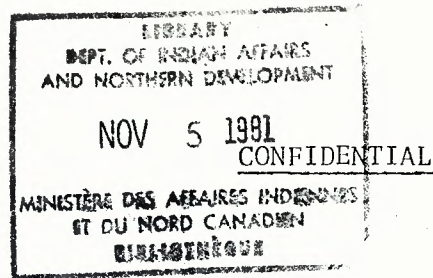


PME EVALUATION OF  
THE SANDY LAKE FORESTRY OPERATIONS  
SANDY LAKE, ONTARIO  
(INDIAN-ESKIMO AFFAIRS)

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(INDIAN-ESKIMO AFFAIRS)

Program Management Evaluators:

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PME No. 3(I)-1972  
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## I. INTRODUCTION

### 1.1 Background

1. One of the objectives of the Forestry Program is to facilitate Indian endeavours to establish, own and operate viable primary extraction enterprises. In order to identify the effectiveness and efficiency of these enterprises, the Director of the Indian-Eskimo Economic Development Branch requested Program Management Evaluation to undertake the evaluation of certain of these forestry operations, including the one located at the Sandy Lake Reserve, Sandy Lake, Ontario.
2. The Indians located at Sandy Lake Reserve are of the Deer Lake Band. Sandy Lake, Ontario, is approximately 220 miles due north of Sioux Lookout (see Appendix "A"). The Sandy Lake settlement has a population of approximately 1,000 people. The settlement is completely isolated except by service from float or ski equipped aircraft and by a winter road over which a cat train brings in supplies from Island Lake Manitoba, or Red Lake Ontario, during the winter months.
3. The original sawmill at Sandy Lake was departmental owned, but the expense in trying to maintain the mill became prohibitive and the mill was subsequently closed down. The mill evaluated was a mill owned by Mr. C. Brotherstone of Sandy Lake who had brought the mill in from Spirit Lake, Ontario as a business venture. Mr. Brotherstone has an agreement with three of the

local Indian people who refer to themselves as J.S.J. Lumber Enterprises. The agreement is that they can operate the mill without rent except that when Mr. Brotherstone requires lumber for any personal use, they provide him with the lumber free of charge. They are responsible for repairs and maintenance of the mill from their profits of lumber sales to the Band or the Department.

4. Mr. Brotherstone has expressed a desire to sell the mill to the three Indians for \$2,000.00 and the District Office has indicated that they are prepared to support this venture. However, former efforts to provide the funds through a training course being run at the mill and the sale of lumber produced by the course failed to achieve this objective. At the time of this review the mill was still under the ownership of Mr. C. Brotherstone and no transfer of funds or bill of sale had taken place. There is also a proposal by the Band to take over the mill and operate it as a Band owned enterprise. This proposal will be discussed further in this report.

#### 1.2 Scope

1. The purpose of this evaluation was to analyze and assess the existing logging and milling project at Sandy Lake in order to establish its efficiency and effectiveness as a basis for future policy planning and decision making. The emphasis has, therefore, been placed on determining the economic viability

of the operation and isolating the significant variables restricting maximum output at minimum cost, rather than attempting to optimize output.

2. The Sandy Lake Reserve is administered by the Sioux Lookout District and this forestry project was evaluated in conjunction with all other mills located in the Sioux Lookout District. The Team made a detailed visit to Sandy Lake on August 28, 1972. During this visit the Team was accompanied by the departmental Development Officer located at Sandy Lake. Discussions were held with Mr. C. Brotherstone, the owner of the sawmill, as members of the Band who were engaged in the actual lumbering operations were not available at the time of the review. Information concerning the wood supply was obtained from Ministry of Natural Resources, Sioux Lookout, Ontario District Offices.
3. A standard format prepared by the Laurentian Institute, consisting of a questionnaire and model, has been prepared for the Sandy Lake lumbering operation and is attached as Appendix "B" to this report. Some minor modifications have been made to the format due to the lack of certain statistics and the accounting methods carried out at the site of the operations and at the Sioux Lookout District Offices.

### 1.3 Acknowledgement

1. The PME Team wishes to acknowledge the assistance provided to it by the Toronto Regional Office, the Sioux Lookout District, the Thunder Bay Regional Offices of the Ontario Ministry of Natural Resources, and the Sioux Lookout District Office of the Ontario Ministry of Natural Resources.

## II. DISCUSSION

### 2.1 Wood Supply

1. An estimate of the total forested area of the Sandy Lake settlement within a 10 mile radius of the mill was obtained from the Ontario Ministry of Natural Resources, Sioux Lookout District, based on an average square mile of area for that particular type of terrain (see Appendix "B" to this report). An average square mile of area consists of 50% productive forest, 20% non-productive land, and 30% water. Of the 50% productive forest, white and black spruce comprise 60% of the forested land, varying from young trees through immature to mature trees. Fifteen per cent of the forest consists of Jack Pine and another 15-20% is covered with white and black poplar. The remainder consists of small stands of birch and fir. Of all of the above species, 98% of the trees cut by the Indians is mature spruce; the other 2% is mature Jack Pine. All timber is on Crown land, but no attempt has been made by the Ontario Ministry of Natural Resources



to collect stumpage fees. For all intents and purposes the timber is free to the Indians for their use, and the Province has no plans at present to change this situation.

2. Logging is conducted during December, January, February and March. A constraint to the logging operation is the severe cold weather of January and February. By the time the weather is suitable for logging, the snow is usually 5 to 6 feet deep, making it extremely difficult to get the logs out of the bush and down to the frozen surface of the Lake. The J.S.J. Enterprise does not have the heavy equipment which will permit them to haul logs from any great distance in the bush. Therefore, they have been forced to cut their timber requirement within 200 to 300 feet of the water's edge. Mature timber is still available along the shores of the Lake although the Indians now have to go approximately 6 to 7 miles distance from the mill to obtain it. It should also be borne in mind that each year the Indians have to go further away to get the timber they need. In order not to lose the perspective of the wood supply situation, it should be further noted that good stands of timber, sufficient to satisfy the settlement's needs for the next five years, are available within three to five miles of the mill. However, these stands are not accessible to water and, therefore, they are not considered as an available timber source by the Indians.

## 2.2 Facilities

1. The sawmill is located on the shore of the Lake about one mile east of the main settlement. The head saw and carriage are protected from the weather by a rough but adequate building. There are also two other buildings on the site, a tool shed and a heated bunk house in which the men can eat their lunch and get warmed up in the winter (see Appendix "C").
2. The items of equipment consist of the following:
  - (a) Head Saw & Carriage : Belsaw Machinery Co. (good condition)
  - (b) Motor: Wisconson Model VF4H (good condition)
  - (c) Small Planer: Belsaw Machinery Co. (fair condition)
  - (d) Tools: Extra blades, belts, etc.

