

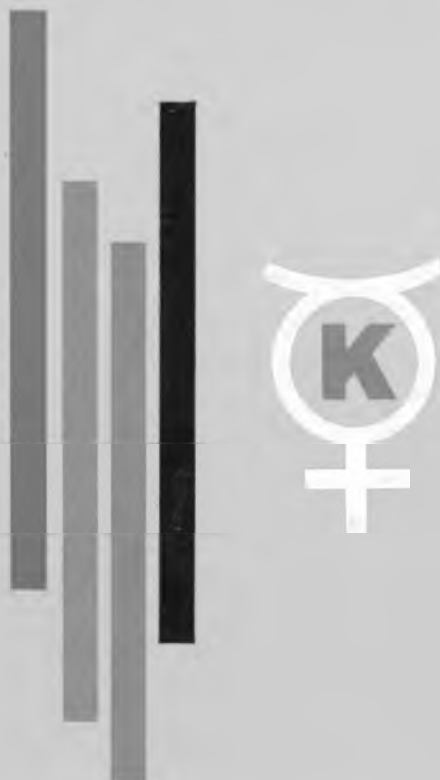
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Kennecott Copper Corporation



ANNUAL REPORT 1983

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Morgan Guaranty Trust Company of New York, New York, N. Y.

Boston Safe Deposit and Trust Company, Boston, Mass.

Registrars

Bankers Trust Company, New York, N. Y.

First National Bank of Boston, Boston, Mass.

KENNECOTT COPPER CORPORATION

EXECUTIVE OFFICES: 161 EAST 42ND STREET, NEW YORK, N. Y. 10017

FORTY-NINTH ANNUAL REPORT—YEAR ENDED DECEMBER 31, 1963

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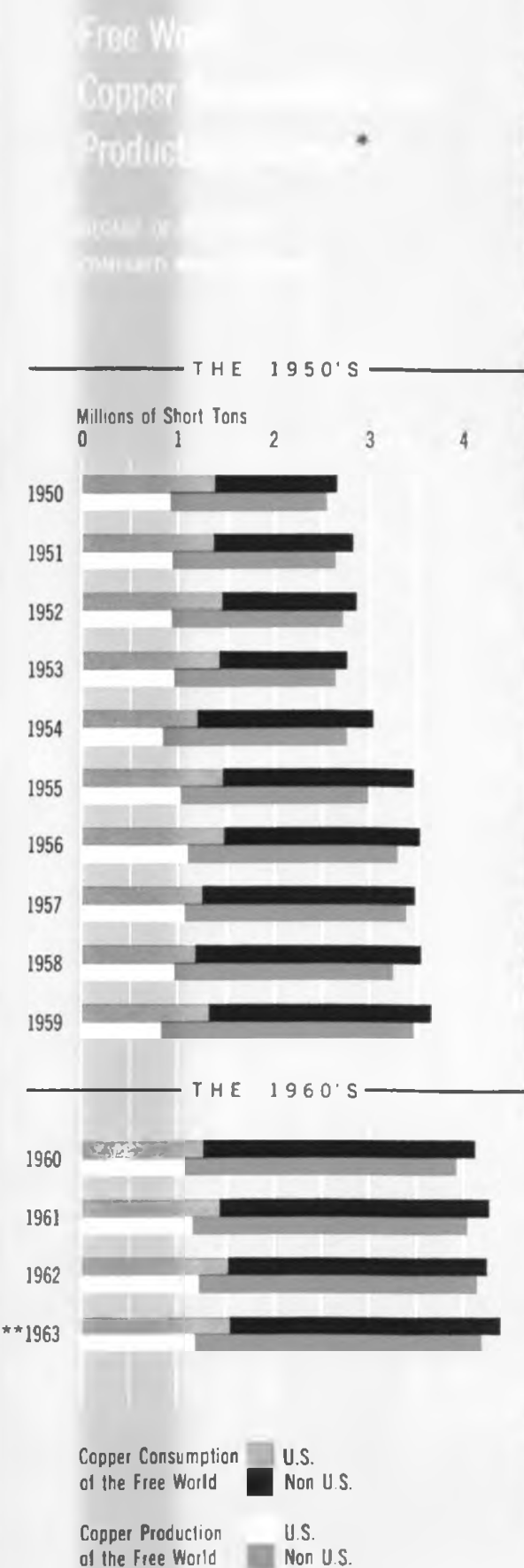
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The annual meeting of stockholders of Kennecott Copper Corporation will be held Tuesday, May 5, 1964, in The Statler Hilton Hotel, 7th Avenue and 33rd Street, New York City. A formal notice of the meeting and proxy statement, together with a form of proxy, will be mailed to stockholders on or about April 3, 1964, at which time proxies will be solicited by the management.

Cover: The copper, silver, gold and black bars on the cover represent the colors of Kennecott's major minerals—copper, the Company's principal product, and the by-products, silver, gold and molybdenite.

Results at a Glance

	1963	1962
SALES AND OTHER INCOME	\$510,774,000	\$513,803,000
COSTS AND EXPENSES (EXCEPT TAXES)	\$362,038,000	\$358,721,000
TAXES OF ALL TYPES	\$ 91,777,000	\$ 89,427,000
DOLLARS PER SHARE	\$ 8.30	\$ 8.09
NET INCOME	\$ 56,959,000	\$ 65,655,000
DOLLARS PER SHARE	\$ 5.15	\$ 5.94
DISTRIBUTIONS TO STOCKHOLDERS	\$ 44,212,000	\$ 55,265,000
DOLLARS PER SHARE	\$ 4.00	\$ 5.00
DEPRECIATION AND RETIREMENTS	\$ 20,771,000	\$ 20,570,000
CAPITAL EXPENDITURES	\$ 37,202,000	\$ 31,386,000
NET WORTH—BOOK VALUE	\$770,095,000	\$757,348,000
DOLLARS PER SHARE	\$69.67	\$68.52
AVERAGE NUMBER OF EMPLOYEES	25,176	26,133
NUMBER OF STOCKHOLDERS	89,976	93,976



* Consumption figures consistently exceed production figures because the latter do not include copper produced from scrap which currently is around 200,000 tons a year.

** Based upon Copper Institute figures for 1963 after adjusting for estimated Free World figures not included by the Copper Institute.

Source: American Bureau of Metal Statistics.

President's Letter

Earnings and Dividends

Net income per share for the year 1963 was \$5.15 compared with \$5.94 in 1962. The principal reasons for this decline in earnings were: (1) increased costs at the Utah Copper Division, (2) a higher effective Chilean income tax rate, and (3) adverse adjustments. Utah costs were up mainly because of extraordinary maintenance, higher property taxes, stepped-up stripping in connection with the expansion program and lower by-product metal credits. A decrease in Braden Copper Company's production caused its effective income tax rate to increase from 83 per cent in 1962 to 86 per cent in 1963. (The Chilean income tax law applicable to Braden results in an income tax rate which varies in inverse proportion to Braden's copper production.) Adjustments resulting from domestic and foreign income tax accruals and other non-operating charges, all applicable to prior years, reduced 1963 net income by approximately 21 cents per share.

Dividends paid in 1963 amounted to \$4.00 per share compared with \$5.00 in 1962. The percentage of 1963 earnings paid out in dividends was 78 per cent contrasted with a dividend payout rate of 84 per cent for the previous year.

Consumption, Production and Prices

Statistics of the Copper Institute indicate that Free World consumption and production of refined copper were in relative balance during 1963, with deliveries to fabricators exceeding production by less than 1 per cent.

Both Free World consumption and production of copper were up in 1963. Consumption rose 2.7 per cent in the United States and 3.3 per cent outside the United States. Although domestic mine production was below 1962 by 1.8 per cent, foreign mine production increased 1.4 per cent.

Kennecott's 1963 copper sales were slightly in excess of those in 1962. The Company's copper production in 1963 declined 6.8 per cent from the previous year's output, the deficiency between sales and output being made up from inventory. Our United States production decreased 3.3 per cent and Chilean output decreased 14.6 per cent. The reduction in domestic production reflects the curtailment instituted in September, 1962. The decline in foreign production reflects not only this curtailment, but also the output lost by a month's strike at Braden during July, 1963. In order to meet our customers' requirements, Braden resumed capacity operations following the strike, and production at the Western Mining Divisions was stepped up during the fourth quarter of 1963.

In the decade from 1950 through 1960 a significant change in the Free World's copper consumption pattern occurred. Although the United States consumption remained about the same throughout this period, that of the rest of the Free World more than doubled. On an over-all Free World basis, consumption during this 10-year period increased 54.8 per cent.

However, since 1960, a reversal of this consumption trend has occurred. United States consumption increased 22 per cent from 1960 through 1963, whereas in the other Free World countries, it showed no material change. On an over-all Free World basis, consumption during the 1960-1963 period increased 7 per cent.

The 1963 estimated Free World copper consumption of 4,405,000 tons was 66 per cent greater than the 1950 consumption of 2,658,000 tons. Both statistical projections and detailed market studies indicate a continuing growth in consumption. The industry's production has kept pace with demand, and should continue to do so in the foreseeable future.

The chart of page 2 of this report graphically illustrates the changes in the Free World copper consumption and production patterns.

The United States primary producers' price for copper during 1963 remained stable at 31 cents per pound. The foreign price (London Metal Exchange) averaged 29.3 cents. Kennecott's average selling price, domestic and foreign, for 1963 was 30.1 cents compared with 30.0 cents in 1962.

As mentioned in the fourth quarter report, for a number of years the basis for pricing our copper sales in Europe has been the London Metal Exchange. During the past two years this price fluctuated in a narrow range around £234 (sterling) per long ton (29¼ cents per pound). A pronounced upward price movement occurred in mid-January, 1964, and certain African producers, who also sold on the basis of the L.M.E., then offered to sell copper at £236 (29½ cents per pound), which was below the L.M.E. quotation at that time. Kennecott subsequently offered to sell at either £236 or at the L.M.E. price. The situation remains unchanged at this writing.

Additional Copper Output

In the light of the growing demand for copper, Kennecott has planned increases in its output of the metal. In addition to the 100,000 tons per year increase in copper production resulting from the Utah Expansion Program, mentioned in previous reports to stockholders, the Chino Mines Division in New Mexico will increase its annual copper output by approximately 24 per cent, or 21,000 tons a year. The latter increase, which will be obtained from expanded pit mining and enlarged leaching facilities for the production of precipitate copper, will become available during the year 1965.

Fabrication

Fabricating earnings for 1963 showed only a slight improvement compared with last year's small profit.

