

Report of the Directors
of
The Consolidated Mining
and Smelting
Company
of Canada
Limited

For twelve months ending December 31, 1926

BOARD OF DIRECTORS

JAMES J. WARREN, Montreal	-	-	<i>President</i>
E. W. BEATTY, K.C.	-	-	Montreal
S. G. BLAYLOCK	-	-	Trail, B.C.
J. C. HODGSON	-	-	Montreal
SIR HERBERT HOLT	-	-	Montreal
CHARLES R. HOSMER	-	-	Montreal
HENRY JOSEPH	-	-	Montreal
W. L. MATTHEWS	-	-	Toronto
SIR VINCENT MEREDITH, BART	-	-	Montreal
F. GORDON OSLER	-	-	Toronto
J. K. L. ROSS	-	-	Montreal

J. E. RILEY, *Secretary*

TRANSFER AGENTS

THE TORONTO GENERAL TRUSTS CORPORATION, TORONTO
THE ROYAL TRUST COMPANY - - - MONTREAL

The
Consolidated Mining and Smelting
Company of Canada, Limited

DIRECTORS' REPORT

To the Shareholders
of The Consolidated Mining and Smelting Company
of Canada, Limited:

Gentlemen:—

Your Directors submit the Twenty-first Financial Statement with the reports of the General Manager, the Manager of Mines, the Comptroller, and the Manager of Sales. The report of the West Kootenay Power and Light Company, Limited, is also shown.

After taking care of current development, depreciation of plant, depletion of property, adding \$100,000.00 to the Pension Fund and \$193,669.61 to the Fire Insurance Reserve, the net profits were \$13,915,262.44.

Your Auditors advise adding to the Reserve for Additions to Property through Profit and Loss the sum of \$2,274,771.66, being the amount of Capital Expenditure during the year.

Your Directors consider it prudent to add \$1,000,000.00 to the Contingent Reserve.

Federal and Provincial Government taxes call for the provision of \$1,887,864.16, notwithstanding the reduction in the rates of both Governments.

After deducting these several amounts from the net profits and providing for Dividends Numbers 44 and 45, the remainder \$3,671,134.12 was added to the Profit and Loss Account.

As shown in the Comptroller's report, the prices of silver and all base metals declined during the year. Increased production and lower costs are accountable for the increase in profits. It is impossible to forecast market prices. It is not likely, though, that much higher prices than those current now will prevail during 1927.

At the last Annual Meeting, you approved of the publication of quarterly statements of production and half-yearly statements of estimated profits. This has been done.

There have been no special developments in your mines, except that Rossland continues to be disappointing.

Exploratory work in the phosphate beds, referred to in the report of the Manager of Mines, is encouraging. It is quite

possible that the working of these deposits may develop into a major operation, as there is an ever-increasing demand for synthetic fertilizer, of which "phosphate" is an important component part.

A great deal of exploration work was done and many examinations were made in different districts. So far, the results have not been encouraging or at all up to the valuations put on the prospects by their owners. Doubtless, some mines will ultimately be developed here and there, but the development work actually done by owners does not justify anything like the prices usually demanded.

Your Research Department was fully occupied and with satisfactory results.

Your plants have been well maintained and are in good condition. Some extensions are under way—others are under consideration, in connection with the recovery of more of the metal contents of your ores.

The West Kootenay Power and Light Company, Limited, completed the installation of the third 20,000 horse-power unit in August last. It was needed to fill your requirements and those of other power consumers. The Power Company management continues to be highly efficient.

Though the present capacity of the power plants at Bonnington Falls is over 90,000 horse-power, after careful consideration, your Directors have authorized the development of another 60,000 horse-power.

It is estimated that this further power will be available in two years, by which time it will be fully needed in connection with your expanded operations.

Your Directors will ask your approval of the purchase at par of the Common Stock of the Power Company to the amount of the estimated cost of the development of the additional 60,000 horse-power—\$4,200,000.00.

Capital Expenditure amounted to \$2,274,771.66, of which \$179,933.21 were spent on Property Account and \$2,094,838.45 on Plant Account. The main items were:

PROPERTY:

Purchase of Coast Copper Bonds.....	\$136,791.91
Sunloch Mines.....	10,486.21
Sullivan Mineral Claims.....	28,252.65

PLANT:

Smelter Extensions.....	\$1,203,187.84
Sullivan Mill Extension & Auxiliary Power Plant, etc....	679,911.40
St. Eugene Mill—Construction.....	144,215.93

Dividends totalling 8 per cent and bonuses, amounting to \$8.00 a share, were declared during the year. These involved a distribution of \$5,078,492.50.

Your financial position again shows an improvement. Still, it is none too strong for the safe and steady conduct of your expanding business, considering, too, the increasing number of your employees, who depend so exclusively on your continued activities for the support of themselves and their families. In case of a shut-down, or even a slowing down, the districts in which they live would not, and could not, provide any alternative employment.

An analysis of the 1926 Pay Rolls, including those of the Power Company, discloses that \$7,117,791.29 were disbursed, and that the average number of employees was 4,021.

The value of your output (F.O.B. Tadanac) in 1926 was \$32,650,727.05. It was \$28,562,065.66 in 1925. It was \$5,778,372.92 in 1914.

Your assets amounted to \$37,966,083.51 at the end of 1926, as against \$35,213,061.87 at the end of 1925. At the end of 1914, they amounted to \$9,355,302.02.

The action of the Electrolytic Zinc Process Company to have French's alleged patents declared invalid has been brought to trial in the Exchequer Court, with a successful result.

No step was taken during the year in the infringement action brought against your Company in the Quebec Courts.

Your employees have again done their work faithfully and efficiently. Your staffs performed their duties well. Your Sales Manager and Selling Representatives marketed your output carefully and successfully.

In order to cement your connection with your European representatives, Henry Gardner and Company, Limited, your Directors have agreed to purchase an interest in that Company, on favorable terms. You will recollect that in 1924, an interest was acquired for the same reason in A. Cameron and Company, Limited, your Oriental representatives. This has worked well.

