

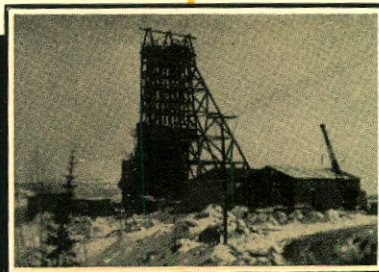
CONSOLIDATED
DENISON
MINES LIMITED



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ANNUAL REPORT

FOR THE YEAR ENDED DECEMBER 31, 1955



**CONSOLIDATED
DENISON**

M I N E S L I M I T E D

**A N N U A L R E P O R T
F O R T H E Y E A R
E N D E D D E C E M B E R 3 1 , 1 9 5 5**

Officers and Directors

OFFICERS	STEPHEN B. ROMAN - - - - -	President
	A. W. STOLLERY - - - - -	Vice-President
	JOHN C. PUHKY - - - - -	Secretary-Treasurer
DIRECTORS	STEPHEN B. ROMAN - - - - -	Toronto, Ont.
	A. W. STOLLERY - - - - -	Toronto, Ont.
	JOHN C. PUHKY - - - - -	Toronto, Ont.
	SENATOR T. H. WOOD - - - - -	Regina, Sask.
	F. H. JOWSEY - - - - -	Toronto, Ont.
	J. S. WILLIAMS, Q.C. - - - - -	Toronto, Ont.
	GEO. C. KNOWLES - - - - -	Toronto, Ont.
GENERAL MANAGER	JOHN KOSTUIK, B.Sc. - - - - -	Toronto, Ont.
REGISTRAR & TRANSFER AGENT	GUARANTY TRUST COMPANY OF CANADA - - -	Toronto, Ont.
AUDITORS	AMPLEFORD, BROADHEAD & CO. - - - - -	Toronto, Ont.
SOLICITORS	MUNGOVAN & MUNGOVAN - - - - -	Toronto, Ont.
BANKERS	THE ROYAL BANK OF CANADA - - - - -	Toronto, Ont.
HEAD OFFICE	360 Bay Street, Toronto, Ont.	
MINE OFFICE ADDRESS	Spragge, Ontario.	



**CONSOLIDATED
DENISON
MINES LIMITED**

Construction Offices and
Living Quarters

Directors' Report

To the Shareholders:

It is a distinct pleasure to present, on behalf of the Board of Directors, a brief resumé of your Company's activities during the year ended December 31st, 1955. Included with the Annual Report is the Summary of Operations by Mr. John Kostuik, B.Sc., General Manager, and the audited financial statement.

The year under review has been highly important in your Company's progress towards becoming one of the world's major producers of uranium.

The most noteworthy achievement during the year was, of course, the successful negotiation of a Government contract for the sale of \$182,250,000 worth of uranium precipitates. This contract, to be filled from production from your Company's property during the period April 1, 1957 to March 31, 1962, is the second largest of its kind to be awarded in Canada. It provides a worthy climax to approximately 12 months of intensive exploration and development of the 88 claim group held by your Company in the Blind River area, Northern Ontario. The contract calls for a production rate of 5,700 tons per day, to be the largest individual plant, devoted solely to output of uranium products, in the world.

Together with contract negotiations was the equally successful senior financing arrangement concluded by your Management. The creation of two bond issues was designed to raise \$37 million to bring the mine and treatment plant into full production.

Series 'A' bonds were issued to a Canadian bank as collateral security for a loan of \$15 million. Funds up to this amount are to be used after proceeds from the sale of \$22 million Series 'B' bonds bearing interest of 5% and maturing June 1, 1962, have been expended. The Series 'B' bonds carry stock purchase warrants entitling the purchaser of each \$500 bond to buy 15 shares of treasury stock for \$12 per share up to April 1, 1958, and thereafter up to April 1, 1960, for \$15 per share.

A special general meeting of Shareholders approved a proposal to increase the Company's authorized capitalization from 5,000,000 to 6,000,000 shares of which 4,450,000 are presently outstanding. The necessary Supplementary Letters Patent were subsequently issued. A total of 760,000 shares are reserved for issue on the exercise of warrants issued in connection with the Series 'B' bonds.



