



July 22, 2015

File: M-243
14675-35-04
Mine 0100270

REGISTERED MAIL

Mr. Kevin Torpy
General Manager – Brucejack Mine
Pretium Resources Inc.
#1600 – 570 Granville Street
Vancouver, British Columbia
V6C 3P1

Dear Mr. Torpy,

**Re: Pretium Resources Inc., Brucejack Mine
Permit M-243 Approving Mine Plan and Reclamation Program**

Your permit approving the mine plan and reclamation program is enclosed. Your attention is drawn to the conditions, which are an integral part of your permit.

The full security of this permit is

(\$ _____). In accordance with the attached schedule of installments,
(\$ _____) shall be submitted within 60 days of the start of
construction.

Payment may be one of the following:

1. Certified cheque payable to the "Minister of Finance".
2. An Irrevocable Standby Letter of Credit (ISLOC) issued by a chartered bank, credit union or trust company. Please note the Irrevocable Standby Letter of Credit must contain the following Beneficiary clause and conditions:

.....2/

Ministry of
Energy and Mines

Health, Safety and Permitting
Branch

Mailing Address:
PO Box 9320, Stn Prov Govt
Victoria, BC V8W 9N3
Fax: (250) 962-0491

Location:
Sixth Floor,
1810 Blanshard
Street
Victoria

Her Majesty the Queen in right of the Province of British Columbia
c/o Chief Inspector of Mines
Ministry of Energy and Mines
PO Box 9320 Stn Prov Govt
6th Floor - 1810 Blanshard Street.
Victoria, B.C. V8W 9N3

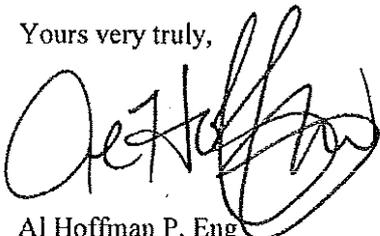
"It is the condition of the irrevocable standby letter of credit that it shall be deemed to be automatically extended without amendment for a further one year period from the present or any future expiration date hereof, unless at least 30 days prior to the present or any future expiration date, the issuer notifies the beneficiary in writing by registered mail, that it does not elect to consider this irrevocable standby letter of credit to be renewable for any additional period. At the same time forward to the Ministry of Energy and Mines, together with such written notice of Election a bank draft payable to the Minister of Finance in the amount of {\$ _____} less any previously paid under the Irrevocable Standby Letter of Credit,"

A termination date at least 90 days beyond the required term of the security.

A provision obligating the financial institution to provide written notice, at least 60 days in advance, to the Province when the ISLOC term will not be extended or will be cancelled.

You are reminded that it is the responsibility of the Permittee to comply with other applicable legislation that may be in force and to ensure that all other necessary authorizations are in place.

Yours very truly,



Al Hoffman P. Eng
Chief Inspector of Mines
/AR

Encl.

cc: Diane Howe, Deputy Chief Inspector of Mines – Reclamation and Permitting, MEM
Heather Narynski, A/Manager Geotechnical Engineering, MEM
Jennifer McConnachie, Sr. Reclamation Inspector, MEM
Doug Flynn, Sr. Inspector of Mines – Health & Safety, MEM
James Robinson, Inspector of Mines – Permitting, MEM
Doug Hill, Mining Operations Director, MOE

Ministry of
Energy and Mines

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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-243**

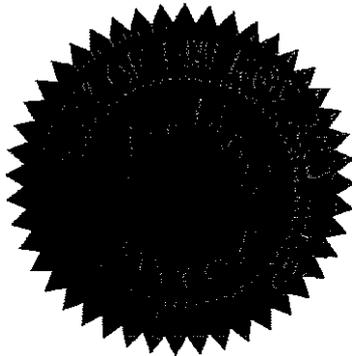
Mine No: **0100270**

Issued to: **Prefium Resources Inc.**
Suite 2300, Four Bentall Centre
1055 Dunsmuir Street
PO Box 49334
Vancouver, BC
V7X 1L4

for work located at the:

Brucejack Mine

Issued at Victoria, British Columbia this 22nd day of July in the year 2015.



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 “Brucejack Gold Mine: Application for *Mines Act* and *Environmental Management Act* Permits” (Application; Document 1), dated May 2015, 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 May 12, 2015. A series of addendums and additions were filed with the Chief Inspector that form part of the Application, as follows:

- Report entitled, “Brucejack Gold Mine Project: Metal Leaching and Acid Rock Drainage Management Plan”, prepared by Pretium Resources Inc., dated June 30, 2015 (Document 2);
- Memorandum entitled, “Brucejack Project MA/EMA Permitting Phase – Responses to Information Requests from MEM & MOE – Groundwater Quality and Quantity Monitoring Plan”, prepared by BGC Engineering Inc, dated June 19, 2015 (Document 3);
- Memorandum entitled, “Brucejack Project MA/EMA Permitting Phase – Responses to Information Requests from MEM & MOE – Part 1 of 2”, prepared by BGC Engineering Inc, dated June 19, 2015 (Document 4);
- Memorandum entitled, “Brucejack Project MA/EMA Permitting Phase – Responses to Information Requests from MEM & MOE – Part 2 of 2”, prepared by BGC Engineering Inc, dated June 19, 2015 (Document 5);
- Report entitled, “Groundwater Monitoring and Sampling Protocol – Brucejack Mine; Revision 3”, prepared by Pretium Resources Inc, dated June 2015 (Document 6);
- Letter entitled, “Response to BC Ministry of Energy and Mines ‘Information Requirements’ and ‘Clarifications’ regarding underground geotechnical aspects of the Brucejack Project’s Application for Mines Act and Environmental Management Act Permits”, prepared by BGC Engineering, dated June 18, 2015 (Document 7);
- Report entitled, “Brucejack Gold Mine Project - Invasive Plants Management Plan”, prepared by Pretium Resources Inc, dated July 2015 (Document 8);
- Confidential Memorandum entitled, “Brucejack Mine Project *Mines Act* Permit Application – Reclamation Cost Estimate”, prepared by ERM dated June 22, 2015 (Document 9); and,
- Report entitled, “Brucejack Gold Mine Project Wildlife Management Plan”, prepared by ERM dated July, 2015 (Document 10).

The Application was referred to other agencies on May 12, 2015 in accordance with Part 10.3.1 of the Code. A total of two meetings of the Brucejack Mine Review Committee were held to review and discuss the application: May 13, 2015, in Smithers BC; and, May 25, 2015, by teleconference. The Chief Inspector formally accepted the application for review May 15, 2015.