Your Directors consider it expedient that a change should be made in the By-laws relating to Officers of the Company and their remuneration, and an amendment for that purpose will be submitted to you for confirmation.

You are reminded that the Department of Customs and Excise permits an allowance of 25 per cent from the Dividends of this Company, as representing a return of capital, for the purposes of The Income War Tax Act. Consequently, shareholders in making their returns under that Act will show the gross amount of dividends received, with a reduction of 25 per cent, leaving 75 per cent thereof as representing the taxable portion.

On behalf of the Board,

Montreal, March 15, 1927.

JAMES J. WARREN, President.

The Consolidated Mining and Smelti

Balance Sheet

LIABILITIES

CAPITAL:

Authorized:

600,000 Shares at \$25 each \$15,000,000.00

Issued and Fully Paid:

As at December 31, 1925 12,675,300.00

Allotted during 1926:

In exchange for Bonds of

the First Issue \$ 500.00

To Employees:

As Bonus 8,100.00

For Cash (On which

was paid at Decem-

ber 31, 1926, \$20,375)

21,625.00

30,225.00

\$12,705,525.00

PREMIUM ON SHARES ISSUED:

2,294,520.00

SDRY CREDITORS:

Accounts Payable \$ 2,250,850.48

Provision for Dominion and Provincial

Taxes 2,459,658.66

4,710,509.14

DIVIDENDS:

Payable January 15, 1927 \$ 3,176,381.25

Dividend Cheques Outstanding 3,430.54

3,179,811.79

RESERVES:

Fire Insurance \$ 500,000.00

Employees' Pension Fund 297,949.02

Contingent Reserve 2,000,000.00

Additions to Property through Profit and

Loss 5,835,565.50

8,633,514.52

CONTINGENT LIABILITIES:

As Guarantor of Principal and Interest of

West Kootenay Power and Light Com-

pany, Limited, Twenty-Year Six per cent

Bonds of a par value of

\$ 1,750,000.00

In respect of Guarantee in connection with

lands for sale

\$26,960.00

Bills of Exchange Discounted

£64,962-18-6

PROFIT AND LOSS ACCOUNT:

Balance December 31, 1925 \$ 8,723,974.96

Profit for Year ended December 31, 1926 13,915,262.44

\$22,639,237.40

LESS: Income and Mineral Taxes paid and

reserved for in 1926

1,887,864.16

\$20,751,373.24

LESS: Appropriations:

For Dividends Nos. 44 & 45 \$5,078,492.50

For Additions to Property

through Profit and Loss 2,274,771.66

For Contingent Reserve 1,000,000.00

8,353,264.16

12,398,109.08

\$43,921,989.53

Auditor

We certify that we have audited the Accounts of The Consolidated Mining and Smelter Accounts maintained at the offices at Kimberley, Moyie, Rossland and Trail, B.C., of Stores and Materials and of Ore and Smelter Products are as certified by the Company of that date less estimated cost of refining, and the refined Lead and Zinc unsold at December 31, 1926. Shareholders that the above Balance Sheet is, in our opinion, properly drawn up so as to show the true and the explanations given to us, and as shown by the Books of the Company in British Columbia at the date of the closing of the Accounts, December 31, 1926.

VANCOUVER, B.C., March 12, 1927.

Company of Canada, Limited

December 31, 1926

ASSETS

MINES, MINERAL CLAIMS AND SHARES IN OTHER COMPANIES:		
Balance December 31, 1925.....	\$10,041,774.98	
Expenditure for Year ended December 31, 1926.....	179,933.21	
	<u>\$10,221,708.19</u>	
LESS: Provision in 1926 for Depletion of Mineral Properties.....	523,881.40	\$ 9,697,826.79
MINING, SMELTING, CONCENTRATING AND REFINING PLANTS:		
Balance December 31, 1925.....	\$10,654,853.84	
Expenditure for Year ended December 31, 1926.....	2,094,838.45	
	<u>\$12,749,692.29</u>	
LESS: Provision in 1926 for Depreciation....	1,354,232.62	11,395,459.67
ORES, METALS AND SMELTER PRODUCTS ON HAND AND IN TRANSIT.....		4,836,183.61
MINES AND SMELTER STORES AND MATERIAL..		2,447,474.09
ADVANCES TO WEST KOOTENAY POWER AND LIGHT COMPANY, LIMITED.....		109,746.72
ACCOUNTS RECEIVABLE.....		1,643,191.53
DUE FROM SHAREHOLDERS UPON SHARES ALLOTTED.....		1,250.00
DOMINION, PROVINCIAL AND MUNICIPAL BONDS:		
At Cost, including Securities held for Fire Insurance and Employees' Pension Fund Reserves.....		12,695,691.55
CASH IN BANK AND ON HAND:		
Montreal, Toronto, Vancouver and Trail... \$ 1,049,923.47		
Sundry Cash Accounts.....	900.00	1,050,823.47
	<u> </u>	
DEFERRED CHARGES TO OPERATIONS.....		44,342.10
		<u><u>\$43,921,989.53</u></u>

Report

Company of Canada, Limited, for the year ended December 31, 1926, including the Mines and we have received all the information and explanation we have required. The Inventories values; the values of Gold, Silver and Copper contents have been corrected to market quotations have been included at the cost of production. Subject to the foregoing, we report to the view of the financial position of the Company according to the best of our information the Accounts of the Montreal Office, as audited by Messrs. Edwards, Morgan & Co., as at

HELLIWELL, MACLACHLAN & Co.,
Chartered Accountants.