Excavating at
Concentrator Area

Staff House



Staff Housing

Initial success of the intensive diamond drilling program, carried out under the direction of Mr. Ralph I. Benner, B.Sc., the Company's Consulting Geologist, was followed up to outline a tonnage of commercial grade, in the northeastern portion of the property on the southwest shore of Quirke Lake, deemed more than adequate to permit negotiations for sale of precipitates and for production at a 5,700 tons per day rate. Subsequent drilling by your Company and other companies with adjoining properties has indicated the continuity of the main ore horizons to suggest a vastly greater tonnage.

All mining and milling plans have been designed in such manner as to permit expansion to possible rate of 10,000 tons per day as required. The program of sinking two shafts and construction of a complete surface plant, with all ancillary services, is proceeding on schedule as set out in Mr. Kostuik's report. Barring unforeseen difficulties, it is now expected that the target production date of January 1, 1957, will be achieved.

Fully cognizant of the importance your Company will attain in the Canadian economy, your Board of Directors spared no effort in locating trained and experienced personnel of top calibre to carry on the operation. Mr. John Kostuik, who joined the Company last June, has been subsequently appointed General Manager. Under his leader-

Directors' Report (CONTINUED)

ship, the project will be directed by Messrs. J. M. Bracken, Mine Manager; M. J. deBastiani, Assistant Mine Manager; and R. W. Mancantelli, Mill Superintendent.

Mr. B. E. Willoughby has accepted the responsibility of acting as your Trustee for the Improvement District of Elliot Lake where a model Government planned town of at least 10,000 population will be built, some nine miles from your mine plant. It is expected that the first 150 houses will be erected for your Company by the end of this year.

At the termination of the contract, your Company should find itself in a most favorable position, competitively, for continued large-scale production. Provision will be made for complete amortization of the plant, and ore reserves for many years of additional output will be in sight.

The future markets for uranium products appear to be vast. Atomic energy and uranium for industry are in their infancy. Continued research and development are bound to provide increasing demands. The oil, automotive, nickel, aluminum and plastics industries all met with some difficulties and dislocations in their formative years. Similar difficulties may be encountered in the uranium industry before world-wide acceptance is assured. However, with continued demands for military purposes and recent release of uranium to private industry, an ever growing demand for uranium is strongly indicated.

A revolutionary desire for improved standards of living is global and can, and will, in part at least, be met by availability of inexpensive sources of power. Hydro-electric sources are nearing their limits and atomic energy derived from uranium presents the logical successor. The actual cost of power generation with uranium fuel is comparable with current fossil fuel sources. As the actual fuel cost is in itself a very minor portion of the overall cost it is readily understandable that the cost of uranium will be no detriment to its general use.

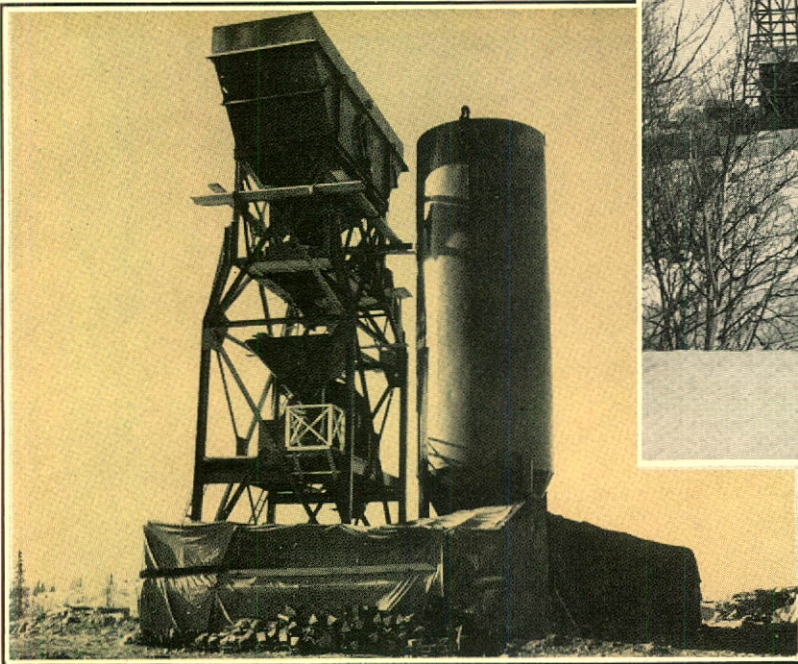
Your Company's participation in the future of the world's economic picture would appear most favorable, especially in view of the large areas of relatively unexplored ground available to it on a known major geological structure.

