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KENNECOTT COPPER CORPORATION ANNUAL REPORT 1962

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Morgan Guaranty Trust Company of New York

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The Murry and Leonie Guggenheim Dental Clinic
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**Frank R. Milliken, *President,* Kennecott Copper Corporation

Walter H. Page, *Vice President,* Morgan Guaranty Trust Company of New York

Clifton W. Phalen, *President,* New York Telephone Company

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**Robert G. Stone, *Trustee*

Charles G. Stradella, *Retired*

**Albert E. Thiele, *Partner,* Guggenheim Brothers

Wm. Thayer Tutt, *President,* Broadmoor Hotel, Inc.

**Medley G. B. Whelpley, *Retired*

*** Member of Executive Committee*

Transfer Agents

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.

Contents

KENNECOTT COPPER CORPORATION

Executive Offices: 161 East 42nd Street, New York 17, N. Y.

FORTY-EIGHTH ANNUAL REPORT—YEAR ENDED DECEMBER 31, 1962

The annual meeting of stockholders of Kennecott Copper Corporation will be held Tuesday, May 7, 1963, 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 5, 1963, at which time proxies will be solicited by the management.

Cover: The silver, black, gold and copper stripes decorating the cover represent the colors of Kennecott's major minerals—silver, molybdenite and gold, all by-products of the Corporation's principal product, copper.

RESULTS AT A GLANCE

	1962	1961
SALES AND OTHER INCOME	**$513,803,000**	$506,809,000
COSTS AND EXPENSES (EXCEPT TAXES)	**$358,721,000**	$351,529,000
TAXES OF ALL TYPES	**$ 89,427,000**	$ 93,383,000
DOLLARS PER SHARE	**$8.09**	$8.45
NET INCOME	**$ 65,655,000**	$ 61,897,000
DOLLARS PER SHARE	**$5.94**	$5.60
DISTRIBUTIONS TO STOCKHOLDERS	**$ 55,265,000**	$ 55,265,000
DOLLARS PER SHARE	**$5.00**	$5.00
DEPRECIATION AND RETIREMENTS	**$ 20,570,000**	$ 18,555,000
CAPITAL EXPENDITURES	**$ 31,386,000**	$ 32,892,000
NET WORTH—BOOK VALUE	**$757,348,000**	$748,478,000
DOLLARS PER SHARE	**$68.52**	$67.72
AVERAGE NUMBER OF EMPLOYEES	**26,133**	26,885
NUMBER OF STOCKHOLDERS	**93,976**	92,297

PRESIDENT'S LETTER

To the Stockholders:

Earnings

Consolidated net income of Kennecott and its wholly owned subsidiaries for the year 1962 was $5.94 per share compared with $5.60 for 1961. Net income would have been approximately the same for the two years were it not for a tax adjustment.

Earnings from Kennecott's domestic mining operations were below 1961 because of lower sales and increased costs. Earnings of Braden Copper Company for the year were off for the same reasons and because of higher Chilean income tax rates. The decline in domestic and foreign mining income was offset largely by the performance of our fabricating subsidiaries which showed a profit rather than the loss experienced in 1961.

Sales, Production and Price

Copper sales of 555,334 tons were lower than in the year 1961. By September we had accumulated a reasonable copper inventory. Beginning that month production was curtailed to bring it into line with sales. Copper production of 575,208 tons was about the same as in 1961, when there were important work stoppages at Braden and Utah.

The average price received for copper in 1962 was 30.0 cents per pound compared with 29.3 cents in 1961.

Utah Expansion Program

Although copper producing capacity in the free world is adequate at the present time, world consumption of the metal has expanded at a rate of more than 3 per cent a year over the past decade, and it is expected that the use of copper will continue to grow in the future.

To meet these expanding needs of our customers and to supply new requirements, the Directors at their February, 1963 meeting voted to increase the productive capacity of the Utah Copper Division by approximately 100,000 tons of copper a year. This program will cost approximately $100 million and should be completed in four to five years. Utah would then have a capacity of about 300,000 tons of copper a year. By-product production of molybdenite, gold, and silver also will be increased.

The program envisages not only increased ore output at the mine itself, but provides for substantial expansion of the production of relatively low-cost precipitate copper from leaching the Utah Division's large mine dumps.

Dividends

As has been indicated in previous reports to stockholders, Braden's earnings have been reduced substantially during the past two years because of higher Chilean tax rates and increased costs. The Utah expansion and projects being considered at other properties involve major expenditures. In light of these circumstances, the Directors at the February, 1963 meeting declared a dividend of $1.00 per share instead of the $1.25 paid the previous quarter.

Dividends over the past five years have averaged approximately 89 per cent of earnings, which is abnormally high. During this period dividend payments and capital expenditures made in connection with the Company's integration, plant improvement and expansion programs have exceeded its cash flow. The Corporation's cash and short term securities have declined from $232 million to $103 million during this period.

Basic Research Laboratory

The Ledgemont basic research laboratory building has been erected and is now being equipped. When completed later this year the laboratory will be staffed by 60 scientists and technicians who will engage in the search for fundamental knowledge of materials through the application of solid state physics.

Braden Copper Company

In December, 1962, His Excellency Jorge Alessandri, President of the Republic of Chile, visited the United States. His visit was warmly received and was successful in advancing Chile-United States relations. It will be recalled that three years ago we considered a major investment at our Chilean subsidiary, Braden Copper Company, which, if carried out, would have increased its productive capacity importantly. However, changed circumstances caused abandonment of the project. In our meeting with the President, discussions took place regarding conditions which would make possible a series of modest investments over a period of years to increase copper output and improve employee housing and other community services at the property. Further discussions of such a program and the governing investment conditions are continuing in Chile.

Outlook

As previously mentioned we believe the long range outlook for copper is good. The demand for the metal is expected to increase, and Kennecott has the ore reserves necessary to expand copper output and share in this future growth.

The 1963 outlook for the copper industry seems reasonably good at this time. Adequate demand appears assured for the first six months, and economic forecasts for both this country and Europe, which together consume approximately 90 per cent of the free world's copper, indicate that a satisfactory year should be experienced by the industry.

By order of the Board of Directors,

Frank R Milliken

March 5, 1963

PRESIDENT

REVIEW OF OPERATIONS

Copper Mining

Production in 1962 was slightly above the total for the preceding year as noted in the accompanying table which provides details regarding output at the various Divisions. In September the production rate at all Divisions was brought into line with sales by reducing operations from seven operating days per week to six days.

The grade of ore mined in the four domestic mines of Kennecott in 1962 averaged .810 per cent copper, against .831 per cent the year before. At Braden Copper Company in Chile, the ore grade was 1.957 per cent as compared to 1.909 per cent in 1961. More complete information on the trend in ore content is provided in the Historical Table on page 31.

Utah Copper Division became the first mine in the world to mine more than 100,000,000 tons of ore and waste in a calendar year. In 1962 this Division moved more than 102,000,000 tons, enough material to fill over 1,000,000 railroad ore cars.

Utah likewise established a new world daily mining record of 283,873 tons of combined ore and waste. Two divisional daily records of ore and waste mined were set —110,883 tons at Nevada, and 86,929 tons at Ray.

The yield of valuable by-products, molybdenite, gold, and silver, was as follows:

	Molybdenite (000 Pounds)	*Gold (Fine Ounces)*	*Silver (Fine Ounces)*
1962 . .	25,429	361,847	3,152,801
1961 . .	25,814	363,586	2,926,993

WESTERN MINING DIVISIONS

Concentrated efforts were directed at achieving improved operating methods and procedures in order to offset the steadily rising costs of manpower, services and equipment, and higher costs resulting from increased stripping and lower grade ore.

At Chino Mines Division, the skip haulage system inaugurated early in 1962 permitted resumption of mining in the bottom of the pit and the development of lower mining levels. The new system reduced ore production costs substantially by eliminating a part of the long and slower rail haulage. The remainder of the train facilities will be replaced in 1963 by the more economical truck haulage. Precipitating plant production increased 30 per cent, totaling 28,663 tons of copper compared to 22,000 tons in 1961. The new molybdenite plant, on stream at year-end, will increase recovery of that mineral in 1963.

Nevada Mines Division developed a practicable leaching process during 1962 which is expected to yield about 3 per cent of the copper produced during the next five years at a cost somewhat below that for the pit copper. The mine loading and haulage fleet was modernized and costs will be reduced by replacing 25 small trucks with twelve 65-ton trucks and two 4-cubic yard shovels with one 8-cubic yard shovel.

