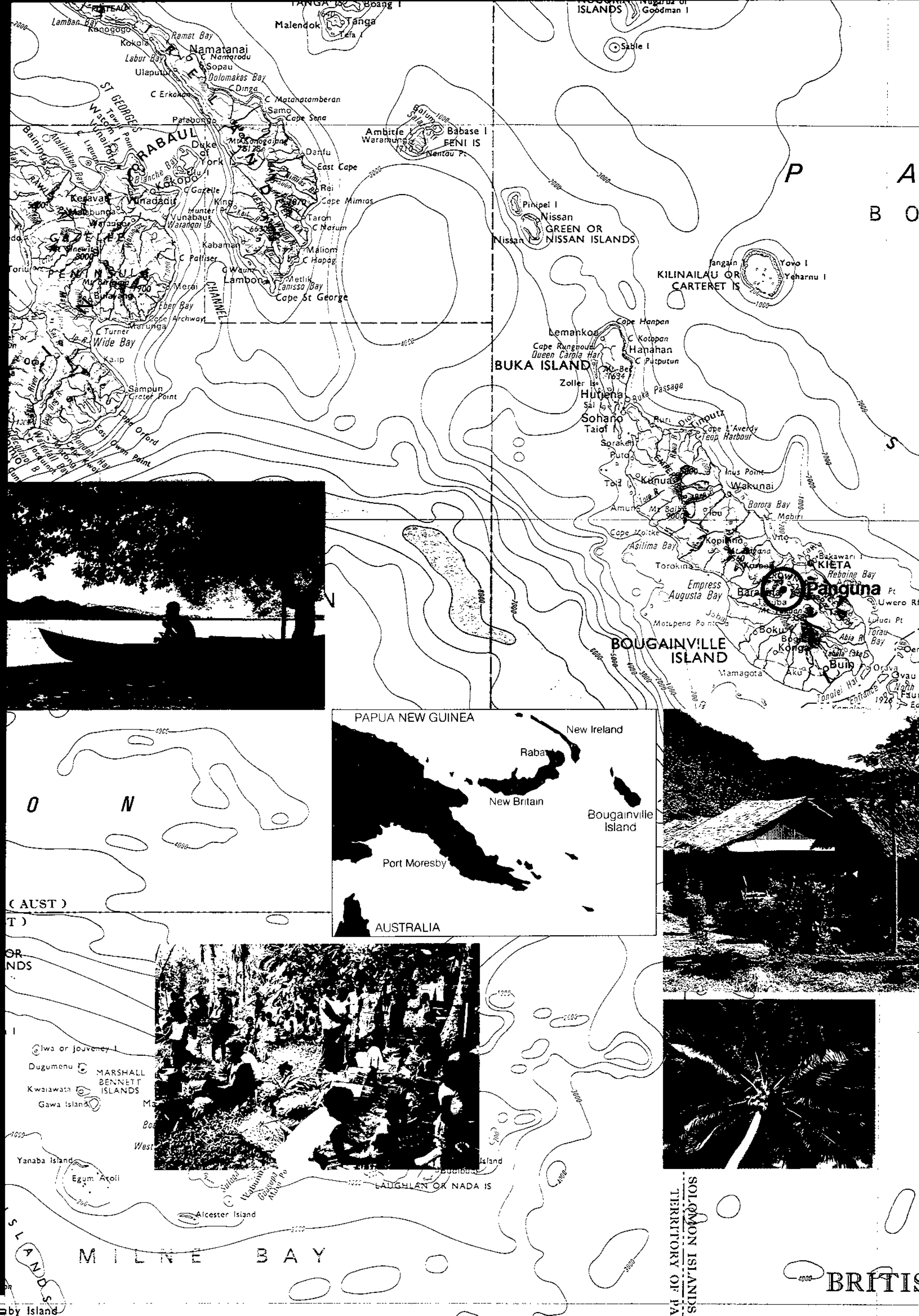
Bougainville Copper Limited · Annual Report 1979

(Incorporated in Papua New Guinea)



Namatanai
RABAUL
Kokopo
Duke of York
GAZELLE PENINSULA
CHANNEL
Cape St George
Lambom
Wide Bay
Ambitle
Babase I
FENI IS
Tanga
Malendok
Sable I
Nissan
GREEN OR NISSAN ISLANDS
KILINAILAU OR CARTERET IS
BUKA ISLAND
Buka Passage
Hutjena
Sohano
Wakunai
Empress Augusta Bay
Torokina
KIETA
Panguna
BOUGAINVILLE ISLAND
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P A
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PAPUA NEW GUINEA
New Ireland
Rabaul
New Britain
Bougainville Island
Port Moresby
AUSTRALIA
O N
(AUST)
MARSHALL BENNETT ISLANDS
Dugumenu
Kwaiawata
Gawa Island
Yanaba Island
Egum Atoll
Alcester Island
LAUGHLAN OR NADA IS
M I L N E B A Y
SOLOMON ISLANDS
TERRITORY OF PA
BRITIS

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Notice of Meeting

The Annual General Meeting of Bougainville Copper Limited will be held at 10.00 a.m. on Wednesday, 16th April, 1980 in the Panguna Cinema, North Solomons Province, PNG.

A separate Notice of Meeting is enclosed. All shareholders are cordially invited to attend.

Contents

Panguna mine

Directors

D. C. Vernon (Chairman)
N. R. Agonia
J. L. Auna
Sir Roderick Carnegie
Sir Frank Espie, O.B.E.
R. H. Harding
P. W. Quodling
J. T. Ralph

Alternate Directors
J. L. Kekedo
M. P. G. Togolo

Officers

P. W. Quodling
(General Manager)
J. R. Trezise
(Assistant General Manager)
W. J. N. Davis
(Executive Manager — Concentrator)
K. P. Gilbert
(Executive Manager — Technical Services)
D. S. Karpin
(Executive Manager — Commercial)
R. L. Kay
(Executive Manager — Mine)
V. P. McCartin
(Executive Manager — Personnel)
J. M. Ferguson
(Secretary)

J. T. Ralph Sir Roderick Carnegie

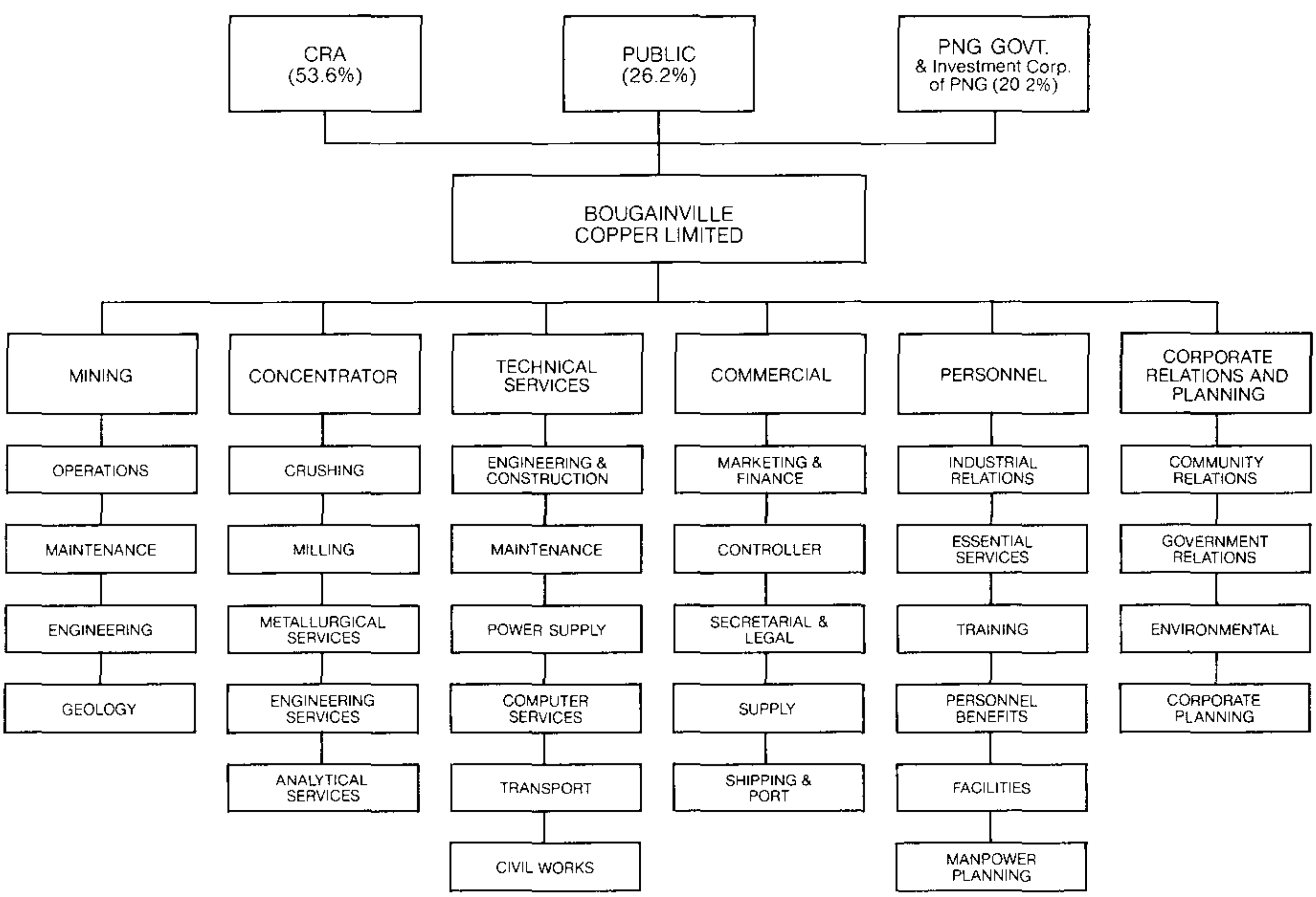
P. W. Quodling N. R. Agonia

Left to right:
R. H. Harding
Sir Frank Espie
J. L. Auna

M. P. G. Togolo D. C. Vernon

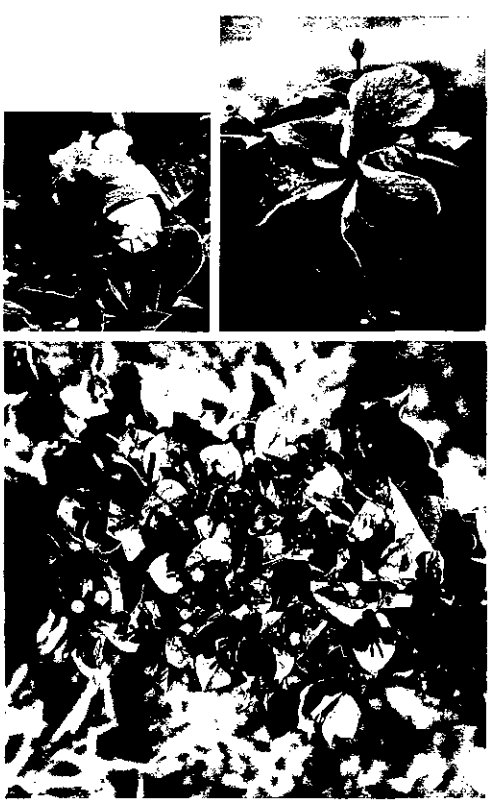
J. L. Kekedo

Ownership & organisation structure



The Year in Brief

		1979	1978
Production:			
Concentrate	(tonnes)	584 692	658 587
Containing copper	(tonnes)	170 788	198 603
gold	(kilograms)	19 703	23 367
silver	(kilograms)	44 640	52 525
Net sales revenue	(K'000)	339 706	223 282
Net earnings after tax	(K'000)	83 917	48 015
Earnings per share	(toea)	31.4	18 0
Shareholders' funds	(K'000)	294 532	317 565
Return on shareholders' funds	(per cent)	28.5	15.1
Dividends declared:			
gross dividends	(K'000)		
— ordinary		80 213	40 106
— bonus (ex retained earnings)		26 737	—
per share	(toea)		
— ordinary		30	15
— bonus		10	—
Depreciation	(K'000)	40 730	40 425
Government royalties	(K'000)	4 257	2 790
Taxation	(K'000)	77 900	22 000
Number of employees at 31 December		4 165	4 098



January:
The kina reached US$1.45 — its highest value for the year

February:
Copper prices jumped US10c/lb to US92c/lb, the highest price since July, 1974

March:
Sales revenue since the start of operations passed K1.5 billion.

