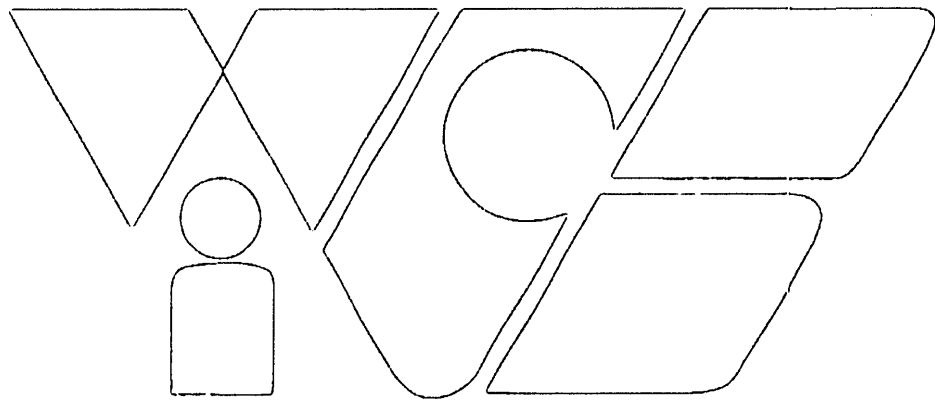


LEGISLATIVE ASSEMBLY OF THE
NORTHWEST TERRITORIES
8TH ASSEMBLY, 66TH SESSION

TABLED DOCUMENT NO. 7-66

TABLED ON Oct. 17, 1978

1977



**Annual Report
of the Workers'
Compensation Board
Northwest Territories**



For the year ended December 31st, 1977



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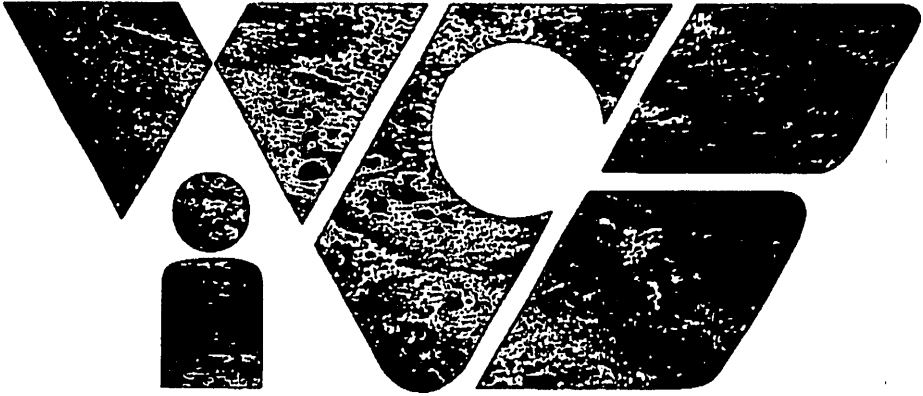
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To: S. M. Hodgson,
Commissioner,
Government of the Northwest Territories.

May it please Your Honour: Sir, as requested by Section 58 of the Workers' Compensation Ordinance, we now submit the 1st annual report of the Board, for the year ended December 31, 1977.





The Workers' Compensation Board - Northwest Territories is the agency responsible for the administration of the Workers' Compensation Ordinance and the adjudication of all matters arising there under.

John MacLean
Chairman

L. Cardinal
Member

Bill Berezowski
Member

G. Tikkanen
Member

W. Applewhite
Member

A. B. Workman
Member

Introduction

1977 Highlights

Workers' Compensation System

1977 brought about a major change in workers compensation for the Northwest Territories. The individual liability scheme of compensation was replaced with the collective liability system similar to that used in all other jurisdictions of Canada.

Benefit Increases

In conjunction with the establishment of the Accident Fund and the promulgation of a new Ordinance there have been substantial increases in benefits for workers and their dependants.

The yearly maximum assessable remuneration has been increased from \$10,000 per year to \$14,500 per year; temporary total disability benefits have risen from \$625 per month to \$906 per month; widow benefits are up from \$250 per month to \$398.75 per month; dependant children's benefits increased from \$70 per month to \$90.62 per month and the subsistence allowance from \$12 per day to \$20 per day.

Increases in Prior Pension Awards

Prior to January 1, 1977 workers compensation in the Northwest Territories was by way of the individual liability system with risk of work related injuries being underwritten by private insurance carriers and/or self insured employers.

Awards for accidents occurring on or after January 1, 1953 to and including December 31, 1976 are therefore being met by the private insurers and self insured employers.

In addition to these awards the Board in accordance with Section 59 of the Workers' Compensation Ordinance, R.O.N.W.T. 1974 awarded substantial increases to disabled workers with permanent disabilities in excess of 10% of total and to the dependants of deceased workers. Details of the increases are set out in the Actuarial Report attached hereto as Exhibit II.

Public Relations

Some meetings with industry, management and labour groups were undertaken during the year.

An information booklet was given wide distribution and has the objective of covering a wide range of subject matter relating to workers compensation.

A more intense communications and information sharing program will be carried out in the forthcoming year.

Workers' Compensation Board Processing System

In August, 1977, a mini processor was purchased by the Board to handle the necessary recording and assembly of claims and assessment data.

The data assembled provides historic information for use by the Board and the actuary in the determination of assessment rates, claims and pension benefits, and reserve requirements. Additionally, the data is assembled to provide statistical reports on injuries by type, degree, physical and geographical location, cost and quantity.

Claims

Reported Accidents - 1977

During 1977 accidents reported to the Board resulted in 2,265 claims.

For a further breakdown of the claims as to type of injury and geographical location of occurrence, please refer to Statistics Schedules I and II attached as appendices to this report.

Compensation

Under workers compensation an injured worker is covered for personal injury by accident arising out of and during the course of employment, and if totally disabled is entitled to benefits during the period of disability computed at the rate of 75% of his average yearly remuneration. The maximum remuneration which can be used in computation of compensation for accidents occurring from January 1, 1977 is \$14,500 per annum. These benefits are not taxable as income.

Pension Awards

(a) Where the accident results in **Permanent Disability**, either total or partial, benefits are payable for life and are usually paid on a monthly basis.

(b) Where death results from a compensable injury the necessary burial expenses up to \$580.00 are paid; in addition, the necessary expenses of transporting the body within the Northwest Territories. The dependent widow or widower is also paid a contribution of \$580.00 for the additional expense occasioned consequent upon death and thereafter a monthly payment of \$398.75 until death or remarriage. Upon remarriage a lump sum payment of \$4,785.00 is made and the monthly benefits terminate. Dependent children are entitled to a monthly pension of \$90.62 for each child to age sixteen. If education is continued the allowance may be paid to the completion of the first university degree or the completion of a technical or vocational training course.

Medical Aid

Medical aid required as a result of an injury arising out of and during the course of employment includes medical, surgical or other services provided by a physician, nursing services, hospital services, drugs, dressings, x-ray treatment, medical and physical treatment.

The injured worker is completely free to choose his own doctor while subsequent treatment or examination or treatment by medical specialists or consultants must be arranged by the attending doctor in conjunction with the Board Medical Advisor.

The injured worker's timely return to the job revolves around reports received from the medical profession and it is extremely important for all concerned that the Board have good relations with the profession. Annual meetings are held with the Northwest Territories Medical Association to deal with medical matters relating to workers' compensation.

Rehabilitation

Rehabilitation is the use of all appropriate sciences and disciplines to help persons handicapped by disease, disability or social mal-adjustment achieve maximum well being and usefulness. It is the cultivation, restoration and conservation of human resources. Nothing can replace the wish of every person who has known disability, to live and work in dignity, in free and open competition with the world.

The rehabilitee must be considered in relation to his needs and against the background of his family relations. Absence from the family group is a matter that may have significant impact upon the individual. Other considerations include the financial situation, marital relationship and home environment.

Physical Rehabilitation

Physical or medical rehabilitation involves the doctor, physical therapist, occupational therapist, remedial gymnast, psychologist, social worker, rehabilitation counsellor and the worker.

While the Board does not operate its own rehabilitation centre excellent arrangements have been made with other jurisdictions to ensure that this valuable service is available to workers injured while working in the Northwest Territories.

Occupational Rehabilitation

Occupational Rehabilitation is designed to arrange for retraining of claimants who are unable to resume their former employment, placement of workers with suitable employers, upgrading and retraining programs in conjunction with other agencies.

This involves a great deal of liaison with personnel and employment officers in all facets of industry.

