

Eleventh Annual Report
Falconbridge Nickel Mines
Limited

*For the Year Ending
December 31st, 1939*

Falconbridge Nickel Mines Limited



HEAD OFFICE
25 King Street West, Toronto

PRESIDENT
J. Gordon Hardy

VICE-PRESIDENTS

T. Lindsley

H. S. Munroe

SECRETARY and TREASURER
Norman F. Parkinson

DIRECTORS

J. Gordon Hardy
Halstead Lindsley
T. Lindsley

W. S. Morlock
H. S. Munroe
H. Whittingham

OPERATING STAFF

Manager at Mine and Smelter	-	-	-	-	Ernest Craig
Manager at Refinery	-	-	-	-	- S. B. Steen
Consulting Metallurgist	-	-	-	-	Anton Gronningsater

TRANSFER AGENTS and REGISTRARS
Toronto Share Transfer Company, Limited
25 King Street West, Toronto

AUDITORS
Clarkson, Gordon, Dilworth & Nash
Toronto

FALCONBRIDGE NICKEL MINES LIMITED

Report of Directors

Toronto, January 18th, 1940.

To the Shareholders of
Falconbridge Nickel Mines Limited.

Your Board of Directors submit for your approval the attached Annual Report on operations during 1939, as also the Balance Sheet and the Statement of Earnings as of December 31st, duly audited.

Earnings at \$2,009,403.60 or 60.2c per share, after all charges, are the highest in your company's history. It is particularly satisfactory to note that these come almost entirely from its business of mining, preparing, and selling its metals—with but little had from Other Income—and that it has been possible to maintain normal earnings in the War period.

Dividends were paid at the usual annual rate of 30c per share, accounting for a disbursement of \$1,001,275.96 during the year and bringing total dividends paid to date to \$6,717,514.05.

Your mining property continues to develop favorably, as you will note from the accompanying Mine Report. Your Refinery in Norway is functioning notably in spite of the present difficulties, and the efficient marketing of your products reflects itself in the earnings above reported.

Concern is naturally felt regarding the possible vulnerability of your Norwegian establishment under existing War conditions, and much thought has been given towards the cautious safeguarding of this department of your business. The matter will be open to full discussion at your approaching Annual Meeting.

By order of the Board,

J. GORDON HARDY,
President.

FALCONBRIDGE NICKEL MINES LIMITED

ELEVENTH ANNUAL REPORT YEAR 1939

Falconbridge, Ontario,
January 15th, 1940.

Mr. J. Gordon Hardy, President,
and the Board of Directors,
Falconbridge Nickel Mines Limited.

Dear Sirs:

Please receive herein my report covering the Company's operation at Falconbridge for the year ending December 31st, 1939. Material increase shown in the production rate during the period under review is evidence of the satisfactory functioning of all units of the operation.

MINE DEVELOPMENT

Combined development footages on all levels during the year were as follows:

Drifting and Cross-Cutting (including Slashing)	13,546 feet
Raising	1,497 feet
Fill Passes	143 feet
Ore Passes	1,593 feet
Shaft Sinking	72 feet
Station Cutting	36,678 cu. feet
Diamond Test Drilling	2,844 feet

Ore development on the various levels accounted for 9,969 feet of the total drifting and cross-cutting. Nearly two-thirds of this footage was exploration in virgin territory or ground in which existing information was inadequate for proper control.

On the 1575 level, 871 feet of drifting to the east from No. 1 Shaft served to check the extension of ore occurrences disclosed on the upper levels. A westerly advance of 879 feet on this level showed ore of good grade and continuity extending into a section from which little had been expected. The 2100 level was extended westerly 1,047 feet to a point 467 feet west of No. 1 Shaft. East of the Shaft, conditions followed those disclosed at this horizon during the previous year. Continuing to the west, the ore deposition is narrow and erratic.