Development at Ray Mines Division of a new well and acquisition of additional electric power for the concentrator resulted in an all-time high in copper production despite the third successive year of drought. Test

Divisions	Total Copper Produced From All Sources (Net Tons)		Ore Mined and Milled (Net Tons)		Pounds of Copper Per Ton of Ore Mined	
	1962*	1961*	1962	1961	1962	1961
Chino Mines	**73,683**	73,808	**7,071,800**	7,123,800	**18.2**	17.7
Nevada Mines . . .	**43,369**	46,496	**7,176,488**	7,488,056	**15.5**	15.7
Ray Mines	**66,475**	64,361	**7,695,757**	7,428,104	**18.3**	18.0
Utah Copper	**210,375**	216,504	**29,175,000**	27,839,700	**15.4**	16.2
Total Domestic . . .	**393,902**	401,169	**51,119,045**	49,879,660	**Avg. 16.2**	16.6
Chilean	**181,306**	173,269	**11,537,521**	10,748,794	**39.1**	38.2
Grand Total	**575,208**	574,438	**62,656,566**	60,628,454	**Avg. 20.4**	20.4

* Production statistics are given on a refined basis. The 1961 figures previously reported on a smelted basis have been restated on a refined basis for purposes of comparison.

applications related to centralized pit operations control, including closed circuit industrial television for monitoring shovel loading and citizens band radio communications for the entire truck fleet, showed promise.

At the Utah Copper Division a sharp increase in precipitate copper production from 9,438 tons in 1961 to 16,678 tons in 1962 resulted from expansion of water circulation systems to increase the flow and the copper content of leach solutions. Construction of the new $5 million incoming materials handling facilities at the smelter was completed and full operation of the system was attained in November.

In September, 1962, as reported in detail to stockholders in the third quarter statement, the Corporation entered into an agreement with United States Smelting Refining and Mining Company to acquire land and mining rights adjacent to Kennecott's Utah pit.

BRADEN COPPER COMPANY

Production rates were maintained at equipment capacity until operations were cut in September to a 6-day week to meet market conditions.

European markets continued to purchase virtually the entire output of the Chilean Division. Sales consisted of 42 per cent fire refined copper ("3-Star" brand), 27 per cent electrolytic, and 31 per cent blister.

Projects authorizing capital expenditures of almost $7 million were started early in the year. These projects will provide additional productive capacity from installation of an impounding dam for industrial water for the concentrator which lacks sufficient water during the winter months for normal operations; additional tailings flume capacity, and other processing equipment in the concentrator. Improvements also will be made to two of the three Company hospitals. Funds are being made available to the Chilean Housing Authority to finance the construction of housing for subsequent sale to Braden personnel. As in 1961, these expenditures offset the obligation to purchase non-interest bearing Chilean Government bonds required under the Reconstruction Bill adopted following the disastrous earthquakes of 1960.

A new office building was erected for the Comptroller's Department in Rancagua, Chile, to provide ade-

On February 15, 1963, the Board of Directors approved a plan to expand the production facilities at Utah Copper Division. The principal projects will be:

The conversion of the waste haulage system at the mine from railroad to a truck system, thereby providing greater flexibility in the operations at the upper levels.

The expansion of the mine dump leaching system by the construction of the necessary reservoirs, pipelines, pumping stations, and precipitation plants to increase the production of precipitate copper to 6,000 tons per month.

The expansion of the railroad ore haulage facilities from the mine to the concentrators by providing additional locomotives and ore cars.

The construction of a crushing and grinding plant to process the additional mine tonnage.

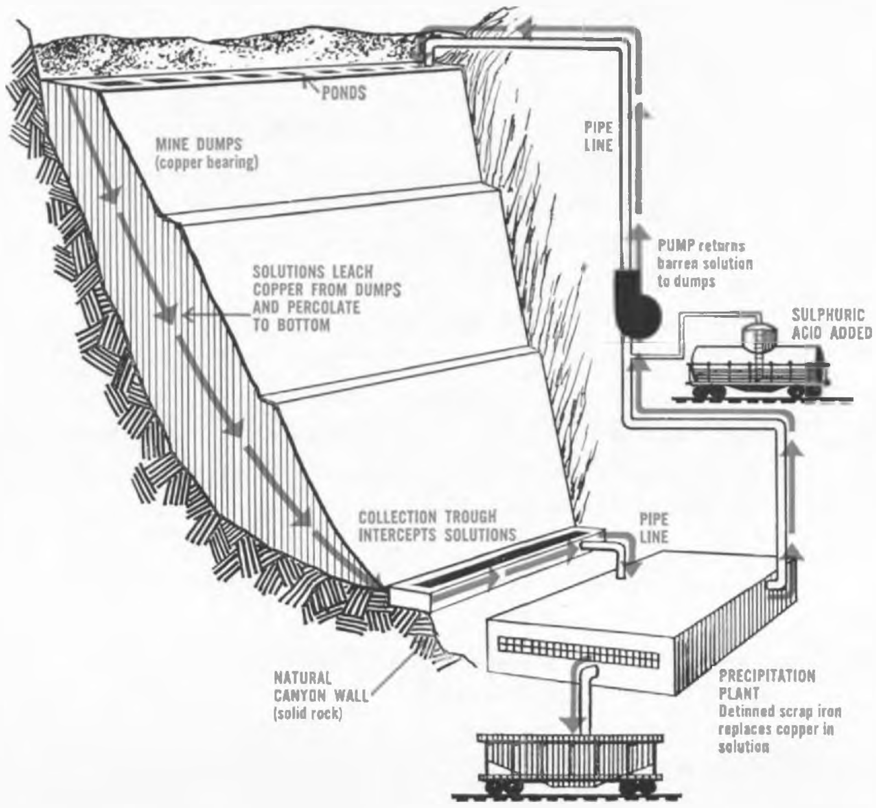
The construction of a 9-mile spur railroad from the present main line to the new crushing plant facility.

Modifications to the Utah smelter to eliminate the present roasting of concentrates and provide for the direct charging of these concentrates to the reverberatory furnaces.

The development of additional processing water for the concentrators and the mine leaching system.

Construction will start immediately with completion being scheduled for 1967. This program will require the investment of almost $100 million and will increase the capacity of the Utah Copper Division by about 100,000 short tons of copper per year. The production of other products found in the ore, such as molybdenite, gold, silver, and selenium, will be increased proportionately.

The recently announced $100 million expansion program at Utah Copper Division will emphasize increase of the production of the relatively low-cost precipitate copper. The upper photograph shows square ponds (lower left and right center) holding water used to leach copper from the dumps. As illustrated in the drawing, water filters down through the dumps and collects some of the remaining copper. The water is trapped and the copper removed in a precipitation plant. The de-copperized water is returned to the dumps to repeat the process.



One of the new 65-ton capacity trucks at Nevada Mines Division being loaded by a giant shovel which averages up to 12,000 tons of material per shift.

quate space for electronic data processing equipment for cost recording and analysis. Upon completion of the building, the entire accounting system was standardized.

A new copper precipitation plant was placed in operation at the start of the year to treat a portion of the overflow from the tailings storage area. In view of the satisfactory costs achieved, an addition is being contemplated to provide capacity equal to the total volume of effluents. It is estimated that 2,500 tons of copper per year will be obtained eventually from this installation. It also will solve a troublesome community problem created by unsubstantiated concern over possible contamination of irrigation water by the effluents.

Other Mining

QUEBEC IRON AND TITANIUM CORPORATION

Sales of this Canadian subsidiary, two-thirds owned by Kennecott, were slightly higher in 1962, as compared to the previous year, but net income fell from $4,959,500 (CdnCy) in 1961 to $3,269,400 (CdnCy) in 1962 as the result of a strike which began August 28. Approximately $1 million (CdnCy) of the reported income was occasioned by a change in sales policy whereby previously consigned inventories were sold to the former consignee. 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.

Repayment of advances previously provided by the parent companies continued during the year. Of the $750,000 (USCy) repayment made in 1962, Kennecott received $500,000.

