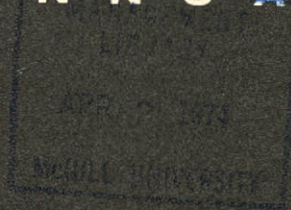
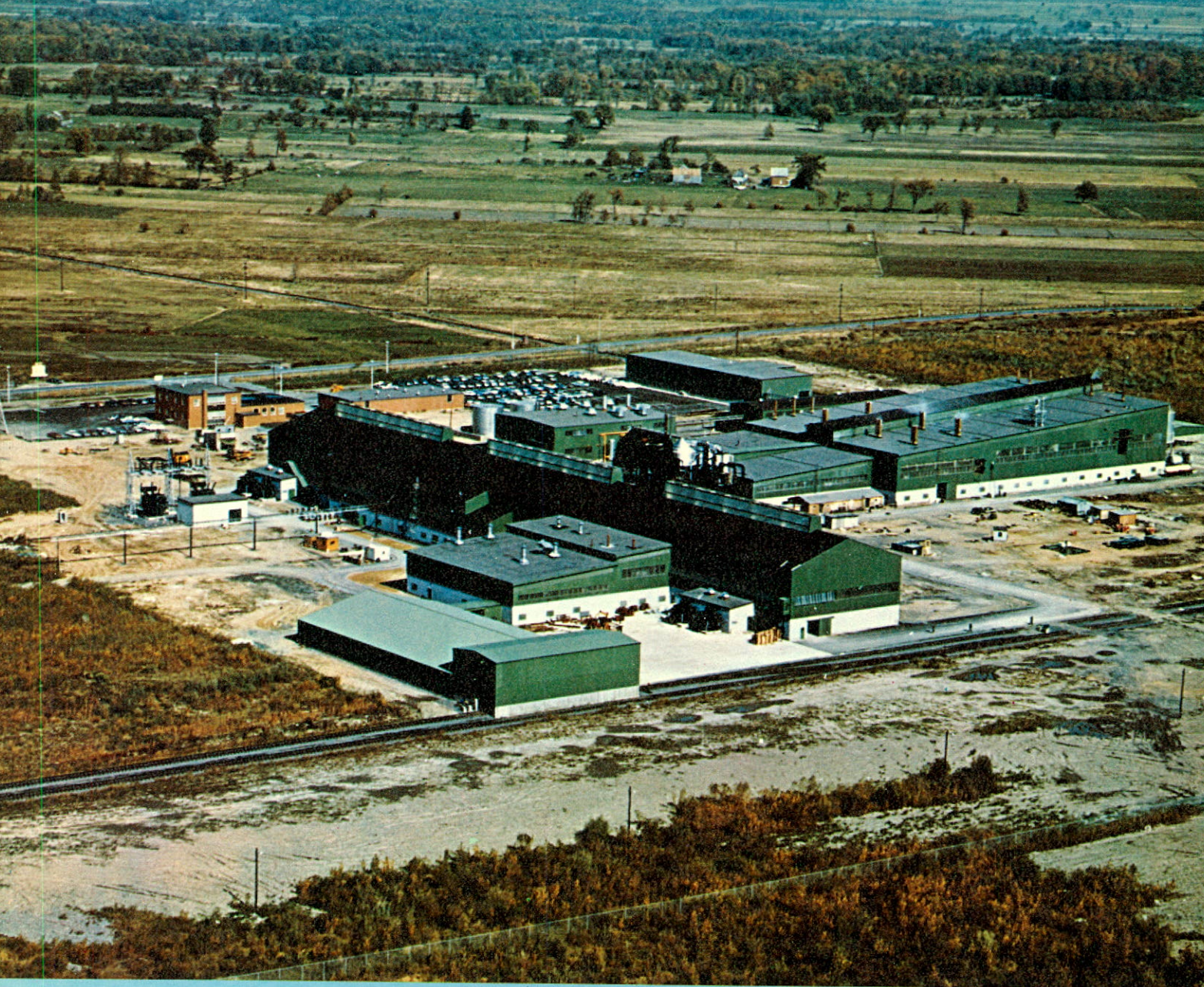


MATTAGAMI LAKE MINES LIMITED

(NO PERSONAL LIABILITY)

A N N U A L R E P O R T 1 9 6 4





Electrolytic Zinc Reduction plant, Valleyfield, Quebec. (62.5% owned by Mattagami.)

