

Provincial Standards for Early Exploration

Introduction

These Provincial Standards have been developed as part of the implementation of the graduated regulatory regime for early exploration under the *Mining Act*, R.S.O. 1990, c. M.14 as amended by Bill 173, the *Mining Amendment Act*, 2009, S.O. 2009, c. 21 (the “Mining Act”), and the *Exploration Plans and Exploration Permits* regulation under the Mining Act, [O. Reg. 308/12].

There are three Parts to these Provincial Standards:

- I) Requirements for Carrying Out Exploration Plan Activities;
- II) Requirements for Carrying Out Exploration Permit Activities; and
- III) Requirements for Rehabilitation of Exploration Plan and Exploration Permit Activities.

The requirements of Parts I and II apply when the respective early exploration activities are being carried out, while Part III Rehabilitation applies when the early exploration activities have been completed. In the event there is any conflict between the content of this document and the requirements in the *Mining Act* or its regulations, the requirements in the legislation will prevail.

Part I and II have unique lists of early exploration activities identified in Schedule 2 and Schedule 3 of the *Exploration Plans and Exploration Permit Regulations* under the *Mining Act*. The Early Exploration Proponent will refer to the appropriate categories depending on the type of undertaking being contemplated. Part III Standards apply to both Exploration Plan and Exploration Permit Activities.

1.0 Definitions and Terminology

“**Early Exploration**” has the same meaning as in the *Exploration Plans and Exploration Permits* regulation under the Mining Act, [O. Reg. 308/12].

“**Exploration Permit Activities**” means those activities that fall within Schedule 2 of the *Exploration Plans and Exploration Permits* regulation under the Mining Act, [O. Reg. 308/12].

“**Exploration Plan Activities**” means those activities that fall within Schedule 1 of the *Exploration Plans and Exploration Permits* regulation under the Mining Act, [O. Reg. 308/12].

“**Early Exploration Proponent**” has the same meaning as in the *Exploration Plans and Exploration Permits* regulation under the Mining Act, [O. Reg. 308/12].

“**Stripping**” means the removal of overburden

“**Pitting and Trenching**” means the excavation of bedrock

Part I - Requirements for Carrying Out Exploration Plan Activities

Early Exploration Proponents carrying out Exploration Plan Activities shall comply with the following requirements:

1.0 Geophysical Surveys

1.1 Where any geophysical survey involving a generator is being conducted, signs must be posted at exploration site access points to warn other persons of a potential electrical hazard and must remain in place for the duration of the survey activity.

2.0 Line Cutting

2.1 All line cutting is to be done using hand-held tools.

3.0 Mechanized Drilling

3.1 The following requirements apply whenever the drill rig is removed and taken to a new location:

3.1.1 Capping and Sealing of Drill Holes

- (a) if the drill hole is artesian or encounters underground mine openings or solution cavities the drill hole must be either,
 - (i) sealed at the surface and into the upper bedrock by grouting the upper 30 metres of bedrock or the entire depth of the hole, whichever is the lesser, or
 - (ii) capped with a screw-on or bolt on cap
- (b) if the drill hole is drilled through the bed of a water body, the drill hole must be sealed at the surface and into the upper bedrock by grouting the upper 30 metres of bedrock or the entire depth of the hole, whichever is the lesser, and the drill casing removed

3.1.2 Marking Drill Holes

- (a) all drill hole locations where casings are not removed are marked with durable reflective markers which are clearly visible in all seasons.

3.2 Drill core

Drill Core samples must be stored not less than 30 metres from any permanent water bodies or waterways.

4.0 Mechanized Surface Stripping

4.1 All stripped overburden must be stockpiled on site in a safe and stable manner, separately from waste rock.

Part II - Requirements for Carrying out Exploration Permit Activities

Early Exploration Proponents carrying out Exploration Permit Activities shall comply with the following requirements:

1.0 Mechanized Drilling

1.1 The following requirements apply whenever the drill rig is removed and taken to a new location:

1.1.1 Capping and Sealing of Drill Holes

- (a) if the drill hole is artesian or encounters underground mine openings or solution cavities the drill hole must be either,
 - (i) sealed at the surface and into the upper bedrock by grouting the upper 30 metres of bedrock or the entire depth of the hole, whichever is the lesser, or
 - (ii) capped with a screw-on or bolt on cap

(b) if the drill hole is drilled through the bed of a water body, the drill hole must be sealed at the surface and into the upper bedrock by grouting the upper 30 metres of bedrock or the entire depth of the hole, whichever is the lesser, and the drill casing removed

1.1.2 Marking Drill Holes

(a) all drill hole locations where casings are not removed are marked with durable reflective markers which are clearly visible in all seasons.

1.2 Drill Core samples must be stored not less than 30 metres from any permanent water bodies or waterways.

2.0 Mechanized Surface Stripping

2.1 All stripped overburden must be stockpiled on site in a safe and stable manner, separately from waste rock.

3.0 Pitting and Trenching

3.1 The following requirements apply where a pit wall or vertical man-made rock face is greater than three metres in height:

- a) fencing that is at the minimum a high visibility barrier fence of at least one metre in height must be installed with a set back of at least 3 metres from the brow of the rock face or pit wall,
- b) signs stating "Danger – Open Pit", measuring at least 35 centimetres by 25 centimetres, made of durable weatherproof material must be posted in suitable locations to warn other persons of the potential hazard, and
- c) pits must be sloped to provide at least one ramp as a point of egress.

3.2 Disturbed bedrock must be stockpiled on site in a safe and stable manner.

Part III - Requirements for Rehabilitation of Exploration Plan and Exploration Permit Activities

Early Exploration Proponents who have carried out Exploration Plan Activities or Exploration Permit Activities shall comply with the following requirements upon completion of the activity and in any event, prior to the expiry of the applicable Exploration Plan or Exploration Permit.

1.0 Drilling

1.1 Capping and Sealing Drill Holes

Drill holes must be sealed at surface and into the upper bedrock by grouting the upper 30 metres of bedrock or the entire depth of the hole, whichever is the lesser if the drill holes meet any of the following criteria:

- a) they produce water (artesian).
- b) they encounter underground mine openings or solution cavities.

1.2. Marking Drill Holes Where Casings Left

All drill hole locations where casings are not removed must be marked with durable reflective markers which are clearly visible in all seasons.

1.3 Drilling Fluids and Cuttings

All drilling fluids, cuttings and mud if left on site must be contained and must not be left less than 30 metres from any permanent water body or waterway.

1.4 Drill Core

Where drill core is left on the exploration site, it must be cross-piled in an orderly manner to a height not exceeding 1.5 metres and not less than 30 metres from any permanent water body or waterway.

2.0 Stripping

2.1 Disturbed overburden must be contoured to a stable angle of repose.

2.2 Stripped areas if not backfilled must be contoured to a stable angle of repose.

3.0 Pitting and Trenching

3.1 All pit walls or man-made vertical rock faces greater than three metres in height must be backfilled or contoured to a stable angle of repose.

3.2 All pits with walls greater than three metres in height if not backfilled must be sloped to provide at least one ramp as a point of egress.

3.3 Disturbed bedrock must be stockpiled on site in a safe and stable manner.