Reduction plant operations were maintained at the full capacity of all eight furnaces until production was halted by the strike. The production figures for the past five years were as follows:

	Ore treated	*Titanium slag produced*	*Iron produced*
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
1958 . .	375,832	144,029	105,248

The market for slag remained firm and the volume of Sorelmetal sold for ductile iron and other high quality foundry applications increased. However, the sales price of low carbon iron, which accounted for 26 per cent of the tonnage of iron sold, declined as a result of low prices of steel melting scrap in world markets.

The installation of the 50,000 KVA transformer announced in the 1961 Annual Report was completed during 1962. This will provide additional power for operation of the furnaces at increased throughput. Procurement of semi-automatic charging devices for all furnaces was completed, but installation was delayed because of the strike.

On the basis of an agreement with the National Lead Company, a full-scale smelting test of National Lead's Norwegian ilmenite concentrate was carried out during the early part of 1962. The test demonstrated that smelting of the Norwegian ore could be carried out with Q.I.T.'s process. Further engineering and economic studies relative to the possibility of construction of a smelter in Norway are in progress.

TINTIC DIVISION

The Tintic Division was organized during the year to initiate, early in 1963, mining of direct smelting lead-silver ore in the East Tintic, Utah, lease where underground exploration disclosed commercial grade ore at the Burgin Mine.

At the year-end, work was proceeding on the rehabilitation of the adjacent Apex shaft to provide the ventilation connection and second opening necessary for further work.

Work on a production shaft, approximately 1,500 feet deep, will start during the first quarter of 1963.

TIN AND ASSOCIATED MINERALS LIMITED

This Nigerian subsidiary, in which Kennecott holds a 76 per cent interest, shipped 830,800 pounds of columbite in 1962 compared with 520,000 pounds in the previous year. However, a 15 per cent decline in the price of columbite during the year more than offset the improved sales volume and caused a nominal loss.

The steady growth during the past three years in sales of ferrocolumbium, which is made from columbite,


401
KENNECOTT
NEVADA MINES
401

is expected to continue in 1963. Nevertheless, no significant improvement in demand for columbite is foreseen until the present excessive stocks have been reduced to a normal level.

Fabricating

CHASE BRASS & COPPER CO., INCORPORATED

Although the volume of mill products shipped in 1962 increased over the total for 1961, competitive pressure on prices continued, and the spread between production costs and selling prices declined steadily throughout the year. Prices for copper water tube showed the first signs of strengthening late in 1962 and small general increases in other products were announced at the turn of the year. Imports and overcapacity remained adverse factors for the industry.

A highly-automated semi-continuous unit for casting billets and other shapes at low operating cost was installed at the Chase Metal Works.

A larger Chase Metals Service building was erected in Detroit to provide additional warehouse space. A wide range of alloys and forms of metals is stocked to meet the daily needs of the metal-working industries, the building trades, and for general plant maintenance in this important industrial area.

Sales of the Rhenium Division were approximately triple the amount for the preceding year. Market development and sales promotion produced several potential fields of application for rhenium and rhenium alloy wire, strip, and tubing. Potential users, as a result of Chase's efforts in this field, now have a dependable source of supply of both rhenium metal powder and fabricated products.

Executive headquarters of Chase Brass, formerly in Waterbury, Connecticut, were moved to Cleveland, Ohio, at the year-end in order to bring the offices closer to the Company's principal markets. The Waterbury office building of the Company has been sold.

Chase Brass & Copper Co., together with 10 other firms and 7 individuals, was indicted by a Federal Grand Jury in September, 1962, for alleged violation of Section 1 of the Sherman Act. The indictment charged that the defendants engaged in an unlawful agreement to fix and maintain prices on brass mill tube and pipe. No individual associated with Chase was indicted. Chase entered a plea of not guilty and trial is expected later this year. A companion civil complaint also has been served by the Government against the companies and individuals named in the Federal Grand Jury indictment.

The policy of Kennecott and its subsidiaries has been, and continues to be, that of strict compliance with the letter and spirit of all laws of the United States, of the individual states, and of other jurisdictions where the Company does business.

THE OKONITE COMPANY

Volume in terms of both pounds of product shipped and dollar sales was about the same in 1962 as the preceding year. Nevertheless, this manufacturer of wire and cable products moved from a loss to a profit position principally as a result of a Company-wide profit improvement plan.

Other efforts were made to strengthen the Company's competitive position. An $8 million expansion program was undertaken at the Paterson, New Jersey, plant to provide facilities for manufacturing extra-high-voltage cables now being specified by the power and light utilities. Already 25 per cent complete, this plant is scheduled to start producing cable for America's first commercial 345,000-volt underground circuit by late summer 1963.

New equipment installed at the Phillipsdale, Rhode Island, plant is now producing Alpeth and Stalpeth plastic or paper insulated telephone cables, much in demand by the telephone industry.

The marketing division was reorganized. The product manager concept was adopted and headquarters sales service groups were decentralized to speed pricing and delivery information to the field. The addition of a large warehouse at North Brunswick, New Jersey, a new Dallas distributing center, and additional sales offices in Memphis, Mobile and Indianapolis also improved customer service.

Strong interest was aroused in the trade press and among electrical contractors by the introduction of the Okoclad Type ALS self-contained wiring system which eliminates the need for conduit. Other new lines include Okoflex industrial cords, plastic instrument tubing

A striking photograph of the converter aisle in Arizona's newest smelter at Kennecott's Ray Mines Division. Sixty-seven feet above the floor of the aisle, in a glass-enclosed space beneath the steel beams, electric motors, wheels, wiring and switches that make up the powerful crane, an operator gets a bird's-eye view of the operations. Daily he moves hundreds of tons of molten copper in huge ladles to and from the furnaces.

and Type UR high-voltage cables for underground residential distribution circuits.

The world's longest 115,000-volt oil-filled submarine power cable, built at Paterson in 1962, is successfully operating across Puget Sound, between the mainland and the Olympic Peninsula, serving the Bremerton, Washington, area. Another manufacturing accomplishment was the giant 8000-volt portable cable, over 5½-inches in diameter, now supplying power to the world-record 115-cubic-yard shovel of the Peabody Coal Company.

The 1959 Federal antitrust suit charging that Kennecott's acquisition of The Okonite Company violated Section 7 of the Clayton Act and seeking to undo the acquisition, is expected to come to trial this fall.

EXPLORATION AND DEVELOPMENT

Kennecott exercised options in May to purchase or lease certain lands in Missouri where lead deposits occur. Exploration of the area, initiated in 1953, has resulted in the discovery of a district containing large tonnages of good grade lead ore. Drilling is continuing on adjacent property held under option.

During the same month Kennecott and American Agricultural Chemical Company announced the formation of the North Carolina Phosphate Corporation to explore and possibly develop a large phosphate deposit in North Carolina. Kennecott's Exploration Department became interested in this area in 1957 and had retained a number of options acquired during the earlier period of activity. By the end of 1962, the jointly-owned company had more than 16,000 acres under control. Seventy holes were drilled during 1962 and the material from them was tested in a pilot plant. An economic evaluation of all information obtained to date is now in progress. Other companies have acquired phosphate-bearing ground in this area.

Underground drilling of the Safford, Arizona, copper deposit was completed during 1962. Operation of a pilot leaching plant which had been testing the feasibility of this process on bulk samples obtained from the underground workings also was concluded. A comprehensive economic evaluation of the deposit is now being made.

Work at Santa Isabel, Puerto Rico, consisting largely of drilling, produced encouraging results.

Drilling also will be undertaken in 1963 at a number of prospects in British Columbia, Alaska, Washington and Arizona.

RESEARCH

The research activities carried on at our laboratories yielded various developments during the year which are expected to prove beneficial to the Company's operating efficiency.

MINING

Repeated references have been made in this Report to leaching of copper from mine dumps. This process treats material that is too low in copper content to justify sending it to the concentrator as milling ore. In dump leaching, solutions sprayed over the dumps percolate down through them and dissolve the copper. The solutions are collected at the bottom of the dumps by gathering systems. The dissolved copper is precipitated by iron in one form or another and then the decopperized solution is returned to the dumps to repeat the cycle.

The Kennecott Research Center, in analyzing the amount of copper existing at the mine dumps of the Company's various properties, approached the problem as a completely new project. It developed the idea that many factors were involved such as temperature of solutions, bacteria, control of oxygen, and iron salt relationships. From the experiments undertaken, many new concepts were developed which have been reported by our staff in technical papers. New precipitating plant designs also are being developed which will permit greater recovery of low-cost copper precipitates at our operations.