April:
Copper prices broke the US$1.00/lb barrier in response to further supply disruption and strike action at a Canadian refinery. The opening price in January was US71c/lb.

Sir Frank Espie retired as Chairman but remained on the Board of Directors. Mr. D C. Vernon was appointed Chairman.

May:
The final 1978 dividend of 10 toea per share was paid to shareholders.

June:
Half yearly net earnings were K37.7 million.

The tertiary crusher replacement program was completed.

July:
The 1978 taxation assessment of K23.1 million was paid to the PNG Government.

August:
Mr. B E. Fairfax-Ross, who had been a director since the Company's formation, retired from the Board. Mr. R. H. Harding, an alternate director since 1975, was appointed a director.

The installation of two new-generation computers was completed, providing improved data entry and processing capability

September:
Gold production since commencement of operations reached 150 000 kilograms.

The London Metal Exchange price for copper reached the equivalent of US$1.10/lb, the highest price for the year

October:
Haul truck availability reached a record monthly high of 91.5%, reflecting the low downtime being experienced.

November:
The 1979 interim dividend of 10 toea per share was paid to shareholders

December:
Net earnings of K83.9 million were recorded for 1979.

Gold and silver prices reached all time highs of US$524/oz and US$32/oz respectively

The PNG Government announced a 5% revaluation of the kina against major currencies.

D C Vernon Chairman

Chairman's Statement

The 1979 net earnings for the Company of K83.9 million substantially exceeded the previous year's figure of K48.0 million. As a result, the return on shareholders' funds in 1979 reached its highest level since 1974. While this is most encouraging, it should be stressed that the high level of inflation which has existed over the past five years means that the real return to shareholders is much lower. Furthermore, returns on funds employed over the previous four years had been disappointing, giving an inadequate average return over that period.

In order to more realistically represent the value of the fixed assets of the Company, the Directors have decided to revalue the Company's buildings, plant and machinery by K300 million. This will increase the written down value of fixed assets from K325 million to K625 million. An Asset Revaluation Reserve will be credited with the amount of the revaluation.

The Directors have also decided to recommend to shareholders that a part of this Reserve be used to make a 2 for 1 bonus issue of ordinary shares. The bonus issue will be submitted for approval by shareholders in general meeting and is contingent upon shareholders also approving an increase in the Company's authorised share capital.

In addition, the Directors have recommended that the fifty toea shares be consolidated into one kina shares. This too is subject to shareholder approval

The effect of this capital restructuring will be that for every 2 shares of fifty toea held, shareholders will be entitled to 3 shares of one kina each The Company would then have 401 062 500 one kina shares on issue compared with the current 267 375 000 fifty toea shares. The amount of the restated capital will more nearly approach the value of the shareholders' investment in the Company.

In addition to a final dividend of 20 toea per fifty toea share in respect of the 1979 earnings, the Directors have declared a bonus dividend of 10 toea per share out of retained earnings. These earnings were subject to dividend restrictions during the currency of the major loan agreements which financed the initial construction. These loans having now been repaid, the Directors decided to pay a bonus dividend from the retained earnings which are no longer subject to restriction.

Future dividends will be dependent upon earnings, liquidity levels and capital expenditure requirements. These factors are highly susceptible to volatile metal prices

The minerals industry is traditionally subject to cyclical activity and 1979 represented a major upturn in the prices of the Company's two major revenue sources, copper and gold. Although the Company has received substantial benefit from the improved prices, the additional profits tax imposed by the Papua New Guinea Government under the Bougainville Copper Agreement has resulted in an additional K20 4 million tax on top of the normal company tax of K57.5 million.

A further K4.3 million was paid to the Government by way of royalties. Payments to Government in the form of dividends, taxes (excluding those on salaries and wages) and royalties amount to K116 million which represents approximately 20% of the Government's planned 1980 expenditure. Since the Government cannot plan on a continuation of such high cash flows from the Company, it has taken the prudent step of utilising a Mineral Resources Stabilisation Fund to even out the flow of funds from Bougainville Copper into its normal annual Government spending program.

The past year has seen wide fluctuations in world commodity and currency markets. This has resulted mainly from the political uncertainties associated with events in the Middle East and their impact on the supply and price of oil. These uncertainties were further reinforced by events in Afghanistan in December.

These factors have led to an upsurge of interest in precious metals as a store of value and prices soared, particularly in the latter part of the year. Gold more than doubled in value during the year to close at US$524/oz. Silver prices rose even more spectacularly to a high of US$32/oz

With this increase in the value of precious metals, particularly gold, it is now quite apparent that gold must be regarded as a joint product with copper, rather than a by-product of copper as far as the Company's operations are concerned. This has led to increased efforts in metallurgical research for the improved recovery of gold from the ore body.

Copper prices also showed pleasing improvement over the low levels recorded in 1978 to average almost US90c/lb for the year. Underlying this improvement was a substantial rundown in world copper stocks to more normal levels. This occurred through steady demand in the face of supply cutbacks particularly as the result of industrial and operating problems encountered by other major producers.

The 1980 outlook for copper prices is uncertain. The prospect of a cutback in economic growth in the developed countries as a result of oil based inflationary pressures could lower industrial demand. On the other hand, continuation of some of the problems encountered by producers in the past year could affect supplies. It is even more difficult to forecast movements in precious metals prices as they are subject to speculative pressures rather than normal demand/supply relationships.

The benefits gained by the Company from the improvement in metal prices were partially offset by lower production and higher operating costs. As expected ore grades have continued to decline as mining advances into areas of lower mineralisation. Also the extension of the pit perimeter to further open the orebody at depth has necessitated the processing of some oxidised material with inferior metallurgical characteristics.

Alternative means of increasing production capacity are currently under examination to minimise the effect of the declining ore grade on output.

The operating costs of the Company rose at an increasing rate during 1979. The major cause of this trend was the impact of large increases in the cost of oil based products. The Company consumes large quantities of these products in power generation and haul truck operations. In addition, the freight element in the Company's supplies is high. Offsetting these price movements has been the Government's "hard kina" strategy. This strategy was confirmed by a unilateral 5% revaluation in December. Although such moves have beneficial impacts on cost containment they erode the Company's overall profitability because of their impact on sales revenue. All sales proceeds are receivable in US dollars.

A matter of considerable concern to the Company continues to be its inability to explore beyond its Special Mining Lease because of the lack of Government approval. Such exploration is thought to be vital in order to determine whether any other viable ore bodies exist in the Bougainville region. Such knowledge would facilitate the orderly planning of future Panguna mine development, long term capital expenditure decisions and the optimum use of existing infrastructure at Panguna, Anewa Bay and Arawa. Discussions will continue with both the Provincial and National Governments on this matter.

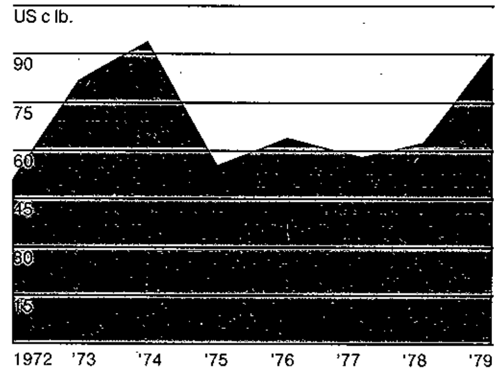
During the year communications have been maintained with both Provincial Government and National Government officials in order to ensure that the Governments are fully informed on matters of mutual interest. Relationships with both Governments continue to be good. This is in no small measure due to the competence of the Government representatives and their alternates on the Board.

During the year, Sir Frank Espie retired as Chairman, having been a Director of the Company since its formation in 1967 and Chairman of the Board since 1971. The Company is fortunate in that Sir Frank's expertise and wise counsel remain available as he continues as a Board member.
Mr. B. E. Fairfax-Ross retired from the Board during the year. He had also been on the Board since the Company's formation and all associated with Bougainville Copper would like to thank him for his contribution towards the successful development of the Company and wish him well in his retirement. Mr. R. H. Harding, who has been an Alternate Director for four years, was appointed to the Board upon the retirement of Mr. Fairfax-Ross.

The results achieved in 1979 were the result of dedicated efforts on the part of the staff and employees. The Directors wish to take this opportunity of expressing their appreciation for this dedication and loyalty.

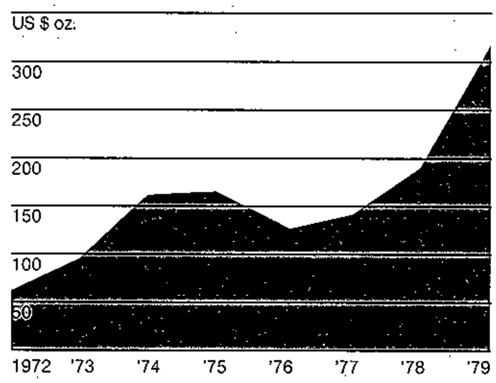
D. C. Vernon, Chairman.
7th February, 1980

Average copper prices 1972-1979



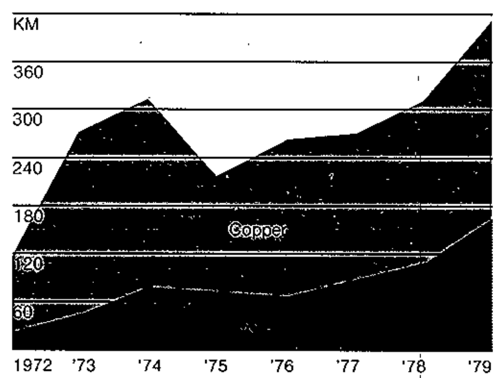
Copper recovered from a four year slump.

Average gold prices 1972-1979



Gold increased for the third successive year to reach an all-time high.

Gross sales revenue 1972-1979



Gold is now a joint product with copper rather than a by-product.

Review of Operations

Measured Ore Reserves:

Measured ore reserves at the end of 1979 were estimated at approximately 690 million tonnes, averaging 0.43% copper and 0.48 grams of gold per tonne of ore.

Production:

Production statistics were as follows:

	Year Ended 31/12/79	Year Ended 31/12/78
Material mined (millions of tonnes)		
Ore	36.2	38.1
Waste	39.8	40.3
Waste/Ore ratio	1.10/1	1.07/1
Ore grade		
Copper (per cent)	0.55	0.60
Gold (grams/tonne)	0.75	0.82
Silver (grams/tonne)	1.70	1.80
Concentrate produced (dry tonnes)	584 692	658 587
Concentrate grade		
Copper (per cent)	29.2	30.2
Gold (grams/tonne)	33.7	35.5
Silver (grams/tonne)	76.3	79.8
Contained metal in concentrate		
Copper (tonnes)	170 788	198 603
Gold (kilograms)	19 703	23 367
Silver (kilograms)	44 640	52 525

Mine:

During 1979 the pit was extended on the northern and eastern perimeters to provide access to ore to be mined during 1980. Pit depth increased by a further 30 metres during the year, a drop of two additional benches.

