



Executive Summary
Environment and Climate Change Canada
Technical Comments Regarding
TMAC - Doris North Project

Environment and Climate Change Canada (ECCC) provides scientific advice to the Nunavut Water Board and to the Nunavut Impact Review Board to help inform Board decisions on proposed developments with the aim of minimizing impacts on the natural environment. To this end, ECCC has reviewed the water licence amendment application and supporting information submitted by TMAC for the Doris North Project.

ECCC's submission includes the following recommendations to address outstanding issues:

- 1) Clarify sampling locations in Roberts Bay to ensure that project related impacts can be detected and effectively managed through adaptive management;
- 2) Ensure that the composition of the effluent is understood so that mitigation can be implemented if required;
- 3) Expand the site water quality model to include ammonia, iron, and strontium from groundwater so that management/treatment can be implemented if necessary;
- 4) Improve the accuracy of effluent quality modelling for free cyanide, mercury, and selenium to inform management/treatment;
- 5) Ensure that the groundwater data has been appropriately interpreted to allow comparison to guidelines;
- 6) Ensure that CCME guidelines and Metal Mining Effluent Regulation discharge concentrations are applied appropriately;
- 7) Ensure that representative samples were used to predict ground water quality and that appropriate effluent toxicity testing is applied;
- 8) Ensure that the Aquatic Effects Monitoring Program addresses comments provided on previous versions;
- 9) Ensure that water licence criteria accommodate the proposed changes in discharge location and predicted changes in effluent composition;
- 10) Ensure that effluent will be managed to minimize impacts to sediments in the area of the diffuser;
- 11) Minimize shipping impacts to marine birds and risks to key marine habitat sites through route planning and effective spill prevention and management planning;
- 12) Provide more details in the Wildlife Mitigation and Management Plan to refine how incidental take of migratory birds will be avoided.
- 13) Provide alternative mine water management options

Overall ECCC has found TMAC to be responsive to our requests for information and proactive in initiating discussions to understand and resolve issues. ECCC looks forward to resolving the remaining issues through discussion at the Cambridge Bay Technical Meetings.