

Lupin Mines Incorporated

A wholly owned indirect subsidiary of Elgin Mining Inc.

Lupin Mine Site

Nunavut, Canada

Wildlife Management Plan

(Care and Maintenance)

March 2012

Lupin Mines Incorporated
Elgin Mining Inc.
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Vancouver, BC V6C 2T7

Document Control

Revision No	Date	Details	Author	Approver
1.0	20/03/12	Reformatted to Lupin Mines standard. Revised and updated to reflect new ownership and contact information. Updated kitchen grease handling procedures Recognized species at risk that may occur in the Lupin area Addressed comments from EC (2010)	S. Hamm	P. Downey

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1 Introduction

Lupin Mines Incorporated (LMI), a wholly owned indirect subsidiary of Elgin Mining Inc. (Elgin), has prepared this Wildlife Management Plan (the Plan).

An annual review of the Plan takes place and revisions are submitted as necessary with the annual report. The current Type A water licence 2AM-LUP0914 for the Lupin Gold Mine (Lupin or the Lupin Mine) is valid until March 31, 2014 and has been kept in good standing.

1.1 Project and Company Information

Elgin is a Canadian based company focused on the exploration and development of the Lupin Mine and Ulu Gold Project, both located in Nunavut, Canada.

Elgin purchased LMI, which owns the Lupin Mine, from MMG Resources Ltd. in July 2011. The Lupin site was an operational underground gold mine from 1982 to 2005 with temporary suspensions of activities between Jan 1998 and April 2000, and again between Aug 2003 and March 2004. The mine resumed production in March 2004 until 2005. Since 2005, the site has remained in care and maintenance.

An exploration program is currently underway at the Lupin site under water licence 2BE-LEP1217. All camp infrastructure required for the exploration program currently exists at the Lupin Mine site, which has previously been screened by the Nunavut Impact Review Board under file 99WR053 and approved by the Nunavut Water Board under water license 2AM-LUP0914.

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Effective date: 30 March 2012

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Sharleen Hamm	Manager, Environment
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Additional copies of this plan are available from General Administration.

This plan will be posted in key locations at the site, and all employees and contractors will be made aware of its contents.

1.2 Site Location

The Lupin Mine is located in Kitikmeot Region, Nunavut, 400 km north of Yellowknife, Northwest Territories and 285 km southeast of Kugluktuk. The geographic center of that property is 65° 45'29" N / 113° 13'10W. It is on the western shore of Contwoyto Lake, approximately 60 km south of the Arctic Circle.

1.3 Environmental Policy

LMI looks to our employees, contractors and managers to adopt and grow a culture of environmental excellence. Together we achieve this by implementing key components of our Environmental Policy:

- Promoting environmental stewardship in all tasks. Nothing is too important that it cannot be done in a clean and responsible manner. We strive towards maintaining a zero-incident work place.
- Recognizing that we have a shared responsibility as stewards of the environment in which we operate. We will not walk away from a non-compliant act.
- Identifying, managing and mitigating environmental, business and social risks in an open, honest and transparent manner.
- Planning our work so it is done in the cleanest possible manner and executing work according to plan.
- Continually improving environmental and operational performance by setting and reviewing achievable targets.
- Providing appropriate and necessary resources in the form of training, personnel and capital, including that required for closure planning and reclamation.
- Managing our materials and waste streams, maintaining a high degree of emergency response preparedness and minimizing our operational footprint to maintain environmental protection at all stages of project development.
- Seeking to understand, learn from and mitigate the root causes of environmental incidents and near misses when they do occur.
- Employing systems and technology to achieve compliance, increase efficiency and promote industry best practices in development, operations and environmental stewardship.

1.4 Purpose and Scope

The purpose of this Plan is to minimise and monitor the potential effects of the Lupin operation on wildlife while the facility is under care and maintenance. Wildlife encounters may occur at any time and it is everyone's responsibility to ensure the safety of people and animals on site.

The objectives of the Plan are to:

- eliminate, reduce or control the adverse effects on wildlife during care and maintenance;
- provide site personnel with general procedures for wildlife impact mitigation; and
- addresses human safety concerns as they relate to wildlife

2 Mitigation Measures

Animals may interact with the mine during normal movements within their home range. The mitigation measures will be enforced on the project disturbance footprint and on all potentially affected areas during care and maintenance.