Overcapacity in the copper fabricating industries (the copper and brass mill industry and the wire and cable industry) has led to price cutting in an attempt to utilize such excess capacity. This has resulted in the deterioration of profit margins in some companies, including our fabricating subsidiaries, to a point where a fair return is not being realized on capital investment.

The return on the capital investment in our copper mining operations cannot be sufficient to justify investments in fabricating facilities that in themselves do not provide an adequate return. Nor can we afford to have the customers for our primary copper, the independent fabricators, operate unprofitably. Since they are outlets for our products, their financial well-being is as important to us as it is to them.

The chaotic pricing situation in fabricating must ultimately right itself. In the meantime, our subsidiaries have been pursuing the only course available to them—drastic cost reduction.

To facilitate reduction in costs and improve the Company's competitive position in one of its product lines, Chase Brass & Copper Co. Incorporated will construct a new single purpose, highly automated, and strategically located brass rod mill.

The Federal antitrust suit charging Kennecott with violation of Section 7 of the Clayton Act by its acquisition of The Okonite Company in the year 1958 was tried in November before the United States District Court for the Southern District of New York. No decision is expected for several months.

Outlook

Current demand for copper is strong in the United States, Europe and the rest of the Free World. We expect this demand to remain firm during the first half of the year 1964. However, there may be some inventory buying because of possible work stoppages that might occur in the copper industry in connection with the negotiation of new labor contracts during the year. Free World copper production should be adequate to supply the needs of the industry's customers.

BY ORDER OF THE BOARD OF DIRECTORS,



FEBRUARY 18, 1964

PRESIDENT



Symbolic of the dynamic expansion program at Utah Copper Division is this 110-hole blast that opens new areas to mining. In the foreground is one of two new 12-cubic yard shovels.

Review of Operations

MINING

Lower copper-producing output at four of the five Divisions reflected the reduction in operating rate effected in September, 1962, to bring production into line with sales to our customers at that time. However, the production rate in the fourth quarter of 1963 was increased somewhat to meet improved copper demand.

The grade of ore at Kennecott's four U. S. mines in 1963 averaged .804 per cent copper against .810 per cent the preceding year. The ore grade at our Chilean subsidiary, Braden Copper Company, was 1.937 per cent compared with 1.957 per cent in 1962.

Production of the principal by-products in 1963 was:

	MOLYBDENITE (000 Pounds)	GOLD (Fine Ounces)	SILVER (Fine Ounces)
1963 . . .	22,144	307,470	2,608,807
1962 . . .	25,429	361,847	3,152,801

The decrease in by-product output resulted principally from lower by-product content of the ore at Utah and the general cut in mine production.

Western Mining Divisions

CHINO MINES DIVISION

Conversion from rail to the more economical truck haulage was virtually completed during 1963, with the last train

removed from pit ore haulage on September 5. The conversion required the purchase of 22 giant trucks, construction of maintenance facilities and haulage roads, and the removal of rail facilities. The latter will not be completed until late in the second quarter of 1964. Low-cost precipitate copper production rose 12.7 per cent over 1962, principally as a result of changes effected in the water circulation pattern in the precipitation plant.

The mine dumps at this Division are readily amenable to leaching. To increase copper production from this source, plans were developed to expand stripping activities, increase the volume of leaching solutions, enlarge the precipitation plant, and increase smelter capacity by installing a new precipitate dryer. These installations will increase copper output by approximately 24 per cent.

NEVADA MINES DIVISION

Although the Nevada Division has low grade ore, a high stripping ratio, and difficult metallurgical problems, improved mine performance and other operating practices more than offset these problems and permitted an over-all reduction in production costs.

During the year, the Division set a new high average daily ore production and milling rate.

PRODUCTION STATISTICS

Divisions	Refined Copper Produced (Net Tons)		Ore Mined and Milled (Net Tons)		Pounds of Copper Per Ton of Ore Mined	
	1963	1962	1963	1962	1963	1962
Chino Mines	80,629	73,683	6,648,058	7,071,800	17.6	18.2
Nevada Mines	39,672	43,369	7,064,745	7,176,488	14.6	15.5
Ray Mines	62,930	66,475	7,123,102	7,695,757	18.2	18.3
Utah Copper	197,858	210,375	26,235,400	29,175,000	15.5	15.4
Total Domestic	381,089	393,902	47,071,305	51,119,045	Avg. 16.1	16.2
Chilean	154,916	181,306	9,447,410	11,537,521	38.7	39.1
Grand Total	536,005	575,208	56,518,715	62,656,566	Avg. 19.9	20.4





New matte tapping machine is instrumental in reducing costs at the Ray Mines Division smelter.

RAY MINES DIVISION

Three 65-ton haulage trucks were purchased to replace smaller trucks, and resulted in significantly lower haulage cost per ton for the larger unit. A matte tapping machine in the smelter, developed in cooperation with a manufacturer, was successful in reducing costs of labor, tap hole maintenance, and oxygen lancing, and has provided a safer operation. A second machine is scheduled to be received early this year. A pilot plant for molybdenite recovery was constructed, and experimental work is being conducted in preparation for the production of molybdenite at this Division. Increased water in the leaching circuit aided in achieving a 21.3 per cent increase in precipitate copper production over the 1962 mark.

The historic mining town of Ray, Arizona, from which Ray Mines Division derived its name, is being razed to make way for mining progress. Eventually the open-pit operations of the Division will be expanded, eliminating the colorful landmark. Municipal facilities of Ray have been transferred to the new town of Kearny, 14 miles south.

UTAH COPPER DIVISION

The long-range mining plan required the mining in 1963 of hard and blocky areas that were low in precious metal content and molybdenite, and high in iron. As a consequence, mining and maintenance costs were higher than normal. The contract stripping continued throughout the year, terminating in December. This, together with the stripping necessary for the preparation of the mine for the expansion project, resulted in high advanced stripping costs for the year. The conversion to truck haulage required a great deal of driver and mechanic training which was conducted while maintaining regular operations.

Gale force winds crippled the precipitation plant on February 1, and full normal production was not restored until April 5. Damage to plant installations and power lines by wind storms of unprecedented violence interrupted operations early in June.

The high iron content of the mine ore was reflected in lower grade concentrates

and increased quantities of smelter slag. As a result, the reduced smelting rate adversely affected Division costs.

A thermal oxidation plant for the treatment of refinery slimes was completed and placed in production. An auxiliary plant for the production of tellurium is in the advanced engineering phase and construction will be initiated in the near future.

The work on the Utah expansion program is progressing on schedule. Major contracts for construction will be let early this year.

Braden Copper Company

Plant operations were conducted at a rate to meet customer demand until a legal strike at the end of the contract in mid-year interrupted output for one month. Upon resumption of production, the plant was operated at full capacity for the balance of the year.

Projects for capital expenditures of approximately \$1,400,000 were undertaken for industrial water development, renovation of electrical distribution systems, and further enlargement of the precipitation plant which treats the overflow of decanted effluent of the tailings ponds.

A new 28-ton per day pilot plant was installed in the concentrator to permit investigation of metallurgical improvements in the recovery of both copper and molybdenite and to develop cost reduction methods.

Tintic Division

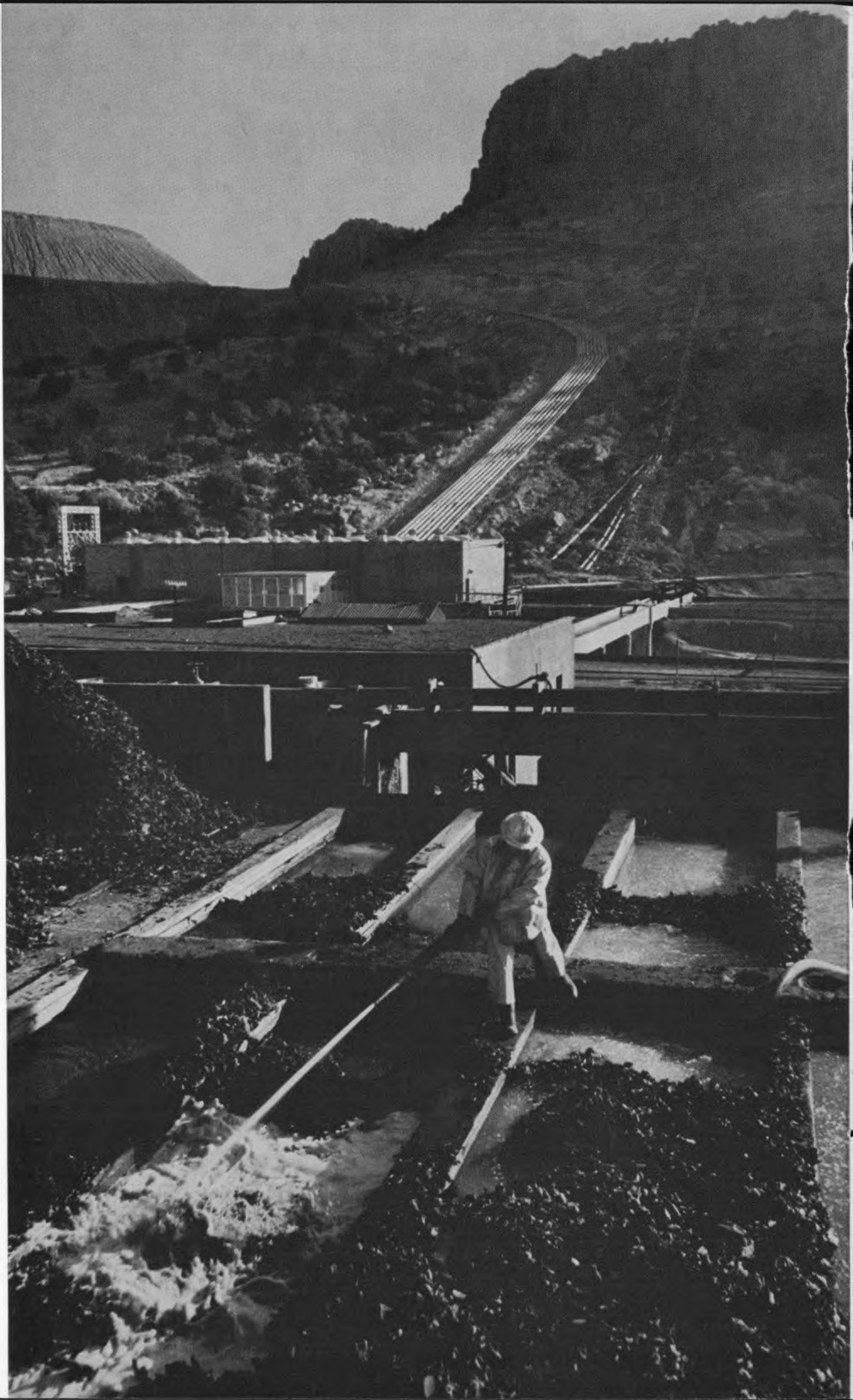
Work at this lead-zinc-silver mine continues with the sinking of a production shaft, the construction of surface facilities, and the underground development necessary for the mining of the orebody. Production of limited tonnages of ore from horizons above the water table is continuing.