(The above items belong to Mr. C. Brotherstone and are valued at \$2,000.00)

  - (e) Motor: Wisconson Model VF4H (good condition)  
owned by the Department but moved to the Brotherstone mill from the original mill site during the training course run in 1971-72. The current value of this motor is \$350.00.
3. The average annual production over the past five years is not accurately known. However, Mr. Brotherstone stated that the present output is 75,000 f.b.m. per year and has been close to that figure since he moved the mill to Sandy Lake. Based on the number of houses that have been constructed at Sandy Lake over the past five years, plus other government construction of schools, nursing stations, etc., an estimated 75,000 f.b.m. is acceptable.

4. The cost of producing rough lumber, according to Mr. C. Brotherstone, from the logging to the sawing stage is \$100.00 per M. Planing the lumber to the finished board costs an additional \$25.00. The cost of bringing in finished lumber from outside sources is approximately \$398.00 per M of which \$179.20 is transportation charges.
5. Discussions with Mr. Brotherstone regarding the operations indicated that the main constraint to a higher production figure is the need for a skidder for the logging operation and a larger planer, such as the ALCO planer, which would permit the operator to set up the machine to plane all four sides in one operation. With these two pieces of equipment there is no reason (in his estimation) why the production figures could not increase to a minimum of 300,000 f.b.m. per year.

### 2.3 Markets

1. At the present time, there are no outside markets for any lumber produced by the mill. Suitable finished lumber is used in house construction, schools, nursing stations, and other government building projects; the remainder is used for the construction of docks, sheds, fences and boardwalks. At the time of evaluation there was an estimated 10,000 f.b.m. of unplanned lumber undergoing seasoning. There were less than 25 logs at the mill site awaiting sawing.

2. The Team was advised that 12 houses are planned for the Sandy Lake Reserve for 1973-74 and an estimated 90,000 f.b.m. will be required. In addition, there is an annual requirement of approximately 10,000 f.b.m. of rough lumber for reserve needs for docks, sheds, sidewalks, etc. The total market for lumber in this area is, therefore, assessed at 100,000 f.b.m.

#### 2.4 Finance

1. For the past five years the logging and sawmill operation was financed primarily through the Economic Development Branch of IA&ND and the lumber produced by the mill was turned over to Indian housing or to meet other reserve needs. This turnover of materials has been done without any official transfer of funds. As a result it has been impossible to budget for the lumbering operation as a separate item and therefore the PME Team was unable to assess past operations. This situation has been rectified as of the beginning of the new fiscal year, and finances required for sawmill operations or the purchase of lumber from the Band mills are now kept under separate file.
2. The charges shown at the Sioux Lookout District Offices for sawmill operations for Sandy Lake were expenses as a result of the training course which was run at the Brotherstone mill. The Department did, however, show that \$4,365.45 was spent on the purchase of lumber from Mr. Brotherstone's mill during 1971-72. This would amount to approximately 17,500 f.b.m.

3. The PME Team was able to establish that finished lumber brought in to Sandy Lake from outside markets including transportation to Sandy Lake costs approximately \$445.00 per M f.b.m.; that the cost of producing finished lumber at the J.S.J. Lumber Enterprise is approximately \$125.00 per M f.b.m.; and, that lumber purchased from the J.S.J. Lumber Enterprise (Brotherstone mill) was purchased by the Department at \$250.00 per M f.b.m. We are, therefore, able to deduce that the operators of the Sandy Lake sawmill should be able to appreciate a profit of approximately \$125.00 per M f.b.m. with the present sawmill facilities, and that finished lumber purchased from the Sandy Lake mill for \$250.00 results in a saving to the Department of approximately \$195.00 per M f.b.m.
4. Since the PME Team was unable to obtain actual operating costs from Mr. C. Brotherstone, it was unable to construct a break even chart for the Sandy Lake forestry operation as it exists at present. However, a break even chart was developed for the mill, using average costs for mill operations as observed by the PME Team for mills of comparable size in Northern Ontario (see Appendix "D"). A projected break even chart was also developed for the mill, assuming that a skidder and larger planer have been purchased for the logging and sawmill operations.

## 2.5 Sandy Lake Proposal

1. The Deer Lake Band submitted a Band Council Resolution to the Acting Regional Director, Ontario, dated June 20, 1972 (see Appendix "D") proposing that the Department of Indian Affairs and Northern Development budget \$16,306 for the operation of the J.S.J. Sawmill at Sandy Lake. The proposal was forwarded to the Sioux Lookout District Officer with comments by the Chief Forestry Officer (Economic Development Branch) Ontario Region. The Chief Forestry Officer pointed out that the information contained in the BCR was incomplete and requested the District Office to provide the Region with specific information which would permit them to prepare a cash flow statement and make recommendations. In turn, the PME Team was asked by the District to examine and comment on the feasibility and viability of this proposal.
2. In the opinion of the PME Team the Deer Lake Band Council resolution requesting that \$16,306 be deposited in the band at Sioux Lookout in the name of Mr. Joshua Fiddler, the head of the J.S.J. Lumber Enterprise, is unethical and outside of the jurisdiction of the Department to so do. It is the opinion of the PME Team that as no formal agreement or lease exists between Mr. Brotherstone and the J.S.J. Lumber Enterprises, it would be unwise for the Department to provide funds to Mr. Joshua Fiddler to finance the forthcoming years operations. There is nothing however, to prevent the Department from budgeting sufficient funds to be able to purchase from the J.S.J. Lumber Enterprise



the lumber required for the construction of 12 houses and other band needs for the 1972-73 construction season. In this instance, as with other bands, the money should only be paid at a rate of \$250.00 per M f.b.m. as the finished lumber is produced and is available on site.

3. Attached as Appendix "D", Annex "I" and Annex "II" respectively, are the production analyses of the J.S.J. Lumber operation as being conducted at present, and the proposed forestry operation if additional equipment were available.

#### 2.6 Purchase of the Sandy Lake Sawmill

1. As an alternative to the above method of financing, the Department should consider loaning the three Indians who comprise the J.S.J. Lumber Enterprise sufficient funds to permit them to purchase the mill and conduct a year's logging and sawmill operation. The J.S.J. Lumber Enterprise has proven experience in the logging and sawmill operations and only requires training in the administrative aspects of the conducting of small businesses, e.g. proper record keeping and financial affairs. If after a year of operating, the J.S.J. Lumber Enterprise proves to the Department that they are capable of conducting a viable operation on their own, the Department should then consider loaning them sufficient monies to purchase a small used skidder, a new Alco or similar planer, an edger and a Jack Ladder or system of pulleys and cables, to permit them to capture 100 per cent of the potential market at the settlement.

2. As a second alternative, the Department might consider the purchase of the mill from Mr. Brotherstone with the view to turning it over to the Band as a Band operated enterprise. If this is done, the mill should be retained at its present level for at least three years or until sufficient time has elapsed for the Band to gain experience in sawmill operations and are able to prove that they have the ability to operate the mill as a viable operation. According to the present owner of the sawmill, in his opinion, the Band is incapable at the present time of operating the sawmill in an efficient manner, owing to poor administration practices and lack of experience in sawmill operations.
3. To safeguard the Department's investment in the Sandy Lake Sawmill operation, the District should continue to purchase all finished lumber which meets the specifications for house construction and to utilize wherever possible rough lumber produced by the mill.

