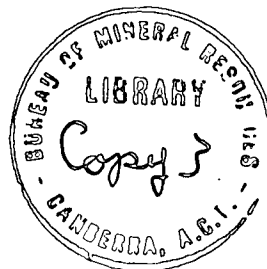


BUREAU OF MINERAL RESOURCES.

MINERAL ECONOMICS SECTION.

1948/87



# REPORT ON TAXATION IN THE MINING INDUSTRY

by

*J. A. DUNN, (Mineral Economist)*

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*Summary.*

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REPORT NO. 1948/87  
[MIN. EC. SER. 1948/2]

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REPORT NO. 1948/87

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SUMMARY  
of the Report on  
TAXATION IN THE MINING INDUSTRY.

The Report arises from an application by Tableland Tin Dredging, N.L. that tin mining be exempt, like gold mining, from taxation.

A detailed investigation was made of the tin-mining industry, the results of which are attached to the Report: Appendix I outlines the economic position of the Australian tin industry, and Appendix II summarises the positions of the individual mines.

The proposal that the tin-mining industry should be exempt from taxation cannot be supported - it was found inadvisable to make a special case for the tin industry; similar economic arguments may have cogent application in other mineral industries.

The Income Tax Act has been considerably improved in recent years from the mining viewpoint. However, there is a case for some further amendment of the Act and proposals are made in the Report accordingly. The Appendices serve as examples of the effects of taxation in a particular mineral industry.

Two special circumstances of the mining industry, which place it in a category separate from other industries, must always be kept in mind - first, the great financial hazards associated with mining ventures, as witness the large, although unrecorded, sums of money lost in the industry; secondly, the wasting nature of the mineral asset.

The financial hazards of mining are progressively increasing. The days of easily found and easily mined minerals are over. The costs of exploration - and of development - are greater than ever before and are constantly increasing. There is an eagerness now on the part of the investing public to put money into mining; as the expenditure increases whatever can be done to maintain that eagerness should, if possible be done.

There is a fixed but largely unknown amount of the various commercial minerals in the country. We cannot grow more minerals as the agriculturist grows more crops, the writer publishes more books, or the manufacturer uses his capital equipment to produce other lines of manufacture. There is just one way by which the country's mineral reserves can be enlarged within limits - by extraction of lower grade reserves, and any action which lowers costs permits a step in this direction.

To the miner, taxation must be regarded as an item of cost, and any reduction means the possible addition of lower grade ore. Accordingly, any decrease of taxation may contribute to the increase of the country's reserves, and thus to the extended life of the mining community, to some increase in employment, and so to an eventual increase in over-all taxation and of taxation on products used in mining or related to mining.

There is another feature peculiar to mining which follows from the wasting nature of the mineral asset being worked. In a mine there is a limited amount of reserves and a definite amount of revenue to be earned under certain economic conditions; its success is not to be judged from the year to year surplus which is made, but from the total profit over the whole life of the mine when the deposit is exhausted. Low grade ore from

one part of the mine, or low prices, may give rise to losses over some years, high grade ore from another part, and high prices, to great profits in other years. The division of accounting - and of taxation - on an annual basis in the case of a mineral deposit is entirely artificial, although necessitated by accepted business procedure.

Because of these features of the mining industry which separate it from other industries, the principles and policy of taxation in the mining industry should not be judged by standards conventional in other industries. This difference is the underlying reason for the Report.

Throughout the Report a clear distinction is made between allowances which are matters of principle, and concessions which are matters of policy.

In Part II comments are made on the various Sections of the Income Tax Act which apply more specifically to the mining industry. With the exception of Sections 23(c), (m), (o) and (p), the Sections specific to mining are concerned with some particular capital aspect, and largely recognise that a mineral deposit is a wasting asset. A purpose of the Report is to discuss to what extent ultimate recovery of capital is possible in mining, and to what extent this objective is affected by taxation.

It is pointed out that Section 23(o) - exemption of gold mining from taxation - is equivalent to a special case under 23A with a depletion allowance of 100%.

