PROVINCE OF BRITISH COLUMBIA
MINISTRY OF ENERGY AND MINES

MINE PERMIT
APPROVING MINE PLAN AND RECLAMATION PROGRAM

(Issued pursuant to Section 10 of the *Mines Act* R.S.B.C. 1996, c. 293)

Permit: **M-240** Mine No: **0101102**

Issued to: **Red Chris Development Company Ltd.**
200-580 Hornby Street
Vancouver, British Columbia
V6C 3B6

for work located at the:

Red Chris Mine

This permit contains the following sub-sections:

Issue Date	**Permit**
May 4, 2012	Approving Mine Plan
May 4, 2012	Approving Reclamation Program

Amendments

As listed on page 2.

Issued at Victoria, British Columbia this 16th day of June in the year 2015.

Al Hoffman, P.Eng.
Chief Inspector of Mines

Amendments

September 5, 2012	Approving Mine Permit Boundary
February 2, 2015	Interim Approval to Operate TSF
June 16, 2015	Approving Operation of the NSD Tailings Storage Facility

AMENDMENT TO PERMIT

APPROVING
OPERATION OF THE NSD TAILINGS STORAGE FACILITY

Permit: **M-240** Mine No: **0101102**

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for work located at the:

Red Chris Mine

Issued at Victoria, British Columbia this 16th day of June in the year 2015.

Al Hoffman, P.Eng.
Chief Inspector of Mines

PREAMBLE

A letter application for amendment of permit M-240, entitled "Red Chris Tailings Storage Facility (TSF) Approval to Operate" dated April 30 2015 (Document1) was submitted to the Chief Inspector of Mines (Chief Inspector) on April 30, 2015 in accordance with Section 10(5.1) of the *Mines Act*.

The following also form part of this application:

- Review of TIA Inflow Design Flood Criteria for 2015 Construction Season, submitted to RCDC from BGC dated April 30, 2015. (Document 2)
- Tailings Impoundment Area, 2014 Construction records report Final, submitted to RCDC form BGC dated April 15, 2015. (Document 3)
- Report entitled "Summary Satus on Recommendation", by RCDC, received by the Chief Inspector on April 16, 2015. (Document 4)
- Report entitled "Response to KCB Review Comments" by RCDC, received by the Chief Inspector April 16, 2015. (Document5)

CONDITIONS

The Chief Inspector of Mines (Chief Inspector) hereby approves Operation of the North Dam TSF subject to the following conditions

A. General

1. Compliance with *Mines Act* and Code

All work shall be in compliance with all sections and parts of the *Mines Act* and the Health, Safety and Reclamation Code for Mines in B.C. (Code) and the owner, agent or manager (herein called the Permittee) shall obey all orders issued by the Chief Inspector or his delegate.

2. Departure from Approval

The Permittee shall notify the Chief Inspector in writing of any intention to depart from the approved application and this *Mines Act* permit (M-240) to any substantial degree, and shall not proceed to implement the proposed changes without the written authorization of the Chief Inspector.

B. Geotechnical

North Starter Dam (NSD) Tailings Storage Facility (TSF)

1. Construction

   (a) Dam construction to the crest elevation of 1118 m shall follow the design and specifications provided by the design consultant.

   (b) The Permittee shall ensure all construction is completed under the supervision of a qualified professional geotechnical engineer and shall include sufficient field reviews to ensure that the structures are built in general conformance of the design.

   (c) The tailings and operating pond water level shall be monitored weekly and checked against the dam crest elevation as recommended by the design consultant.

   (d) If the dam crest elevation does not reach the monthly target level, tailings discharge shall cease temporarily until the design dam crest level is achieved and the required freeboard is established.

   (e) Water balance, tailings deposition plan and dam raise schedule, including review of the IDF and freeboard requirements, shall be reviewed in Q3 2015 and also annually.

2. Monitoring

   The Operation, Maintenance and Surveillance (OMS) manual shall be updated prior to the 2015 dam raise to include a table of piezometer threshold levels and associated response criteria.

3. Reporting

   An as-built report for the 2015 construction, including a summary of construction material specifications, foundation preparation, abutment preparation and QA/QC data, shall be presented in the annual dam safety inspection report or submitted under separate cover to the Chief Inspector.

All other terms and conditions remain the same.

BRITISH COLUMBIA

February 2, 2015

File: 14745-40
Permit: M-240
Mine No. 0101102

Mr. Tim Fisch
Mine Manager
Red Chris Development Company, Red Chris Mine
200-580 Hornby Street
Vancouver, BC, V6C 3B6

Dear Mr. Fisch:

Re: Interim Approval to Operate TSF (January – May 2015)

The Ministry of Energy and Mines (MEM) has considered your application entitled "Red Chris Impoundment Area 2013 Construction Report and Application Seeking Approval to Operate, dated December 17, 2014" for the Red Chris Mine Project. The application was submitted to the Chief Inspector of Mines on December 17, 2014 for his consideration under 10.5.1 of the Health, Safety and Reclamation code for Mines in BC.

The review considered the following documents and reports related to the tailings storage facility, in particular the North Starter Dam (NSD):

- Stage I North Starter Dam 2013 Construction Records Report, dated September 30, 2014
- Red Chris Mine, Review of Tailings Impoundment Design by Klohn Crippen Berger, dated October 10, 2014
- Dam Safety Inspection report dated Nov 24, 2014
- Emergency Preparedness and Response Plan, updated January 27, 2015
- NSD stability implications of 11-NPW2 well pumping by BGC engineering, dated, January 19, 2015
- Letter of Commitment from Red Chris Development to address KCB recommendations, dated January 14, 2015
- Dam Breach and Inundation Study dated November 26, 2014
- Operation, Maintenance and Surveillance manual dated December 22, 2014
- Surface and Groundwater Monitoring, Management and Commissioning Plan for North Tailings Impoundment Area dated January 2015. Report includes Adaptive Water Management Plan dated January 12, 2015 and North Starter Dam Reservoir Operating Rules dated January 9, 2015

Ministry of Energy and Mines | **Health, Safety and Permitting Branch** | **Mailing Address:** PO Box 9320, Stn Prov Govt Victoria, BC V8W 9N3 Fax: (250) 952-0491 | **Location:** Sixth Floor, 1810 Blanshard Street Victoria