In the electrolytic refining of copper from the smelters, slimes containing precious and other metals fall to the bottom of the electrolytic tanks. These must be processed for the recovery of gold, silver, platinum, palladium, selenium, tellurium and other by-products. A more efficient and lower-cost process for bettering metal recovery from slimes was developed in 1962. A commercial facility embodying this new process is being in-

(Top) *Electricity at 5000 volts will be transmitted by this 4-inch metal-clad industrial power cable shown in final production stage at The Okonite Company's plant in North Brunswick, N. J.*

(Center) *Giant vs. pigmy—Two "extension cords" made by The Okonite Company. The small low voltage cord is used for portable tools, the 5¾-inch diameter 8000-volt cable powers the world's largest electric shovel.*

(Left) *The multi-conductor portable cable supplied by The Okonite Company for the world's largest electric shovel carries sufficient power to serve a city of 10,000 people.*

stalled at the Utah refinery and is scheduled to go into operation in mid-1963.

FABRICATING

The Chase Research Laboratory Division has developed, after three years' work, a new process for making free cutting brass rod with superior machining characteristics. This development has had wide customer acceptance.

An edge conditioned and film insulated copper strip for testing in the manufacture of newly-developed strip-wound transformers has been produced.

In conjunction with International Copper Research Association, Inc., the Chase Research Laboratory Division developed for architectural and decorative purposes a protective coating which will preserve the natural colors of copper and copper-base alloys indefinitely in indoor applications. The new coating can be applied to copper products already in use, as well as to newly fabricated metal. It makes possible an important expansion in interior uses of copper in such fields as architecture, builders' hardware, automotive trim, and marine hardware, and in costume jewelry. Studies of exterior applications of the coating also are underway.

The Okonite Research Division has developed a new cable insulation with superior heat and corona resistance as compared to other rubber or plastic insulations currently used. Other developments include a high voltage X-ray cable with a 20 per cent smaller diameter, a new thin wall rubber insulation for small diameter wire for signal and control purposes, and a new magnet wire for high temperature applications.

LEDGEMONT LABORATORY

Construction of the new Ledgemont basic research laboratory was completed late in 1962. The distribution of disciplines among the scientific research staff will be approximately one-third chemists, one-third physicists and one-third metallurgists. The laboratory will engage in a search for fundamental knowledge of materials through both theoretical and experimental programs. The broad areas of interest will be in solid state physics, chemistry, metallurgy, electrical science, and the fundamental structure and properties of materials. While it will not be restricted to the investigation of any particular category of materials, it is probable that metals, alloys, and inorganic materials will be of continuing interest.

EMPLOYEE RELATIONS

During 1962 the average number of employees at Kennecott and its wholly owned subsidiaries totaled 26,133 as compared to 26,885 the preceding year. This figure excludes employees of partially owned subsidiaries.

TRAINING

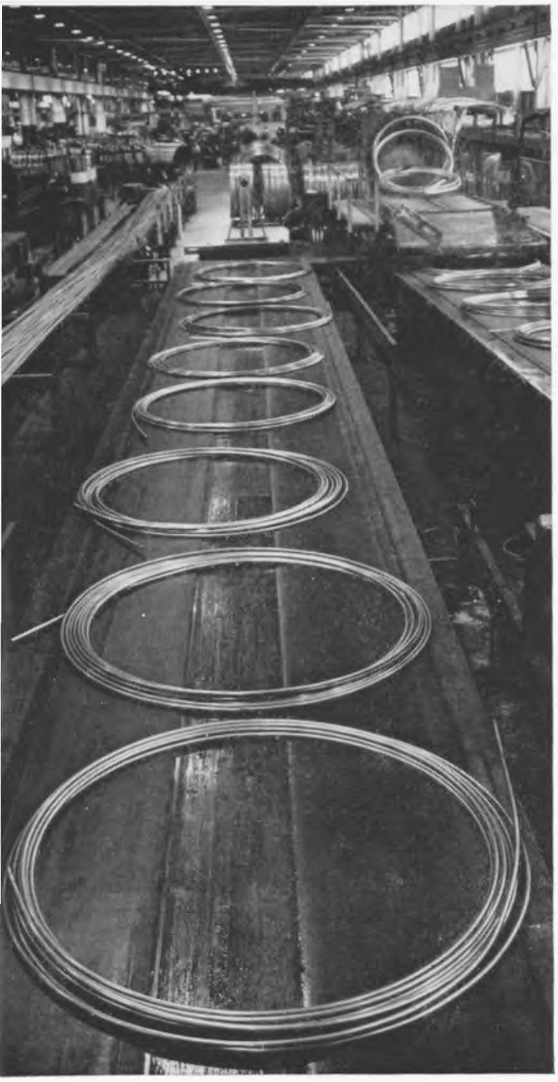
Heightened efficiency and expanded opportunities for employees are goals of a variety of training programs, on and off the job, sponsored by Kennecott at all levels of employment. These programs include apprentice training, supervisory training, tuition aid, and management training programs.

The apprentice courses for developing and improving job related skills had 234 employees enrolled and produced 37 graduates. Supervisors' training classes were conducted for first-line foremen and department heads. Over 500 employees voluntarily participated in the Tuition Aid Program and completed 892 courses. This program reimburses an employee for a major portion of the expense of a course successfully completed at an approved educational institution, provided such study is directly related to his present or possible future work.

To further develop competency and broaden outlook, selected managerial personnel attended advanced and middle management courses given by leading universities and professional associations in various parts of the country. In line with the Company's recruitment program, contacts with universities were strengthened in order to obtain the best prospects available.

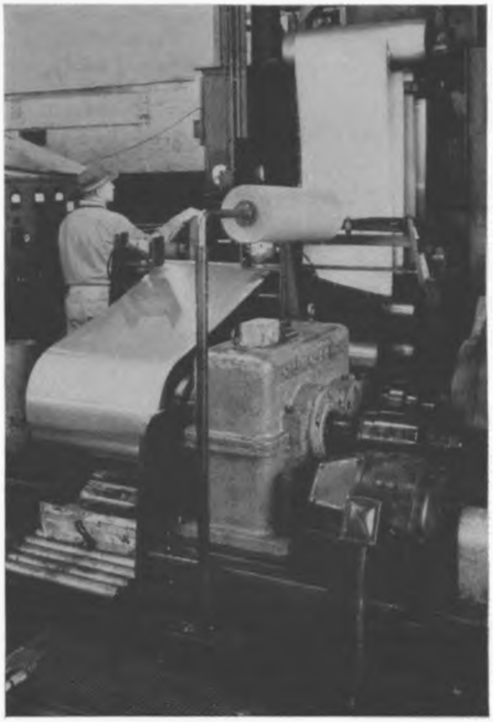
COMMUNICATIONS

Keeping personnel informed about plant developments and corporate policies and actions continues to be a key activity. The latest innovation has been the adoption at Utah, Chino and Nevada Divisions of an automatic telephone answering service, designed to promote better understanding of the Company's objectives and enlist



The new Chase Metals Service building in Detroit was erected to provide space for the stocks of alloys and metals needed for servicing this prime industrial area.

Automated run-around conveyor for copper tube coils at 60-inch diameter draw blocks at Chase's Babbitt Road Plant in Cleveland.



Outlet end of continuous strip annealer in the Upson Road Plant, Cleveland, of Chase Brass.

employee cooperation. Personnel, and in some cases the members of the community, may dial a number and receive brief recorded messages pertinent to employee and Company interests. The popularity of this service was evidenced by the thousands of telephone calls made to receive these messages which are changed frequently, sometimes daily.

SUGGESTIONS

The Suggestions System and Patent Plan, designed to reward employees for ideas increasing plant production and efficiency and improving Kennecott's competitive position, resulted in a total of 3,468 suggestions being submitted in 1962. Of this number, 988 were adopted and eligible employees received a total of $48,000 in awards. The resultant annual savings which these suggestions represented to Kennecott were estimated at $130,000.

Eighteen patents were applied for and granted during 1962 and 31 were pending at the close of the year.

SAFETY

For the fifteenth consecutive year, Braden Copper Company won the Inter-American Safety Council's award for the lowest accident frequency rate, an unparalleled record in mining history.