Section 23A provides temporarily for a depletion allowance of 20% in the case of certain specified minerals, and this temporarily recognises depletion allowance as a capital allowance but as a matter of policy. The allowance does however, conform to recognised principles. The graph facing page 12, Part II, illustrates how the allowance should ideally vary according to the life of the mine and the risk rate of interest apposite to the mine. The allowance should be accepted as a matter of principle and incorporated as a permanent feature of the Act. On the basis of principle it should apply to all minerals, although not necessarily at the same rate. As a matter of policy, also, there are grounds for applying the allowance to all minerals - world supplies of minerals which may be abundant in Australia are becoming difficult; development of any mineral should be encouraged - the hazards of exploration for all minerals are more or less equally great.

A suggestion has been made that dividends paid out of amortisation allowance should be granted a similar exemption under Section 44 to income exempt by reason of Section 23A. The proposal cannot be supported.

As the principles underlying mining leases are so entirely different from those underlying other forms of leases, mining leases should be specifically excluded from Section 84.

Sections 122 and 123 meet fully the amortisation requirements for plant and development of a successful mine. Under certain adverse conditions, such as prolonged low income periods, or sudden termination of the life of the mine, it may not be possible to take full advantage of amortisation allowance. Taxation may add to the financial hazards in such cases. Although this is recognised in the case of petroleum, Section 123A, it is not recognised for other minerals. Also, in mining, certain buildings on which allowance is not now granted, such as miners' residences, may have no re-sale value if the mine went into liquidation; an allowance should be permitted in certain cases.



Under Section 160AA, as at present, calls on shares are allowed a rebate equal to one-third of the rate of tax appropriate to the income of the taxpayer. Formerly deduction of 100% of the calls was permitted. There is no underlying principle in support of this concession, and however desirable it may be in encouraging development, it cannot be considered from any other angle than that of policy.

In line with the above comments, general proposals are made in Part III. The two major proposals concern depletion allowance, and full amortisation of capital expenditure of a non-realisable nature before any taxation is incurred.

It is suggested that depletion allowance be at the following rates -

(a) 100 percent for gold as at present.

(b) 40 percent for specified minerals which normally occur in deposits of short life. It happens that the specified minerals are also those which do not in general provide a large revenue either to the miner as surplus, or to Government in taxation.

(c) 20 percent for all other minerals.

Under Sections 122, 123 and 123AA, it is proposed that the hazard of taxation should not be added to other hazards of mining until that part of capital expended in non-realisable assets has been covered by annual surpluses. Under this proposal, capital expenditure would be divided into two parts - (a) expenditure on items which, if the mine went into liquidation, would be realisable approximately at their book value, and (b) expenditure on items which would have no realisable value if the mine went into liquidation. The effect of the proposal on Government taxation revenue would be slight, but it would eliminate the taxation hazard to the miner until the mine reaches the successful stage. When the total of annual surpluses have exceeded the non-realisable assets, the mine becomes liable for taxation, but as the amortisation allowance from then on is confined to that for the realisable assets the rate of taxation becomes correspondingly higher and finally compensates the early years of no taxation.

In Part IV, it is suggested that the opportunity be taken to clarify and perhaps simplify the various special provisions granted to mining by grouping them as far as possible under Division 10 of the Act.

#### Appendix I - The Australian Tin Mining Industry.

The report refers to the tin-mining industry only. No large secondary industry based on tin has yet been established in Australia.

As shown by the graph accompanying Appendix I, Australian output of tin has fallen steadily in recent years, and the position would have been worse had it not been for the rise in output of a single producer, Tableland Tin Dredging N.L.

Australian smelter capacity is about 6,000 tons per annum, but actual output will fall to below 1,900 tons of metal in 1948. Output is shared by two Sydney firms, Messrs. O.T. Lompriere & Co., and T.H. Kelly; neither is working at present at even half capacity, with consequential loss of economic efficiency. Smelter costs are a factor governing the fixed sale price of tin.

