

**REGISTRATION PURSUANT TO SECTION 49 OF
THE ENVIRONMENTAL PROTECTION ACT**

NAME OF UNDERTAKING: **Mink Farm - L'Anse au Diable,
Labrador**

PROPONENT:

- (i) *Name of Corporate Body:* **Labrador Fur Farms Ltd.**

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THE UNDERTAKING:

(i) *Nature of the Undertaking:*

Proposed development of a mink farm at a site in L'Anse au Diable, in southern Labrador between L'Anse-au-Loup and Pinware. The farm is being developed to produce high quality dark mink varieties for sale through the North American auction houses. Farm construction is proposed to begin in the Fall of 2005.

Proposed development of a feed kitchen in West St Modeste, Labrador. The facility is being developed to provide feed services to Labrador Fur Farms. The project will be established in a former fish plant in West St Modeste at 2 Marine Drive. Facility upgrades are proposed to begin in late 2005, early 2006.

The project proponent is a new entrant into mink farming Mr. Cabot currently owns and operates several enterprises in the fishery in Atlantic Canada.

(ii) *Purpose/Rationale/Need for the Undertaking:*

The proponent views Labrador as offering a significant opportunity for the development of a world-class mink industry. The province has the proper climate for mink production as well as offering potential advantages in land, feed and labour availability and cost. In addition, the production of mink in North America will enable the proponent to sell these mink under premium North American labels. The ability to sell under these labels provides the opportunity for a potentially significant increase in market returns.

Labrador Fur Farms Ltd is looking to establish a feed kitchen to support its mink farming operation, through the provision of finished feeds.

DESCRIPTION OF THE UNDERTAKING:

• *Geographical Location:*

The proposed farm site, of approximately 5 acres, is located in L'Anse au Diable, Labrador and consists of Lease for Fur Farm # 73768 . L'Anse au Diable is located approximately midway between the communities of L'Anse-au-Loup and Pinware, and approximately one kilometer to the south-west of the community of Capstan Island in southern Labrador, along the Straits of Belle Isle (see National Topographical Series - NTS Map No. 12P/10). The property fronts on the west side of Route 510. Maps of the proposed site are attached in Appendix A. These maps include an overall site map, an aerial photo of the site and a site close-up showing the proposed location for the mink sheds.

The land base is currently clear, with minimal wooded area. The site is basically level.

The proposed feed kitchen site is located in West St Modeste, Labrador and consists of a former fish plant facility. Labrador Fur Farms Ltd. plans to use a portion of this facility at 2 Marine Drive in West St Modeste for its operations.

- ***Physical Features:***

Physical requirements for the mink farm to be added to the site include mink sheds, storage sheds, perimeter fencing, temporary manure storage and access roads. A total area of 5 acres will be cleared and leveled to encompass the sheds and fencing.

This main farm area will be situated towards the northern part of the property with a treed buffer maintained to limit exposure. Additional land will be developed, (Crown Land application being submitted for additional adjacent lands) as required, for manure spreading. The minimum total acreage will be 38 acres when complete. Each of the required physical features are further described below:

Road

Access to the site from Route 510 will be gained using a short access road of approximately 8 meters to be constructed at the eastern side of the site in the middle of the property. The property is currently accessible to vehicles with higher wheel clearance. No water bodies are to be crossed in construction of the required access.

Mink Sheds

The proposed mink sheds, numbering twelve, for this farm will be 325 ft long by 22 ft wide. Each shed will hold four rows of mink cages. The sheds are to be constructed using simple post and beam wooden construction, with galvanized aluminum sheeting attached for roofing, as well as a fibreglass skylights, and a plastic fabrene material used on the exterior sides (to enable natural light penetration).

An automatic watering system will be installed in the sheds such that the mink will have access to a continuous supply of water. A well will be used to provide the necessary water requirements.

Storage/Auxiliary Sheds

Two small sheds (900-1,200 square feet) will be constructed on-site to provide storage space for equipment and materials as well as a small staff room/facilities.

Storage/Pelting Shed

If and when necessary, an additional shed of around 2,700 sq ft (10 m x 25 m) will be constructed on-site to provide for the small pelting operation. Pelting equipment to be used will consist of equipment to be obtained as described in Appendix C.

Feed Kitchen /Cold Storage

The feed kitchen and cold storage requirements will be situated in a former fish plant in West St Modeste. The equipment requirements for the feed kitchen operation are outlined in Table 1. Below is a brief description of these equipment requirements.

