



Environment Canada  
Environnement Canada

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September 28, 2005

Our File: 4780 014 050 030

Gabrielle Mackenzie Scott,  
Chairperson  
Mackenzie Valley Environmental Impact Review Board  
P.O. Box 938,  
Yellowknife, NT X1A 2N7

By email and facsimile: 766-7074

**Re: Environment Canada's Intervention and Presentation for the Environmental Assessment Public Hearing – Oct. 6, 2005 – Fort Simpson, NWT - Canadian Zinc Corporation Phase 3 Mineral Exploration Drilling Program**

Please find attached Environment Canada's written submission to the Mackenzie Valley Environmental Impact Review Board for the Public Hearing regarding Canadian Zinc Corporation's (CZN) proposed exploration drilling program.

Mike Fournier, Northern Assessment Coordinator, will be in attendance at the hearing on Oct. 6<sup>th</sup>, 2005 and will be available to respond to any questions that the Board, the proponent, or the public may have concerning the issues raised by Environment Canada in this submission. Environment Canada notes that the majority of issues have been resolved or addressed in advance of the public hearing, and our intervention outlines how any outstanding concerns are being addressed.

If you wish clarification on any aspect of this submission prior to the upcoming meeting, please contact Mike Fournier at 669-4734 or by email at [mike.fournier@ec.gc.ca](mailto:mike.fournier@ec.gc.ca).

Yours sincerely,

*(signed)*

Peter Blackall  
Acting Regional Director General

cc: Sandra Blenkinsopp (Acting Regional Director, Environment Canada, Edmonton)  
Chuck Brumwell (Manager, Northern Division, EPB Yellowknife)  
Stephen Harbicht (Head, Assessment and Monitoring Section, Environment Canada, Yellowknife)  
Mike Fournier (Northern Assessment Co-ordinator, Environment Canada, Yellowknife)  
Anne Wilson (Water Pollution Specialist, Environment Canada, Yellowknife)

**ENVIRONMENT CANADA'S  
INTERVENTION TO THE  
MACKENZIE VALLEY ENVIRONMENTAL IMPACT REVIEW BOARD  
PUBLIC HEARING  
ON THE PROPOSED  
PHASE 3 EXPLORATION DRILLING PROGRAM  
CANADIAN ZINC CORP.**

**OCTOBER 6, 2005**

## **2.0 TECHNICAL COMMENTS**

The Detailed Project Description (DPD), Developer's Assessment Report (DAR) and supporting information provided through the Information Request (IR) process provide information on the potential impacts associated with the project, and the mitigation proposed to minimize or prevent these impacts. The following observations and recommendations are based on the information provided by CZN. Should new or additional relevant information be brought forward by the proponent or be identified during the hearing, this submission will be re-examined. Within the context of the additional information, any changes in EC's recommendations and position will be brought to the attention of the MVEIRB and the proponent.

### **2.1 MIGRATORY BIRDS AND SPECIES AT RISK**

The Canadian Wildlife Service (CWS) of Environment Canada has reviewed the project and had raised concerns pursuant to the *Migratory Birds Convention Act* and *Regulations*, and the *Species at Risk Act* with respect to the assessment of impacts and the proposed mitigation. These concerns will be addressed as described in the following sections of a letter from Canadian Zinc Corporation dated Sept. 23, 2005:

#### **2.1.1 Migratory Birds**

"With respect to EC's recommendations concerning migratory birds, CZN is advising that a survey of the area is planned for spring 2006. The survey will be undertaken by a highly qualified senior biologist. The survey will consist of observations from the air, and ground inspections in the main areas where drilling is proposed. One of the objectives of the survey will be to identify the presence of any waterfowl and other potentially migratory birds, either on the ground in or near nests, or in the air. The types of birds will be determined, and their locations and habits studied. Any wetland or other resting and feeding places will be noted. CZN considers this to be a fundamental starting point for a strategy to minimize the potential for adverse impacts on migratory birds as a result of drilling operations. The need for such a survey, for this and other reasons, has only recently come to light. Given that a permit is required for the study of any wildlife in the Northwest Territories, it is not possible to undertake such a survey before the Prairie Creek camp is closed by the middle of next month for the year. In any event, the spring is perhaps a better time to undertake a survey, immediately before any Phase 3 drilling activities commence.

Immediately following the survey, the biologist will provide direction and recommendations to the drilling project manager, and the helicopter pilot on site, on how operations should be undertaken to minimize the potential for impacts and/or disturbance of migratory birds. The biologist will subsequently provide this information in writing for the benefit of other management personnel and pilots that might be involved in the drilling program, and to allow review and comment by regulatory agencies.

Comments on the specific EC recommendations are as follows, and these are partly based on consultations with CZN's usual helicopter contractor:

### 2.1.2 Species at Risk

"EC has drawn CZN's attention to the requirements of the *Species at Risk Act* (SARA) in connection with this EA. Although CZN accepts that it is the proponent's responsibility to be aware of relevant legislation, SARA issues have only been raised recently, as noted by MVEIRB in the pre-hearing conference call. Consequently, CZN has not had the opportunity to study and address the issues raised. CZN is of the opinion that it is logical to review the SARA issues in conjunction with the wildlife survey planned for spring 2006 and the subsequent survey report, and to determine and adopt any appropriate mitigation measures over-and-above those already proposed. CZN commits to do this. CZN respectfully asks EC to support this approach rather than seek the assessment of SARA issues before the project is approved, since with the above plan, EC's current recommendations would mean CZN could not get project approval until later in 2006, and would likely miss another field season."