- Updated Operating Rules dated January 30, 2015

The Ministry is satisfied that you will be able to safely operate the NSD using a proposed IDF based on 2/3 between the 1:1000 and PMF plus post –IDF inflow for this interim approval period subject to the following conditions:

1. This interim permit is valid for the commissioning of the mill and not for production.
2. Discharge of tailings and process water to the TIA shall cease when the operating pond reaches elevation 1090.6 m;
3. The maximum operating pond water level is to be maintained below elevation 1093.25 meters to provide storage for the design IDF. The pump trigger elevation is therefore 1093.25 m;
4. Detailed contingency plans for emergency discharge shall be developed by the end of February 2015 as discussed in the January 9, 2015 Operating Rules;
5. The Northwest Diversion Ditch must be re-established to convey water around the TIA when tailings discharge to the TIA commences;
6. The TMF is to be operated and monitored in accordance with the Operation, Maintenance and Surveillance manual ;

All other terms and conditions of the permit remain unchanged.

Please attach this letter to Permit M-240 as it will become an integral part of the permit.

Yours very truly,

Al Hoffman P. Eng
Chief Inspector of Mines

Cc: George Warnock, MEM, Manager Geotechnical Engineer, Prince George BC
Doug Flynn, MEM, Senior Health and Safety Inspector, Smithers BC
Doug Hill, MOE Regional Director, Mining Operations
Luc Lachance, MOE, Sr. Environmental Protection Officer

Ministry of Energy and Mines | **Health, Safety and Permitting Branch** | **Mailing Address:** PO Box 9320, Stn Prov Govt Victoria, BC V8W 9N3 Fax: (250) 952-0491 | **Location:** Sixth Floor, 1810 Blanshard Street Victoria

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Permit: **M-240** Mine No: **0101102**

Issued to: **Red Chris Development Company Ltd.**
200-580 Hornby Street
Vancouver, British Columbia
V6C 3B6

for work located at the:

Red Chris Mine

Issued at Victoria, British Columbia this 4th day of May in the year 2012.

Al Hoffman, P.Eng.
Chief Inspector of Mines

PREAMBLE

An application for permission to commence work including a report on the mine plan and reclamation program entitled "Joint Mines Act and Environmental Act Permit Application" (Application), dated July 2010 was submitted to the Chief Inspector of Mines (Chief Inspector) in accordance with Part 10.1.2 of the Health, Safety and Reclamation Code for Mines in British Columbia (Code) on July 23, 2010.

Notice of such filing was published in the British Columbia Gazette on July 29, 2010.

A series of reports committed to the above referenced permit application and required by the Chief Inspector were also filed with the Chief Inspector and form part of the application, as follows:

- Red Chris Permitting Response Submission, prepared by RCDC, dated June 15, 2011.(Document 1)
- Geotechnical Report for Detail Foundation Design prepared by AMEC, dated February 2012.(Document 2)
- Crusher Option 3 Foundation Geotechnical Report prepared by AMEC, dated February 8, 2012. (Document 3)
- Red Chris Waste Rock Dump Stability Analyses and Rockfall Assessment prepared by AMEC, dated August 23 2011. (Document 4)
- Red Chris Open Pit Geotechnical Design Report prepared by AMEC, dated January 10 2006. (Document 5)
- Red Chris Plant Site Foundation Geotechnical Report, prepared by AMEC, dated September 17, 2010. (Document 6)
- Red Chris Condemnation Drilling Report, prepared by Red Chris Development Company Ltd, dated January 16, 2012. (Document 7)
- Memo entitled "Response to FLNRO IR #139 Minimum Copper Removal in Red Chris Mill" prepared by AMEC, dated April 11, 2012. (Document 8)
- 2012 RCDC Minesite Reclamation Cost Estimate by Year, prepared by RCDC, received April 10, 2012. (Document 9)
- Red Chris Development Environmental Management System Framework Document, dated April 2012, including stand alone plans (EMP) for: Environmental Monitoring, Construction, Surface Erosion Prevention and Sediment Control, Fuel Management, Non Hazardous Waste Management, Hazardous Materials Handling, Wildlife Management, Health and Safety, Traffic Management, Emergency Response and Spill Contingency, Archaeological Impact Mitigation, Surface and Groundwater Monitoring, Water Management, and Vegetation Management,. (Document 10)

The Application was referred to other agencies on July 26, 2010 in accordance with Part 10.3.1 of the Code. Several meetings of the Northwest Mine Development Review Committee were

held to review the application: December 8, 2009, March 31, 2010, Sept 9, 2010 and Sept 15 2011 in Smithers. As well there have been 17 focused working group meetings held at various venues to discuss issues concerning wildlife, archeology and water.

Environmental Certificate M05-02 was issued for this project by the Environmental Assessment Office under the authority of the *Environmental Assessment Act* S.B.C. 2002, C.43 (Act), on August 24, 2005. A onetime 5 year extension was issued on July 9, 2010 and the certificate was amended on February 24, 2012.

This permit contains the requirements of the Ministry of Energy and Mines. It also is compatible, to the extent possible, with the requirements of other provincial ministries. The amount of security required by this permit and the manner, to which this security may be applied, will also reflect the requirements of those ministries. However, nothing in this permit limits the authority of other provincial ministries to set other conditions, or to act independently, under their respective permits and legislation.

Decisions made pursuant to this permit by staff of the Ministry of Energy and Mines will be made in consultation with other provincial ministries and federal departments and agencies, within reasonable timeframes. Where these decisions directly affect the Ministry of Environment, Ministry of Forests, Lands and Natural Resource Operations and the Environmental Assessment Office, all decisions will be made in concurrence with the appropriate Manager or Director.

The mine is located in the asserted traditional territory of the Tahltan Nation. The Tahltan have expressed their interests regarding potential impacts to their asserted or established rights during pre-permit consultations between the Tahltan and the Province.

For the purposes of this permit, the start of construction will be defined as the commencement of clearing activities (e.g., logging) on the mine site or power line, and the start of operations will be defined as the commencement of mill operations.

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E. Reclamation and Closure

CONDITIONS

The Chief Inspector hereby approves the Mine Plan and Reclamation Program as submitted in the Application, subject to compliance with the following conditions:

A. General

1. Compliance with *Mines Act* and Code

All work shall be in compliance with all sections and parts of the *Mines Act* and the Health, Safety and Reclamation Code for Mines in B.C. (Code), and the owner, agent or manager (Permittee) shall obey all orders issued by the Chief Inspector or his delegate.