ANNUAL REPORT 1964

MATTAGAMI LAKE MINES LIMITED
(NO PERSONAL LIABILITY)

*Aerial view of Mine plant
Matagami, Quebec, on front.*

MATTAGAMI LAKE MINES LIMITED

(NO PERSONAL LIABILITY)

HEAD OFFICE: 100 D'YOUVILLE, QUEBEC CITY, QUEBEC

EXECUTIVE OFFICE 44 King St. West, Toronto, Ontario

MINE OFFICE Matagami, Quebec

MINE MANAGER M. W. AIRTH

AUDITORS PEAT, MARWICK, MITCHELL & CO., Toronto

**REGISTRAR AND
TRANSFER AGENT** EASTERN & CHARTERED TRUST COMPANY,
Toronto, Montreal and Vancouver

SOLICITORS MILLER, THOMSON, HICKS, SEDGEWICK, LEWIS & HEALY

BANKERS CANADIAN IMPERIAL BANK OF COMMERCE
THE BANK OF NOVA SCOTIA

DIRECTORS

J. M. R. CORBET Toronto
G. A. GORDON Vancouver
H. E. LANGFORD Toronto
R. LETOURNEAU Quebec
T. H. McCLELLAND Vancouver
R. V. PORRITT Toronto
J. B. REDPATH Toronto
W. S. ROW Toronto
K. J. SPRINGER Toronto

OFFICERS

W. S. ROW President
T. H. McCLELLAND Vice-President
R. C. ASHENHURST Secretary and Treasurer

ANNUAL MEETING

The Windsor Hotel, Montreal, Quebec,
Friday, April 23, 1965 at 10:30 o'clock
in the forenoon Montreal Time.

REPORT OF THE DIRECTORS

To the Shareholders:

Your directors submit the Sixth Annual Report of your Company for the year ended December 31, 1964, including the Financial Statements, the Auditors' Report and the Report of the Manager.

Milling of 1,282,072 tons of ore, in the first full year of production, produced 275,674 tons of zinc concentrate and 36,129 tons of copper concentrate. Zinc concentrate in excess of that required for Canadian Electrolytic Zinc was sold to smelters in the U.S.A., Europe and Japan.

Net profit for the year amounted to \$12,682,738. after providing for provincial mining duty and write-off of plant and preproduction expense.

The bank loan was reduced by \$10,300,000. while \$2,100,000. was spent on plant and equipment at the mine and the Zinc plant. Receivables and metals in transit increased by \$5,900,000.

Interest on the 6% secured income debentures Series A will be due and payable on April 30, 1965. The \$5,000,000. balance on the line of credit bank loan has been extended for one year and therefore it appears it will not be necessary to issue additional Series A or Series B debentures.

Mine Operations

While normal mine development continued with preparation of additional stopes in the No. 1 orebody, main haulageways on the 750, 550 and 350 foot levels were completed to the No. 2 orebody, so that information could be obtained by diamond drilling to determine the ore reserve and prepare for development of No. 2 orebody.

The planned increase in capacity of the concentrator to 3,800 tons per day was completed as was the construction of a hydraulic backfill plant.

The Company also erected an additional fifty housing units in the Town of Matagami for rental to employees, making a total of 151 units now rented to employees.

Canadian Electrolytic Zinc Limited

This Company operates a Zinc Reduction Plant at Valleyfield, P.Q. of which 62.5 percent is owned by your Company. Rate of production and recovery continued to improve. Installation of equipment to increase capacity to 250 tons per day has been completed.

MATTAGAMI LAKE MINES LIMITED
(NO PERSONAL LIABILITY)

Authorization has been given to increase the capacity to 400 tons per day. Included with this increase in capacity will be the erection of a roaster at the Valleyfield plant and the construction of a plant to produce sulphuric acid. The acid will be sold under contract to a new fertilizer plant to be erected near the site of the Zinc Reduction Plant, and in which Canadian Electrolytic Zinc Limited will have 25% of the equity.