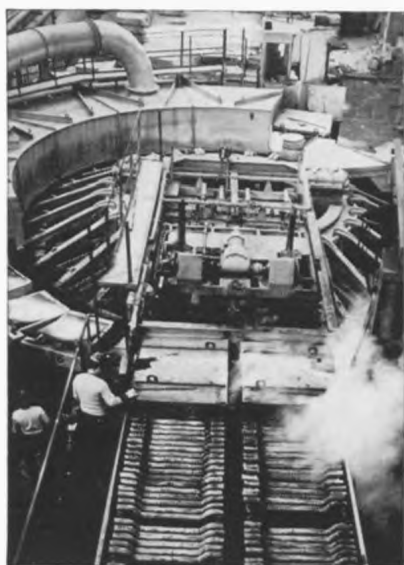
Quebec Iron and Titanium Corporation

Production of this Canadian subsidiary, two-thirds owned by Kennecott, was resumed in April, 1963, after a seven-month strike which began late in August, 1962. Reduction plant operations continued at full capacity.

The new fleet of 65-ton trucks for Utah Copper Division's expansion program being readied for final test runs.

Precipitation plant at Chino Mines Division, with worker finishing a cleaning operation on one of the cells. In the background are the pipelines which take leach solution to the top of the dumps.





The 50-foot casting wheel at Kennecott Refining Corporation in Baltimore, Maryland, casts 700-pound anodes from blister copper.

ity for the balance of the year and established a record level of monthly throughput.

In 1963, sales decreased 7 per cent from the previous year, and net profit was \$962,900 (Cdn. Cy.) compared with \$3,269,400 in 1962. This decrease in earnings was due mainly to start-up expenses following the strike, decreased profitability of 1963 iron sales, and a change in sales policy as reported in the 1962 Annual Report.

Q.I.T. is not making provision for Canadian income taxes since taxable income is presently offset by allowable deductions. When such deductions have been fully utilized, this Company's earnings may be reduced materially by the impact of Canadian income taxes.

The reduced income from iron sales was the result of a continued erosion in steel scrap price which reached an all-time low in 1963. Sorelmetal use in ductile iron and other high quality foundry applications continues to grow, but this rate of growth has not been sufficient to match that of production, hence part of the iron sales must compete with scrap.

The market for titanium slag continued strong.

Repayment to date of advances previously made by the parent companies now amounts to \$9,000,000 (U. S. Cy.) of which Kennecott has received \$6,000,000.

Production figures for the past five years follow:

	ORE TREATED	TITANIUM SLAG PRODUCED	IRON PRODUCED
1963 . .	817,286	338,679	224,949
1962 . .	665,851	269,150	184,991
1961 . .	1,032,122	413,715	277,107
1960 . .	863,726	345,213	221,945
1959 . .	559,205	217,589	145,990

Q. I. T. is anticipating continued capacity operations during 1964. It is estimated that approximately 1,200,000 tons of ore will be treated in order to meet the demand for slag. Despite the low level of scrap prices, it is believed that a reasonably favorable profit position can be maintained on overall iron sales.

A new two-year labor agreement expiring March 18, 1965, was reached at the Sorel reduction plant and a three-year contract

was signed in July at the Havre St. Pierre mine. The formation of a Human Relations Committee has resulted in a much improved labor climate.

TIN AND ASSOCIATED MINERALS LIMITED

Shipments of columbite in 1963 by this Nigerian subsidiary, 76 per cent owned by Kennecott, totaled 675,500 pounds compared with 830,800 pounds in 1962, and 520,000 pounds in 1961. Shipments of zircon sands which declined in 1962 to 9,200 pounds rose to 3,008,600 pounds last year.

The decline in columbite price which occurred in 1962 continued during 1963 and the Company experienced a nominal loss.

Sales demand for ferrocolumbium is not keeping pace with industry production of columbium concentrates and new sources of supply now reaching the market may be expected to exercise further pressure on the price of columbite in the immediate future until inventories are liquidated. During the year, additional equipment resulted in substantial improvement in operating costs.

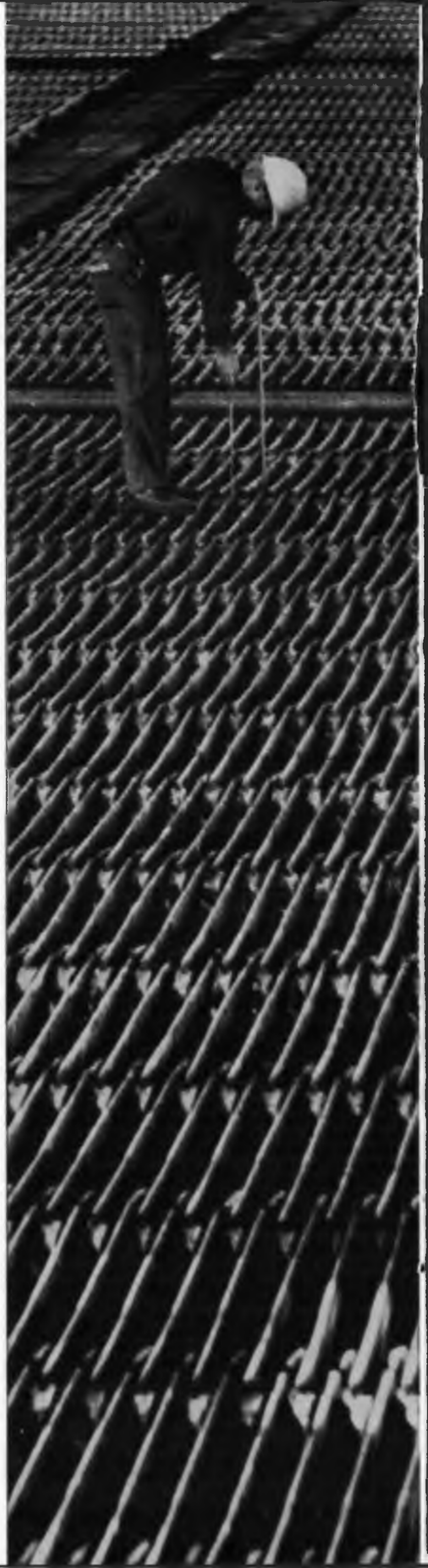
FABRICATING

CHASE BRASS & COPPER CO. INCORPORATED

Cost reduction efforts and increased productivity contributed importantly to strengthening Chase's earnings over 1962, despite intense competitive pressure with selling price reductions on practically all brass mill products.

Shipments showed a 5.52 per cent increase in poundage volume but net dollar sales increased only 1.27 per cent, reflecting the effect of lower selling prices.

New process and facility programs were developed during 1963 to better the Company's competitive position. To further this objective, construction of a new single purpose and highly automated brass rod mill is scheduled to start this year near Montpelier, Ohio. The plant, which will cover 113,600 square feet, will be devoted to the manufacture of Chase's successful "Blue Dot" rod. This free-cutting rod was introduced in 1963 and has had wide customer acceptance.





Spectrometer in the Metallurgical Department at Chase Metal Works, Waterbury, Connecticut, determines the composition of copper alloys and records the results.

During the year, the Mill Division reorganized its staff marketing organization, changing from a product-oriented to a market-oriented effort. This modification, designed to recognize major consuming outlets for its products, will result in the Company's participating to better advantage in areas offering the greatest opportunity for both profit and growth potential. Markets thus far identified for this concentrated effort are: heat transfer, electrical, automotive, screw machines, and construction.

In 1961 Chase established its Metals Service Division to handle warehouse sales. In 1963 this Division registered a definite and steady growth as a distributor for copper, brass, stainless steel, aluminum, and a wide range of alloys and forms of metals for servicing the needs of the metal-working and building industries.

The Rhenium Division continued its expansion with sales increasing by one-third over 1962 as a result of continued promotion and research activities. A larger proportion of these sales is going into fabricated products of various rhenium alloys.

Late in 1963 the Rhenium Division announced the development of a seamless tubing of 50 per cent rhenium and 50 per cent molybdenum, made by powder metallurgy. Previously, no tubing of a rhenium-molybdenum alloy had been available. The unique features of the tubing are its ductility, especially after recrystallization, and its weldability. It is usable in the electronic and nuclear industries, aerospace, chemical, and allied high-temperature fields.

In respect of the 1962 Federal antitrust action against Chase and other companies, Chase and one other firm pleaded not guilty. A trial date has not been set. No proceedings have taken place in the companion civil action brought by the Government against the indicted companies.

THE OKONITE COMPANY

Although volume of shipments held up well, the competitive pressure on prices in the wire and cable market had an adverse effect

on the spread between production costs and selling prices, resulting in a small loss for the year.

The expansion program for producing extra high voltage cable at the Paterson, New Jersey, plant was completed, and the nation's first commercial 345,000-volt cables for the pioneer underground transmission line in New York City were shipped and installed on advanced schedule.

Present promotion of a simplified splicing device, known as the Electro-Lap* Seal, is expected to extend the use of paper cable products into portions of the utility industrial market hitherto untapped because standard splicing procedures were considered too complicated.

New products included a smaller, tougher and less costly diesel electric locomotive wire known as Type DLO and improved oil-base insulation rated at 90°C, which will give longer cable life and as much as 15 per cent greater operating efficiency. By introducing these and other improvements in cable insulation and employing the searching test methods of its electronic Micro-Scanner, Okonite is now prepared to offer smaller diameter cables for power circuits. This development will permit customers to install more copper and attain greater circuit capacity in existing duct lines, an important economy in the countless installations where increasing power demands require major changes in electrical systems.

Exploration and Development

As a result of the encouraging findings at the large lead deposits in Missouri mentioned in last year's Annual Report, plans for bringing the property into production are being prepared. Sinking of a development shaft may be started in 1964. A wholly owned subsidiary, Ozark Lead Company, has been formed and would carry out this work.