Exploration of the "probable ore" section shown on the maps accompanying previous reports as lying west of No. 5 Shaft, by westerly advances on the 200 and 325 levels of 927 feet and 1,007 feet respectively, confirmed the existence of a considerable stoping area of grade equal to that of the adjoining blocks. The 825 level westerly drive of some 1,041 feet, while necessary for stoping operations on the 1000 level, also checked this "probable ore" section and revealed one good stoping area approximately 250 feet long and of about mine average grade, with the ore zone somewhat narrow over the remainder of the advance.

The 1750 level was advanced from No. 5 Shaft to the west a further 696 feet, continuing in high grade ore of better than average width. Easterly advances from No. 5 Shaft of 357 feet and 698 feet on the 825 and 1000 levels respectively, compared closely with results obtained previously on the 1200 level, but with the possibility of slightly improved grade.

The remaining development along the ore zone was for the purpose of opening some 1,202 feet of new stopes and preparation for further stope extensions and pillar recovery.

Diamond drilling to check an ore indication west of the present workings, referred to in the last Report, failed to justify the proposed westerly drive on the 700 level. However, encouraging results on the deeper levels point to the advisability of exploring the westerly extension of the ore zone at one of these lower horizons.

Extensive preparation was made for handling ore from stoping areas soon to be opened below the 1200 level. This development included the extension of No. 1 ore pass system as far as the 2100 level and preparing this level for haulage to No. 5 Shaft. This shaft was deepened to 2,529 feet and a loading pocket installed at the 2450 level. A crusher station is located on the 2275 level, with connecting ore passes to the haulage level above and the loading pocket below. The project is well on the way to completion and will be put in operation early in 1940.

ORE PRODUCTION

Mining activities for ore production summarize as follows:

Broken Ore Reserves December 31st, 1938	175,130 tons
Ore Broken in Stopes, 1939	432,289 tons
	<u>607,419 tons</u>
Ore Trammed from Stopes, 1939	508,977 tons
	<u>98,442 tons</u>
Broken Ore Balance December 31st, 1939	

After including development ore, the tonnage of ore hoisted develops as follows:

Ore Trammed from Stopes, 1939	508,977 tons
Ore Trammed from Development, 1939	82,463 tons
	<u>591,440 tons</u>
Less: Waste discarded underground	5,779 tons
	<u>585,661 tons</u>
Total ORE HOISTED	

ORE RESERVES

Since no exploration was undertaken on any of the outside holdings of the Company, the increase in Ore Reserves as shown in the tabulation which follows is obtained wholly from development at the Falconbridge Mine.

Ore Reserves as of December 31st, 1938:

Falconbridge Mine	5,863,000 tons
Outside Holdings	1,018,000 tons
	<u>6,881,000 tons</u>
Less: Drawn during 1939	585,661 tons
	<u>6,295,339 tons</u>
New Ore added 1939:	
Falconbridge Mine	1,206,661 tons
Outside Holdings	nil
	<u>7,502,000 tons</u>
ORE RESERVES as of December 31st, 1939	

(Averaging 1.80% Nickel and 0.94% Copper)

ORE TREATMENT

The substantial increase in production, already noted, reflects the satisfactory performance of the Ore Dressing and Reduction plants. While this increase was largely obtained through adjustments in the operation of these plants, it became necessary, from the standpoint of efficiency, to add some equipment to relieve those units which were being taxed beyond their capacity by the additional tonnage handled.

An extensive overhaul of blast furnace and settler entailed a five-day plant shut-down in June. Total lost time from all causes amounted to 2.6% of possible full operating time.