The price of tin has varied widely in the past, because of inelasticity between supply and demand. The price of tin abroad has been controlled since 1941, and is now at an unprecedented level, see graph.

The price of tin in Australia has been controlled since 1940. The present Australian price is £A620, £A91 less than the United Kingdom price.

In Australia, tin concentrates are now purchased at the fixed price of 111/- a unit, or £388.10 for 70 percent concentrates - probably the lowest price of concentrates in any country. Smelter charges are fixed at an extremely high figure, £46.10. per ton of tin as compared with £11.17.6. in the United Kingdom. If it were possible to export concentrates for treatment in the United Kingdom and re-import the extracted metal, this would probably be more economical than the present smelting in Australia.

In Australia, consumption of ingot tin will be about 2,500 tons in 1948, distributed amongst a wide field of petty consumers. By 1953, with establishment of the tin plate works by Australian Iron & Steel Co. Ltd. at Port Kembla, consumption of ingot tin will be about 5,500 tons, requiring imports, on present day production of over 3,500 tons, or £stg. 2 million on present prices.

In Australia, tin concentrates are produced mainly in Northern Queensland, Tasmania, and Northern New South Wales. Indications are that there is scope for expanded production on the Atherton Tableland, Queensland, and possibly in Tasmania.

Tableland Tin Dredging N.L., on the Atherton Tableland, Queensland, produces about 25 percent of Australia's total, and Aberfoyl Tin N.L., North-eastern Tasmania about 16 percent. The remaining production is from several medium and innumerable small producers.

Reduction of output is attributed (a) to actual or approaching exhaustion of old fields, (b) scarcity of labour, (c) lack of exploration and development during the war, and (d) economic factors including prices, costs, taxation etc.

World price of tin will, as before the war, be partly governed again by costs in Malaya. These are at least double pre-war cost. The future price of tin is certain to remain well above the pre-war prices.

Overall domestic costs in future will be greater, and the present price-cost spread in Australia is the most favourable likely to be experienced.

World demand for tin in the near future will be 150,000-200,000 tons annually. The danger of over-production is apparent already, and will be present for the next 10-20 years. Thirty years hence reserves of alluvial tin will approach exhaustion, and underground methods, with higher costs, will be more important.

It would be unwise for Australia to hold its reserves for critical periods. It takes several years to get mines up to maximum production - the best preparation for national emergencies is to have production developed to the maximum for peace time purposes. Also, production itself provides the stimulus to seek for and expand reserves. Stimulation of production, not reservation of reserves, is at the present stage of the Australian tin industry, the best means of ensuring that the maximum use is made of our resources.

During the next 8 years we may expect a steady production of about 1,100 tons from two producers - Tableland Tin and Aberfoyle. No other large producers are at present in sight. Three medium-scale producers, Endurance Tin, Dorset Dredge and Renison Associated Tin Mines will provide a further 230-250 tons annually. Hence, 1350 tons may be regarded as the steady base production of the Australian tin industry from these 5 mines - 1500-1700 tons short of Australian requirements until 1953, and about 4000 tons from then on. To bridge the gap we are dependent on the fluctuating output of innumerable small producers (700 tons in 1947) and on imports. No great increase can be expected from the small producers. Increased output is a long term matter and will depend on opening up new reserves on a scale comparable to Tableland Tin and Aberfoyle. Scope for development is on the Atherton Tableland and in Tasmania.

The incentives to expansion are summarised. The Australian price should be on a par with the world price. Control of export should be removed, thus forcing local smelters to increase efficiency and reduce smelting cost, with resulting maximum prices to the producer for concentrates. The taxation hazard should be minimised.

During the past 12 years, taxation paid by tin-mining operators has averaged perhaps £25,000-£30,000 per annum. Of the Taxation amendments suggested, only that concerned with depletion would noticeably effect taxation revenue - tax on company revenue and on shareholders income might possibly be reduced £10,000 - £12,000. This reduction is very minor as compared with the incentive to development of the country's reserves.