The Board has one full time Rehabilitation Counsellor assigned for rehabilitation work and with the co-operation of industry and public rehabilitation agencies we can look forward to further developments in this field.

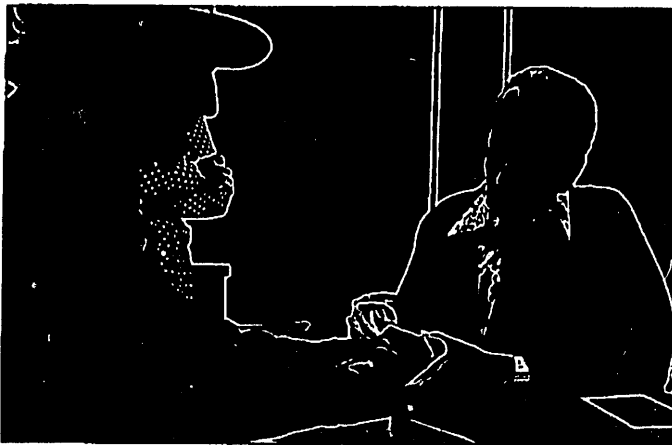
Assessments

Economic Theory

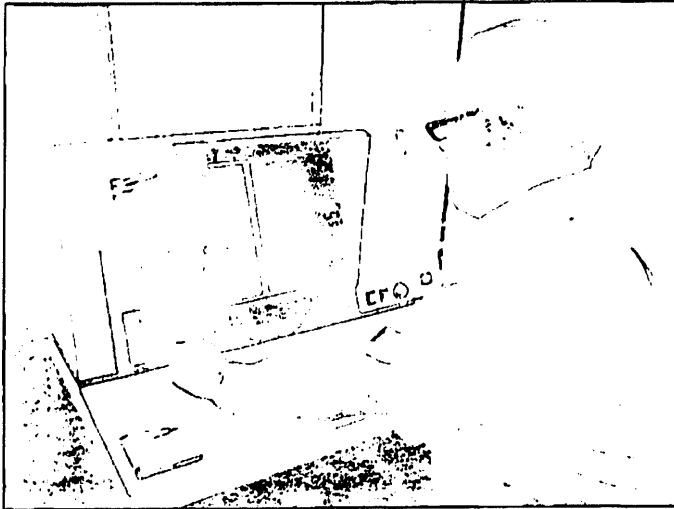
The economic theory underlying workers compensation is that the risk of economic loss through personal injury or industrial disease resulting from employment should be borne by industry, and the cost considered as part of the costs of production. Thus the funds which the Board needs to make compensation payments and meet its other obligations under the Ordinance are provided from assessments levied on employers by the Assessment Division of the Board.

Assessment Procedure

The Assessment Division assigns an industry code to each employer and groups the industry codes into classifications. Employers who have similar type operations, hazards or accident experience records are placed into the same classification. The total amount of assessment revenue received by the Board for 1977 was \$6,800,000, the details of which are set out in the Financial Statements affixed to this report as Exhibit I. Assessments paid by employers provide for the payment of compensation to injured workers, dependents, pensions, medical aid, rehabilitation and the administration costs of the Board.



Administration



One of the important factors in the collective liability system of workers' compensation is *effective control of administration costs*, that is establishing consistency with the requirement for adequate services so that the highest possible percentage of the compensation dollar is used for injured worker benefits and maintaining employer's assessment rates

90.32 cents of every operating dollar went directly to provide benefits to injured workers and their dependents or into the contingency reserve of the Accident Fund

Upgrading of the computerized data processing system will continue to be a prime objective of the Board in order to provide improved statistical reporting to industry and its workers as to the administration of the Accident Fund



Finance

The Financial Statements for 1977, Notes to the Financial Statements and the Auditor General's Report are attached hereto as Exhibit I.



Responsibilities

The financial responsibility of the Board in administering the Workers' Compensation Ordinance is threefold:

- (i) to guarantee that compensation and pensions awarded to injured workers or their dependents will be paid according to entitlement and as long as required
- (ii) to assess and collect sufficient funds from Employers to meet these obligations.
- (iii) to minimize the cost to Employers while achieving maximum stability of rates

The maintenance of adequate reserves is the most effective way to ensure these responsibilities are met.

Reserves

(a) Pension Reserve

When pensions are awarded it is necessary to set aside adequate funds to maintain payments to the Pensioners for their lifetime. Actuarial tables are used to calculate the amount transferred from the class to the Pension Fund to provide sufficient capital and income for payment of the pension for its applicable term.

(b) Contingency Reserve

The Contingency Reserve has been set aside to cover enhanced disabilities, rehabilitation, industrial diseases and disasters.

1. Enhanced Disabilities:

A worker may, because of a previous disability suffer a greater or "Enhanced" disability in a compensable accident. It is necessary for the Board to maintain a reserve to which all classes contribute an equal percentage of their assess-

ment which prevents an individual Employer or class with a cost that is not their specific responsibility.

For Example: A worker who has previously lost the sight of one eye may become totally disabled by the loss of his second eye in a subsequent accident. The cost to the Employer in connection with the second accident would be for the loss of only one eye with the balance of the award being met out of the Contingency Reserve.

2. Rehabilitation:

Workers who suffer a disabling injury in a compensable accident which prevents them from resuming their previous employment or trade, must be retrained or aided in finding other employment. The funding of this retraining and assistance is provided by the Contingency Reserve.

3. Industrial Disease:

One of the problem areas in the field of workers compensation is the area of industrial disease. Certain diseases of course are unique to certain industries and for the most part are of a highly complex nature. Problems arising in the adjudication of claims for disablement resulting from disease are well known to Workers' Compensation jurisdictions.

Among the most significant problems are:

- (i) the slow period in the development of the disease and the difficulty of an early and positive diagnosis.
- (ii) the varying susceptibility of the individual.
- (iii) the wide variation in intensity of exposure, not merely as between industries, but as between geographical areas.
- (iv) the fact that x-rays and other testing procedures are of a comparatively recent adoption.
- (v) the frequency with which industrial disease is associated with other non industrial diseases.

4. Disasters:

Sufficient funds must be set aside to cover the costs of a real disaster or catastrophe. When a disaster occurs and the costs exceed specific value the excess is charged to the Contingency Reserve and not the class in which the Employer is carried. This is a further extension of the philosophy of collective liability as Employers will realize and appreciate that most classes would never recover from the cost of a disaster involving several workers who were left totally disabled.

(c) Future Claims Reserve

This liability is kept for Pension Awards and to pay ongoing costs or claims that are still under active administration. These include claims that may be re-opened because of a need for further treatment or increased disability awards. These estimates are revised each year.

(d) Operating Reserve

The majority of Employers prefer a stable rate of assessment which will not fluctuate significantly from year to year. To provide this stability each class is required to build up and maintain an **Operating Reserve**. This **Reserve** absorbs the major fluctuations which would otherwise be reflected in wide variations of rates from year to year.

Investments

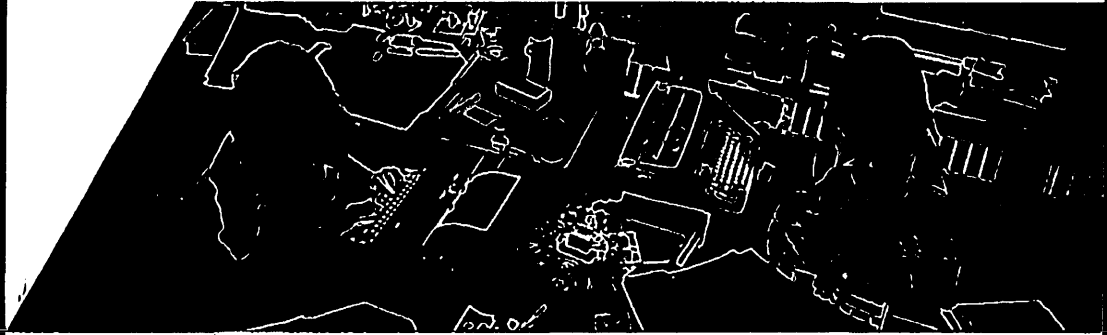
During 1977, to ensure a controlled transition of the Accident Fund responsibilities from the Territorial Government, the Board approved a temporary investment policy leaving responsibility for the investment of the Accident Fund with the Territorial Treasurer.

The full amount of the Accident Fund has subsequently been transferred and the Board has established an investment committee to recommend portfolio guidelines for the investment of the Fund.

Details of the operations, reserves and accounting are set out in the Financial Statements affixed hereto as Exhibit 1.