The estimated cost of the Zinc plant expansion, roaster and acid plant is \$15,700,000. (Mattagami's share \$9,800,000.). Construction is scheduled to begin in the early summer of 1965, with completion of the roasting and acid plant facilities and expansion of the Zinc Reduction Plant to 300 tons per day by October, 1966. Expansion of the Zinc plant capacity to 400 tons per day is scheduled for completion by early summer of 1967. The expansion, when completed, will substantially improve the earnings of the Company.

As reported at the last Meeting of Shareholders, Canadian Electrolytic Zinc Limited purchased all the outstanding shares of General Smelting Company of Canada Ltd. Complete removal of the General Smelting plant from Hamilton to the new site in Burlington will be completed by the end of April of this year. The plant will then be housed in a modern well designed building. Cost of buildings and new plant will be slightly in excess of \$1,000,000. General Smelting earned a satisfactory profit for the year.

Zinc Markets

World zinc consumption and production again reached new highs in 1964. Free World consumption increased 9% to 3,525,000 tons. Mine production was up 10% to 3,475,000 tons, due mainly to a 46% increase in Canadian production to 725,000 tons. Last year Canada became the world's largest producer and should maintain this position for many years.

During the year the East St. Louis price for Prime Western zinc increased from 13¢ to 14½¢ US per pound, and the domestic price is 14½¢ Canadian funds. In July a new pricing basis for sales of zinc metal and concentrate was introduced in overseas markets in substitution for London Metal Exchange prices which had reached levels restricting zinc usage. The initial price under the new basis was £125 per long ton and since September has been £110, equivalent to 13¾¢ US per pound.

Despite release of 75,000 tons of metal from the United States Strategic Stockpile in August 1964, zinc

has continued to be in very short supply in the United States. A further release of up to 200,000 tons will probably be authorized by the United States Congress. The shortage is due to continuance of import quotas. The situation has been under review by the United States Tariff Commission since June 1964 but its report is still awaited.

A complicated flexible quota scheme has been proposed under the Aspinall Bill, to the United States Congress, by which the restrictions upon U.S. zinc consumers and foreign supplies would be even more onerous than present quotas. Metal imports to the United States would be reduced as much as 36% and zinc products including oxide, alloys, sheet, strip wire and dust would fall under quotas. There is no valid reason for quantitative restrictions and their continuation will increasingly harm the U.S. zinc industry by encouraging the use of substitutes.

The current outlook is for a continued rise in mine production which will assure reasonable prices relative to substitute materials and provide the metal needed for expanding requirements.

Copper

Copper demand was strong throughout 1964 and world fabricators took record tonnages of refined metal. Mine output and refined production also reached new highs but in spite of this substantial losses due to strikes resulted in a decline in producers' stocks.

Pricing by major producers disregarded the wild swings of the commodity exchanges but increased some 3¢ US per pound in the major markets. This was reflected in the domestic price which increased from 31.5¢ to 35¢ Canadian funds per pound.

* * * * *

We take pleasure in acknowledging the able efforts of M. W. Airth, Manager and the staff and all other employees during the year.

On behalf of the Board,



President.

Toronto, Ontario,
March 17th, 1965.

REPORT OF THE MANAGER

The President and Directors,
MATTAGAMI LAKE MINES LIMITED,

Operations at the property during the year ended December 31st, 1964 are reviewed in the following report.

This was the first full year of production and the average daily mill rate was increased gradually from 3,200 tons per calendar day to 3,850 tons per day. Underground development and production was able to keep pace with this increase.

PRODUCTION:

Ore Milled	1,282,072	dry tons
Daily Rate	3,503	
Calculated		
Grade — Zinc	12.8	%
— Copper	0.71	%
— Gold	0.014	oz./Ton
— Silver	1.15	oz./Ton
Zinc Concentrate Produced	275,674	short dry tons
Grade — Zinc	52.8	%
Copper Concentrate Produced	36,129	short dry tons
Grade — Copper	18.19	%
— Gold	0.183	oz./Ton
— Silver	9.76	oz./Ton

The zinc concentrate was shipped to the Canadian Electrolytic Zinc Plant at Valleyfield, to Quebec City for export, and to the United States. The copper concentrate was shipped to the Smelter of Noranda Mines Limited.

MILLING:

The mill operated 96.77% of the possible time during the year.