The relatively small increase in short term production which any taxation concession, specially designed for small producers in the tin industry, would yield does not justify the application of such special concession to them. The increase of depletion allowance suggested in the Report will be an incentive to the small producer.

The effect of taxation on the larger producers is ultimately the more important.

The reduction of the early hazards by permitting the writing off of non-realizable assets before subjecting annual profits to taxation will encourage the investment of money in new ventures.

An increased depletion allowance for tin, besides making mining investment more attractive to the new investor, makes development and expansion of output more attractive to the establishment companies.

The question is not whether any change in the Income Tax Act is advisable in view of the plenitude of investing capital, but whether or not taxation is equitable in order that mining investment shall be sounder.

In the tin industry, further development is likely to take place during the next few years if the incentives are there.

In the successful established mines the concern is only with the rate of tax and allowances. On the present capital invested the returns at the moment are adequate for them. Some mines could undoubtedly expand output after further capital expenditure - but at the present rate of taxation the return on the greatly increased capital expenditure will not be so attractive.

Depletion allowance is a means of encouraging production, and it rewards efficiency and increased output equitably and on sound principles. A depletion allowance, is a n equivalent to a reduction of costs, thus permitting lower grade ore to be worked and prolonging the life of the mine.

Appendix II - The Principal Australian Tin Mines.

Gives details of the financial position of various Australian tin mines, with tabulated data, including taxation p ayments.

(J. A. DUNN.)  
Mineral Economist.  
17/12/1948.

BUREAU OF MINERAL RESOURCES.MINERAL ECONOMICS SECTION.REPORT

on

TAXATION IN THE MINING INDUSTRY.

by

J. A. DUNN.C O N T E N T S.

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# TAXATION IN THE MINING INDUSTRY.

## PART I.

### INTRODUCTION.

This report arises from an application dated 19th. March, 1947, submitted to the Treasury by Tableland Tin Company with apparently the support of other tin-mining companies. The application makes the proposal, in its penultimate paragraph, that the tin mining industry be placed on the same taxation footing as gold mining, by the exemption of profits and dividends from taxation.

The application was referred to the Bureau of Mineral Resources earlier this year. The various tin mining areas were visited in the Eastern States, in order to obtain a picture of the present and future position of the tin industry and the effect of taxation. The results of the investigation into the tin industry are given in Appendices I and II - Appendix I deals with the general economics of the tin industry, Appendix II summarises the economic position of each of the principal tin mines.

Since the application of Tableland Tin Company was first submitted, the amendments to the Income Tax Assessment Act which came into force in 1947 have considerably improved the taxation position of mining companies. To anticipate, it may also be remarked that the proposal by Tableland Tin Company - that tin mining should be placed on the same basis as gold mining - cannot be supported. However, during the investigation the conclusion emerged that, notwithstanding the recent decided improvements in taxation as applied to mining, some further improvements seemed desirable. It was found inadvisable to make a special case for the tin industry, such a special case could not be sustained either on grounds of economic policy or on logical principles. It was decided therefore to put forward proposals for the mining industry as a whole, merely using the data collected from various tin mines as particular examples of the effects of taxation.

Although data concerning these few mines are attached, it is felt that they illustrate only one side of the mining industry - that of the working mines. There is the other side, representing in general the more serious hazard of mining - the large numbers of unsuccessful ventures, prospects or actual mines, in which a considerable amount of money has been invested but, being unsuccessful, have faded out of the picture leaving behind no reliable information of the financial loss which they have meant to the community. A study of the position of the successful or semi-successful mines must be tempered, therefore, with reminders of the large but unknown amounts of money that have been lost during the finding of the successful mines. Against the successes must be debited many failures; this great hazard is one of the two factors which place the mining industry in a category separate from other industries, and form the ultimate basis of any proposals for differential treatment in taxation.