2. Departure from Approval

The Permittee shall notify the Chief Inspector of Mines (Chief Inspector) in writing of any intention to depart from the approved Application and this *Mines Act* permit (M-240) to any substantial degree, and shall not proceed to implement the proposed changes without the written authorization of the Chief Inspector.

3. Permit Approval

(a) This permit approves the construction, development and production of ore (mill capacity 30,000 tpd) and ancillary activities as outlined in the Application as well as the installation of a power line from the Tatogga to the mine property.

(b) Development, including surface disturbance and works, encompassing approximately 5594.11 ha held by Red Chris Development Company (Figure 1) is authorized under this permit (M-240).

4. Permit

This Permit is not transferable or assignable.

5. Red Chris Monitoring Committee (RCMC)

The Permittee shall establish a monitoring committee to provide advice to the Chief Inspector on environmental management and monitoring, reclamation, and closure activities of the Red Chris Mine. The Committee will be co-chaired by a representative of the Tahltan Nation and the Permittee. Terms of Reference and Operating Procedures including a dispute resolution mechanism, for the Monitoring Committee will be established by the co chairs in consultation with the Committee members. The Committee shall consist of five (5) members comprising representatives from the Ministry of Energy

and Mines, Ministry of Environment, Ministry of Forests, Lands, and Natural Resources Operations, Tahltan Nation, and the Permittee. The costs shall be borne by the Permittee.

6. Tahltan Nation and RCMC Reporting Requirements

Unless otherwise requested, the Permittee shall provide the Tahltan Central Council, Iskut First Nation, the Tahltan Band and the Red Chris Monitoring Committee all material reports and plans relevant to this permit, including annual monitoring reports and material changes to the approved Reclamation Plan.

B. Health and Safety

1. Emergency Response Plans (ERP)

(a) The Permittee shall implement their Emergency Response Plan (ERP) as submitted to the Chief Inspector April 2012. The ERP shall be kept up to date and be made available at the mine site at all times. The ERP shall reference relevant policies and establish proactive procedures to provide direction for management, mine site employees and contractors.

(b) The Permittee shall ensure that mine site employees and contractors are knowledgeable and accountable for fulfilling the actions of the ERP.

2. Explosive Management Plan

The Permittee shall develop and submit an Explosive Management Plan to the Health and Safety Inspector for review and approval prior to any blasting activity.

3. Traffic Control Plan

The Permittee shall develop and submit a mine Traffic Control Procedure (pursuant to 6.8.3 Code) to the Health and Safety Inspector for review and approval prior to operations. The plan shall include a map showing road corridors on site, speed limits and access limits and any other information the inspector requests.

4. Dust Control Management Plan

The Permittee shall develop a plan, within 1 year of the issuance of this permit, in consultation with the Red Chris Monitoring Committee, to determine the impact of dust from the mine activities used by the Tahltan Nation for food sources in the mine area and surrounding areas impacted by the mine activities.

C. Mine Plan

1. Open Pit

(a) Design

(i) The pit slope design is approved subject to an annual review by a registered Professional Engineer with experience in the design of pit slopes.

(ii) Further investigation, including geotechnical logging, rock strength testing and structural/hydrogeological modeling shall be undertaken during Stage 1 excavation to provide information for final wall design.

(b) Construction

(i) The minimum final width of pit slope catchment berms shall be 8 metres.

(ii) A perimeter ditch shall be constructed above the pit crest to divert surface water away from the pit. The ditch shall be maintained as necessary.

(iii) Horizontal drain holes shall be installed in the open pit as required to reduce groundwater pressure.

(c) Operation

(i) Production blast patterns shall be developed to reduce pit wall and bench crest disturbance.

(ii) Final pit walls shall be carefully scaled during pit development to limit rock fall.

(iii) If access cannot be gained to clean a catchment berm and a danger exists to a person or persons working below, a safe work procedure shall be developed.

(d) Monitoring

(i) Regular geological mapping, geotechnical mapping and evaluation of pit wall performance shall be undertaken.

(ii) A visual inspection and instrumentation monitoring program shall be established to detect early evidence of any potentially dangerous pit wall instability.

(e) Reporting

(i) The pit slope performance monitoring results shall be summarized in an annual report submitted to the Chief Inspector within 3 months of the evaluation.

(ii) A report shall be submitted to the Chief Inspector in the event of a single bench failure resulting in a dangerous occurrence, or in the event of a multi bench failure regardless of consequence.

2. Rock Dump

(a) Design

The design of the rock dump to a maximum height of 150 m is approved.

(b) Construction

(i) The rock dump foundation shall be inspected by a qualified geotechnical engineer to confirm that all organic and unsuitable material is removed prior to dump construction.

(ii) The rock dump shall be constructed in maximum 10 m lifts at a maximum overall slope of 2H: 1V.

(iii) A 1 metre high berm or 1 metre deep ditch shall be constructed 10 metres from the toe of the rock dump to intercept rock rollout material from rock dump. To protect the plant site and camp from rock rollout the haul road at the toe of the rock dump shall be constructed to form a road surface 3 m above grade.

(c) Operation and Monitoring

A rock dump construction, operation and stability monitoring procedure shall be prepared and submitted to the Chief Inspector prior to dump construction. The monitoring program shall include a schedule of daily inspections of active dump crests, slopes and toe areas, weekly inspections of inactive dumps and weekly inspection of the boulder roll out collection ditch.

(d) Closure

Slopes of the rock dump shall be resloped, as required for reclamation purposes at closure.

3. Tailings Storage Facility (TSF)

(a) Design

(i) The design of the North Dam and Northeast Dam to elevation 1180 m is approved.

(ii) The Permittee shall submit the design of the South Dam to the Chief Inspector for approval, prior to construction, following the completion of additional hydro geological and seepage investigations south of Black Lake.

(ii) Drawings and specifications for installation of the geomembrane liner designed for the North Dam shall be submitted to the Ministry for review prior to construction.

(b) Construction

(i) Loose soils that are susceptible to liquefaction shall be removed from the creek channel below the South Dam alignment.

