when acting on behalf of Redfern, have been convicted of an offence under the Act, with respect to the Project, or

- d. An Order is made or a resolution is passed, for the winding up, or dissolution of Redfern, or Redfern is in receivership or bankruptcy proceedings, without such Order or resolution being rescinded or stayed.

The Conditions of this Certificate are agreed to by Redfern this

___12___ day of ___December___, 2002.

Original signed by

Terence Chandler
President and Chief Executive Officer
Redfern Resources Ltd.

Original signed by

Honourable Stan Hagen
Minister of Sustainable Resource
Management

___ *Original signed by* ___

Honourable Richard Neufeld
Ministry of Energy and Mines

Issued this ___12___ day of _December___, 2002, in Victoria,
British Columbia

SCHEDULE A

LIST OF DOCUMENTS COMPRISING THE TULSEQUAH CHIEF APPLICATION AND PROJECT REPORT

Application – 1994

- Pre-Application for Mine Development Certificate, Redfern Resources Ltd., June 1994
- Baseline Environmental Monitoring Protocols, Redfern Resources Ltd., June 1994
- Pre-Application for Mine Development Certificate – Addendum Dated February 1995

Project Report – 1997

- Tulsequah Chief Project – Wildlife Capability/Suitability Maps, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume I Executive Summary, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume II Project Description, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume II Appendices, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume III Environmental Setting (Part 1 of 2), Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume III Environmental Setting (Part 2 of 2), Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume III Appendices (Part 1 of 2), Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume III Appendices (Part 2 of 2), Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume IV Environmental Management, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volume V Environmental Impacts and Mitigation, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Volumes IV and V Appendices, Redfern Resources Ltd., July 1997
- Tulsequah Chief Project Report – Cultural, Sustenance and Socioeconomic Addendum, Redfern Resources Ltd., July 1997

- Memo from J. Loukras, Redfern Resources Ltd., to recipients of the Tulsequah Chief Project Report, August 26, 1997, providing replacement pages to Project Report.
- Update of Humidity-Cell Testwork, Tulsequah Chief Project, Redfern Resources Ltd., October 16, 1997
- Determining the Impact of the Tulsequah Chief Mine Project on the Traditional Land Use of the Taku River Tlingit First Nation, prepared by Lindsey Staples for the EAO, August 1997
- Determining the Impact of the Tulsequah Chief Mine Project on the Traditional Land Use of the Taku River Tlingit First Nation: Addendum on Impacts, prepared by Lindsey Staples for the EAO, December 1997
- Tulsequah Chief Project Committee, Review Agency and Public Issue Responses Wildlife and Fish/Fish Habitat, Redfern resources Ltd., December 16, 1997
- Tulsequah Chief Project – Proponent Response to ARD/ML/WQ Issues Identified by the Project Committee, the Public and Public Organizations, Redfern Resources Ltd., December 17, 1997
- Tulsequah Chief Project Committee, Review Agency and Public Issue Responses to Issue Tracking Items Concerning Cyanide, Monitoring and Management Plans, Reclamation, Mine Development, Road and Transportation, Socioeconomic/Land Use and Heritage, Redfern Resources Ltd., December 24, 1997
- Letter from T. Chandler to T. Pearse, December 24, 1997 Responding to Concerns Regarding Tailing Pond Performance
- Tulsequah Chief Project – Impact Assessment for Yukon transportation System, Redfern Resources Ltd., January 14, 1998
- Responses to ARD/Water Quality Issues Raised at the subcommittee Meeting of January 14, 1998, Redfern Resources Ltd., January 15, 1998
- Fax Memo from J. Loukras, Redfern Resources Ltd. To ARD/Water Quality subcommittee members, January 20, 1998, providing correction to the January 15, 1998 ARD/Water Quality response from Redfern regarding the proposed interim mine water treatment schedule
- Letter from D. Osmond, Gartner Lee Limited to T. Chandler, February 17, 1998, providing the final version of the environmental effects monitoring plan
- Letter from T. Chandler to N. Ringstad, January 27, 1998, providing preliminary cost estimates for the Warm Bay/McKee creek access road alternative and GPS plotted location of the TRTFN heritage trail north of the Sloko River
- Redfern Resources Ltd. Tulsequah Chief Project Firearms, Hunting, Fishing and Vehicle Use Policy, January 1998