The Utah Copper Division's smelter set a new safety record for the non-ferrous smelting industry. As a result of receipt of various National Safety Council honors during the year, the Ray Mines Division earned more awards for safety than any other industrial firm in the state of Arizona. Chase Brass & Copper Co. plants in Cleveland and in Waterbury, Connecticut, each operated with the lowest accident frequency rate in their history.

The safety program is pursued off the job as well. An example was the Western Mining Divisions' campaign promoting the use of safety belts by automobile drivers.

LABOR RELATIONS

New two-year contracts running until mid-1964 and covering approximately 9,600 employees were negotiated at the Chino, Nevada, Ray and Utah Divisions without any work stoppages. The settlements were comparable to the pattern established earlier in the copper industry and provided for wage increases as well as fringe benefit improvements.

A new contract terminating January 20, 1965, was negotiated early in 1963 at Kennecott Refining Corporation, Anne Arundel County, Maryland.

A 15-month contract ending June 30, 1963, was reached at Braden Copper Company after an eight-day strike. The Caletones smelter was shut down for 11 days in August as a result of an illegal walkout but over-all production was not materially affected.

At the Sorel reduction plant of the Quebec Iron and Titanium Corporation, negotiations were broken off about a month after the old contract expired and a strike began August 28. The major issues in dispute concerned management's rights to operate the plant efficiently.

Labor agreements were open for negotiation at the fabricating subsidiaries during the year. Two-year settlements were reached in the fall at The Okonite Company's plants. New one-year contracts expiring in the second half of 1963 were signed at Chase Brass & Copper Co.'s Cleveland works.

COMMUNITY AND PUBLIC RELATIONS

During 1962 the Company continued to participate in community programs and to sponsor civic, educational and cultural activities in areas where our facilities are located in the United States and Chile. Typical examples include sponsorship of a university economic workshop, a natural resources workshop for high school teachers, a university round table science discussion series, and two university metallurgical research programs.

Efforts were made to keep the public and government circles informed, through the use of television, radio, plant visits and local advertising, of Company attitudes, actions and policies with respect to air pollution, public lands, water conservation, labor negotiations, taxes, the national stockpile, economic questions, and other problems of general interest.

Company representatives addressed civic and professional groups where opportunity was afforded to acquaint a broad sector of public opinion with the Company's activities and its viewpoint on local and national questions. Employees in increasing numbers were invited to prepare articles for presentation before national technical organizations or for publication in leading professional and trade journals.

The scholarship and fellowship program carried on at the local and state levels made it possible for the Company to maintain close liaison with educational circles and provide it with the opportunity to interest outstanding young men in our organization.

ORGANIZATION CHANGES

Charles G. Stradella, retired president of General Motors Acceptance Corporation, was elected a member of the Board of Directors in September.

In February, 1963, Paul B. Jessup, formerly Secretary, was appointed Director of Corporate Relations, a new department responsible for employee, stockholder, governmental, educational, and public relations, and Malcolm R. Wilkey became Secretary and Associate General Counsel. Mr. Jessup has been associated with Kennecott since 1953. Mr. Wilkey was recently a partner in a Houston, Texas, law firm, and formerly an Assistant Attorney General of the United States.

George F. Sharrard, formerly with Wyandotte Chemical Company, assumed the newly-created position of Director of Industrial and Market Research in January, 1963, and John Wehncke, formerly Vice President, Brandeis Goldschmidt, Inc., New York, was named Assistant Sales Manager, Kennecott Sales Corporation.

In January, Frederick A. Egner was named Assistant Treasurer and Marvin Lyding was appointed Assistant Comptroller. Mr. Egner has been with Kennecott since 1954 and Mr. Lyding since 1938.

Seymour S. Jackson, Vice President, Administration, retired November 1 after 36 years of service to Kennecott and its subsidiaries.

John D. East, Assistant to the President, with Kennecott since 1951, retired December 1.

In June, 1962, the Board of Directors of Kennecott Copper Corporation, held its monthly meeting in Salt Lake City, permitting its members to visit the Bingham Canyon mine. Left to right: J. P. O'Keefe, General Manager, Utah Copper Division; V. S. Barlow, Mines Plant Superintendent; Robert G. Stone, Albert E. Thiele, Carl K. Lenz, and William Thayer Tutt, Directors; F. C. Green, former Assistant to the General Manager, Western Mining Divisions; R. Stuart Keefer, Director; Ray F. Gough, General Superintendent of Mining and Concentrating, Utah Copper Division; Leland B. Flint, M. M. Hardin, and Albert Green, Directors; W. H. Burt, General Superintendent of Smelting and Refining, Utah Copper Division; Frank R. Milliken, President, Kennecott Copper Corporation, and Director; John C. Kinnear, Jr., General Manager, Western Mining Divisions; C. D. Michaelson, Vice President (Mining); Medley G. B. Whelpley, Charles D. Dickey, and Clifton W. Phalen, Directors; Paul B. Jessup, Director of Corporate Relations; Walter H. Page, Director.

FINANCIAL REVIEW

EARNINGS AND DIVIDENDS

Net earnings rose $3,758,000 to $65,655,000 or $5.94 per share in 1962 from $61,897,000 or $5.60 per share in 1961, an increase of 34 cents per share. The improvement in earnings is attributable to an adjustment of prior year taxes.

In the absence of firm plans for major capital expenditures, a high percentage of earnings was again paid out in dividends. As in 1961, $1.25 per share was distributed in each quarter of 1962, making a total of $5.00 for the year.

DELIVERIES AND PRICES

Delivery of 555,334 tons of copper in 1962 as compared with 591,734 tons in 1961 represents a decline of 6.2 per cent. The average price per pound received by Kennecott was 30 cents, an increase of 2.4 per cent above the 29.3 cents average for 1961. Both of these changes were consistent with general industry conditions.

The price levels attained for electrolytic copper during 1961 held throughout 1962. The U. S. producers' price remained steady at 31 cents and the London Metal Exchange price stayed very close to 29.3 cents per pound for the entire year.

SALES AND COST OF GOODS SOLD

As a result of increased sales by fabricating subsidiaries, sales of metals and fabricated metal products again exceeded one-half billion dollars. The decrease in tons of primary copper sold would otherwise have reduced total sales below 1961. Instead, 1962 saw a rise of $6,385,000 which carried sales to $507,387,000.

Cost of goods sold, however, rose by $10,525,000 as increased unit costs reduced profit margins. In the United States mining costs were influenced by slightly lower ore grade and higher prices of labor and supplies. Improved efficiencies offset most of these factors. In Chile, however, operating efficiencies could not keep pace with increases in wages and material costs.

CHILEAN DIVISION (BRADEN COPPER COMPANY)

Inflation continued with a 26 per cent increase in cost of living during the year compared to 10 per cent in 1961.

On January 15, 1962 a dual system of exchange was reestablished. The free bank rate, at which the Company is required to purchase escudos for its current operating needs, was held at 1.05 escudos to the dollar until October 15, 1962 when it was permitted to fluctuate in accordance with supply and demand. At that time the rate increased to 1.40 escudos to the dollar and it gradually rose to a rate of 1.62 at December 31, 1962. On the other hand the so-called broker's rate fluctuated considerably during the year and closed at 2.33 escudos to the dollar.

TAXES

United States and foreign taxes on income applicable to 1962 operations declined in approximately the same proportion as income before taxes. The apparent greater decline of these taxes as shown on the Consolidated Statements of Income and Earned Surplus is occasioned by an adjustment in 1962 of certain taxes charged in the prior year. Total taxes per share amounted to $8.09 in 1962 and $8.45 in 1961.

The provision for all taxes for the year 1962 and the comparable figures for 1961 are summarized as follows:

	1962	1961
United States and Foreign taxes on income	$63,951,465	$70,356,294
Other taxes included in operating costs and other accounts . . .	25,476,462	23,027,277
Total	$89,427,927	$93,383,571
Taxes per share	$8.09	$8.45

The amount of United States Federal income taxes payable in the year 1963 applicable to 1962 will be reduced by approximately $600,000 as a result of the application of the investment credit provided by the Revenue Act of 1962. This credit is available up to 7 per cent of expenditures made by the Company for certain tangible property during the year 1962 and will be reflected in net income over the productive lives of the related property.

Where advantageous, the new depreciation rules promulgated by the Internal Revenue Service on July 11, 1962 will be applied in computing taxes to be paid on 1962 income. The effect of the application of the new depreciation rules is to defer taxes that would ordinarily be payable in 1963. This deferral has no effect on income for the year since the Company will continue to depreciate its assets on the basis of estimated useful life for financial report purposes. The amount of deferred taxes is shown on the Balance Sheet under the caption, "Deferred U. S. Income Taxes." The period of deferral will vary with the lives of the assets to which the rules have been applied.