A total of 36.2 million tonnes of ore and 39.8 million tonnes of waste was mined during the year. This is a slight decrease over the previous year.

Ore grades declined further as mining advanced into lower grade sections of the orebody. Average grades were 0.55% copper (0.60% in 1978) and 0.75 grams per tonne of gold (0.82 grams per tonne in 1978). The grade is expected to show a continuing gradual decline in future years.

The effects of declining head grade and longer haul distances were minimised by increased use of production resources. Availability of haul trucks and shovels during the year reached very high levels as a result of improved maintenance procedures. Operational efficiencies continued to accrue from the computerised pit supervision support system resulting in a highly satisfactory production performance from the equipment fleet.

Three additional R170 haul trucks were purchased during the year to increase haulage capacity. The mine equipment fleet now comprises nine P & H 2100 shovels and 45 Euclid R170 haul trucks of 155 tonnes capacity.

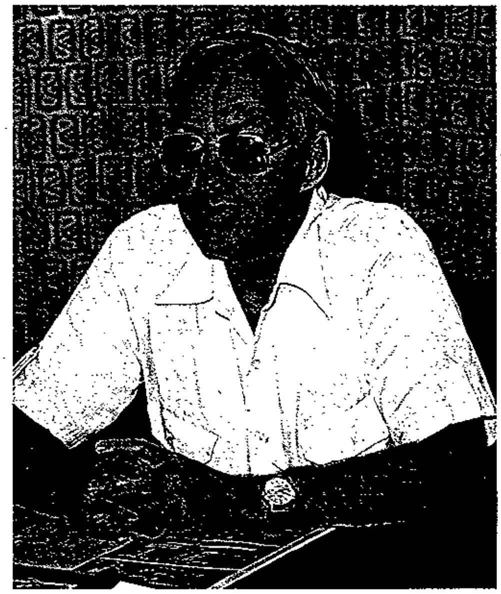
The construction of the 6 400 metre tunnel for gravity drainage of the pit continued during the year. However, progress was hampered by the difficult ground conditions encountered. By year end, the tunnel had advanced to 3 213 metres.

Concentrator:

The Concentrator treated 36.2 million tonnes of ore, compared with 38.1 million tonnes in 1978. The reduced throughput was chiefly attributable to ore hardness, although industrial action resulting in four days lost production was a contributing factor.

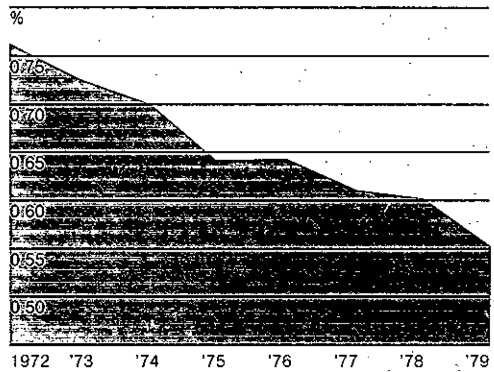
Production for the year was 584 692 tonnes of concentrate containing 170 788 tonnes of copper, 19 703 kilograms of gold and 44 640 kilograms of silver. This was significantly below the 1978 production level of 658 587 tonnes of concentrate. The lower production reflected a combination of the reducing ore grades, lower throughput and lower metal recoveries from oxidised ore mined near the surface in areas of the pit.

Plant availability was, however, further increased over last year's high level through improved maintenance and operating procedures.



P. W. Quodling, General Manager

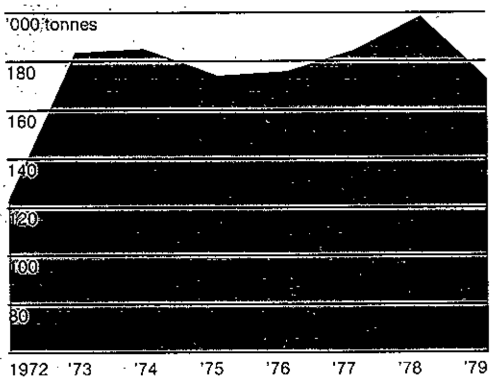
Copper ore grade 1972-1979



Ore grade continues its anticipated decline.

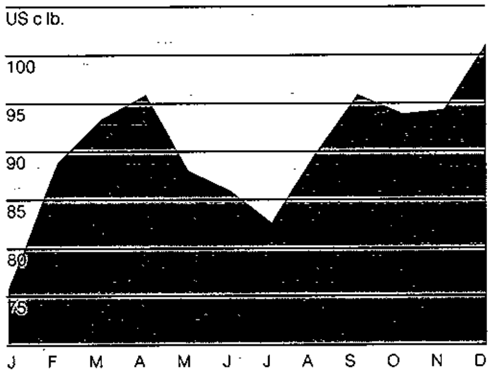
Left: R170 haul truck

Production of contained copper 1972-1979

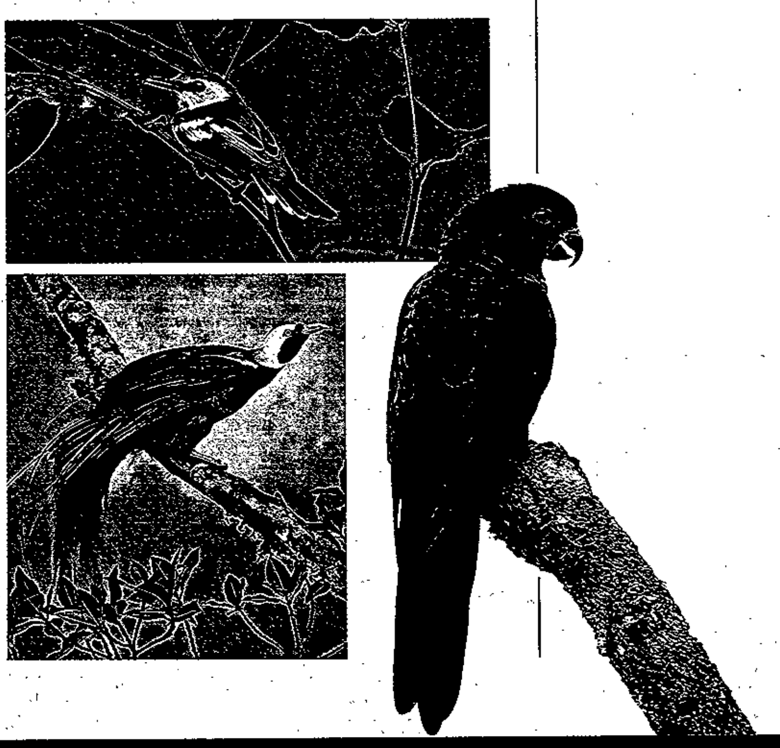


Production fell as a result of ore grade decline.

Monthly average copper prices 1979



Copper finished on a firm note after an uneven performance during the year.



The program to replace the tertiary crushers with heavier units, commenced the previous year, was completed during 1979. A similar program was commenced in 1979 for the replacement of the eight existing secondary crushers by extra heavy duty crushers. By year end, four of the new crushers had been installed and the remaining four will be installed during 1980.

Studies have taken place during the year aimed at recovering gold from tailings. Results to date have been inconclusive and tests will continue during 1980.

Technical Services:

Workshop extensions and the installation of additional workshop equipment undertaken in 1978 have provided additional maintenance facilities and technical services back-up. This compensates for the increase in maintenance activity associated with the increasing age of the operating plant.

During 1979 a civil works program was undertaken to reduce the exposure to flooding both in the town of Panguna and in the mine service areas. Changes in drainage patterns resulting from mining operations coupled with the high rainfall in the area will require ongoing flood mitigation works.

Development of computerised control techniques continued. This work has been enhanced with the installation during the year of additional EDP capacity.

Mine planning and production control have been improved by the application of computer techniques, and computerisation of process controls in the Concentrator are being reviewed. Analysis of maintenance data is providing the opportunity to improve preventative maintenance planning.

Operating Costs:

Inflationary pressures were particularly heavy during the year. The use of fuel oil for power generation and distillate for mine operations leaves the Company heavily dependent on oil based products and highly vulnerable to the type of rapid escalation in fuel costs which occurred in 1979. Flow on of oil based cost escalation into other operating supplies was evident towards the end of the year. As a result, operating costs were significantly higher than those for 1978 although the 5% revaluation of the kina late in the year will provide some relief.

Marketing:

Shipments during 1979 totalled 586 524 dry tonnes of concentrate containing 171 997 tonnes of copper, 19 797 kilograms of gold and 45 035 kilograms of silver. In addition, small tonnage of two by-products, cement copper and gold bearing ball mill residues, were sold during the year.

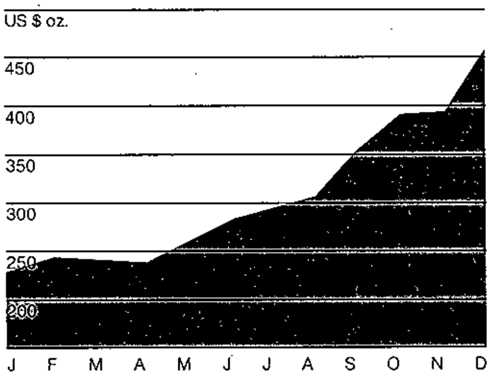
Apart from a shipment of 22 000 tonnes of concentrate under a three year contract with the People's Republic of China, deliveries were confined to fulfilment of long term contractual obligations with buyers in Japan, West Germany and Spain.

The Company's concentrate, which is especially suitable for modern flash smelting installations, continued to be in strong demand. It is expected that this will continue with new smelters under construction.

The copper price continued the steady improvement recorded over the latter part of 1978. In 1979 average copper price recorded on the London Metal Exchange (cash sellers price for electrolytic wirebars) was the equivalent of US89.8c/lb compared with US61.9c/lb in 1978. During the year, a continuation of strong growth in metal consumption,

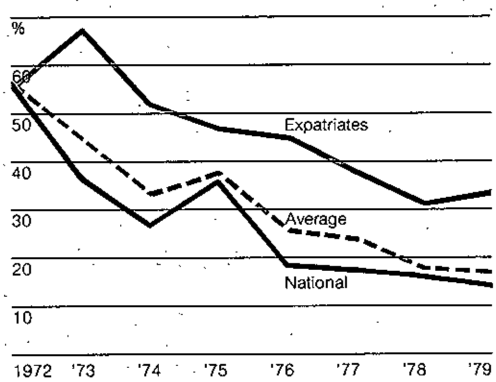
Right: Loading concentrate at Anewa Bay

Monthly average gold prices 1979

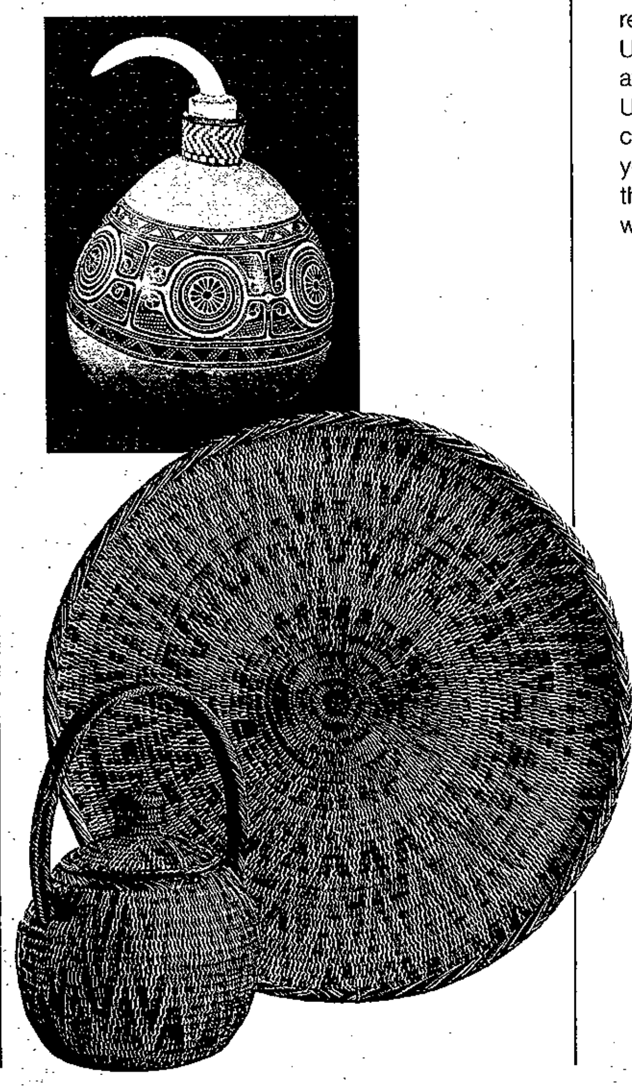


Gold surged upward throughout the year.

