



Environment
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Environmental Protection Operations (EPO) Directorate
Prairie and Northern Region (PNR)
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife NT X1A 2P7

August 9, 2013

EC file: 6100 000 073 002
NWB file: 2BE-NUE0810

Megan Porter, Licence Administrator Assistant
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0

Via e-mail: megan.porter@nunavutwaterboard.org

Attention: Ms. Porter

RE: 2BE-NUE0810 URU Metals Limited-Renewal Type B-Kivalliq

Environment Canada (EC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned project proposal and is submitting comments on mitigation measures as well as other matters of importance to the project proposal as requested by the NWB. EC's specialist advice is provided pursuant to the *Canadian Environmental Protection Act 1999*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

URU Metals Ltd. (the Proponent) is proposing to begin exploration for uranium and gold in the Sandy Beach Lake area. The field program is proposed to take approximately three weeks in late summer. The proposed project activities will include transportation to site via helicopter, 7-10 diamond drill holes for a total of 750-1000 meters, and magnetometer and scintillometer core testing. All work will be run out of the Prosperity Goldfields Kiyuk Lake camp.

Based on a review of the license application and supporting materials, EC provides the following comments for the NWB's consideration:

General

1. Subsection 36(3) of the Fisheries Act specifies that, unless authorized by federal regulation, no person shall deposit or permit the deposit 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. The definition of a deleterious substance (Subsection 34(1) of the Fisheries Act) includes "any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water,

degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.” Subsection 36(3) makes no allowance for a mixing or dilution zone at the point of deposit.

Drilling

2. To ensure that Project activities do not impact water quality of surface waters the following should be adhered to¹:
 - The Proponent should ensure the use of appropriate sediment / erosion control measures. Control measures should be monitored as necessary to ensure water quality is protected. Drilling from land adjacent to the lake shore should be conducted in such a manner that no materials enter the water and surface erosion will not occur;
 - Land-based drilling should not occur within 30 m of the high water mark of any water body;
 - Chemical additives or drilling muds used in connection with this drilling program shall be disposed of such that they do not enter any water body either by surface or ground water flows.
3. A list of drilling fluid products to be used in the drilling program should be submitted to and approved by the Board. The list should include the intended use of the product, the approximate concentration to be formulated in the mud system, and expected concentrations to be found in the sump supernatant. The use of non-toxic mud additives does not guarantee the final drilling effluent will be non-toxic (cumulative toxic effects). Therefore, it is the Proponent's responsibility to demonstrate that the drilling waste is non-deleterious and in compliance with the pollution provisions of the Fisheries Act.²
4. EC recommends the following measures be implemented with the use of sumps:
 - All sumps should be located at least 100 metres from any water body;
 - All sumps, spill basins, and fuel caches should be located in such a manner as to ensure that their contents do not enter any water body, are to be backfilled, and re-contoured to match the surrounding landscape when they are no longer required

Spill Contingency Planning

5. Please note that according to the Aboriginal Affairs and Northern Development Canada's (AANDC) "Guidelines for Spill Contingency Planning" (April 2007), available at <http://www.aadnc-aandc.gc.ca/eng/1100100024236/1100100024253>, all releases of harmful substances, **regardless of quantity** are to be reported to the NWT / NU 24-hour Spill Line, (867) 920-8130 if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.

¹ Fisheries Act

² Fisheries Act

6. EC recommends that the kit be located in an easily accessible and central location, and that this location be identified in the Spill Contingency Plan.³

Wildlife and Species at Risk

7. Paragraph 6(a) of the Migratory Birds Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. If active nests are encountered during project activities, the nesting area should be avoided until nesting is complete (i.e., the young have left the vicinity of the nest). The Proponent should consult the fact sheet “Planning Ahead to Reduce Risks to Migratory Bird Nests” available at: <http://www.ec.gc.ca/paom-itmb/> for further guidance.
8. Section 5.1 of the Migratory Birds Convention Act prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
9. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds and Species at Risk, but will not necessarily ensure that the proponent remains in compliance with the Migratory Birds Convention Act, Migratory Birds Regulations, and the Species at Risk Act. The proponent must ensure they remain in compliance during all phases and in all undertakings related to the project.
10. In order to reduce aircraft disturbance to migratory birds, Environment Canada recommends the following, safety permitting:
 - Fly at times when few birds are present (e.g., early spring, late fall, winter)
 - If flights cannot be scheduled when few birds are present, plan flight paths that minimize flights over habitat likely to have birds and maintain a minimum flight altitude of 650 m (2100 feet).
 - Minimize flights during periods when birds are particularly sensitive to disturbance such as migration, nesting, and moulting.
 - Plan flight paths to avoid known concentrations of birds (e.g., bird colonies, moulting areas) by a lateral distance of at least 1.5 km. If avoidance is not possible, maintain a minimum flight altitude of 1100 m (3500 feet) over areas where birds are known to concentrate.
 - Avoid areas used by flocks of migrating waterfowl by 3 km.
 - Avoid excessive hovering or circling over areas likely to have birds.
 - Inform pilots of these recommendations and areas known to have birds.
11. The following comments are pursuant to the SARA. Subsection 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 suggests that species on other

³ Aboriginal Affairs and Northern Development Canada's (AANDC) “Guidelines for Spill Contingency Planning” (April 2007) (Page 5)

Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner. The Table below lists species that may be encountered in the project area that have been assessed by COSEWIC as well as their current listing on Schedules 1-3 of SARA (and designation if different from that of COSEWIC). Project impacts could include species disturbance.

Terrestrial Species at Risk potentially within project area ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Rusty Blackbird	Special Concern	Schedule 1	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 1	Government of Nunavut
Horned Grebe (Western population)	Special Concern	Pending	EC
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western population)	Special Concern	Pending	Government of Nunavut

¹ The Department of Fisheries and Oceans has responsibility for aquatic species.

² EC has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the *Migratory Birds Convention Act* (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Thus, for species within their responsibility, the Territorial Government is best suited to provide detailed advice and information on potential adverse effects, mitigation measures, and monitoring.

- For any Species at Risk that could be encountered or affected by the project, the Proponent should note any potential adverse effects of the project to the species, its habitat, and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.
- If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.
- For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.
- Mitigation and monitoring measures must be taken in a way that is consistent with applicable species at risk recovery strategies and action/management plans.

Please do not hesitate to contact me at (867) 669-4744 or loretta.ransom@ec.gc.ca with any questions concerning the above points.

Sincerely,

A handwritten signature in black ink, reading "Loretta Ransom". The signature is written in a cursive style with a large, stylized 'L' and 'R'.

Loretta Ransom
Senior Environmental Assessment Coordinator, EPO

cc: Yongshu Fan, Senior EA Coordinator, Environmental Assessment and Marine
Programs-PNR, EC
Lindsay Howes, EA Officer, EAMP-PNR, EC