Although the economic evaluation of the phosphate deposits in North Carolina, in which Kennecott holds a 50-50 interest with American Agricultural Chemical Com-

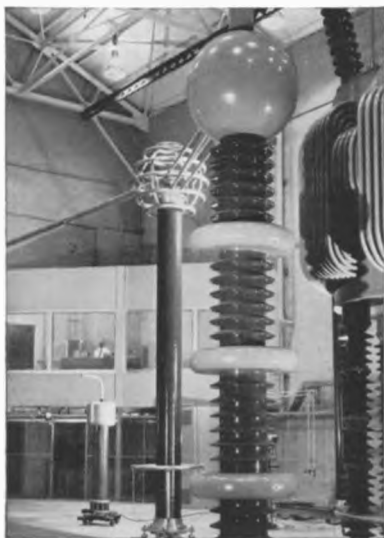
*A trademark of The Okonite Company

Electrolytic tank house at Utah Copper Division refinery. (Right)

Transfer of copper from converter at Ray Mines Division smelter. (Left)

A 345,000-volt cable passes between mammoth 14-foot reels at Okonite's Paterson, N. J. plant as the final D-wire is applied. These reels, designed specifically for use with extra high voltage cable, can accommodate 3500 feet of four-inch diameter cable.





Focal points in The Okonite Company's new ultra-high voltage laboratory are two series resonant transformers capable of developing a total of 800,000 volts. The control console at the rear is screened to protect engineers during the rising voltage breakdown tests.

pany Division of Continental Oil Company, has not been completed, results to date are promising. The evaluation work will be continued during 1964.

A diamond drilling program was undertaken on a molybdenite deposit near the head of Alice Arm, a fiord in British Columbia about 450 miles northwest of Vancouver. Additional drilling and an evaluation of all results are planned for 1964. Ownership of the property has been conveyed to a recently-established, wholly owned subsidiary, British Columbia Molybdenum Limited.

Evaluation of the copper deposit at Saford, Arizona, has been completed and the property has been placed in stand-by status under the management of Ray Mines Division.

Kennecott exercised options to purchase for \$3,000,000 a number of claims at Ruby Creek, Alaska, near the Kobuk River, and about 150 miles east of the village of Kotzebue. The work here during the past seven summer seasons, consisting largely of diamond drilling, has disclosed copper deposits which warrant mining operation. Present plans call for the construction of a permanent camp, sinking of a shaft, and the development of the ore body. Indications are this will be a small to medium tonnage operation.

A major drilling and testing program was carried out on copper deposits at Galore Creek, British Columbia, about 40 miles east of Wrangell, Alaska. The deposits occur on claims owned by Stikine Copper Limited in which Kennecott has a 76 per cent interest. The balance is held by Hudson Bay Mining and Smelting Co., Limited and Consolidated Mining and Smelting Company of Canada Limited. Numerous copper occurrences have been located to date, but considerable drilling will be required to determine whether the deposits would be commercial in this area of difficult access.

The search for clues diagnostic of porphyry-copper deposits which would increase the efficiency of Kennecott's exploration continued throughout the year, and yielded

promising results which are being further tested and incorporated into field practices.

Research and Development

MINING

Systematic operational hydrometallurgical procedures to increase the production of low-cost copper from mine waste continued to be developed during 1963. These procedures resulted from fundamental laboratory and pilot plant studies at the Kennecott Research Center, Salt Lake City, Utah, and leaching of an experimental dump at Utah Copper Division. The large-scale studies have been extended to mine dumps at all of the Western Mining Division properties, and the application of Research findings resulted in significant quantities of additional copper being recovered at Utah and at other Divisions.

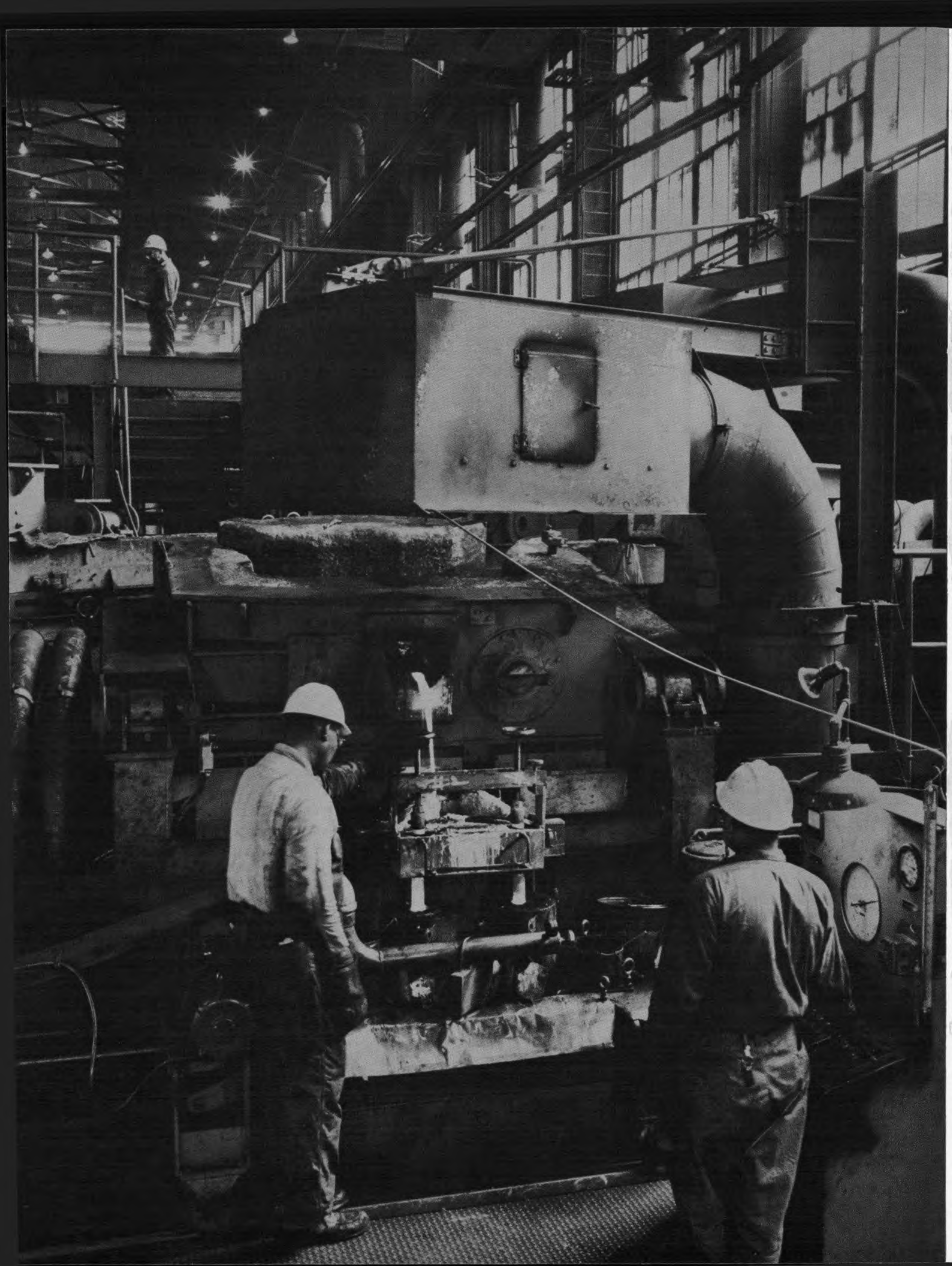
As lower grade and more complex ores are mined and processed, technologic improvement in milling assumes progressively greater economic importance. During 1963, studies were continued to improve recovery of copper and by-products from ores, to develop methods of processing additional ores, and to improve milling practice and lower milling costs.

Field work on the slope stability research project conducted by Kennecott and the U. S. Bureau of Mines at the Kimbley Pit at Nevada Mines Division was completed in 1963. The laboratory work and the proving of the results remain to be undertaken.

A process was developed for the recovery and production of commercial tellurium at the Utah Copper Division.

FABRICATING

Automatic analysis equipment, a project of the Research and Development Department of Chase Brass & Copper Co. Incorporated, was installed at the Chase Metal Works. This replaces the wet chemical analysis process and provides the speed of analysis necessary to control properly modern casting facilities.





Cell and accessory apparatus used in an investigation of the electrochemical behavior of rhenium metal electrodes at the Ledge-mont Laboratory.

Operating and control procedures have been developed for the newly-installed, semi-continuous casting equipment at the Chase Metal Works. Improved quality of cast billets at commercial production rates has been attained for the copper-nickel alloys and nearly all the high copper engineering alloys.

LEDGEMONT LABORATORY

The staff and facilities at the new Ledge-mont Laboratory provide a major capability for scientific research on metals over a wide range of technical disciplines. Research on deformation at high pressures will provide further knowledge of the causes of fracture. Studies are in process on the basic chemistry of rhenium to aid Kennecott's position as the major supplier of that metal.

A better understanding of alloy systems in general, including both the important refractory alloys of rhenium as well as the more familiar alloys of copper, is being furthered by studies of superlattices formed by each component in an alloy, and of the electronic and magnetic properties possessed by metals and alloys. Basic studies are active on precipitation and oxidation phenomena to provide insight on the fundamental nature of these important processes.

COMPUTERS

The expansion of the use of computers for many phases of computations in mining, smelting, engineering, construction, tailings disposal and other phases of mining operations is under study at various Divisions. The Engineering Department, Western Mining Divisions, has been assigned the responsibility of coordinating the engineering computer work within the Divisions.

Computer programming for engineering usually calls for unique, untested approaches to problems of a scientific or engineering nature. Considerable effort has been expended in the successful development of sophisticated, usable programs for open-pit design and for reverberatory furnace operations. Other programs have been refined to test the adequacy of electrical circuits and to compute critical path con-

struction schedules. Computers utilizing programs developed by Bear Creek Mining Company, Kennecott's exploration subsidiary, and the Engineering Department of Western Mining Divisions are now being utilized in other phases of Kennecott's activities, among them studies of ore-grade distribution; computation of ore reserves and ore-grade cutoffs at the operating mines; determination of the sequence of mining to maximize ore grade and minimize stripping ratios; determination of most efficient use of loading and haulage equipment; analysis of the economics of projected mine operations and plant expansion with respect to capital investment, scale of production, discount rates, payout time, life of mine, and cash flow.

Employee Relations

The average number of employees at Kennecott and its wholly owned subsidiaries in 1963 totaled 25,176, as compared to 26,133 for the preceding year.

LABOR RELATIONS

A new 15-month contract which will run until October 2, 1964, settled a one-month strike on August 3, 1963, at Braden Copper Company. The settlement provided substantial wage and fringe increases due to the high rate of inflation which totaled 50 per cent during the 15-month period of the prior labor contract.

A contract terminating November 15, 1964, was signed late in May with the principal union at the Waterbury, Connecticut plant of Chase Brass & Copper Co. Late in August a one-year labor agreement was reached with the principal union at Chase's Cleveland, Ohio, plant.