Notice of such filing was published in the British Columbia Gazette on June 4, 2015.

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 following consultation with other provincial ministries and federal departments and agencies, as appropriate, 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 within the asserted traditional territory of Tsetsaut Skii-km Lax Ha and portions of the mine permitted area are located in the Nass Area as defined in the Nisga'a Final Agreement. Tsetsaut Skii-km Lax Ha, Nisga'a Lisims Government, and Tahltan Central Council have been consulted with respect to this permit and have expressed their interests regarding potential concerns to their asserted or established rights.

For the purposes of this permit, the start of construction will be defined as the commencement of clearing, stripping and soil stockpiling on the mine site, and the start of operations is defined as the commencement of process facility operations including process facility testing activities that result in discharge of solids, reagents or chemicals to Brucejack Lake and the Contact Water Collection Pond.

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Figure 1a: Permit Boundary Area (mine site)

attached

Figure 1b: Permit Boundary Area (including transmission line)

attached

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 in writing of any intention to depart from the approved Application and this *Mines Act* permit (M-243) 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) Development, including surface disturbance and works, and management buffers associated with 19 km of the Transmission Line from the Mine Site to the claim boundary, encompassing approximately 280 Ha (Figure 1), is authorized under this permit (M-243).

(b) Ore production rate shall not exceed an average annual 990,000 tonnes on a calendar basis.

4. Permit

This Permit is not transferable or assignable.

5. Reports to be signed by a Qualified Professional

All reports required for approval under this permit shall be developed and signed by a qualified professional with applicable experience and registered in the province of British Columbia.

6. Responsibility to Reclaim

Any reclamation that remains outstanding for the Brucejack mine area under the terms and conditions of Reclamation Permit MX-1-842 at the time of issuance of this permit shall become the responsibility of the Permittee under the terms and conditions of this permit.

B. Health and Safety

1. Architectural Plans

The Permittee shall submit to the Chief Inspector Issued For Construction (IFC) architectural plan drawings for each respective infrastructure component at least 60 days prior to its construction. These plans shall be prepared by licensed professionals or persons who, in the opinion of the Chief Inspector, are qualified to perform the work.

The IFC architectural plan drawings shall, at a minimum, include the following information:

- power generation, power transmission lines, location of substations;
- locations of all proposed or existing stockpiles, processing facilities, mine buildings and other mining related infrastructure;
- designs and details for processing facilities, water treatment facilities, and significant utilities infrastructure, including:
 - adequate ventilation systems, including Heating, Ventilation, Air Conditioning (HVAC) systems and local exhaust ventilation for locations such as reagent mixing and addition points, laboratories, weld bays and shops, indicating what contaminants the system was designed to capture, hoods, fans, duct sizes/lengths, air flows, and discharge;
 - plumbing;
 - emergency wash stations are provided in appropriate areas;
 - mechanical; and,
 - locations of emergency exits, signage and lighting.
- process flow;
- designs for material handling; and,
- appropriate hazardous material storage and handling ensuring that requirements are met with regards to items such as storage containers, secondary containment, adequate ventilation, flammability/explosive risk, incompatibilities, and individual chemical requirements such as temperature and moisture.

2. Buildings

The Permittee shall ensure that all buildings shall be constructed in accordance with the British Columbia Building Code (refer to Part 4.1.1. of the Code).

3. Electrical

The Permittee shall ensure that all electrical equipment shall be installed, maintained and operated in accordance with CSA Standard M421-00 Use of Electricity in Mines, in conjunction with the Canadian Electrical Code (refer to Part 5.1.1 of the Code).

C. **Geotechnical**

1. General

- (a) 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.
- (b) All geotechnical/mine work plans and reports required to be prepared under this permit shall be prepared and/or approved by a qualified professional geotechnical engineer and shall be made available to any Mines Inspector upon request.
- (c) Any recommendations made by a qualified professional engineer relating to health and safety or geotechnical stability shall be followed unless a suitable alternative course of action is approved in writing by the professional making the recommendations, or by a third party qualified professional engineer.

2. Underground Mine

(a) Mine Plan Approval

The underground mine plan as submitted in the Application is approved.

(b) Design

- (i) Prior to commencing any rehabilitation, new development, or stoping, geological and geotechnical mapping shall be undertaken to verify, and if required, update the assumptions used in the preliminary support designs.
- (ii) The Permittee shall develop and maintain a Ground Control Management Plan that shall be available at any time at the mine site to any Mines

Inspector. The Ground Control Management Plan must be managed by a qualified professional engineer and include, but is not limited to, the following information:

- Geological model of the mine.
- Hydrogeological model of the mine.
- Geotechnical model of the mine.
- Mining methods employed including dimensions of excavations and pillars.
- Criteria used in dimensioning of excavations.
- Ground support systems employed including anchors, coatings, pillars, backfill and any other type of support.
- Criteria used in selection, dimensioning, spacing and extent of ground support.
- Minimum ground support standards for the typical domains encountered.
- Quality control program for ground support.
- Instrumentation program to verify design assumptions.
- Procedures to be used for correct ground support installation.
- Inspections and monitoring programs.
- Staff responsibilities and communications.
- Measures to be undertaken to assess and deal with potential ground instability.

(iii) The Permittee shall develop a Mining-Backfill Standard Operating Procedure Manual that shall be available at any time at the mine site to any Mines Inspector. The Mining-Backfill Standard Operating Procedure Manual shall include, but is not limited to, the following information:

- barricade design for anticipated loading conditions,
- procedures for determining suitable barricade location,
- QA/QC procedures for constructed barricades,
- design rationale for minimum strength requirements for operating beside and underneath backfill at the design dimensions,
- prescribed fill rates within stopes,
- paste line flushing procedures,
- procedures to ensure tight backfill has occurred,
- safe filling procedures that include safe worker setback distance from active paste pours, and
- QA/QC backfill testing requirements.

(c) Operations

- (i) The Permittee shall install ground support in new and rehabilitated excavations in accordance with the recommendations of a qualified professional geotechnical engineer.
- (ii) The Permittee shall determine the dimensions of all excavations and pillars as per the recommendation of a qualified professional geotechnical engineer.
- (iii) No placement of paste backfill into a mined void shall proceed unless the fill retention barricades constructed for the placed paste backfill are inspected by a qualified person designated by the Mine Manager.

