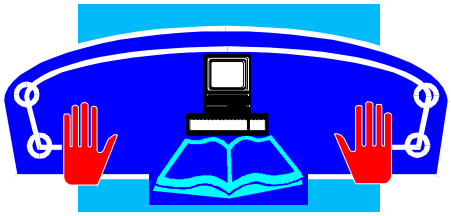

Caribou Harvesting Plan North Slave Region Northwest Territories

Type of Study: Primary Production

Date of Report: 1993

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Catalogue Number: 5-2-23

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this document is to present a plan for carrying out a commercial harvest of 500 caribou that is acceptable to Agriculture Canada and other regulatory agencies having relevant jurisdiction.

The plan focuses on the first year of a three year project that will be undertaken in three successive stages each of which will require a year for completion.

The three stages are:

* Pre-feasibility - mainly for operational testing. Reaching a target is not as critical as processing a number of carcasses to Agriculture Canada standards.

* Feasibility - establish viability. A true test run to demonstrate that revenues exceed cost.

* Start up - if viable, a long term, self-sufficient business begins with the third harvest.

1.2 Federal/Territorial EDA Guidelines

Under section (6) Wildlife Harvesting subsection (6.1) Commercial wildlife harvesting "the facilities must result in the processing of meat to Agriculture Canada Standards"

1.3 Federal Meat Inspection

The federal Department of Agriculture will only attend a harvest if the meat is intended for export from the Northwest Territories. The carcasses are considered under quarantine until the meat is inspected at a federally registered plant.

2.0 BACKGROUND

The North Slave Region is made up of six communities: Snare Lakes, Lac La Martre, Rae/Edzo, Dettah (incl. Ndilo) and Yellowknife. The region is the home of the Dogrib people who for centuries have pursed hunting, fishing and trapping as primary industries. Although the region's renewable resources are felt to be substantial, commercial utilization of these resources has never been fully explored.

With an estimated population of 350,000 caribou (1990 report) the Bathurst Herd is the largest in the Northwest Territories. There is an annual commercial quota of 750 animals of which the Dogrib region is allocated 500. Of the remairider, the Yellowknife region is currently using 200 tags for their country food store in Yellowknife. The Department of Renewable Resources will not grant an increase in the quota without the mnsent of all the user communities.

In the past, the Dogrib people have stated that they do not favor a commercial harvest of the Bathurst Herd on the basis that this practice might pose a threat to their use of the herd for subsistence purposes. During consultations last year, the Elders in Rae Lakes were initially reluctant to allow a commercial caribou harvest. They did, however, request that a regional workshop with all parties and Bands be held in order to give them more information on the matter. The workshop, held in February 1993, was very successful and resulted in the unanimous support of a motion calling for a test harvest to be held in the near future.

The Department of Economic Development & Tourism was requested to hire a consultant with proven experience in commercial harvesting of wildlife to produce a Pre-Feasibility Plan for consultation and a test harvest.

3.0 ORGANIZATIONAL STRUCTURE

3.1 Project Administration

The project will probably be carried out by a regional Dogrib Game Corporation. It will be funded under the Federal/Territorial Economic Development Agreement.

The financial administration of the project will be carried out jointly by the Dogrib Corporation and the North Slave Regional Office of ED&T with the Regional Superintendent having cheque signing authority.

A project manager, reporting to North Slave Regional Resource Facilitator will be hired to plan, organize and oversee its implemention.

3.2 Resource Development Corporation

In order to meet the challenges of developing an economic enterprise of this kind it is felt that the Dogrib Regional Council should establish a corporation which has the mandate for commercial development of the fish and game resources in the region. This will ensure that there is a focus and a means to capitalize on available opportunities and actively seek to pursue other opportunities for itself. Also, such an organization can work with government, other native organizations and the private sector in achieving mutually desirable goals.

Some of the immediate benefits of setting up a company for this initiative are:

* establish itself as a client of Agriculture Canada from the outset as this recognition is soon expected to become more diflkult;

* accounts can be set up with major suppliers of fuel, meat processing equipment/supplies, airlines and trucking companies;

* establish relationship with potential buyers and gain recognition in the industry as a supplier of game meat.

3.3 Agriculture Canada

Provide inspection and veterinarian services required in order to conduct the harvest to federal meat inspection standards. More specifically to ensure:

* meat handling facilities, equipment and supplies are of approved materials;

* slaughter is carried out in an humane fashion, and;

* proper handling techniques and sanitation procedures are followed.

3.4 Department of Renewable Resources

Issue appropriate permits and licences - commercial caribou tags, export permit(s) and NWT Meat Vendors Lisence - and, if desired, collect biological information on caribou such as: age, sex, reproductive status, etc.

