

**EAO's Assessment of an  
Application for Amendment  
*Brucejack Gold Mine Project*  
*EA Certificate #M15-01***

**Requested by:**  
**Pretium Resources Inc.**

**August 12, 2016**

*Pursuant to section 19 of the Environmental Assessment Act, S.B.C. 2002, c.43*

## 1. OVERVIEW OF PROPOSED AMENDMENTS

On March 26, 2015, Pretium Resources Inc. (Pretivm) was issued an Environmental Assessment Certificate #M15-01 (EAC) under the BC *Environmental Assessment Act* and on July 22, 2015, was issued *Mines Act* (MA) Permit #M-243 for the Brucejack Gold Mine Project (Brucejack). Brucejack is an underground gold and silver mine, located approximately 65 kilometres northwest of Stewart and within the asserted traditional territory of Tsetsaut/Skii km Lax Ha First Nation (TSKLH). A portion of the access road is located within the asserted traditional territory of the Tahltan Nation, and the transmission line and the access road overlap the Nass Area as defined under the Nisga'a Final Agreement. The federal Minister of the Environment issued a federal Environmental Assessment Decision on July 30, 2015, that Brucejack was "not likely to cause significant adverse environmental effects referred to in subsection 5(1) of the Canadian Environmental Assessment Act, 2012", and established conditions in relation to environmental effects with which Pretivm must comply.

Since the issuance of the EAC, Pretivm identified a number of design revisions based on consultation activities and detailed engineering design resulting in variances between the Certified Project Description (CPD) and *Mines Act* and other permitted facilities, areas of disturbance and site layouts.

Pretivm Resources has submitted an application to amend EAC #M15-01 to the Environmental Assessment Office (EAO) requesting changes to the CPD to accommodate changes to Project activities. This is the second amendment to the EAC. Changes that deviate from the EAC include changes to infrastructure that have received applicable permits, which are in non-conformance with the EAC, therefore requiring an amendment to the EAC.

Specifically, the following changes to the EAC are being sought:

1. Definition of potential area of mine site surface disturbance;
2. Change in the type and location of buildings within the mine site;
3. Establishment of a new gravel borrow sources at the east end of Brucejack Lake (accessed via the Lakeshore Drive realignment section) and related water supply;
4. Establishment of new potable groundwater water well and related pipeline;
5. Re-alignment of sections of kilometer (km) 72 to km 75.3 of the Brucejack Access Road (also known as Lakeshore Drive) and potential road route changes along Knipple Glacier as allowed within the Special Use Permit for the access road;
6. Re-alignment of sections of the transmission line;
7. Re-location of the electrical substation and expansion of the Knipple Transfer Area (KTA);
8. Installation of an incinerator at the KTA;
9. Establishment of bulk emulsion staging areas at the KTA (preferred option) and at a location approximately 3 km east of the Bowser Camp (alternate option);
10. Expansion of the Bowser Camp and construction laydown and assembly area;
11. Re-orientation of the Bowser Aerodrome, installation of flight control beacons, and soil stockpile area;

12. Use of the Wildfire Camp for the life of the mine;
13. Installation of remote avalanche control systems at three sites;
14. Re-location of two meteorological stations;
15. Installation and operation of five radio and microwave telecommunications towers; and
16. Re-establishment of the road from Bowser Lake landing to Brucejack Access Road at approximately km 34.5.

Items 1 through 6 are within the *Mines Act* Permit M-243 boundary while items 7 to 16, and portions of items 5 and 6 are included in Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) permits and licenses.

The most notable proposed amendment to the EAC is increasing the mine site surface disturbance boundary that is included in the CPD attached to the EAC. While Pretivm is requesting an increase in the mine site surface disturbance area, it is important to note that the proposed expanded area encompasses an area that was previously assessed during the EA. Pretivm is requesting that the mine site surface disturbance boundary be amended to include a larger area to permit greater flexibility to adjust project components while assessing those changes through other processes such as the *Mines Act* review process.

## 2. AMENDMENT REVIEW PROCESS

EAO received the initial Application for an Amendment (Application) in January, 2016. EAO provided some comments for revisions to the Application, and advised Pretivm to revise and resubmit the Application to reflect these comments. The revised Application was received on April 4, 2016. EAO initiated contact with the working group, including Aboriginal Groups to provide assistance with the review of the Application. The working group was given 2.5 weeks to review and comment on the Application. Several comments were received. Pretivm provided responses to all comments from working group members. The working group review and comment on the Application was completed at the end of June 2016. Also, EAO has been working closely with the Major Mines Permitting Office (MMPO) during this review.