During 1964, negotiations for new labor contracts will be conducted at most of Kennecott's installations since existing agreements will expire at Western Mining Divisions in June and July, at Braden Copper Company in October, at Chase Brass & Copper Co. plants in August and November, and at The Okonite Company installations in July and September.

Two streams of molten metal are poured simultaneously in the semi-continuous casting process at Chase Brass & Copper Co.'s Metal Works in Waterbury, Connecticut.

SAFETY

For the sixteenth consecutive year, Braden Copper Company won the Inter-American Safety Council's award. Nevada Mines Division, Kennecott Refining Corporation, and the Waterbury and Cleveland plants of Chase Brass & Copper Co. established new all-time safety records. In addition, numerous awards were made by the National Safety Council and other organizations to individual units of the Divisions for their safety programs and achievements.

SUGGESTIONS

The suggestion system is actively promoted, and continues to generate a large number of valuable suggestions for the improvement of Kennecott's efficiency and competitive position. During the year, 3,539 suggestions were submitted, of which 957 were approved, receiving \$80,600 total awards in recognition of \$397,629 estimated annual savings to the Company.

PERSONNEL DEVELOPMENT

It is the continued objective of the Company to develop the talents of its personnel to meet the future needs of the enterprise. Utilization of apprentice, supervisory and management training programs, and Tuition Aid assisted progress toward this goal. The apprenticeship programs develop the skills needed for operations and during the year there were 240 employees enrolled and 53 graduated. Supervisory and presupervisory programs were conducted at the first-line and department head levels. A total of 487 employees participated in Tuition Aid. They completed 1,037 courses and were reimbursed for the major part of their expenses covered by the Plan. This program requires that the course be applicable to the employee's present or possible future work and that it be taken at a recognized educational institution.

In the development of top and middle management capabilities, selected managerial personnel attended a variety of programs and seminars conducted by leading universities and professional organizations.

COMMUNICATIONS

Management has long recognized the importance of keeping all employees informed of Company policies, objectives, and activities. Toward this end constant attention is paid to communications, an example being the automatic telephone information service which continues to be extremely popular. Under this program employees are able to receive messages of local interest. In addition, extensive use is made of such communications media as local television, radio, newspapers, and employee publications.

Organization Changes

Arthur Ferdinand Mayne, Executive Vice President and Director of the Royal Bank of Canada, Montreal, was elected a member of the Board of Directors in December.

Herman H. Kremer, Vice President—Metal Services Division, and Director of Chase Brass & Copper Co., Incorporated, was named Executive Vice President of Kennecott Sales Corporation in March.

Gordon H. Fisher, formerly President, General Minerals, Houston, Texas, was appointed Assistant to the President in November.

Dr. Herbert I. Fusfeld, formerly with American Machine & Foundry Company, was appointed Director of Research, succeeding Dr. Leslie G. Jenness, Vice President, Research, who retired September 1, after 13 years with Kennecott.

Harold A. Krueger, formerly with National Lead Company, became Assistant to the Vice President—Mining in January, 1964.



The true value of an industrial safety campaign lies not in slogans but in results.

With profound sorrow we record the death on May 20, 1963, of Mr. William F. Macklaier, Q. C., of Montreal, Canada, a member of Kennecott's Board of Directors since 1959, and of the Board of Quebec Iron and Titanium Corporation since 1962. His wise counsel will be sorely missed.



Anode casting area in Ray Mines Division's smelter.



Financial Review · Kennecott Copper Corporation

Financial Review

EARNINGS AND DIVIDENDS

Net earnings in 1963 were \$56,959,000 or \$5.15 per share, down \$8,696,000 from the \$65,655,000 or \$5.94 per share reported for 1962. Reduced output brought higher unit costs and smaller credits for by-products. Income tax provisions in 1963 took 53 per cent of pretax income as compared with only 49 per cent in 1962, the difference due mainly to adjustments for prior years.

The distribution of \$1.00 per share in each quarter of 1963 amounted to \$4.00 per share for the year.

DELIVERIES AND PRICES

Stability was the keynote of copper deliveries and prices in 1963. For Kennecott, the 555,852 tons of copper delivered at an average price of 30.1 cents per pound represented a nominal increase over 1962 when deliveries were 555,334 tons and the average price per pound, 30 cents.

This same stability was reflected in the statistics of the industry. The Copper Institute reports deliveries to fabricators by member companies rising approximately 3 per cent from 3,642,000 tons in 1962 to 3,753,000 tons in 1963. Prices were even more stable. Producers continued to sell electrolytic copper in standard shapes for 31 cents per pound in the United States with its 1.7 cents per pound tariff wall and for about 29.3 cents per pound in Europe.

SALES AND COST OF GOODS SOLD

The slight reduction in sales from \$507,387,000 to \$504,925,000 was due to a reduction in by-products available for sale. Ore processed in 1963 was down about 10 per cent in volume from 1962 and somewhat more in by-product content. The declines are indicated in the Historical Table (page 30).

The increase in cost of goods sold is due principally to increased costs at the Utah Copper Division resulting from additional stripping for the expansion program, increased property taxes and the effect of lower output on unit costs.

CHILEAN DIVISION (BRADEN COPPER COMPANY)

The cost of living in Chile increased 45 per cent during the year compared to increases of 26 per cent and 10 per cent during 1962 and 1961, respectively.

The dual system of exchange which was re-established early in 1962 continued in effect in 1963, during which period the free bank rate, which is the rate at which the Company is required to purchase escudos for its current operating needs, increased from 1.62 escudos to the dollar to 2.05 at December 31, 1963. During the same period the broker's rate increased from 2.33 escudos to the dollar to 3.02.

In 1963 Braden Copper Company ac-



Power shovel loading an ore train at Utah Copper Division's Bingham Canyon mine.

counted for 29 per cent of Kennecott's total copper deliveries, but provided only 11 per cent of consolidated net income due principally to the extremely high Chilean income tax rate applicable to Braden. In the year 1963 intermittent strikes and work stoppages reduced production to the extent that the rate of tax applicable to 1963 output rose to 86 per cent as compared to 83 per cent on 1962 output.

TAXES

The dollar amount of domestic and foreign taxes based on income increased only slightly from the amount of this provision for the year 1962; however, due to lower pretax earnings the ratio of this amount to such earnings increased by approximately 4 per cent. The reasons for this increase are prior years' tax adjustments and a higher effective rate of tax for the Braden Copper Company operations in Chile.

Total tax provision for the year 1963 and comparable figures for 1962 are summarized below:

	1963	1962
United States and Foreign taxes on income	\$64,035,306	\$63,951,465
Other taxes included in operating costs and other accounts	27,741,672	25,476,462
Total	\$91,776,978	\$89,427,927
Taxes per share	\$8.30	\$8.09

United States Federal income taxes payable in the year 1964 applicable to 1963 will be reduced by approximately \$1,100,000 as a result of the application of the investment credit provided for in the Revenue Act of 1962.

PROPERTY, PLANT AND EQUIPMENT

Capital expenditures in 1963 amounted to \$37,202,000 compared to capital expenditures of \$31,386,000 in 1962. This represents an increase of approximately 19 per cent over the preceding year.

The major items of expenditure in 1963

were for conversion to truck haulage at the Chino Mines Division in New Mexico, the initial expenditures in regard to the expansion program at Utah, and the completion of the new facilities at Paterson, New Jersey, of The Okonite Company. Expenditures in Chile amounted to \$4,500,000, covering several programs to lower costs and improve medical, transportation and living facilities for our employees.

Depreciation and retirement costs in 1963 amounted to \$20,771,000 compared to \$20,570,000 in the preceding year. The amount provided by depreciation was significantly less than the amount required for capital outlays.

GOVERNMENT AND OTHER SHORT-TERM SECURITIES

During the year 1963, the Company continued to invest cash not immediately required for its operations and expansion program in marketable securities. At the year-end, the portfolio of short-term investments amounted to \$98,659,000. Of this amount, \$89,158,000 represented obligations of the United States Government, with the balance invested in securities of several municipal governments, certificates of deposit, and prime finance company commercial paper. The approximate market value of the securities was \$98,326,000 with an average maturity of approximately eight months.

INVESTMENTS

The details of the principal investments held by the Company at the year's end in the amount of \$80,093,000 are shown on page 26. The major changes in 1963 are summarized as follows:

Quebec Iron and Titanium Corporation repaid \$5,000,000, representing a portion of the funds previously advanced by Kennecott. Repayments to date total \$6,000,000 leaving a balance to be repaid of \$20,000,000.

In 1956 Allied Chemical Corporation and Kennecott Copper Corporation formed an equally owned company, Allied-Kennecott

Titanium Corporation, to produce and sell titanium metal. Since 1956 demand for titanium sponge (the primary form of the metal) has not grown at the pace originally anticipated and therefore in 1963 plans to build a processing plant were abandoned. Accordingly, Kennecott's net loss on this investment of approximately \$1,200,000 was written off against consolidated income.

Additional amounts totaling \$1,125,000 were advanced to the John W. Galbreath Development Corporation to be used by it in construction of townsite facilities at Kearny, Arizona.

EQUITY IN UNCONSOLIDATED SUBSIDIARIES

Kennecott's investment in unconsolidated subsidiaries at December 31, 1963 amounted to \$46,008,000, compared with \$49,762,000 at December 31, 1962. This decrease reflects the reduction of our investment in Quebec Iron and Titanium, which repaid \$5,000,000 in 1963, representing a portion of the amounts previously advanced to it by Kennecott. Also, a new company, Stikine Copper Limited, formed by Hudson Bay Mining and Smelting Co., Limited, Consolidated Mining and Smelting Company of Canada Limited and ourselves to explore and develop mining claims in northern British Columbia, is now included as an investment.

Kennecott's equity in the net worth of these companies exceeded its investment therein by \$10,160,000 at December 31, 1963, compared to \$9,536,000 at December 31, 1962. Our equity in the respective earnings of these firms for years 1963 and 1962 are shown in the tabulation on page 23. The 1963 results, based on unaudited reports, indicate lower earnings than the previous year, principally because the income of Quebec Iron and Titanium was sharply curtailed in the first half of the year by reason of a strike.

Cash distributions from unconsolidated subsidiaries amounting to \$150,000 for 1963 and \$706,000 for 1962 are included in the caption "Dividends, interest and miscellaneous" in the consolidated statements of income and earned surplus.

EXECUTIVE INCENTIVE-COMPENSATION AWARDS

No awards were made to employees in the year 1963, although \$230,000 was available based on the formula provided in the Plan. Under the provisions of the Plan, unused amounts are retained by the Company and cannot be awarded in future years.