Actuarial Report and Certificate



The specific recommendations contained in our Consulting Actuary's Report and attached hereto as Exhibit II have been adopted by the Board. Accordingly the Certificate of the Actuary is included as part of Exhibit II and represents a review of the liabilities of the Accident Fund as at December 31, 1977.

Accident Prevention and Occupational Health

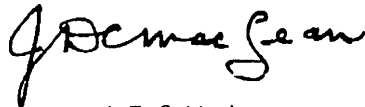
Although the responsibilities for industrial accident prevention and mine accident prevention are not vested in the Board, it continues to be interested in developments in this area. Exchange of needed information and opinions resulted from continuing liaison with the responsible authorities in these fields.

The entire field of occupational health and safety is of vital importance to the Board and it is expected that the responsibilities for Occupational Health will become more clearly defined in the forthcoming year.

Staff

The Board is pleased to record its appreciation for the services and co-operation given by the staff. The necessity in 1977 of changing procedures, methods, and increasing workloads, required retraining and extra effort on behalf of the staff who met these requirements.

Respectfully submitted,



J. D. C. MacLean,
Chairman of the Board.



Exhibit I

Financial statements, notes to financial statements and
auditor-general's report



**The Commissioner
Government of the Northwest Territories
Yellowknife, N.W.T.**

I have examined the balance sheet of the Workers' Compensation Board (Northwest Territories) as at December 31, 1977 and the statements of operating reserve, pension reserve, future claims reserve, and contingency reserve for the period January 1, 1977 to December 31, 1977. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Workers' Compensation Board (Northwest Territories) as at December 31, 1977 and the results of its operations for the year then ended in accordance with generally accepted accounting principles.

Auditor General of Canada

**Ottawa, Ontario
June 23, 1978**

WORKERS' COMPENSATION BOARD
(Northwest Territories)

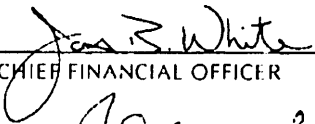
Statement 1

Balance Sheet
as at December 31, 1977


Assets	(\$000's)	Liabilities and Reserves	(\$000's)
Cash	\$ 30	Accounts payable	\$ 69
Deposits with the Government of the Northwest Territories (Note 3)	5,368	Assessment refunds payable	218
			<u>287</u>
Assessments receivable	<u>1,416</u>	Pension reserve — Statement 3 (Notes 2 and 4)	489
		Future claims reserve Statement 4 (Note 2)	2,190
		Contingency reserve — Statement 5 (Note 2)	2,913
		Operating reserve (Note 2)	<u>935</u>
	<u><u>\$6,814</u></u>		<u><u>\$6,814</u></u>

The accompanying notes and schedule are an integral part of the financial statements

Approved on behalf of the Workers' Compensation Board:



CHIEF FINANCIAL OFFICER



CHAIRMAN OF THE BOARD

Workers' Compensation Board
(Northwest Territories)

Statement 2

Statement of Operating Reserve
for the period January 1, 1977 (date of commencement
of operations) to December 31, 1977

	(\$000's)
Revenue	
Assessments	\$ 7,016
Interest (Note 5)	<u>181</u>
	<u>7,197</u>
Expense	
Claims	
Compensation	489
Medical aid and rehabilitation	387
Administration and general	728
Transfers to:	
Pension reserve	560
Future claims reserve	2,190
Contingency reserve	<u>1,908</u>
	<u>6,262</u>
Increase in operating reserve	935
Operating reserve — beginning of year	—
Operating reserve — end of year	<u><u>\$ 935</u></u>

The accompanying notes and schedule are an integral part of the financial statements.

Workers' Compensation Board
(Northwest Territories)

Statement 3

Statement of Pension Reserve
for the period January 1, 1977 (date of commencement
of operations) to December 31, 1977

	(\$000's)
Balance, beginning of year	\$ —
Funding provided:	
Transfer from operating reserve	560
Interest (Note 5)	<u>22</u>
	582
Amounts applied:	
Pension payments	<u>93</u>
Balance, end of year	<u><u>\$ 489</u></u>

The accompanying notes and schedule are an integral part of the financial statements.

Workers' Compensation Board
(Northwest Territories)

Statement 4

Statement of Future Claims Reserve
for the period January 1, 1977 (date of commencement
of operations) to December 31, 1977

	(\$000's)
Balance, beginning of year	\$ —
Funding provided:	
Transfer from operating reserve	<u>2,190</u>
Balance, end of year	<u>\$ 2,190</u>

Statement 5

Statement of Contingency Reserve
for the period January 1, 1977 (date of commencement
of operations) to December 31, 1977

	(\$000's)
Balance, beginning of year	\$ —
Funding provided:	
Transfer from operating reserve	1,900
Transfer of pre-1977 administration fund (Note 6)	911
Interest (Note 5)	<u>94</u>
Balance, end of year	<u>\$ 2,913</u>

The accompanying notes and schedule are an integral part of the
financial statements.

Workers' Compensation Board

(Northwest Territories)

Notes to Financial Statements
December 31, 1977

1. Authority

The Workers' Compensation Board was established under the Workers' Compensation Ordinance, 1977 (First Session).

Assessments are levied upon all employers in the Northwest Territories on the basis of a percentage of their payroll from which compensation in respect of accidents from employment and costs of administration are paid and reserves established.

2. Accounting policies

Reserves

Reserves have been established to provide for future compensation and are evaluated and adjusted annually.

(a) Pension reserve

The pension reserve represents the present value of future payments of pension awards made by the Board.

(b) Future claims reserve

The future claims reserve represents the present value of expected future pensions for accidents which have occurred but which have not been reported, for claims in process for which an award has not been made and for additional costs arising in future years in respect of awards already made.

(c) Contingency reserve

The contingency reserve represents amounts in excess of a maximum amount per claim included in industry classes of other reserves, multiple claims arising from a disaster, claims from industrial diseases, and claims for rehabilitation and retraining of injured workers.

(d) Operating reserve

The operating reserve is established to provide stability to the industry classes rating structure. The reserve represents assessment revenue by industrial class less its share of claims expense, administration expense, general expense and transfers to other reserves.

Interest revenue

Interest revenue is allocated to the various reserves on the basis of their average opening and closing balances.

Administration and general expense

This expense, net of sundry revenue, is allocated to industry classes within the operating reserve on the basis of assessment revenue applicable to each industry class for the year.

3. Deposits with the Government of the Northwest Territories

During the year Workers' Compensation Board funds were held on demand deposit in the consolidated revenue account of the Government of the Northwest Territories. The funds were invested by the Territorial Treasurer at the current 30-day rate and interest was credited to the Board each month based upon the average balance on deposit.

4. Pension Reserve

A review of the pension reserve by the consulting actuary indicates that at December 31, 1977 the balance in the pension reserve is deficient by \$387,000. An allocation of 8% of assessment revenue will be made to the pension reserve in 1978 to eliminate this deficiency.

5. Interest

In addition to interest revenue of \$181,000 credited to the operating reserve, interest of \$116,000 has been credited to:

Pension reserve	\$ 22,000
Contingency reserve	<u>94,000</u>
	\$ 116,000

6. Pre-1977 Administration Fund

An amount of \$911,000 was transferred to the contingency reserve and represents funds on deposit with the Government of the Northwest Territories at January 1, 1977 and pertaining to the previous Workers' Compensation Fund.