3.5 Department of Economic Development and Tourism

Facilitate the preparation and implementation of the project, prepare supporting (funding applications, etc) documents, and carry on consultation with affected parties.

4.0 TIME OF YEAR

According to various publications on the range and distribution of the Bathurst Herd the caribou are found mostly in large numbers throughout the North Slave Region from November to March. This coincides with the timing of a commercial hunt as there must be snow cover and freezing temperatures to satisfy the sanitation and hygiene demands of Agriculture Canada. Further travel overland by snowmachine makes hunting in remote areas comparatively easy and inexpensive.

Other factors which must be taken into consideration in determining the most favorable time to conduct a harvest include:

Early November: Lake ice will probably not be of sufficient thickness to support an aircraft and river crossings could be hazardous to over land travel by snowmachine.

The breeding season will have just ended and the bulls w-ill be less edible as a result of their body changes during the rut. Also, the caribou still may be moving into their wintering areas and the impact of the hunt may deflect them away from traditional community hunting areas. (pers. commun. J. Bekale, ED&T)

Late November and Early December: There are diminishing daylight hours and seasonally unsettled weather conditions accompanied by extreme temperatures. The former will have a direct bearing on the amount of time available to hunt each day while the latter will impact on air access to the site and overall working conditions.

Mid-February to Late March: Perhaps the most favorable physical and climatic conditions of all occur at this time however there are other concerns: First, the opposition by some wildlife managers and the general public to slaughtering pregnant cows at this point in their gestation. Even though attempts can be made to avoid killing cows it is not always possible to prevent.

Secondly, ifit is a severe winter the caribou are likely to be in poor condition which may effect the quality of the meat as well as the yield (lbs/carcass).

Despite the diffkulties associated with a late November and early December harvest it is probably the most acceptable time of year. It must be recognized however that a late freeze up or shifts in the movement and winter range of the caribou may make a hunt both technically and economically unfeasible.

5.0 LOCATION OF HARVEST

A site will be selected through an aerial survey and by consulting with the Dept. of Renewable Resources, local people and regional air carriers. There are several conditions which must be taken into consideration. The most important of these is to find a location with a large concentration of caribou within an area of about a 30 sq. mi.

The distance from the kill site to the processing facility can be critical. Depending upon the temperature there is only 1 to 2 hours available between the time the animal is killed and when it is skinned and gutted at the processing facility. Carcasses begin to bloat almost as soon as the animal is killed and even though cold temperatures and proper sticking will reduce the rate at which this happens it is impossible to prevent.

The site selected must also be a reasonable distance from population centres and roads in order to avoid a potential conflict with local hunters and recreationists. Because of the extensive use of firearms it is a high risk environment that could be hazardous if people enter the hunting area unannounced.

Access to the harvest site will be strictly controlled and unauthorized picture taking will not be allowed. The slaughter is carried out under the jurisdiction of Agriculture Canada arid because of the potential for negative publicity and safety concerns it is the practise to discourage visitors and especially photo taking.

Another important consideration is the necessity of a large deep lake as the site for the processing facility and camp. An ice covered lake provides an ideal level surface for the slaughter facility as well as an airstrip. Only a vehicle such as an aircraft or truck with an enclosed storage area can be used to transport the meat after it has received an inspection stamp. Transport vehicles and temporary holding facilities will be inspected by Agriculture Canada and must meet their approval.

6.0 HARVEST AND PROCESSING OPERATIONS

The following describes the techniques and procedures associated with each step of the harvest operation.

6.1 Hunting

Since the animals are free ranging and found in small group scattered over a vast area they must be stalked and hunted. To facilitate the hunting and to minimize the time interval between when the animal is killed and available for gutting at the slaughter facility packed haul trails will first need to be constructed. Depending upon the terrain and location of the caribou the trails will either be built as a loop or simply as a line radiating from the slaughter facility. From these main arteries the hunters will then be able to access adjacent areas along spur lines established as they pursue the caribou.

The 6 to 8 hunters will travel as a group or possibly as two groups but in separate areas. For safety reasons care must be exercised at all times to avoid overlap between groups.

Mid caliber flat shooting 223 rifles are recommended in order to minimize tissue darnage and blood clotting. The ammunition is readily available and comparatively inexpensive. Also, it is much more efficient to stock one caliber of ammo that all the hunters can use than attempt to anticipate the requirements of each hunter if they are each using different types.

Head shots are preferable however lung and heart shots are also acceptable. Quarters that have to be removed from the carcass because of gun shot wounds will be deducted from the hunters fee of $/carcass.

6.2 StickingjBkeding

Upon killing a caribou, it must be stuck immediately to ensure properly bleeding and the esophagus severed to allow rumen gases to vent. As previously stated the carcasses must be transported as soon as possible (from 1 to 2 hours of killing) to the dressing facility. Not only is it a lot easier to dress a warm carcass but it will bloat very quickly increasing the chances of the gut bag rupturing when it is being removed.