The Consolidated Mining and Smelting

Profit and Loss Account for

TO ORES, METALS AND SMELTER PRODUCTS ON HAND AND IN TRANSIT AT DECEMBER 31, 1925.....	\$ 5,009,939.47
“ CUSTOMS ORE, COPPER AND BULLION PURCHASED.....	4,349,581.83
“ FREIGHT AND INSURANCE ON ORES FROM COMPANY MINES	764,936.63
“ MINING, SMELTING AND GENERAL EXPENSES.....	11,124,961.97
“ DEVELOPMENT EXPENSE.....	595,608.72
“ DEPRECIATION OF PLANT AND EQUIPMENT.....	1,354,232.62
“ PROVISION FOR DEPLETION OF MINERAL PROPERTIES.....	523,881.40
“ INTEREST, BANK AND GENERAL.....	23,557.29
“ DIRECTORS' FEES.....	6,130.00
“ FIRE INSURANCE RESERVE.....	193,669.61
“ SUNDRY ITEMS WRITTEN OFF.....	4,321.53
“ EMPLOYEES' PENSION FUND RESERVE.....	100,000.00
“ BALANCE, PROFIT, BEFORE PROVISION FOR DOMINION AND PROVINCIAL INCOME TAXES.....	13,915,262.44

\$37,966,083.51

Company of Canada, Limited

ended December 31, 1926

BY SALES OF SMELTER PRODUCT, ORE, ETC.....	\$32,650,727.05
" ORES, METALS AND SMELTER PRODUCT ON HAND AND IN TRANSIT AT DECEMBER 31, 1926.....	4,836,183.61
" REVENUE FROM INVESTMENTS AND SUNDRY ADVANCES....	361,469.33
" RENTS, ROYALTIES AND SUNDRY REVENUE.....	117,703.52

\$37,966,083.51

General Manager's Report

TRAIL, B.C., Jan. 24, 1927.

To the President and Managing Director,
The Consolidated Mining and Smelting Company
of Canada, Limited:

Dear Sir:—

I beg to submit the following report of the Company's operations for the year ending December 31, 1926, including the reports of the Manager of Mines and the Comptroller.

The year just finished has been very successful in many ways; not only has the tonnage of metal produced been larger than that of any other year, but the percentage of the metals in the ore which has been recovered in marketable form has been very much increased, while costs have been reduced in most departments.

Compared with 1925, the Gold production has increased 144%, the Silver 52%, the copper from practically nothing to 10,631 tons; the total lead production was increased by approximately 11%, while the total zinc production was increased by approximately 38%; the refined lead production was increased 21% and the refined zinc production by 60%.

During the year 5,567 tons of lead in bullion were exported and also zinc concentrates containing 5,819 tons of recoverable zinc.

Of construction authorized at the beginning of the year: The Moyie retreatment mill was completed and put into operation; the enlargement of the Sullivan Mill was practically finished and should be put into operation early in January if sufficient power is available; the Cottrell plant and stack in connection with the Lead Smelter are well under way and should be finished by Spring; the six D. & L. furnaces of No. 2 D. & L. plant have been doubled up; the hospital, fire-proof warehouse, and Retail Store in Trail have all been completed and put into commission; a fine and modern assay office was built to replace the old one (built in 1901) which had become entirely inadequate.

Early in the year a further fifty ton extension to the Electrolytic Lead Refinery was authorized. This was completed in November with the exception of a motor generator set which is

expected to arrive about the end of January. While short of electric current, this addition has been producing between forty and fifty tons of lead per day since it commenced operation.

Various extensions to shops were made during the year including the Foundry, Welding Shop, Boiler Shop and Carpenter Shop.

In July authorization was given to install a 3,000 kilowatt steam turbo generator plant at Kimberley with the necessary power line to connect with the Moyie concentrator. This was put in operation in Christmas week. This plant was considered necessary as an insurance against shortage of power from the East Kootenay Power Co.

Recreation halls were built at each of the three camps at Kimberley.

Late in the year authorizations were given to increase the zinc plant by an eighty-ton addition; to construct a plant to recover cadmium; to construct a wash and change house at the smelter; to build a drying plant for drying zinc plant rejects; to add a coarse crushing plant to the St. Eugene Mill; to add a coarse crushing and receiving plant to the Customs Mill at Trail; to construct several more miners' cottages at Kimberley; to build a new 1,500 k.w. electric furnace plant; and to build a new 50-ton sulphuric acid plant. Most of this construction was well under way by the end of the year. It is particularly desired to have the zinc plant extension ready to take advantage of the high water period next summer when sufficient power will be available even before the new power plant is completed.

The costs of supplies were about the same as during 1925—steel and brick being somewhat higher.

Wages were less owing to a very considerable drop in the metal prices.

The Sullivan Mine:

A great deal of improvement has been made in the operations of this property during the year. Heavier rails have been laid in the main haulage ways and the tunnel locomotives have been doubled in weight, resulting in the ore trains being more than doubled in size. The timber in the main tunnel has been replaced with concrete and steel. An underground electric station has been added which keeps the haulage system up to full voltage. The method of handling the whole underground traffic is much improved.

There has been a very satisfactory reduction in the cost of mining.

As the Sullivan ore body develops it becomes more apparent that this ore body is not such a simple problem. The vein has shown some very complicated folding, often on a very large scale. This makes it most important that the best geological information be obtained in order to ultimately extract the greatest possible amount of ore at the lowest practical cost.

The Kimberley Concentrator:

The ore supply was at all times satisfactory. The grade was practically the same as during 1924 and 1925.

The East Kootenay power supply was fairly satisfactory till the month of December when trouble was experienced at both power plants and both the mine and mill operations were very badly crippled.

The concentrator costs again show a very substantial reduction over those of 1925. The recoveries during the year have also been very satisfactory and show a great deal of improvement over even the excellent work done in the last three months of 1925. This is particularly so in the case of the recovery of zinc in the zinc concentrates. The grades of the concentrates have also been very satisfactory. The metal content of both the lead and zinc concentrates has been materially increased.

The one thousand ton extension has been almost completed and can be put into operation as soon as sufficient power is available to run it. Very little change was necessary to increase the tonnage from 3,000 to 4,000 tons daily, the main change was that the primary ball mills were increased from 8-ft. mills to 10-ft. mills and the old 8-ft. mills added to the secondary circuit. Some extra flotation units were added and advantage was taken of the chance to install Weight-o-meters on each of the primary ball mills.

There is a great deal of heat required in the flotation cells. This heat is supplied by a thoroughly up-to-date boiler plant. It is possible, where heat is used in this manner, to extract a large percentage of the power contained in the steam and still have the most of the heat available for process purposes.