PENSION PROGRAMS

The Company and its consolidated subsidiaries maintain several pension programs to afford future retirement benefits for employees. During 1963, \$5,181,000 was provided for the maintenance of pension programs. At year-end there were 18,737 employees for whom funding of retirement benefits was being accomplished. In addition, there were 43 employees who were covered by other retirement arrangements in the United States and Chile for whom no current funding of benefits is being provided.

Benefits of \$3,561,000 were disbursed during the year with \$3,358,000 paid from trust funds and \$202,200 paid by the Company. At year-end there were 3,105 retired employees receiving pensions through these programs.

STOCKHOLDERS

At the end of November, 1963 the outstanding shares of Kennecott were held by 89,976 stockholders as compared to 93,976 stockholders at approximately the same date in the preceding year.

Equity in Operations of Unconsolidated Subsidiaries

	Percentage of Ownership	Kennecott's Equity in Profits or (Losses)	
		1963	1962
Quebec Iron and Titanium Corporation	66 $\frac{2}{3}$	\$594,500*	\$2,024,000*
Tin and Associated Minerals Limited	76	(16,800)	(50,600)
Quebec Columium Limited	45.9	In Development Stage	
Garfield Chemical and Manufacturing Corporation	50	228,400	420,600
The Superior Wire Cloth Company	92.8	(2,700)	20,100
Kenbestos Mining Company Limited	95	In Development Stage	
Stikine Copper Limited	76	In Development Stage	
		<u>\$803,400</u>	<u>\$2,414,100</u>

*Q.I.T. is not making provision for Canadian income taxes since taxable income is presently offset by allowable deductions. When such deductions have been fully utilized, the Company's earnings may be reduced materially by the impact of Canadian income taxes.

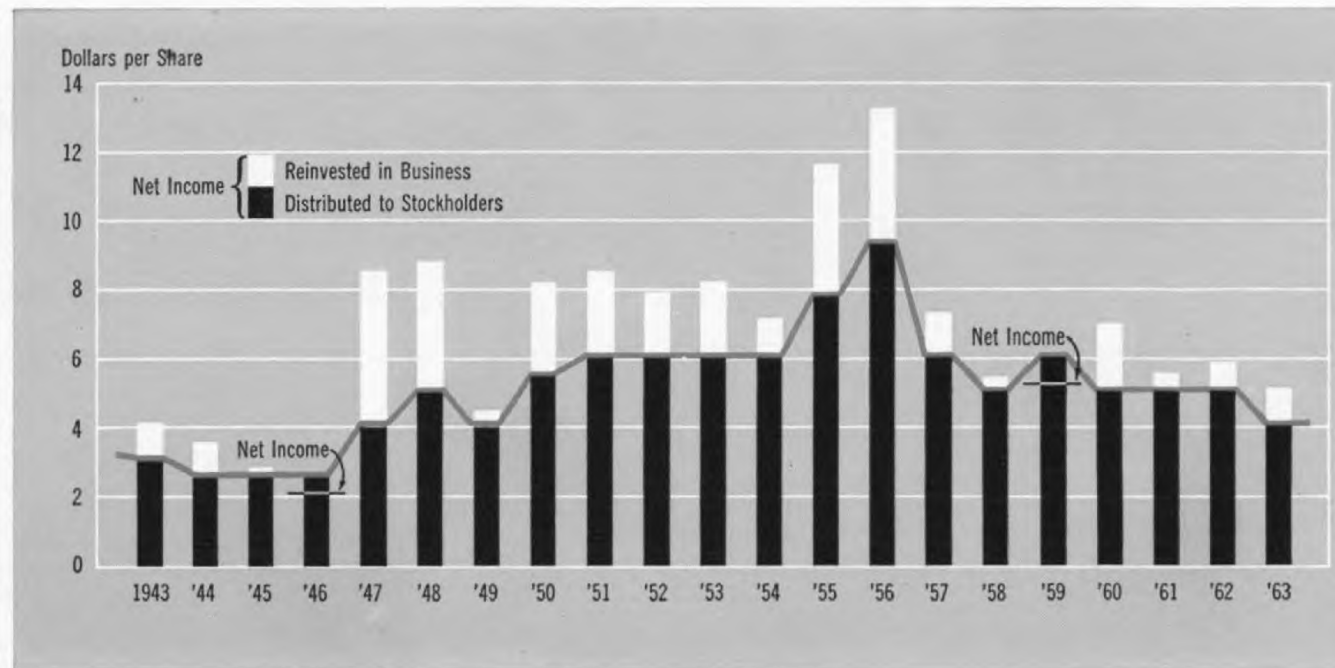
Working Capital

Summary of Changes which Accounted for the Increase in Working Capital

Working capital—December 31, 1962		\$250,653,348
Additions:		
Net income for the year	\$56,958,944	
Depreciation of plant and equipment	20,770,520	
Repayment of advances—Quebec Iron and Titanium Corporation	5,000,000	
Deferred U. S. income taxes	7,357,912	
Payments received on accounts receivable, noncurrent	1,962,625	
Investment tax credit on capital additions	1,106,253	
	<u>\$93,156,254</u>	
Deductions:		
Distributions to stockholders	\$44,212,204	
Expenditures for plant and equipment	37,201,630	
Decrease in long-term debt	6,460,000	
Net change in investments other than repayments received from Q.I.T.	892,840	
Net change in other accounts	(2,120,566)	
	<u>\$86,646,108</u>	
Net increase in working capital		6,510,146
Working Capital—December 31, 1963		<u>\$257,163,494</u>

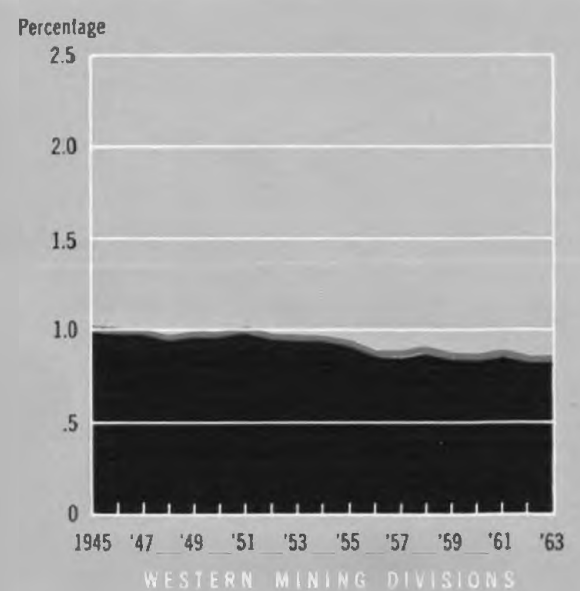
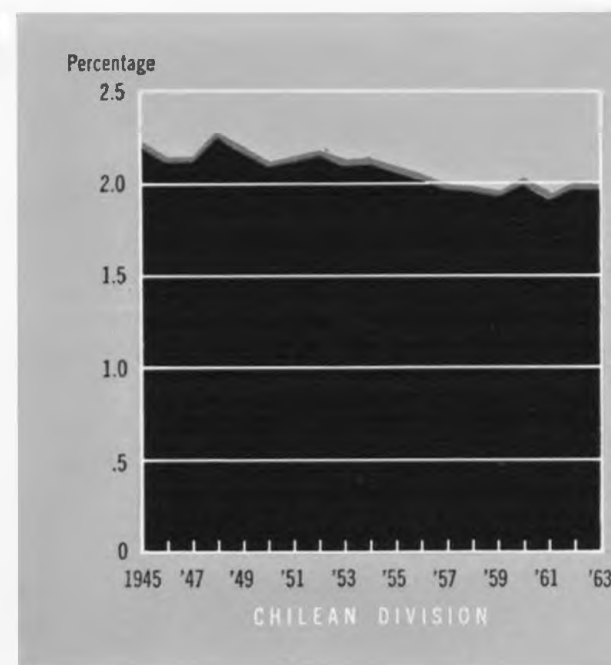
() Denotes red figure.

NET INCOME AND AMOUNT DISTRIBUTED TO STOCKHOLDERS—PER SHARE OF STOCK

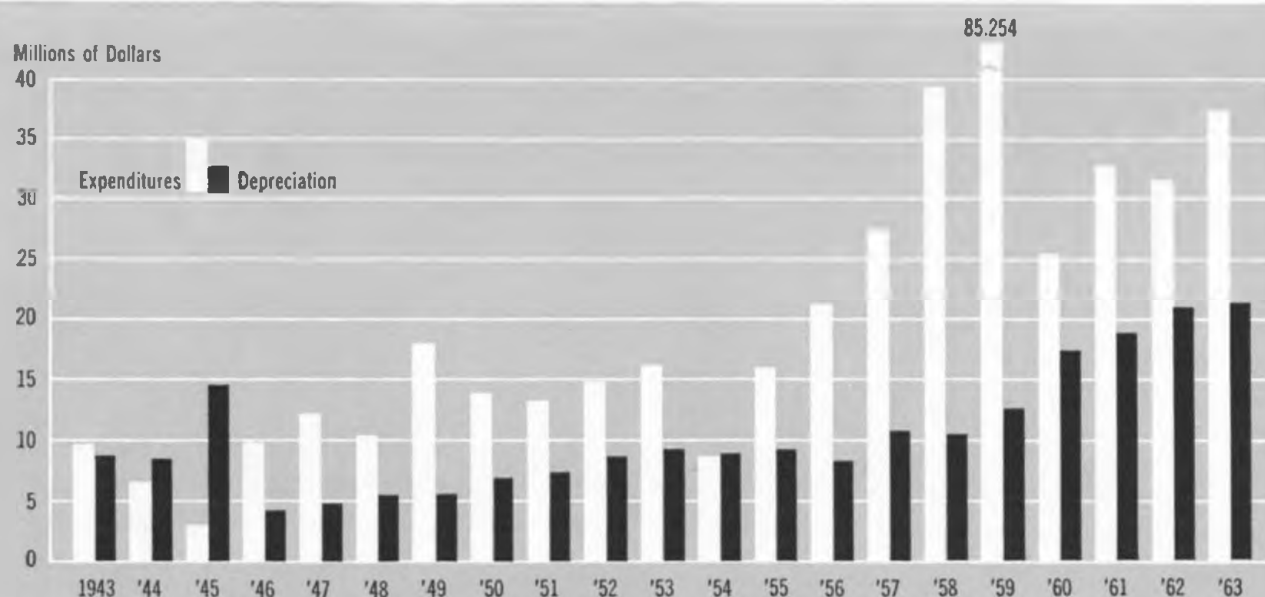


During the period covered by this chart, 75 per cent of net income was distributed to stockholders. The remaining 25 per cent was reinvested in the business.