6.3 Decapitation/Skinning

At the processing facility the head and lower legs are removed prior to skinning. The lower portion of the head is skinned in preparation for inspection at the head table by Agric. Canada staff. Once the legs, brisket and gut have been skinned out the carcass is hoisted from the skinning cradle onto the railing inside the plant where the hide is removed. Hair fibers adhering to the skinned carcass are removed by burning with a propane torch.

6.4 Gutting

The viscera is removed at a specially designed stainless steel table where the organs, lymph nodes, etc. are examined by meat inspectors. Gutting is a highly skilled task that must be done properly in order to avoid contaminating the carcass. For example, should the paunch be punctured and the contents spill out, the contaminated part of the carcass will have to be removed and disposed of. Most likely the entire carcass would be condemned by Agriculture Canada.

6.5 Splitting/Trimming

The carcass is split lengthwise with a splitting saw while suspended from the railing. The carcass must be split precisely down the middle of the backbone to avoid damaging the loins which are the most valuable cuts of meat. The sides are then knife trimmed of excess fat, bruised and blood shot meat and flanks. The trimmed sides are now inspected by an Agriculture Canada veterinarian and stamped for export to a registered packing plant.

They are then rolled out of the facility where they are allowed to harden before the front **shanks,** brisket and neck are removed.

6.6 Freezing/Packaging

Once frozen the sides are split into quarters then placed in plastic freezer bags which are sealed. Depending upon the temperature the meat will require from 6 to 12 hours to thoroughly freeze. The meat will be transported by aircraft to Yellowknife where it will be placed in combo bins (3 cu. ft. cardboard boxes) on pallets for transport south by truck.