(d) Monitoring

- (i) The Ground Control Management Plan shall be updated annually, or as required, by a qualified professional engineer with experience in geotechnical engineering.
- (ii) The Permittee shall maintain a geotechnical model of the underground openings that record the stress conditions, structure and rock mass in all headings and stopes.
- (iii) The Permittee shall conduct performance testing on installed ground support to ensure performance is in accordance to design values. Quantifiable performance objectives shall be in place that provide triggers for when re-habilitation of ground support is required.
- (iv) The Permittee shall maintain a Ground Control Log Book that shall be available at any time at the mine site to any Mines Inspector and includes, but is not limited to, the following information:
 - Records of damaged, loaded, or failed support;
 - Areas of ground support non-conformance to design;
 - Records of working ground such as cracks, noise, movement, or other signs of instability;
 - Records of uncontrolled falls of ground;
 - Unusual or unexpected geological, hydrogeological, geotechnical conditions;
 - Measurements from monitoring devices; and,
 - Rehabilitation requirements.

- (v) The Permittee shall ensure that the Ground Control Log Book is read and signed each day by the shift boss and the Mine Manager, or a mine engineer designated by the Mine Manager.
- (vi) In the event of mining induced seismicity, all mining shall cease until an observation, management and surveillance plan specific to mining in a mining induced seismically active area is submitted to the Chief Inspector.

(e) Reporting

- (i) The Permittee shall ensure an annual review of the underground workings is undertaken, and observations and recommendations made during the review are summarized in a report and submitted to the Chief Inspector by March 31 of the year following the inspection.
- (ii) Every four years, or at the discretion of the Chief Inspector, third party audits of the ground control management plan shall be conducted. These audits shall include review of the instrumentation/monitoring program, QA/QC testing, stress management and pillar performance, and performance of installed ground support.
- (iii) Every four years, or at the discretion of the Chief Inspector, third party audits of the paste backfill system shall be conducted by a qualified professional engineer. This audit shall include plant operations, paste reticulation system and paste placement procedures.

3. Tailings and Waste Rock Storage Facilities

(a) Design

- (i) The Tailings and Waste Rock Storage Facilities shall be designed by a qualified professional engineer designated as the Engineer of Record. The Chief Inspector shall be notified within 30 days of any change in the Engineer of Record.
- (ii) A detailed design drawing(s) for the waste rock facility shall be submitted to the Chief Inspector for approval at least 15 days prior to the commencement of construction. The detailed design drawing(s) shall include sealed "For Construction" drawings. The drawings will supplement the management plans and engineering analysis outlined in the Tailings and Waste Rock Subaqueous Deposition Management Plan.

(iii) Areas of subaqueous waste rock deposition that may experience increased or long term loading (e.g. from infrastructure or from material and equipment laydowns) shall be designed to follow the British Columbia Mine Waste Rock Pile Research Committee, Interim Guidelines (1991). The design drawings and all active waste rock mine plans shall outline the limits of the dump that have been designed to the aforementioned guidelines and may be used for potential laydown or operation space during operations. No placement of material or storage of material other than waste rock is permitted outside of the limits of area designed to the British Columbia Mine Waste Rock Pile Research Committee, Interim Guidelines (1991).

(b) Construction

(i) The Permittee shall not commence construction of the Tailings Storage and Waste Rock Storage Facilities until a “for-construction” design report and drawings are submitted to the Chief Inspector for review and approval. The report shall include the results from updated sub-surface investigations, materials testing, and engineering analysis. Factors of safety for the interim and final slopes shall satisfy the design criteria from the Interim Guidelines of the BC Mine Waste Rock Pile Research Committee. The detailed design shall define the geotechnical and hydrogeological conditions in the foundations to the degree necessary to ensure the stability of the facility.

(ii) The proponent shall submit bi-annual construction progress reports, due January 31st and July 31st for the first three years of operation, on the construction and monitoring of the tailings and waste rock dump facilities. Construction progress reports shall summarize the previous six month activities at waste rock and tailings management facilities in Brucejack Lake. The report shall include a review of construction documentation, rock deposition advancement, analysis of foundation soil pore water pressures monitoring results and a discussion detailing any potential amendments to original design based on field observations. After the first three years of operation, construction progress reports shall be required at the discretion of the Chief Inspector.

(c) Operations

(i) An Operation, Maintenance, and Surveillance (OMS) Manual for the waste rock facility shall be prepared and submitted to the Chief Inspector for approval within 45 days following the start of Construction. An Operation, Maintenance, and Surveillance (OMS) Manual for the tailings

facility shall be prepared and submitted to the Chief Inspector for approval at least 90 days prior to placement of any tailings material in the tailings facility / Brucejack Lake. The OMS Manuals shall include specifications for testing, instrumentation, monitoring frequency and response thresholds, and quality control/quality assurance. The OMS manuals shall be generally based on guidelines provided in the Canadian Dam Association, Dam Safety Guideline and Mining Association of Canada Guidelines; however, the OMS manuals shall be specifically tailored by a qualified professional to address sections that are not relevant to this project. Specifically, this manual shall include additional details related to roles and responsibilities, emergency preparedness and response, and shall provide key contacts; details that are not incorporated into the submitted Subaqueous Tailings and Waste Rock Deposition Management Plan. The Tailings and Waste Rock Deposition Management Plan and OMS manuals shall be updated, as needed, to reflect changes in status as the facility develops.

- (ii) The Tailings disposal and waste rock dump shall be operated in accordance with the Operation, Maintenance, and Surveillance (OMS) Manual.
 - (iii) No weak, cohesive materials or snow shall be dumped on the outside edge of the waste rock dump.
- (d) Monitoring and Reporting
- (i) Monitoring of spoil crest movement and a failure alert procedure shall be implemented on all active waste dumps and closed high consequence dumps.
 - (ii) The tailings area and waste rock dump shall be monitored in accordance with the Operation, Maintenance, and Surveillance (OMS) Manual.
 - (iii) A water level gauge or other suitable pond level monitoring system shall be installed to monitor Brucejack Lake water level at the outlet weir.
 - (iv) Annual reviews of the tailings and waste rock storage facilities shall be undertaken by a qualified professional engineer with experience in geotechnical engineering. Observations and recommendations made during the review shall be summarized along with construction records, and monitoring records for the year, and submitted in an annual report to the Chief Inspector by March 31 of the year following the inspection.

- (v) For the first three years of operation, the Permittee shall ensure that an annual review of both the waste rock dump and tailings disposal area is conducted by a third party qualified professional engineer with experience in geotechnical engineering. After the initial three years of operations, third party qualified professional engineer reviews shall be required at the discretion of the Chief Inspector.

