

	<b>Responsible Mining Management System</b>
	<b>Environmental procedure</b>
	<b>EXP-ENV-001 Brief summary for Environmental compliance during exploration activities</b>

Electronic Approval	
David Frenette	Environmental Coordinator

## 1 – PURPOSE

This document is a reminder of some important information to know before carrying out exploration activities. The data collected are required for all exploration activities, but some of them are solely related to drilling.

## 2 – SCOPE

The purpose of this procedure is to reduce the environmental risks related to exploration activities and to ensure compliance with the authorisations.

## 3- PROCEDURE

### **Before moving equipment or workers to an exploration area we have to document:**

- ✓ The verification of the area ensuring that no raptor or migratory birds are nesting in the area (100-metre protection buffer around the nests).
- ✓ The verification of the area ensuring that no caribou are calving or migrating in the area (procedure described in the Wildlife Protection and Response Plan).
- ✓ The verification of the area ensuring that no wolverine, wolf, fox or bear are denning in the area.

### **And have to:**

- ✓ Ensure that the planned land based drilling is located at a distance of at least 50 meters from any water body (lake-pond-river-creek) when using the lake and creek shapefiles as reference. Or ensure that the land based drilling is located at a distance of at least 35 meters from any water body (lake-pond-river-creek) when using the high resolution satellite images as reference or measured directly on the field.
  - Drilling activities are authorized within these protection zones in the winter **only, in the areas covered by the water licence 2BB-MEA1828** and under additional conditions.

This document is uncontrolled if printed.	Issue date : DD/MM/YYYY Version number : C-EXP-ENV-001 - Brief summary for Environmental compliance.doc	Page 1 of 4
---	--	-------------

	<b>Responsible Mining Management System</b>
	<b>Environmental procedure</b>
	<b>EXP-ENV-001 Brief summary for Environmental compliance during exploration activities</b>

Revise these conditions with the environmental department should drilling within these protection areas be required.

- ✓ Ensure that the archaeological investigation of the area has been completed and no archaeological sites are in the vicinity of the drilling sites.
- ✓ When drilling on ice is planned, ensure to sample the water in the lakes planned to be drilled according to the water licence and associated procedure.
- ✓ Send a notification to the environmental coordinator, at least 14 days before starting the drilling. The notification shall include the location of the activities, the date when the drilling will start and the location and quantity of all petroleum fuel caches.

**During the exploration activities you have to:**

- ✓ Even if the distances from the water body are respected for the drilling waste water disposal (minimum 50 meters from the water body when using the lakes and creek shapefile or 35 meters when using the high resolution satellite images or field measures), ensure that no drilling waste (cuttings) can flow toward the water (check the slope and use appropriate natural depressions).
- ✓ Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are recirculated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
- ✓ For “on-ice” drilling where drill additives are not being used, released return water must be nontoxic, 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 100 mg/L).
- ✓ For “on-ice” drilling, ensure that no cuttings or drill waste remain on the ice.
- ✓ Measure and record, in cubic metres, the daily quantities of water utilized for drilling and other purposes authorized by water licence.
- ✓ Note all wildlife seen and note any issues related to wildlife and environmental monitoring, including the number of cease-work orders required as a result of proximity to caribou.
- ✓ Note all Inuit encounters in the field.
- ✓ Declare each spill to the person in charge of the environment.
- ✓ Note each location where a fuel cache is installed (GPS coordinates).
- ✓ Note each location where water is pumped (GPS coordinates).

This document is uncontrolled if printed.	Issue date : DD/MM/YYYY Version number : C-EXP-ENV-001 - Brief summary for Environmental compliance.doc	Page 2 of 4
---	--	-------------

	<b>Responsible Mining Management System</b>
	<b>Environmental procedure</b>
	<b>EXP-ENV-001 Brief summary for Environmental compliance during exploration activities</b>

- ✓ Note each location where drilling waste is disposed (GPS coordinates).
- ✓ Note all artesian flow occurrences
  - If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped. Report all artesian flow to the environment department.
- ✓ When drilling on ice, ensure to sample the water weekly during the activities according to the water licence and associated procedure.

**After the exploration activities:**

- ✓ Remove the casings. Where drill casings cannot be removed, cut off the casings at ground level.
- ✓ Should a casing have to stay on site (land based drilling only), note the coordinates and add signaling to keep the area safe. The drill casings that are left cannot stay on the field for more than 2 years after the drilling.
- ✓ Inspect each drilling site, remove all waste or material remaining and take pictures.
- ✓ If drilling on ice, take the final water samples according to the water licence and associated procedure.

**4 – SPECIFIC RESPONSIBILITIES**

<b>Role</b>	<b>Responsibility</b>
AEM Project Geologist	Ensure the application of the procedure
AEM Environmental Coordinator	Ensure the procedure is updated

**5 – REFERENCES / RELATED DOCUMENTS**

<b>References</b>

This document is uncontrolled if printed.	Issue date : DD/MM/YYYY Version number : C-EXP-ENV-001 - Brief summary for Environmental compliance.doc	Page 3 of 4
---	--	-------------

	<b>Responsible Mining Management System</b>
	<b>Environmental procedure</b>
	<b>EXP-ENV-001 Brief summary for Environmental compliance during exploration activities</b>

## 6 - CHANGE LOG

Version	Revision date	Modification
1	2017/03/27	Creation of the document
2	2018/03/07	Addition of the 14 days notification requirement
3	2018/06/20	Addition of the minimal distance between the drilling and water bodies
4	2018/06/28	Minimum 35 meters of the water bodies, even when measured on the field

This document is uncontrolled if printed.	Issue date : DD/MM/YYYY Version number : C-EXP-ENV-001 - Brief summary for Environmental compliance.doc	Page 4 of 4
---	--	-------------