PROPERTY, PLANT, AND EQUIPMENT

In 1962 capital expenditures continued at about the same pace as 1961 with a total of $31,386,000 spent during the year, contrasted with $32,892,000 spent in the previous year.

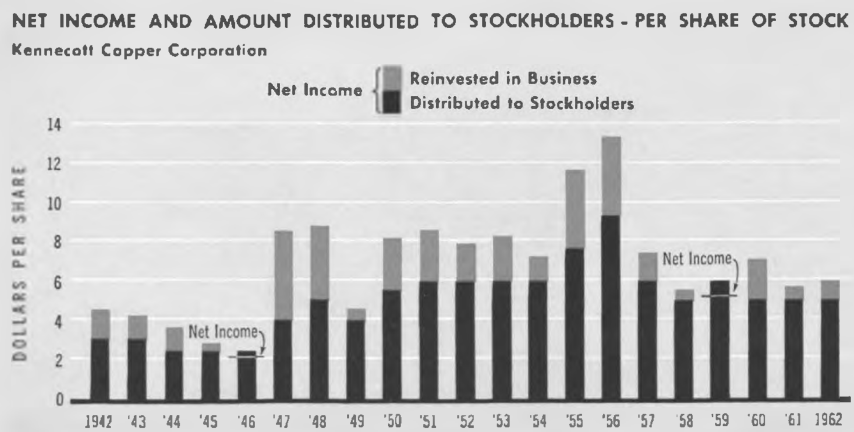
For the most part the 1962 expenditures in the United States covered programs initiated prior to 1962, such as the smelter modification at Garfield, Utah, and the construction of the Ledgemont Laboratory at Lexington, Massachusetts. By the year-end the materials handling phase of the smelter modification was operative and the construction of the basic research laboratory was complete. The major project initiated in 1962, the $8 million expansion and modernization of Okonite's Paterson plant, was about 25 per cent complete at December 31, 1962. It is scheduled for completion by July, 1963.

A total of $4,967,000 was expended on capital programs in Chile in 1962, including construction of additional facilities to alleviate the low-water periods which restrict milling operations at the Braden division.

Depreciation and retirements rose again in 1962 to $20,570,000, although the amount provided was considerably less than the $31,386,000 required for capital outlays.

GOVERNMENT AND OTHER SHORT-TERM SECURITIES

At December 31, 1962, the Company's holdings in government and other short-term securities aggregated $79,025,000. Of this amount, $65,592,000 represented



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.

A view of the newly completed $5 million incoming materials handling facilities at the Utah Copper Division smelter.

obligations of the United States Government, with the balance comprising certificates of deposit and prime finance company commercial paper. The approximate market value of the securities at December 31, 1962, was $78,988,000, and the average maturity of the portfolio was slightly less than seven months.

INVESTMENTS

At year-end long-term investments of $84,199,000 represented a net increase of $925,000 over the previous year-end. Of particular significance was the Company's investment during 1962 of $899,000 in North Carolina Phosphate Corporation, bringing the total invested in this company to $1,643,000. The nature of this investment is mentioned on page 12 in this Report.

In 1962 Quebec Iron and Titanium Corporation repaid $500,000 of the funds previously advanced by Kennecott. An initial repayment of the same amount occurred in 1961.

Page 24 shows the details of the Company's investments. Percentages of ownership are shown for unconsolidated subsidiaries. Where pertinent, market values as well as cost are shown for other investments.

EQUITY IN UNCONSOLIDATED SUBSIDIARIES

Kennecott's equity in unconsolidated subsidiaries at December 31, 1962 totaled $59,298,000 as compared with $58,243,000 the same date a year ago. Our investment in these subsidiaries at December 31, 1962 amounted to $49,762,000.

Based on unaudited reports, the 1962 earnings of these firms declined from the previous year. In the case of Quebec Iron and Titanium Corporation, 1962 earnings dropped substantially as the result of the strike. The accompanying tabulation shows Kennecott's equity in these earnings.

Cash distributions from unconsolidated subsidiaries totaling $706,000 for 1962 and $711,000 for 1961 respectively, are included as dividends in the consolidated statements of income and earned surplus.

EXECUTIVE INCENTIVE-COMPENSATION AWARDS

Based on the provisions of the plan, $387,000 was available for award to executive employees who gave outstanding service to the Kennecott enterprise in 1962. Awards were made to 20 employees in the amount of $160,000. The unused balance of $227,000 cannot be utilized for further incentive-compensation awards and reverts to general funds.

PENSION PROGRAMS

The Company and its consolidated subsidiaries maintain several pension programs to afford retirement benefits for employees. During 1962, $5,425,000 was provided for the maintenance of pension programs. At year-end there were 19,404 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 $3,270,000 were disbursed during the year with $3,023,000 paid from trust funds and $247,000 paid by the Company. At year-end there were 2,981 retired employees receiving pensions through these programs.

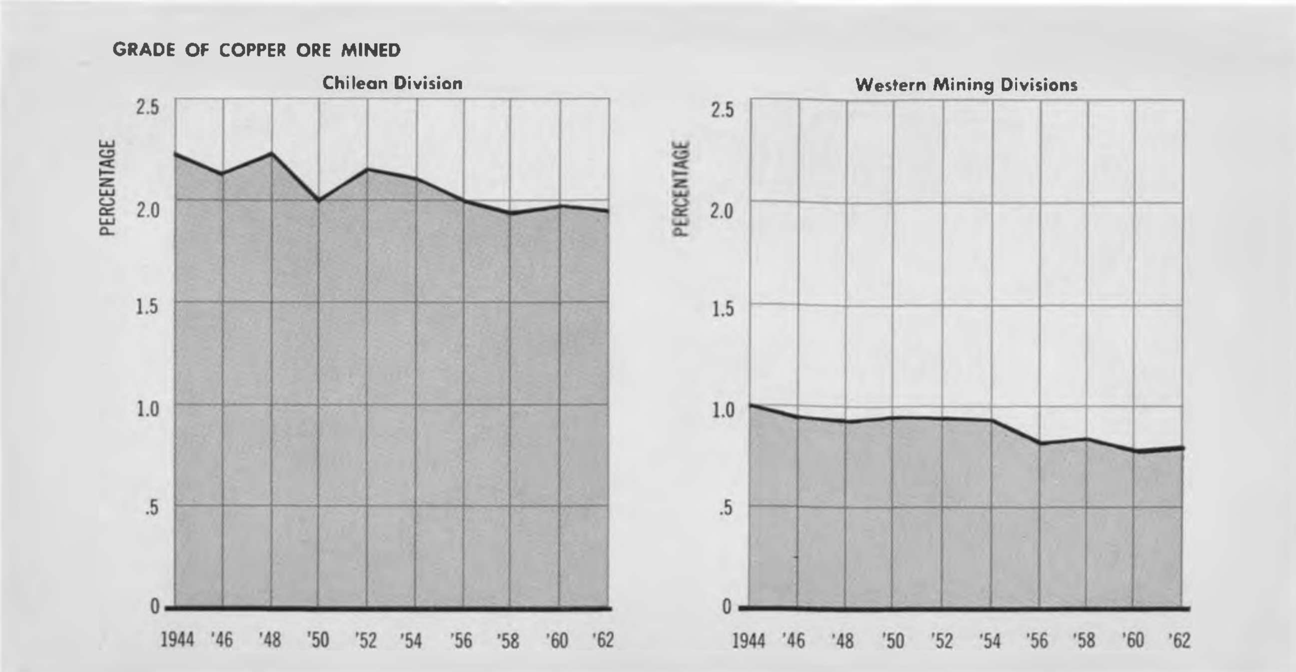
STOCKHOLDERS

The 11,053,051 outstanding shares of Kennecott were held by 93,976 stockholders on November 28, 1962. This is the largest number of stockholders the Company has ever had and represents an increase of 1,679 stockholders over a year earlier.

