



Environment Environnement
Canada Canada

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Our file: 4703 001

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RE: NIRB 04EN097 – Pure Gold Minerals Inc. – Cygnet Lake Project

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Pure Gold Minerals Inc. is proposing to conduct a diamond drilling program in the Cygnet Lake area. The proposed program includes a helicopter supported drill operation and the establishment of a temporary base camp on Cygnet Lake that will house a maximum of eight (8) people.

Environment Canada requires the following information in order to facilitate the review of this application:

- Once known, a map indicating the location of drill holes, especially in relation to water. The proponent should clearly indicate if on-ice or land-based drilling will occur.
- A list of any drill additives that may be used, including the MSDS sheets for those additives.

Environment Canada recommends that the following conditions be applied throughout all stages of the project:

- The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes or sediment into any water body. According to the Fisheries Act, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- If "on-ice" drilling is planned, return water released must be non-toxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).
- If land based drilling is planned, it should not occur within 30 m of the high water mark of any water body. Drilling wastes from land based drilling shall be disposed of in a sump such that the contents do not enter any water body.



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- Any drilling additives or muds used in association with this project shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or demonstrated to be non-toxic.
- If CaCl is to be used in association with this project, EC would like to inform the proponent that the *Canadian Environmental Protection Act* has recently listed CaCl as a toxic substance. The proponent shall therefore ensure that all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any water body.
- If an artesian flow is encountered, the drill hole shall be immediately plugged and permanently sealed.
- The proponent shall not store materials on the surface ice of lakes or streams, except that which is for immediate use.
- All sumps, including those for greywater, camp sewage, and drill wastes, shall be located above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish. Further, all sumps shall be backfilled and contoured to match the surrounding landscape at the end of each field season.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible camp wastes.
- The spill contingency plan should provide a clear path of response that can be followed in the event of a spill. The plan should include a map detailing the layout of the camp including fuel cache and sump locations and the location of any spill kits on site, and a listing of on-site personnel who should be contacted in the event of a spill. Further, the plan should indicate that all spills are to be documented and reported to the 24 hour Spill Line at (867) 920-8130.
- Environment Canada recommends that a more detailed abandonment and restoration plan be submitted prior to the completion of the exploration work at this location.
- Species at risk as defined by the *Species at Risk Act* may be encountered in the project area. The proponent shall make themselves aware of the special status of these species and minimize disturbance or contact with them. Species at risk which may be encountered include, but are not limited to, grizzly bears, wolverines, short-eared owls, and tundra peregrine falcons, listed as species of Special Concern under Schedule 3 of the *Species at Risk Act*.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4639 or by email at colette.meloche@ec.gc.ca.

Yours truly,

Original signed by

Colette Meloche
Environmental Assessment / Contaminated Sites Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)