The other factor is the wasting nature of the mineral asset. We have in the country a fixed although largely unknown amount of the various commercial minerals. We cannot grow more minerals as the farmer grows fresh crops each year, the forester grows more trees, the fisherman trawls more fish, the writer publishes more books, or the manufacturer uses his capital equipment in other lines of manufacture. There is just one way by which the country's mineral reserves can be enlarged within

limits - by the extraction of lower-grade reserves, and any action which lowers costs permits a step in this direction.

Broadly, the various Sections of the Income Tax Assessment Act may be regarded in two groups:

- (a) Those which are concerned with the application of accounting and taxation principles, and
- (b) Those which are entirely a matter of policy of Government, (of which Section 23(o) is a perfect example (vide remarks of the Royal Commission Taxation, 1933-34 page 7 of this Report).

An endeavour has been made throughout this Report to differentiate clearly between allowances which are matters of principle and concessions which are matters of policy. For the reason of the factors stated above, the principles and policy of taxation in the mining industry should not be judged by standards conventional in other industries. This difference, long recognised in much of the Income Tax Act, is, indeed, the really fundamental reason underlying such proposals as are made in this Report.

It is not the object of this Report, nor is it the function of the Bureau of Mineral Resources, to assume any authoritative role in transgressing the Taxation Department's field in considering principles and policy; our function is to advise and to give a picture of the effect which taxation has on mining development as we see it. In reading this note, this attitude should be borne in mind; an attitude which is not of carping criticism but is a desire to place before the Taxation Department a picture of the mining industry as seen through the eyes of those closely concerned with it from day to day.

It will be found that two major proposals are made in this Report - one deals with the desirability of recognising the highly hazardous nature of part of the capital expended in mining, and the other deals with depletion as a permanent feature of the Act, at present recognised temporarily under Section 23A. The question of depletion was considered in 1947 by the Special Taxation Committee appointed by the Cabinet Sub-Committee on Secondary Industries, following representations contained in a report of the Mining Industry Advisory Panel. The Special Committee did not support the Panel's recommendation as it

"considered that the allowance of the deduction proposed by the Panel would amount to an unjustifiable departure from a fundamental income tax and accountancy principle, viz. that deductions should be confined to sums representing amounts actually expended by the taxpayer. It would represent a straight-out exemption of profits, the amount of the exemption being dependent upon the amount of the profits; the higher the profits, and the wealthier the concern, the greater the benefit. A mere increase in the price of the metal may have the effect of increasing the benefit".

In view of this recent decision it may be contended that the case should not be re-opened. But the Special Committee have regarded the terms "fundamental accountancy principle" and "Profit" rather differently from their long established acceptance in mining. Further, even though it may not be possible for the Taxation Department to reconcile depletion with conventional "income tax principles" as accepted in Australia (the principle is accepted in other countries), it may alternatively be considered as a matter of "policy" - Section 23(o), which is

equivalent to 100% depletion allowance to the gold industry, is a policy concession of this nature. The various points which are brought forward in the body of the report justify, it is believed, reopening the case.

Basically, it is felt that the position of the mining industry in this country, as distinct from other industries, cannot be over-emphasised. The financial hazards are progressively increasing. The days of easily found and easily mined minerals are over. The costs of exploration - and of development - are greater than ever before, and are constantly increasing. That reason alone provides sufficient grounds to justify reconsideration of taxation principles as applied to the mining industry vis-a-vis older conventional principles. There is an eagerness now, on the part of the investing public, to put money into mining; as the expenditure increases whatever can be done to maintain that eagerness should, if possible, be done. If it is recognised that development of the mineral resources of this country is of greater consequence to the well-being of the country than are the small amounts represented by modifications in the collection of taxes, then it may be easier to decide whether taxation does, in some cases, increase the hazard of mining.