- Letter from T. Chandler to N. Ringstad, January 29, 1998, outlining Redfern's commitment to participation in the grizzly bear cumulative effects assessment and long term grizzly bear monitoring plan
- Letter from T. Chandler to N. Ringstad, February 9, 1998, summarizing Redfern's commitment to adhere to the proposed Right-of Way for construction access to the Sloko River
- Letter from T. Chandler to N. Ringstad, February 9, 1998, providing Redfern's agreement with the conditions outlined by MOTH regarding improvements to the British Columbia portion of the Atlin public road
- Letter from T. Chandler to N. Ringstad, February 12, 1998, outlining Redfern's position regarding future compensation for loss of grizzly bear habitat
- Letter from T. Chandler to T. Pearse, February 17, 1998, regarding commitments to follow-up and monitoring
- Letter from T. Chandler to T. Pearse, February 17, 1998, providing additional information on the proposed access road
- Letter from T. Chandler to T. Pearse, February 18, 1998, providing additional information on access road construction
- Letter from T. Chandler to N. Ringstad, March 2, 1998, providing commitment to implement proponent components of proposed follow-up and monitoring program
- Letter from T. Chandler to N. Ringstad, March 6, 1998, providing commitment to adhere to requirements outlined in the MEI January 20, 1998, ARD/Metal Leaching document
- Letter from T. Chandler to N. Ringstad, March 11, 1998, providing commitment for access road deactivation at end of mine life
- Draft agreement proposed by Ministry of Water, Land and Air Protection: Sublethal Toxicity Testing Program for Proposed Tulsequah Chief Mine Effluent Treatment Plant Discharges
- Tulsequah Chief Project Access Road Management, committed to by Redfern Resources Ltd. in 1999 and itemized in a letter report dated December 20, 2001.

SCHEDULE B

Tulsequah Chief Mine Project: Environmental Assessment Commitments Chart

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.