Annual labour turnover 1972-1979



Labour turnover rates continue to improve.



combined with some disruption to production from industrial disputes in Canada and South America, and further production difficulties in Central Africa, contributed to a reduction of metal stock to near "normal" levels. This steady improvement in the market was the major factor behind the price rise, though some spill-over from the booming precious metals markets was evident in copper price movements towards the end of the year.

Gold prices have risen to unprecedented heights as the result of a series of economic and political uncertainties culminating in the problems in Iran and Afghanistan near year end.

Starting the year at US$227/oz gold reached a record London Gold Market price at the end of December of US$524/oz. Average price for 1979 was US$305/oz (1978 US$194/oz).

The "hard kina" policy maintained by the Papua New Guinea Government during 1979 was reinforced by a 5% revaluation in December. This policy assisted the Company in regard to cheaper imported goods and services and loan servicing. However, these benefits were more than offset by the reduction in sales revenue which is denominated in US dollars. Sales revenue was also affected by the devaluation of the US dollar against most major currencies during the course of the year, with the notable exception of the Japanese yen which also weakened.

Finance:

Improved metal prices have enabled the Company to meet all loan obligations and maintain reasonable liquidity levels. This improved liquidity situation enabled the Company to prepay the balance of the truck loan raised to finance the replacement of the haul truck fleet. In addition, the final instalment of the Japanese cash loan, one of the original loans to the Bougainville project, was repaid. Total payments during the year comprised K21.0 million in principal and K4.8 million in interest.

The A$4.2 million Export Finance and Insurance Corporation loan, arranged in 1977 to finance the replacement of crushers, was drawn down during the year. The year end loan balance totalled K43.4 million, the lowest since operations commenced.

Personnel:

Workforce numbers increased marginally during the year to a total of 4 165 at the year end: 3 314 of the employees were Papua New Guinea nationals with the balance being drawn, in the main, from Australia and New Zealand.

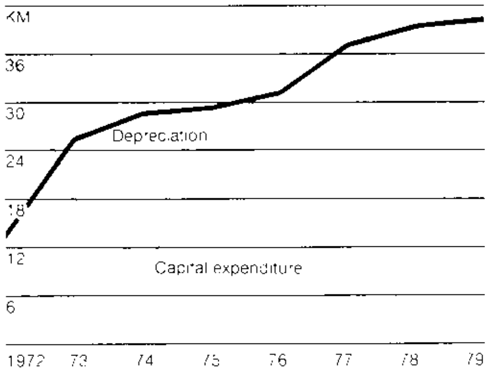
The training of nationals to take on increasing responsibilities continues to be a high priority objective. During the year a further 53 apprentices completed indentures, mainly in mechanical and electrical trades. With the close of the academic year the number of national graduates in the workforce increased to 61. Disciplines such as engineering, science and accounting are in particular demand, but intake remains low due to the comparitively small number of graduates available. During the year three undergraduates undertook further studies in mining engineering in Australia.

Construction commenced on a further 127 houses in the town of Arawa. This utilises all building sites available to the Company, and will increase married accommodation to house over 2 000 families. Work also commenced on extension of one of the main single quarter complexes. This will provide additional and improved facilities in the Panguna area and allow for the phasing out of less permanent facilities.

Right: Drilling in special mining lease


AVDEV

Capital expenditure & depreciation 1972-1979



Capital expenditure has stabilised.

Environment:

Identification and monitoring of the physical impact of the Company's operation on the environment proceeded as a major on-going commitment

Social issues are reviewed with the National Government and Provincial Governments. The Company employs community relations staff charged with the prime responsibility of maintaining contact with villagers so as to resolve issues as they become apparent

Exploration and Technology:

Exploration continued to be restricted within the Special Mining Lease. In the north eastern corner of the Lease a drilling programme commenced to re-evaluate a small prospect area. Additional drilling was carried out on the periphery of the Panguna orebody to provide better geological and geotechnical information for future pit design.

The Company has been active during the year in exploring energy conservation opportunities and examining alternative fuel supplies. Current studies include an examination of alternative fuels for the present oil-fired power station and the possibility of reclaiming and refining waste oils from the Company's operations

Investigations have been undertaken on the viability of extracting other metals, particularly molybdenum and magnetite, from the ore treated To date neither project has been economically justified. Research work has also been undertaken on the viability of obtaining additional copper from the waste dumps by leaching, but results have been inconclusive

Capital Expenditure:

Capital expenditure for the year totalled K29.5 million

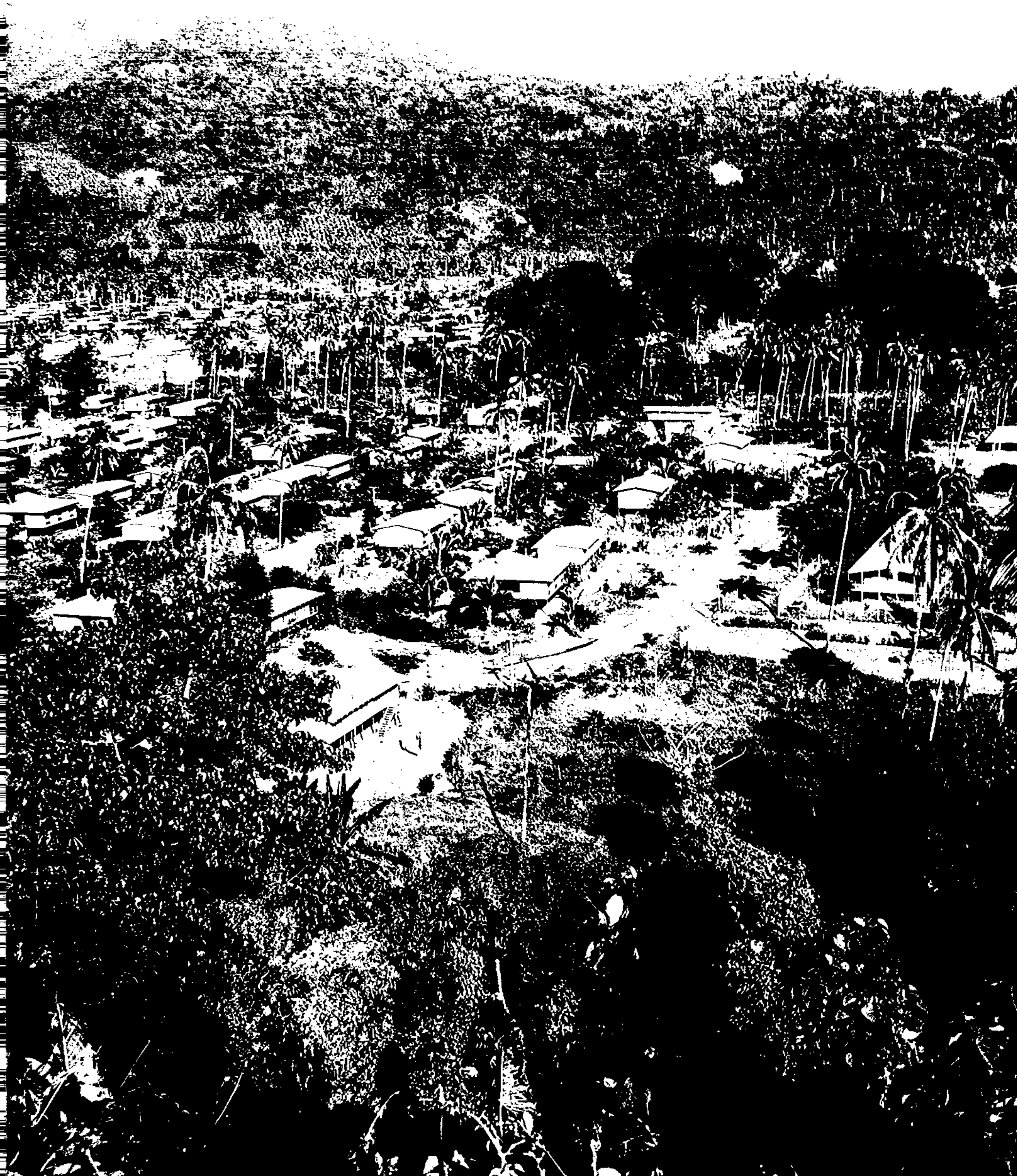
Mining activities have necessitated relocation of roads, pipeline and power reticulation in the lower Kawerong Valley at a cost to date of K2.6 million A further K2.8 million was expended on the diversion of streams to develop areas for waste dump extension. Continuation of the pit drainage tunnel cost K2 3 million during the year bringing the total expenditure to date on this project to K5.6 million

Upgrading of the crushers involved a capital expenditure of K2.2 million during the year, and the total outlay on this project now stands at K7.1 million. The new centralised computer installation has been completed at a cost of K2 million. This will provide the capacity necessary to expand data processing throughout the Company's activities Additional housing and an extension to existing single quarters involved an outlay of K2 million during the year.