Table 1: Feed Kitchen Equipment Requirements	
Equipment Requirements	Number
Grinder	1
Mixer	1
Conveyors	2
Scales	1
Silo (for dry goods/grains)	1
Forklift	1
Truck	1
Pressure Washer	1
Pallet Wrapper	1
Totes/Pans	10/300

- **Grinder:** An industrial scale grinder, such as that shown in Figure 1, is required for the feed kitchen. The grinder will be used to process fresh and frozen raw materials to a size usable in the mixer.
- **Mixer:** An industrial scale mixer, such as shown in Figure 2, will also be required for the feed kitchen operation, to mix the necessary feed ingredients for finished feed production. ;
- **Conveyors:** Conveyors are required for the movement of materials in and out of the main production equipment, the grinder and mixer.
- **Scales:** In order to obtain an accurate assessment of the production volumes, a set of industrial scales will be placed under the mixer, such that batch weights can be recorded;
- **Silo:** A silo or silos will be required for the storage of dry materials, i.e. grain mixtures;
- **Forklift:** A forklift will be required for the movement of materials to/from the freezer and cold storage areas and into/out of the facility;
- **Truck:** A truck will be required for the collection and distribution of raw materials and finished feeds. The truck will have to have at least a 5-tonne capacity and must have a reefer box;



Figure 1: Industrial Grinder



Figure 2: Industrial Mixer

- **Pressure Washer:** A pressure washer is required for the regular cleanup of the production equipment and production area, as well as the feed truck and totes/pans;
- **Pallet-Wrapper:** Once product comes out of the blast freezer it will be taken out of the pans and stacked on pallets, which will then be wrapped with a pallet wrapper; and
- **Totes/Pans:** Large fish tubs/totes will be used for raw material collection and finished feed distribution. Smaller berry pans (40-50 lb capacity) or trays will be used for the freezing of ground raw materials in the blast or plate freezers.

Perimeter Fencing

The main farm site (5 acres) will be enclosed with chain link fencing, to prevent encroachment by pests/animals and mink escapement. To prevent possible escapement, the bottom of the fence will be extended 6-8 inches below the ground surface. Total fence height will be approximately five to six feet.

Manure Storage

A temporary manure storage area will be constructed, consisting of a concrete pad and bucking wall, covered by a heavy tarp to prevent washout by precipitation. This facility will be constructed and located in keeping with the Environmental Guidelines for Livestock Producers. The facility will provide for temporary storage only, with the manure ultimately being made available to local farmers for spreading and/or used on fields to be developed by the proponent.

- **Construction:**

Project construction is projected to occur from December 2005 through to November 2008. Construction will be undertaken in a staged approach to meet the requirements of the expanding farm. Following are the projected construction requirements for each phase:

- *Dec. 2005 - April 2006*
Upgrade, install refrigeration and feed kitchen equipment.
- *Dec. 2005 - April 2006*
Upgrade/Extend Access
Clear Land
1 Mink Shed for breeding stock (500 females)
1 Storage/Auxiliary Shed
Perimeter Fencing started
- *April 2006 - July 2006*
1 Mink Shed for mink kits (offspring)
1 Storage/Auxiliary Shed
Complete Perimeter Fencing
Manure Storage pad
- *July 2006 - July 2007*
3 Mink Sheds for expansion (to 2,500 breeders and kits)

- 1 Pelting shed
- July 2007 - July 2008
- 7 Mink Sheds for expansion (to 5,000 breeders and kits)

The main site will be selected to minimize clearing and leveling requirements. Construction involves simple structures with low potential for environmental impact.

- **Operation:**

Farm

The process of farming mink is closely tied to the natural breeding cycle of the animal. The basics of the mink year are outlined in the following figure, which was prepared for the US mink industry. For mink farming in Newfoundland and Labrador the primary seasons are as follows:

- Breeding - Breeding to start in early March;
- Whelping - The breeding females will start having their kits as early as April 20th. Litters may range from as few as three to as many as 13, but four or five is the average;
- Weaning - Separating the kits from their mother and getting them on solid food starts after six to eight weeks, in late June or early July;
- Growth and Furring - From August through to pelting time in November/December the focus is on kit growth and proper fur development;
- Grading and Pelting - Prior to pelting, mink are graded such that the best performers can be retained as breeding stock. Pelting starts in November and can continue to early December.

JAN.	FEB.	MAR.	APR.
	BREEDING		WHELPING
MAY	JUNE	JULY	AUG.
WHELPING		WEANING & SEPARATING	GROWTH & FURRING
SEPT.	OCT.	NOV.	DEC.
GROWTH & FURRING		GRADING	PELTING

Mink Farm Season

Labrador Fur Farms Ltd.. plans to purchase locally 500 disease free, high quality dark mink bred females from Newfoundland in April 2006. On average, mink produce between four to five offspring. In 2006 the projected kit production will be approximately 2,000 kits. Over the following two to three years the operation will expand to 5,000 female breeders, producing upwards of 20,000 kits per annum.