The diligence, loyalty and co-operation of Mr. John Kostuik, General Manager, and his able staff are gratefully acknowledged.

On behalf of the Board of Directors,

Toronto, Ontario,
April 19, 1956.

STEPHEN B. ROMAN,
President.



Automatic Cement-
Mixing Unit



No. 2 Shaft



Service
Buildings

Concentrator Site



Road Construction



**CONSOLIDATED
MINES**

BALANCE SHEET

As at December 31, 1955

ASSETS

CURRENT:

Cash on Hand and in Banks	\$ 497,241.68	
Investment in Bank Deposit Receipts	400,000.00	
Project Fund in Hands of Trustee	21,005,640.56	
Sundry Receivables	1,736.32	\$ 21,904,618.56

Deposit with Hydro-Electric Power Commission of Ontario:

Cash—Refundable by percentage deductions from power bills	\$ 239,400.00	
Government of Canada Bonds—at Cost (Market Value \$12,187.50)	12,468.75	251,868.75

Prepaid Insurance Premiums		19,642.25
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CAPITAL ASSETS—at Cost

Mining Claims and Properties (Note 1)	\$ 299,830.34	
Land, Buildings, Machinery and Equipment, including construction in progress	1,402,106.32	1,701,936.66

Deferred Development and Pre-production Expenditure		1,817,607.54
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Advances to and shares in Other Mining Companies:

Advances	\$ 18,674.95	
Shares, shown for record purposes at	1.00	18,675.95

Incorporation and Organization		12,777.89
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Expenses of Issue of First Mortgage Bonds		1,199,748.03
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\$ 26,926,875.63

AUDITOR'S REPORT

We have examined the Balance Sheet of Consolidated Denison Mines Limited as at December 31, 1955, and the Statement of Expenditure for the year ended on that date. Our examination included a general review of the accounts and supporting evidence as we considered necessary in the circumstances, but we did not examine the titles of the securities held.

In our opinion the above Balance Sheet, supplemented by our notes appended, and the Statement of Expenditure present fairly the financial position of the Company as at December 31, 1955, and the results of its operations for the year ended on that date.

Toronto, Canada
March 12, 1956.

**ED DENISON
LIMITED**

E SHEET

er 31, 1955

LIABILITIES

CURRENT:

Accounts Payable and Accrued Charges	\$ 1,392,238.69	
Accrued Interest on Series B Bonds	276,500.27	\$ 1,668,738.96

First Mortgage Bonds:

4½% Series A (Note 2)		
5% Sinking Fund Series B due June 1, 1962:		
Authorized, Issued and Outstanding		22,000,000.00

CAPITAL STOCK:

Authorized (Note 3):		
6,000,000 shares of \$1.00 Par Value each	\$ 6,000,000.00	
Issued and Fully Paid (Note 4):		
4,450,000 shares	\$ 4,450,000.00	
Less Discount on shares	1,549,363.33	
	<u>\$ 2,900,636.67</u>	

Contributed Surplus—arising from premiums received on shares issued for cash, less discounts	357,500.00	3,258,136.67
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Approved on behalf of the Board,

A. W. STOLLERY, Director.

T. H. WOOD, Director.

\$ 26,926,875.63

REPORT

December 31, 1955, and the Statement of Deferred Development and Pre-production of the accounting procedures and such tests of accounting records and other supporting to the Mining Claims.

the accompanying Statement of Deferred Development and Pre-production Expenditure results of its operations for the year ended on that date.

AMPLEFORD, BROADHEAD & CO.,
Chartered Accountants.