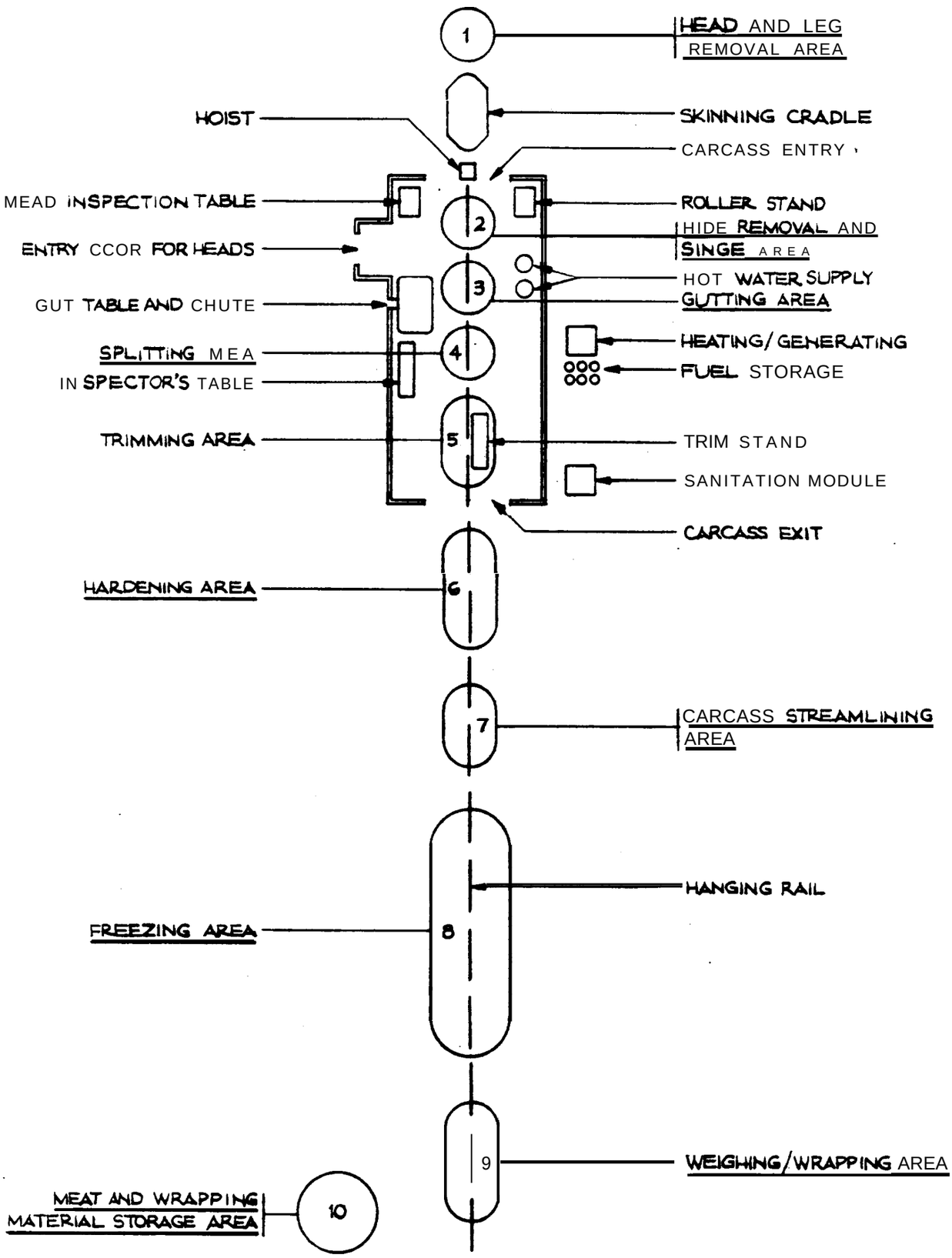
6.7 Disposal of Offal, Hides and Waste

The accepted (environmentally sound) practise is to spread the offal and hides on the land allowing the elements and wildlife to dispose of it. This is carried out with a specially designed sled with an end dump that is pulled by a snowmachine.

Mid-winter and spring hides have no commercial value because of the damage caused by warble fly larvae. In early December they may still have some value, however, because of the additional time and expense involved in their handling, transportation and probable storage it is assumed that they will be disposed of at the site.

Human waste (excrement) and other combustible materials will be disposed of by burning at a designed site. Non-combustibles will be returned to Yellowknife.

PROCESSING OPERATION



7.0 COMMERCIAL YIELD

The dressed weight of each carcass will vary according to age and sex. Results from a harvest carried out in April 1991 on the Bluenose Herd indicated that the average frozen dressed carcass weight of two year olds was 85 Ibs while the 4+ age group was in the neighborhood of 130 pounds. There is a noticeable weight loss during freezing.

A commercially dressed or streamlined carcass has had the neck, front shank, brisket, flanks and much of the body fat removed. The neck and front shanks are removed because they become centaminated from coming into contact with the gut inspection table and from handling. The briskets are comprised mostly of cartilage and bone while the flanks and especially the fat have no commercial value.

Blood shot meat must also be removed and in some cases this may involve the removal of one or more quarters from a carcass. The entire carcass of a gut shot animal will automatically be condemned and not permitted in the plant. Under the federal MEAT INSPECTION ACT a condemned carcass is considered "unfit for human mnsumption".

Other carcasses will be condemned for pathological reasons however a greater number are downgraded as "not for export" mostly because of tape worm cysts. The cysts are developing larvae of tape worms and appear in the flesh and organs. Only carcasses that are heavily infested are downgraded which, based on previous experience, seems to be confined mostly to older mature animals.

This meat is still considered edible and under Territorial Wildlife Regulations cannot be disposed of. Since most people in the Territory who consume caribou or offer it for sale are aware that it is harmless to humans there may be some local commercial value in the meat. .

In light of the expected losses and average dressed carcass weights, the gross yield (for export) from a harvest of 500 caribou will be approx. 50,000 pounds.

8.0 LOGISTICS

8.1 Acquisition of Equipment and Supplies

The initial task at implementing the project is to begin acquiring and consolidating the equipment and materials. At least two months prior to the scheduled start-up the slaughter facility and other equipment that has to be specially designed and manufactured must be on order. This includes the gut table, head table, trim stands, roller racks etc. that have to be constructed of nonabsorbent, rust proof, light weight materials. Further some equipment and supplies such as carcass covers, packing boxes, splitting saws and rollers may take up to six weeks for delivery.

As virtually all of the meat handling equipment and materials must meet Agriculture Canada specifications these items will have to be purchased through specialized meat industry wholesalers and manufactures in Edmonton and Calgary. Prior to operations commencing Agriculture Canada officials will conduct an on-site audit to ensure that every implement or material that comes in contact with the meat either directly or indirectly is of an approved substance.

To minimize shipping costs and to confirm that all of the goods acquired are as ordered they should be checked and consolidated at the designated shippers terminal prior to shipping them north. Trucking is obviously the most cost effective mode of transportation into Yellowknife but timing is critical to avoid road closures.

In Yellowknife, a staging area is again required for consolidating goods from the south with those acquired locally. Some storage costs may be incurred but normally either the trucking or airline companies involved in the in-bound as well as out-bound shipping will provide short term storage services flee of charge.

Since the organization sponsoring this project will not have accounts with suppliers or transport companies probably all of the purchases will have to be cash transactions or at least involve signifkant deposits. Unless an efficient accounting. system is in place, it is probably safe to assume that an additional 2 to 4 weeks are required prior to commencement because of this situation.