Equity in Operations of Unconsolidated Subsidiaries

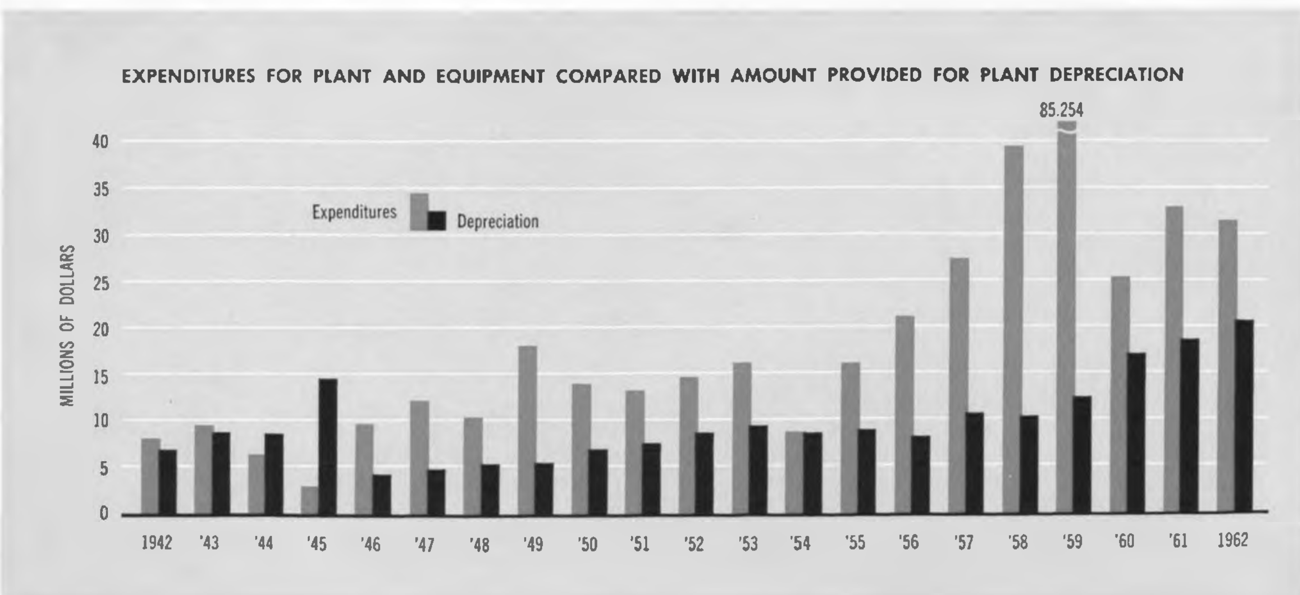
	Percentage of Ownership	Kennecott's Equity in Profits or (Losses) 1962	1961
Quebec Iron and Titanium Corporation	66⅔	$2,024,000*	$3,178,100*
Tin and Associated Minerals Limited	76	(50,600)	(169,100)
Quebec Columbium Limited	45.9	In Development Stage	
Garfield Chemical and Manufacturing Corporation	50	420,600	511,800
The Superior Wire Cloth Company	92.8	20,100	21,700
Kenbestos Mining Company Limited	95	In Development Stage	
		$2,414,100	$3,542,500

* 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 above charts depict the trend in grade of copper ore mined at the domestic properties and at Braden Copper Company.

The chart below 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 net income.



Working Capital

Summary of Changes which Accounted for the Increase in Working Capital

Working Capital—December 31, 1961		$244,132,087
Additions:		
Net income for the year	$65,654,728	
Earned surplus adjustments—net charge	(1,519,005)	
Increase in long-term debt	5,540,000	
Depreciation of plant and equipment	20,570,323	
Investment tax credit on 1962 capital additions	597,357	
Deferred U. S. income taxes	5,542,088	
	$96,385,491	
Deductions:		
Distributions to stockholders	$55,265,255	
Expenditures for plant and equipment	31,385,973	
Patents acquired (included in deferred charges)	2,105,000	
Deferred waste facilities acquired	4,478,741	
Net increase in investments	925,722	
Net change in other accounts	(4,296,461)	
	$89,864,230	
Net increase in working capital		6,521,261
Working Capital—December 31, 1962		$250,653,348

( ) Denotes red figure.

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, converted at the rate of $2.80 per £.

Schedule of Investments

(Excluding Securities Carried as Current Assets)

UNCONSOLIDATED SUBSIDIARIES:

Quebec Iron and Titanium Corporation—stock and advances (66⅔%)	$45,000,000
Tin and Associated Minerals Limited—stock and advances (76%)	1,652,562
Quebec Columbium 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%)	1,397,552
	$49,762,359

OTHER INVESTMENTS (having market quotations):

	Market Value (Dec. 31, 1962)	
Kaiser Aluminum & Chemical Corporation— 1,925,000 shares of common stock	$68,096,875	$18,800,000
Molybdenum Corporation of America— 120,116 shares of common stock; 14,285 stock warrants	2,821,517	3,134,852
Compañia de Acero del Pacifico— 1,274,955 shares of Series "B" common stock; 40,000 shares of Series "D" preferred stock	434,954	350,000
	$71,353,346	$22,284,852

OTHER INVESTMENTS (no market quotations):

J. W. Galbreath & Company—notes receivable	$ 6,846,475
Western Phosphates, Inc.—stock and advances	1,655,000
Allied-Kennecott Titanium Corporation—stock	1,350,000
North Carolina Phosphate Corporation—stock	1,642,789
Miscellaneous investments	658,202
	$12,152,466
Balance—December 31, 1962	$84,199,677

FINANCIAL STATEMENTS

1962

KENNECOTT COPPER CORPORATION

Consolidated Statements of Income and Earned Surplus

For the Years Ended December 31, 1962 and 1961

	1962	1961
Sales of metals and metal products	$507,386,940	$501,002,097
Dividends, interest and miscellaneous	6,416,302	5,807,315
	513,803,242	506,809,412
Cost of goods sold	337,001,410	326,476,484
Depreciation and retirements	20,570,323	18,555,444
Selling and general administrative expenses	20,025,601	19,998,791
Shut-down expenses during strikes	358,970	3,223,300
Research, exploration and miscellaneous	6,240,745	6,302,239
	384,197,049	374,556,258
	129,606,193	132,253,154
Provision for U. S. and foreign taxes on income	63,951,465	70,356,294
Net income	65,654,728	61,896,860
Earned surplus at beginning of year	482,555,132	475,897,969
Exploration expenses previously written off now capitalized	436,663	1,506,602
	548,646,523	539,301,431
Deductions:		
Additional U. S. and Chilean taxes on income assessed against prior years' earnings	1,385,326	1,481,044
Adjustment of exploration expenses previously capitalized	570,342	—
Distributions to stockholders, $5 per share	55,265,255	55,265,255
	57,220,923	56,746,299
Earned surplus at end of year	$491,425,600	$482,555,132

See Notes to Financial Statements.

Consolidated Balance Sheets

December 31, 1962 and 1961

	1962	1961
ASSETS		
Current Assets:		
Cash	$ 24,099,857	$ 24,643,924
U. S. Government and other short-term securities, at cost	79,025,115	81,266,941
Accounts receivable, less reserves	44,930,399	45,617,002
Metals and metal products	108,263,649	99,806,924
Ores and concentrates, at cost	7,409,125	7,173,576
Materials and supplies, at or below cost	37,898,440	39,447,296
	301,626,585	297,955,663
Accounts receivable, noncurrent	3,925,250	5,887,875
Investments, at or below cost	84,199,677	83,273,955
Deferred charges, prepayments, etc.	7,130,051	6,165,188
Mining properties	161,353,980	158,277,546
Plants, equipment and other properties	536,381,524	512,519,497
Reserves for depreciation	(263,646,504)	(249,662,177)
	$830,970,563	$814,417,547
LIABILITIES		
Current Liabilities:		
Notes payable, due within one year	$ 2,843,333	$ 1,460,000
Accounts payable	25,976,418	25,700,704
Taxes accrued	22,153,486	26,662,872
	50,973,237	53,823,576
Long-term debt	12,080,000	6,540,000
Deferred U. S. income taxes	5,542,088	—
Sundry reserves and deferred credits	5,027,086	5,576,287
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	491,425,600	482,555,132
	$830,970,563	$814,417,547

See Notes to Financial Statements.

Notes to Financial Statements

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.

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.

EQUITY IN UNCONSOLIDATED SUBSIDIARIES:

Refer to comments and tabulation on pages 20 and 21.