REPORT

CONSOLIDATED DENISON
MINES LIMITED

NOTES TO BALANCE SHEET

DECEMBER 31, 1955

1. Mining Claims—acquired for Cash and Shares of Capital Stock:
 - BLIND RIVER—88 Mining Claims in respect of which 11 Patents have been granted and 77 Patent Applications have been filed:

Cash	\$ 43,830.34	
Value placed on 1,000,000 shares of Capital Stock	225,000.00	\$268,830.34
		\$268,830.34
 - OTHER—54 Unpatented Mining Claims (Ontario, Quebec, Saskatchewan, Yukon Territories) acquired prior to reorganization of February 17, 1954

		31,000.00
		31,000.00

		\$299,830.34
		\$299,830.34
2. Under the Deed of Mortgage and Trust securing First Mortgage Bonds dated October 1, 1955, the issue of \$15,000,000.00—4½% First Mortgage Bonds, Series A is authorized, maturing \$7,500,000.00 December 31, 1958, and \$7,500,000.00 December 31, 1959. These have been hypothecated to the Company's bankers as collateral for bank loans to be made to the Company.
3. 760,000 shares of the Authorized Capital Stock of the Company are reserved for issuance upon the exercise of the rights appertaining to the Stock Purchase Warrants issued in connection with the 5% First Mortgage Sinking Fund Bonds, Series B.
4. Capital Stock Issued and Fully Paid:

1,000,000 shares outstanding after cancellation of shares as provided by Supplementary Letters Patent dated February 17, 1954	\$	225,636.67
1,000,000 shares issued for Mining Claims to December 31, 1954—stated at par	\$ 1,000,000.00	
Discount	775,000.00	225,000.00
		225,000.00
1,650,000 shares issued for Cash to December 31, 1954, stated at par		1,650,000.00
800,000 shares issued for Cash during 1955—stated at par		800,000.00
		800,000.00
4,450,000 shares for		\$ 2,900,636.67
		\$ 2,900,636.67
5. Under the Deed of Mortgage and Trust securing First Mortgage Bonds dated October 1, 1955, the Company has covenanted that it will not declare or pay any dividends on its Capital Stock (except stock dividends) so long as any Series A Bonds are outstanding, and thereafter, so long as any Series B Bonds are outstanding, only if after payment of the dividends the Company's net current assets (as defined in the Deed of Mortgage and Trust) are not less than \$5,000,000.00.
6. The Company's consulting engineers have reported that the anticipated expenditures to bring the Company's Blind River properties to the point of production will be approximately \$37,100,000.00 in addition to approximately \$542,700.00 of expenditures incurred prior to June 30, 1955. Of this amount approximately \$3,500,000.00 has been expended to December 31, 1955.
7. The Company is jointly the defendant in two actions commenced in the Supreme Court of Ontario, in which the total amount of \$171,250.00 is claimed as finder's fee in connection with the sale of 950,000 shares of the Capital Stock of the Company. In the opinion of the Company's Solicitors, on the evidence available, the plaintiff is not entitled to recover in either of the two actions.

**CONSOLIDATED DENISON
MINES LIMITED**

**STATEMENT OF DEFERRED DEVELOPMENT
AND PRE-PRODUCTION EXPENDITURE**

FOR THE YEAR ENDED DECEMBER 31, 1955

	Balance January 1, 1955	Expenditure for the Year	Balance December 31, 1955
	<u> </u>	<u> </u>	<u> </u>
BLIND RIVER URANIUM PROJECT:			
Surface Exploration	\$ 13,583.13	\$ 29,938.77	\$ 43,521.90
Diamond Drilling	35,056.04	295,962.81	331,018.85
Shaft Sinking and Underground Development	-----	590,932.84	590,932.84
Roads	-----	195,130.60	195,130.60
Clearing and Rock-cutting	-----	96,303.93	96,303.93
General Property Expenses	28,025.83	72,940.86	100,966.69
Head Office Expenses	17,173.14	94,237.35	111,410.49
Directors' Fees	1,150.00	4,075.00	5,225.00
Interest Expense	-----	203,075.59	203,075.59
	<u>\$ 94,988.14</u>	<u>\$ 1,582,597.75</u>	<u>\$ 1,677,585.89</u>
Less Interest Income	-----	24,831.50	24,831.50
	<u>\$ 94,988.14</u>	<u>\$ 1,557,766.25</u>	<u>\$ 1,652,754.39</u>
OTHER PROJECTS	163,583.59	1,269.56	164,853.15
	<u><u>\$258,571.73</u></u>	<u><u>\$ 1,559,035.81</u></u>	<u><u>\$ 1,817,607.54</u></u>

General Manager's Report

April 20, 1956.