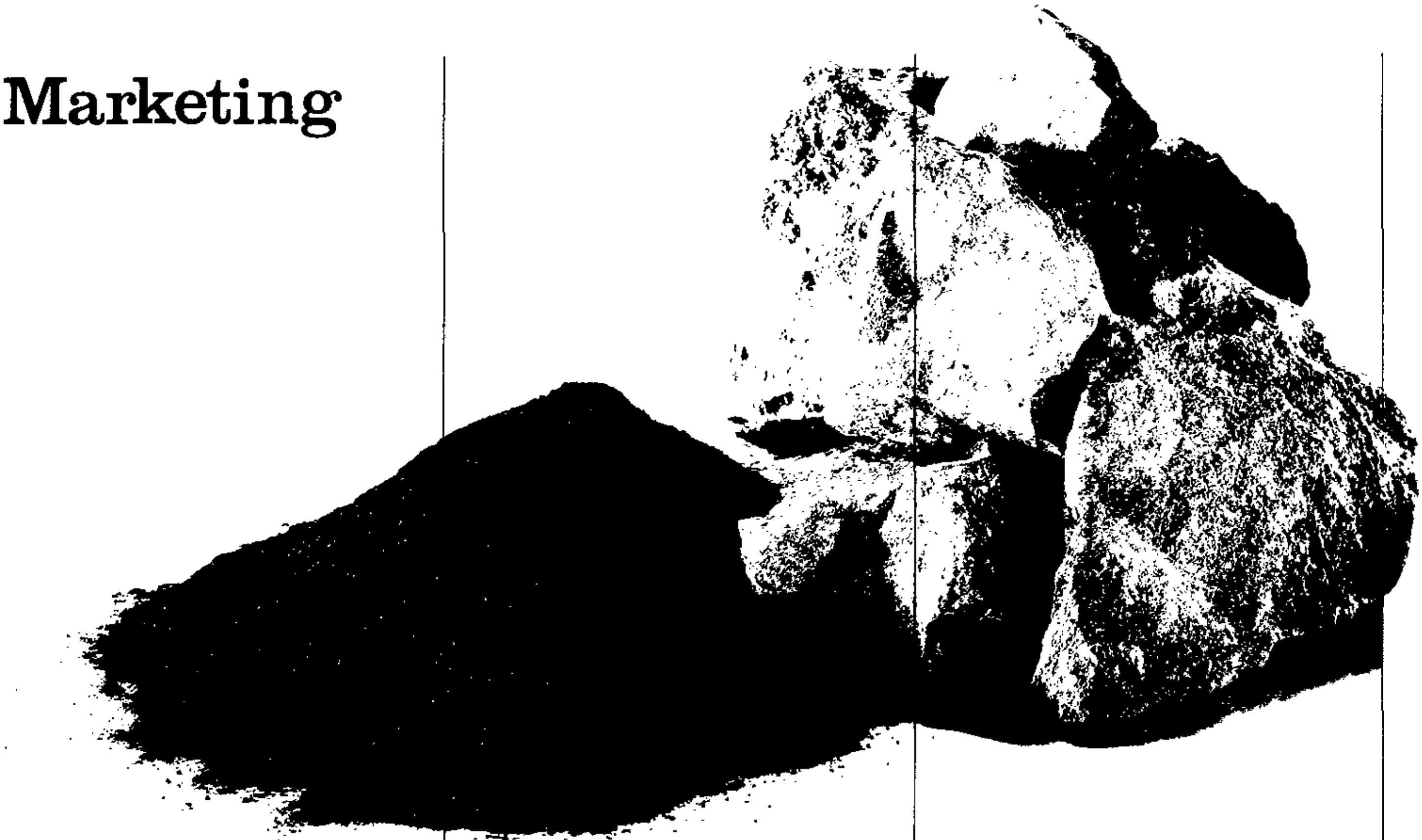
Total investment in property, plant and equipment is now K547 million, of which K222 million has been written off as depreciation against earnings to date.

P. W. Quodling, General Manager.
7th February, 1980.

Right Arawa township



Marketing



Introduction

Since the commencement of commercial production in April 1972 almost 5 million tonnes of concentrate — containing approximately 1.4 million tonnes of copper, 157 tonnes of gold and 354 tonnes of silver — have been produced and shipped abroad to various customers. The value of sales over the period totals almost K1,800 million.

The major proportion of concentrate is sold under long term contracts to buyers in Japan, West Germany and Spain. These contracts were negotiated and signed in the period 1967-69, and provided the basis for the initial financing of the project. While these contracts provide the framework for current sales, constantly changing economic and market factors necessitate frequent reviews of various factors in the contracts.

As evidenced by the volume and value of the Company's sales, an efficient and competitive marketing presence is a vital element to the continued commercial success of the Company.

What do we sell?

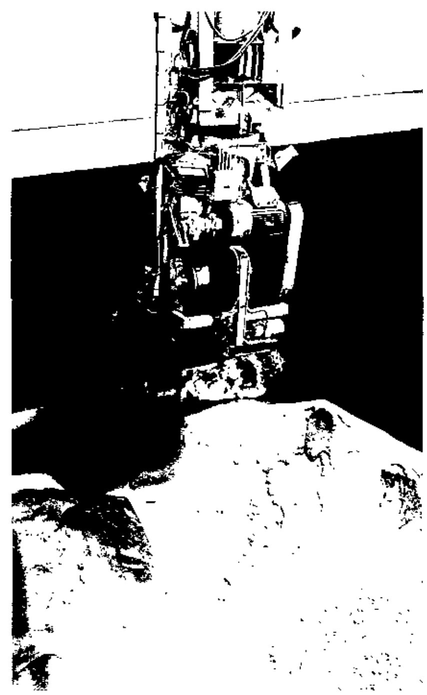
In 1979, the Company exported 587,000 tonnes of copper concentrate from Anewa Bay. The concentrate is a fine, grey-coloured, free flowing powdery material, consisting of copper (30%), sulphur (30%), iron (26%), small though valuable amounts of precious metals, and small quantities of various other elements. The concentrate is widely recognised as being of premium quality, and this, together with proven reliability of supply, makes it especially suited as a base feedstock to smelters employing modern flash-smelting technology.

How is it shipped?

Concentrate is withdrawn from a 50,000 tonne capacity storage shed, and loaded automatically into the hold of bulk cargo vessels at the Company's port at Anewa Bay. Vessels normally carry between 20-25,000 tonnes of concentrate. There are about 25 separate shipments per year.

Where does it go?

The major proportion of concentrate is shipped under long-term contract to major smelting and refinery companies in Japan, West Germany and Spain. In addition smaller tonnages have been sold on a "spot" or short-term contract basis to buyers in the People's Republic of China, U.S.S.R., East Germany, Turkey, Mexico, U.S.A., Yugoslavia, Finland, Taiwan and South Korea.



Loading concentrate

Metal trading on the L.M.E.

How is it valued?

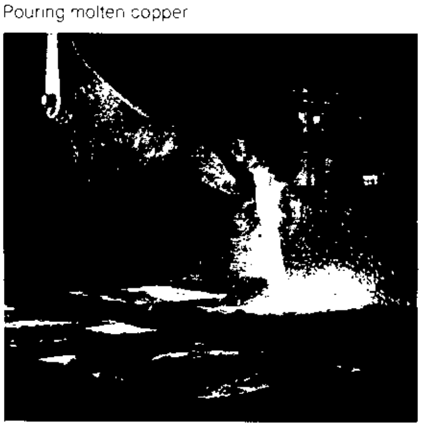
The Company is paid for the value of the payable metals in the concentrate (i.e. copper, gold and silver). The other elements are of negligible value, or present in quantities too small to be recovered economically. The concentrate is carefully weighed and analysed both on shipment and on receipt at the buyer's smelter and the assessed content of payable metals is agreed between buyer and seller.

The payable metals are then priced according to prices prevailing on the major free markets for these metals. These are the London Metal Exchange (LME) for copper, the London Gold Market and the London Silver Market. Deductions are taken from this price to take account of the role of the smelter/refinery in transforming the raw concentrate into refined metals. These "treatment allowances" are negotiated periodically and separately between the Company and the various buyers. Thus, the Company's sales value is determined directly by metal prices prevailing on the world's free markets.

How does it become copper?

The copper concentrate is fed as basic feedstock through a smelting and refining process, where the non-payable elements and impurities are consumed or removed, and refined copper metal, gold and silver are recovered.

Pouring molten copper

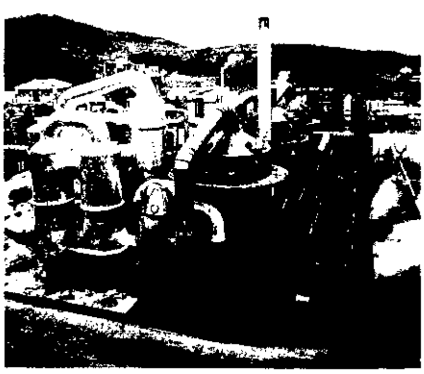


Copper smelting is conventionally a pyrometallurgical process. Intense heat is used to oxidise some elements of the concentrate (especially sulphur) and to melt the remaining metallic particles of the concentrate to produce copper matte, containing approximately 60% copper. The next stage further upgrades this material into blister copper, containing 98-99% copper, plus precious metals and small quantities of other metallic elements.

Copper refining involves a further upgrading of the blister copper in a refining furnace, from which the resultant 99% + copper material is cast into anodes suitable for use in the final electrolytic refining process. In this final process, the anodes are suspended in a tank containing an acidic copper sulphate solution. Thin sheets of pure copper are suspended between the anodes in the electrolytic cell. A low voltage/high amperage current is passed through the cell, causing the anode to dissolve and plate out in pure form on the copper sheets to form cathode copper. These cathodes may be either sold as such, or cast into commercial refinery shapes, the most important being the wirebar.

The precious metals also dissolve from the anode and collect as a sludge on the floor of the cell. The sludge is removed from the cell and washed, filtered, leached with sulphuric acid and roasted to remove impurities.

Acid plant at Saganoseki
(Courtesy — Nippon Mining Company)



Tankhouse at Saganoseki
(Courtesy — Nippon Mining Company)

The residue is then smelted in a small furnace where residual impurities are removed. The precious metals remain in an alloy from which pure gold and silver are recovered.

How is copper used?

The first step in the transformation of refined copper to a consumable manufactured article is that of "semi-manufacture". The copper is worked into a form or shape suitable for use in the final manufacture ("fabrication") stage.

The main "semi-manufactures" are wire (including wire rod), rods and bars, sheets and plate, strip and tubes. "Semi-manufactures" are either pure copper, or copper alloys such as brass (copper/zinc) or bronze (copper/zinc/tin).

"Semi-manufactures" are the base input to a very broadly based copper fabrication industry, where the metal is formed into its final end product. The major end uses for copper are in the electrical industry (cables, conductors, transformers, generators), building and construction (electrical wiring, plumbing, roofing, tankage), transportation (car radiators and wiring, railway electrification, locomotive equipment, ships' boilers, piping and tubing, hull sheathing, propellers), industrial equipment (machine components, boilers, piping and tubing), and consumer products (electrical appliances, homewares, ornaments, airconditioning).

Copper in the home

Statement of Value Added

A country's economy is largely made up of the activities of employers and employees and the contribution they make to that economy is known as the Value Added

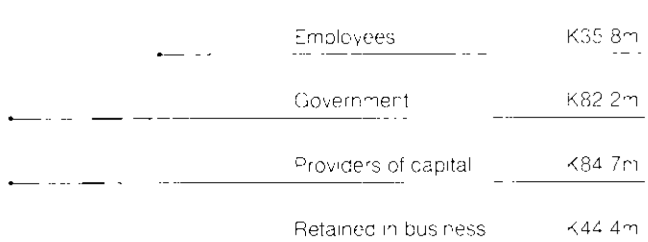
The conventional earnings statement does not reflect the contribution that BCL makes to the P.N G economy The economic activity is represented by the sales generated during the year less the cost of goods and services brought in from outside the Company

The following statement shows the contribution made by the Company and its employees during the last two years The total Value Added was distributed to employees governments, shareholders and lenders of capital, with part being retained for future use within the Company

Value added	1979 K mill.	1978 K mill
Sales made to external customers	339 7	223 3
Less: Materials and services brought in from outside the Company	99.5	85 1
	240.2	138 2
Add Other income	6.9	12 1
Total Value Added available for distribution	247.1	150.3

Distribution		
Wages, salaries and benefits to EMPLOYEES	35.8	31.0
Taxation and royalties to GOVERNMENT	82.2	24.8
To PROVIDERS OF CAPITAL		
Dividends to shareholders	80.2	40.1
Interest to lenders	4.5	6 1
RETAINED in business to provide for asset replacement expansion and protection of the Company and its employees in less favourable times		
Depreciation	40.7	40 4
Retained earnings	3.7	7.9
Total Value Added distributed	247.1	150 3

Sales and other income for the year was K346.6m — Less materials and services K99 5m = Equals total value added K247 1m



And this is how total value added was made up

Directors' Report & Financial Statements

Bougainville Copper Limited

Contents

Bougainville Copper Limited
(Incorporated in Papua New Guinea)

Registered Office:
Panguna, Province of North Solomons,
Papua New Guinea.

Share Registers:
Victoria: 84 Flinders Lane, Melbourne. Telephone (03) 654 4899.
A.C.T.: 78 Northbourne Avenue, Canberra City.
P.N.G.: Panguna, Province of North Solomons.
United Kingdom: c/o Central Registration Limited.
1 Redcliff Street, Bristol.