The capacity of the mill was increased by doing finer crushing, increasing the speed of the rod mill and ball mills, and adding extra flotation cells.

No serious problems were encountered in the crushing and milling operations. A tailings sand recovery plant was installed and operated without difficulty to supply mine backfill.

The surface stockpile, containing 197,181 tons of ore grading 14.4% Zn and 0.70% Cu, was cleaned up during the summer months.

MINING:

Mine development was directed toward stope preparation and access to No. 2 orebody on the 750, 550 and 350 foot levels.

Summary of Development for 1964

Levels	Level Development			Stope Development		Diamond Drilling	
	Drifts X-Cuts Feet	Total Lineal Feet	Slash Cu. Ft.	Advance Feet	Slash Cu. Ft.	No. of Holes	Total Feet
150	670	670	2,750	1,198	6,270	4	547
350	2,697	2,697	11,605	6,848	16,370	3	213
550	1,727	1,727	6,403	8,659	47,963	57	17,967
750	1,302	1,302	5,800	6,947	62,069	127	36,094
960	509	509	15,800	—	—	—	—
TOTALS ..	6,905	6,905	42,358	23,652	132,672	191	54,821

During the year 1,084,891 tons of ore were hoisted and this tonnage had an average grade of 12.5% Zn and 0.71% Cu.

In addition 91,870 tons of waste were hoisted and used for yard levelling.

Grouting done in development headings and in the stoping areas to eliminate water consumed 8,062 bags of cement.

Extension rod drilling amounted to 398,701 feet of two-inch diameter hole and at year end there was a drilled-off tonnage in the stopes of 1,221,205 tons. This tonnage is necessary to produce a uniform grade of mill feed, and to enable the handling of dry ore in the stopes, ore passes, crushers and conveyors. The ore when wet is sticky and very difficult to handle, hence dry ore is a requisite to successful operation.

Mill feed was obtained from the following places:

Working Place	Tons	% Zn	% Cu
550 F 38	101,478	10.13	.42
750 F 34	135,288	12.99	.71
750 F 36	96,799	8.80	.54
750 H 41	157,611	13.65	.93
750 H 44	43,886	15.1	.71
750 P 26	11,678	3.5	.97
750 P 29	3,484	10.5	.73
750 P 31	121,971	25.48	.68
750 P 34	73,609	13.75	.50
750 F 29 & 31	140,548	8.7	.87
550 M 41	52,826	9.5	.69
Development Ore	146,713	8.31	.78
Total Underground	1,084,891	12.5	.71
Stockpile	197,181	14.4	.70
Grand Total	1,282,072	12.8	.71

There were no difficulties in the stope production. There was no sloughing of the stope walls or back, and the two completed stopes pulled clean. There was no apparent evidence of ore oxidation.

BACKFILL:

Classified tailings backfill was first put into the mine in October 1964. The fill is contained in the stopes by concrete bulkheads through which special equipment drains off the excess water.

The total fill placed for the year was 87,376 dry tons. No difficulties were encountered. Some experimental work was started to try to produce a self-cementing backfill. A cemented backfill would facilitate the extraction of the pillars.

ORE RESERVES:

Mining was confined to No. 1 Orebody from which 1,282,072 tons of ore were milled, having a grade of 12.8 percent zinc and 0.71 percent copper. After the removal of that tonnage, the addition of some lower grade tonnages to certain stoping blocks, and the application of information gained during the year, the proven ore in No. 1 orebody, down to the 750-foot level and without allowance for dilution is as follows:

Tons	Zinc	Copper	Gold	Silver
			Oz./Ton	Oz./Ton
18,860,820	10.8%	0.70%	0.014	1.15

This indicates that about 765,000 tons of new ore were added.

Previously No. 2 orebody had been outlined only by the original diamond drilling from surface. During the past year it was partially drilled off from underground and, as is often the case, this close drilling by flat and inclined holes shows the size and shape of the ore to be somewhat different from the interpretation of the surface drilling. Drilling from underground will be completed within a few weeks, following which an estimate of proven ore will be made, but in the meantime, the expectation is that tonnage will be in the order of 1,200,000 tons.

In addition to the above ore reserves there is indicated, in several lenses, some 2.5 million tons of lower grade material, some or all of which may ultimately be mined.