4. Surface Water Ponds

(a) Construction

- (i) The Permittee shall not commence construction of the ponds until “for-construction” drawings are prepared. These drawings shall be maintained on-site and made available to any Mines Inspector upon request. The designs shall be consistent with applicable guidelines including the CDA Dam Safety Guidelines and the Guidance for Assessing the Design, Size and Operation of Sedimentation Ponds Used in Mining.
- (ii) Ponds shall be designed with a minimum 0.5 m freeboard under the design flood. The design flood shall be chosen with consideration of the consequence of failure, and duty life of the ponds, but shall be no less than the 1:200 year peak flow event.
- (iii) The Permittee shall ensure that all ponds (not classified as dams) shall be designed by, or under the supervision of, a qualified professional engineer.
- (iv) Prior to operation of the ponds, the Permittee shall submit an “As-Built” report prepared by a qualified professional engineer to the Chief Inspector. The report is to state that each facility was constructed in accordance with the design and the applicable guidelines including the CDA Dam Safety Guidelines and the Guidance for Assessing the Design, Size and Operation of Sedimentation Ponds Used in Mining.

(b) Monitoring and Reporting

The Permittee shall submit an annual Dam Safety Inspection report to the Chief Inspector for all water management facilities including ditches and diversions channels as per Section 10.5.3 of the Code. The report is due by March 31 of the year following the inspection. The report shall summarize observations and recommendations made during the review along with construction records, and monitoring records for the year.

5. Contact Water Collection Ditches

(a) Design

- (i) All contact water collection ditches shall be designed by, or under the supervision of, a qualified professional engineer.
- (ii) The Permittee shall ensure that contact water collection ditches are designed to convey the design flood without overtopping, without side slope failure, and with adequate armour or lining to prevent significant erosion.
- (iii) The contact water collection ditches shall be designed with a minimum 0.3m freeboard under the design flood. The design flood shall be chosen with consideration of the consequence of failure and duty life of the structure, but shall be no less than the 1:200 year peak flow event.

(b) Construction

Construction of contact water collection ditches shall not commence until “for-construction” drawings are prepared and submitted to the Chief Inspector.

(c) Monitoring and Reporting

- (i) The Permittee shall ensure that “As-Built” drawings and records of the contact water collection ditches are prepared and maintained on-site. The “As-Built” drawings and records shall be made available at the mine site to any Mines Inspector upon request.
- (ii) The Permittee shall prepare and submit to the Chief Inspector for review and approval an OMS manual for all water management structures prior to commissioning of these structures.
- (iii) Contact water collection ditches shall be included in the annual inspection of water management facilities on the mine site, as per Section 10.5.3 of the Code.

6. Temporary Soil, Overburden, Rock, and Organic Material Stockpiles

- (a) The Permittee shall ensure that the temporary soil, overburden, rock, and organic materials are completed in accordance with designs prepared by a qualified professional.

- (b) The Permittee shall ensure that regular visual inspections of the stockpile crest and slopes are undertaken to ensure stability and erosion control is maintained.

7. Borrow and Quarry Excavations

The Permittee shall ensure that borrow and quarry excavations are completed in accordance with designs prepared by a qualified professional engineer.

8. Mine Site Roads

(a) General

- (i) The Permittee shall ensure that all mine roads are designed and constructed in accordance with accepted engineering standards, and the Code.
- (ii) Cuts and fills in excess of 6 m height (if any) shall be designed by a qualified professional geotechnical engineer, who shall conduct sufficient field reviews to ensure that the road is constructed in general conformance with the design.
- (iii) Where necessary to ensure geotechnical stability, the footprint of fill slopes shall be stripped of organics and topsoil and/or have the fill toe "keyed-in" to original ground. For slopes exceeding a gradient of 15 degrees, the prepared foundation of fill slopes in excess of 10 m height shall be inspected by a qualified professional geotechnical engineer prior to fill placement.
- (iv) A qualified person, as designated by the Mine Manager, shall perform an inspection and deem suitable the Mine Access Road within the Mine Permit Boundary prior to any active travel period of incoming or outgoing traffic.
- (v) All incoming and outgoing traffic on the Mine Access Road within the Mine Permit Boundary must be approved by a qualified person as designated by the Mine Manager.

(b) Monitoring and Reporting

The Permittee shall ensure that "As-Built" drawings and records of the roads are prepared and maintained on-site. The "As-Built" drawings and records shall be made available at the mine site to any Mines Inspector upon request.

9. Mine Site, Plant, Shop, and Other Infrastructure Foundations

- (a) The Permittee shall ensure that all building foundation designs address bearing capacity, potential settlement, and any necessary foundation preparation or treatment. Designs shall be filed on-site and shall be made available to any Mines Inspector upon request.
- (b) The Permittee shall ensure an inspection of the prepared excavation prior to the placement of permanent foundations is completed with a record of the inspection filed on-site and made available to any Mines Inspector upon request.

10. Geohazards Assessment

- (a) Within 90 days of permit issuance, the standard operating procedures for activity in and around the known geohazards within the Mine Boundary shall be updated, based on information obtained from pre-development assessments of mine site geohazards, and submitted to the Chief Inspector for review.
- (b) The Permittee shall have an annual inspection completed by a Professional Engineer or Geoscientist on the geo-hazard management practices at the mine site. The results of this inspection shall be provided in an annual report to the Chief Inspector by March 31 of the year following the inspection.

D. Protection of Land and Watercourses

1. Environmental Management System

- (a) The Permittee shall implement their Environmental Management System (EMS), as submitted to the Chief Inspector May 2015, which is comprised of the following component plans:
 - Construction Environmental Management Plan;
 - Air Quality Environmental Management Plan;
 - Aquatic Effects Management Plan;
 - Chemicals and Materials Storage and Handling Management Plan;
 - Heritage Management Plan;
 - Invasive Plants Management Plan;
 - ML/ARD Management Plan;
 - Nitrogen Management Plan;
 - Surface Erosion Prevention and Sediment Control Management Plan;
 - Spill Response Plan;

- Tailings and Waste Rock Subaqueous Deposition Management Plan;
 - Underground Water Management Plan;
 - Vegetation Management Plan;
 - Waste Management Plan;
 - Water Management Plan; and,
 - Wildlife Management Plan.
- (b) The EMS shall be kept up to date and be made available at the mine site at all times. The EMS and component plans shall be regularly reviewed, 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 mine site employees and contractors are knowledgeable and accountable to act consistently with the requirements of the EMS.
- (d) Implementation of the EMS and all component plans during construction shall be overseen by an independent third party qualified professional with applicable experience. Progress reports, including information on site conditions and monitoring results, shall be submitted to the Chief Inspector monthly during construction.