### III. CONCLUSIONS

1. The departmental sawmill at Sandy Lake is no longer in existence. The mill evaluated by the PME Team was owned by a non-Indian by the name of Mr. C. Brotherstone. Mr. Brotherstone has a verbal agreement with three Indians of the Sandy Lake settlement to operate the mill under the name of J.S.J. Lumber Enterprises.



2. Forest surveys have not been conducted in the Sandy Lake area. However, personal observation by the PME Team indicates that there are sufficient stands of good mature white and black spruce within a 10 mile radius of the mill site to fill any known requirement of this settlement for the next five years.
3. The Indians are forced to cut logs within 200-300 feet of the water's edge because of the lack of heavy equipment to haul the logs out of the forested areas to the water's edge. This constraint requires the Band to go further afield each year to obtain good timber. Nonetheless, there is sufficient timber along the shoreline of the Lake to fulfill the Band's needs for the foreseeable future.
4. There is an adequate supply of labour semi-skilled in the forestry operation. Local management is inexperienced in other than small enterprises.
5. The lumber currently being produced at Sandy Lake is good lumber but due to inaccuracies in sawing and planing the finished material is not always suitable for house construction. Therefore, the Department will have to continue to import lumber from outside sources to make up for whatever cannot be produced at Sandy Lake.
6. The sawmill equipment is in good condition and is capable of producing good rough lumber. However, because of the size and age of the planer, inaccuracies exist in the finished product.

There is also a lack of equipment designed to reduce manual labour and thus improve the efficiency of the mill, e.g. the use of a Jack Ladder, or system of pulleys and cables, to haul the logs from the Lake to the saw carriage, edgers, trimmers, etc.

7. An annual market of 100,000 f.b.m. exists at Sandy Lake.
8. If the sawmill was purchased by the Department and turned over to the Band as a Band owned and operated venture, the lack of experience of the Band members in sawmill operations plus the size of the market they would be able to capture would create too high a risk factor to justify the acquisition of additional equipment at this time. Therefore, the mill under these circumstances should be retained at its present level.
9. If the Department were to look with favour on loaning the J.S.J. Lumber Enterprise sufficient funds for the purchase of the sawmill and to conduct their first year's operations as a privately owned venture, then, because of the experience of this group of Indians, the Department should also consider, after a year's successful operation, loaning them sufficient monies to permit them to purchase a small skidder and larger planer, an edger and a Jack Ladder or system of pulleys and cables, thus enabling them to improve the efficiency of both their logging and planing operations and be in a better position to capture 100 per cent of the total potential market.

10. The sawmill at Sandy Lake at present operated by the J.S.J. Lumber Enterprises, is a viable operation.

IV. RECOMMENDATIONS

*It is recommended that:*

- (a) the Department consider loaning the J.S.J. Lumber Enterprise sufficient funds to permit them to purchase the Brotherstone sawmill and to conduct their first year's operation;*
- (b) a further loan be made to the J.S.J. Lumber Enterprise after one year's successful and profitable operation to enable them to purchase additional equipment to upgrade their operation; and,*
- (c) to protect the Department's investment in the Sandy Lake sawmill operation, the Sioux Lookout District should continue to purchase all finished lumber which meets the specifications for house construction and to utilize wherever possible all the rough lumber produced by the mill.*



## APPENDIX "A"



SANDY LAKE, ONTARIO

QUESTIONNAIRE AND MODEL TO ASSESS ECONOMIC VIABILITY  
OF DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT'S  
OWNED AND/OR OPERATED FOREST ENTERPRISES



ECONOMIC VIABILITY OF DEPARTMENT OF INDIAN AFFAIRS  
AND NORTHERN DEVELOPMENT'S OWNED  
AND/OR OPERATED FOREST ENTERPRISES

---

Total Reserve Area -- 10,541 Acres

I. WOOD SUPPLY (POTENTIAL)

1. On-Reserve

(a) Total forested area ..... 9,697 acres

(b) Total accessible forested area ..... 9,697 acres

(c) Forest distribution (acres)

Cover Type	Mature Acres	Immature Acres	Young Acres	Total
Softwood	843	4,954	948	6,745
Mixedwood	422	2,319		2,741
Hardwood		211		211
Total	1,265	7,484	948	9,697

(d) Species composition -- percentage estimates from mill run if inventory not available.

Black Spruce .....	}	60%
White Spruce .....		
Jack Pine .....		15%
Balsam Fir .....		1%
White Poplar .....		15%
Black Poplar .....		3%
White Birch .....		6%
		<u>100%</u>

- (e) Cords per acre: estimates using forest distribution table in (c).

<i>Cover Type</i>	<i>Mature Acres</i>	<i>Immature Acres</i>	<i>Young Acres</i>	<i>Total</i>
<i>Softwood</i>	<i>Not available by acreage distribution. Estimated only by average sq. mile based on 50% productive forest.</i>			<i>60 %</i>
<i>Mixedwood</i>				<i>25 %</i>
<i>Hardwood</i>				<i>15 %</i>
<i>Total</i>				<i>100 %</i>

- (f)

	<i>White &amp; Black Spruce</i>	<i>Jack Pine</i>	<i>White Poplar</i>
<i>Age at Maturity</i>	<i>130</i>	<i>100</i>	<i>80</i>
<i>Height at Maturity</i>	<i>55-60</i>	<i>55</i>	<i>55</i>
<i>Mean Annual Increment, cu.ft./acre</i>	<i>Less than 15 cu.ft. per acre (softwood)</i>		

- (g) Estimate in acres any significant losses due to fire, insects, blowdown, etc. and the year of occurrence.

- (h) Estimate annual cut in past 5 years.

-- *Information not recorded.*

(i) Estimate annual cut for next 5 years.

2. Off-Reserve (information based on the average square mile)

(a) Ownership      --      Crown ..... ALL square miles  
                          --      Private ..... NIL square miles  
                          --      Water ..... 30%

(b) Is there a possibility of obtaining cutting rights, and if so, what would be the contractual basis?

-- *Yes, Ontario Provincial Government, short term timber license of 3-5 years.*

(c) Total forested area.

-- *50% productive, 20% non-productive*

(d) Total accessible forested area.

-- *Only accessible to Reserve by water*

(e) Forest distribution (acres)

Cover Type	Mature Acres	Immature Acres	Young Acres	Average Sq. Miles
Softwood	<i>Not available by acreage distribution. Estimate given by average sq. mile, 60% productive</i>			60 %
Mixedwood				25 %
Hardwood				15 %
<i>Total</i>				100 %



- (f) Species composition -- percentage estimates from mill run if inventory not available.

Black Spruce .....	}	60 %
White Spruce .....		
Jack Pine .....		15 %
Balsam Fir .....		1 %
White Poplar .....		15 %
Black Poplar .....		3 %
White Birch .....		6 %
		<u>100 %</u>

- (g) Cords per acre: estimates using forest distribution table in (e).