Based on the request to amend EAC #M15-01, EAO determined the following levels of engagement:

- The level of public interest in Brucejack and the likely level of impact resulting from the proposed changes were viewed as low. Therefore a public comment period was not required;
- Potential adverse environmental, economic, social, health and heritage effects were viewed as low given some changes were consistent with areas previously reviewed as a part of the EA process, and as noted below, most had received applicable permits. The working group, including representatives from the federal, provincial, and local governments, government agencies in the United States (US), and Aboriginal Groups, was notified of project changes; and
- Potential impact on Aboriginal Interests (asserted or established Aboriginal rights, including title and Treaty rights) was viewed as low-moderate as the most significant changes proposed were within the assessment footprint used in the EAC Application. EAO's preliminary view was that the proposed amendment was unlikely to change the potential magnitude of the residual effects predicted in the assessment. Aboriginal Groups (described

in Section 4.0) were invited to comment as a part of the working group.

During the period from July 6 – 8, 2016, EAO compliance and enforcement completed an inspection of the Brucejack project. As a result of the inspection, several items were noted that are the subject of this Application. A tele-conference call took place with Pretivm on July 21, 2016 to discuss and clarify the following items:

- Bulk Emulsion Staging Area – The Application requests approval for the establishment of a bulk emulsion staging area at the Knipple Transfer Area (preferred option) and at a location approximately 3 km east of the Bowser Camp (alternate option). It was determined during the inspection and confirmed by Pretivm that the area 3 km east of the Bowser Camp was fully cleared of trees in late 2015 but not developed. The area that has been cleared is consistent with the area proposed in the Application.
- Bowser Camp and Aerodrome Area – The Application requests approval of the re-orientation of the Bowser Aerodrome and the expansion of the Bowser Camp and construction laydown area. It was determined during the inspection and confirmed by Pretivm that these areas have already been cleared and developed. However, they have been developed consistent with what is being requested in the Application.
- Use of the Tide Staging Area for a temporary construction camp – The Application requests approval of this temporary camp, however, since a camp (Redeye Camp) has been developed, Pretivm no longer needs the Tide Staging Area temporary camp. As a result, the Tide Staging Area temporary construction camp has been removed from the Application.
- Knipple Transfer Area (KTA) – Areas in and around the KTA has already been cleared for the relocation of the electrical substation, incinerator and associated buildings.

EAO assessed the need for additional consultation with the EAO Brucejack working group and Aboriginal Groups on these changes. It was determined that additional consultation would not be required because the areas where disturbances have occurred are within the areas that were applied for in the Amendment Application. On August 12, 2016, Pretivm wrote to EAO confirming that it has suspended work on these sites pending a decision on the amendment.

### **3. SUMMARY OF ISSUES AND EFFECTS**

The Application was sent to the working group for review of potential issues and effects. Of the 16 proposed changes, substantive comments were made with respect to:

- A. Bear management at the Wildfire Camp;
- B. Ungulate winter range timing window for construction;
- C. Installation of an incinerator at the KTA; and
- D. Potential for the project to impact medical and health services in the area;

Additional comments related to the need to update existing management plans for sediment and erosion control, spill and fuel storage plans, following timing windows for vegetation and wildlife, and the installation of sediment control structures were also received.

The following substantive comments were received from agencies:

MFLNRO:

- A. Regarding the proposed permanent use of the Wildfire Camp, mitigations for potential human-bear conflict around the camp need to be put in place, including electrical fencing around the kitchens, living quarters, and waste management areas. Cattle guards or gates should be installed on the roads. The Wildfire camp is now going to be a permanent camp. This camp is surrounded by grizzly bear habitat, including approved Wildlife Habitat Areas (WHA) and areas identified as high and very high value grizzly bear habitat.

Certificate Holder response: Pretivm agrees to erect an electric fence around the kitchen and living quarters at the Wildfire Camp.

- B. Timing windows for Ungulate Winter Range (UWR) and goat kidding periods for the use of helicopters to install avalanche control systems as follows:
- *November 1 to April 30:*
    - Avoid industrial activities in, and within 500 metres (m) of, UWRs during winter, whenever possible.
    - If work is planned in these areas during winter, then conduct pre-clearing surveys.
    - If goats are observed within 500 m of UWR then pause work until goats have moved away unless an exemption is granted.
  - *May 1 to July 15 Kidding period:*
    - Maintain 500-m disturbance buffer from kidding habitat (e.g., flight paths, construction).
    - If goats with kids are observed within the 500-m buffer during industrial activities then pause industrial work until goats have moved away. Pre-clearing survey may also be conducted.

Certificate Holder response: Pretivm will comply with these timing windows that were previously required in the original EAC.

- C. Additional information was requested about the management of waste in and around the Wildfire Camp.