(ii) A geomembrane liner shall be installed on the upstream slope of the North Dam starter embankment and extended to cover at least 50% of the base of the start-up water pond.

(iii) Seepage collection ponds shall be constructed downstream of the North Dam and South Dam. Geomembrane liners shall be installed in the base of the seepage collection ponds extending 70 m upstream from the till core.

(c) Operation

(i) Deposition of cleaner tailings within the impoundment shall not commence until approval to operate the facility has been issued by the Chief Inspector

(ii) An Operation, Maintenance and Surveillance manual for the tailings storage facility shall be prepared prior to operation of the facility.

(iii) An Emergency Preparedness Plan, incorporating the results of a dam breach inundation study, shall be prepared and submitted to the Chief Inspector 6 months prior to the commencement of operation of the tailings facility.

(vi) A minimum freeboard of 2m above the inflow design flood level shall be maintained.

(d) Monitoring

(i) A continuous water level gauge or other suitable pond level monitoring system shall be installed to monitor water level and freeboard.

(ii) Piezometers shall be installed in the dam foundation and dam shell to monitor pore water pressure during construction and after closure.

(iii) Survey monuments shall be installed along the dam crest to monitor movement.

(iv) The Operation, Maintenance and Surveillance manual shall include an inspection schedule and monitoring procedures for piezometers and response trigger levels.

(v) Inspection and instrumentation records shall be maintained on site and be made available for inspection at the request of an inspector.

(e) Reporting

(i) An annual dam safety inspection of all dams on the mine site, shall be completed by a registered Professional Engineer and a copy of the inspection report shall be submitted to the Chief Inspector by March 31st in the year following the inspection.

(ii) Details of the starter dam construction shall be included in an as-built report and submitted to the Chief Inspector within 6 months of construction of the starter dam and every year following staged dam raises.

(iii) Dam safety reviews shall be completed in accordance with the Canadian Dam Association, Dam Safety Guidelines (2007).

4. Borrow and Rock Quarry Pits

(a) Design and Operation

(i) The design extension to the rock quarry shall be submitted to the Chief Inspector for approved prior to development.

(ii) Sediment control ponds shall be constructed prior to ground disturbance and excavation of borrow materials.

(b) Monitoring

(i) Regular visual inspection of bench faces and crest areas shall be undertaken once every two weeks or more frequently during spring freshet to detect signs of instability.

(ii) Excavated slopes shall be redesigned if instability develops on deep excavation slopes.

(iii) Inspection and instrumentation records shall be maintained on site.

5. Seepage Control Ponds

(a) Design and Construction

(i) Detailed design for seepage control ponds classified as major impoundments (as defined by the Code) shall be submitted to the Chief Inspector for review prior to construction.

(ii) Organic soils and loose/soft unsuitable mineral soils shall be removed from the dam foundation area.

(iii) A spillway shall be constructed to safely convey the design flood flow.

(b) Monitoring

Regular visual monitoring of the dam crest, dam slopes and spillway shall be undertaken.

(c) Reporting

The condition of sediment control dams shall be included in the annual dam safety inspection report submitted to the Chief Inspector.

6. Low Grade Ore Stockpile

(a) Design and Construction

The stockpile shall be constructed in 10 m maximum lifts at an overall slope of 2H:1V.

(b) Monitoring

Regular visual inspection of the crest and slopes of the stockpile shall be undertaken to ensure stability is maintained.

7. Topsoil/Overburden Stockpiles

(a) Design and Construction

Soil stockpiles shall be constructed with side slopes of 2H:1V or less as required to maintain stability and minimize erosion.

(b) Monitoring

Regular visual inspection of the stockpile crests and slopes shall be undertaken to ensure stability and erosion control are maintained.

8. Plant Site

(a) Design and Construction

(i) Foundation designs shall be submitted to the Chief Inspector prior to construction.

(ii) Excavations in soil and bedrock shall be completed in accordance with the design requirements of the Health, Safety and Reclamation Code. Excavated slopes shall be monitored on a regular basis to verify safe conditions.

(iii) Foundation excavation and construction shall be supervised by a qualified engineer to confirm design assumptions and bearing capacity.

9. Crusher Site

(a) Design and Construction

(i) Foundation designs shall be submitted to the Chief Inspector prior to construction.

(ii) Excavations in soil and bedrock shall be completed in accordance with the requirements of the Health, Safety and Reclamation Code. Excavated slopes shall be monitored on a regular basis to verify safe conditions.

(iii) Foundation excavation and construction shall be supervised by a qualified engineer to confirm design assumptions and bearing capacity.

10. Mine Roads

All mine roads shall be designed and constructed according to current engineering standards and in accordance with the Health, Safety and Reclamation Code.

D. Protection of Land and Watercourses

1. Environmental Management System (EMS)

(a) The Permittee shall implement their Environmental Management System (EMS) and plans as submitted to the Chief Inspector April 2012.

(b) The EMS and plans shall be kept up to date, reviewed as required by the Red Chris Monitoring Committee, and be made available at the mine site at all times. The EMS and plans shall reference relevant policies and establish proactive procedures and standard operating procedures to provide direction for management, mine site employees and contractors.

(c) The Permittee shall ensure that all mine site employees and contractors are knowledgeable and accountable to act consistently with the requirements of the EMS and plans.

2. Environmental Site Manager

(a) The Permittee shall ensure that an environmental site manager or their designate is on site at the commencement, and for the duration, of the construction and operational mining phases. The environmental site manager shall be a qualified professional and shall be identified in writing to the Chief Inspector.

(b) The environmental site manager shall have the authority to implement remedial actions as may be necessary to ensure maintenance of environmental standards and permit requirements. If suspension of mining occurs due to environmental concerns, the Permittee or environmental site manager shall immediately notify the Chief Inspector, appropriate personnel with the Ministry of Environment and the Red Chris Monitoring Committee.

3. Metal Leaching (ML) and Acid Rock Drainage (ARD)

(a) General

(i) Concurrent with mine development and operations, the Permittee shall characterize excavated materials produced and mine surfaces exposed, to determine ML/ARD generating potential, validate pre-mining predictions,

guide material management decisions, confirm effectiveness of waste handling procedures, and determine the need for mitigation and contingency measures that ensure environmental protection.