Stock Exchanges:
Listed on the principal exchanges in all Australian states and New Zealand.

Auditors:
Coopers & Lybrand

Bankers:
Commonwealth Trading Bank of Australia
Bank of America NT & SA
Papua New Guinea Banking Corporation

Solicitors:
Gadens
Arthur Robinson & Co.

Directors' Report

The directors of Bougainville Copper Limited present their report on the audited financial statements of the Company and its subsidiary for the year ended 31 December, 1979.

Directors:
The directors of Bougainville Copper Limited at the date of this report are:
D. C. Vernon (Chairman)
N. R. Agonia
J. L. Auna
Sir Roderick Carnegie
Sir Frank Espie, O.B.E.
R. H. Harding
P. W. Quodling
J. T. Ralph

Sir Frank Espie and Mr. P. W. Quodling retire in accordance with the Company's Articles of Association and, being eligible, offer themselves for re-election.

Mr. R. H. Harding holds office until the conclusion of the Annual General Meeting and, being eligible, offers himself for election.

Activities:
Bougainville Copper Limited has produced concentrate containing copper, gold and silver from a mine at Panguna, North Solomons Province, since 1972. Its subsidiary, Bougainville Copper Finance N.V. is incorporated in the Netherlands Antilles for fund raising purposes. No change in the activities of the group occurred during the year.

Net earnings:
The net earnings of Bougainville Copper Limited and its subsidiary for 1979 totalled K83 917 000 after providing K40 730 000 depreciation and amortisation, K4 257 000 for royalties and K77 900 000 for income tax.

Taxation:
Taxation of K77 900 000 charged to earnings comprises K57 499 000 ordinary tax and K20 401 000 additional profits tax. The additional tax is levied when taxable income exceeds a certain level. For 1979 the level at which additional tax applied is K94 380 000.

Subsidiaries:
No subsidiaries were acquired or disposed of during the year. No dividends were paid by Bougainville Copper Finance N.V.

Share Capital:
There was no change in the Company's capital structure during the year.

Exchange Fluctuations:
Exchange gains of K3 145 000 were realised on the repayment of U.S.A. and Australian dollar loans. Exchange gains of K400 000 arose on the translation of overseas bank balances. These gains were included in 1979 earnings.

Long Term Loans:
The E.F.I.C. Crusher Loan of A$4 206 000 was the only draw down made during the year against long term loan arrangements. Repayments of K21 041 000 were made against existing loans, leaving a balance outstanding at the end of the year of K43 448 000.

Dividends:
An interim dividend of 10 toea per share was declared on 16 August, 1979 and paid on 1 November, 1979. A final dividend of 20 toea per share has been declared and is payable on 1 May, 1980. In addition, a bonus dividend of 10 toea per share has been declared and is payable on 1 May, 1980. Withholding tax is deducted from dividends where required by the Chief Collector of Taxes.

Auditors:
The retiring Auditors, Coopers & Lybrand, being eligible, offer themselves for re-appointment.

Statutory Information:
In accordance with the provisions of Section 162 of the Papua New Guinea Companies Act 1963, as amended to date, the directors state that:

1. In their opinion, the results of the group's operations in the year under review have not been materially affected by items of an abnormal character except as mentioned in this report.

2. In their opinion, the current assets will realise at least the value at which they are shown in the accounts and that the value is an amount that these current assets might reasonably be expected to realise in the ordinary course of business.

3. No circumstances have arisen which render adherence to the method of valuation of assets or liabilities misleading or inappropriate save and except that this day they have revalued certain of the fixed assets of the Company (being buildings, plant and machinery) by K300 million to reflect more realistically the invested capital in these assets. Prior to this revaluation all fixed assets were valued at historical cost less accumulated depreciation and amortisation.

4. No contingent liabilities have arisen since the balance date of the group accounts, 31 December, 1979, and the date of this report, 7 February, 1980.

5. No contingent liabilities have become enforceable or are likely to become enforceable within twelve months from the date of this report which will materially affect the group in its ability to meet its obligations as and when they fall due.

Additional Information:
The directors also state that:

1. They took reasonable steps before the statements of earnings and balance sheets were made out to ascertain what action had been taken so far as debts owing to the Holding Company were concerned in relation to the writing off of bad debts and the making of provisions for doubtful debts and are satisfied that there were no bad debts and that a provision for doubtful debts of K50 000 was adequate.

2. They are not aware of any circumstances which would render the amounts written off for bad debts or the amounts of the provision for doubtful debts inadequate to any substantial extent.

3. Since the end of the financial year, no charge on the assets of either of the companies in the group has arisen which secures the liability of any other person.

4. They are not aware of any circumstances not otherwise dealt with in this report or group accounts, which would render any amount stated in the group accounts misleading.

5. No item, transaction or event of a material and unusual nature has arisen in the interval between the end of the financial year and the date of this report, other than higher depreciation charges in 1980 and subsequent years resulting from the revaluation of assets referred to above, which in the opinion of the directors of Bougainville Copper Limited, is likely to substantially affect the results of the operations of the group in 1980.

Signed this 7th day of February, 1980 in accordance with a resolution of the directors of Bougainville Copper Limited.

D. C. Vernon (Chairman)

P. W. Quodling
(Director)

Simplified Financial Statements

Bougainville Copper Limited

Balance Sheet

Funds employed: K527m.	K mill.	K mill.	Assets: K527m.
Shareholders' funds	295	326	Net investment in property, plant and equipment
Potential exchange gains on future loan repayments	5		
Borrowings	44	45	Stocks and stores
Amount owed to creditors and for income tax	103	99	Amount owed by debtors
Dividends payable	80	57	Cash at bank

Earnings Statement

Income: K347m.	K mill.	K mill.	Expenses: K347m.
		140	Cost of sales
Sales and other income	347	41	Depreciation
		82	Taxation and royalties
		84	Net earnings

Statements of Earnings

Bougainville Copper Limited
and Subsidiary Company

year ended 31 December, 1979

	Notes	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Income					
Net sales revenue		339 706	223 282	339 706	223 282
Other income		3 358	1 864	3 358	1 864
		343 064	225 146	343 064	225 146
Costs and expenses					
Costs of sales, general and administration expenses		135 267	116 118	135 267	116 118
Depreciation and amortisation	3	40 730	40 425	40 730	40 425
Royalties		4 257	2 790	4 257	2 790
Interest		4 538	6 093	4 538	6 093
		184 792	165 426	184 792	165 426
Earnings from operations		158 272	59 720	158 272	59 720
Net exchange gains	6	3 545	10 295	3 545	10 295
Earnings before taxation	2	161 817	70 015	161 817	70 015
Current income tax	4	77 900	22 000	77 900	22 000
Net earnings for year		83 917	48 015	83 917	48 015
Add:					
Retained earnings brought forward		183 877	175 968	183 880	175 971
		267 794	223 983	267 797	223 986
Less:					
Bonus dividend from retained earnings		26 737	—	26 737	—
		241 057	223 983	241 060	223 983
Less:					
Ordinary dividends					
Interim paid		26 737	13 369	26 737	13 369
Final payable		53 476	26 737	53 476	26 737
		80 213	40 106	80 213	40 106
Retained earnings carried forward		160 844	183 877	160 847	183 880

All amounts are expressed in Papua New Guinea kina.
Rounding off to the nearest thousand kina has been adopted.
The notes commencing on page 22 form part of these accounts and are to be read in conjunction with them.

Balance Sheets

Bougainville Copper Limited
and Subsidiary Company

at 31 December, 1979

	Notes	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Funds employed by the group:					
Shareholders' funds					
Paid up capital	5	133 688	133 688	133 688	133 688
Retained earnings		160 844	183 877	160 847	183 880
Total shareholders' funds		294 532	317 565	294 535	317 568
Exchange fluctuation	6	5 387	9 003	5 387	9 003
Long term liabilities					
Loans	7	33 354	40 510	33 354	40 510
Provision for long service leave		2 850	1 550	2 850	1 550
		36 204	42 060	36 204	42 060
Current liabilities					
Loans	7	10 094	20 309	10 094	20 309
Creditors	8	22 994	28 044	22 992	28 042
Income tax	4	77 099	22 293	77 099	22 293
Dividends payable		80 213	26 737	80 213	26 737
		190 400	97 383	190 398	97 381
Total funds		526 523	466 011	526 524	466 012
These funds are represented by:					
Fixed assets					
Property, plant and equipment	9	325 459	340 144	325 459	340 144
Investments	10	83	83	92	92
Current assets					
Bank balances and short term deposits		57 113	34 426	57 105	34 418
Debtors for sale of concentrate		96 076	51 794	96 076	51 794
Other debtors	11	3 235	4 174	3 235	4 174
Stocks and stores	12	44 557	35 390	44 557	35 390
		200 981	125 784	200 973	125 776
Total assets		526 523	466 011	526 524	466 012

All amounts are expressed in Papua New Guinea kina.
Rounding off to the nearest thousand kina has been adopted.

The notes commencing on page 22 form part of these accounts and are to be read in conjunction with them.

Notes forming part of the 1979 accounts

These notes form part of the accounts and consolidated accounts of Bougainville Copper Limited and should be read in conjunction with them.

1. Statement of significant accounting policies

The principal accounting policies adopted in the preparation of the group accounts are stated to assist in a general understanding of the financial statements.
The policies generally comply with the accounting standards of the principal Australian professional accounting bodies. They are consistent with those adopted in the previous year.

Historical Cost Convention

The financial statements have been prepared under the historical cost convention and have not been adjusted to take account of changing money values, or the current cost of replacing assets.

Valuation of Fixed Assets

Mine property, buildings, plant, machinery and equipment are valued at cost less accumulated depreciation and amortisation.

Depreciation and Amortisation of Property, Plant & Equipment

Depreciation and amortisation are provided on the straightline method by charges against income based on the estimated useful economic life of respective assets.
New assets are depreciated from the month following their commissioning. Generally, assets are fully depreciated or amortised over the shorter of economic life or twenty years.

Amortisation of Borrowing Expenses

Borrowing expenses incurred on loans have been capitalised, with the amount applicable to each loan being amortised over a five year period from the year in which it was arranged.

Exploration and Development Expenditure

Expenditure on exploration within the mining lease and development is written off or provided against as incurred. Exploration has not been undertaken outside the mining lease.

Maintenance and Repairs

Expenditure on maintenance and repairs is charged against income as incurred.

Valuation of Stocks and Stores

Concentrate stocks at year end are valued at direct production cost, which is lower than net realisable value. Cost includes direct materials, services and overheads, but excludes depreciation and indirect overheads. Other stocks and stores are valued on an average cost basis less an allowance for obsolescence.

Net Sales Revenue

Sales are recognised on shipment of concentrate from Bougainville, when title passes to the buyer. However, final sales value can only be determined from weights, assays, prices, exchange rates and treatment charges applying after a shipment has arrived at its destination. Consequently, estimates are used to determine the net sales revenue of consignments in the period between their shipment and final valuation. The estimates of sales revenue for shipments not due for final valuation until the following year are considered realistic. Any variation from revenue actually realised will be included in the following year's financial statements.

Taxation

Income tax charged against earnings is calculated on taxable income for the year. Certain items of expenditure, consisting of depreciation, provisions for future liabilities and major consumable stock items, are deductible for income tax in different years from which they are charged against earnings. Such timing differences would not materially affect the determination of income tax had it been calculated on earnings before taxation.

Foreign Currency Conversion

Monetary assets held and liabilities and borrowings due in foreign currencies are converted to Papua New Guinea currency at the rates of exchange ruling at balance date. All other overseas transactions are converted at the rates of exchange applying when they occurred. Unrealised exchange gains on overseas borrowings are held in the Exchange Fluctuation Account and transferred to earnings when realised.