Workers' Compensation Board
(Northwest Territories)

Schedule of Administration and General Expense
for the year ended December 31, 1977

	(\$000's)
Salaries, wages and allowances	\$ 399
Employer share of benefits	37
Professional services	72
Administrative services— Government of the Northwest Territories	59
Office lease and renovations	36
Administration of pre-1977 claims	31
Travel	26
Printing and office supplies	23
Communications	19
Office furnishings and equipment	19
Honoraria — Board members	6
Miscellaneous	4
	<hr/> 731
Deduct: Sundry revenue	3
	<hr/> 3
Administration and general expense	<u>\$ 728</u>

Workers' Compensation Board
(Northwest Territories)

Schedule of 1977 Provisional Revenue, Expense and Operating Reserve Balances
For the year ended December 31, 1977

Industry Class	10	20	30
Revenue:			
Assessments	75,532	2,818,465	34,206
Investment interest	2,886	73,669	1,221
Total revenue	78,418	2,892,134	35,427
Expense:			
Compensation	351	150,945	187
Medical Aid	309	233,359	—
Pension Awards	—	12,353	—
Transfers:			
Pension reserve	6,043	225,477	2,736
Future claims reserve	1,651	1,001,051	467
Contingency reserve	22,660	778,851	10,261
Administration	7,733	288,538	3,502
Total expense	38,747	2,690,574	17,153
Provisional balance	39,671	201,560	18,274

40	50	60	70	80	Total
1,370,672	939,667	219,371	290,670	1,057,837	6,806,420
33,257	24,185	7,428	7,890	30,270	180,806
1,403,929	963,852	226,799	298,560	1,088,107	6,987,226
57,975	81,806	12,843	16,480	47,469	368,056
107,861	80,859	9,362	27,442	29,773	488,965
1,419	1,435	—	—	—	15,207
109,701	75,221	17,550	23,290	84,627	544,645
418,141	410,248	55,513	109,807	193,104	2,189,982
269,661	295,021	62,993	83,823	225,231	1,748,501
140,322	96,198	22,458	29,757	108,295	696,803
1,105,080	1,040,788	180,719	290,599	688,499	6,052,159
298,849	(76,936)	46,080	7,961	399,608	935,067

Analysis of Operations for the year 1977 and Valuation of Liabilities at December 31, 1977

As requested, we have made an in-depth review of the financial operations of the Workers' Compensation Fund for its first year of operation under the Collective Liability system, which was set up by the Workers' Compensation Ordinance 1977 with effect from January 1, 1977.

I. Extent of Investigation:

Our review has included the following:

1. Analysis by Sub-Class of Assessments invoiced for the year 1977, both during 1977, based on estimated payrolls, and during the early part of 1978, based on actual payrolls;

2. Analysis by Sub-Class of Cheques Paid during 1977 in respect of claims for compensation for 1977 accidents;

3. Analysis of the Estimates prepared by the Claims Officers of outstanding claims costs still to be met in respect of 1977 injuries;

4. Analysis of the effect of the system of retentions introduced by the Board to stabilize assessment rates by transferring the excess fluctuations in the cost of claims to the Contingency Reserve in return for a level allocation out of assessments;

5. Analysis of 1977 claims by nature of injury, part of body affected, and location of accident, as well as by type of payment — e.g. Medical Aid, Temporary Disability, Permanent Disability and Fatal Accident awards;

6. Valuation of the pension liabilities arising from
 - (a) awards in respect of 1977 injuries;

 - (b) awards made in respect to Pre-1977 accidents and which may be recovered from insurers, employers or third parties;

- (c) increases in pensions for Pre-1977 accidents to compensate for increases in the cost of living, which increases were assumed as a responsibility of the Fund under the previous Ordinance.

7. Review of the potential liabilities of the Contingency Reserve in respect of:

- (a) individual claims in excess of the retentions for each Sub-Class;
- (b) aggregate claims in any Sub-Class in excess of the Stop Loss limit set for that Sub-Class, based on its "expected" claims;
- (c) future claims arising from Industrial Diseases, including silicosis, arsenic poisoning, etc.
- (d) rehabilitation of injured workers;
- (e) cost of claims enhanced because of a prior injury.

As this is the first year of operation of the Fund under the new system, there has not been time for patterns of claims settlement, mortality and morbidity to become established, so we have had to base our valuation and recommendations on statistics derived from general experience of risk management, the operations of other Workers' Compensation Funds in Canada, and a case by case review of all open or outstanding claims.

II. Data on Which Study is Based:

We have based this Report on the following data derived from the computer records maintained by us on behalf of the Board:

1. Assessment Income by Sub-Class derived from the Assessment Invoice Journal and including estimates in respect of Assessments Receivable, based on actual payrolls as reported up to February 28, 1978.

2. Claims Paid by Sub-Class derived from the Cheques Paid Journal and analysed by type of payment;
3. Analysis of Claims Paid by (i) Nature of Injury,
(ii) Part of Body affected,
(iii) Location of Accident;
4. List of Pensions payable as at December 31, 1977;
5. List of Retentions and Stop Loss Limits for each Sub-Class;
6. Details of the allocations to Contingency Reserve from each Sub-Class for
 - (a) excess claims, disasters and catastrophes,
 - (b) industrial diseases,
 - (c) rehabilitation,
 - (d) enhanced disabilities;
7. Provision for future claims costs in respect of outstanding claims (including unreported claims);
8. Apportionment of Investment Income by Class;
9. Apportionment of Administration Expenses by Class based on Assessment Income;
10. Class Balances after the year's operations including all allocations and provisions as listed above.

III. Principles and Assumptions:

Our valuation, review and recommendations have been based on the following principles and assumptions:

1. **Pension Liabilities** are capitalized at the date of award and this amount is transferred to the Pension Fund from which all future payments are then taken. We have calculated the pension liability on the following assumptions:

- (a) **Mortality:** 1957 WCB(BC) Disabled Life Table for disabled workers with permanent total and partial disabilities;
1957 WCB(BC) Widows Mortality Table for awards to widows of deceased workers;

- (b) **Remarriage:** 1957 WCB(BC) Remarriage Table for remarriage of widows entitled to pension ceasing on remarriage;

- (c) **Interest:** (i) As there is no commitment by the Board to provide any further increases to existing Pre-1977 pensions, we have discounted future payments of the present pension increases at 6% per annum.
(ii) Although there is no legislative requirement to provide cost of living increases in respect of pension awards for 1977 injuries, there is a responsibility on the Board to consider this matter and make recommendations to the Commissioner each year. If inflation continues there will be a need to review and increase present pension awards in future years. Therefore, we have discounted all 1977 awards at a rate of interest of 3% per annum, and any excess interest earned by the Fund will become available in future years to provide for such possible increases. To the extent that this provision is not adequate, it is the policy of the Board to charge the capitalized cost of further increases to Sub-Classes in the year of any future awards;

- (d) As pensions for permanent disability are payable for life and are not reviewed once granted, no allowance has been made for termination of pensions on recovery from disability;
- (e) If a dependent's pension is awarded by the Board on the death of a disabled worker, it will be treated as a claim in the year of death and charged to the Class in that year. Therefore, no provision has been made in the Pension Fund for any dependent's pensions after the death of the disabled pensioner;
- (f) Recoveries from third parties are treated as revenue of the Class in the year they are received, so no allowance has been made for such possible future recoveries in this valuation.

2. Provision for future claims costs on outstanding claims and unreported claims (Future Claims Provision):

As payments in respect of 1977 claims may continue for many years into the future, it is necessary to make an estimate at the end of the year of injury of all future costs and transfer a provision to a separate account to meet them. This ensures, inter alia, that the employers in business in the Territories in any year are charged with the full cost — but no more than the cost — of the accidents that occur in that year. This assists the Board in establishing fair, equitable and viable rates of assessment to meet the proper cost of the year's accidents and avoids leaving a legacy of liabilities for future generations of employers to meet. With a small Fund and a small workforce, it would not be prudent to rely on inter-generation transfers as a means of meeting the Board's commitments. The security of the injured worker's pension and the pensions to the dependents of a deceased worker must be beyond question.

From our review of the estimates made by the Claims Officers of the future costs of outstanding claims, and our knowledge and experience of the operations of other Boards in Canada, we recommend that a Provision be set aside out of the Assessment Income of each Sub-Class equal to 250% of the Claims Paid in the year 1977. 10% of this is an allowance for unreported claims, and we have excluded

that part of future claims costs which will be met out of the Contingency Reserve on account of:

- (i) excess costs above the Retentions and Stop Loss limits for the Sub-Classes,
- (ii) costs arising from industrial diseases,
- (iii) rehabilitation costs, and
- (iv) costs due to enhanced claims because of previous injuries.

This provision, in our opinion, will be adequate on the basis of the present policies of the Board in regard to claims settlements, and assumes that interest at the average rate earned by the whole Accident Fund is allocated to the Future Claims Provision each year in future. If Board policies, interest rates or amounts of benefit vary significantly from present levels, further appropriations from Classes in future years may become necessary.

3. Contingency Reserve: This reserve, which was about \$1,000,000 at the start of the year 1977, is the reinsurance mechanism that allows the Board to underwrite accident risks for the relatively small Classes on the Collective Liability basis — and minimize the danger of unduly wide fluctuations in assessment rates from year to year. The detailed function of this reserve has been explained above.

On the basis of the Retentions and Stop Loss limits adopted by the Board for each Sub-Class, and as outlined in more detail in our Report dated March 14, 1978, the appropriations from Assessment Income for this reserve in 1977 are as shown in Appendix A.

The amount of the Contingency Reserve after these appropriations will be nearly \$3,000,000 as at December 31, 1977, and in our opinion, this is adequate to meet the liabilities which will be charged against this Reserve in future, as well as providing the foundation of a contingency fund to meet the cost of disasters and catastrophes which may arise in the future.