DIAMOND DRILLING:

A programme of surface diamond drilling has been started to explore the favourable andesite-rhyolite contact down to the 750 foot horizon along strike and in some other untested areas.

SURFACE CONSTRUCTION:

In the Mill, equipment for the production of backfill from mill tailings was installed and put into operation. Also, additional flotation cells were installed and the rod and ball mills were speeded up by changing the pinion gears.

The carpenter shop, garage and storage shed were completed and are in use.

PERSONNEL:

The average number of employees on the payroll for the year was 415, and the operating efficiency was 10.5 tons milled per manshift worked.

The accident experience during the year was higher than the Quebec average. Fortunately, most of the accidents were slight.

GENERAL:

Fifty additional housing units were built under contract by the Company and all were occupied by year end. The Company now owns 151 units in the Village of Matagami.

Paving of the Amos-Matagami highway started and by year end 30 miles had been completed by the Department of Highways of the Province of Quebec. Paving also started in the Village of Matagami. This improvement is much appreciated by the Company and the citizens of Matagami.

Slashing and grading was also started on the Matagami-James Bay Highway during the late summer.

The employees Recreation Association enjoyed another year of successful sports and social functions.

Once again I wish to acknowledge with thanks the assistance and support of the Officers and Directors of the Company.

And in conclusion I take great pleasure in acknowledging the hard work, loyalty, and full co-operation of the staff and employees throughout the year.

March 15th, 1965.

M. W. AIRTH,
Mine Manager.

MATTAGAMI LAKE MINES LIMITED (Incorporated under the laws of Quebec)
(NO PERSONAL LIABILITY)

BALANCE SHEET —

ASSETS		1964	1963
		<u> </u>	<u> </u>
Current assets:			
Cash		\$ 66,149	244,608
Settlements receivable		2,499,509	791,395
Other accounts receivable		356,030	588,666
Concentrates and metal at reduction plants and in transit at estimated net realizable value		6,333,900	2,185,105
Prepaid expense and deposits		14,796	11,941
		<u>9,270,384</u>	<u>3,821,715</u>
Fixed assets, at cost less accumulated depreciation:			
Buildings, plant and equipment:			
Mine site		17,236,456	15,659,331
Zinc plant (note 1)		10,147,103	9,535,700
		<u>27,383,559</u>	<u>25,195,031</u>
Less accumulated depreciation		2,738,356	—
		<u>24,645,203</u>	<u>25,195,031</u>
Mining property and rights		2,503,021	2,503,021
Land — zinc plant		91,620	91,408
		<u>27,239,844</u>	<u>27,789,460</u>
Investment in shares of and advances to partly owned subsidiary companies (note 2):			
Shares, at cost		162,750	162,750
Advances		591,718	—
		<u>754,468</u>	<u>162,750</u>
Other assets:			
Preproduction and development expenses at cost less amounts written off		9,368,241	11,049,966
Mine stores and supplies, at cost		723,816	699,886
Discount on debentures less amount amortized		597,206	655,000
Organization expense		6,950	6,950
		<u>10,696,213</u>	<u>12,411,802</u>
		<u>\$47,960,909</u>	<u>44,185,727</u>

See accompanying notes to financial statements.

AUDITORS' REPORT

We have examined the balance sheet of Mattagami Lake Mines Limited as of December 31, 1964 and the statement of net income and retained earnings for the year ended on that date and have obtained all the information and explanations we have required. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

Toronto, Ontario,
 March 4, 1965.

DECEMBER 31, 1964 with comparative figures for 1963

LIABILITIES

	<u>1964</u>	<u>1963</u>
Current liabilities:		
Bank loans — secured by guarantees	\$ 5,000,000	15,300,000
Accounts payable and accrued liabilities	1,079,651	1,872,907
Accrued interest on debentures — payable April 30, 1965	1,992,822	—
Quebec mining duties payable	1,105,700	—
	<u>9,178,173</u>	<u>17,172,907</u>
Long-term debt:		
6% Secured income debentures, Series A, maturing April 30, 1975 (note 3)	18,000,000	18,000,000
Accrued interest	—	912,822
	<u>18,000,000</u>	<u>18,912,822</u>
Shareholders' equity:		
Capital stock:		
Shares of a par value of \$1 each. Authorized 7,000,000 shares; issued 6,600,000 shares	6,600,000	6,600,000
Premium on shares	1,499,998	1,499,998
	<u>8,099,998</u>	<u>8,099,998</u>
Retained earnings (notes 3 and 4)	12,682,738	—
	<u>20,782,736</u>	<u>8,099,998</u>
Approved on behalf of the Board:		
W. S. ROW, Director.		
J. B. REDPATH, Director.		
	<u>\$47,960,909</u>	<u>44,185,727</u>