2.1 Wildlife Incidents and Mortality

Measures to mitigate wildlife incidents and mortality include the following:

- Awareness
 - provide wildlife awareness and sensitivity training (especially bear awareness training) to all site personnel as part of their site orientation;
 - report all wildlife incidents immediately;
 - prohibit feeding or harassing wildlife;
 - prohibit hunting by any employee, whether on or off duty;
 - immediately report all dead animals in close proximity to the project area. Carcasses will be removed to at least 1 km from mine facilities, or incinerated;
- Access
 - construct berms or fences around open pits to prevent access by wildlife;
 - consider using Inukshuks in conjunction with berms to direct animals around open pits and other high traffic areas;
 - where appropriate, use an electric or non-electric fence in selected areas to exclude wildlife;
 - inspect the airstrip for wildlife prior to take-off and landing of all aircrafts;

- Buildings
 - skirt all buildings, low level stairs and stair landings to the ground; where possible, eliminate blind spots around buildings;
 - provide windows on all exits;
- Roads
 - use signs and radios to warn drivers when wildlife, especially caribou, is present in an area. All vehicles or personnel travelling in vehicles will have a radio;
 - enforce speed limits on site roads (generally 50 kph under most circumstances);
 - vehicle operators will yield to wildlife crossing on roads, be vigilant in watching for wildlife near roads, and take all reasonable measures to avoid vehicle-wildlife incidences;
 - install wildlife crossing signs at high frequency wildlife crossing areas or in areas where animals are found to reside near roads;
- Waste
 - implement and enforce a waste management plan to minimize the presence of attractants such as garbage and waste food. Incinerate any possible attractants as quickly as possible, with minimum storage time; and
 - ensure the projects' incinerator has an inventory of spare parts so that equipment failure does not result in incineration delays and related attraction of wildlife to the areas.

2.2 Wildlife Monitoring

Wildlife monitoring at the Lupin site includes:

- Maintaining a Wildlife Sighting Record Log
 - post log in at least one public area (usually the kitchen/dining hall);
 - record all wildlife sightings in the general vicinity of the site in the Log as soon as possible with the time, date, description of the wildlife identified and GPS coordinates of sighting location, whenever possible;
 - advise camp personnel, as part of their site orientation, of wildlife sighting reporting requirements;
 - make wildlife sighting information available to regulators and management organizations responsible for managing the species;
- Report sightings
 - report wildlife sightings directly to the site supervisor as soon as possible after sighting;
 - if sighting occurs in the field (outside 1 km of camp/site), record sighting details in the field and provide the information to their supervisor upon return to the camp site;

- update the Log as soon as possible.; and
- Follow high risk wildlife sightings (i.e., a grizzly bear within 5 km of camp) up with appropriate warnings, alerts and access restrictions issued to all personnel on site.

2.3 Wildlife Movements and Distribution

Impacts to natural wildlife movements in and around the Lupin site can be mitigated by:

- reducing operational noise through the use of muffled exhaust systems and compliance with emission guidelines;
- enforcing a minimum flying altitude of
 - 300 m (1,000 ft) above ground level throughout the Lupin area;
 - 610 m (2,000 ft) for all flights during migratory bird breeding season;
 - 1,100 m vertical (3,600 ft) and 1,500 m (5,000 ft) horizontal distance near areas where migratory birds are known to concentrate (e.g. breeding colonies, moulting areas), and near identified caribou water crossings when sites are active;
- to the extent possible, minimizing flights during periods when birds are particularly sensitive to disturbance, such as during migration, nesting and moulting;
- ensuring pilots are informed of the mitigation measures outlined in this Plan;
- using prescribed flight corridors and altitudes near known concentrations of wildlife;
- developing aircraft approach and departure flight paths to minimize disturbance to wildlife;
- restricting vehicles to designated roads and prepared work areas only, and prohibit recreational use of off-road vehicles; and
- managing visual or noise disturbances near animals, primarily caribou.