4. Class Balances: The final balances in each Class at the end of the

year after all charges, provisions and appropriations amount in total to about 15% of Assessment Income (or 2 months' assessments). Of the Main Classes, only the Transportation Group (Class 50) has an aggregate negative balance, but not too much significance should be attached to this on the basis of only one year's operation.

The Class balances are the first line of defence against rate fluctuations and accordingly should be built up to 3 months' assessment income for the larger Classes and 6 months' to 12 months' assessment income (or more) for the smaller Classes. The present balances should be taken into account when reviewing Assessment Rates for 1979.

5. Investments: During 1977, the assets of the Fund were held in a Trust Account by the Government of the Northwest Territories, which allocated interest each month on the current balance.

Since the end of the year, these assets have been transferred to the direct control of the Board and have been invested in Bank Deposit Certificates for terms of 90 days.

As increases in interest rates are generally expected to occur later this year, the opportunity should present itself to the Board, through its Investment Committee, to invest in longer term bonds more suitably matched to the term of the liabilities for pension and other periodic payments. Prudent fund management for a long-term fund of this nature involves investing for as long as possible when interest rates are high, and a sound investment programme can be very effective in keeping assessment rates as low as possible.

IV. Results and Conclusions:

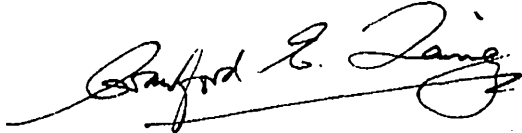
The operations for each Class for the year 1977 are shown in detail in the financial statements. On the whole, this indicates a very satisfactory position for the first year of operation of the Fund and the aggregate Class Balances of nearly \$1,000,000 are an indication of this.

The Pension Fund valuation indicates a total liability of \$876,007 (see summary in Appendix B). Against this there is a Fund of \$483,509, and a commitment to allocate 8% of Assessment Revenue in 1978 to meet the balance of the capital cost of the pension increases presently payable in respect of Pre-1977 accidents. This will amortize this unfunded liability of \$392,498 by the end of 1978.

Our Certificate for inclusion in your Annual Financial Statements is attached as Appendix C. This is subject to adoption by the Board of the specific recommendations contained in this report.

In conclusion, we would like to record our appreciation of the co-operation and courtesy we have received at all times from the Chairman and the Board's staff in maintaining the data and statistics for the purpose of this report.

Respectfully submitted;
for Crawford E. Laing Ltd.

A handwritten signature in black ink, reading "Crawford E. Laing". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Crawford E. Laing, FCIA, FFA, AIA, ASA
President & Actuary

Appropriations to Contingency Reserve

- for (a) Industrial Diseases
(b) Enhanced Disabilities
(c) Rehabilitation Costs

Appendix A.1.

	<u>Assessment Income for 1977</u>	<u>Appropriation to Contingency Reserve</u>
(a) Industrial Diseases (as defined)		
Contribution from all Classes: 5% of Assessment Income for 1977	\$6,806,420	\$340,321
Additional Contribution from Mining Industry (Sub-Classes 22-26): 10% of Assessment Income for 1977	\$2,171,083	\$217,108
		<u>\$557,429</u>
(b) Enhanced Disabilities (as defined) and		
(c) Rehabilitation Costs (as defined)		
Contribution from all Classes: 5% of Assessment Income for 1977	\$6,806,420	\$340,321
		<u>\$897,750</u>

Appropriations to Contingency Reserve for Disasters, Catastrophes, etc.

Appendix A.2.

<u>Class</u>	<u>1977 Assessment Income</u>	<u>Disaster, etc. Appropriation</u>	<u>Average Rate % of Assessments</u>
10	\$ 75,532	\$ 15,106	20.00%
20	2,818,465	279,897	9.93%
30	34,206	6,841	20.00%
40	1,370,672	132,593	9.67%
50	939,667	201,055	21.40%
60	219,371	41,055	18.72%
70	290,669	54,757	18.84%
80	1,057,837	184,054	17.40%
Total	<u>\$6,806,419</u>	<u>\$915,358</u>	<u>13.45%</u>



Valuation of Liability for Pension Increases at December 31, 1977

Appendix B

<u>Year of Accident</u>	<u>No. of Pensioners</u>	<u>Monthly Pension Increases</u>	<u>Total Liability</u>
1953	1	\$ 40.50	\$ 6,391
54	3	80.40	12,706
55	6	178.66	25,405
56	9	408.77	64,207
1957	5	146.91	18,535
58	2	63.91	7,749
59	1	40.65	6,198
60	3	152.43	21,486
61	5	272.00	39,346
1962	2	157.47	25,635
63	1	54.25	7,860
64	9	250.01	24,101
65	11	394.60	57,483
66	13	347.62	41,079
1967	7	150.62	19,233
68	12	475.37	70,403
69	10	255.98	37,569
70	22	513.91	68,414
71	22	434.26	54,312
1972	32	800.88	114,606
73	20	326.56	46,698
74	46	769.08	97,408
75	8	64.39	9,183
Total	<u>250</u>	<u>\$6,379.23</u>	<u>\$876,007</u>
		per month	

Workers' Compensation Board
Northwest Territories

Valuation of Liability for Pension Increases at December 31, 1977

Appendix B2

Permanent Disability Pensioners

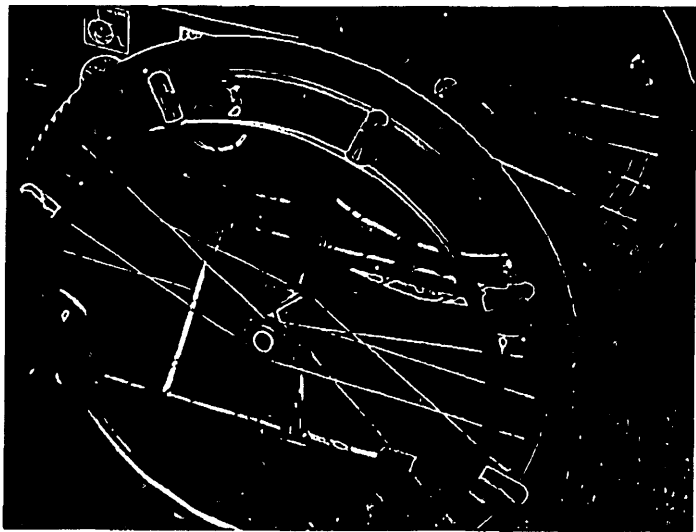
<u>Year of Birth</u>	<u>No. of Pensioners</u>	<u>Annual Pension Increases</u>	<u>Total Liability</u>
1899	1	\$ 273.72	\$ 1,609
1902	1	925.92	6,137
1907	1	437.76	3,476
1913	1	316.44	3,081
1914	2	1,117.56	10,880
1916	2	396.72	4,057
1917	3	1,159.32	12,271
1918	2	1,377.36	14,820
1919	3	345.72	3,810
1920	1	263.88	2,950
1921	3	1,197.24	13,771
1922	3	1,092.36	12,707
1923	5	1,735.56	20,772
1924	5	3,004.80	36,381
1925	2	558.12	6,858
1926	4	757.08	9,462
1927	5	1,636.56	20,899
1928	3	1,183.80	15,327
1929	2	657.00	8,609
1930	5	1,483.56	19,784
1931	2	1,959.36	26,465
1932	2	370.92	5,089
1933	4	2,082.84	28,800
1934	5	1,529.40	21,531
1935	7	1,701.48	24,153
1936	1	1,386.00	19,822
1937	3	1,230.96	17,821
1938	2	299.16	4,374
1939	3	2,117.28	31,169
1940	1	279.72	4,187
1941	2	651.24	9,795
1942	5	1,859.04	28,151
1943	2	2,187.12	33,281
1944	2	455.76	6,975

Valuation of Liability for Pension Increases at December 31, 1977

Appendix B2

Permanent Disability Pensioners

<u>Year of Birth</u>	<u>No. of Pensioners</u>	<u>Annual Pension Increases</u>	<u>Total Liability</u>
1946	4	1,026.12	15,951
1947	4	1,474.20	23,031
1948	2	1,386.00	21,794
1949	5	1,378.80	21,800
1951	3	389.28	6,211
1953	2	468.36	7,520
1954	2	622.56	10,039
1955	1	119.76	1,937
Total	<u>118</u>	<u>\$44,895.84</u>	<u>\$597,557</u>