Certificate Holder response: Garbage from Wildlife Camp will be removed several times a week. The materials suitable for incineration will go to the KTS incinerator or, depending upon traffic, to Meziadin landfill. Other types of non-recyclables will be sent to Meziadin landfill.

Based on these comments and with input from MFLNRO, an additional condition has been added to the Amendment Certificate to include a requirement to install bear exclusion fencing around the kitchen and living quarters of the wildfire camp.

Northern Health Authority (NHA):

- C. The location of the incinerator at the KTA in relation to potential receptor locations (including the workforce accommodation camps and First Nations Cabin). Is there a potential for air contaminant emissions from the incinerator to have health impacts at these receptor locations?

Certificate Holder response: An Air Quality Management Plan has been approved by the Ministry of Environment which requires ongoing monitoring to these receptor locations.

- D. We have been engaging with Brucejack on the development of the Health and Medical Services Plan and value the efforts that Brucejack has taken in this regard. While we have seen a draft version of the Health and Medical Services Plan (HMSP), we have not seen a final version and are not clear to what extent the HMSP is currently being implemented at the Site (e.g. is full health care coverage in place?). We have seen some activity at the Stewart Health Centre from this project and have recently requested a meeting with Brucejack to get a better understanding of how the HMSP is currently being implemented and continue our ongoing engagement. We expect that the proposed amendment may require changes/updates to the current draft HMSP to ensure that the HMSP meets the health service needs of this larger proposed workforce. We ask that this update and its implementation occur prior to significant construction activities.

Certificate Holder response: Pretivm updated the HMSP in January 2016. Additional revisions to the draft HMSP are completed that consider the proposed changes to Brucejack. A copy was provided to NHA for their review on June 6th 2016.

NHA was satisfied with the responses from Pretivm including the revisions to the HMSP.

As a result of the working group comments and follow up discussions with Pretivm and MFLNRO, a condition is recommended that requires electrical fencing to be installed around the kitchen/living quarters at the Wildfire Camp.

EAO is satisfied that the conditions of the EAC, including the addition of a new condition in Schedule B and the revised maps associated with the Certified Project Description, adequately identify and mitigate the potential adverse environmental, economic, social, heritage, and health effects of the Project resulting from the proposed amendment.

#### **4. ABORIGINAL CONSULTATION**

Aboriginal Groups potentially affected by the proposed changes in the EAC are TSKLH, Nisga'a Lisims Government (NLG) and the Tahltan Nation. All three Aboriginal Groups were invited to provide comments on the proposed EAC amendment.

Consultation with Aboriginal Groups was conducted by EAO, and by MMPO.

EAO notified the NLG, TSKLH, and the Tahltan Nation through their members on the working group. An opportunity to comment was provided from April 11 to April 27 (2.5 weeks).

On June 2, 2016, NLG sent a letter to EAO in response to EAO's request for input saying that they have no comments in regards to the proposed EAC amendments.

EAO sent follow up emails to TSKLH and Tahltan Nation on June 28, 2016 soliciting comments on the proposed EACO Amendments. TSKLH responded with a request for an additional week which was granted. At the end of that extended comment period TSKLH did not provide a response. Tahltan Nation responded to the request for comment stating that they had received the request for input. At the end of the comment period Tahltan Nation did not provide a further response to EAOs requests for comment.

## 5. PUBLIC CONSULTATION

It was determined that public consultation was not required based on the rationale that there is a low likelihood of impact resulting from the proposed changes and there was a low level of public interest in the project during the EA review.

## 6. CONCLUSIONS

Based on:

- The information contained in the EAC amendment application;
- The proposed changes to CPD of EAC #M15-01;
- Initial assessment of EAO for potential for significant adverse impacts;
- EAO's consultation with Aboriginal Groups, including comments received from NLG;
- Pretivm's commitment to ongoing consultation (as referenced in EAC condition no. 5);
- Recommendation for inclusion of one new condition; and,
- Invitation to the EAO working group (including representatives of federal, provincial, local government, Aboriginal Groups and representatives of US governments agencies) to provide comments, and and all issues having been addressed.

EAO is satisfied that:

- The amendment assessment process has adequately identified and assessed the requested changes to the EAC, and the potential for adverse environmental, economic, social, heritage and health effects from those changes;
- Practical means have been identified to prevent or reduce any potential adverse environmental, social, economic, heritage or health effects of the proposed amendment such that no significant adverse effect is predicted or expected;
- The potential for adverse effects on the asserted or established Aboriginal rights, including title and Treaty rights of Aboriginal Groups has been avoided, minimized or otherwise

accommodated to an acceptable level; and

- The provincial Crown has fulfilled its obligations for consultation and accommodation to Aboriginal Groups relating to the issuance of an amendment to EAC #M15-01.