Commitment #	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 SITE				
1	ACID ROCK DRAINAGE/METAL LEACHING			
1.1	TEMPORARY PYRITE CONCENTRATE IMPOUNDMENT			
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 - Permitting Lead agency - MEM</i>	<i>Stage -before Mines Act permit</i>	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 - Permitting Lead agency - MEM</i>	<i>Stage - before Mines Act permit</i>	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 - Permitting Lead agency - MEM</i>	<i>Stage - before Mines Act permit</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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 - Permitting/construction</i> <i>Lead agency - MEM</i>	<i>Stage - Exploration Reclamation Permit</i>	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.	<i>Stage - Construction and operation</i> <i>Lead agency - MWLAP / MEM</i>	<i>Stage -design before WMA permit/ Mines Act permit</i>	Outstanding
1.4.2	To reduce treatment costs, wherever feasible divert clean water away from areas of potential contamination and, if possible, discharge separately.	<i>Stage - Construction and operation</i> <i>Lead agency - MEM</i>	<i>Stage -design before Mines Act permit</i>	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.	<i>Stage - Construction and operation</i> <i>Lead agency - MWLAP / MEM</i>	<i>Stage -design before WMA permit / Mines Act permit</i>	Outstanding
1.4.4	Cemented paste backfill to be used to effect permanent drainage control.	<i>Stage - Construction and operation</i> <i>Lead agency - MEM</i>	<i>Stage -before Mines Act permit</i>	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 -MEM</i>	<i>Stage - before Mines Act permit</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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
1.6	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 - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - After backfilling</i>	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 - Construction and operation</i> <i>Lead agency - MWLAP</i>	<i>Stage - before WMA permit</i>	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.	<i>Stage - Operations</i> <i>Lead agency -MWLAP/MEM</i>	<i>Stage - Mines Act permit/ WMA permit</i>	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.	<i>Stage - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - Mines Act permit</i>	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.	<i>Stage - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
1.8.3	To avoid release of co-precipitated metals, add limestone to neutralize the acidity and suppress metal release.	<i>Stage - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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 - Construction</i> <i>Lead agency -MEM</i>	<i>Stage -before Mines Act permit</i>	Outstanding
1.10	NPAG WASTE ROCK DUMP			
1.10.1	Conduct the following monitoring to ensure no PAG waste rock is mistakenly classified as NPAG and stored in the NPAG waste rock dump: <ul style="list-style-type: none"> • Detailed pre- and post-blasting ABA monitoring for newly created waste rock; and • Detailed ABA monitoring and visual identification to separate PAG and NPAG in historic waste rock. 	<i>Stage - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - before Mines Act permit</i>	Outstanding
1.10.2	NPAG defined as having an adjusted NPR of > 2	<i>Stage - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - before Mines Act permit</i>	Outstanding
1.10.3	Any proposal to refine the PAG/NPAG criteria for all or a portion of the waste will require comprehensive mineralogical and kinetic supporting evidence.	<i>Stage - Operations</i> <i>Lead agency-MEM</i>	<i>Stage - Operations</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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.	<i>Stage -Operations</i> <i>Lead agency- MWLAP/MEM</i>	<i>Stage - WMA permit/ Mines Act permit</i>	Outstanding
1.12	NEW UNDERGROUND WORKINGS			
1.12.1	Prior to closure, refine the predicted rate of flooding.	<i>Stage -Pre-closure</i> <i>Lead agency - MWLAP and MEM</i>	<i>Stage - WMA permit</i>	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.	<i>Stage - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - WMA permit</i>	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 - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - WMA permit</i>	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.	<i>Stage - Closure</i> <i>Lead agency -MEM</i>	<i>Stage - pre Mines Act permit</i>	Outstanding
1.13	COLLECTION AND TREATMENT			
1.13.1	Collect and treat all significant ARD	<i>Stage - Operations and closure</i> <i>Lead agency - MEM and MWLAP</i>	<i>Stage - WMA permitting</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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	<i>Stage - prior to mine or road construction commencing Lead agency - MEM</i>	<i>Stage - Mines Act permit Year -</i>	<i>Submission date - Sign-off date - Compliance status -</i>
2.2	MAIN SURFACE TAILINGS IMPOUNDMENT			
2.2.1	To be used only for low-S tailings	<i>Stage - Operation Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
2.2.2	Add crushed limestone to slurry to achieve minimum NPAG criteria	<i>Stage - Operation Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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	<i>Stage - Operation Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
2.2.4	Use liner to limit drainage prior to sealing by tailings.	<i>Stage -Construction, operation Lead agency -MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
2.2.5	Only use for temporary ARD disposal as contingency if treatment plan inoperable and U/G storage capacity full	<i>Stage - Operations Lead agency -MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
2.2.6	Operationally maintain pond in centre to maximize path length for seepage through tailings.	<i>Stage -Operations Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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 - Closure</i> <i>Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	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 - Permitting</i> <i>Lead agency - MWLAP</i>	<i>Stage -WMA permit</i> <i>Year -</i>	<i>Submission date -</i> <i>Sign-off date -</i> <i>Compliance status -</i>
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.	<i>Stage - Pre construction</i> <i>Lead agency - MWLAP</i>	<i>Stage -WMA permit</i> <i>Year -</i>	<i>Submission date -</i> <i>Sign-off date -</i> <i>Compliance status -</i>
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 -Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage -WMA permit</i> <i>Year -</i>	<i>Submission date -</i> <i>Sign-off date -</i> <i>Compliance status -</i>
4	DISCHARGE OF MINE WATER			
4.1	Develop a discharge system appropriate for water quality objectives and hydrodynamics, approved by MWLAP	<i>Stage - Construction</i> <i>Lead agency - MWLAP</i>	<i>Stage - WMA permitting</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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	<i>Stage - Operations Lead agency -MWLAP/MEM</i>	<i>Stage - WMA permitting/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 - Operations (temporary shut down) Lead agency - MWLAP/MEM</i>	<i>Stage - WMA permitting/Mines Act permit</i>	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.	<i>Stage - Operations Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
4.5	Propose water quality objectives for parameters such as aluminum which naturally occur in high concentrations in the watershed.	<i>Stage - Pre construction Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	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	<i>Stage - Pre construction Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	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 - Operations Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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.	<i>Stage - Operations</i> <i>Lead agency - MWLAP/MEM</i>	<i>Stage - WMA permit/Mines Act permit</i>	Outstanding
4.9	In the event of a temporary mine closure, continue to store pyrite concentrate remaining on surface in the pyrite storage pond.	<i>Stage - Operations</i> <i>Lead agency -MWLAP/MEM</i>	<i>Stage - WMA permit/Mines Act permit</i>	Outstanding
4.10	If the shutdown is permanent, return all the pyrite concentrate and rock in the PAG stockpile underground.	<i>Stage - Closure</i> <i>Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	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.	<i>Stage -Pre construction to post operation</i> <i>Lead agency - MWLAP/MEM</i>	<i>Stage - WMA permit/Mines Act permit</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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 ₄ . - the degree of potential impact is estimated so that an appropriate level of effort is determined and expended through employing contingencies.	<i>Stage - Operations</i> <i>Lead agency -MWLAP/MEM</i>	<i>Stage - WMA permit/WMA permit</i>	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 -Plan</i> <i>Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	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.	<i>Stage - Plan</i> <i>Lead agency -MWLAP</i>	<i>Stage -WMA permit</i>	Outstanding