Workers' Compensation Board
Northwest Territories

Valuation of Liability
for Pension Increases
at December 31, 1977

Appendix B3

Widow Pensioners

<u>Year of Birth</u>	<u>No. of Pensioners</u>	<u>Annual Pension Increases</u>	<u>Total Liability</u>
1910	1	\$ 723.60	\$ 7,421
1915	1	516.00	5,984
1919	1	561.60	6,997
1921	2	1,155.00	14,768
1926	1	480.00	6,347
1927	3	1,454.40	19,278
1928	2	1,047.00	13,886
1929	1	480.00	6,340
1930	1	516.00	6,816
1931	1	486.00	6,391
1932	2	691.20	9,005
1933	1	480.00	6,219
1934	2	885.60	11,299
1935	1	369.60	4,617
1937	1	290.40	3,507
1938	2	773.40	9,340
1940	1	369.60	4,159
1941	1	211.20	2,308
1942	5	1,641.60	17,606
1943	1	290.40	2,966
1945	2	1,119.00	11,008
1946	1	516.00	4,875
1947	1	290.40	2,513
1949	2	818.40	6,571
1953	1	211.20	1,324
1955	1	240.00	1,420
Total	39	\$16,617.60	\$192,965

Valuation of Liability for Pension Increases at December 31, 1977

Appendix B4

Childrens and Orphans Pensions

<u>Year of Birth</u>	<u>No. of Pensioners</u>	<u>Annual Pension Increases</u>	<u>Total Liability</u>
1956	1	\$ 134.40	\$ 261
1958	2	334.20	947
1959	2	349.80	1,185
1960	5	844.20	3,101
1961	12	2,074.56	8,394
1962	4	739.20	3,301
1963	5	874.80	3,906
1964	11	2,072.16	9,252
1965	5	706.80	3,495
1966	6	1,101.00	5,940
1967	5	803.40	4,843
1968	7	1,187.40	8,165
1969	4	572.40	4,338
1970	6	909.00	7,308
1971	8	1,111.20	9,494
1972	4	588.00	5,292
1973	3	259.20	2,473
1974	1	86.40	851
1975	1	67.20	720
Total	<u>92</u>	<u>\$14,815.32</u>	<u>\$ 83,266</u>

1899	<u>1</u>	<u>\$ 222.00</u>	<u>\$ 2,219</u>
Summary			
Permanent Disability	118	\$44,895.84	\$597,557
Widow Pensioners	39	16,617.60	192,965
Children and Orphans	92	14,815.32	83,266
Other Dependents	<u>1</u>	<u>222.00</u>	<u>2,219</u>
Grand Total	<u>250</u>	<u>\$76,550.76</u>	<u>\$876,007</u>
		per annum	

Certificate

As Consulting Actuaries to the Workers' Compensation Board -North-west Territories, we have reviewed the liabilities of the Accident Fund as at December 31, 1977, but have not ourselves carried out an audit as the Fund is subject to audit by the Auditor General of Canada. However, we are satisfied from general tests of the data that it represents accurately the position as at the valuation date.

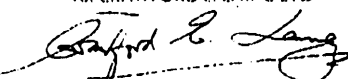
We certify that the liabilities of the Pension Fund in respect of increases in pension for Pre-1977 claims is \$876,007. As at the valuation date, there were no liabilities of this Fund in respect of pensions for 1977 injuries, as these were a liability of the Future Claims Provision at that date. Accordingly, there is an unfunded liability at the valuation date of \$386,736, but this is being met during 1978 by an allocation of 8% of Assessment Income for both 1977 and 1978. This will fully fund this liability by the end of 1978.

We certify that the provision of 250% of 1977 Paid Claims totalling \$2,189,982 is adequate, in our opinion, to meet both the future costs of reported claims and the cost of possible unreported claims in respect of 1977 injuries that will be charged to this provision after reimbursement from the Contingency Reserve in respect of claims that will be the responsibility of that reserve.

We also consider that the amounts transferred from the Pre-1977-Administration Fund of \$911,091 and \$253,129 together with the appropriations to the Contingency Reserve from the Classes totalling \$1,748,501, are adequate and necessary to meet claims arising in the future from:

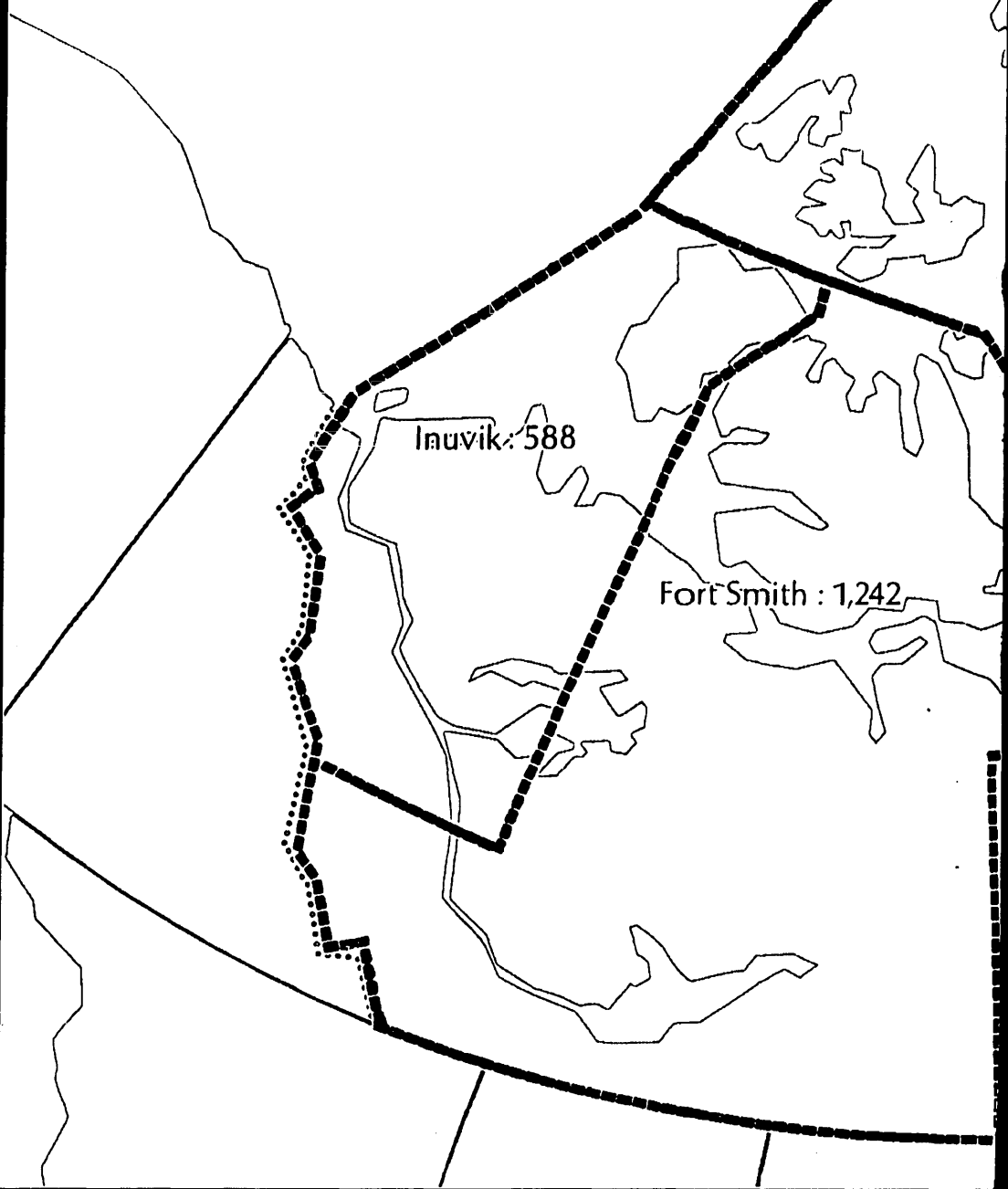
- (i) Disasters, Catastrophes and other claims in excess of the limits set for each Sub-Class for retention and stop-loss purposes;
- (ii) Industrial Diseases (including silicosis),
- (iii) Rehabilitation of injured workers,
- (iv) Enhancement of current claims, as a result of previous injuries;
- (v) Pre-1977 injuries to and deaths of workers of uninsured employers, etc.