Cover Type	Mature Acres	Immature Acres	Young Acres	Average Net Perchantable Cords Per Productive Acre
Softwood	Not available by age distribution			13
Mixedwood				13
Hardwood				13
Average				13

- (h)

	Black & White Spruce	Jack Pine	Aspen
Age at Maturity	130	100	80
Height at Maturity	55-60	55	55
Mean Annual Increment, cu.ft./acre	Less than 15 cu.ft. per acre (softwood)		

- (i) Estimate in acres any significant losses due to fire, insects, blowdown, etc. and the year of occurrence.

-- *No Records kept.*

- (j) Estimate annual cut in past five years.

-- *Departmental Records too inaccurate for proper analysis*

- (k) Estimate annual cut for next five years.

-- *As above.*

## II. FOREST MANAGEMENT (ON-RESERVE)

### 1. Inventories & Plans

	Completed		In Process	
	Yes	No	Yes	No
(a) Photo - reconnaissance	Yr. Completed 1968		Yr. to be Completed	
(b) Survey - with field work		XX		
(c) Management plans and/or recommendations		XX		
(d) Operating plans		XX		
(e) Sponsoring Agency				

Fed. Govt. \_\_\_\_\_ Prov. Govt. \_\_\_\_\_ Band \_\_\_\_\_ Private \_\_\_\_\_

2. Silviculture -- past five years

(a)

Treatments	Acres Treated	Species Involved	Age Trees	Year Treated	Objectives of Treatment	Est. Cost Per Acre
Seeding						
Planting						
Cleaning						
Thinning			- - -	N I L	- - -	
Pruning						
Fertiliza- tion						
Other -- specify						

(b) Sponsoring Agency

Fed. Govt. \_\_\_\_\_ Prov. Govt. \_\_\_\_\_ Private \_\_\_\_\_ Band \_\_\_\_\_

(c) Are treatments required on the reserve at the present time?

-- N/A

(d) If so, what are the priorities?

-- N/A

(e) If so, what is the purpose of this treatment?

-- N/A

- (f) Are there any treatments schedules for the next five years?  
If so, fill out table as in (a).

Treatments	Acres Treated	Species Involved	Age Trees	Year Treated	Objectives of Treatment	Est. Cost Per Acre
Seeding						
Planting						
Cleaning						
Thinning			- - -	N I L	- - -	
Pruning						
Fertiliza- tion						
Other -- specify						

- (g) In your opinion, what sectors of a forest management plan should receive short term priority?

- i) Growing Stock: *(Last Priority)*
- protection ..... \_\_\_\_\_
- regulation ..... \_\_\_\_\_
- silviculture ..... \_\_\_\_\_
- ii) Transportation: *(Second Priority)*
- road development ..... \_\_\_\_\_

iii) Markets: (First Priority)

product research ..... \_\_\_\_\_

promotion advertising ..... \_\_\_\_\_

iv) Other:

please elaborate ..... \_\_\_\_\_

### III. WOOD PROCUREMENT

#### 1. Questions

(a) Where is the wood being cut at the present time?

-- On-reserve \_\_\_\_\_ distance from point of sale\*  
\_\_\_\_\_ miles.

-- Off-reserve XX distance from point of sale\*  
5 miles.

(b) If wood is extracted from off of the reserve, what arrangements regarding cutting rights have been made with the owners and who are the owners? What are the terms of the contract in respect of:

- NIL -

Stumpage fees ..... NO per annum

Tenure (length contract) ..... \_\_\_\_\_ years

Date commenced ..... \_\_\_\_\_ mo./yr.

Date to be terminated ..... \_\_\_\_\_ mo./yr.

Renewable options - elaborate .... \_\_\_\_\_

---

\* If wood utilized on reserve, distance will be to mill site.

(c) Is the current operation conducted on a seasonal basis?

-- *Yes, four months, December, January, February, March.*

(d) What has been the average number of months in operation over the past five years?

-- *Three Months*

(e) Do you think that the operation could be improved by further mechanization or modernization?

-- *Yes*

(f) If yes, what type of changes would you recommend?

-- *There is a need for a small skidder or Cat. to move the logs to the water's edge.*

(g) How would you expect this to affect employment and production?

-- *Triple*

(h) What in your opinion are the most significant variables working against minimizing production costs on this operation?

Check below: --

Labour:

- |     |                          |                 |
|-----|--------------------------|-----------------|
| i)  | Skill level - low .....  | _____           |
|     | - medium .....           | _____           |
|     | - high .....             | _____ <i>XX</i> |
| ii) | Low wages or rates ..... | _____           |

- iii) Lack of motivation ..... NO
- iv) Unavailable on a continuous basis .....
- v) Other - specify .....

Management:

- i) No or poor leadership ..... FAIR
- ii) No incentives given to labour ... ..
- iii) No training provided ..... Training was provided - 1971-72.
- iv) No cost control ..... XX
- v) No production control ..... XX
- vi) Other - specify .....

Equipment:

- i) Antiquated equipment thus high maintenance costs and low productivity ..... SMALL ANTIQUATED
- ii) Non-integrated system ..... NO

Logging Chance:

- i) Terrain ..... GOOD
- ii) Small Wood .....

- iii) Bad environment - specify ..... \_\_\_\_\_
- iv) High transportation cost ..... \_\_\_\_\_
- v) Other - specify ..... Logging along water's edge.

- (i) What is your estimate of the potential output per month if the two most significant constraints were eliminated?

-- 75,000 f.b.m. per month

- (j) Is it feasible to eliminate these constraints?

-- Yes

- (k) If so, what should be done and what would be the approximate cost?

-- *Nothing should be done until the enterprise is taken over by the Indian people and proven to be a profitable and viable operation. Then consideration should be given to loaning the enterprise sufficient monies to purchase a small used skidder or cat for their logging operation.*

- (l) Estimate how this would affect production, operating costs, and employment.

-- *Triple production  
Operating costs would remain relatively stable  
Double employment.*

#### IV. WOOD PROCESSING

- (a) Where is the wood being acquired for the mill at present?

-- On-reserve ..... %

-- Off-reserve ..... 100 %

- (b) If the wood is acquired off the reserve, from whom is it purchased and at what price?

-- *Free, Ontario Government.*



- (c) Is the present operation conducted on a seasonal basis?  
Specify months in operation.

-- *Twelve months a year*

- (d) What is the average number of months worked per annum?

-- *Six months*

- (e) Do you think that the operation could be improved by further mechanization or modernization?

-- *Yes*

- (f) If yes, what type of changes would you recommend?

-- *Better edger would improve situation. Also planer is not capable of producing finished lumber cut to proper specification.*

- (g) How would you expect these changes to affect employment and production?

-- *Double employment  
Double production*

- (h) What in your opinion are the most significant variables working against minimizing production costs on this operation?