Pelting

The following is a brief description of the pelting process. Greater detail on this process and the types of equipment used has been provided in Appendix C.

After the grading process on the farm, where the best and the biggest are retained as breeders, the remaining mink are sent for pelting in November/December of each year. The mink are euthanised humanely in a Killing Trolley and then placed on a Body Trolley in preparation for the pelting process. The process starts by placing the mink in a Body Drum, with sawdust, to clean them and prepare them for skinning. The skinning process begins with the removal of the tail and legs and with the loosening of the skin using a Paw and Leg Spreader. A Skinning Machine will then be used to assist in separating the pelt from the body.

After skinning the fat and grease must be removed from the pelts, using a Fleshing Machine. After this is removed the pelts are placed in another drum with sawdust to remove all remaining grease. The pelts are then ready to be placed on Pin-Boards using a Pinning Machine which helps to stretch the pelts to optimal size and then staple them to the Board. Once on the Board the pelts are ready to enter the drying process.

The critical drying process involves hanging the pelts in an environmentally controlled room, at 17-18 degrees Celsius and 55-58% moisture, for three to four days, where each pelt is hung on a tube which blows air down through the pelt to dry it in a controlled manner. After drying the pelts are taken off the Boards with a Staple and Board Remover. The pelts are then complete and are transported to the stockroom where they are placed on hangers to maintain their shape and structure and maintained at a temperature of 10 degrees Celsius and at 75% humidity until the time of shipping to the auction house.

Prior to shipping farmers must tag their mink with barcodes using a Labelling Machine, to distinguish them at the auction house. The pelts are then packed in boxes and picked up by the auction company.

Production at the pelting operation will include the production of pelts from Labrador Fur Farms Ltd farming operations. Peak production in the first five years will be approximately 20,000-25,000 pelts.

Feed Kitchen

The process involved in feed kitchen operations will depend on whether the facility will be producing a finished feed, ready to take to the farm for feeding, or more simply just the raw materials, which can then be combined by the farmer into a finished feed. Labrador Fur Farms Ltd. plans to produce a finished feed, for the proponent's farm in L'Anse au Diable.

Labrador Fur Farms Ltd. will utilize local raw materials (fish) where available, supplemented by materials to be purchased from other feed kitchens and suppliers. The local materials will be ground and frozen for later utilization in finished diets. The process involved in grinding and freezing raw material is very simple, consisting of: sourcing the fresh or frozen raw materials, grinding these materials and placing the ground product in pans for freezing,

freezing the ground material in a blast or plate freezer, removing the frozen blocks from the pans, palletizing and shrink wrapping the frozen blocks, and storing the pallets in a cold storage room until needed. Proper procedures need to be followed in raw material handling (proper icing, use of reefer trucks, etc.) to ensure that product is maintained at the proper temperatures to minimize potential bacterial buildup. For raw materials where the risks of bacterial contamination are higher, eg. spent hens, regular laboratory tests must be conducted to ensure product quality. At the end of each production run proper cleanup will also be required, using high pressure steam cleaning, to prevent bacterial buildup on the machinery.

The production of a finished feed builds upon the process identified above. A finished feed uses a combination of raw materials to produce a nutritionally balanced diet. Diet composition will vary throughout the year, to meet the varying needs of the fur animal during the production cycle. As such, perhaps the most critical component to finished feed production will be to have the person or persons available with the nutritional background and/or experience in fur feed production.

Finished feed production would consist of securing the proper combination of raw materials, grinding those materials that require grinding, placing all the ingredients in a mixer and possibly a homogeniser to produce a finished feed, which can then be placed in insulated tubs and onto a reefer truck or directly into a specially designed pumping truck for transport to the farm. Regular nutritional and quality testing are required to ensure the fur animals are receiving the nutrition and quality of feed they require. Labrador Fur Farms Ltd plans to have regular analyses completed on both the raw material and finished diets produced through this facility.

The feed kitchen will need to have a production capacity of 2 million pounds per annum.