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 construction, operations, and closure phases. The environmental site manager shall be a qualified professional with applicable experience. This person shall be identified in writing, with a description of their qualifications, 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 construction or operations occurs due to environmental concerns, the Permittee or environmental site manager shall immediately notify the Chief Inspector and appropriate personnel with the Ministry of Environment.

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

All materials with the potential to generate ML/ARD shall be placed in a manner that minimizes the production and release of metals and contaminants to levels that assure protection of environmental quality.

(a) General

- (i) 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* (1998).
- (ii) No changes shall be made to the criteria for ML/ARD definition, waste handling procedures, mitigation strategies, or materials monitoring program, as outlined in the ML/ARD Management Plan, submitted to the Chief Inspector on June 30, 2015, or the Tailings and Waste Rock Subaqueous Deposition Management Plan, without the approval of the Chief Inspector.

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

All waste rock, quarry rock, borrow materials, and tailings shall be considered PAG if NP/AP is < 2 , where AP is calculated from total sulphur and NP is calculated from total carbon.

(c) ML/ARD Handling and Mitigation

- (i) Prior to initiation of overburden stripping and waste rock generation, the Permittee shall provide for review and approval by the Chief Inspector an updated ML/ARD Management Plan that includes details regarding communication and operational protocols, on-site analytical procedures, and QA/QC requirements.
- (ii) All personnel involved in waste rock and tailings generation and handling shall be trained and kept up to date on the content and implementation of the ML/ARD Management Plan and the Tailings and Waste Rock Subaqueous Deposition Management Plan.
- (iii) Only non-PAG materials shall be used for construction purposes.

- (iv) Prior to their use, representative samples of quarry and borrow materials used for construction shall be tested and characterized in accordance with the ML/ARD Management Plan for their potential to generate ML/ARD.
 - (v) All waste rock generated from surface or underground development shall be backfilled in the underground workings below the ultimate flood limit of the workings or deposited in Brucejack Lake.
 - (vi) All PAG waste rock deposited in Brucejack Lake shall be covered with a minimum 1 m water cover.
 - (vii) Waste rock shall be stored temporarily on surface, within the mine contact water collection system, for no longer than 6 months. Permanent disposal of waste rock on surface is not permitted.
 - (viii) All tailings shall be either backfilled underground or deposited in Brucejack Lake.
 - (ix) On-site disposal of sludge generated from the construction and operations water treatment plants is not permitted until such time as the long term stability of these materials can be demonstrated and updated ML/ARD Management and Tailings and Waste Rock Subaqueous Deposition Management Plans are provided to the Chief Inspector for review and approval.
 - (x) Prior to placing cemented paste tailings in the underground workings, the Permittee shall provide to the Chief Inspector for review and approval an updated Chromium Management Plan that incorporates results and interpretation of the on-going cemented paste tailings Cr(VI) test work.
- (d) ML/ARD Monitoring
- During mine development and operations, the Permittee shall characterize waste rock, quarry rock, borrow materials, and tailings according to the program outlined in the ML/ARD Management Plan.
- (e) Analytical Requirements
- (i) Until it is demonstrated that the on-site laboratory is providing reliable analytical results with acceptable levels of precision and accuracy, all samples shall be analyzed at an external laboratory facility to provide confirmation of results. Once on-site laboratory performance is demonstrated, off-site analysis may be decreased to QA/QC levels.

- (ii) Prior to the operation of the on-site laboratory, the ML/ARD Management Plan shall be updated to include laboratory and analytical methods.
- (iii) The Permittee shall present analytical QA/QC results in the Annual Reclamation Report.

(f) Materials Inventory

The Permittee shall maintain an inventory of all mined materials, exposed rock units in the underground workings, tailings products and water treatment plant sludge generated, including (as appropriate) information on source, composition, quantity of material, disposal location, elevation (metres), depth of water cover, and date of placement. This inventory shall be kept on site and available to any Mines Inspector upon request.

(g) ML/ARD Reporting

Results of the ML/ARD analytical testwork (including raw data, sample descriptions, analytical QA/QC, and materials inventory) and underground geologic mapping shall be reported in the Annual Reclamation Report. Any significant changes or trends shall be discussed, and implications for materials handling shall be identified.

4. Water Management and Monitoring

(a) General

In the event that mine site drainage does not meet water quality requirements set out by the Ministry of Environment, the Permittee shall collect and treat, or otherwise mitigate mine site drainage in a manner protective of watercourses for as long as is necessary, as determined by the Chief Inspector.

(b) Water Management

- (i) The Permittee shall obtain any necessary permits and licenses for water diversion and discharge.
- (ii) The Permittee shall submit any substantial revisions to the Water Management Plan to the Chief Inspector for review prior to starting construction.
- (iii) The Permittee shall ensure water from the Contact Water Pond and the underground workings is collected and directed to water treatment.

(c) Groundwater

- (i) By July 31, 2015, the Permittee shall prepare and submit to the Chief Inspector for review and approval a plan for installation and monitoring of additional groundwater wells and piezometers on the mine site designed to confirm the time required to fill the underground workings, that underground waste rock management objectives will be met, and to monitor post-closure performance of adit plugs. The waste management objectives include, but are not limited to, maintaining the backfilled waste rock materials below the water table post-closure. This plan shall outline the number, location, and timing of installation as well as information regarding monitoring frequency and parameters.
- (ii) Updates to the post-closure groundwater elevation predictions shall be provided with each Five Year Mine Plan Update, commencing July 31, 2020. Any changes to predicted post-closure groundwater levels shall be used to revise the ML/ARD Management Plan and the Water Management Plan, as required.

(d) Monitoring and Reporting

- (i) The Permittee shall monitor and track changes to mine site surface water and groundwater quality and quantity from the underground workings (including pumping rate of water into and out of the underground workings), groundwater monitoring wells, Contact Water Pond, and tailings supernatant. The program shall be capable of providing early warning about the onset of ARD or an increase in contaminant loading and provide refined predictions regarding the post-closure groundwater elevation.
- (ii) Detection limits shall be sufficient to compare to provincial water quality guidelines and permit requirements established by the British Columbia Ministry of Environment.
- (iii) An effective QA/QC program for mine site contact water shall be implemented.
- (iv) 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 a Mines Inspector and reported in the Annual Reclamation Report.