After deducting 9,848 tons of waste picked and discarded from the hoisted ore, and adjusting for differences in above-ground storage, Treatment Plant performance develops as follows:

Total ORE TREATED	576,801	tons
Made up of: Milling Ore	332,724 tons (57.7%)	
Smelting Ore	244,077 tons (42.3%)	
Matte Produced	16,965.3	short tons
Nickel in Matte	9,232.5	short tons
Copper in Matte	4,691.9	short tons
	Nickel	Copper
Metals recovered per ton Ore Treated	32.01 lbs.	16.27 lbs.
Metallurgical Losses per ton Treated	3.67 lbs.	2.35 lbs.
	-----	-----
	35.68 lbs.	18.62 lbs.
Indicated Grade of ORE TREATED (After Waste Rejection)	1.78%	0.93%
Indicated Grade of HOISTED ORE (Before Waste Rejection)	1.76%	0.91%

CONSTRUCTION

Little in the way of construction was undertaken during the period. Some equipment was added in the Ore Dressing Plant and Concentrator to supplement those units found to be inadequate under existing operating conditions, and a plant was installed to dry concentrate for smelting in the converters.

GENERAL

In co-operation with the proper authorities, measures were taken to add to the protection of the properties of the Company during the current situation.

Only four dwellings were erected in the townsite during the year.

It is with pleasure that I express my appreciation of the continued loyalty and co-operation of employees and staff throughout the year.

Respectfully submitted,

E. CRAIG,
Manager.

FALCONBRIDGE
 and its Wholly
FALCONBRIDGE NIKK
 Consolidated Balance Sh
 with Comparative Figure

ASSETS	31st December 1939	31st December 1938
Current Assets:		
Cash on hand and in banks in Canada, United States and Norway (x includes \$565,864.13 U.S. funds at par of exchange)	x \$ 3,356,164.45	\$ 1,630,169.50
Accounts Receivable—Trade	424,964.75	203,711.11
—Sundry	26,435.62	19,629.17
Notes receivable—Metal Hydrides Inc., an associated company	10,000.00	
Securities at cost:		
Investments—miscellaneous (quoted market price \$150,087)	191,654.82	362,174.22
Investment in associated companies' shares	33,400.00	31,300.00
	\$ 4,042,619.64	\$ 2,246,984.00
Inventory determined from book records and certified by responsible officials:		
Refined metals at cost	\$ 509,736.08	\$ 646,362.78
Matte on hand and in process at cost	1,116,575.00	949,850.65
	\$ 1,626,311.08	\$ 1,596,213.43
Property Account:		
Mine, smelter and refinery buildings, machinery and equipment	\$ 8,123,382.56	\$ 7,791,846.38
Less: Depreciation written off	4,564,771.01	3,732,823.21
	\$ 3,558,611.55	\$ 4,059,023.17
Mining properties and claims at cost	3,054,882.33	3,033,228.74
	\$ 6,613,493.88	\$ 7,092,251.91
Deferred Expenditures, Supplies, etc.:		
Mine development expenditures less amounts written off to mining operations	\$ 3,550.58	\$ 220,803.28
Mining and refinery supplies, etc.	356,309.20	261,045.50
Prepaid expenses and deferred charges	47,964.11	65,014.91
	\$ 407,823.89	\$ 546,863.69
Deposit with Municipality of Kristiansand re power supply	\$ 74,958.67	\$ 70,001.10
	\$12,765,207.16	\$11,552,314.13

AUDITORS' REPORT

We have audited the accounts of Falconbridge Nickel Mines Limited for the year ended 31st December, 1939, and in the consolidated statements of earnings and surplus. We report that in our opinion the above consolidated balance sheet and statement of earnings and surplus are correct, and subject to the note on the consolidated earnings statement affecting the 1938 period, on a basis consistent with the 31st December, 1939, and of the results of their operations for the year ending on that date, according to the best of our knowledge and belief.

Toronto, Canada, 5th February, 1940.