8.2 Personnel

Once a tentative starting time haa been established (eg. mid-November) all the participating groups will be notified. These include: Agriculture Canada, Dept. of Renewable Resources, Regional and/or Band Council(s), ' Department of Economic Development and Tourism, transport companies and contractors. As the deadline approaches subsequent notices will be sent out until a final date is confirmed.

Approximately 3 weeks prior to commencement, the project manager will re-locate to Yellowknife from where the project will be staged. The plant foreman and mech/elec will arrive a about 10 days later. Local people selected to work on the project by the Regional or Band Council(s) will be contacted and their respective working and travel arrangements finalized. Since this will be an initial introduction for local people to an organized harvest - where everyone has a specific task - it will involve some time and effort to familiarize them with what to expect and what is expected of them.

The work force will be comprised of the following:

Contractors	7
Local	13 to 15
Agriculture Canada	4
Renewable Resources	1 to 2

An official from Agriculture Canada's regional office in Calgary will attend the harvest for the first couple of days to carry out the audit and to ensure proper procedures are being followed.

It is expected that there will be 1 or 2 officials from the Dept. of Renewable Resources at the harvest however unlike Agriculture Canada they are responsible for their own expenses.

8.3 Transportation

Contract workers from the south and Agriculture Canada will travel to Yellowknife via scheduled air service from Edmonton and Calgary. Apart from the Project Manager, Plant Foreman and Mech/Elec. Tech. who will arrive 1 to 3 weeks early, the others will depart from the south one day before the starting date. Depending upon the airline schedules between

the communities and Yellowknife and the communities from which the workers will be coming fro'm they will either be flown to Yellowknife just prior to the start-up or be picked up in their respective communities by air charter during the air lift to the site.

The hunters, on the other hand, will travel to the site on their own snowmachines as they will require them and their toboggans for hunting. Some of the other local people may also wish to travel in this fashion. They along with the Foreman, Elec/Mech Tech and cook will arrive at the site about 2 days early with the equipment to commence setting up the camp, processing facility and building the haul trails. The project must be operational when the officials from Agriculture Canada arrive.

A Twin Otter aircraft on skis will be chartered to provide transportation between Yellowknife and the site. Depending upon weather conditions, the meat (approx. 3,200 lbs/trip) will be flown daily into Yellowknife where it will be loaded into combo bins on pallets for shipment south by truck.

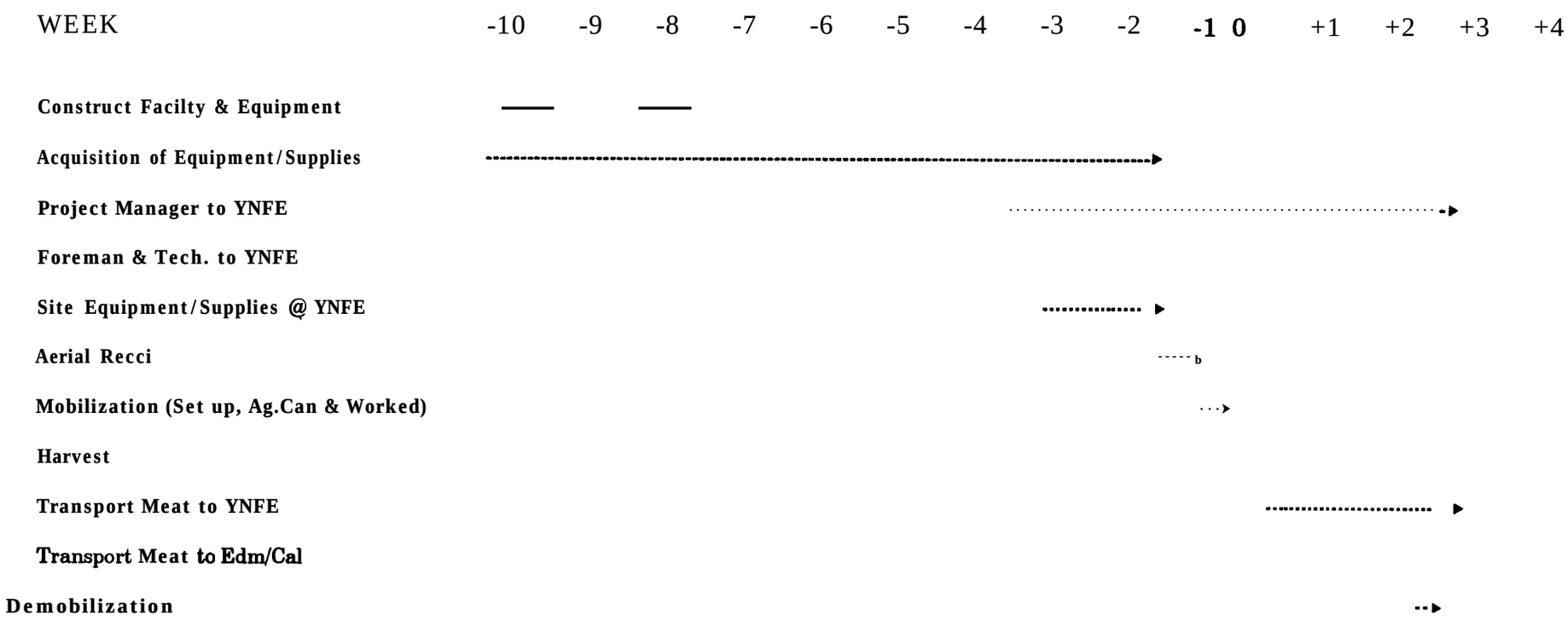
Except for the combo bins and pallets which will remain in Yellowknife and sufficient supplies to start the harvest, other materials supplies will be delivered to the site on the meat trips as they are needed.