The East Kootenay Power supply was not considered very reliable, particularly as this Company would not install an auxiliary plant in time for the winter of 1926-27. It was therefore decided to install a steam turbo generating plant of 4,000 horse-power, which could run the Moyie mill at all times with very cheap power and act as a stand-by power supply for

Kimberley. This plant was completed in the last days of December and was in almost constant demand during the month of January. Sufficient time has elapsed to show that the power thus supplied is very cheap and the plant very efficient and easy to operate.

The heat required for the metallurgical processes is absorbed by the water used in the condensers which are set in the flow of the water supply for the concentrator.

Undoubtedly the power supplied by this plant in the month of January (1927) has fully repaid the entire cost of its installation.

The St. Eugene Concentrator:

In 1916 or 1917 the old St. Eugene Mill was remodelled to experiment with flotation on Sullivan ores and to retreat the St. Eugene tailings. The mill was burned down just before the alterations were completed. The fire, supposed to have been set by anti-Britishers, was a very fortunate thing for the Consolidated Mining & Smelting Co. as this was long before the Sullivan ore process was understood and the mill would not have been nearly so successful on the St. Eugene tailings as the present one, though probably sufficiently so to have been operated at some profit.

A new 500-ton concentrator was built to retreat the tailings from the old St. Eugene Mine, most of which were deposited in Moyie Lake.

The mill was completed early in the summer of 1926 and was first used to retreat some 50,000 tons of Sullivan middlings which could not very well be handled in the Sullivan Mill. This operation was not especially successful; however, this material was cleaned up and disposed of at a slight gain.

When the Sullivan middlings were finished St. Eugene tailings were pumped from the lake with a suction pump and retreated in this mill. The results obtained have far exceeded the most optimistic estimates, both as regards recoveries and costs.

This operation has been so successful that a preliminary crushing plant is under construction so that the old mine dumps may be worked.

The mine is also being re-examined to see if there is any ore left underground which might be profitable under the present conditions of high metal markets and successful concentration of the zinc as well as the lead.

The Lead Smelter:

The tonnage in this year was 324,055 as against 300,000 tons in 1925.

The high standard of metallurgy obtained in this plant in 1925 was maintained and the smelting costs were materially reduced.

With the inauguration of the new Cottrell system now nearly completed, a still higher recovery of metals will be made in this plant.

The Lead Refinery:

The output of this plant has again been much increased, going from 63,000 tons in 1924 to 103,000 tons in 1925 and to 125,000 tons in 1926.

During the year the lead refinery was extended sufficiently to bring the output up to approximately 145,000 tons per year.

Costs in this department also have shown a very satisfactory reduction.

The Copper Smelter and Refinery:

These plants worked all year on a very limited ore supply. It had been hoped that the Rosslund Mines would be able to supply sufficient ore of a profitable grade to justify operating one copper blast furnace continuously. There now seems to be no possibility of a Rosslund supply and a reverberatory furnace is being built to smelt the Canada Copper concentrates.

The Rosslund Mines:

Work on these properties has been very discouraging. The pipe and rails are being recovered from most of the workings. At one or two places a little ore is being broken.

The Tadanac Concentrator:

The tonnage handled in this plant in 1926 was much greater than 1925, being approximately 81,200 tons as against 13,000 tons.

The Zinc Plant:

Probably the greatest improvement shown by any plant during the year was in the work done in the Zinc Plant.

In 1925 the metallurgical results in this plant were discouraging. In 1926 there was a very marked improvement; not only did the recoveries exceed our expectations but there was also a very substantial reduction in the costs.

Research Department:

A great deal of important research work has been carried on during the year. While this work has covered many branches, the most important work has been done on reclaiming zinc, lead and iron from zinc plant residues and lead blast furnace slags. While much still remains to be worked out, the recovery of these metals electro-thermally looks promising.

The Workmen's Co-Operative Committees:

These committees have continued to be of great service in helping the men and the management to get all difficulties smoothed out amicably and to work for the benefit of the organization as a whole.

Your employees have again rendered excellent and faithful service.

The following Officers have been in charge of the various departments:—

General Offices . . .	T. W. Bingay, Comptroller; R. C. Crowe, Solicitor; A. G. Cameron, Asst. Solicitor; H. B. Fuller, Chief Accountant; W. R. Baxendale, Purchasing Agent; G. A. Wallinger, Asst. Chief Accountant.
Mines	W. M. Archibald, Manager of Mines; and Staff.
Concentration . . .	R. W. Diamond, Superintendent; C. T. Oughtred, Asst. Superintendent; S. Grey, H. R. Banks and R. G. Anderson.
Smelter	James Buchanan, Superintendent; G. E. Murray, Asst. Superintendent; R. K. Blois, Superintendent of Smoke Treaters.
Zinc Plant	B. A. Stimmel, Superintendent; F. S. Willis, Asst. Superintendent; D. G. Bisset, Graham Cruickshank, Departmental Superintendents.
Refineries	J. J. Fingland, Superintendent; P. F. McIntyre, Asst. Superintendent.
Engineering	E. M. Stiles, Chief Engineer; G. F. Chapman, Mechanical Superintendent; H. N. Tiedje, and G. H. MacKay, Construction Engineers.
Research	F. E. Lee, A. L. McCallum, W. H. Hannay, and Robert Lepsoe.
Assay Office	Kurt Raht, Chief Chemist.

Yours respectfully,

S. G. BLAYLOCK,
General Manager.

Manager of Mines Report

TRAIL, B.C., Feb. 4, 1927.

To the General Manager:

Dear Sir:—

I beg to submit the following report covering the development and operation of the mines of the Company and exploratory work for the year ending December 31, 1926.