- (v) The Permittee shall ensure that the Annual Reclamation Report includes a table comparing relevant monitoring and testwork data to source term concentrations used in water quality predictions. The implications of the results for source term refinement, water quality mitigation and adaptive management shall be discussed in the report.

5. Water Quality Predictions

(a) Closure Underground Water Quality Investigation Plan

By December 31, 2016 the Permittee shall submit to the Chief Inspector for review and approval an Underground Water Quality Investigation Plan that outlines the investigations that will be completed during operations to develop predictions of underground mine pool water quality during the closure period when the underground workings flood.

(b) Water Quality Model Validation and Updates

During operations, the Permittee shall track water quality and flow monitoring data to enable validation and refinement of water quality predictions based on site-specific monitoring information. Updated water quality predictions shall be submitted with the updated Mine Plan and Reclamation Plan due July 31, 2020. This updated water quality model shall provide predictions of closure underground mine pool water quality as well as long term post-closure receiving environment water quality predictions. Water quality model updates shall be provided in every five year mine plan update thereafter, or more frequently as necessary to inform mine planning and mitigation design and engineering.

6. Closure Underground Water Quality Adaptive Management Plan

By July 31, 2020, the Permittee shall provide to the Chief Inspector for review and approval a Closure Underground Water Quality Adaptive Management Plan. This plan, which shall be informed by results obtained from the Closure Underground Water Quality Investigation Plan and updated water quality model results, shall contain an appropriate monitoring program, water quality triggers, and management actions that will be used to ensure the groundwater discharging from the underground workings during post-closure is protective of receiving environment water quality.

7. Water Treatment

(a) Operations

- (i) No discharge from the construction phase or the operations phase water treatment plants shall occur until all necessary approvals and authorizations are in place.
- (ii) No substantive changes shall be made to the construction phase or the operations phase water treatment processes without the approval of the Chief Inspector.
- (iii) Contingency plans and triggers for implementation shall be developed to ensure adequate delivery and on-site storage of reagents for the construction phase and operations phase water treatment plants. These procedures shall be included in the Water Treatment Plant OMS Manual.
- (iv) The Permittee shall update the OMS Manual over time as procedures are modified. Updated versions shall be submitted to the Chief Inspector.

(b) Monitoring and Reporting

- (i) The Permittee shall monitor, track and report in the Annual Reclamation Report information on the performance of the Water Treatment Facility. Information shall include system performance, volume and quality of contact water influent and effluent of the water treatment system, volumes of reagents used, volumes and characteristics of waste generated, and information on any process changes.
- (ii) The Annual Reclamation Report shall include a breakdown of all annual costs associated with operation of the Water Treatment Facility. This shall include all major cost items including labour, electricity, waste handling and storage and all delivered costs for diesel, reagents, etc.

8. Sediment and Erosion Control

- (a) The Permittee shall ensure that the Erosion and Sediment Control Management Plan is implemented. This plan shall be reviewed at least annually and updated to reflect results of effectiveness monitoring and learning with respect to contingency needs, changing site conditions, and site-specific freshet-related considerations. Annual updates shall be reported in the Annual Reclamation Report. Substantive changes shall be provided to the Chief Inspector prior to implementation.

- (b) The Permittee shall ensure that erosion and sediment control prescriptions, and associated effectiveness monitoring programs, are developed based on site-specific assessments of risk and consequence prior to construction of individual mine and water management components.
- (c) Standard operating procedures for freshet-preparedness and snow removal intended to address the objectives of controlling erosion and minimizing sediment mobilization shall be developed and submitted in the Annual Reclamation Report due March 31, 2016.
- (d) The Permittee shall ensure that instances of sediment-laden water released from the authorized water management system shall be adequately characterized and reported to the Chief Inspector, with recommendations for improvement to the water management system if required.
- (e) The Permittee shall initiate progressive reclamation where practicable to control erosion around the mine area.

9. Soil Salvage and Storage

- (a) The Permittee shall salvage and stockpile topsoil, overburden, and organic material, to the extent practical, for use in reclamation.
- (b) Prior to construction, the Permittee shall develop, and submit to the Chief Inspector, a sampling program designed to assess suitability of physical and chemical properties of salvaged soil for reclamation purposes, which identifies sampling methodologies, handling and storage/disposal requirements for all soil sources to be salvaged.
- (c) A qualified professional shall monitor and direct sampling, soil salvage, stockpiling activities on-site.
- (d) An inventory of salvaged and stockpiled soil, including the locations, origins, and quantities of material, shall be documented and reported in the Annual Reclamation Report.
- (e) The Permittee shall protect stockpiles from erosion, degradation, and contamination using appropriate best management practices, and monitor them as appropriate to ensure effective controls are maintained. Stockpile protection activities and monitoring results shall be documented and reported in the Annual Reclamation Report.

- (f) Soil stockpiles shall be located in areas that minimize handling requirements during site preparation and mine operations, provide adequate accessibility for reclamation activities, and optimize sediment control options.
- (g) Stockpiles shall be clearly marked to ensure that they are protected during construction and mine operations.
- (h) Stockpiled soil suitable for use in reclamation shall not be used as fill.

10. Vegetation Management

- (a) The Permittee shall ensure that the Vegetation Management Plan is implemented.
- (b) The Permittee shall limit disturbance to vegetation to those areas approved by this permit (Figure 1). Efforts shall be made to ensure that disturbance limits are clearly communicated, and adhered to, on-site. Where only minimal vegetation removal is proposed, efforts shall be made to limit ground disturbance to minimize soil erosion and maximize the regeneration potential of the site.
- (c) Environmental sensitivity maps will be developed prior to construction, with map products and associated standard operating procedures submitted to the Chief Inspector for review by July 31, 2015. The Permittee shall include the maps and procedures as part of the standard site orientation and enforce compliance with access restrictions and other management strategies identified in order to preserve environmentally sensitive areas and species.
- (d) The Permittee shall develop a vegetation monitoring program designed to evaluate metal uptake from construction and operation activities, which specifies sampling requirements and performance criteria and targets areas where potential pathways for metal uptake via (e.g., dust, growth medium, or contact water) are likely. This plan shall be submitted to the Chief Inspector with the 5 Year Mine Plan and Reclamation Program update due July 31, 2020.
- (e) The Permittee shall ensure that the Invasive Plants Management Plan, dated July 2015 is implemented.
- (f) The Permittee shall take reasonable efforts to prevent the establishment of invasive plants on-site, manage and control weeds that do 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 preferentially. Care shall be taken to ensure that seed used on-site is certified weed free.

