

Environmental Protection Operations
Qimugjuk Building 969
P.O. Box 1870
Iqaluit, NU X0A 0H0
Tel: (867) 975-4639
Fax: (867) 975-4645

Aug 31, 2007

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O Box 119
Gjoa Haven, NU

via e-mail

RE: Diamondex Resources Ltd – Heequo property water license renewal- 2BE-HEE

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*.

Diamondex Resources Ltd. is proposing to conduct a mineral exploration program at the Heequo Property. The proposed program would consist of geophysical survey, ground investigations, geological mapping and diamond drilling. The proposed work is to be supported by an existing temporary camp for approximately 15 people. An up-dated spill contingency plan and restoration plan has been submitted.

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

Regulatory

- 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.
- Section 35 of the *Migratory Birds Regulations* states that no person shall deposit or permit to be deposited, oil, oil wastes, or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds. Therefore, the Environment Canada recommends that sumps be backfilled or made otherwise inaccessible to migratory birds prior to their arrival in spring and that the proponent ensure all spills are thoroughly cleaned up.

Incineration

- EC is concerned with possible effects of dioxin and furan emissions which can occur due to the incineration of certain types of plastics and contaminated wood products. Therefore, we request that, to the extent possible, plastics and wood that has been treated with protective coatings or paint be included with the non-combustible solid material and sent off-site for recycling or proper disposal.

Drilling

- EC would like to inform the proponent that the *Canadian Environmental Protection Act* has listed CaCl as a toxic substance. The proponent shall therefore ensure that if CaCl is used as a drill additive, 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. It is highly recommended that only biodegradable products be used.

- Drilling additives or muds 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 are demonstrated to be non-toxic.
- Land based drilling should not occur within 30 m of the high water mark of any water body.
- If an artesian flow is encountered, the drill hole shall be immediately plugged and permanently sealed.

Fuel storage

- All fuel caches shall be located above the high water mark of any water body. Secondary containment or a surface liner (drip pans, fold-a-tanks, etc) should be placed under all container or vehicle fuel tank inlet and outlet points, hose connections and hose ends during fuel or hazardous substance transfers. Secondary containment should be of adequate size and volume to contain and hold fluids for the purpose of preventing spills (the worst-case scenario). Appropriate spill response equipment and clean-up materials (absorbents, containment devices, etc) must be on hand during any transfer of fuel or hazardous substances and at vehicle-maintenance areas.
- Drip pans, or other similar preventative measures shall be used when refueling equipment on site.
- All releases of harmful substances, regardless of quantity, are immediately reportable where the release:
 - is near or into a water body;
 - is near or into a designated sensitive environment or sensitive wildlife habitat;
 - poses an imminent threat to human health or safety; or
 - Poses an imminent threat to a listed species at risk or its critical habitat.

Wildlife

- In order to mitigate potential effects and minimize disturbance, any aircraft used in conducting project activities should maintain a horizontal distance of 2 km and a vertical distance of 610 m from any observed groups (colonies) of migratory birds.
- Section 79 (2) of SARA, states that during an assessment of effects of a project the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, EC asks that species listed on other Schedules of SARA and under consideration for listing also be included in this type of assessment.

Species at risk that may be encountered during the proposed projects are:

Species	Level of Risk	Schedule in SARA
Peregrine Falcons (tundrius)	Special Concern	Schedule 3
Short-eared Owl	Special Concern	Schedule 3
Dolphin and Union Caribou	Considered by COSEWIC* to be Special Concern	under consideration for listing on Schedule 1
Grizzly Bear	Considered by COSEWIC to be Special Concern	under consideration for listing on Schedule 1
Wolverine	Considered by COSEWIC to be Special Concern	under consideration for listing on Schedule 1

*Committee on the Status of Endangered Wildlife in Canada

Environment Canada asks the following:

- Section 79 (2) requirements be fulfilled for the five species at risk noted in the table above. Specifically, the proponent should identify effects to each species, provide mitigation measures to avoid or lessen each effect and commit to monitoring each species if the project goes ahead.
- The primary mitigation measure for each species should be avoidance. The proponent should avoid contact with or disturbance to each species.

- The proponent should develop other mitigation measures for each species in accordance with any applicable management plans and in consultation with Government of Nunavut (GN) experts.
- The proponents should develop monitoring plans for each species in accordance with any applicable management plans and in consultation with GN experts.

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) 975-4631 or by email at cindy.parker@ec.gc.ca.

Yours truly,

Original signed by

Cindy Parker
Environmental Assessment Specialist

Cc: Carey Ogilvie (EA-North Head, Environment Canada, Yellowknife, NWT)