Ore Production

	12 Months 1926 Tons	1894 To Date Tons
Rosland Mines, including Josie.....	Gold-copper ore.....	
	Smelting.....	25,317
	Concentrating.....	5,410,519
White Bear.....	Gold-copper ore.....	364,938
Sullivan.....	Milling ore.....	5,928
	Lead ore.....	1,082,232
	Pyrites.....	31,229
St. Eugene.....	Lead ore.....	1,926
	Zinc ore.....	5,375,371
Molly Gibson.....	Silver-lead ore.....	44
Number One.....	Silver-lead ore.....	44
Highland.....	Silver-lead ore.....	64
	Milling ore.....	2,725
Ottawa.....	Silver ore.....	26
	Concentrates.....	164
Lucky Thought.....	Silver-lead ore.....	120
	Silver-lead concentrates..	675
	Silver-zinc ore.....	307
	Silver-zinc concentrates..	1,141
Richmond Eureka.....	Silver-lead ore.....	59
Silver King.....	Silver-copper ore.....	19,498
Emma.....	Copper ore.....	17,238
Phoenix Amalgamated..	Copper ore.....	262,560
Number Seven.....	Silicious gold ore.....	2,493
San Poil.....	Silicious gold ore.....	7,403
Rock Candy.....	Fluorspar crude ore.....	18,470
	Fluorspar concentrates..	4,173
St. Eugene.....	From dump.....	53
	Dump tailings.....	47,475
		47,528

Development—Feet

	Drifting	Cross-Cutting	Raising	Sinking	Total	Diamond Drilling
Rosland Mines, including Josie and White Bear.....	634.5	1,441.5	90.0		2,166.0	5,367.2
Sullivan.....	4,331	1,373	5,256.5	20	10,980.5	13,625.5
Highland.....	117	32	20	49	218	
Hunter V.....	243	30	159		432	
Ottawa.....			40		40	
Molly Gibson.....	100		50		150	
Boulder City.....	144				144	
Rock Candy.....	112.5				112.5	
Gypo.....	38.5				38.5	
Coast Copper.....	788.5	133	72.5	357	1,351.0	1,487
Phosphate.....						1,602
Properties under option						6,454.5

making a total to December 31st, 1926, of:—

	Feet	Miles
Rosland Mines.....	430,643.5	81.56
Sullivan.....	81,215.5	15.38
St. Eugene.....	106,321.5	20.10
Molly Gibson.....	12,630.	2.37
Number One.....	10,198.0	1.93
Highland.....	21,103.5	4.00
Ottawa.....	11,887.	2.25
Lucky Thought.....	3,660.	.69
Richmond Eureka.....	10,174.0	1.93
Silver King.....	20,462.0	3.88
Hunter V.....	851.0	.16
Boulder City.....	388.0	.07
Rock Candy.....	2,100.0	.40
Gypo-Oliver Silica.....	38.5	
Coast Copper.....	13,693.5	2.6

Rosland Mines:

Development during the year was all on the 1,650 level, Le Roi, and covered completion of the crosscut to and exploratory work on the veins intersected in the diamond drill hole in the south-west ground, and an extension of the main west drift 754 feet, with diamond drilling in both sections. The work on the whole was disappointing. In the west ground considerable mineralization was encountered, but values were invariably negligible.

In the south-west ground, Mayflower claim, where stopes were opened on the completion of the crosscut and preliminary development, results were also rather disappointing. The formation was disturbed by dykes and faults, so that stopes were irregular and although fair values were obtained at times, the general average was low. While possibilities have not been

entirely exhausted and work is being continued, prospects in this section are not very bright.

Shipments covered the minimum requirements of the blast furnace and amounted to 25,317 tons. Of this 20% came from the new stopes in the Mayflower, the balance from formerly productive stopes and pillars.

Further equipment was salvaged from abandoned sections of the mines.

Sullivan:

Production throughout the year was maintained on a 3,000 ton per day basis, although power interruptions in November and December reduced the daily average treated by the concentrator to 2,964 tons for the year.

Shipments of crude lead ore amounted to 31,475 tons, of which 20,981 tons came direct from stopes and development, the balance of 10,494 tons being a product of the picking belt in the coarse crushing plant.

1,926 tons of pyrites were shipped to the Acid Plant.

The concentrator treated 1,081,984 tons of lead-zinc ore and produced 164,604 tons of lead concentrates and 158,746 tons of zinc concentrates. All of the lead concentrates and 144,806 tons of zinc concentrates were shipped to Tadanac. The balance of 13,940 tons of zinc concentrates were exported.

As a result of the development of the last two years, with the increased number of working places available, a better regulation of the grade of feed to the concentrator was possible. Maximum variations from month to month were 1.43 units of lead, .66 units of zinc and for the year, 2.89 units lead, 1.25 units of zinc.

The footwall development program was continued and covered extensions of drifts and crosscuts, the completion of existing raises with their angle tributaries and the driving of new ones to the vein, making available further stoping areas so that at the end of the year the mine is in a position to comfortably produce 5,000 tons of ore per day.

The operating raise and muck raise from the 3,900 level to the 4,500 level, north ore zone, were completed and equipment partially installed. Replacements of wooden sets in the main haulage tunnel with concrete and steel were continued.

Work in the south ore zone on the 3,900 level indicated better possibilities in extensions north into the zone of heavy iron sulphides.

On the recommendation of your Geologist, Prof. J. Austen Bancroft, some 240 claims, aggregating 12,000 acres, were

located north-west of the present productive Sullivan Mine holdings and the life of your mine proportionally increased, provided the major extensions of the ore bodies are not in some other direction.

South ore zone stopes produced 33% of the concentrating ore, while those in the north ore zone, in addition to supplying the balance, produced the greater part of the crude lead ore shipped.

Transportation facilities were improved with the change to heavier steel in the main haulage tunnel, the installation of a new D.C. generator of 150 K.V.A. capacity and a 25-ton tandem locomotive.

Ore storage capacity remained the same; the 75-ton air dumping, steel cars continued to give satisfaction in the maintenance of a regular supply of ore to the concentrator.

Larger equipment and generally improved facilities, coupled with more favourable stoping conditions, resulted in a reduction in mining costs.

Grinding capacity and flotation capacity at the concentrator were substantially increased with the change to 10-foot Hardinge mills in the primary circuit and the installation of new flotation units, so that present tonnages can be materially increased when necessary.