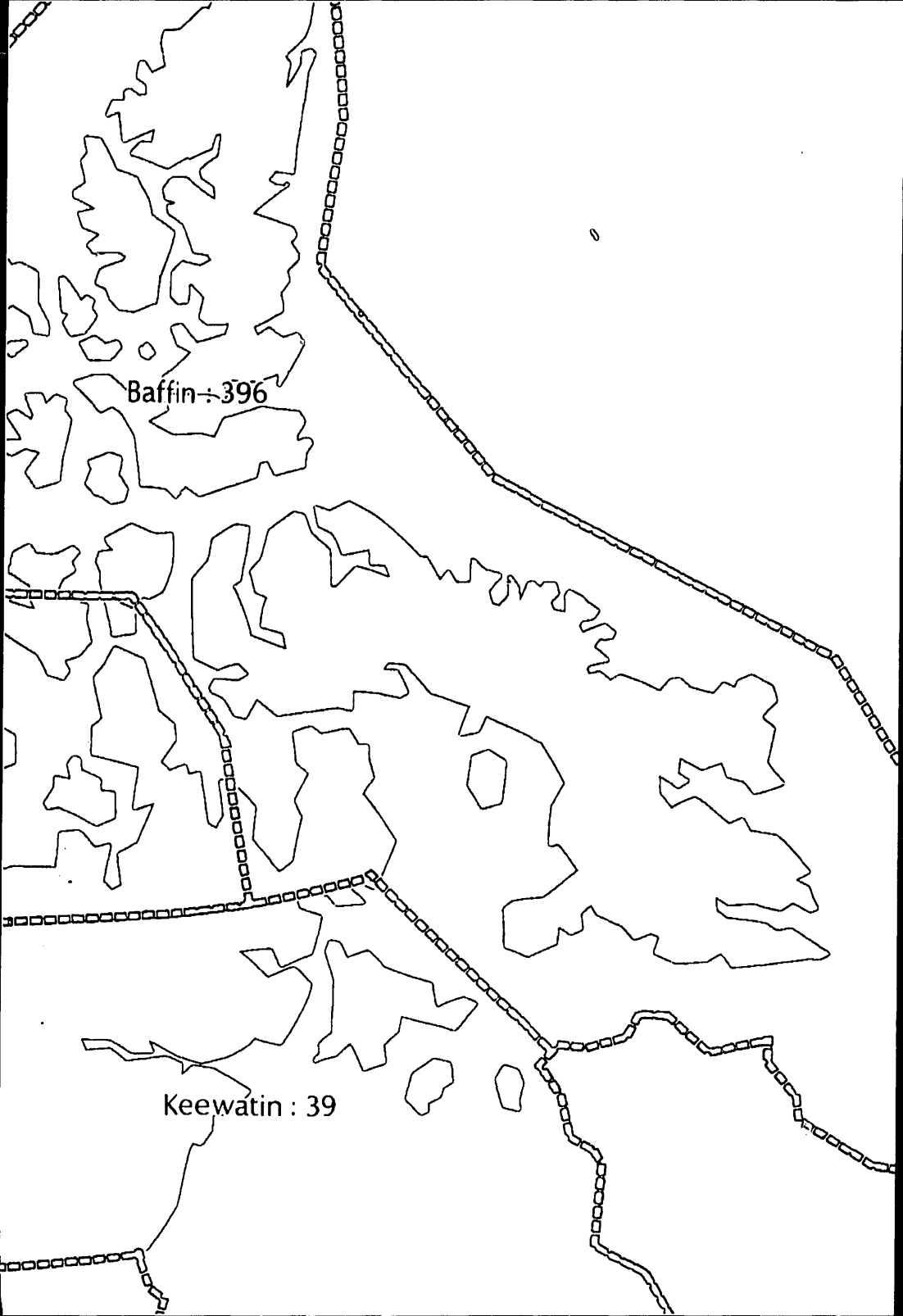
For CRAWFORD E. LAING LTD


Crawford E. Laing, F.C.I.A., F.F.A., A.I.A., A.S.A.
President & Actuary

Statistics Schedule I

1977 Accidents Reported
Analysed by Geographical Region





A map showing the outlines of the Baffin and Keewatin regions. A dashed line, likely representing a boundary or a specific route, starts from the top left, runs north-south, then turns east, then south, then west, then south again, and finally turns east towards the bottom right. The Baffin region is in the upper left, and the Keewatin region is in the lower left. The rest of the map is mostly empty space with some irregular shapes representing landmasses or islands.

Baffin : 396

Keewatin : 39

Specific Location of Accident

Description	No. of Claims	Total Paid Claims
Bathurst Inlet	1	8.00
Buffalo River	1	12.89
Cambridge Bay	13	2,195.21
Coppermine	8	1,986.46
Discovery	0	0.00
Cory Point	0	0.00
Echo Bay	9	12,672.01
Edzo	6	762.91
Enterprise	19	25,072.79
Fort Liard	9	739.84
Fort Providence	7	696.91
Franks Channel	0	0.00
Fort Smith	65	20,980.14
Fort Simpson	56	21,543.90
Fort Wrigley	2	261.09
Gjoa Haven	1	0.00
Enterprise G.W.S.	0	0.00
Great Slave Lake	1	79.14
Hay River	210	98,541.94
Hay River Reserve	3	722.12
Holman Island	1	0.00
Hyslop Lake	0	0.00
Jean Marie River	0	0.00
Fort Resolution	6	215.11
Kakisa Lake	0	0.00
Lac La Martre	3	2,401.64
Lady Evelyn Falls	0	0.00
Little Buffalo River	0	0.00
Louise Falls	0	0.00
Marion Lake	0	0.00
M.B. Caribou	0	0.00
M.V. Johnny Berens	0	0.00
Nahanni Butte	0	0.00
Pelly Bay	5	0.00

Specific Location of Accident

Description	No. of Claims	Total Paid Claims
Pellat Lake	0	0.00
Pine Point	142	40,025.80
Port Radium	54	27,073.42
Prelude Lake	0	0.00
Rae	8	1,023.11
Reid Lake	0	0.00
Reliance	0	0.00
Rae Lakes	0	0.00
Rocher River	0	0.00
Sawmill Bay	0	0.00
60th Parallel	0	0.00
Snare Lake	0	0.00
Snowdrift	0	0.00
Spence Bay	12	8,714.45
Stagg River	0	0.00
Thompson Landing	0	0.00
Thom Bay	0	0.00
Trout Lake	1	21.00
Tungsten	30	5,536.44
Wellington Bay	0	0.00
Whittaker Falls	0	0.00
Willow River	0	0.00
Y.K. Indian Village	2	55.45
Yellowknife	567	167,444.73
Aklavik	10	5,473.61
Arctic Red River	0	0.00
Colville Lake	0	0.00
Fort Franklin	7	1,400.15
Fort Good Hope	4	38.96
Fort McPherson	7	1,963.12
Fort Norman	2	98.55
Inuvik	260	120,382.87
Norman Wells	30	8,901.36
Paulatuk	2	0.00

Specific Location of Accident

Description	No. of Claims	Total Paid Claims
Reindeer Station	0	0.00
Sachs Harbour	2	0.00
Tuktoyaktuk	101	49,302.17
Alexander Fiord	0	0.00
Arctic Bay	2	566.05
Broughton Island	3	594.98
Cape Christian	1	0.00
Cape Dorset	0	0.00
Cape Dyer	4	2,962.95
Clyde River	0	0.00
Ekalujaad Fiord	0	0.00
Eskimo Village	0	0.00
Frobisher Bay	72	7,317.06
Crise Fiord	1	18.50
Hall Lake Beach	32	2,246.79
Hamilton	0	0.00
Igloolik	0	0.00
Lake Harbour	1	65.21
Nettilling Lake	0	0.00
Nottingham Island	2	74.00
Padloping Island	0	0.00
Pangnirtung	1	0.00
Pond Inlet	4	779.25
Port Burwell	0	0.00
Resolute Bay	84	17,402.21
Resolution Island	0	0.00
Strathcona Sound	73	27,568.74
Sanikiluaq	0	0.00
Akudlik	0	0.00
Baker Lake	11	2,427.82
Chesterfield Inlet	0	0.00
Churchill	0	0.00
Coral Harbour	0	0.00
Dalfy Repneheimer Bay	0	0.00

Specific Location of Accident

Description	No. of Claims	Total Paid Claims
Duke of York Bay	0	0.00
Ennadai	1	394.54
Eskimo Point	5	178.50
Ferguson Wilson River	0	0.00
Garry Lake	0	0.00
Lynn Lake	0	0.00
Maguse River	0	0.00
Padlei	0	0.00
Rankin Inlet	9	453.44
Repulse Bay	6	438.74
Southampton Island	0	0.00
Thalanne River	0	0.00
Whale Cove	0	0.00
Exact location not computerized	286	186,156.84
Total paid claims	2,265	\$875,992.91