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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.	<i>Stage - Operations</i> <i>Lead agency -MWLAP</i>	<i>Stage - pre WMA permit</i>	Outstanding
5.5	Established experimental design principles for environmental effects monitoring and contingency effectiveness monitoring will be used to ensure that:	<i>Stage - Plan</i> <i>Lead agency-MWLAP</i>	<i>Stage - WMA permit</i>	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	<i>Stage - Operations</i> <i>Lead agency-MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
5.5.2	- the degree of sensitivity of the impact monitoring and assessment tools and methods are sufficient to detect meaningful change.	<i>Stage - Operations</i> <i>Lead agency-MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
5.5.3	- impact indicators are chosen and used so that contingencies are employed prior to unacceptable changes occurring to aquatic life.	<i>Stage - Operations</i> <i>Lead agency- MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding

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5.6	As a contingency, remove ground water through pumping if water quality poses a threat to Shazah Slough. Pump to either Shazah Creek or Tulsequah River depending on available dilution.	<i>Stage - Operations</i> <i>Lead agency- MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
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	<i>Stage - Permitting</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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	<i>Stage - Closure</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
6.3	All surface disturbed areas will store salvaged soil for use in subsequent reclamation	<i>Stage - Closure</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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.	<i>Stage - Closure</i> <i>Lead agency- MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
6.5	At closure, the mine will be flooded to further preclude acid generation.	<i>Stage - Closure</i> <i>Lead agency- MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
6.6	Further comply with reclamation and decommissioning plan as outlined in Project Report Volume V, section 8.	<i>Stage - Closure</i> <i>Lead agency- MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding
6.7	Revegetate along the cleared road side areas within approximately one year of construction at the mine site.	<i>Stage - Operations</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding

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6.8	Prior to major surface disturbance the proponent will collect more baseline information, including:	<i>Stage - Pre construction</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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	<i>Stage - Pre construction</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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	<i>Stage - Pre construction</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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 - Pre construction</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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 - Pre construction</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	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	<i>Stage - Pre construction</i> <i>Lead agency - MEM</i>	<i>Stage - Mines Act permit</i>	Outstanding