Milling operations were attended with greatly improved recoveries in both lead and zinc, coupled with higher grade products.

The installation of two steam turbine generators of 1,500 K.V.A. capacity for the protection of our power supply, was about completed at the end of the year.

Housing facilities at McDougall and Camp Chapman were increased and financial assistance provided for employees wishing to build in Kimberley and Blarhmont Park.

Recreation halls for employees and their families were constructed at McDougall, Camp Chapman and on Sullivan Hill.

Financial assistance was also furnished for the construction of a new 5-sheet curling rink at McDougall.

Miscellaneous Properties:

The Highland Mine, Ainsworth, was operated with a small crew part of the year and the resultant product shipped to Tadanac. The future outlook is no more promising than last year.

The Hunter V. Mine, near Ymir, was under development during the year in preparation for production in the near future.

The ore is a silicified limestone carrying low silver values and has desirable fluxing properties, due to its lime and silica content. Sulphides are practically negligible in the ore.

A small amount of development in extensions of drifts was performed at the fluorspar property, the Rock Candy Mine, which resulted in indication of an increase in its reserves of milling material.

Leases were in effect on the No. One, Molly Gibson, Ottawa, Lucky Thought and Richmond Eureka properties, several of which made shipments during the year.

The Silver King Mine was not operated.

Controlled Properties:

At the Coast Copper development work was continued and comprised extensions to the north and south drifts, the sinking of a winze from the 800 to the 1,000 foot level, a distance of 360 feet on the vein, and diamond drilling. While no substantial increase to ore reserves resulted from the work, the strength of the vein where crosscut on the 1,000 foot level, promises favorable results upon development on that horizon.

The Raging River water right was developed and an air compressor of 1,000 cubic feet capacity installed.

With the assistance of the B. C. Government, the trail from Jeune Landing to Alice Lake was widened and improved to accommodate a light motor truck.

A continuance of the prospecting program on the Sunloch group revealed further zones of mineralization, suggesting possibilities of commercial ore on development.

Properties under Option:

The option on the Oliver silica property, comprising the Gypo and Ballarat claims, was taken up and the purchase of the property completed. Development revealed irregular gold values in one section of the deposit. The property can produce large tonnages of silica when equipped. Small shipments were made to the Acid Plant at Tadanac during the year.

The Cyclone and Rawhide Groups, with adjoining claims, near Hedley, were optioned. Diamond drilling and surface exploration, however, produced disappointing results and these were dropped.

Some diamond drilling and surface work was done on the Rossiter claims, Walker's Landing, Kootenay Lake. Results were disappointing and the option was dropped.

On the Gracie and Arnold Group, on the north fork of the Salmon River, near Erie, diamond drilling showed large veins and very extensive mineralization. Values, however, were negligible. The option has been extended and further drilling will be undertaken before abandonment.

Late in the year an option was taken on the James Copland property near Rock Creek and diamond drilling is now under way. The showing indicates a sulphide ore body with values in gold and copper.

An option was taken on the McKay-Erickson property on McKay Hill, Beaver District, Yukon Territory, where quantities of galena float indicated veins of considerable importance. Exploratory work during the summer revealed a strong vein carrying good lead values with a low silver ratio. Transportation facilities are wanting and the assurance of a large tonnage is necessary before railway construction is justified. Work on the property is being continued.

In the Rouyn District, Quebec, development on the O'Leary and Wreggitt Groups produced disappointing results and the options were dropped. Further work is being done on the McDonald Group under option and on our own locations, which are extensive. Preliminary reconnaissance and surveying, however, have failed to suggest possibilities of sizeable commercial ore bodies.

Phosphate:

The work of the season comprised the tracing of the phosphate beds, the making of locations to cover promising sections and the prospecting of these locations preparatory to selection and application for leases. In all, some 280 locations were made and 50 leases applied for.

Development covered surface trenching and diamond drilling preparatory to sampling and analyses, the result of which demonstrated the occurrence of phosphate beds over large areas. The average tri-calcium phosphate content proved generally lower than that now being used in the manufacture of superphosphate. Several localities, however, offer promise of producing a quality that can be turned to commercial account.

Investigations are now underway covering methods of manufacture and the condition of the industry in Europe and America.

General Exploration:

Examining engineers were occupied in nearly every province of the Dominion, in the Yukon and North-West Territories.

Many properties were examined, few were recommended and of these a very large percentage carried purchase prices that rendered them unattractive.

Prospecting parties were also active. Some of these were fairly extensive, notably the one in the Fitzgerald-Slave Lake district. Prospectors for the Company covered the Red Lake, Woman Lake and Lake Savant districts in Ontario, the Hayes River, Pineroot River and Beaver Lake districts in Manitoba, besides various districts in British Columbia.

Locations were made in the Lake Savant district in the late fall, but nothing is known of their merit except that they appear to be in a promising locality.

Much valuable information was gathered during the season, strengthening the prevailing opinion concerning the expansion of the mineral production of the Dominion.

Labor and Mine Supplies:

There was an over supply of labor at all accessible properties and conditions were generally satisfactory.

Base wages remained unchanged at \$3.50 per day for miners and \$3.00 per day for muckers. The metal bonus averaged 80 cents per day. The cost of living bonus of 50 cents per day was also in effect.

Prices of various grades of powder were slightly reduced, also those of drill steels and fuel oil. General mining supplies and coal were unchanged.

Mining costs at Kimberley were lowered, partly on account of reduced wages, due to the drop in the metal bonus, but principally on account of improved facilities and greater stoping areas.