For the successful mine the present Income Tax Act leaves little further to be desired in minimising the financial hazard of mining. For a mine in its early stages, which may or not be a success during its total eventual history, the Income Tax Act does impose a further hazard. This arises because so-called profits are assessed on an annual basis, whereas true profit may not be known until a mine's life is terminated. A wasting asset is being removed from a deposit of varying value, a great surplus may be made over one period, a great loss over another; the sum total when the asset is finally depleted may be a loss, with not even return of capital, although the years of surplus may have provided revenue to the Taxation Department out of surplus which in the long run was only a return of capital. Taxation is not, perhaps, a deciding factor in causing the closing down of a mine, but it can be in some cases a further capital hazard where taxation is imposed on annual surpluses which, in the aggregate, do little more than return the capital invested.

The great hazards associated with the development of the petroleum industry are recognised by Government and, for taxation purposes, Section 123A, with which may be linked 44(2)(d), is all that could be desired in assuring the investor that he will not be taxed until real profits are earned, and that taxation will not therefore add to the capital hazards. The great benefit which a petroleum industry would bring to Australia cannot be gainsayed, but this should not obscure the fact that, in the long run, other minerals are of equal importance. It has been noted from the files of the Bureau that there is a tendency to differentiate between the importance of various minerals. In the over-all picture, there is little logical ground for distinction in degree of importance. Lead-zinc mining is an instance. Such mines are excluded from certain sections of the Taxation Act on the grounds that Australia has adequate supplies. World supplies are, however, becoming increasingly inadequate, and it would, in the long run, be just as vital to the development of this country to find other deposits of these minerals as it would be to find deposits of other minerals. If it is agreed that taxation should be so applied as to encourage mining and not to add to the hazards, then, from the long term viewpoint, taxation allowances should be of general application, and should be discriminatory only in so far as the extent of the allowances may be governed by the degree of the hazards involved.



From the point of view of the last paragraph, an overall brief picture of the position of the tin industry is given in Appendix I. The decline in the industry in recent years is apparent, but the scope for further development is there. Any lightening of the financial hazards at stake is an obvious incentive to the investor. But no matter what the particular position of an industry may be, it should not be necessary to wait until it reaches its nadir of development and output before providing further taxation allowances - that is bad economics and results in waste. The taxation hazards should be at a minimum in order to encourage industry even further during periods of vigorous activity with the knowledge that, in general, if Australian secondary industry does not need additional supplies of raw materials other countries will, and the additional output is contributing to the development of the country, and to overseas exchange.

In judging the various taxation amendments suggested in this Report the ultimate end-point of their effect should always be kept in mind. To the miner, and the investor in mining, taxation must be regarded as an item of cost. Any reduction of cost - by decrease in taxation - permits the possible addition of lower grade ore. Thus a decrease in taxation may contribute to the increase of the country's reserves and thus to the extended life of the mining community, to some increase in employment, and so to an eventual increase in over-all taxation and of taxation on products used in mining or related to mining. Without details of reserves of particular grades in all minerals, and of concomitant present and future cost charges in working lower grade ores, the precise effect of taxation reduction cannot be gauged but only noted in the above general terms.

In the following pages of Part II, comments are made on relevant Sections of the Income Tax Assessment Act, which apply particularly to mining, general proposals are put forward for consideration in Part III, suggested actual revisions of relevant Sections of the Act are made in Part IV.

PART II.

COMMENTS ON THE SECTIONS OF THE INCOME TAX ACT,  
APPERTAINING SPECIFICALLY TO MINING.

GENERAL.

Concessions and allowances to mining, provided under various Sections, may be grouped as follows:-

