



December 23, 2015

M. John Roberts
Vice President, Environmental Affairs
Doris North Mine/Hope Bay Project
TMAC Resources Inc
95 Wellington Street West, Suite 1010, P. Box 44
Toronto, ON, M5J 2N7

Dear John,

Subject: Hope Bay Doris North Gold Mine Project – Acute Lethality Testing Under the MMER – Use of Saline Tolerant Species

Thank you for your letter of October 9, 2015 in which you expressed concerns regarding the requirement of the *Metal Mining Effluent Regulations* (MMER) that effluent not be acutely lethal to rainbow trout. It was specifically suggested that the MMER allow for the substitution of salt tolerant fish species for acute lethality testing as contemplated by Reference Method EPS 1/RM/13. Please accept my apologies for the delay in responding.

We have carefully considered this matter during our review of your letter and the associated opinion developed by Lawson Lundel.

We have come to the conclusion that the acute lethality testing that is done for the purposes of the regulations can only be done using rainbow trout.

This conclusion is driven by the following two definitions in subsection 1(1) of the MMER:

- “*acute lethality test*” means the test to determine the acute lethality of effluent to rainbow trout as set out in Reference Method EPS 1/RM/13”; and
- “*acutely lethal effluent*” means an effluent at 100% concentration that kills more than 50% of the rainbow trout that are subjected to it over the 96-hour period when tested in accordance with the acute lethality test.

The inclusion of these two definitions in the regulatory text means that the Governor-in-Council has set out in the Regulations what constitutes an acute lethality test and an acutely lethal effluent, both of which are tied to rainbow trout, and it is our view that an



Environment and Climate Change Canada cannot authorize testing using a different species as this would constitute an illegal sub-delegation of legislative power.

As previously indicated, an appropriate test method will need to be developed and the Regulations will need to be amended in order to allow saline tolerant species to be used in place of rainbow trout when discharging to marine environments. We are now working to achieve this objective.

At this time, it will be necessary to comply with the current MMER requirement that effluent not be acutely lethal to rainbow trout when tested in accordance with Reference Method EPS 1/RM/13.

Sincerely,



Chris Doiron
Manager, Mining Section
Mining and Processing Division
Industrial Sectors, Chemicals and Waste Directorate
Environmental Stewardship Branch

c.c.

Carolynne Blain – ECCC

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