The President and Directors,
CONSOLIDATED DENISON MINES LIMITED,
9th Floor, 360 Bay Street,
Toronto 1, Ontario.

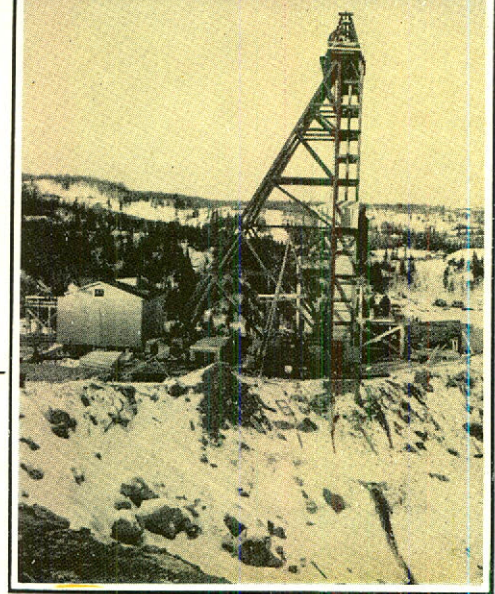
Gentlemen:

Submitted below is a report on the various operations on the Company's property at Blind River in the year ending December 31st, 1955. During this time the main effort was concentrated on preparing the property for production — sinking of No. 1 and No. 2 shafts and the initiation of construction of the concentrator, surface buildings and staff dwellings. Various consulting firms are being retained to assist in this pre-production program and by the end of the year all of these projects were well advanced.

SUMMARY OF WORK ACCOMPLISHED

Since there were strong indications of the successful outlining of a large commercial ore body by drilling early in the year, the Board of Directors decided to proceed with plans for bringing the property to the production stage as rapidly as possible. In March it was decided to locate the No. 1 shaft in the north central position of the property and No. 2 shaft about 2,700 feet to the south.

R. M. Way & Company, Consulting Engineers, were engaged to prepare plans for the concentrator and surface plant as well as time and cost studies. Actual sites for the No. 2 shaft, the grinding plant and concentrator areas were located by May and an access road was completed from the site of No. 1 shaft to the main road which is connected to Highway No. 17 some 18 miles east of Blind River, Ontario. This main road is presently being prepared as a highway. Loop roads connecting No. 1 shaft, No. 2 shaft and the mill were also constructed. These roads, not yet properly surfaced, have been difficult because of the rugged nature of the terrain. During the summer, clearing operations were carried on at the sites for all of these projects as well as staff dwellings. Following negotiations with the Ontario Hydro, the main 44,000 volt line to the property was completed by September and full telephone service installed by October.



No. 1 Headframe

General Manager's Report (CONTINUED)

A railway siding 1,000 feet in length and 330 feet in depth was purchased east of Spragge, Ontario and with the co-operation and assistance of the C.P.R. was ready for use in September.

In August, clearings for the location of housing for the construction crews including sub-trades, personnel of which is estimated will reach 1,000 at peak effort, were commenced. In December the cookery, cookery quarters, sub-contractor offices and quarters, first aid and radio room and an "H" type bunkhouse were completed. A staff house capable of housing 25-30 key personnel was planned and was completed by the end of the year. Clearing was also commenced on a housing project for key personnel located between the No. 1 and No. 2 shafts and by December construction had been started on some 15 houses.

A contract for construction of the surface plant was let to B. Perini & Sons Canada Limited, and in October this firm commenced erection of camps and located purchasing and despatching offices at the railroad siding.

An excellent supply of gravel was located some distance from the plant site. This has been readied for use. Excavations for the forms and erection of concentrator buildings were started, and the grinding plant area was located so that by the end of the year everything was ready for an intensive pre-production construction program.

DEVELOPMENT

No. 1 Shaft: A total of 55 feet of shaft sinking was completed, the shaft collar was poured and a temporary headframe and auxiliary buildings erected by end of April, 1955. Actual sinking of this five compartment shaft, 16 ft. 8" x 13 ft. 2½", with two skip compartments was begun June 1st and by the end of the year had reached a depth of 1,365 feet. This shaft has now been completed to 1,860 feet.