FOREIGN CURRENCY AMOUNTS:

Foreign currency amounts have been included in the 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 10 per cent of net current assets and approximately 13 per cent of all other assets shown in the consolidated balance sheet at December 31, 1962 represent assets of consolidated subsidiaries which are located outside the United States (principally in Chile) and the related net income represents approximately 15 per cent of consolidated net income. The Company's investments in unconsolidated subsidiaries and affiliates are almost entirely in foreign countries, principally Canada.

LONG-TERM DEBT:

At December 31, 1962, long-term debt consisted of the following:

4½% promissory note of The Okonite Company, payable in annual instalments of $460,000 from 1963 through 1975 and $560,000 in 1976; the 1963 instalment is included in current notes payable	$6,080,000
4½% promissory note of Kennecott Copper Corporation due September 21, 1964	6,000,000
	$12,080,000

DEFERRED INCOME TAXES:

In computing depreciation for 1962 Federal income tax purposes, the Company and certain of its subsidiaries have adopted the new "Guideline Lives" permitted by the Internal Revenue Service and, in some instances, have adopted accelerated depreciation methods for 1962 additions to plants and equipment. The resultant reduction in Federal income taxes has been reflected under the caption Deferred U. S. Income Taxes in the accompanying balance sheet.

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, 1962 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 1961.

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, 1962 and 1961 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, 1963

Officers and Executives

Parent Company and Principal Subsidiaries

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*

M. D. AYERS, *Director of Engineering*

LESLIE G. JENNESS, *Vice President* (Research)

ROBERT G. RHETT, *Director of Purchasing*

LEON J. SOUREN, *Director of Traffic*

GEORGE F. SHARRARD, *Director of Industrial and Market Research*

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

E. A. SLOVER, *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

I. G. PICKERING, *Refinery Manager* Kennecott Refining Corporation

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*

Kennecott Sales Corporation

C. K. LENZ, *President*

J. H. BOYD, *Vice President*

F. B. MCKOWN, *Vice President*

Braden Copper Company

FRANK R. MILLIKEN, *President*

C. D. MICHAELSON, *Vice President*

R. M. HALDEMAN, *Vice President* (In Chile)

B. E. GRANT, *General Manager* (In Chile)

CARLOS TOLOSA, *Business Manager* (In Chile)

MALCOLM R. WILKEY, *Secretary*

GORDON B. RUSSELL, *Treasurer and Comptroller*

Quebec Iron and Titanium Corporation

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

WILLIAM L. WALSH, *President*

LINDSAY F. JOHNSON, *Vice President*

J. M. HERNDON, *General Manager*

Chase Brass & Copper Co., Incorporated

GLENN F. BAKKEN, *President*

WILLIAM F. AYLARD, *Vice President* (Technical)

HERMAN H. KREMER, *Vice President* (Metals Service Division)

ROBERT C. SMITH, *Treasurer*

RICHARD R. QUAY, *Secretary*

The Okonite Company

R. STUART KEEFER, *President*

DAVID W. NURSE, *Vice President* (Manufacturing)

ELLIOTT M. NESVIG, *Vice President* (Marketing)

DR. ROBERT B. BLODGETT, *Director of Research*

RAYMOND V. TESTA, *Treasurer and Comptroller*

Nevada Northern Railway Company

PAUL DASHINE, *President*

H. M. PETERSON, *Vice President and General Superintendent*

GORDON B. RUSSELL, *Treasurer*

Historical Table 1943-1962

Operating Information

YEAR	COPPER ORE MINED AND MILLED (000 NET TONS)	MATERIAL REMOVED TO DUMPS (000 NET TONS)	COPPER PRODUCED IN THE U. S. (NET TONS)	COPPER PRODUCED IN CHILE (NET TONS)	COPPER PRODUCED TOTAL (NET TONS)	TOTAL COPPER SOLD (NET TONS)
1943	59,515	48,902	472,913	164,276	637,189	640,810
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

Financial Information

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)
1943	$266,589	$158,039	$ 8,774	$ 41,312	$ 8,051	$ 5,447	$ 44,966
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

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.

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	24,572	344,357	3,059,286	29,005	.996	2.079	9,768	1943
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

NET INCOME PER SHARE					DISTRIBUTED TO STOCKHOLDERS		TOTAL ASSETS (000 DOLLARS)	CAPITAL AND SURPLUS (000 DOLLARS)	BOOK VALUE PER SHARE	YEAR
	BY QUARTERS									
TOTAL	1st	2nd	3rd	4th	(000 DOLLARS)	PER SHARE				
$4.15	$1.16	$ .90	$ .98	$1.11	$32,465	$3.00	$489,774	$398,145	36.79	1943
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

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

KENNECOTT COPPER CORPORATION *worldwide operations*

EXECUTIVE OFFICES

New York, N. Y.

Ⓐ HEAD OFFICES

Western Mining Divisions, Salt Lake City, Utah
Braden Copper Company, Santiago, Chile
Chase Brass & Copper Co., Incorporated, Cleveland, Ohio
The Okonite Company, Passaic, New Jersey

Ⓑ OFFICES OF FOREIGN SALES AGENTS

Birmingham, England
Frankfurt, Germany
Geneva, Switzerland
Paris, France
Turin, Italy

Ⓒ MINES AND PLANTS

Kennecott Copper Corporation
- Chino Mines Division, Hurley, New Mexico
- Nevada Mines Division, McGill, Nevada
- Ray Mines Division, Hayden, Arizona
- Utah Copper Division, Salt Lake City, Utah
- Tintic Division, Eureka, Utah

Subsidiaries
- Braden Copper Company, Sewell, Chile
- Chase Brass & Copper Co., Incorporated, Cleveland, Ohio
- Chase Brass & Copper Co., Incorporated, Waterbury, Connecticut
- Kennecott Refining Corporation, Anne Arundel County, Maryland
- The Okonite Company, Passaic, New Jersey
- The Okonite Company, Paterson, New Jersey
- The Okonite Company, New Brunswick, New Jersey
- The Okonite Company, Phillipsdale, Rhode Island
- Quebec Iron and Titanium Corporation, Sorel, Canada
- Tin and Associated Minerals, Ltd., Jos, N. Nigeria

Ⓓ LABORATORIES

Kennecott Copper Corporation
- Kennecott Research Center, Salt Lake City, Utah
- Ledgemont Laboratory Lexington, Massachusetts

Subsidiaries
- Chase Brass & Copper Co., Incorporated, Waterbury, Connecticut
- The Okonite Company, Passaic, New Jersey

Ⓔ EXPLORATION OFFICES

Bear Creek Mining Company
- Denver, Colorado
- Lares, Puerto Rico
- Salem, Missouri
- Salt Lake City, Utah
- Spokane, Washington
- Tucson, Arizona

Kennco Explorations, (Canada) Limited, Toronto, Ontario, Canada

Kennco Explorations, (Western) Limited, Vancouver, British Columbia, Canada

Kenbestos Mining Company Limited, Thessaloniki, Greece

THE OKONITE COMPANY
Ⓕ WAREHOUSES,
Ⓖ SALES AND SERVICE OFFICES

Atlanta, Georgia
Birmingham, Alabama
Boston, Massachusetts
Chicago, Illinois
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colorado
Detroit, Michigan
Houston, Texas
Indianapolis, Indiana
Kansas City, Missouri
Los Angeles, California
Memphis, Tennessee
Milwaukee, Wisconsin
Minneapolis, Minnesota
Mobile, Alabama
New Orleans, Louisiana
Passaic, New Jersey
Philadelphia, Pennsylvania
Pittsburgh, Pennsylvania
Portland, Oregon
St. Louis, Missouri
Salt Lake City, Utah
South San Francisco, California
Syracuse, New York

Ⓗ CHASE BRASS & COPPER CO., INCORPORATED WAREHOUSES, SALES AND SERVICE OFFICES

Albany, New York
Atlanta, Georgia
Baltimore, Maryland
Boston, Massachusetts
Charlotte, North Carolina
Chicago, Illinois
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colorado
Detroit (Madison Heights), Michigan
Houston, Texas
Indianapolis, Indiana
Kansas City, Missouri
Los Angeles, California
Miami, Florida
Milwaukee, Wisconsin
Minneapolis, Minnesota
New Orleans, Louisiana
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Philadelphia, Pennsylvania
Providence, Rhode Island
Rochester, New York
St. Louis, Missouri
Seattle, Washington
South San Francisco, California
Waterbury, Connecticut

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