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ACCESS 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 - Permitting Lead agency - MoF</i>	<i>Stage - SUP</i>	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 - Permitting Lead agency - MoF</i>	<i>Stage - SUP</i>	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.	<i>Stage - Pre-construction Lead agency - YTG</i>	<i>Stage - Before use of the road for ore hauling</i>	Outstanding
8.2	Upgrade the Yukon portion of the Atlin road as negotiated with YTG.	<i>Stage - Construction Lead agency - YTG</i>	<i>Stage - Before use of the road for or hauling</i>	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 - Construction Lead agency - MoT</i>	<i>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.</i>	Outstanding

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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 - Pre-construction Lead agency -MoT</i>	<i>Stage - Agreement to be reached pre construction</i>	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 -Operations Lead agency -MoF</i>		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 - Closure Lead agency - MoF</i>	<i>Stage - SUP</i>	Outstanding
10.2	Provide a bond as security for road deactivation, such bond amount to be determined by the District Manager, MoF.	<i>Stage - Pre construction Lead agency -MoF</i>	<i>Stage - SUP</i>	Outstanding

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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 - Operations</i> <i>Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	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.	<i>Stage - Plan</i> <i>Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	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 - Operations</i> <i>Lead agency - DFO</i>	<i>Stage - WMA permit</i>	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.	<i>Stage -Operations</i> <i>Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding

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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 - Plan Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
11.2.5	Finalize impact indicators in consultation with DFO and MWLAP (preliminary list in 1998 Aquatic Effects Monitoring Program)	<i>Stage - Plan Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	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 - Plan Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
11.2.7	Measurements for receiving water flows	<i>Stage - Plan Lead agency - MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
11.2.8	Measurements for discharge flows	<i>Stage - Plan Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding

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11.2.9	<p>Include these conceptual sampling locations associated with the mine:</p> <p>1a) ground water monitor upgradient from tailings area (background)</p> <p>1b) ground water monitoring wells down gradient from tailings containment areas (source) (pond contents will be sampled according to the Permit to Discharge)</p> <p>2) Shazah Creek upstream of tailings area (lotic background)</p> <p>3) Shazah Slough down gradient of tailings area (mixing zone)</p> <p>4) "Airstrip Slough" on opposite side Shazah Slough (lentic slough background)</p> <p>5) Shazah Creek adjacent to slough mixing zone (creek mixing zone)</p> <p>6) Shazah Creek immediately down gradient of Shazah tributary (criteria application)</p> <p>7) Shazah tributary upgradient (E.) from tailings area (2nd lotic background)</p> <p>8) Shazah tributary above confluence with Shazah Creek (2nd lotic mixing zone)</p> <p>9) Shazah Creek at mouth above confluent with Tulsequah</p> <p>10) Additional slough environment (2nd lentic background)</p> <p>11) Tulsequah River upstream of Shazah Creek (far field site)</p> <p>12) Tulsequah River downstream of Tulsequah Chief Mine (far field site)</p> <p>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)</p>	<p><i>Stage - Plan</i> <i>Lead agency -MWLAP</i></p>	<p>Stage - WMA permit</p>	<p>Outstanding</p>

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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	<i>Stage - Operations Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	Outstanding
11.2.11	Tailings pond seepage: monitor groundwater quality throughout the life of the project.	<i>Stage - Operations Lead agency -MWLAP</i>	<i>Stage - WMA permit</i>	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 - Operations Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding
FISH AND 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 - Operations Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding

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WILDLIFE				
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.	<i>Stage - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Wildlife Act</i>	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 - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	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.	<i>Stage - Operations</i> <i>Lead agency -MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding

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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.	<i>Stage - Operations</i> <i>Lead agency- MWLAP</i>	<i>Stage - Pre certification commitment</i>	2002 - Partially fulfilled
18	WILDLIFE MITIGATION - ACCESS MANAGEMENT¹			
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 - Construction</i> <i>Lead agency -MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding
18.2	Install locked gates at beginning and end of new 12 km stretch of road through Spruce-Wilson	<i>Stage - Construction</i> <i>Lead agency –MoF; MWLAP</i>	<i>Stage - Pre certification commitment</i>	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.	<i>Stage - Construction</i> <i>Lead agency -MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding
18.4	Begin identification of sensitive wildlife habitat and crossing locations and adjust traffic control as necessary.	<i>Stage - Construction</i> <i>Lead agency -MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding

¹ 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.