Subsidiary

The wholly owned subsidiary, Bougainville Copper Finance N.V., is incorporated in the Netherlands Antilles for fund raising purposes. This company has been consolidated in accordance with conventional consolidation principles.

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000

2. Earnings before taxation

Earnings before taxation have been determined after allowing for the following income and expense items:

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Income:				
Interest on short term deposits	3 311	1 807	3 311	1 807
Dividends — received from non-related corporation	1	1	1	1
Expenses:				
Interest — on long term loan from subsidiary	—	—	1 463	1 442
— on long term loans and standby facilities	4 538	6 093	3 075	4 651
Provision for doubtful debts (Note 13)	25	13	25	13
Loss on disposal and retirement of fixed assets	2 568	1 397	2 568	1 397
Research and development expenditure	553	160	553	160
Directors' emoluments (Note 14)	3	4	3	4
Auditors' remuneration —				
auditing the accounts	69	64	69	64
other services	19	14	19	14
(The auditors have received no other benefits)				

3. Depreciation and amortisation

The amount charged against earnings comprises:

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Depreciation on: buildings	11 349	11 201	11 349	11 201
plant, machinery and equipment	26 050	25 037	26 050	25 037
Amortisation of: mine property	3 106	3 106	3 106	3 106
borrowing expenses	225	1 081	225	1 081
Total	40 730	40 425	40 730	40 425

4. Current taxation

The income tax charged against earnings is determined in accordance with the policy set out in Note 1.
The following reconciliation discloses the items which caused the charge for income tax in the statements of earnings to vary from the income tax prima facie payable on reported earnings:

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Income tax prima facie payable on reported earnings at normal rate	59 063	25 555	59 063	25 555
Plus/(minus) income tax at normal rate on:				
variation on valuation of trading stock	(1 269)	—	(1 269)	—
variation between provision for depreciation in statements of earnings and amount deductible for taxation	700	105	700	105
excess of other provisions over payments	629	388	629	388
net exchange (gains)/losses which are exempt from taxation	(1 311)	(3 778)	(1 311)	(3 778)
allowance on purchase of consumable aids	(1 136)	(23)	(1 136)	(23)
other	22	46	22	46
	56 698	22 293	56 698	22 293
Additional profits tax	20 401	—	20 401	—
Income tax payable on year's earnings	77 099	22 293	77 099	22 293
Plus/(minus) taxation under/(over)-provided in previous year	801	(293)	801	(293)
Charge for income tax in statements of earnings	77 900	22 000	77 900	22 000

The Mining (Bougainville Copper Agreement) Act provides the basis for determining the Company's income tax liability. Under this Act, the standard Papua New Guinea tax rate of 36½% applies to taxable income. If taxable income exceeds a certain level, which for 1979 is K94 380 000, then a rate of 70% applies to taxable income above that level. Standard company tax for 1979 at 36½% is K57 499 000 and additional profits tax at 33½% of the excess above K94 380 000 amounts to K20 401 000.

5. Capital

The authorised capital of K135 000 000 consists of 270 000 000 ordinary shares of 50 toea each. The issued capital of the Company is 267 375 000 ordinary shares of 50 toea each, fully paid.
No change in authorised or issued capital occurred during 1979.

6. Exchange fluctuation

(a) The movements in Exchange Fluctuation Account relating to overseas loan obligations were:

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Balance of unrealised gains 1 January	9 003	14 608	9 003	14 608
Increase/(decrease) due to currency movements during year	(471)	6 135	(471)	6 135
	8 532	20 743	8 532	20 743
Gains realised on loan repayments during year	3 145	11 740	3 145	11 740
Balance 31 December	5 387	9 003	5 387	9 003

(b) The net exchange gains credited to earnings consist of:

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Gains realised on loan repayments	3 145	11 740	3 145	11 740
Gains/(losses) on conversion of overseas cash balances to Papua New Guinea kina	400	(1 445)	400	(1 445)
Total exchange gains	3 545	10 295	3 545	10 295

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000

7. Long term loans

(a) Total long term loans, which are all secured, are repayable as follows:

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
within one year	10 094	20 309	10 094	20 309
later than one year	33 354	40 510	33 354	40 510
Total outstanding obligations	43 448	60 819	43 448	60 819

All loans are secured by a charge over 194 507 801 shares in the Company owned by Conzinc Riotinto of Australia Limited, The Independent State of Papua New Guinea and The Investment Corporation of Papua New Guinea. The charge was established under a Credit Agreement dated 28 July, 1969, but can only become enforceable after default in respect of the Japanese equipment loan. The charge is not directly enforceable by other lenders.

(b) The following are the individual loans which make up the total outstanding loan obligations:

	Interest Rate 1979	Repayable	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Bank loans						
International Westminster Bank (US dollars)	10.72%	1980-1981	2 077	3 441	2 077	3 441
Bank of America Syndicate (US dollars) (Note (c) (1))	9.19%	1980-1981	—	9 773	—	9 773
Bank of America (US dollars)	12.83%	1980-1983	5 261	6 882	5 261	6 882
Papua New Guinea Banking Corporation (kina)	9.25%	1980-1985	10 000	10 000	10 000	10 000
			17 338	30 096	17 338	30 096
Other loans						
Japanese cash loan (US dollars) (Note (c) (2))	8.22%	—	—	3 097	—	3 097
Japanese equipment loan (US dollars)	6.85%	1980-1982	4 244	5 626	4 244	5 626
Australian equipment loans (Aust. dollars)	7.50%	1980-1982	3 326	5 620	3 326	5 620
E.F.I.C. Crusher loan (Aust. dollars) (Note (c) (3))	8.75%	1980-1984	2 897	—	2 897	—
Bearer Notes due 1984 (US dollars)	8.75%	1980-1984	15 643	16 380	—	—
Loan from Subsidiary (US dollars)	8.75%	1980-1984	—	—	15 643	16 380
			26 110	30 723	26 110	30 723
Total outstanding obligations			43 448	60 819	43 448	60 819

(c) Additional details applicable to individual loans follow:

(1) In accordance with the notice given in December, 1978 the Bank of America Syndicate loan was prepaid in January and February 1979.

(2) The Japanese cash loan was repaid in full on 14 November, 1979.

(3) On 21 December, 1979 the E.F.I.C. Crusher loan was drawn down. The credit facility was negotiated to finance the purchase of fourteen Symons cone crushers from an Australian supplier.

8. Creditors

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Amounts due to creditors comprise:				
Related corporations:				
Subsidiary company	—	—	924	962
Other	718	55	718	55
Trade creditors	8 431	10 386	8 431	10 386
Other current liabilities:				
Secured	1 216	1 578	290	614
Unsecured	12 629	16 025	12 629	16 025
Total	22 994	28 044	22 992	28 042

9. Property, plant and equipment

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000
Leasehold land & buildings (at cost)	231 405	221 471	231 405	221 471
Less depreciation	73 000	62 016	73 000	62 016
	158 405	159 455	158 405	159 455
Plant, machinery & equipment (at cost)	241 105	232 268	241 105	232 268
Less depreciation	119 697	100 588	119 697	100 588
	121 408	131 680	121 408	131 680
Mine property (at cost)	62 122	62 122	62 122	62 122
Less amortisation	24 059	20 953	24 059	20 953
	38 063	41 169	38 063	41 169
Capitalised borrowing expenses	5 827	5 817	5 827	5 817
Less amortisation	5 245	5 020	5 245	5 020
	582	797	582	797
Capital work in progress	7 001	7 043	7 001	7 043
Total	325 459	340 144	325 459	340 144

	Consolidated 1979 K'000	Consolidated 1978 K'000	Bougainville Copper Limited 1979 K'000	Bougainville Copper Limited 1978 K'000

10. Investments

Investments are valued at cost.

	1979	1978	1979	1978
Unquoted shares in related corporations:				
Subsidiary company	—	—	9	9
Other	38	38	38	38
	38	38	47	47
Unquoted shares in other companies	45	45	45	45
Total	83	83	92	92

11. Other debtors

	1979	1978	1979	1978
Amounts due from other debtors comprise:				
Related corporations	323	661	323	661
Other debtors and payments in advance	2 962	3 563	2 962	3 563
Provision for doubtful debts	(50)	(50)	(50)	(50)
Total	3 235	4 174	3 235	4 174

12. Stocks and stores

	1979	1978	1979	1978
Unshipped concentrate	5 873	4 610	5 873	4 610
Other stocks and stores	38 684	30 780	38 684	30 780
Total	44 557	35 390	44 557	35 390

13. Bad and doubtful debts

	1979	1978	1979	1978
Amounts provided during the year for doubtful debts	25	13	25	13

Bad debts of K24 533 were written off against the provision for doubtful debts.

14. Directors' emoluments

The total of the emoluments received, or due and receivable (whether from the Company or from related corporations) by:

	1979 Company K'000	1979 Related Corporations K'000	1978 Company K'000	1978 Related Corporations K'000
(a) directors of the Company engaged in the full-time employment of the Company or its related corporations (including all bonuses and commissions received or receivable by them as employees but not including the amount received or receivable by them by way of fixed salary as employees), was	—	—	—	—
(b) other directors of the Company, was	3	7	4	—

No commissions for subscribing for, or agreeing to procure subscriptions for any shares in or debentures of the Company or any related corporation, were received or are due and receivable by any director.

15. Commitments for capital expenditure

The commitments for capital expenditure not reflected in the financial statements total approximately K9 995 000 (1978, K9 774 000).

16. Contingent liabilities

Bougainville Copper Limited has guaranteed the Bearer Notes issued by its subsidiary (K15 643 000). There are no other contingent liabilities which are material in nature or amount.

17. Ultimate holding company

The ultimate holding Company is The Rio Tinto-Zinc Corporation Limited (incorporated in England).

18. Comparative figures for 1978

These figures have been adjusted where necessary to conform with changes in classification made in 1979.

Declarations

Statement by Directors

In the opinion of the Directors of Bougainville Copper Limited the accompanying statements of earnings are drawn up so as to give a true and fair view of the results of the business of the Company and its subsidiary for the period covered by the statements and the accompanying balance sheets are drawn up so as to exhibit a true and fair view of the state of affairs of the Company and its subsidiary at the end of that period.

Signed at Panguna this 7th day of February, 1980.
On behalf of the Board
D. C. VERNON, P. W. QUODLING
Directors

Declaration by Secretary

I, Jillian Margaret Ferguson, Secretary of Bougainville Copper Limited, do solemnly and sincerely declare that the accompanying balance sheets and statements of earnings of the Company and its subsidiary are, to the best of my knowledge and belief, correct. And I make this solemn declaration by virtue of the Oaths, Affirmations and Statutory Declarations Act 1962, as amended to date, conscientiously believing the statements contained herein to be true in every particular.

Declared at Panguna this 7th day of February, 1980.
J. M. FERGUSON
Secretary
Before me:
L. G. SMITH
Commissioner for Oaths

Report of the Auditors to the Members

We report on the accompanying balance sheets and statements of earnings of the Company and its subsidiary set out on pages 20 to 25 which have been prepared under the historical cost convention described in note 1.

In our opinion the balance sheets and statements of earnings are properly drawn up in accordance with the provisions of the Companies Act 1963, as amended, and so as to give a true and fair view of the state of affairs of the Company and its subsidiary as at 31st December, 1979, and the results for the year ended on that date.