(ii) Unless otherwise approved, all plans for the prediction, and if necessary, the prevention, mitigation and management of metal leaching and acid rock drainage shall be prepared in accordance with the *Guidelines for Metal Leaching and Acid Rock Drainage at Minesites in British Columbia.*

(iii) No changes shall be made to the criteria for PAG/ML definition, waste handling procedures, mitigation strategies, or materials monitoring program without the approval of the Chief Inspector.

(b) Definition of Potentially ARD Generating (PAG) and Metal Leaching (ML) Materials

(i) Pre-strip pit overburden materials are defined as PAG unless laboratory monitoring demonstrates otherwise.

(ii) Waste rock is considered to have the potential to be PAG if NP/AP is < 2:1, where AP is calculated using total sulphur and NP is determined by the modified Sobek method or calculated using carbonate. If the NP values are showing significant differences, the results of the modified Sobek method shall take precedence.

(iii) Cleaner tailings are defined as PAG.

(iv) Rougher/sulphide flotation tailings sand materials are defined as NAG, unless operational monitoring data demonstrates otherwise.

(v) Overburden or waste rock containing soluble metal levels (as determined by the shake flask test) higher than the receiving water objectives are defined as having a potential for metal leaching.

(c) The Ore and Waste Rock Material Characterization and Management Plan

(i) The Ore and Waste Rock Material Characterization and Management Plan as presented in the application is approved. A stand alone document shall be developed and submitted to the Chief Inspector for review as part of the EMS. (see condition D.1).

(ii) No changes can be made to the sampling and analytical parameters outlined in plan without the written permission of the Chief Inspector.

(iii) All personnel involved in waste rock mining, segregation and handling shall be trained in the approved Ore and Waste Rock Material Characterization and Management Plan.

(d) Tailings Handling Mitigation and Monitoring

(i) No PAG tailings shall be discharged into the TSF within 300 meters of the south dam.

(ii) The tailings deposition plan and operating procedures shall be developed to ensure that PAG tailings remain permanently flooded with a minimum 2 meter water cover.

(iii) Cleaner tailings shall be kept in a permanently saturated state at all times.

(e) Waste Rock Handling Mitigation and Monitoring

(i) The Permittee shall ensure a layer of NAG rock, as specified in the application, is constructed at the base and toe areas of the rock dump to minimize direct contact of PAG rock with near surface runoff.

(ii) As soon as practicable, the Permittee shall ensure a cover is placed over top of the rock dump to provide an infiltration barrier.

(f) Construction Material Handling, Mitigation, and Monitoring

(i) No PAG or metal leaching materials shall be used for construction purposes, except for those structures located within the TSF that will be permanently flooded at closure.

(ii) Prior to their use, representative samples of borrow materials used for road construction outside of the ultimate flooding levels of the open-pit and impoundment shall be tested and characterized for their potential to generate ML/ARD.

(g) Low Grade Ore

This permit approves the storage of low grade ore.

(h) Materials Inventory

The Permittee shall maintain an inventory of materials stored in the various areas of the rock dump, low grade ore and TSF, including information on waste source,

composition, quantity of material, elevation (metres), disposal location, and date of placement.

(i) On Site Laboratory and Confirmation Testing

(i) The on-site laboratory shall be operational prior to overburden stripping, or if the on-site laboratory is not up and running, external laboratories shall be utilized for geochemical analyses.

(ii) The Permittee shall undertake an assessment of NP analysis conducted at the on-site and off-site laboratories to evaluate the accuracy of analyses and effectiveness for PAG/non-PAG segregation and handling. This evaluation shall be undertaken by a qualified professional.

(iii) Until the on-site laboratory is proven to be, providing reliable results and is achieving acceptable levels of precision and accuracy, all samples shall be re-analyzed at an off-site laboratory facility. Once on-site laboratory performance is demonstrated, off-site analysis can be decreased to levels that provide QA/QC.

(iv) Laboratory analytical methods shall be outlined in a Standard Operations and Procedures Manual as part of the Ore and Waste Rock Material Characterization and Management Plan

(j) ML/ARD Reporting and Ongoing Research

(i) Results of the ML/ARD analytical testwork (including raw data, sample descriptions, QA/QC and deposition inventory), shall be reported in the Annual Reclamation Report.

(ii) The Permittee shall develop and have approved by the Chief Inspector, plans for a field confirmation monitoring program consisting of field-scale tests and pit wall wash monitoring stations to be used to confirm geochemical performance of mine waste materials and refine input parameters utilized in water quality predictions. The plan shall specify the characteristics of the test materials, the test design, the planned sampling locations and analytical procedures.

4. Water Management

(a) The Permittee shall, when required to do so by other agencies, obtain permits and licenses for water diversion and discharge.

(b) In the event that seepage and other drainages that may arise from the mine site results in an exceedance of the applicable provincial water quality standards in the receiving environment, the Permittee shall collect and treat, or otherwise mitigate drainage for as long as is necessary.

(c) The Permittee shall ensure all contact water discharging from the rock dump and pit areas is collected and processed in the mill prior to discharge to the TSF.

(d) Any bypass of the rock dump and pit water discharge is prohibited unless the approval of the Chief Inspector is confirmed in writing.

(e) The Permittee shall monitor seepage through deep sand and gravel aquifers and implement contingency collection systems if required.

(f) The Surface and Groundwater Monitoring plan (April 2012) shall be reviewed by the Red Chris Monitoring Committee prior to operations.

(g) Seepage water collected in the seepage collection ponds shall be pumped back to the tailings impoundment or to the process plant.

(h) Groundwater seepage collected in groundwater wells installed downstream of the North and South Dams shall be pumped back to the tailings impoundment or to the process plant.

(i) The Permittee shall installed groundwater wells on the northwest side of the waste rock dump.

(j) The Permittee shall update their Water Management Plan, (see condition D.1). to include a plan for the collection and treatment of mine water seepage in the event of a temporary mill closure. Updated plans shall be reviewed by the Red Chris Monitoring Committee prior to operations.

5. Surface Water and Ground Water Quality Monitoring

(a) The Permittee shall monitor and track changes to surface and groundwater quality from the open pit, tailings supernatant, seepage recovery ponds below the TSF on both Quarry and Trail Creeks, groundwater monitoring wells below the TSF, seepages draining northwest of the rock dump area and the rock dump seepage collection system. The program shall be capable of providing early warning about the onset of acid rock drainage or an increase in contaminant loading.