TO THE SHAREHOLDERS

In our opinion, and according to the best of our information and the explanations given to us and as shown by the books of the company, the accompanying balance sheet and statement of net income and retained earnings are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the company at December 31, 1964 and the results of its operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Also, in our opinion, the accompanying statement of source and application of funds presents fairly the information shown therein.

PEAT, MARWICK, MITCHELL & CO.,
Chartered Accountants.

MATTAGAMI LAKE MINES LIMITED
(NO PERSONAL LIABILITY)

STATEMENT OF NET INCOME AND RETAINED EARNINGS

Year ended December 31, 1964

Gross value of metals produced		\$43,197,873
Less smelter and transportation charges		<u>14,756,462</u>
		28,441,411
Expenditures:		
Development, mining and concentrating	\$4,530,664	
Zinc reduction plant expenses	3,048,579	
Administration and corporate expense	157,422	
Interest on debentures	1,080,000	
Interest on bank loan	<u>698,098</u>	<u>9,514,763</u>
		18,926,648
Depreciation and amortization:		
Buildings, plant and equipment	2,738,356	
Preproduction and deferred development expenditures	2,342,060	
Debenture discount	<u>57,794</u>	<u>5,138,210</u>
		13,788,438
Quebec mining duties		<u>1,105,700</u>
Net income for the year and retained earnings at December 31, 1964 (note 5)		<u><u>\$12,682,738</u></u>

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

December 31, 1964

1. The Board of Directors of the Company has approved capital expenditures amounting to approximately \$9,000,000 for the expansion of the facilities of the zinc plant.
2. The Company's share of the net income of the subsidiary companies for the year ended December 31, 1964 was \$102,041 and of their retained earnings since acquisition was \$102,310 at that date. These amounts are not included in the accompanying statements.
3. Under the Deed of Trust and Mortgage securing the 6% Secured Income Debentures, annual payments for a sinking fund for retirement of the debentures are to be made to the Trustee commencing on April 30, 1966 provided that no bank loans obtained during the construction period are outstanding. The method of computing the annual sinking fund payments is detailed in the Deed and may be summarized as being 80% of the excess of cumulative net operating profits (as defined and which approximate net profits before amortization and depreciation) over cumulative sinking fund payments, repayments of bank loans obtained during the construction period, and an amount of \$1,000,000 for fixed asset additions.
4. Payment of dividends or any other distribution on any shares of capital stock may not be made while any Secured Income Debentures are outstanding.
5. Under the provisions of The Income Tax Act (Canada), no income taxes are exigible on the Company's income during a three year exempt period commencing with the date the mine came into production and ending in December 1966.

MATTAGAMI LAKE MINES LIMITED
(NO PERSONAL LIABILITY)

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

Year ended December 31, 1964

Funds provided:

From operations:		
Net profit		\$12,682,738
Add charges not requiring cash expenditure:		
Depreciation and amortization		5,138,210
Total funds provided		17,820,948

Used as follows:

Purchase of fixed assets:			
Buildings, plant and equipment:			
Mine site	\$ 1,577,125		
Zinc plant	611,403		
Zinc plant land	212		
	2,188,740		
Provision for payment of interest on income debentures	912,822		
Development expenditures deferred	660,335		
Advances to partly owned subsidiary companies	591,718		
Purchase of mine stores and supplies	23,930	4,377,545	
Addition to working capital		\$13,443,403	

Working capital changes:	December 31,		Increase
	1964	1963	
Current assets	\$9,270,384	3,821,715	5,448,669
Current liabilities	9,178,173	17,172,907	7,994,734
	\$ 92,211	(13,351,192)	13,443,403

MATTAGAMI LAKE MINES LIMITED
(NO PERSONAL LIABILITY)