The following gentlemen were in charge of the various mining operations of the Company and efficiently and zealously performed their duties:

- Mr. F. S. Peters, Rossland Mines
- Mr. E. G. Montgomery, Gen. Supt. Sullivan Mine
- Mr. M. M. O'Brien, Asst. Gen. Supt. Sullivan Mine
- Mr. Wm. Lindsay, Supt. Tunnel Mine, Sullivan Mine
- Mr. Frank Fortier, Supt. Upper Mine, Sullivan Mine
- Mr. L. W. Oughtred, Supt. Ainsworth Properties and Kootenay Lake
- Mr. Dan Matheson, Supt. Rock Candy Mine
- Mr. C. A. Seaton, Supt. Coast Copper Company
- Mr. G. H. Kilburn, Supt. Sunloch Mine
- Mr. R. B. Shelledy, Supt. Okanagan Exploration
- Mr. R. M. Macaulay, Supt. Rouyn Operations
- Mr. W. D. Burgess, Phosphate
- Mr. Leonard Telfer, Phosphate
- Mr. W. L. McDonald, Slave Lake Exploration

Examination work, although undertaken at times by nearly all operating officials, received particular attention from the following engineers:—

Mr. J. Wightman, Maritime Provinces and Newfoundland

Mr. Macaulay, Quebec

Mr. H. O. Dyer, Quebec

Mr. P. F. Osler, Ontario and Manitoba

Mr. G. H. Kilburn, Alice Arm and Portland Canal

Mr. R. B. Shelledy, Interior British Columbia

Mr. J. K. Cram, Yukon and Atlin District

Major A. B. Ritchie efficiently and zealously performed his duties as an Operating Assistant.

Yours truly,

W. M. ARCHIBALD,

Manager of Mines.

Comptroller's Report

TRAIL, B.C., March 8, 1927.

To the General Manager:

Dear Sir:—

Operations for 1926 show a net profit, before provision for income taxes, of \$13,915,262.44, after charging to Profit and Loss \$595,608.72 expended in mine development, writing off for plant depreciation \$1,354,232.62, for mine depletion \$523,881.40, and also \$193,669.61 to fire insurance reserve and \$100,000 additional towards providing for the accrued liability under our Employees' Pension Scheme.

Prices for silver, lead and zinc receded considerably during the year, but were offset by increased production and lower costs.

Adequate reserves have been made from profits for both Dominion and Provincial Income Taxes. Since writing the last report the Dominion rate has been reduced from 10.5% to 8.1%. \$1,887,864.16 was appropriated from profits for Income and Mineral taxes in 1926.

There was also appropriated to Capital Reserve \$2,274,771.66, being the amount of Capital Expenditure for 1926, and \$1,000,000 for contingencies.

The net credit for interest during the year is \$337,912.04. Bank loans were only used for short periods during the year and for small amounts. Our investment in Dominion, Provincial and Municipal Bonds increased from \$5,021,511.52 to \$12,695,691.55, and we have also \$1,050,823.47 cash in the Bank, which gives us a total of cash items of \$13,746,515.02. Against these items there is the dividend of \$3,176,381.25 payable on January 15, 1927.

Surplus shipments of lead bullion and zinc concentrates exported were considerably less than in previous years owing to the increase in the Tadanac Plant.

Metal stocks at \$4,836,183.61 are normal while operating at the present rate.

The fire insurance reserve was increased to \$500,000.00 by the addition of \$193,669.61 from profits. Still more of our own fire risk was assumed. There was no loss by fire during the year.

A number of our old employees availed themselves of the benefits of the Pension Fund during the year, and as they will

undoubtedly do so at a constantly increasing rate for some years, it was considered advisable to still further augment the provision against the accrued liability by adding another \$100,000.00 from profits to the fund.

Customs ore business increased to \$4,349,581.83 in the year. This is the largest total since 1917. The low point was in 1921 when ore valued at only \$385,998.31 was purchased. There has been steady improvement since, which has been much accelerated latterly by our providing milling facilities at Tadanac for customs ores. This business has grown very considerably in 1926 and is now the most important part of the customs ore business.

Shortly after the close of the year a new ore-purchasing schedule for lead ore was issued, increasing payments for lead in customs ore.

The scarcity of houses for our employees still exists, though many of them built homes in 1926 under the Company's Housing Scheme, and there is still a great demand for money for building.

Following is the metal production and the tonnage treated, at the Kimberley and Tadanac Plants together, from 1894 to date, and for the year 1926:

	Tons Ore Treated	Gold Produced, Ounces	Silver Produced, Ounces
1894 to date.....	11,184,578	2,134,926	54,510,767
1926.....	1,354,821	50,075	7,178,817
	Lead Produced, Pounds	Copper Produced, Pounds	Zinc Produced, Pounds
1894 to date.....	1,478,155,775	124,212,276	562,837,364
1926.....	262,105,431	21,263,988	135,092,654

Average metal quotations for the present as compared with the previous fiscal year are as follow:

	1925	1926
London Lead.....	£36.429	£31.075
New York Silver.....	69.065c	62.107c
New York Electrolytic Copper.....	14.042c	13.795c
London Zinc.....	£36.624	£34.105

Respectfully submitted,

T. W. BINGAY,
Comptroller.

Sales Manager's Report

To the President
and Managing Director,

Dear Sir:—

During 1926 the World production of lead and zinc exceeded previous records, and we are pleased to report a record consumption over the same period. The volume of our sales was very satisfactory, permitting us to close the year with practically no metal unsold in stock, notwithstanding the marked increase in annual production.

Canadian sales showed a healthy growth. Substantial increases were reported in the Orient and, in spite of the coal strike and other industrial difficulties, Europe purchased large quantities of metal from us.

Prices did not fulfil the promise shown early in the year, but fluctuations were less violent than in 1925, and while the average was not as high, the year as a whole may be regarded as satisfactory to both producer and consumer.

The outlook for 1927 is encouraging for another year of healthy business growth in the Lead and Zinc industry in Canada—sales for the first quarter to date showing a marked increase over last year. Heavy bookings for this period are also recorded in Europe and Japan, indicating that consumption is still running at a high rate. Quotations are lower than for the same period of 1926, but they may be considered favourable for business in general, and while we are not likely to have high peaks during the year, the average promises to be well maintained.

We again find pleasure in acknowledging the loyalty and service rendered by the staff in our Vancouver, Toronto, and Montreal Offices; and for the hearty co-operation and support of our Foreign Agents, Messrs. Henry Gardner & Company

Limited, London, in charge of European sales, and Messrs. A. Cameron & Company Limited, Kobe and Shanghai, in charge of sales throughout the Orient.

