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Prairie and Northern Region
Environmental Protection Operations (EPO) Directorate
5019 52nd Street, 4th Floor
Yellowknife, NT X1A 2P7

September 6, 2013

EC File No.: 5100 000 002 /004
MVLWB File No.: MV2012L8-0010

Tyree Mullaney
Regulatory Officer
Mackenzie Valley Land and Water Board
Box 2130, 7th Floor - 4910 50th Avenue
Yellowknife, NT X1A 2P6

Submitted Online

Attention: Ms. Mullaney

RE: MV2012L8-0010 – AANDC CARD – Giant Mine Underground Stabilization Plan

Environment Canada (EC) has reviewed the above mentioned plan submitted by AANDC-CARD, to meet requirements set out in Water Licence MV2012L8-0010. The following specialist advice and recommendations is provided pursuant to EC's mandated responsibilities arising from the *Canadian Environmental Protection Act, 1999* (CEPA), the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act* (MBCA) and the *Species at Risk Act* (SARA).

As stated in the detailed project description of the underground stabilization plan the "fundamental objective of the GMRP is to improve the environment and prevent adverse effects that would otherwise occur if no remediation activities were undertaken. The proposed activities within this application are inherently positive as they will ultimately prevent emergencies from occurring at the Site that could endanger human health and safety and the environment." This plan includes using lightly cemented tailings paste to fill empty stopes and voids in the underground chambers to prevent failure or collapse. By placing these tailings underground a contaminant source has been introduced where the metals could potentially leach into the groundwater. Adding cement can act to stabilize the contaminants in the tailings. EC recommends the Proponent provide further information on whether the cement will act to reduce contaminant loading to the groundwater and the environment.

Measures will be put in place to avoid negative environmental effects from the excavation of the tailings. These contaminants will be introduced underground with no mitigation measures. Table 3: Potential Impacts of the Proposed Project and Mitigations does not mention these impacts or proposed mitigation. EC recommends the Proponent include the estimated contaminant loadings to the underground based on these activities and any mitigation measures to avoid these impacts.

Please contact me at (867) 669-4744 or loretta.ransom@ec.gc.ca if you have any questions.

Canada 

www.ec.gc.ca

Sincerely,

A handwritten signature in black ink that reads "Loretta Ransom". The signature is written in a cursive style with a large initial "L".

Loretta Ransom
Senior Environmental Assessment Coordinator, EPO

cc: Dave Fox (A/Head, EA North EPO, EC)
Amy Sparks (Contaminated Sites Officer, EPO, EC)
Lindsay Howes (EA Officer, EA North EPO, EC)