FALCONBRIDGE MINES LIMITED

Combined Subsidiary

NIKKELVERK AKTIESELSKAP

for the year ended 31st December, 1939

and for the year ended 31st December, 1938

	LIABILITIES	
	31st December 1939	31st December 1938
Capital:		
Authorized 5,000,000 shares no par value		
Issued 3,337,507 shares no par value	\$ 7,038,395.94	\$ 7,038,395.94
	<hr/>	<hr/>
Current Liabilities:		
Accounts payable	\$ 163,725.63	\$ 127,240.64
Wages payable	76,132.70	68,104.84
Unclaimed dividends	2,151.12	1,898.58
Reserve for taxes	430,000.00	270,000.00
	<hr/>	<hr/>
	\$ 672,009.45	\$ 467,244.06
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Earned surplus	\$ 5,054,801.77	\$ 4,046,674.13

On behalf of the Board:

J. Gordon Hardy, Director.

T. Lindsley, Director.

\$12,765,207.16

\$11,552,314.13

THE SHAREHOLDERS

have examined the report of Mr. Oscar Boman, State authorized auditor, on the audit which he has conducted of the operating results of Falconbridge Nikkelverk Aktieselskap have been incorporated in the above consolidated balance sheet and related consolidated statements of earnings and surplus have been drawn up in accordance with accepted principles with the preceding year, so as to exhibit a true and correct view of the state of the combined companies' affairs as at the date of the explanations given us and as shown by the books. All our requirements as auditors have been complied with.

CLARKSON, GORDON, DILWORTH & NASH, Chartered Accountants.

FALCONBRIDGE NICKEL MINES LIMITED

and its Wholly Owned Subsidiary

FALCONBRIDGE NIKKELVERK AKTIESELSKAP

Consolidated Earnings Statement

For the Year Ended 31st December, 1939

with Comparative Figures for the Year 1938

	1939	1938
Metal sales (gross)	\$8,235,015.95	\$6,381,308.62
Less: Selling and delivery expense and foreign exchange adjustment	328,289.52	245,574.86
	<u>\$7,906,726.43</u>	<u>\$6,135,733.76</u>
Add: Increase in metal inventories	30,097.65	488,008.71
	<u>\$7,936,824.08</u>	<u>\$6,623,742.47</u>
Operating costs—mining, smelting, refining, etc.	\$4,389,410.31	\$3,827,745.84
Outside exploration	3,770.87	2,955.28
Administrative and general expense	89,368.43	86,245.86
	<u>\$4,482,549.61</u>	<u>\$3,916,946.98</u>
Operating profit before providing for taxes, deferred develop- ment and depreciation	\$3,454,274.47	\$2,706,795.49
Non-operating revenue	26,068.70	34,318.18
	<u>\$3,480,343.17</u>	<u>\$2,741,113.67</u>
Provision for taxes	381,145.25	195,236.02
	<u>\$3,099,197.92</u>	<u>\$2,545,877.65</u>
Profit for the year before providing for deferred development and depreciation	\$ 292,830.50	\$ 248,752.50
Deferred development written off	831,947.80	685,922.26
Depreciation	<u>\$1,124,778.30</u>	<u>\$ 934,674.76</u>
	<u>\$1,974,419.62</u>	<u>\$1,611,202.89</u>
Profit on sale of securities	34,983.98	142,423.82
Interest on Raffineringsverket Aktieselskap advance transferred to profit and loss account		24,231.31
	<u>\$2,009,403.60</u>	<u>\$1,777,858.02</u>

Note: The profit shown for 1938 includes \$128,133.52 representing adjustments of metal inventories and broken ore in stopes applicable to prior years. The provision for depreciation for the year 1938 has been reduced by \$83,202.50 overprovided in prior years.

Consolidated Earned Surplus Account

For the Year Ended 31st December, 1939
with Comparative Figures for the Year 1938

	1939	1938
Balance at beginning of year	\$4,046,674.13	\$3,270,092.20
Net profit as above	2,009,403.60	1,777,858.02
	<u>\$6,056,077.73</u>	<u>\$5,047,950.22</u>
Dividends paid	1,001,275.96	1,001,276.09
	<u>\$5,054,801.77</u>	<u>\$4,046,674.13</u>

Toronto, Ontario,
January 2nd, 1940.

Mr. J. Gordon Hardy, President,
and the Board of Directors,
Falconbridge Nickel Mines Limited.

Dear Sirs:

I beg to submit the following report for the fiscal year ending December 31st, 1939.