3 Specific Mitigation Measures

3.1 Caribou

Specific mitigation measures for caribou in and around the Lupin site include:

- establishing a caribou (ungulate) alert system to immediately warn personnel of the number and location of ungulates, so that personnel can act appropriately relay this information to vehicle and equipment operators;
- if a group of caribou is observed in the vicinity of construction or operation activity, implement and monitor traffic activity controls with the appropriate response, including reducing speed, re-routing or stopping traffic, control/stoppage of construction or operations, and/or re-scheduling flights; and

- deter caribou from hazardous areas using berms and Inukshuks.

3.2 Grizzly Bear¹, Wolverine², Foxes and Wolves

Specific mitigation measures for bear, wolverine, fox and wolf in and around the Lupin site include:

- mitigating contact with species at risk (grizzly bear and wolverine) primarily by avoidance of species, habitat or residence;
- establishing a Wildlife Response Team trained in the techniques and procedures for deterring carnivores from hazardous areas (e.g. camps, roads, and airstrip);
- implementing the *Waste Management Plan* that includes the disposal of food and non-toxic combustible waste by incineration;
- storing edible and aromatic products (including petroleum-based chemicals) in sealed containers or bear-proof trailers or compounds;
- where possible, keep field lunches locked in a vehicle or aircraft;
- placing sheeting along the base of facilities where wastes and aromatic products and compounds are found; and
- removing all dead animals near the mine footprint that could attract predators to at least 1 km from mine facilities, or incinerate.

3.3 Raptors and Migratory Birds

Specific mitigation measures for raptors and migratory birds in and around the Lupin site include:

- mitigating contact with species at risk (peregrine falcon) primarily by avoidance of species, habitat or residence where possible;
- scheduling potentially disturbing activities within 1.6 km of known territories outside of the nesting season, i.e. from September to April;
- observing a minimum general flying altitude, as summarized in Section 2.3;
- avoiding all disturbances to nests, specifically during the early part of the nesting cycle (late May through to early July, depending upon the species) to minimize the risk of nest site abandonment;
- treating all nest sites with equal precaution, regardless of the response of the bird;
- avoiding excessive hovering or circling over areas likely to have birds;
- avoiding activity within a minimum of 100 m of a nest unless unavoidable and necessary;

¹ Grizzly bear is listed as a Species of Special Concern under COSEWIC.

² Wolverine (western population) is listed as a Species of Special Concern under COSEWIC.

- avoiding all activity within 100 m of an occupied nest site prior to the fledging period (when chicks fly from the nest) to reduce the risk of premature nest departure³ (10 to 20 August for peregrine falcon⁴s in the Lupin area); and
- Increasing setback distance, from known occupied nests, as species-appropriate.

4 Handling and Disposal of Domestic Waste

The improper handling, storage and disposal of food and domestic wastes can quickly result in wildlife being attracted to site. If wildlife finds an easily attainable food reward they can quickly become a serious threat to human safety and pose a significant risk of property damage. More often the result is a dead wildlife.

The leading causes of wildlife being attracted into camps and receiving food rewards are:

- outdoor storage of domestic waste (garbage bins or storage boxes);
- poor scheduling of garbage pickup and disposal; and
- overloading incinerators.

Proper domestic waste management to reduce wildlife attractants includes:

- locating incinerators in a secure building;
- storing food waste inside a secure building or designated container until it is picked up by site services and taken directly to the incinerator(s) for immediate disposal or backhaul for offsite incineration;
- storing all food wastes and other domestic garbage from all areas of the accommodation complex in a common location, (kitchen storage area) for disposal with kitchen wastes;
- collecting waste from the kitchen and kitchen storage area daily for immediate incineration;
- ensuring incinerator burning chamber is appropriately loaded;
- incinerating small amounts of cooking grease from grills and grease traps with kitchen garbage; and
- collecting large amounts of grease and backhauling for offsite disposal

³ Severe disturbance at the nest can cause young raptors to jump out of the nest before they are ready, greatly reducing their survival rate.

⁴ Peregrine falcon is listed as a Species of Special Concern under COSEWIC and Schedule 3 of SARA.