Check below: --

Labour:

- |     |                          |                 |
|-----|--------------------------|-----------------|
| i)  | Skill level - low .....  | _____           |
|     | - medium .....           | _____ <i>XX</i> |
|     | - high .....             | _____           |
| ii) | Low wages or rates ..... | _____           |

- iii) Lack of motivation ..... NO
- iv) Unavailable on a continuous basis ..
- v) Other .....

Management:

- i) No or poor leadership ..... Good Management  
from Skill aspect.
- ii) No incentives given to labour .....
- iii) No training provided ..... Training was pro-  
vided 1971-72
- iv) No cost control ..... XX
- v) No production control ..... XX
- vi) Other .....

Equipment:

- i) Antiquated equipment thus high  
maintenance costs and frequent  
downtime ..... SMALL ANTIQUATED
- ii) Non-integrated system ..... NO
- iii) Other .....

Sawing Chance:

- i) Large wood ..... GOOD
- ii) Small wood ..... \_\_\_\_\_
- iii) Bad environment - specify ..... NO
- iv) Other ..... \_\_\_\_\_

- (i) What is your estimate of the potential output per month if the two most significant constraints were eliminated?

-- 50,000 f.b.m. per month  
Present output 75,000 f.b.m. per year.

- (j) Is it feasible to eliminate these constraints?

-- Yes

- (k) If so, what should be done and what would be the approximate cost?

-- Provide a loan to the J.S.J. Lumber Enterprise to purchase the mill for \$2,000.00. An ALCO planer for \$9,600 (plus transportation) and \$1,000 for the installation of a Jack Ladder or system of pulleys and cables to reduce manual labour at the mill sit

- (l) Estimate how this would affect production, operating costs, and employment.

-- Triple production  
Slight increase in operating costs  
Major increase in capital costs  
Employment would double

- (m) What do you think or understand were the objectives of setting up the operation in the first place?

-- To provide employment  
-- To provide local lumber

(n) Do you think these objectives are good or sound objectives?

-- *Yes*

(o) If no, what do you think the objectives should be?

--

(p) If yes, do you think that the objectives are being met?

-- *Yes*

(q) Are there other opportunities which would employ as many or more people at the same level of capital investment? Please elaborate.

-- *Fishing, Hunting and Trapping, Government Work.*

(r) Do you think that the current operation or investment represents the best opportunity in lieu of the benefits (monetary and social) received by the people involved?

-- *Yes*

(s) If answer to (r) is yes, what improvements could be made in the current operation? Please elaborate.

-- *Additional equipment; Planer and Edger*

(t) If answer to (r) is no, what alternate investment would you recommend?



(b) To whom is this sold and at what price per 1,000 f.b.m.?

(c) Do you anticipate a potential (next five years) market off the reserve?

-- NO

(d) If answer to (c) is yes, where and at what price per cord or M f.b.m.?

(e) Who are or would be competitors?

-- Outside markets -- Kenora, Ontario; Winnipeg, Manitoba

(f) Can the proposed operation compete without government subsidization?

-- No, need to subsidize providing they are given a contract.  
Long term loan.

(g) If no, list main reasons why it cannot compete.

(h) Are there institutional constraints restricting sales off the reserve? If yes, please specify.

-- NO

(i) Do you think local industry would guarantee purchases of wood or timber on an annual or monthly basis?

-- Yes

(j) What are the estimated requirements for wood?

-- *Minimum of 100,000 f.b.m.*

Volume (f.b.m.)

1971-72

1973-75

i) Local (reserve or settlements)

houses

60,000

375,000

docks

fishing camps

40,000

125,000

other

ii) Other Government Agencies

education - schools

health and welfare

-- hospitals

other

iii) Export (off-reserve)

industry - mines

- mills

- tourists

consumer - briquettes,  
decorations

Total five year requirements - volume (f.b.m.)

500,000 f.b.m.

Total value of requirements (estimated)

\$125,000

The following questions relate to marketing management.

(a) Has there been any attempt to market the product via advertising, promotion or other commercial media?

-- NO

(b) If yes, what are the approximate costs?

(c) In your opinion, has this promotion been effective?

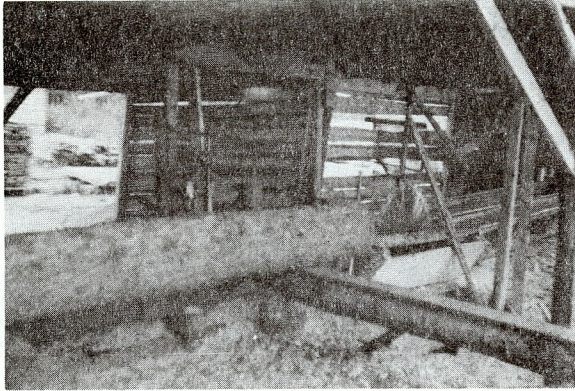


GENERAL INFORMATION

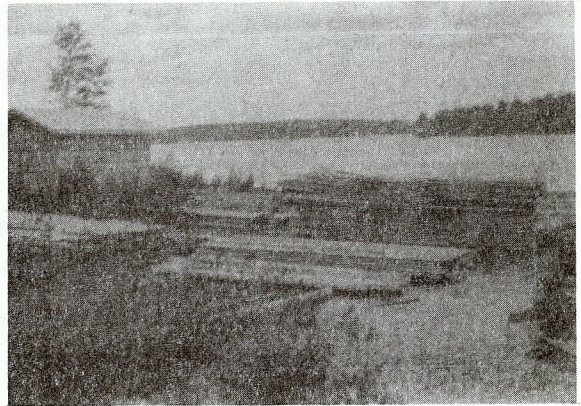
The purpose of this section is to yield information on the physical and cultural setting within which the forestry operation exists.

1. Area Name: *SANDY LAKE*
2. Agency: *SIOUX LOOKOUT*
3. Total Area: *17 SQUARE MILES*
4. Population: *1,000*
5. Number of Family Units: *170*
6. Number Children Per Family: *6*
7. Labour Force: *150*
8. Ethnic Origin: *OJIBWAY*
9. Net Income Per Family: *\$3,600*
10. Net Welfare Income Per Family: *\$1,200*
11. List the present area of employment: *FISHING, TRAPPING & GOVT. EMPLOYMENT*
12. List the potential areas of employment: *HANDICRAFTS, LUMBERING*
13. What are the more significant problems of the Band: elaborate:  
*ISOLATION, LACK OF COMMUNITY SPIRIT, LACK OF TRAINED PERSONNEL.*

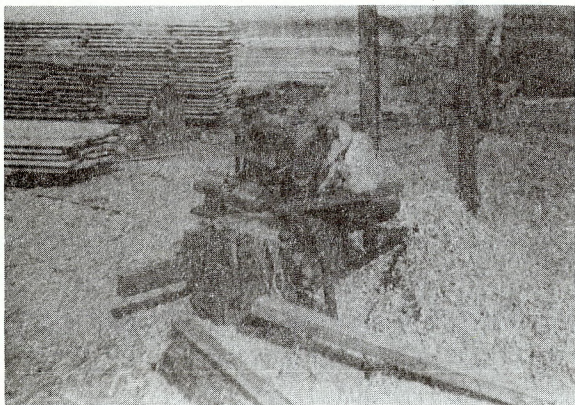
SANDY LAKE, ONTARIO



Head Saw and Carriage with 14" diameter X 12' long log in foreground.