In both cases, Environment Canada finds this to be a reasonable approach, and will be available to discuss any technical questions or issues that arise as CZN initiates the field surveys. EC notes that the final reporting of results will occur after the EA is concluded, and accepts the commitment by CZN with the proviso that results are provided to EC in a timely fashion (particularly for the Species at Risk surveys).

## **2.2 ISSUES TO BE ADDRESSED IN THE REGULATORY PROCESS**

In the course of this review, EC has identified a number of issues or points for clarification which can be addressed by the use of standard mitigation measures which can be implemented under the water licence and/or land use permits.

### **2.2.1 Reclamation**

- EC recommends that CZN implement the monitoring and mitigation as proposed, with records (written and photographic) kept of all inspections.
- Reclamation efforts must be supported by appropriate monitoring of the areas being reclaimed.
- A security deposit sufficient to reclaim areas disturbed in connection with the proposed activities should be set and maintained until reclamation is done, or until it is superseded by another instrument (i.e. in the event of development).
- Considerable reliance is placed on the judgment of the biologist to be employed, so CZN will need to ensure the appropriate expertise is obtained.

### **2.2.2 Water Quality Monitoring**

The potential for surface erosion of drilling sites and roads is a concern with respect to sediments entering streams. Frequent site inspections, in conjunction with water quality monitoring will be necessary to identify any potential problems which may arise. EC recommends that the field monitoring program include the following objectives and methods:

- With respect to limiting increases in total suspended solids (TSS) to 25 mg/L, it should be noted that this is for a very short term exposure only, i.e. 24 hours, and that increases lasting for periods between 24 h and 30 d should be limited to a

2. All sumps shall be backfilled upon completion of the project and recontoured to match the surrounding landscape.
3. Environment Canada recommends the use of secondary containment with an impervious liner, such as self-supporting insta-berms, for storage of all barreled fuel rather than relying on natural depressions to contain spills. Fuel caches shall be inspected on a regular basis.
4. Spill kits including shovels, barrels, sorbents, pumps, etc. shall be consistently maintained and readily available onsite.
5. Environment Canada recommends the use of drip pans, or other similar preventative measures, when refueling equipment on site.
6. The proponent shall ensure that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.
7. Please note that any spill of fuel or hazardous materials, adjacent to or into a water body, regardless of quantity, shall be reported immediately to the NWT 24-hour Spill Line, (867) 920-8130.
8. Environment Canada's contact number is (867) 920-5131, a 24-hour emergency pager monitored by Emergency and Enforcement Officers.
9. Drilling wastes from land-based drilling should be disposed of in a sump such that they do not enter any body of water.
10. Where calcium chloride drilling additives are used in substantial quantities, return water should be contained.
11. If artesian flow is encountered, drill holes shall be plugged and permanently sealed upon project termination.

### **3.0 SUMMARY**

Environment Canada has completed its technical review and identified a number of issues arising from the review of the DPD, the DAR and Information Request responses. Most of these issues can be readily dealt with using mitigation measures which can be included in the regulatory instruments which are required for this project.

Issues requiring additional attention include:

- the adequacy of the proposed mitigation of effects on migratory birds;
- the effects of impacts on species at risk, and proposed mitigation and monitoring.

Environment Canada and the developer have initiated discussions to address these outstanding items, and EC is satisfied that the commitments by the proponent outlined herein will sufficiently resolve these concerns.

# Environment Canada's Intervention on the Canadian Zinc Corp. Phase 3 Drilling Project

Oct. 6, 2005



Environment Canada  
Environnement Canada

## EC's Mandate

- *Department of the Environment Act*
- *Migratory Birds Convention Act and Migratory Birds Regulations*
- *Species at Risk Act*
- *Fisheries Act – Pollution Prevention Provisions*
- *Canadian Environmental Protection Act*

A detailed description of our roles under each of these pieces of legislation is contained in EC's technical report.

## Migratory Birds

- Canadian Zinc Corp. (CZN) has made the following commitments:
  - Wildlife surveys will be conducted in Spring 2006 to identify the presence and habits of bird species using the area.
  - During flight operations, sensitive areas and concentrations of birds will be avoided.
  - Pilots and field operations staff will be made aware of the need to take measures which are protective of bird populations.

( note for info only: The Draft Deh Cho Land Use Plan uses a minimum altitude of 650 m during “critical periods” of March to May and August to Sept. where habitat found)



## Species at Risk

- Species at risk that may be encountered in this area and that should be addressed as outlined above include:
  - **Schedule 1 species:**
    - Peregrine Falcon (anatum subspecies) (Threatened)
    - Woodland Caribou (Boreal Population) (Threatened)
    - Yellow Rail (Special Concern)
    - Woodland Caribou (Northern Mountain Population) (Special Concern)
    - Western Toad (Special Concern) (possibly)
  - **Schedule 3 species:**
    - Short-eared Owl (Special Concern)
  - **Other Species that are pending addition to Schedule 1:**
    - Grizzly Bears (Special Concern)
    - Wolverines (Special Concern)

## Regulatory Stage Items

- In our intervention, EC had identified several items of concern that can be addressed in the regulatory process by the use of standard conditions.
- These include aspects pertaining to reclamation, water quality monitoring, and mitigation practices for exploration drilling.

EC feels our concerns can be adequately addressed by permit conditions, as outlined in our written intervention.