- (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. An inventory of salvaged and stockpiled woody debris, including the locations, origins, and quantities of material, shall be documented and reported in the Annual Reclamation Report. Chipping or burning of woody debris suitable for use in reclamation shall be avoided, unless not practicable.

11. Wildlife Protection

- (a) The Permittee will implement the Wildlife Management Plan, submitted to the Chief Inspector July 10, 2015, at the start of construction to prevent and mitigate impacts to wildlife, with the monitoring results provided in the Annual Reclamation Report.
- (b) The Permittee shall conduct monitoring and/or track incidental observations of bats in the underground throughout mine life, and, if bats are observed to be present:
 - (i) Develop, and submit to the Chief Inspector within 3 months of bat observations, an operational management plan to minimize risk to bats, particularly with respect to direct mortality and spread of white nose syndrome; and,
 - (ii) Conduct a bat survey, and take all reasonable efforts to move bats out of the underground, prior to securing the underground openings.
- (c) The Permittee shall avoid wildlife sensitive periods and/or adhere to timing windows for construction activities. Where this is not practicable, the Permittee shall adhere to mitigation measures outlined in the Wildlife Management Plan.
- (d) 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).
- (e) The Permittee shall implement a policy of no fishing and hunting for all employees and contractors while on company business or while commuting to and from the mine on the Brucejack Access Road west of Highway 37.

12. Archaeological Resources

If archaeological materials or cultural features are encountered during construction or related activities, the Permittee shall implement procedures as set out in the Heritage

Management Plan, submitted as part of the Application to form part of the EMS implemented on-site.

13. Ongoing Reclamation Research

- (a) The Permittee shall develop a reclamation research program that utilizes an adaptive management approach, with the initial version provided with the first 5 Year Mine Plan and Reclamation Program update due July 31, 2020, revisions provided in subsequent Reclamation Program updates, and results summarized in Annual Reclamation Reports. The scope of the program shall include, but should not be limited to, the following:
- Research to explore opportunities for enhancement of both habitat and surface drainage control on the Mine Site; particularly with respect to design of the surface topography predicted to remain once infrastructure is decommissioned at closure. The scope of this research shall include evaluation of options to optimize remaining concrete foundations;
 - Research intended to evaluate opportunities for amending soil that is to be used for reclamation purposes to enhance the soil suitability, if necessary, based on soil analyses;
 - Testwork to determine soil replacement depths and locations required to achieve the designed surface topography and end land use objectives;
 - Research to determine the viability of revegetation with native plant species, including culturally important species; and,
 - Research to assess decompaction methodologies to ensure that the severity of compaction that exists prior to commencing reclamation activities is effectively addressed in a manner intended to achieve end land use objectives and erosion control. The scope of this research shall include mine access roads and mine site pads.
- (b) The Permittee shall develop a conceptual reclamation success monitoring program designed to evaluate the success of revegetation, landscape design, and erosion control that specifies sampling parameters and performance criteria as part of the 5 Year Mine Plan and Reclamation Program update due July 31, 2020.

14. Subsidence Monitoring

- (a) The Permittee shall develop a Subsidence Monitoring and Management Plan and submit to the Chief Inspector as part of the 5 Year Mine Plan and Reclamation

Program update required July 31, 2020. The plan shall be designed to evaluate the effectiveness of subsidence controls, provide early warning of surface expression that may result in changes to terrestrial or aquatic values, include an adaptive management approach to ensure that appropriate mitigation and/or closure plans are developed as needed.

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 (\$) bringing the total security to (\$). 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.

<u>Date</u>	<u>\$</u>	<u>Cumulative</u>
Security transferred from MX-1-842		\$
Within 60 days of permit issuance	\$	\$
September 30, 2016	\$	\$
September 30, 2017	\$	\$
September 30, 2018	\$	\$
September 30, 2019	\$	\$

- (b) The Permittee shall conform to all Ministry of Environment approvals and permit conditions included under the *Environmental Management Act*, Contaminated Sites and Hazardous 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) 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 E.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 2016, 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 ML/ARD, water quality and quantity, vegetation, wildlife, and reclamation), and relevant and material ongoing maintenance activities.

3. Land Use

The land surface shall be reclaimed with the intent of re-establishing average pre-mining capability to the following end land use objective: wildlife habitat, particularly matrix habitat for mountain goat, grizzly bear and hoary marmot on the Mine Site and high elevation sections of the Transmission Line, and moose and grizzly bear habitat at lower elevations of the Transmission Line. Achieving land capability objectives, and habitat enhancement, shall guide the reclamation program.

4. Revegetation

- (a) The Permittee shall, where vegetation is a necessary component of fulfilling the approved end land use objective, ensure the land is revegetated to a self-sustaining state using appropriate and or native plant species including culturally important native species.
- (b) Revegetation programs shall be designed to restore wildlife habitat where practicable. Revegetation practices shall be conducted to provide appropriate species and densities that are similar to naturally occurring ecosites at similar elevations, aspects, and climatic conditions. Details of the proposed revegetation programs, including species and densities prescribed for specific areas, shall be developed based on input from the reclamation research program required in Condition D.13.(a).

5. Growth Medium

- (a) Where replacement of salvaged soil will occur, surface preparation shall occur in a manner that achieves end land use objectives and erosion control.
- (b) Soil replacement operations that occur shall be monitored to ensure the minimum depths are achieved and a confirmation sampling plan shall be implemented to ensure quality of soil used for reclamation purposes will achieve end land use objectives. All results must be presented in the Annual Reclamation Report.
- (c) With the exception of areas where closure plans require compaction prior to placement of growth medium in order to reduce infiltration and contact water, all areas to be reclaimed shall be decompacted to the minimum depth required to

adequately address the severity of compaction prior to placement of soil and or vegetation, in a manner intended to achieve end land use objectives and erosion control.

6. Contaminated Sites Assessment

Prior to reclamation of the Mine Site, including, but not limited to, fuel and hydrocarbon dispensing and storage areas and the temporary pre-production ore stockpiles, the Permittee shall develop and implement risk-based monitoring programs designed to ensure all potential sources of contamination have been addressed in order to satisfy reclamation success objectives and water quality requirements.

7. Erosion Control

The Permittee shall ensure that erosion potential is minimized to the extent practicable through landform configuration, appropriate surface preparation, development of maintenance-free vegetation covers, where applicable, and self-sustaining drainage control features and watercourses.