GRADE OF COPPER ORE MINED



EXPENDITURES FOR PLANT AND EQUIPMENT COMPARED WITH AMOUNT PROVIDED FOR PLANT DEPRECIATION



The chart shows the annual allowances for depreciation of plant and equipment as compared to the amounts expended for new plant and equipment. The difference was obtained by reinvesting a portion of retained earnings.



PRICES OF COPPER IN THE UNITED STATES AND ON THE LONDON METAL EXCHANGE



The U. S. price is the price of electrolytic copper delivered at customers' plants in the U. S. The L.M.E. price on which most of Kennecott's foreign sales are based is the monthly average of settlement quotations for electrolytic copper on the London Metal Exchange.

Schedule of Investments (Excluding Securities Carried As Current Assets)

UNCONSOLIDATED SUBSIDIARIES:

Quebec Iron and Titanium Corporation — stock and advances (66 $\frac{2}{3}$ %)	\$40,000,000
Tin and Associated Minerals Limited — stock and advances (76%)	1,652,562
Quebec Columbian Limited — stock and advances (45.9%) (controlled through voting arrangement)	1,266,045
Garfield Chemical and Manufacturing Corporation — stock (50%) (controlled through operating arrangement)	240,000
The Superior Wire Cloth Company — stock (92.8%)	206,200
Kenbestos Mining Company Limited — stock and advances (95%)	1,498,638
Stikine Copper Limited — stock (76%)	1,144,442
	<u>\$46,007,887</u>

OTHER INVESTMENTS (having market quotations):

	Market Value Dec. 31, 1963	
Kaiser Aluminum & Chemical Corporation 1,925,000 shares of common stock	\$68,818,750	\$18,800,000
Molybdenum Corporation of America 120,116 shares of common stock	3,002,900	3,073,459
Compañía de Acero del Pacifico — 1,377,748 shares of Series "B" common stock; 40,000 shares of Series "D" preferred stock	785,929	350,000
	<u>\$72,607,579</u>	<u>\$22,223,459</u>

OTHER INVESTMENTS (no market quotations):

John W. Galbreath & Company — notes receivable	\$ 2,127,290
John W. Galbreath Development Corp. — notes receivable	5,475,308
Western Phosphates, Inc. — stock and advances	1,680,000
North Carolina Phosphate Corporation — stock	1,742,789
Miscellaneous investments	835,784
	<u>\$11,861,171</u>
Balance — December 31, 1963	<u>\$80,092,517</u>

KENNECOTT COPPER CORPORATION AND WHOLLY OWNED SUBSIDIARIES

Consolidated Statements of Income and Earned Surplus

for the years ended December 31, 1963 and 1962

	1963	1962
Sales of metals and metal products	\$504,924,908	\$507,386,940
Dividends, interest and miscellaneous	<u>5,849,166</u>	<u>6,416,302</u>
	510,774,074	513,803,242
Cost of goods sold	340,315,239	337,001,410
Depreciation and retirements	20,770,520	20,570,323
Selling and general administrative expenses	20,152,404	20,025,601
Shut-down expenses during strikes	1,094,238	358,970
Research, exploration and miscellaneous	<u>7,447,423</u>	<u>6,240,745</u>
	389,779,824	384,197,049
	120,994,250	129,606,193
Provision for U. S. and foreign taxes on income (Note 6)	64,035,306	63,951,465
Net income	56,958,944	65,654,728
Earned surplus at beginning of year	491,425,600	482,555,132
Exploration expenses previously written off now capitalized	<u>—</u>	<u>436,663</u>
	548,384,544	548,646,523
Deductions:		
Additional U. S. and Chilean taxes on income assessed against prior years' earnings	<u>—</u>	<u>1,385,326</u>
Adjustment of exploration expenses previously capitalized	<u>—</u>	<u>570,342</u>
Distributions to stockholders (1963, \$4; 1962, \$5 per share)	44,212,204	55,265,255
	44,212,204	57,220,923
Earned surplus at end of year	<u>\$504,172,340</u>	<u>\$491,425,600</u>

See Notes to Financial Statements.

KENNECOTT COPPER CORPORATION AND WHOLLY OWNED SUBSIDIARIES

Consolidated Balance Sheets

December 31, 1963 and 1962

	1963	1962
Assets		
CURRENT ASSETS:		
Cash	\$ 15,705,863	\$ 24,099,857
U. S. Government and other short-term securities, at cost	98,659,248	79,025,115
Accounts receivable, less reserves	49,987,483	44,930,399
Metals and metal products (Note 1)	103,038,123	108,263,649
Ores and concentrates, at cost	7,043,970	7,409,125
Materials and supplies, at or below cost	35,678,683	37,898,440
	<u>310,113,370</u>	<u>301,626,585</u>
Accounts receivable, noncurrent	1,962,625	3,925,250
Investments, at or below cost	80,092,517	84,199,677
Deferred charges, prepayments, etc.	7,955,576	7,130,051
Mining properties (Note 2)	164,150,279	161,353,980
Plants, equipment and other properties	557,675,738	536,381,524
Reserves for depreciation	(274,868,329)	(263,646,504)
	<u>\$847,081,776</u>	<u>\$830,970,563</u>
Liabilities		
CURRENT LIABILITIES:		
Notes payable, due within one year	\$ 9,543,333	\$ 2,843,333
Accounts payable	25,328,800	25,976,418
Taxes accrued	18,077,743	22,153,486
	<u>52,949,876</u>	<u>50,973,237</u>
Long-term debt (Note 5)	5,620,000	12,080,000
Deferred U. S. income taxes (Note 6)	12,900,000	5,542,088
Sundry reserves and deferred credits	5,517,008	5,027,086
Capital		
Capital stock, no par value:		
Authorized 12,000,000, outstanding 11,053,051 shares		
Stated capital	74,806,424	74,806,424
Capital surplus	191,116,128	191,116,128
Earned surplus	504,172,340	491,425,600
	<u>\$847,081,776</u>	<u>\$830,970,563</u>

See Notes to Financial Statements.

Notes to Financial Statements

1. INVENTORIES:

Inventories of metals and metal products are carried at the lower of cost or market. In general, cost is computed on a "first-in, first-out" method, but a "last-in, first-out" method is used for certain inventories of the fabricating divisions.

2. MINING PROPERTIES:

Over the years the ore reserves have increased as a result of development work and improvements in methods of recovery of metals which make possible the treatment of lower grades of ore. Accordingly, no provisions for depletion have been considered necessary.

3. EQUITY IN UNCONSOLIDATED SUBSIDIARIES:

Refer to comments and tabulation on pages 22 and 23.

4. FOREIGN CURRENCY AMOUNTS:

Foreign currency amounts have been included in the consolidated balance sheets at the U. S. dollar equivalents appropriate to the accounts translated: current assets and current liabilities at year-end exchange rates; property accounts and investments, etc., at the rates of exchange in effect at date of acquisition; related depreciation reserves are based on U. S. dollar costs. Foreign currency amounts have been included in the statements of

income at the U. S. dollar equivalents determined at the exchange rates in effect at the time of the related transactions.

Approximately 9 per cent of net current assets and approximately 13 per cent of all other assets shown in the consolidated balance sheet at December 31, 1963 represent assets of consolidated subsidiaries which are located outside the United States (principally in Chile) and the related net income represents approximately 11 per cent of consolidated net income. The Company's investments in unconsolidated subsidiaries and affiliates are almost entirely in foreign countries, principally Canada.

5. LONG-TERM DEBT:

At December 31, 1963, long-term debt consisted of a 4½ per cent promissory note of The Okonite Company, payable in annual instalments of \$460,000 from 1964 through 1975 and \$560,000 in 1976; the 1964 instalment is included in current notes payable.

6. DEFERRED INCOME TAXES:

In computing depreciation for federal income tax purposes, the Company and certain of its subsidiaries have adopted the "Guideline Lives" permitted by the Internal Revenue Service and, in some instances, have adopted accelerated depreciation methods. The resultant reduction in Federal income taxes has been reflected under the caption Deferred U. S. Income Taxes in the accompanying consolidated balance sheets.

Auditors' Certificate

LYBRAND, ROSS BROS. & MONTGOMERY CERTIFIED PUBLIC ACCOUNTANTS

TO THE DIRECTORS AND STOCKHOLDERS OF KENNECOTT COPPER CORPORATION:

We have examined the consolidated balance sheet of KENNECOTT COPPER CORPORATION and WHOLLY OWNED SUBSIDIARIES as of December 31, 1963 and the related statement of income and earned surplus for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously made a similar examination for the year 1962.

In our opinion, the accompanying consolidated balance sheets and statements of income and earned surplus present fairly the consolidated financial position of Kennecott Copper Corporation and Wholly Owned Subsidiaries at December 31, 1963 and 1962 and the results of their operations for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

LYBRAND, ROSS BROS. & MONTGOMERY

New York, January 31, 1964.