A bed of limestone, which it is believed will be useful for the concentrator, was encountered near the 400 foot horizon, and a station, loading and spill pockets were cut at the 450 and 600 foot levels respectively so that this can be easily mined when and if required.

A 14,000 cubic foot pump station was cut at the 1200 foot horizon where it is planned to instal two pumps with a total capacity of 1,100 gallons per minute.

No. 2 Shaft: A seven compartment unit, 15 ft. 4½" x 27 ft. 11½", with four skip compartments was located in June. Actual sinking was delayed until September owing to the preparations for the grinding plant and various service buildings. The shaft

CONSOLIDATED DENISON MINES LIMITED

was commenced in mid-September, deepened to 55 feet and the collar was poured in November. The components and temporary wood frames were assembled and foundations for the compressors and two six-foot diameter sinking units were erected. This shaft has passed the 500 ft. mark at April 15, 1956.

MINING

Plans for mining of the ore body as drawn up by the Company's staff are predicated on a totally trackless method. Senior staff members who have held positions of top responsibility in three different regions where this type of operation is employed have designed a method to use the most modern trackless machinery ever developed. In this regard the Company has been fortunate in obtaining the services of Mr. Kremer Bain, former Consulting Engineer for St. Joseph Lead Company at Bonne Terre, Mo. and a leading U.S. authority on trackless mining. Mr. Bain assisted the mine staff to finalize the plans for mining the ore body and was extremely helpful in the design and purchase of the machinery. Equipment for the initial phase of the mining operation has been purchased and no delays on delivery are anticipated at this time.

CONCENTRATOR AND SURFACE PLANT

Based on wide experience in the Eldorado and Beaverlodge areas as well as in Blind River, R. M. Way & Company is designing a plant incorporating the most modern layout and engineering. The flow sheet is also being developed by the above firm and Mr. R. W. Mancantelli, the Company's Mill Superintendent, a metallurgist of wide experience, formerly in charge of the Beaverlodge concentrator. The Radioactivity Division of the Department of Mines, Ottawa, is lending its assistance in the development of the flow sheet. Mr. Mancantelli has visited uranium plants in South Africa to acquaint himself first-hand with their methods and machinery, some of which will be employed in the Company's concentrator. Mr. Robert Porter of Salt Lake City, who has had extensive experience in flow sheets in Canada and South Africa, has been engaged to design the Ion Exchange section of the mill. He is considered a world-wide authority on this type of work.



No. 2 Headframe



General Manager's Report (CONTINUED)

This summer it is planned to send a lot of 20 tons of typical mine ore to the Radioactivity Division of the Department of Mines and Technical Surveys in Ottawa for tests which will be attended by members of the Company's staff. Emphasis will be placed on the training of technical personnel for work in the concentrator at a future date. To that end, visits and talks with various research and operating groups will be conducted throughout the following year.

A contract for sulphuric acid has been signed with Noranda Mines Limited which is constructing a sulphuric acid plant at Cutler, Ontario, on Highway 17, south of the mine. Nitric acid for the plant will be supplied by Canadian Industries Limited and steel for construction has also been assured. Completion of the plant is anticipated by the end of this year. Considerable effort is being concentrated on completion of the surface plant at the No. 1 shaft by early Spring of 1956. Although this project has been generally thought of as a temporary expedient to develop the mine and build a stock-pile while the mine production and service buildings are completed at No. 2 shaft, it is being planned with a view to providing a second production shaft should one be required in the future.

GENERAL

At present all studies indicate the final cost of the plant and facilities are within the original estimates. At this point I would like to express my very sincere appreciation for the efforts of the staff both in the mining and metallurgical divisions. Great credit is due them for the sustained high quality of their work. Credit is also due to the various consulting engineers and firms noted above and in particular I would like to commend the efforts of Mr. J. M. Bracken — Mine Manager, Mr. M. J. deBastiani — Assistant Mine Manager, Mr. E. B. McConkey, C.A. — Comptroller, Mr. R. W. Mancantelli — Mill Superintendent, Mr. E. Futterer, Jr. — Chief Engineer, Mr. F. Anderson — Electrical Superintendent and Mr. John Seal — Mine Accountant.