(b) Detection limits should be sufficient to compare to provincial water quality guidelines and permit requirements established by the British Columbia Ministry of Environment.

(c) An effective QA/QC program for the surface water, groundwater and seepage monitoring program shall be implemented.

(d) Monitoring results of water quality and water quantity, including interpretation of the results, shall be kept up to date in a dedicated database available for review by an inspector and reported in the Annual Reclamation Report.

6. Updated Water Quality Predictions

During operations, the Permittee shall track water quality and flow monitoring data to enable updating and refinement of water quality predictions based on site-specific performance information. Updated water quality predictions shall be submitted with the updated Mine Plan and Reclamation Plan report due December 31, 2017. The water quality model will be updated every three years thereafter, or more frequently if required based on changes in observed water quality.

7. Conceptual Design for Water Treatment

By December 31, 2017, in the updated Mine Plan and Reclamation Plan report, the Permittee shall provide to the Chief Inspector, a conceptual design for water treatment. This report shall include information on treatment system type and general design, location, expected range of water quality and volume influents, expected effluent discharge quality and locations, estimates of lime and reagent use, sludge volumes and sludge management plans, and estimates for capital and operating costs, including costs for lime, reagents, power, sludge handling, labour, monitoring and maintenance.

8. Sediment and Erosion Control

(a) Sediment control and water management structures shall be constructed and operational prior to soil disturbance, this includes preconstruction grubbing activities.

(b) The Permittee shall initiate progressive reclamation where possible to control erosion around the mine area.

(c) The exposed cyclone sand dam slopes shall be covered to control erosion as soon as possible after construction.

9. Soil Salvage and Storage

(a) The Soil Handling and Overburden Management Plan as presented in the application is approved. A stand alone document shall be developed and submitted to the Chief Inspector for review as part of the EMS. (see condition D.1).

(b) The Permittee shall salvage and stockpile topsoil for use in reclamation and protect topsoil stockpiles through revegetation and other practices.

(c) A qualified professional shall be on site to ensure that suitable materials for reclamation are salvaged and properly stored.

(d) Soil stockpiles shall be located in areas that reduce handling requirements during site preparation and mine operations. Stockpiles shall be clearly marked to ensure that they are protected during construction activities; the locations, origins and quantities of material shall be documented and reported in the Annual Reclamation Report.

(e) Stockpiled topsoil and organic materials shall be re-vegetated using a certified weed-free seed mix, to reduce erosion during the storage period.

(f) The Permittee shall provide a soils monitoring program as part of the Reclamation Plan, which specifies the sampling parameters and performance criteria, which will be used to evaluate the success of soils reclamation.

(g) Stockpiled soil suitable for use in reclamation that is recoverable shall not be used as fill.

10. Vegetation Management

(a) The Permittee shall limit disturbance to vegetation to those areas approved in the permit application.

(b) The Permittee shall make a reasonable attempt to salvage and relocate rare plants.

(c) The Permittee shall provide a vegetation monitoring program as part of the Reclamation Plan, which specifies the sampling parameters and performance criteria, which will be used to evaluate the success of revegetation.

(d) The Permittee shall manage and control weeds that establish on the site and shall take reasonable efforts to ensure that weeds do not move from the site to adjacent areas. The control of weeds shall consider using non-toxic means for weed control

when possible. Care shall be taken to ensure seed that is used for reclamation is certified weed free.

(e) The Permittee shall undertake test work to determine the viability of revegetation with native plant species, including culturally important species where practicable, with the results provided in the Annual Reclamation Report.

(f) Revegetation is primarily for the purpose of creating wildlife habitat and traditional aboriginal uses where appropriate. Revegetation practices shall be conducted to provide appropriate species and densities which are similar to naturally occurring ecosites at similar elevations and climatic conditions. Riparian areas shall be revegetated with appropriate riparian species.

(g) Woody debris including stumps, roots, limbs and rotting logs that is generated during clearing and grubbing operations shall be stockpiled in suitable locations for subsequent use in the reclamation program. Woody debris may be chipped or burned for disposal only if it can be shown that the quantity of woody debris is excessive or the wood needs to be burned because of insect hazards.

11. Wildlife Protection

(a) The Permittee shall implement their Wildlife Management Plan at the start of construction to prevent and mitigate impacts to wildlife.

(b) The Permittee shall, where reasonably possible, avoid wildlife sensitive periods for construction activities.

(c) Pursuant to Part 1.6.9 of the Code, the Mine Manager shall incorporate in the mine safety program, a no hunting and shooting policy for the mine permit area (Figure 1).

(d) The Permittee shall implement a policy of no fishing and hunting for all employees and contractors along the mine access road, while on company business or while commuting to and from the mine.

12. Archaeological Resources

(a) Archaeological and heritage sites that were identified during field archaeological studies shall be avoided where possible during construction activity.

(b) If unanticipated archaeological materials or cultural features are encountered during construction or related activities, the Permittee shall cease work in the immediate area use the "Tahltan Archaeology Standards and Chance Find Recovery" process, contact the Tahltan Central Council, and the Archaeology Branch of the Ministry of

Tourism, Sport and the Arts and make arrangements under appropriate permits to scientifically excavate, record and report findings. This work should be done in a manner that respects the cultural heritage policies of the Tahltan Nation.

E. Reclamation and Closure Program

1. Reclamation Security

(a) The Permittee shall cause to be deposited with the Minister of Finance, security in the amount of eleven million, seven hundred and twenty five thousand dollars ($11,725,00.00) bringing the total security to twelve million dollars ($12,000,00.00). The Permittee shall deposit the security in accordance with the following installment schedule. The security will be held by the Minister of Finance for the proper performance of the approved program and all the conditions of this permit in a manner satisfactory to the Chief Inspector.

	$	Cumulative $
Security held under MX-1-437 as of April 30, 2012		$275,000.00
Within 30 days of the start of construction	$2,725,000.00	$3,000,000.00
By April 30, 2013	$4,500,000.00	$7,500,000.00
By April 30, 2014	$4,500,000.00	$12,000,000.00
Total		$12,000,000.00

(b) The Permittee shall conform to all Ministry of Environment approvals and permit conditions included under the *Environmental Management Act*, Contaminated Sites and Special Waste regulations. Should the Permittee not conform to these conditions then all or part of the security may be used to fulfill these requirements.