Historical Table 1944-1963

Year	Copper Ore Mined and Milled (000 Net Tons)	Material Removed to Dumps (000 Net Tons)	Copper Produced			Total Copper Sold (Net Tons)
			In the U. S. (Net Tons)	In Chile (Net Tons)	Total (Net Tons)	
1944	51,023	40,865	406,107	174,688	580,795	601,721
1945	42,421	41,858	329,239	164,899	494,138	485,226
1946	27,502	30,137	203,489	93,725	297,214	280,330
1947	48,154	48,468	369,256	138,472	507,728	509,829
1948	46,971	58,467	350,330	164,252	514,582	538,345
1949	39,816	56,158	296,649	139,592	436,241	407,999
1950	55,018	78,612	418,123	157,910	576,033	589,694
1951	56,168	87,318	430,187	171,247	601,434	605,473
1952	59,015	81,673	444,582	184,813	629,395	634,360
1953	56,147	79,746	429,052	140,347	569,399	524,322
1954	44,611	66,715	338,749	108,330	447,079	509,754
1955	51,589	74,641	370,487	156,228	526,715	533,820
1956	61,203	98,955	402,309	179,896	582,205	495,219
1957	58,292	100,859	387,291	172,707	559,998	552,944
1958	50,628	72,419	318,732	191,578	510,310	543,845
1959	42,577	75,506	235,228	182,017	417,245	434,566
1960	60,734	107,340	384,088	187,221	571,309	540,598
1961	60,628	120,047	401,169	173,269	574,438	591,734
1962	62,657	124,018	393,902	181,306	575,208	555,334
1963	56,519	122,382	381,089	154,916	536,005	555,852

Year	Total Revenue (000 Dollars)	Cost of Goods Sold Excl. Taxes (000 Dollars)	Depreciation and Retirements (000 Dollars)	U. S. and Foreign Income Taxes (000 Dollars)	Taxes Other Than U. S. and Foreign Inc. (000 Dollars)	Other Costs (000 Dollars)	Net Income (000 Dollars)
1944	\$253,651	\$157,569	\$ 8,513	\$ 35,481	\$ 7,712	\$ 5,512	\$ 38,864
1945	211,217	143,567	14,685	13,512	6,507	2,692	30,254
1946	157,025	104,503	4,132	11,163	5,586	8,594	23,047
1947	318,820	159,804	4,958	49,723	8,719	3,734	91,882
1948	351,100	185,181	5,230	52,344	10,346	4,192	93,807
1949	249,438	157,798	5,234	24,247	10,591	3,458	48,110
1950	400,153	231,206	6,815	58,726	12,825	2,420	88,161
1951	455,485	254,708	7,268	83,036	15,144	3,982	91,347
1952	476,740	287,957	8,509	73,580	14,716	5,827	86,151
1953	482,808	269,416	9,244	90,069	18,798	6,527	88,754
1954	429,131	261,429	8,734	54,323	16,976	9,763	77,906
1955	555,939	252,392	8,905	122,429	20,785	25,912	125,516
1956	578,067	250,435	8,120	138,072	22,900	15,386	143,154
1957	480,200	275,653	10,610	80,368	22,813	11,504	79,252
1958	404,998	250,961	10,351	55,286	21,073	7,206	60,121
1959	444,903	263,909	12,429	63,263	22,210	25,752	57,340
1960	503,341	273,655	17,177	85,633	21,294	28,220	77,362
1961	506,809	303,450	18,555	70,356	23,027	29,524	61,897
1962	513,803	311,526	20,570	63,951	25,476	26,625	65,655
1963	510,774	312,573	20,771	64,035	27,742	28,694	56,959

Retroactive to 1961 Copper Produced is reported on a refined basis.

Net income figures are as reported annually to stockholders, without adjustment for surplus charges and credits.

KENNECOTT COPPER CORPORATION AND WHOLLY OWNED SUBSIDIARIES

Price Received for Copper (Cents Per Lb.)	Molybdenite Produced (000 Pounds)	Gold Produced (Fine Ounces)	Silver Produced (Fine Ounces)	Average Number of Employees	Grade of Copper Ore Mined		Capital Expenditures (000 Dollars)	Year
					In the U. S. (Per Cent)	In Chile (Per Cent)		
11.7	25,071	313,386	2,693,558	27,143	1.005	2.269	\$ 6,370	1944
11.6	21,437	258,556	2,183,964	24,526	.995	2.203	2,990	1945
14.0	12,335	155,749	1,305,283	23,483	.965	2.133	9,900	1946
21.0	25,777	391,497	3,128,766	25,887	.960	2.110	12,037	1947
21.9	22,253	338,228	2,823,068	26,210	.946	2.220	10,329	1948
19.5	19,895	296,818	2,384,043	24,807	.955	2.140	18,023	1949
21.0	29,407	450,174	3,586,763	26,152	.958	2.090	13,960	1950
24.4	30,837	430,515	3,441,549	26,594	.987	2.110	13,126	1951
24.3	34,480	430,139	3,679,035	26,898	.952	2.151	14,908	1952
28.0	35,224	487,335	3,911,928	28,024	.942	2.106	16,170	1953
28.0	28,200	387,039	2,852,744	25,474	.943	2.110	8,748	1954
36.6	31,960	414,444	3,445,762	27,158	.914	2.046	16,006	1955
41.6	32,538	403,381	3,213,559	27,886	.843	2.014	21,244	1956
28.9	28,756	377,367	3,295,170	26,752	.839	1.963	27,332	1957
25.4	23,626	313,380	2,821,364	23,041	.851	1.948	39,667	1958
30.0	20,967	240,179	2,167,469	27,231	.816	1.938	85,254	1959
31.0	27,426	396,839	3,700,784	27,205	.809	1.993	25,342	1960
29.3	25,814	363,586	2,926,993	26,885	.831	1.909	32,892	1961
30.0	25,429	361,847	3,152,801	26,133	.810	1.957	31,386	1962
30.1	22,144	307,470	2,655,164	25,176	.804	1.937	37,202	1963

Net Income Per Share					Distributed to Stockholders		Total Assets (000 Dollars)	Capital and Surplus (000 Dollars)	Book Value Per Share	Year
Total	By Quarters				(000 Dollars)	Per Share				
	1st	2nd	3rd	4th						
\$ 3.59	\$1.02	\$.97	\$.90	\$.70	\$ 27,054	\$2.50	\$490,270	\$409,955	\$37.88	1944
2.79	.78	.73	.47	.81	27,054	2.50	464,800	412,875	38.15	1945
2.13	.26	.16	.59	1.12	27,054	2.50	459,670	408,868	37.78	1946
8.49	1.90	2.36	2.20	2.03	43,287	4.00	540,612	457,463	42.27	1947
8.67	2.14	2.32	2.33	1.88	54,108	5.00	575,420	497,683	45.99	1948
4.45	1.51	.64	.83	1.47	43,287	4.00	560,283	502,507	46.44	1949
8.15	1.55	1.94	2.20	2.46	59,519	5.50	631,487	551,667	50.98	1950
8.44	2.33	2.32	1.90	1.89	64,930	6.00	687,473	578,084	53.42	1951
7.96	2.03	1.73	2.03	2.17	64,930	6.00	703,532	600,567	55.50	1952
8.20	2.15	2.03	1.87	2.15	64,930	6.00	747,630	620,593	57.35	1953
7.20	1.70	2.19	1.47	1.84	64,930	6.00	730,867	637,893	58.95	1954
11.60	2.68	3.37	1.53	4.02	83,868	7.75	793,221	679,542	62.79	1955
13.23	4.08	4.16	2.48	2.51	100,100	9.25	833,998	723,200	66.83	1956
7.32	2.57	1.99	1.45	1.31	64,930	6.00	807,452	737,521	68.15	1957
5.44	1.05	1.02	1.34	2.03	54,340	5.00	825,678	764,909	69.20	1958
5.19	2.03	2.29	.99	(.12)	66,318	6.00	802,839	755,931	68.39	1959
7.00	1.65	2.21	1.82	1.32	55,265	5.00	807,554	741,821	67.11	1960
5.60	1.46	1.82	1.04	1.28	55,265	5.00	814,418	748,478	67.72	1961
5.94	1.69	1.62	.96	1.67	55,265	5.00	830,971	757,348	68.52	1962
5.15	1.36	1.35	1.16	1.28	44,212	4.00	847,082	770,095	69.67	1963

Net income per Share and Book Value per Share are based on number of shares outstanding at December 31st of each year.

Parent Company and Principal Subsidiaries

Officers and Executives

FRANK R. MILLIKEN, PRESIDENT

C. HARRY BURGESS, VICE PRESIDENT (Exploration)

PAUL A. BAILLY, PRESIDENT, Bear Creek Mining Company

C. J. SULLIVAN, PRESIDENT, Kennco Explorations, (Canada) Limited

PAUL DASHINE, MANAGER OF TECHNICAL SERVICES

H. I. FUSFELD, DIRECTOR OF RESEARCH

ROBERT G. RHETT, DIRECTOR OF PURCHASING

GEORGE F. SHARRARD, DIRECTOR OF INDUSTRIAL AND MARKET RESEARCH

LEON J. SOUREN, DIRECTOR OF TRAFFIC

GORDON H. FISHER, ASSISTANT TO THE PRESIDENT

PAUL B. JESSUP, DIRECTOR OF CORPORATE RELATIONS

ARTHUR S. CHEROUNY, DIRECTOR OF EMPLOYEE RELATIONS

LESTER ZIFFREN, DIRECTOR OF PUBLIC RELATIONS

ROBERT H. LOUNSBURY, GENERAL COUNSEL

MALCOLM R. WILKEY, SECRETARY AND ASSOCIATE GENERAL COUNSEL

C. D. MICHAELSON, VICE PRESIDENT (Mining)

JOHN C. KINNEAR, JR., GENERAL MANAGER, Western Mining Divisions

FRANK G. WOODRUFF, GENERAL MANAGER, Chino Mines Division

M. J. O'SHAUGHNESSY, GENERAL MANAGER, Nevada Mines Division

A. P. MORRIS, GENERAL MANAGER, Ray Mines Division

J. P. O'KEEFE, GENERAL MANAGER, Utah Copper Division

C. A. ZELDIN, REFINERY MANAGER, Kennecott Refining Corporation

HAROLD A. KRUEGER, ASSISTANT TO THE VICE PRESIDENT

GORDON B. RUSSELL, TREASURER AND COMPTROLLER

F. A. EGNER, ASSISTANT TREASURER

W. R. KIMSEY, ASSISTANT COMPTROLLER

MARVIN LYDING, ASSISTANT COMPTROLLER

ROBERT L. WARD, ASSISTANT COMPTROLLER

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HERMAN H. KREMER, EXECUTIVE VICE PRESIDENT

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Braden Copper Company

FRANK R. MILLIKEN, PRESIDENT

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R. M. HALDEMAN, VICE PRESIDENT (in Chile)

B. E. GRANT, GENERAL MANAGER (in Chile)

CARLOS TOLOSA, BUSINESS MANAGER (in Chile)

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Chase Brass & Copper Co., Incorporated

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ROBERT C. SMITH, TREASURER

PAUL R. TOTTEN, VICE PRESIDENT (Manufacturing)

JOHN F. VANLANDEGHEM, VICE PRESIDENT (Sales)

The Okonite Company

R. STUART KEEFER, PRESIDENT

ELLIOT M. NESVIG, VICE PRESIDENT (Marketing)

ROBERT B. BLODGETT, DIRECTOR OF RESEARCH

RAYMOND V. TESTA, TREASURER AND COMPTROLLER

A. JAMES HAMPARES, SECRETARY AND COUNSEL

Quebec Iron and Titanium Corporation

(Two-thirds owned by Kennecott Copper Corporation and one-third by The New Jersey Zinc Company)

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LINDSAY F. JOHNSON, VICE PRESIDENT

J. M. HERNDON, GENERAL MANAGER

Nevada Northern Railway Company

PAUL DASHINE, PRESIDENT

H. M. PETERSON, VICE PRESIDENT AND GENERAL SUPERINTENDENT

GORDON B. RUSSELL, TREASURER