Location of Sawmill on Sandy Lake. Tool shed to the left of picture.



Planer with lumber stacked for seasoning in background.



Lumber stacked for drying.



## APPENDIX "D"

Chronological No.

H.Q. Reference

## BAND COUNCIL RESOLUTION



NOTE: The words "From our Band Funds" must appear in all resolutions requesting expenditures from Band Funds.

COUNCIL OF THE <u>Deer Lake</u> BAND		FOR HEADQUARTERS USE ONLY
AGENCY <u>Sioux Lookout</u>		
PROVINCE <u>Ontario</u>		
PLACE <u>Sandy Lake</u>		
DATE <u>20</u> DAY <u>06</u> MONTH AD 19 <u>72</u> YEAR		

## DO HEREBY RESOLVE:

That the Dept. Of Indian Affairs Branch provide the following estimated budget, To. Mr. Joshua Fiddler of Sandy Lake, Ontario to operate the sawmill and have lumber produced and this monies to be repaid following sale of lumber, The operation of this sawmill to be effective July, 1972 to December, 1972.

Crew consisting of 1 sawyer and 5 men

8 hrs. per day, 6 days awk. \$3.00 per. hr. 48x \$3.00 = \$144.00  
 \$144.00 x 4 = \$576.00 permo. \$576.00 x 6 = \$3,456.00 = \$3,456.00

8 hrs. per day 6 days awk. \$2.00 Per. hr. 48x \$2.00 = \$ 96.00  
 \$ 96.00 x 4 = \$384.00 per. Mo. ~~\$2,334.00~~  
 \$384.00 x 6 = \$2,304.00  
 \$2,304.00 x 5 men = \$11,520.00 = \$11,520.00

120 gals. gas at \$1.75 per. gal = \$210.00 = \$ 210.00

96 Qts. Oil at \$1.25 Per. Qt. = \$120.00 = \$ 120.00

Miscellaius Expenses Re: machine repairs, = \$ 1,000.00

Total estimated budget \$16,306.00  
 for the months of, July, August, Sept, October,  
 November, December, 1972.

These monies to be deposited into The Canddian Imperial Bank Of Commerce  
 Sioux Lookout, Ontario.  
 under the name of Mr. Joshua Fiddler, J.S.J. Lumber, Sandy Lake, Ontario.

*[Signatures and names of Council members]*  
 (Councillor) (Chief) (Councillor) (Councillor) (Councillor) (Councillor) (Councillor) (Councillor) (Councillor) (Councillor)

## FOR HEADQUARTERS USE ONLY

1. TRUST ACCT	2. CURRENT BALANCES		3. Expenditure	4. Authority Indian Act Sec.	5. Source of Funds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue
	A. Capital	B. Revenue			
6. Recommended			7. Approved		
Date			Date Assistant Deputy Minister		

PRODUCTION ANALYSIS OF J.S.J. LUMBER ENTERPRISE  
SANDY LAKE, ONTARIO

---

ALTERNATIVE I (men paid by the hour)

Logging Operation --

A 3 man team (1 chain saw - 2 helpers) will log and haul to the mill 750 f.b.m. per day (8 hour day); therefore, to log and haul 100 M f.b.m. =  $\frac{1}{750} \times 100,000 = 133$  days.

Normal logging rates are \$2.00 per hour per man

Therefore, 100 M f.b.m. =  $133 \times 3 \times 8 \times \$2.00 = \$ 6,384.00$

Administrative Costs 25% of \$100.00 per week

X 22.16 weeks = \$ 554.00

Total Costs of Logging and Hauling 100 M f.b.m. = \$ 6,938.00

Sawing & Planing Operation (men paid by the hour)

The sawmill is capable of sawing 6 M f.b.m. per day and the planing mill is capable of planing 3 M f.b.m. per day.

Therefore, to saw 100 M f.b.m. = 16.6 days

and to plane 100 M f.b.m. = 33.2 days

Starting up sawmill and planer = 2.0 days

Total number of days to saw and plane

100 M f.b.m. = 51.8 days or 52 days

1 Sawyers wages @ \$3.00 per hour =  $52 \times \$3.00 \times 8 = \$ 1,248.00$

4 Labourers wages @ \$2.00 per hour =  $52 \times \$2.00 \times 8 \times 4 = 3,328.00$

Administrative Costs = 25% of \$100.00 per week for 1 additional week  
= \$ 25.00

Operating Costs of Sawing and Planing for Gas & Oil =		
10 gals. gas per day @ \$1.75 per gal X 52 days	=	\$ 910.00
2 qts. oil per day @ \$1.25 per qt. X 52 days	=	\$ 130.00
Maintenance and Repairs per 100 M f.b.m.	=	\$ 300.00
		<hr/>
Total Costs of Sawing and Planing .....		\$ 5,941.00
		<hr/>
Depreciation on Sawmill equipment -- 10 % of \$2,000.00	=	\$ 200.00
		<hr/>
Total Cost of Producing 100 M f.b.m. = Logging & Hauling	=	\$ 6,938.00
= Sawing & Planing	=	5,941.00
(Depreciated @ 10% per annum) = Fixed Costs	=	200.00
		<hr/>
TOTAL		\$13,079.00
		<hr/>
Total Cost of Producing 1 M f.b.m. of finished lumber	=	\$ 130.79
		<hr/>

ALTERNATIVE II (men paid \$60.00 per M f.b.m. delivered to mill)

A 3 man team (1 chan saw - 2 helpers) will log and haul 1 M f.b.m. per day (8 hour day). Therefore, to log and haul 100 M f.b.m.

	=	100 days
Cost of logging and hauling 100 M f.b.m.	=	\$ 6,000.00
Administrative Costs = 25% of \$100.00 per		
week X 16.6	=	415.00
		<hr/>
Total Cost of Logging and Hauling .....		\$ 6,415.00
		<hr/>

Sawing and Planing Operation (men paid by hour)

(Same Costs as Alternative #I)

Therefore total costs of sawing and planing	=	\$ 5,941.00
		<hr/>
Depreciation on sawmill equipment = 10% of \$2,000.00	=	200.00
		<hr/>
Total Cost of producing 100 M f.b.m. = Logging & Hauling	=	\$ 6,415.00
= Sawing & Planing	=	5,941.00
(Depreciated @ 10% per annum) = Fixed Costs	=	200.00
		<hr/>
TOTAL		\$ 12,556.00
		<hr/>

Therefore, cost of producing / M f.b.m. of finished lumber = \$ 125.56

Note 1:

Wages paid to sawyers in sawmills visited in Ontario varied from a low of \$2.25 per hour to a high of \$4.00 per hour, with the majority of the mills paying \$2.50 per hour. For purposes of this analysis we have accepted the sawyer's wages at Sandy Lake to be \$3.00 per hour.