(c) The Permittee shall conform to all Ministry of Forests, Lands and Natural Resource Operations approval, license, forest tenure and special use permit conditions included under the *Wildlife Act, Land Act and Water Act* . Should the Permittee not conform to these requirements then all or part of the security may be used to cover the costs of these requirements.

(d) Over the life of the mine the security will be adjusted to cover all the costs associated with carrying out all the conditions of this permit. Upon application by the Permittee, the amount of security in condition 1(a) may be reduced if initial mining or development work will create less disturbance and liability, or to reflect reduced liability due to reclamation work completed.

2. Annual Reclamation Report

By March 31st of each year, starting in 2014, an Annual Reclamation Report shall be submitted in a form containing the information required by the Chief Inspector. The Annual Reclamation Report shall document the current status of the mine plan, reclamation obligations, outstanding liability and associated costs to complete the reclamation and closure activities in accordance with the approved Reclamation Plan, and all monitoring including water quality, and relevant and material ongoing maintenance activities.

3. Land Use

(a) The land surface shall be reclaimed with a view generally to reestablishing pre-mining capability and productivity conditions to the following end land use objectives: wildlife and recreation and re-establishment of opportunities for traditional use of the land by the Tahltan Nation.

(b) Borrow and gravel pits belonging to the mine development and operations shall be reclaimed to the approved end land use when they are no longer required.

4. Re-vegetation

The Permittee shall ensure the land is revegetated to a self-sustaining state using appropriate/native plant species including culturally important native species.

5. Growth Medium

(a) All severely compacted areas shall be deeply ripped prior to placement of growth media and/or vegetation.

(b) Soil replacement depths shall be monitored, and the results presented in the Annual Reclamation Report, to ensure that the minimum depths proposed in the Reclamation Plan have been achieved.

6. Erosion Control

Reduction of erosion shall be achieved through landform configuration, development of maintenance-free vegetation covers and the development of stable, erosion-resistant watercourses.

7. Watercourses

Watercourses shown to be directly affected by mine operations and closure activities shall be reclaimed to a condition that ensures;

(a) long-term water quality is maintained to a standard acceptable to the Chief Inspector,

(b) drainage is restored either to original watercourses or to new watercourses that will sustain themselves without maintenance, and

(c) the level of productive capacity shall not be less than approved in the reclamation plan.

8. Seepage Collection and Recycle Ponds

All seepage collection and recycle ponds shall be reclaimed to the approved land use once no longer required.

9. Mine Roads

(a) All mine roads shall be reclaimed in accordance with land use objectives unless permanent access is required to be maintained.

(b) Individual mine roads may be exempted from the requirement for total reclamation under condition 9(a) if either:

(i) the Permittee can demonstrate that an agency of the Crown has explicitly accepted responsibility for the operation, maintenance and ultimate deactivation and abandonment of the road, or

(ii) the Permittee can demonstrate that another private party has explicitly agreed to accept responsibility for the operation, maintenance and ultimate deactivation and abandonment of the road and has, in this regard, agreed to comply with all the terms and conditions, including bonding provisions, of this reclamation permit, and to comply with all other relevant provincial government (and federal government) regulatory requirements.

(c) All access roads shall be effectively blocked to prevent inadvertent vehicular access to surface areas of the mine that may be dangerous.

10. Red Chris Mine Power Line

(a) The power line from Tatogga to the mine property shall be reclaimed in accordance with land use objectives unless this structure is required to be maintained.

(b) The power line may be exempted from the requirement for total reclamation under condition 9(a) if either:

(i) the Permittee can demonstrate that an agency of the Crown has explicitly accepted responsibility for the operation, maintenance and ultimate deactivation and abandonment of the power lines, or

(ii) the Permittee can demonstrate that another private party has explicitly agreed to accept responsibility for the operation, maintenance and ultimate deactivation and abandonment of the power line and poles and has, in this regard, agreed to comply with all the terms and conditions, including bonding provisions, of this reclamation permit, and to comply with all other relevant provincial government (and federal government) regulatory requirements.

11. Pit Closure

A safety fence or berm shall be erected around the perimeter of the pit to prevent inadvertent access by wildlife or humans.

12. TSF Closure

(a) A closure spillway shall be constructed at the Northeast Dam to control surface water flow from the impoundment. The design shall be completed and submitted to the Chief Inspector for approval prior to mine closure.

(b) The final above-water beaches and exposed dam slopes shall be covered and reclaimed to provide erosional stability and to achieve land use objectives.

(c) At closure a minimum 300 m wide above-water beach of non-PAG tailings shall be developed and maintained upstream of the South Dam.

13. Rock Dump Closure

The Permittee shall ensure the rock dump is fully covered by an engineered cover at closure.

14. Structures and Equipment

Prior to abandonment, and unless the Chief Inspector has made a ruling with respect to heritage project status or industrial use,

(a) all machinery, equipment and building superstructures shall be removed. Unless the Permittee can demonstrate that another private party has explicitly agreed to accept responsibility for its operation and maintenance.

(b) all concrete foundations shall be removed or covered and re-vegetated unless, because of demonstrated impracticality, they have been exempted by the Chief Inspector, and

(c) all scrap material shall be disposed of in a manner acceptable to the Chief Inspector.

15. Temporary Shutdown

(a) If the mine ceases operation, the Permittee shall,

(i) continue to carry out the conditions of the permit, and

(ii) carry out a program of site monitoring and maintenance including implementation of the EMS and individual plans where relevant.

(b) If the mine ceases operation for a period longer than one year, the Permittee shall apply for an amendment setting out a revised program for approval by the Chief Inspector.

16. Closure Management Manual

Six months prior to planned closure, or within one month after an unplanned closure, the Permittee shall submit a Closure Management Manual which describes and documents key aspects of the operational surveillance and monitoring requirements used to track important changes that could affect long-term mitigation performance, monitoring and maintenance requirements. This document shall be a living document with updates submitted to this Ministry whenever material changes occur.