Waste Production/Handling

Farm

Waste production from a mink farm consists of one primary waste stream, manure and urine from the mink, which is mixed with wood shavings and straw from the nest boxes. Manure production varies with the time of year, with lower volumes produced from late-November through May, as the farm is populated only with breeding stock, and larger and increasing volumes produced from June through November, as the kits grow. The mixing of the manure/urine with the wood shavings/straw produces a very manageable solid waste product. The projected maximum waste production for a 5,000 female mink farm is as follows:

- Manure 900 tonnes
- Shavings/Straw 125 tonnes

Pelting

The waste stream from the pelting operation will include the mink carcasses, the fat/grease collected in the pelting process and the sawdust used during the pelting process. The projected peak waste production, when the farm reached 5,000 female breeders, is projected

as follows:

- Carcass/fat 32 tonnes
- Sawdust 4 tonnes (used in pelting process to dry skins)

Feed Kitchen

Waste production from the feed kitchen operation will be minimal, as all materials collected will be used in the feed production.

Waste Collection

Farm

With all animals held in cages the manure and urine collects directly under these cages, in the sheds. In a vast majority of cases the mink return to the same spot to deposit their waste on an ongoing basis. In addition, straw and/or wood shavings are used in the nest boxes and the manure/urine becomes mixed with the straw/shavings that fall through the cage, producing a more manageable waste product. For hygiene purposes and to reduce odour, waste will be collected from the sheds on a regular basis, consisting of every two weeks in the late summer and less often during cooler periods. Waste is to be collected using a small articulating tractor which is capable of operating in the sheds. A special attachment will be imported from Denmark which enables the tractor to easily collect the waste in an efficient manner.

Pelting

Carcasses are collected during the skinning process. The fat/grease is automatically collected from the fleshing machines into barrels and the sawdust used in the drumming process is changed on a regular basis.

Waste Handling and Disposal

Farm

The handling and disposal of the waste from the mink farm will be undertaken using approved manure management strategies. The primary handling and disposal methodologies to be used will include short-term stockpiling, land application and potentially composting.

Short-term Stockpiling

Stockpiling of manure will only take place on a short-term basis, to accumulate for land application. Stockpiling will be done in an approved manner and at a site on the farm of sufficient distance and location from the sheds and wells to ensure no risk of contamination.

Land Application

A total of 150 female mink (plus kits and males) per acre is the recommended maximum from the “Environmental Farm Practice Guidelines for Livestock Producers in Newfoundland and Labrador” for manure spreading. As such, for a 5,000 female farm the recommended minimum acreage for manure spreading would be 33.33 acres. The site will have a land base of 38 acres once approved, providing more than sufficient area for manure

spreading. In addition, manure will be made available to other local farmers for spreading on their fields.

Pelting

The handling and disposal of the waste from the pelting operation will use approved management strategies. The primary handling and disposal methodologies to be used will include burial and potentially composting. For the burial of carcasses, the “Government Service Centre Guide for the Disposal of Dead Animals Within the Province of Newfoundland and Labrador” will be followed, i.e. disposal areas will be a minimum of 150 metres from the well water supply. The carcasses will be placed in a prepared excavation, then limed and backfilled with at least 0.6 metres of fill material. The excavation site will be at least 0.3 metres from the groundwater table.

Feed Kitchen

The handling and disposal of the waste from the feed kitchen will use approved management strategies.

- ***Occupations:***

The proposed farm will require a projected 5-6 employees during the construction and operations phases. This will include one site foreman and the remainder as general labourers. This labour pool will meet the requirements for farm construction during the first three years as well as ongoing farm operations as the farm grows from 500 female breeders to a proposed 5,000 female breeders by the third year.

The proposed feed kitchen operation will use the farm staff plus part time employees at peak raw material collection seasons.

- ***Project-Related Documents:***

Fur Land Lease #73768 (see Appendix B)

APPROVAL OF THE UNDERTAKING:

Approvals required for the construction and operations phases for Labrador Fur Farms Ltd. include the following:

- Crown land approval - Department of Environment and Conservation, Lands Branch - Application being submitted for additional adjacent lands, see Appendix B for approved lands, Lease #73768
- Waste Management Certificate - Government Services Centre - Approval required prior to 2006 operations

SCHEDULE:

The initial land development and construction phase for this project must be started by Dec. 2005. Land clearing and leveling, the construction of at least one mink shed and the starting the installation of perimeter fencing must be completed prior to the arrival of the breeding stock in April 2006.

FUNDING:

Funding for this operation will consist primarily of private investment. Labrador Fur Farms Ltd. plans to apply for assistance through the Atlantic Canada Opportunities Agency (repayable loans), Human Resources and Skills Development Canada (wage subsidies), the Agricultural Policy Framework (APF), the Department of Innovation, Trade and Rural Development (Small and Medium Enterprise Fund) and the Farm Credit Corporation (repayable loans). No approvals have been granted to date.

Mr. John Cabot
President/Owner

Date