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	<i>SOUTH AREA (O'Donnel River to Mine)</i>			
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 - Operations</i> <i>Lead agency –MWLAP; MoF</i>	<i>Stage - Pre certification commitment</i>	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, 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 - Operations</i> <i>Lead agency - MEM</i>	<i>Stage - Pre certification commitment</i>	Outstanding

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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	<i>Stage - Operations</i> <i>Lead agency - MEM</i>	<i>Stage - Pre certification commitment</i>	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 - Operations</i> <i>Lead agency -MEM</i>	<i>Stage - Pre certification commitment</i>	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	<i>Stage - Operations</i> <i>Lead agency MWLAP</i>	<i>Stage -Pre certification commitment</i>	Outstanding
19.3	Prohibition of fishing within the right of way for all authorized users of the access road.	<i>Stage - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	Outstanding

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19.4	No recreational use of the access road right of way by all mine employees, contractors and visitors.	<i>Stage - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	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 - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	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.	<i>Stage - Operations</i> <i>Lead agency</i>	<i>Stage - Pre certification commitment</i>	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.	<i>Stage - Operations</i> <i>Lead agency</i>	<i>Stage - Pre certification commitment</i>	Outstanding

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	<i>NORTH AREA (Atlin Highway to manned gate at O'Donnel)</i>			
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 - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Pre certification commitment</i>	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>	<i>Stage - Operations</i> <i>Lead agency-</i>	<i>Stage - Pre certification commitment</i>	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.	<i>Stage - Operations</i> <i>Lead agency -MoF</i>	<i>Stage - Pre certification commitment</i>	Outstanding

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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 - Operations</i> <i>Lead agency -MWLAP</i>	<i>Stage - Pre certification commitment</i>	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 - Operations (temporary closure)</i> <i>Lead agency - MoF</i>	<i>Stage - Pre certification commitment</i>	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 - Post operations</i> <i>Lead agency - MoF</i>	<i>Stage - Pre certification commitment</i>	Outstanding
MALFUNCTIONS AND ACCIDENTS				
20.1	Comply with the spill contingency plan as outlined in Volume IV, section 3.2 of the Project Report	<i>Stage - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage - Project Report</i>	Outstanding
AIR AND NOISE				
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 - Operations</i> <i>Lead agency - MWLAP</i>	<i>Stage -Project Report</i>	Outstanding

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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	<i>Stage - Pre construction</i> <i>Lead agency - MSRM (Archaeology Planning and Assessment)</i>	<i>Stage - Permitting (Heritage Conservation Act)</i>	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 - Pre construction</i> <i>Lead agency - MSRM (Archaeology)</i>	<i>Stage - Permitting (Heritage Conservation Act)</i>	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 - Operations</i> <i>Lead agency - MSRM (Archaeology)</i>	<i>Stage - Operations (permit under Heritage 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 - Construction</i> <i>Lead agency - MSRM (Archaeology)</i>	<i>Stage - Pre certification commitment</i>	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 - Construction</i> <i>Lead agency - MSRM (Archaeology)</i>	<i>Stage - Pre certification commitment</i>	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 - Permitting</i> <i>Lead agency - MoF</i>	<i>Stage - SUP</i>	2002 -Fulfilled to the extent possible by the proponent.

SCHEDULE B
Tulsequah Chief Mine Project:
Environmental Assessment Commitments Chart

Commitment #	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</i> - <i>Mines Act</i> permit	Outstanding