Statistical Schedule II

Accidents Reported by Region of Injury and Type of Injury

Part of Body

Description	No. of Claims	Total Paid Claims
Head	10	555.33
Brain	0	0.00
Ear(s)	7	4,957.00
Ear(s) external	1	579.74
Ear(s) internal	15	1,083.86
Eye(s) etc.	246	33,785.21
Face	9	531.70
Jaw, chin	4	1,462.58
Mouth, etc.	16	2,396.55
Nose, etc.	7	539.03
Face, multiple	20	1,877.66
Face, N.E.C.	14	657.54
Scalp	7	170.93
Skull	6	2,880.73
Head, multiple	18	7,661.59
Head, N.E.C.	18	662.82
Neck	16	4,863.45
Upper limbs	0	0.00
Arm, above wrist	18	12,389.79
Upper arm	6	105.03
Elbow	30	2,126.76
Forearm	33	26,104.54
Arm, multiple	15	22,790.60
Arm, N.E.C.	1	97.79
Wrist	45	10,372.18
Hand	123	17,650.08
Fingers	386	79,755.60
Upper limbs, multiple	53	14,295.52
Upper limbs, N.E.C.	2	0.00
Trunk	1	0.00
Abdomen	6	547.53
Back spine etc.	266	87,072.49
Chest	54	9,506.98
Hips	19	9,642.63

Accidents Reported by Region of Injury and Type of Injury

Part of Body

Description	No. of Claims	Total Paid Claims
Shoulders	43	17,626.13
Trunk, multiple	4	32.67
Trunk, N.E.C.	5	1,572.31
Lower limbs	0	0.00
Legs, above ankle	29	21,420.72
Thigh	23	6,102.96
Knee	95	57,211.52
Lower leg	24	4,726.53
Leg multiple	15	16,154.65
Leg, N.E.C.	0	0.00
Ankle	87	49,106.59
Foot	98	21,238.34
Toe(s)	27	4,575.19
Lower limbs, multiple	26	16,940.69
Lower limbs, N.E.C.	5	7,494.74
Multiple parts	114	153,585.74
Body system	5	4,180.33
Circulatory	3	0.00
Digestive	1	6.50
Excretory	6	10,547.17
Respiratory	6	670.22
Body Parts N.E.C.	177	125,676.19
Total paid claims	2,265	\$875,992.51

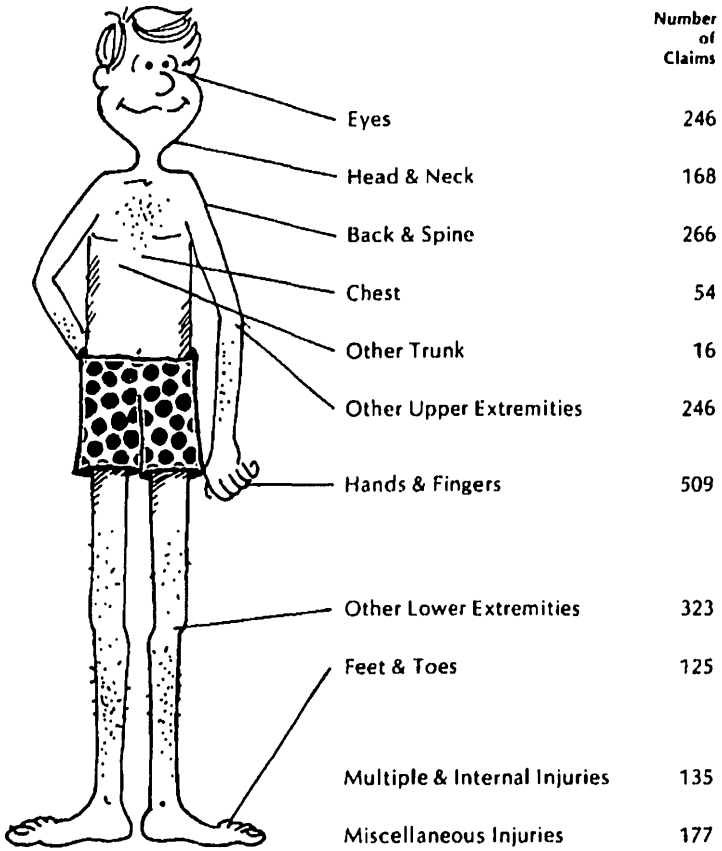
Type of Injury

Description	No. of Claims	Total Paid Claims
Amputation or enucleation	14	20,913.72
Asphyxia, etc.	0	0.00
Burn or scald (heat)	76	21,119.20
Concussion	11	7,398.39
Contusion, crush, bruise	464	105,179.46
Cut, etc. (open wound)	460	90,358.99
Dislocation	29	38,217.51
Electrocution	1	12.89

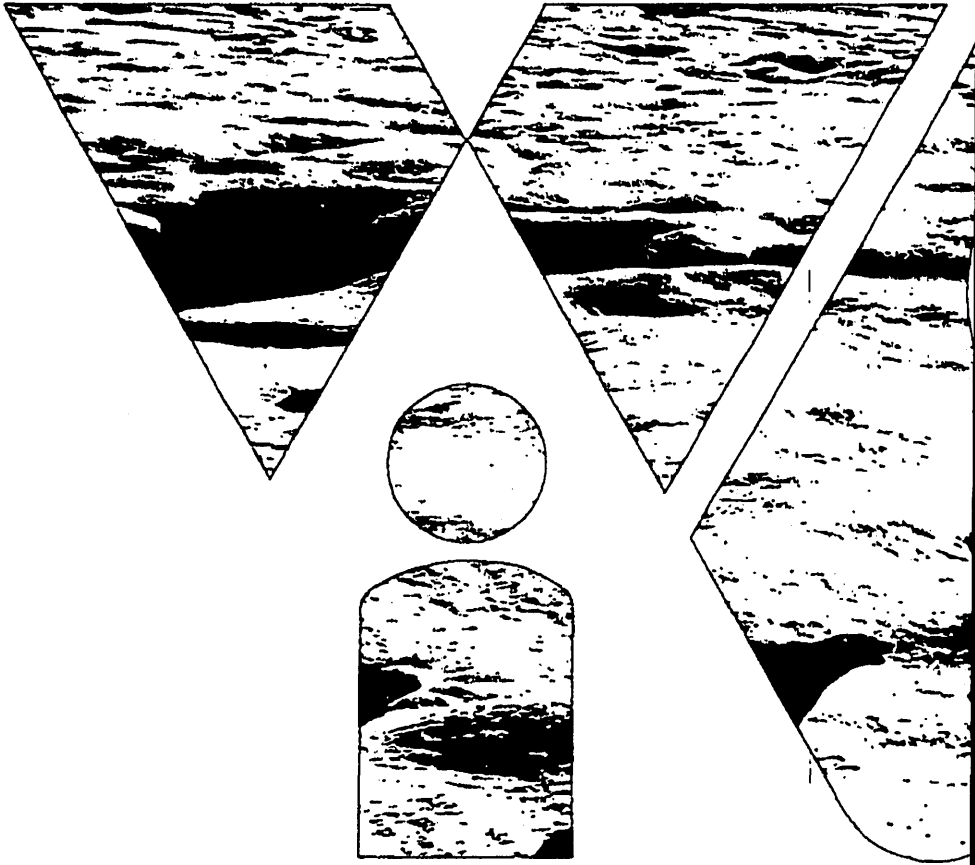
Type of Injury

Description	No. of Claims	Total Paid Claims
Fracture	107	135,359.83
Hernias, rupture	12	16,548.27
Superficial wounds	220	30,939.95
Sprains, strains	450	129,598.35
Multiple injuries	83	128,769.99
Occupational Injury N.E.C.	24	4,637.65
Burn (chemical)	42	6,041.01
Contagion or infection	3	978.59
Dermatitis, etc.	18	500.80
Freezing, exposure, etc.	3	878.11
Hearing loss, impairment	10	165.23
Heat strokes, etc.	1	0.00
Inflammation, muscles, etc.	11	4,303.84
Poisoning, systemic	10	4,639.26
Silicosis	2	0.00
Pneumoconioses, N.E.C.	0	0.00
Radiation	12	454.99
Occupational disease, N.E.C.	3	82.17
Non Personal damage only	22	2,036.45
Unclassified	177	126,858.26
Total paid claims	2,265	\$875,992.91

1977 Accidents Reported
 Analysed by Region of Injury



Workers' Compensation Board
Northwest Territories



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