Respectfully submitted,

JOHN KOSTUIK,
General Manager.



Aerial of Concentrator Area



No. 1 Shaft



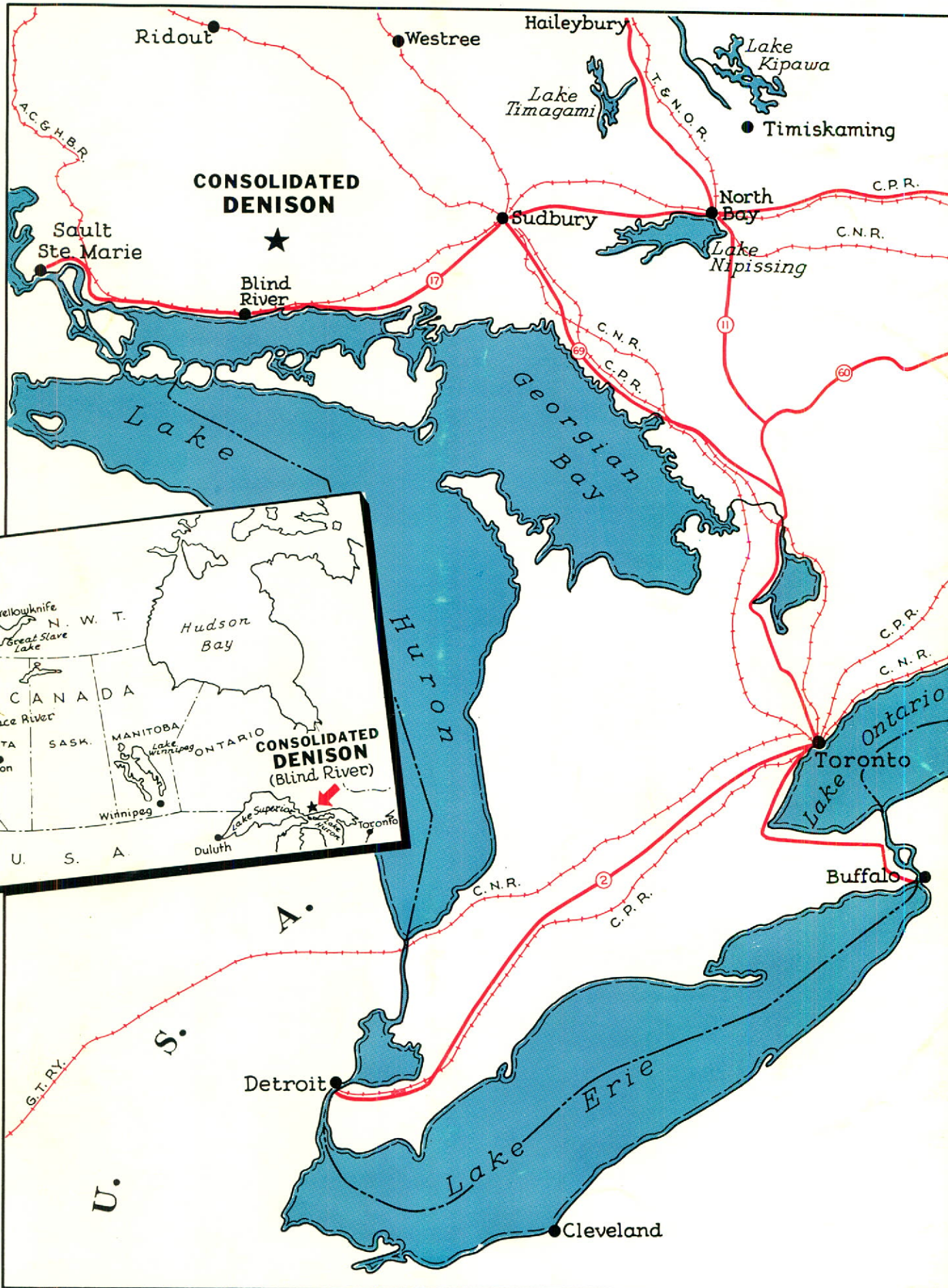
Concentrator Area



Construction Office Staff



Contractor Offices



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Blind River

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(Blind River)