Note 2:

Normal prices paid for cutting and hauling logs a distance of 8-10 miles are:

Cutting -- \$.04 per board foot or \$40.00 per M f.b.m.

Hauling -- \$.02 per board foot or \$20.00 per M f.b.m.

Total Cutting and Hauling ..... \$60.00 per M f.b.m.

Note 3:

\$1,000.00 for miscellaneous expenses is too high for the mill at Sandy Lake. We have established \$300.00 per 100 M f.b.m. as a more realistic figure.

CONCLUSIONS

1. The total known market at Sandy Lake is 100 M f.b.m. per year finished and rough lumber.
2. A realistic cost of producing 1 M f.b.m. finished lumber when all men are paid by the hour is \$130.79.
3. The more economical cost of producing finished lumber paying the logging and hauling operation by the 1 M f.b.m. delivered to the mill is \$125.56
4. The budget submitted by the Deer Lake Band for the Sandy Lake sawmill operation is excessive by:

(a) Alternative I	--	\$ 16,306
	-	13,079
		<hr/>
		\$ 3,227

(b) Alternative II	--	\$ 16,306
	-	12,556
		<hr/>
		\$ 3,750

5. The Department of Indian Affairs and Northern Development buys finished lumber from the Sandy Lake Sawmill @ \$250.00 per M f.b.m. Therefore, the J.S.J. Lumber Enterprises stands to make a profit of:

(a) Alternative I	--	\$ 25,000
	-	13,079
		<hr/>
		\$ 11,921

(b) Alternative II	--	\$ 25,000
	-	12,556
		<hr/>
		\$ 12,444

6. The sawmill at Sandy Lake is a privately owned sawmill but an agreement between the owner and the J.S.J. Lumber Enterprise does not involve a rental fee for use of the mill. A verbal agreement is that any lumber required by the owner for his own use will be provided free. The J.S.J. Lumber Enterprise is responsible for maintenance and repairs.
7. During the 1971-72 FY the Department purchased 17,462 f.b.m. of finished lumber from the Sandy Lake mill. Therefore, a profit of a minimum of \$2,000.00 should have been realized by the J.S.J. Enterprises on their sawmill operation for that year.
8. Approximately 10,000 f.b.m. of rough lumber was undergoing seasoning at the sawmill site at the time of the PME Team's visit.

9. The PME Team was advised that the sawmill was a 12 month operation and that logs had been cut for the 1972-73 FY. However, unless the lumber is cut soon, it will not be available for the 1973-74 construction season. The PME Team was unable to confirm that the logs are cut and awaiting hauling to the mill due to high winds on the Lake at the time of the visit.



SANDY LAKE SAWMILL  
PRESENT INVENTORY

---

Logging Operation:

NIL equipment

(Men own their own saws and skidoos)

Sawmill Operation:

1 Brotherstone Mill and out-buildings

Current Value ..... \$ 2,000.00

Total Cost of Mill -- Current Value ..... \$ 2,000.00

Depreciation of equipment 10% of

Current Value ..... \$ 200.00

Total Fixed Costs ..... \$ 200.00

## BREAK EVEN CHART

PRESENT LUMBERING OPERATIONCOST  
IN  
\$00026  
24  
22  
20  
18  
16  
14  
12  
10  
8  
6  
4  
2  
0

SALES INCOME \*

TOTAL COSTS

\* Sales Income based on  
most economical cost  
of producing lumber.

FIXED COSTS

25

50

75

100

SALES IN M f.b.m.

J.S.J. LUMBER ENTERPRISE  
SANDY LAKE ONTARIO

---

PROPOSED FORESTRY OPERATION

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Assumptions

1. The acquisition of a skidder should triple production. Therefore, instead of taking 100 days to log and haul 100 M f.b.m., the operation should take 33.3 days (rounded to 34 days).
2. The acquisition of a Jack Ladder or a suitable system of cables and pulleys should increase the sawing efficiency of the mill by 25%. Therefore, 7,500 f.b.m. per day is a conservative estimate of the sawmill capacity.
3. The acquisition of a new Alco planer (or one of similar size and capability) would permit the planing of 10 M f.b.m. per day.
4. The departmental motor at present located at the Brotherstone mill would be hooked up to the new planer and would permit a simultaneous sawing/planing operation to be conducted.
5. Lumber would be planed in the green state; allowances for shrinking due to drying would be made at the time of the planing operation.
6. All employees engaged in the sawmill operation would be available on payroll for the setting up of the mill prior to commencement of the sawing/planing operation.

7. Administrative services would be obtained by using the Band Administrative Clerk. This would require approximately 25% of his time. As he is paid \$100.00 per week, administrative costs would be \$25.00 per week charged to the Forestry Operation. Administrative services would commence with the beginning of the logging and hauling operation and would continue to the end of the sawing/planing operation. Proper phasing of the mill operation should result in all logs being sawn and planed one week after the termination of the logging and hauling phase.

#### Logging Operation

Labour - Cutting and hauling 100 M f.b.m.

1 Skidder Operator @ \$2.50 per hour X 8 hr. day X 34 days	=	\$ 680.00
1 Chain Saw Team (3 men) @ \$2.00 per hr X 8 hr day X 34 days	=	1,632.00
Administrative Costs = 25% of \$100.00 per week X 5.6	=	<u>140.00</u>
Total Labour Costs of Cutting and Hauling	=	\$2,452.00

Operating Costs of Cutting and Hauling

10 Gals of gas per day @ \$1.75 per gal X 34 days	=	\$ 595.00
1 Qt of oil per day @ \$1.25 per qt X 34 days	=	42.50
Maintenance and Repairs	=	<u>800.00</u>
Total Operating Costs	=	<u>\$1,437.50</u>
Total Costs of Cutting and Hauling = \$2,452.00 + \$1,437.50	=	<u><u>\$3,889.50</u></u>

Sawmill Operation

Time required to saw 100 M f.b.m. = $100 \div 7.5$	=	13.3 days
Time required to plane 100 M f.b.m. = $100 \div 10$	=	10.0 days
Time required to set up sawmill, planer mill and Jack Ladder	=	1.7 days
Therefore, men required for sawing operation	=	15 days
men required for planing operation	=	12 days

## Labour - Sawing and Planing

1 Sawyer @ \$3.00 per hour X 8 hr day X 15 days	=	\$ 360.00
3 Labourers @ \$2.00 per hour X 8 hr day X 15 days	=	\$ 720.00
1 Jack Ladder Operator @ \$2.00 per hr X 8 hr day X 15 days	=	\$ 240.00
1 Planer Operator @ \$2.50 per hr X 8 hr day X 12 days	=	\$ 240.00
3 Labourers @ \$2.00 per hr X 8 hr day X 12 days	=	\$ 576.00
Administrative Costs = 25% of \$100.00 per week for 1 additional week	=	\$ 25.00
Total Labour Costs	=	\$ 2,161.00