Arrangements will have to be made with a trucking company to ensure they will have at least three 40 ft. trailervans available to hold and transport the meat. From Yellowknife the meat must either be shipped directly to a registered processing plant or freezer storage facility.

The field facility is not registered therefore the meat must be inspected and processed at a federally certified plant before it can be offered for m-sale. Agriculture Canada will not provide inspection services unless the meat is intended for export from the territory.

Once the harvest is complete, the inspectors and the majority of the crew will return to Yellowknife however a small crew will be left to complete the demobilization. The equipment will probably be stored in a secure government compound in Yellowknife. (pers. commun. L. Adamson, Regional Superintendent, ED&T)

TIMEFRAME


WEEK
-10
-9
-8
-7
-6
-5
-4
-3
-2
-1 0
+1
+2
+3
+4
Construct Facilty & Equipment
Acquisition of Equipment/Supplies
Project Manager to YNFE
Foreman & Tech. to YNFE
Site Equipment/Supplies @ YNFE
Aerial Recci
Mobilization (Set up, Ag.Can & Worked)
Harvest
Transport Meat to YNFE
Transport Meat to Edm/Cal
Demobilization

9.0 FINANCIAL

9.1 Capital Infhstructure

Processing Facility

The processing facility is an arched beam galvanized metal structure which supports the railing and fabric cover. It is designed to handle 100 carcasses/day however additional ten foot lengths can be added should the level of harvesting increase. The overall dimensions are: 100'(1) x 14'(w) at base x 9'(h). Only 30 feet of it is covered to accommodate the skinning, gutting and inspection while the remaining 70 feet is for freezing and wrapping the carcasses.

Two diesel fired power plants will be utilized to provide electricity for the facility as well as the camp. A single power plant is too heavy to be handled manually and should one plant fail the other can be used alternatively to support the facility and the camp.

The facility will be heated by a Herman/Nelson heater while the sleeping and cooking/dining tent will be heated by electrical space heaters.

Structure and Associated Equipment

1	Processing Facility (metal structure)	$38,800.00
1	Processing Facility (fabric cover)	4,000.00
1	Trim Stand	1,000.00
1	- Skinning Cradle	1,000.00
1	S/S Eviscerating Table	3,300.00
5	S/S Sterilizing Pots (180.00 ea.)	900.00
2	- Roller Hook Stands (375.00 ea.)	700.00
1	- Wrapping Tables	500.00
1	- Head Table	400.00
24	Bent Hooks With Reverse Bend (12.00 ea.)	300.00
2	Rods for removing Rollers (30.00 ea.)	100.00
1	- Hoist Hanger	300.00
1	Model 444 Wellsaw	1,100.00
1	- Model 404 Wellsaw	500.00
2	Wheelbarrows	300.00
	Storage Boxes	500.00
2	Water Storage Tanks	100.00

100	- Rollers with S/S S-Hooks	2,000.00
6	- Rifles with Scopes (223 caliber)	4,000.00
6	- s/s Pails	200.00
	- Steels and Stones	200.00
	- Knives and Scabbards	200.00
5	- Water Heaters (3 pail & 2 permanent)	500.00
100	- Gains	2,000.00
1	- Hand Meat Saw	100.00
1	- Scale	300.00
1	- Fuel Pump	300.00
1	- Propane Tiger Torch	200.00
	- Miscellaneous	2,500.00
		$66,300.00

Heating and Electrical

2	- Generator(s)	$21,000.00
1	- Herman-Nelson Heater	7,500.00
1	- Prime Mover	1,500.00
1	- 6“ x 12' Ducting	200.00
1	- 12” x 12” Ducting	200.00
1	- Mushroom	200.00
1	- Master Heater	1,000.00
	- Electrical boards, harnesses, etc.	2,000.00
		$33,600.00
	Processing Facility Sub	$99,900.00

camp

The camp will be comprised of a large cooking/dining tent and 6 four man double walled sleeping tents. Under the federal MEAT INSPECTION ACT the “client” must supply officials of Agriculture Canada with safe appropriate accommodation and clothing. Because of the limited budget, the Dept. of Renewable Resource will be required to supply their own sleeping accommodation and other equipment/supply needs. Meals, on the other hand, will be prepared at the dining tent for everyone involved in the operation.