17. Responsibility to Reclaim

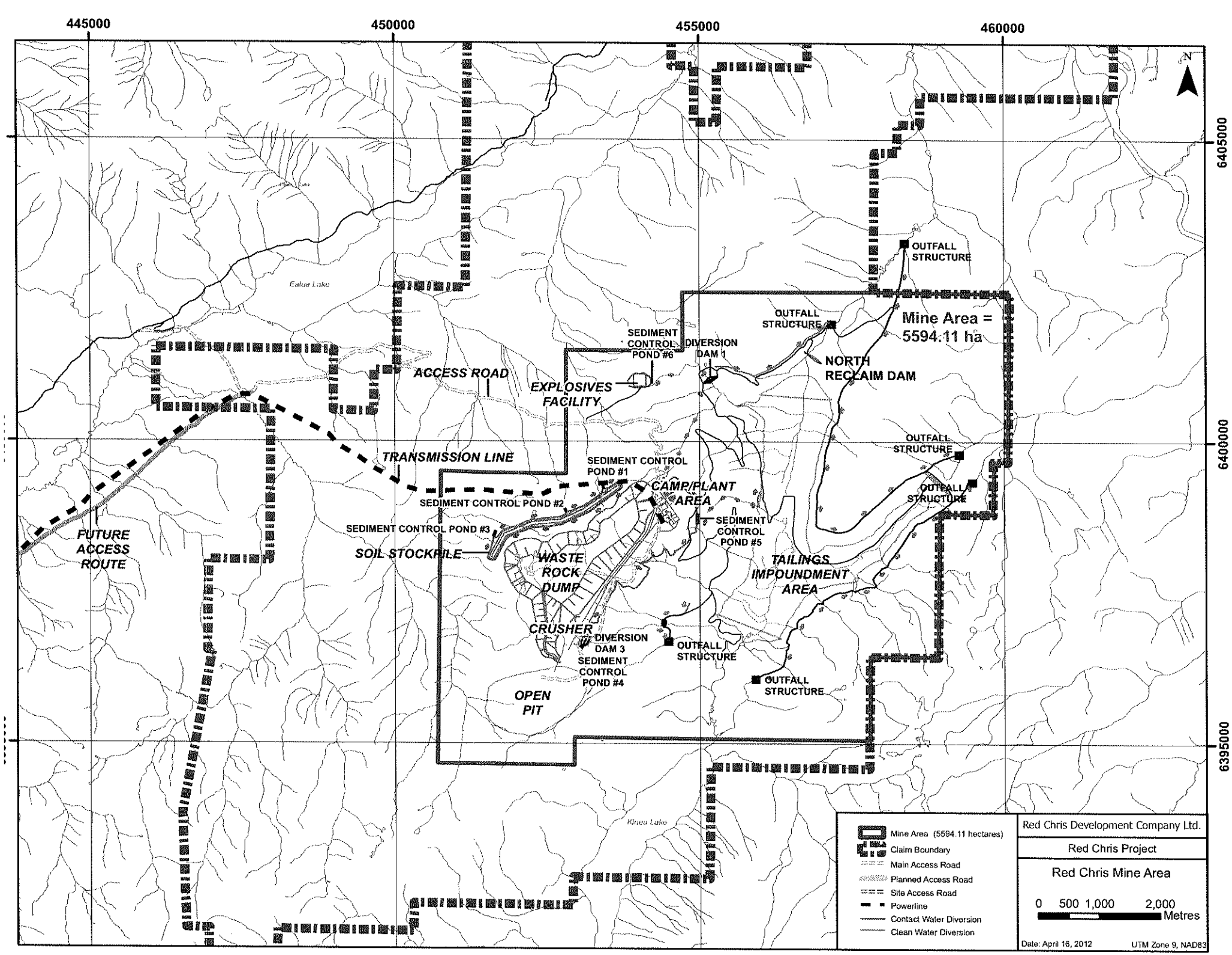
Any reclamation that remains outstanding for the Red Chris property under the terms and conditions of Reclamation Permit MX-1-437 at the time of issuance of this permit, shall become the responsibility of the Permittee under the terms and conditions of this permit.

18. Five Year Mine Plan and Reclamation Plan

On or before March 31, 2017, and every 5 years thereafter, the Permittee shall submit an updated Mine Plan and Reclamation Plan, providing the current status of the mine plan and reclamation obligations, a compilation and interpretation of all monitoring including ML/ARD prediction, water quality, closure and maintenance activities, any changes to the reclamation program that affect long-term mitigation, reclamation research program, contingency plans, schedule for completion of reclamation works, and a breakdown of outstanding liabilities and associated costs.

19. Closure Plan

Six months prior to final closure, the Permittee shall submit a Closure Plan describing closure objectives and criteria for each mine component, provide the current status of the mine plan and reclamation obligations, a compilation and interpretation of all monitoring including ML/ARD prediction, water quality, closure and maintenance activities, any changes to the reclamation program that affect long-term mitigation, reclamation research program, contingency plans, schedule for completion of reclamation works, and a breakdown of outstanding liabilities and associated costs.


445000
450000
455000
460000
6405000
6400000
6395000
N
Eaton Lake
Klaza Lake
OUTFALL STRUCTURE
OUTFALL STRUCTURE
Mine Area = 5594.11 ha
SEDIMENT CONTROL POND #6
DIVERSION DAM 1
NORTH RECLAIM DAM
ACCESS ROAD
EXPLOSIVES FACILITY
OUTFALL STRUCTURE
TRANSMISSION LINE
SEDIMENT CONTROL POND #1
CAMP/PLANT AREA
OUTFALL STRUCTURE
SEDIMENT CONTROL POND #2
SEDIMENT CONTROL POND #3
SEDIMENT CONTROL POND #5
FUTURE ACCESS ROUTE
SOIL STOCKPILE
WASTE ROCK DUMP
TAILINGS IMPOUNDMENT AREA
CRUSHER
DIVERSION DAM 3
SEDIMENT CONTROL POND #4
OUTFALL STRUCTURE
OUTFALL STRUCTURE
OPEN PIT
Mine Area (5594.11 hectares)
Claim Boundary
Main Access Road
Planned Access Road
Site Access Road
Powerline
Contact Water Diversion
Clean Water Diversion
Red Chris Development Company Ltd.
Red Chris Project
Red Chris Mine Area
0 500 1,000 2,000
Metres
Date: April 16, 2012
UTM Zone 9, NAD83