## Operating Costs for Sawing and Planing for Gas &amp; Oil

20 Gals of gas per day X \$1.75 per gal X 15 days	=	\$ 525.00
4 Qts of oil per day X \$1.25 per qt X 15 days	=	\$ 75.00
Maintenance and Repairs (pro rated per 100 M f.b.m.)	=	\$ 300.00
Total Operating Costs	=	\$ 900.00
Total Sawmill Costs = \$2,161.00 + \$900.00	=	\$ 3,061.00

J.S.J. LUMBER ENTERPRISESPROPOSED INVENTORYLogging Operation

Small Skidder (used)	Current Value .....	\$ 8,000.00
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Sawmill Operation

Brotherstone Sawmill (Complete)	\$ 2,000.00
Planer (new - Alco Planer - including transportation)	\$11,000.00
Jack Ladder (or system of pulleys and cables)	\$ 1,000.00
Edger	\$ 1,000.00
Turn over Department owned motor to mill	<u>\$ 350.00</u>
Estimated Total Cost of equipment and sawmill	<u>\$23,350.00</u>

J.S.J. LUMBER ENTERPRISE  
SANDY LAKE, ONTARIO

---

PROPOSED FORESTRY OPERATION

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\* Variable Costs

Logging Operation .....	\$ 2,312.00
Sawing and Planing .....	\$ 2,136.00
Administration .....	165.00
Operating Costs (gas, oil) .....	1,237.50
Maintenance and Repairs .....	<u>1,100.00</u>
Total Variable Costs .....	\$ 6,950.50

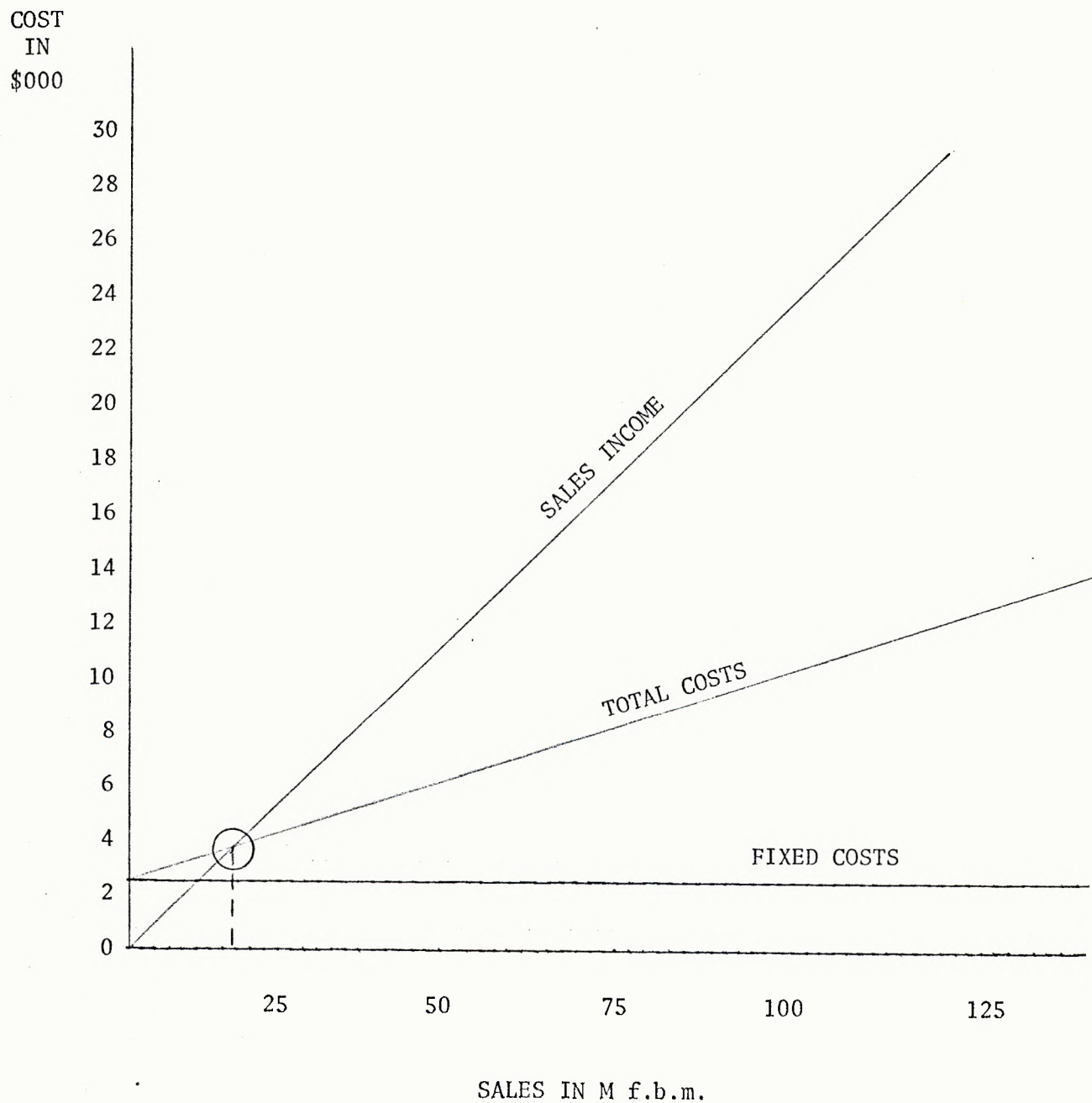
Fixed Costs

Depreciation - Plant and Equipment	
(\$23,350 X 10%) .....	<u>\$ 2,335.00</u>
Total Costs .....	<u>\$ 9,285.50</u>

\* Based on a forecast cut of 100,000 f.b.m. per annum. Estimated selling price of lumber \$250.00 per M f.b.m.

J.S.J. LUMBER ENTERPRISE  
SANDY LAKE ONTARIO

PROPOSED LUMBERING OPERATION





CONCLUSIONS

1. The total known market at Sandy Lake is 100 M f.b.m. per year finished and rough lumber.
2. The cost of producing finished lumber is \$92.85 per M f.b.m.
3. The Department of Indian Affairs and Northern Development buys finished lumber from the Sandy Lake Sawmill for \$250.00 per M f.b.m.
4. The J.S.J. Lumber Enterprise stands to make a profit of \$25,000.00 less \$9,285.00 = \$15,715.00 per 100 M f.b.m.
5. The cost of purchasing finished lumber from outside sources and transporting it to Sandy Lake is \$445.00 per M f.b.m.  
  
Therefore the Department stands to save  $\$445.00 - \$250.00 = \$195.00$  per M f.b.m. if it purchases the lumber from the J.S.J. Lumber Enterprise. As 90 M f.b.m. is required for house construction for the 1973-74 construction season the Department can save \$17,550 by purchasing the lumber from the J.S.J. Lumber Enterprise