8. 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 acceptable provincial water quality standards, and,
- (b) Drainages will sustain themselves without maintenance.

9. Surface Water Management Ponds and Channels

- (a) All surface water management ponds and water diversions shall be reclaimed to satisfy stability and erosion control requirements and the approved end land use once no longer required, in accordance with the recommendations of a qualified professional.
- (b) At least 3 months prior to decommissioning water treatment facilities, the Permittee shall develop, and submit to the Chief Inspector for approval, a closure plan that addresses all non-contact and contact water management features that will no longer be required.

10. Transmission Line

At least 3 months prior to decommissioning the Transmission Line, the Permittee shall develop, and submit to the Chief Inspector for approval, a reclamation and closure plan to satisfy the approved end land use objectives.

11. Borrows and Quarries

Borrows and quarries shall be reclaimed to satisfy stability and erosion control requirements and the approved end land use once no longer required, in accordance with the recommendations of a qualified professional.

12. Mine Roads

- (a) All mine roads shall be reclaimed, in accordance with recommendations of a qualified professional, to satisfy the approved end land use objectives, including all reasonable effort to fully re-configure to conform to adjacent landscape where long-term stability is not compromised, unless permanent access is required.
- (b) Individual mine roads may be exempted from the requirement for total reclamation under condition 13(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.

13. 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 synthetic sediment control structures, such as turbidity curtains, ditch liners, and soil covers not required after closure, shall be removed where practical and disposed of in the underground prior to flooding or buried in place where sufficient cover materials exist;
- (c) all concrete foundations shall be removed, covered with sufficient growth medium and re-vegetated, or otherwise reclaimed to fulfill approved end land use objectives based on input from the reclamation research program required in Condition D.13.(a); and,
- (d) all scrap material shall be disposed of, in an approved facility.

14. Temporary Shutdown

- (a) If the mine ceases operation, including for seasonal closure, the Permittee shall:
 - (i) Continue to carry out the conditions of the permit;
 - (ii) Carry out a program of site monitoring and maintenance including implementation of the EMPs where relevant; and,
 - (iii) Continue ongoing reclamation research and monitoring.
- (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.
- (c) 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 the Chief Inspector whenever material changes occur.

15. Mine Plan and Reclamation Program Update

On or before July 31, 2020, and every 5 years thereafter, the Permittee shall submit an updated Mine Plan and Reclamation Program, providing:

- the current status of the mine plan and reclamation obligations;

- a compilation and interpretation of all monitoring including ML/ARD prediction, water quality and quantity, and post-closure groundwater elevation prediction updates;
- 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.

16. Closure Plan

- (a) 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 and quantity;
 - 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.
- (b) Concurrent with the final Closure Plan, 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 the Chief Inspector, at least every five years while the permit remains active, and when material changes occur.

Figure 1a
 Brucejack Gold Mine Project: Mines Act Permit Area Boundary

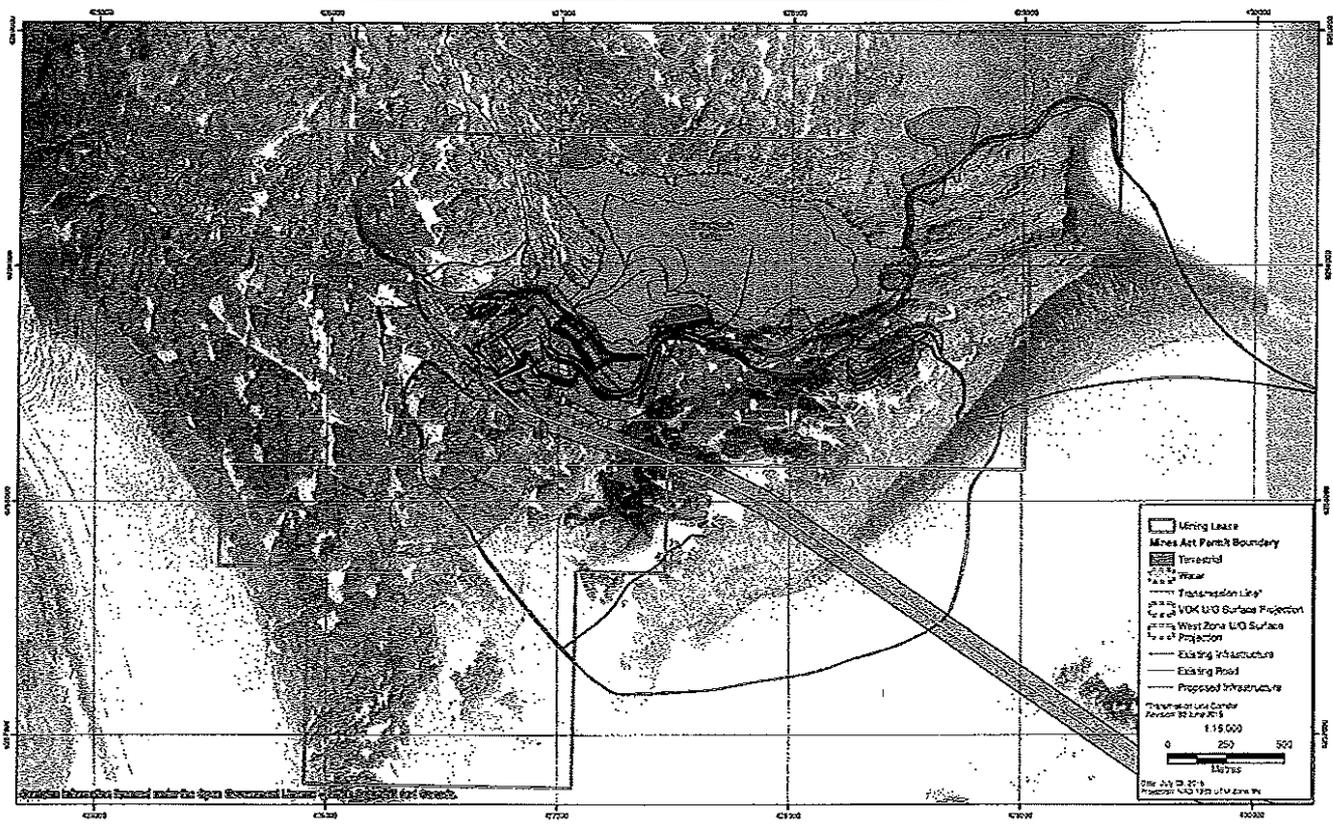


Figure 1b
 Brucejack Gold Mine Project: Mines Act Permit Area Boundary