In our opinion the accounting and other records, including registers, examined by us have been properly kept in accordance with the provisions of the Act.
COOPERS & LYBRAND
Arawa. 8th February, 1980

Shareholdings

Distribution of shares

As at 31st December, 1979:
The issued shares of the Company were 267 375 000 fully paid 50 toea shares, each carrying one voting right;
The number of shareholders was 38 750;
The distribution of holdings of the issued shares was:

1 - 1 000 shares	31 898
1 001 - 5 000 shares	5 785
5 001 - 10 000 shares	594
10 001 shares and over	473
Total shareholders	38 750

83.7% of the total issued shares were held by the 20 largest shareholders;
The substantial shareholders were:
Conzinc Riotinto of Australia Limited and its wholly-owned subsidiary C.R.A. Base Metals Pty. Limited — 143 258 644 shares (53.6%). The Rio Tinto-Zinc Corporation Limited has an interest in the same shares through its wholly-owned subsidiaries, (R.T.Z. Australian Holdings Limited and C.R.A. Holdings Pty. Limited), interests in Conzinc Riotinto of Australia Limited and C.R.A. Base Metals Pty. Limited, and
The Independent State of Papua New Guinea, and The Investment Corporation of Papua New Guinea — 53 982 125 shares (20.2%).

Ten largest shareholders

The ten largest shareholders at 31st December, 1979, and the number of shares held by each were:

Name & Registered Address:	Shares
Conzinc Riotinto of Australia Limited, Melbourne. Vic.	140 525 676
The Independent State of Papua New Guinea	50 948 113
ANZ Nominees Limited, Melbourne. Vic.	5 323 370
The National Mutual Life Association of Australasia Limited, Melbourne. Vic.	5 184 456
National Nominees Limited, Melbourne. Vic.	3 237 720
Bank of New South Wales Nominees Pty. Ltd., Sydney. N.S.W.	3 213 690
The Investment Corporation of Papua New Guinea, Port Moresby, P.N.G.	3 034 012
C.R.A. Base Metals Pty. Ltd., Melbourne. Vic.	2 732 968
Panguna Development Foundation Limited, Panguna, P.N.G.	2 400 000
The Colonial Mutual Life Assurance Society Limited, Melbourne. Vic.	2 000 991
	218 600 996

Directors' interests

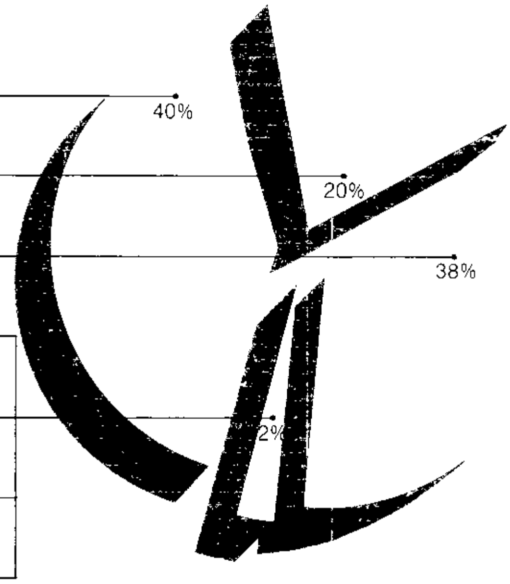
Directors' interests in the share capital of the Company and its related companies as at the 21st January, 1980 were:

D. C. Vernon	No interests
N. R. Agonia	No interests
J. L. Auna	No interests
Sir Roderick Carnegie	6 000 BCL shares 1 000 MKU shares 10 000 CRA shares 1 000 HHL shares
Sir Frank Espie	1 300 MKU shares
R. H. Harding	336 BCL shares 1 000 MKU shares 1 726 CRA shares 1 267 HHL shares
P. W. Quodling	No interests
J. T. Ralph	114 BCL shares 587 CRA shares £750 RTZ Corp. Ltd. convertible loan stock
J. L. Kekedo (Alt. Director)	No interests
M. P. G. Togolo (Alt. Director)	240 BCL shares

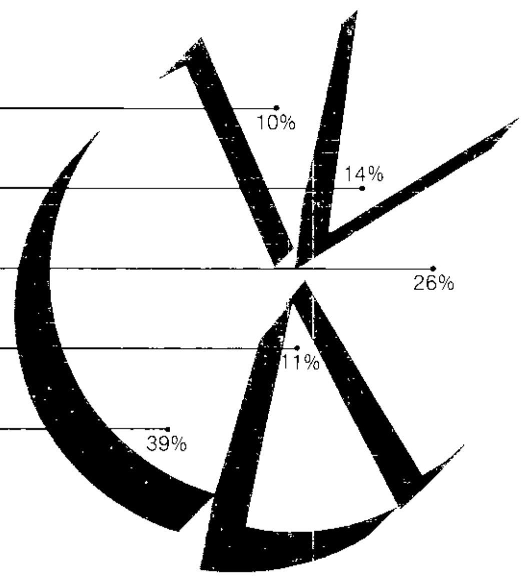
Abbreviations:
BCL — Bougainville Copper Limited
CRA — Conzinc Riotinto of Australia Limited
HHL — Hamersley Holdings Limited
MKU — Mary Kathleen Uranium Limited
RTZ — The Rio Tinto-Zinc Corporation Limited

Source & application of funds

Source of funds	1979 K mill.	1978 K mill.
Net earnings	83.9	48.0
Depreciation	40.7	40.4
Provision for income tax	77.9	22.0
Decrease in working capital	–	14.2
Other	4.7	2.3
Total from operations	207.2	126.9
Loans (long term)	3.2	15.8
Exchange gains on financing	(3.5)	(10.3)
	206.9	132.4



Application of funds	1979 K mill.	1978 K mill.
Loan repayments (long term)	21.0	64.6
Capital expenditure	29.4	30.3
Dividends paid	53.5	24.1
Income tax paid	23.1	13.4
Increase in working capital	79.9	–
	206.9	132.4



Statistical Summary

Financial

	1979	1978	1977	1976	1975	1974	1973	1972*
Earnings (K million)								
Net sales revenue and other income	**343.1**	225.1	205.3	208.9	193.1	292.6	252.4	95.9
Operating and other expenses	**144.1**	125.0	126.8	117.5	107.2	90.0	81.8	53.3
Depreciation	**40.7**	40.4	36.2	31.1	29.6	28.5	24.8	14.5
Earnings before taxation and exchange gains	**158.3**	59.7	42.3	60.3	56.3	174.1	145.8	28.1
Exchange gains	**3.5**	10.3	(0.1)	1.3	2.3	7.0	12.9	(0.4)
Earnings before taxation	**161.8**	70.0	42.2	61.6	58.6	181.1	158.7	27.7
Taxation	**77.9**	22.0	13.7	20.3	12.4	66.5	0.3	—
Net earnings	**83.9**	48.0	28.5	41.3	46.2	114.6	158.4	27.7
Dividends	**80.2**	40.1	21.4	26.7	26.7	73.5	81.4	11.0
Earnings retained	**3.7**	7.9	7.1	14.6	19.5	41.1	77.0	16.7
Balance sheet (K million)								
Property, plant and equipment	**325.4**	340.1	352.2	350.4	346.0	352.2	371.7	378.7
Investments	**0.1**	0.1	0.1	0.1	0.1	0.1	0.1	—
Current assets	**201.0**	125.8	137.1	136.0	129.5	205.6	130.4	73.9
Total assets	**526.5**	466.0	489.4	486.5	475.6	557.9	502.2	452.6
Shareholders' funds	**294.5**	317.5	309.7	302.5	287.9	268.4	227.4	146.7
Exchange fluctuation	**5.4**	9.0	14.6	9.0	11.5	19.1	39.5	24.2
Long term liabilities	**36.2**	42.1	53.3	101.7	106.8	121.1	127.5	204.0
Current liabilities	**190.4**	97.4	111.8	73.3	69.4	149.3	107.8	77.7
Funds employed	**526.5**	466.0	489.4	486.5	475.6	557.9	502.2	452.6

Production/Sales

	1979	1978	1977	1976	1975	1974	1973	1972*
Mined								
Ore and waste removed (millions of tonnes)	**75.97**	79.05	70.79	58.54	56.40	56.00	56.65	46.75
Ore milled (millions of tonnes)	**36.17**	38.12	34.11	31.21	31.08	30.14	29.14	21.89
Ore grade								
Copper (per cent)	**0.55**	0.60	0.61	0.64	0.64	0.70	0.73	0.76
Gold (grams/tonne)	**0.75**	0.82	0.90	0.87	0.80	1.02	1.03	0.77
Silver (grams/tonne)	**1.70**	1.80	1.86	1.96	1.87	2.12	1.99	2.06
Produced								
Concentrate (thousands of dry tonnes)	**584.7**	658.6	615.6	596.8	595.5	640.8	650.2	438.1
Contained copper (thousands of tonnes)	**170.8**	198.6	182.3	176.5	172.5	184.1	182.9	124.0
Concentrate grade								
Copper (per cent)	**29.2**	30.2	29.6	29.6	28.9	28.7	28.1	28.3
Gold (grams/tonne)	**33.7**	35.5	36.3	33.9	30.5	32.0	31.6	27.3
Silver (grams/tonne)	**76.3**	79.8	77.1	76.1	71.0	72.0	69.0	69.3
Shipped								
Total concentrate (thousands of dry tonnes)	**586.5**	640.9	614.8	605.8	586.9	665.7	625.2	434.4
Shipped to:								
W. Germany	**187.6**	206.8	198.3	223.2	243.5	221.4	200.3	186.8
Japan	**328.2**	326.7	337.1	256.4	250.7	343.2	342.9	209.0
Spain	**49.0**	62.1	47.0	58.2	72.2	57.4	35.8	27.6
Other	**21.7**	45.3	32.4	68.0	20.6	43.8	46.2	11.0
Values								
Gross value of payable metal (K mill.) (before treatment and refining charges, freight, etc.)	**414.6**	311.8	270.5	259.8	219.4	307.4	270.8	118.8
Contribution by:								
Copper	**247.5**	198.8	180.0	192.9	151.6	225.5	224.9	98.2
Gold	**155.9**	107.2	85.8	62.8	64.3	77.9	43.9	19.5
Silver	**11.2**	5.8	4.7	4.0	3.5	4.0	2.0	1.1

Other

	1979	1978	1977	1976	1975	1974	1973	1972*
Average metal prices								
L.M.E. copper (USc/lb)	**89.8**	61.9	59.3	63.6	55.9	93.3	80.9	48.6
London gold market (US$/oz.)	**304.7**	193.5	147.8	124.8	160.9	158.7	97.3	58.2
London silver market (US$/oz.)	**11.0**	5.4	4.6	4.4	4.4	4.7	2.5	1.7
Return on shareholders' funds (%)	**28.5**	15.1	9.2	13.7	16.0	42.7	69.7	18.9
Earnings per share (toea)	**31.4**	18.0	10.7	15.4	17.3	42.9	59.2	10.7
Dividends in toea per fully paid share (par value, 50 toea)	**30.0**	15.0	8.0	10.0	10.0	27.5	30.0	4.2
Bonus dividend in toea per fully paid share	**10.0**	—	—	—	—	—	—	—
Number of shares issued at end of year (thousands)	**267 375**	267 375	267 375	267 375	267 375	267 375	267 375	260 000**
Number of shareholders at end of year	**38 750**	40 935	43 820	50 082	54 129	55 558	45 353	46 726
Debt: equity ratio	**0.15/1**	0.19/1	0.37/1	0.40/1	0.44/1	0.52/1	0.72/1	1.62/1
Work force at end of year (P.N.G.)								
Overseas	**851**	855	853	858	942	980	929	971
National	**3 314**	3 243	3 063	2 989	3 094	3 242	2 915	2 594

Notes:
*Full year figures; but commercial production commenced 1st April, 1972.
**1972 figure is for Bougainville Mining Limited.