Sales for 1926 were as follow:—

		Pounds
Lead, refined.	268,462,000	
Lead, in bullion.	10,082,000	278,544,000
	<hr/>	
Zinc, refined.	119,514,000	
Zinc, in concentrates.	13,420,000	132,934,000
	<hr/>	
Copper, refined.		21,062,000

Respectfully submitted,

W. S. RUGH,

Manager of Sales.

Montreal, March 12, 1927.

The West Kootenay Power and Light Company, Limited

TWENTY-NINTH ANNUAL REPORT OF GENERAL MANAGER

For the Twelve Months Ending December 31,
1926

ROSSLAND, B.C., March 1, 1927.

To the President and Directors,
West Kootenay Power & Light Co., Ltd:

Gentlemen:—

The Company's gross consolidated revenue for the year ending December 31, 1926, was \$1,660,669.91.

The revenue-producing load for the 12 months ending December 31, 1925, was 39,230.1 H.P., and for the year ending December 31, 1926, was 62,789.2 H.P., showing an increase over the year 1925 of 23,559.1 H.P.

Unit No. 3:

The installation of this Unit was authorized October 14, 1925, and contracts were awarded as follow:—

Canadian General Electric Co., Ltd., for generator and switching apparatus, November 12, 1925.

Canadian Westinghouse Co., Ltd., for step-up transformers, November 12, 1925.

Canadian Allis Chalmers Limited, for water wheel settings, November 19, 1925.

The equipment under above contracts was delivered and installation started April, 1926. Installation was completed and generator put on line August 22, 1926. This completed the total installation of No. 1 Plant, Lower Bonnington, and bringing the total horse-power of machinery installed up to 60,000 H.P.

Penticton, Kelowna and Southern Okanagan Extensions:

Our business in this particular section has shown a slight improvement over the year 1925, this brought about principally by the improved conditions in the Kelowna District, and our operations for the year showed a gradual monthly increase which amounts to a total of 15% increase over the previous year.

Copper Mountain Extension:

The Allenby Copper Company Limited (now controlled by Granby) operated continuously throughout the year, and our revenue from this source has shown a gradual monthly increase for the year to the extent that December revenue 1926 shows an increase over the January revenue of 1926 of 42.8%. This, I should say, shows that they are bringing their mill up to full capacity, and brought about the increase in power consumption as we prophesied would take place in our report for December 1925.

No. 3 Plant South Slocan:

As per authorization of April 1, 1926, preliminary work was started on No. 3 development, South Slocan, but, due to water conditions, the only work that could be accomplished during the summer months was the constructing of traffic road, putting in railway sidings and the construction of camp. All of the above work was completed by October 1, but, due to water conditions in the river, it was impossible to start placing coffer dams for the unwatering of power house site proper. However, the work of constructing coffer dams was started December 1, and at the stage the work had reached by the end of December showed that we will have no difficulty whatever in completing both the upper and lower coffer dams before the river starts to rise, which is always approximately April 1.

Your Generating Stations and all Distributing Lines have been maintained in the usual high operating condition, and we have been able to put up service to the satisfaction of all our customers.

I have much pleasure in stating that our staff throughout has been held up to a very high state of efficiency, which has enabled us to put up the service above referred to.

LORNE A. CAMPBELL,
Vice-President and General Manager.

The West Kootenay Power

Consolidated Profit and Loss Account
 Amalgamating Accounts of West Kootenay
 Companies, viz.: Cascade Water, Power
 Company, Rossland Water & Light
 Northport Power

To Operating Expenses.....	\$ 385,387.92
“ Interest on Bonds.....	221,582.88
“ Interest Account.....	4,487.64
“ Bad Debts written off.....	146.50
“ Depreciation.....	465,072.62
“ Balance.....	583,992.35
	\$1,660,669.91

Balance Sheet

LIABILITIES

Share Capital \$5,500,000.00		
Issued 38,120 Common Shares at \$100 each	\$3,812,000.00	
Issued 5,000 Preferred Shares at \$100 each	500,000.00	\$4,312,000.00
Bonds Issued.....	\$3,550,000.00	
Less redeemed.....	780,926.26	2,769,073.74
Accounts Payable.....		196,091.86
Accrued Liabilities.....		71,193.59
Amount reserved for Bond Interest, Sinking Funds, Preferred Dividends and Premium on Bonds		
Reserve Account.....		657,352.66
Profit and Loss Account.....		466,339.30
Balance Dec. 31, 1925.....	\$16,609.07	
Profit for the year.....	583,992.35	
		\$600,601.42
Contribution to Sinking Fund..	\$99,262.12	
Dividends (Preferred).....	35,000.00	134,262.12
		\$8,472,051.15

Light Company, Limited

Year Ending December 31, 1926
Light Company, Limited, with its Subsidiary
Co. Ltd., South Kootenay Water Power
Kootenay Water Power Company, and
Company

By Gross Revenue..... \$1,660,669.91

\$1,660,669.91

December, 1926

ASSETS

Plants, Transmission Lines, Buildings and Real Estate.....	\$7,732,229.32	
Autos, Mdse., Meters, Instruments, Furniture and Fixtures.....	289,784.74	\$8,022,014.06
Cash on hand.....		80,262.26
Accounts Receivable.....	\$130,207.88	
Accounts Receivable Suspense Account.....	197,986.81	328,194.69
Prepaid Operating Charges.....		5,642.06
Sundry Investments.....		1,460.55
Trustees' Sinking Funds Accounts.....		34,477.53

I have audited the books and accounts of the West Kootenay Power & Light Company, Limited, and Subsidiary Companies for the year ending December 31, 1926, and have obtained all the information and explanations I have required, and certify that the above Balance Sheet and Profit and Loss Account present in my opinion a true and correct view of the Companies' affairs at the said date as shown by the books of the Companies. Inventories have been certified to by the Accountant of the Companies.

THOS. S. GILMOUR, C.A.,
Auditor

Rossland, B.C., Feb. 12, 1927.

\$8,472,051.15