A heated toilet facility with wash basins is essential to ensure proper sanitation.

It will be necessary to supply sleeping bags for the contractors and Agriculture Canada officials.

1	- CookingiDining Tent	$8,000.00
1	- Toilet Facility (tent, toilet, etc)	1,500.00
6	- Sleeping Tent(s) "est."	4,000.00
1	- Cook Stove	300.00
12	- Heater(s)	500.00
9	- Sleeping Bags	3,600.00
	- Cooking/eating utensils	300.00
	- Foamies	500.00
	Camp Sub	$18,700.00

Misc. Equipment

1	- Ice Auger	700.00
1	- First Aid Kit	500.00
1*	- H F Radio 4- Shovels	200.00
2	- Sledge Hammers	100.00
2	- Axe(s)	100.00
	- Tool Box and Misc. Tools	500.00
4	- Parka, Boots & Storm Pants (Agric Can)	2,500.00
5	- 5 Gal Fuel Cans	100.00
2	- Storage Tents	1.000.00
	Miscellaneous Equipment Sub	$5,700.00

* The Dept. of Renewable Resources will be requested to provide an HF radio for the camp.

Transport Equipment

A snowmchine committed to transporting the offal, heads, legs and hides to a disposal area is necessary to avoid their accumulating at the plant. They will attract birds and other wildlife - especially foxes of which many are rabid - to the area that could contaminate already inspected meat.

1	- Snowmachine	$4,000.00
1	- Gut Sled	1.200.00
	Transport Equipment Sub	$5,200.00

Freight

Trucking (Edm/Clg to Yk)	$ 5,000.00
EQUIPMENT TOTAL	$133.500.00

9.2 Operating Costs

Supplies

100 - Combo Bins	1,500.00
100 - Pallets	500.00
2,500 - Plastic Bags (carcass covers)	2,000.00
4 doz - Cotton Gloves	100.00
4 doz - Coveralls (Disposable)	500.00
· Groceries	3,000.00
· Ammo	1,500.00
Fuel (Gas, Oil, Propane, etc)	2,500.00
Tarps	200.00
· Miscellaneous	1.000.00
Supplies Sub	$12,800.00

Labour

The harvesting is expected to last 12 days of which there is a two day two allowance in the event of breakdowns or bad weather days. The schedule is based on an average production rate of 50 animals per day.

Contract Persons

1- Project Manager

Procurement	5 days
Organization & Logistics	10
Harvesting/Demobiliz.	15
Post Harvest Report	4
34 days @ $500.00/day	$17,000.00

1- Plant Foreman		
Procurement	3 days	
Mobilization	5	
Harvesting/Demobiliz.	15	
	23 days @ $400.00/day	9,200.00
1- Mech/Elec. Tech.		
Procurement	2 days	
Mobilization	5	
Harvesting/Demobiliz.	15	
	22 days @ $300.00/day	6,600.00
1- Gutter		
Harvesting	12 days	
	12 days @ $300.00/day	3,600.00
2- Skinner(s)	12 days	
2 x 12 days @ $200.00/day		4,800.00
1- Cook		
15 days @ $175.00/day		2,625.00
		$43,825.00

Local Hire

The hunters are paid on the basis of $20.00/caribou. They are required to supply their own snowmachines, toboggans, and camp gear including tents which is reflected in the rate they are paid. Gasoline, engine oil, rifles and ammunition and meals will be provided for. One of the hunters will be paid an additiona3 $1.00/caribou as the hunting foreman.

Other local workers will be paid at the rate of $150.00/day but will be required to provide their own bedding.

6/8	- Hunters	500 animals @ $20.00 ea.	$10,000.00
		500 animals @ $1.00 ea.	500.00

1	- Gut Person	12 days @ $150.00/day	1,800.00
2	- Trimmer(s)	2 x 12 days @ $150.00	3,600.00
2	- Wrapper/Packer	12 days @ $150.00	3,600.00
1	- Cook Help	12 days @ $100.00	1,200.00
1	- Gut Truck	12 days @ $150.00	1,800.00

An additional 6 days @ $150.00/day is included to allow for time spent at setting up the camp etc.