Ore Dressing Plant, Mill and Smelter:

The ore dressing plant, mill and smelter operated throughout the year with a minimum of lost time for interruptions and repairs.

A new ball mill was installed during the year on account of the continued trend to pass more work on to the mill. This in connection with improved smelter practice permitted a considerable increase in metal production without increasing the blast furnace and converter departments, but with metal losses slightly higher than last year. Nickel production in matte this year was 9,232.5 short tons against 8,012.7 last year.

Refinery:

The refinery has operated steadily throughout the year, although somewhat hampered by delayed matte shipments during the beginning of the war. By the end of the year the stock of matte on hand at the refinery was again restored to normal. Operations for several months were at the rate of more than 11,000 short nickel tons annually, including custom matte.

So far, the war has not caused any serious troubles at the refinery, although inroads had to be made on stock of nickel in process during the periods of matte shortage.

The normal amount of custom matte has been received regularly.

Our precious-metals separating plant, which for some time has produced pure gold, silver, platinum and palladium, is now about ready for separation of iridium, rhodium and ruthenium.

For the year 1939, the amount of metals in matte received from the smelter, the refinery production, the metals in process and metals in matte on hand at the end of the year, is set out in the following table:

For Falconbridge Account:

	Ni., lbs.	Cu., lbs.
Metals in Matte Received, less Refining Losses	17,346,693	8,601,022
Produced in Marketable Form during Year	17,873,392	8,436,146
Metals in Process of Refining at end of Year	2,432,462	697,360
Metals in Matte on Hand at end of Year	1,413,824	720,250
Total of Falconbridge and Custom Refined Metals Produced	20,113,286	10,071,269

Respectfully submitted,

Anton Gronningsater,
Consulting Metallurgist.

Dividends Paid by Falconbridge Nickel Mines Limited

Dividend Number	Record Date	Dividend Per Share	Amount	
1 to 3	1933	\$0.25	\$ 812,609.97	
4 to 7	1934	0.275	902,173.02	
8 to 11	1935	0.30	997,669.77	
12 to 15	1936	0.30	1,001,234.50	
16 to 19	1937	0.30	1,001,274.74	
20 to 23	1938	0.30	1,001,276.09	
				\$5,716,238.09
	1939			
24	March 9th	0.075	250,319.00	
25	June 14th	0.075	250,318.96	
26	Sept. 12th	0.075	250,318.94	
27	Dec. 6th	0.075	250,319.06	
				1,001,275.96
	Total	\$2.025		\$6,717,514.05

COMPARATIVE SUMMARY OF OPERATIONS AND EARNINGS

Year	Tons Treated	Net Sales	Gross Profits After Taxes
1930	71,626	\$ 68,726.89	
1931	109,520	1,211,229.95	\$ 173,652.18
1932	123,306	2,787,917.78	1,014,378.90
1933	232,661	2,808,328.92	1,505,396.93
1934	272,923	4,001,551.55	1,924,251.00
1935	302,510	4,640,372.57	2,341,489.60
1936	327,783	5,178,812.18	2,597,635.10
1937	438,629	5,862,457.91	2,513,330.35
1938	490,938	6,135,733.76	2,712,532.78
1939	576,801	7,906,726.43	3,134,181.90

Year	Net Profit after Taxes, Def. Development and Depreciation	Capital Expenditures	Net Current Assets inc. Metal Inventories (at cost) excluding Broken Ore and Supplies
1930		\$ 332,823.92	\$ 858,598.15
1931	\$ 10,530.69	100,557.43	1,114,484.64
1932	762,420.54	354,496.51	1,685,891.59
1933	1,122,999.28	642,383.03	1,826,058.38
1934	1,415,886.03	205,702.27	2,417,024.75
1935	1,768,558.15	705,617.50	2,860,895.65
1936	1,873,607.05	2,140,624.14	2,057,378.26
1937	1,471,495.07	871,899.98	2,421,760.77
1938	1,777,858.02	662,109.34	3,375,953.37
1939	2,009,403.60	331,536.18	4,996,921.27