	6 days @ $150.00	900.00
		$23,400.00

Agriculture Canada "overtime chgs only"

1	- Regional Vet. Supervisor	
1	- Veterinarian	
2	- Inspectors	
		$2,500.00
	Labour Sub	$67,725.00

Travel and Accommodation - Return airfares to Yellowknife

1	- VT/YNFE/VT	$1,400.00
1	- PCT/YNFE/PCT	1,200.00
1	- CGY/YNFE/CGY	1,000.00
2	- EDM/YNFE/EDM	1,600.00
1	- **INK/YNFE/INK**	800.00
		$6,000.00

Transportation to harvest site

1	- Twin Otter flight	$1,600.00

Accommodation @ Yellowknife

Project Manager:	15 days @ $175.00/day	$2,625.00
Plant Foreman:	5 days	875.00
Mech/Elec Tech:	5 days	875.00
Gutter	2 days	875.00
Skinner	2 days x 2	1,750.00
Cook	2 days	875.00
		$7,875.00
	Travel & Accommodation Sub	$15,475.00

Freight

In-bound: Yellowknife to harvest site

The in-bound freight is estimated at 10,000 pounds. A Twin Otter on skis has an in-bound load capacity of 2,800 pounds.

3 flights @ $1,600.00 ea.	$4,800.00

Out-bound: harvest to Yellowknife to Edmonton

Air Charter

Based on a planned harvest of 500 caribou the gross yield is estimated at 50,000 pounds. With an out-bound load capacity of 3,200 pounds (based on 120 air miles) it will require approx. 16 Twin Otter flights to transport the meat to Yellowknife.

16 flights @ $1600.00 ea.	$25,600.00

Similar to the in-bound estimate 3 flights are required to re-locate the equipment back to Yellowknife.

3 flights @ $1,600.00	$4,800.00

Trucking

A 40 ft. trailer van has the floor capacity to haul 20 pallets of meat. At approx. 800 pounds per bin/pallet this amounts to 3 trailer loads to move 50,000 lbs.

3 hauls @ $2,000.00/trip	$ 6.000.00
Freight Sub	$36.400.00
Aerial Survey	$ 2.500.00
TOTAL OPERATING	$136,900.00
GRAND TOTAL	$270,400.00

10.0 **MARKET CONSIDERATIONS**

The national and international demand for caribou meat is signifbnt. In 1991 the Umayot Corporation, who conducted the first federally inspected caribou harvest in the NWT, sold their entire production of approx. 20,000 pounds of Hotel/Institution/Restaurant (HIR) cuts within a 90 day period to distributors and retailers in the USA and Canada. Most of the distributors were also required to purchase a quantity of muskox along with the caribou meat.

Selling Price Range

Prices ranged from $2.75 for trim to tenderloin at $23.10/lb. It is estimated that 1993/94 prices would be 10 to 15% higher. (Pers. comm. R. Raynor, President, Canadian Chefs Association).

Net Yield

The average net yield from a carcass converted into HIR cuts is about 6090 of the streamlined carcass weight. Based on an estimated gross yield from this harvest of about 50,000 lbs-the net yield is therefore estimated to be 30,000 lbs.

The net yield/cut however is impossible to forcast as the kind or kinds of cuts produced from each carcass is dependant upon its size. For example, the loins of a small animal are prepared as either a short loin, long loin or saddle (which all include the backbone) whereas; in a larger animal the backbone is removed to produce a striploin and tenderloin.

Some typical HIR cuts are:

- Hips (bone-in)
- Saddles
- Striploin
- Tenderloin
- Ribeye
- Shoulder clods (netted)

In spite of size restrictions, the demand for certain cuts of meat will also dictate how the carcass is broken down. Only previous experience at marketing caribou meat or a thorough market analysis will allow one to know beforehand how to best butcher the meat and achieve its maximum value. This knowledge

is important, as the type of packaging employed at the harvest site is not appropriate for long term freezer storage. AU the meat therefore must be processed and vacuum sealed as soon as possible to retain its quality.

Sale Options

Assuming that the Dogrib Game Corporation is not prepared to incur the added cost of processing, packaging and storage, the only viable option is to sell the carcasses to an established game meat distributor. An experienced source has its apparant advantages:

* a distribution network with existing knowledge of game meat products;

* an established customer base familiar with existing knowledge of game meat products and the credibility of its supply;

* a ready means to market introduction through a developed marketing program;

* a firm knowledge in product preparation, packaging, pricing and customer education.

There are many distributors in Canada and especially the USA interested in marketing pre-cut and packaged meat. However, given the risks associated with having to predict the demand for each potential cut of meat before processing, an inexperienced firm is highly unlikely to show interest in purchasing carcasses.