- (1) Exemption from taxation of remuneration received by non-resident mining directors, executives, technical employees, and consultants whilst on a visit to Australia for a period of up to 2 years, providing the remuneration is not exempt in the country of domicile - Section 23(c)(vii). If exempt in the country of domicile a rebate is granted under Section 160 ABA.
- (2) Exemption from taxation of income derived from mining in the Northern Territory by a resident of that Territory - Section 23(m)
- (3) Exemption from taxation of income derived from gold mining in Australia and New Guinea - Section 23(o). This exemption is carried forward to the shareholder in Section 44(2)(c). Exemption under 23(o) does not include royalty from gold mining - Section 26(f).
- (4) Exemption from taxation of the revenue derived from the disposal of mining rights of certain minerals by a bona fide prospector - Section 23 (p)
- (5) Allowances for certain minerals, as a temporary war measure, in recognition of the fact that a mineral deposit during process of working is a wasting asset - Sections 23A and 44(2)(b)(i). Section 23(d), in which the allowance for gold is 100% of income, though not a war measure may be regarded as a special form of this.
- (6) Provisions for the manner by which capital expenditure on plant and development may be written off - Sections 122 and 123.
- (7) Provisions for the manner by which exploration and prospecting expenditure may be written off - Section 123AA.
- (8) A special concession, applicable only to mining for petroleum, whereby all capital expenditure is written off before income becomes liable for taxation - Section 123A. This is carried forward to the shareholder by Section 44(2)(d).
- (9) Rebate of calls on shares in mining companies to the extent of one-third of the rate of tax - Section 160AA.

These provisions are in recognition of the special circumstances of mining, and the considerable hazard attached to the industry. With the exception of 23(c), (m), (o) and (p) they are connected with some particular capital aspect of mining and largely recognise that a mine is a wasting asset.

Sections 44 and 160AA, concern the shareholder rather than the mining company - the former Section carries forward the company taxation exemptions to the shareholder, and the latter Section grants the investor a partial rebate of taxation on the amount of his investment.

Apart from the special case of petroleum, Section 123A, the remaining Sections are concerned with amortisation and with the capital aspect of the mine itself, which broadly may be divided as follows:-

- a. The cost of exploration and prospecting - dealt with under Section 123AA.
- b. Such expenditure of a capital nature as is incurred on development - dealt with under Section 122 and 123.
- c. Expenditure on general equipment, plant, buildings etc. - dealt with under Sections 122, 123 and 55(1).
- d. The value of the mineral asset, which depends on a set of economic hazards which may vary widely from time to time - dealt with indirectly under 23A, and under 23(o) for gold which may, from this point of view, be regarded as a special case of 23A.

A purpose of this Report is to discuss to what extent ultimate recovery of capital is possible in mining, and to what extent this objective is affected by taxation.

No comment is offered on Sections 23(c)(vii), 23(m), 44(2)(c), and 160 ABA. These are policy concessions of obvious benefit to contemporary mining conditions in Australia. The other Sections are discussed in sequence.

#### SECTION 23 (o)

The following shall be exempt from income tax -

- (o) the income derived by a person from the working of a mining property in Australia or in the Territory of New Guinea principally for the purpose of obtaining gold, or gold and copper, provided that in this case the value of the output of gold is not less than forty per centum of the total value of the output of the mine".

The Commissioner of Taxation has kindly summarised the events which led up to the granting of this concession to the gold industry in 1925. The exemption, it appears, followed a proposal, in the first instance, by a deputation which waited upon the Prime Minister on the 18th. May, 1923. The members of that deputation consisted of representatives of the Western Australian Chamber of Mines, the Victorian Chamber of Mines, the Gold Producers Association, and Queensland and New South Wales interests. Representatives from other bodies followed, and at a subsequent conference of Commonwealth and State Government officials and representatives of the Gold Producers Association, the formulation of a practical scheme for revival of the gold mining industry was discussed - it was the recommendation of this Conference which finally led to the exemption of the gold mining industry from taxation.

The first announcement of this decision was contained in the then Treasurer's Budget Speech for 1924-25:-

"In view of the special circumstances of the gold mining industry, the Government has decided to exempt from income tax the profit derived from gold mining until the whole of the working capital invested has been returned to the owners".

In introducing the legislation the Treasurer in his second reading speech remarked:

"A further object of the Bill is to give effect to the proposals of the Government to exempt from income taxation the profits derived from Gold mining operations in Australia".

The Treasurer expanded this statement during the Committee stages of the Bill.

"The object of the exemption provided under this clause is to encourage, as much as possible, the investment of money in mining undertakings, and primarily for gold mining. The proposal of the Government is considered preferable to that suggested by the mining industry, which would have thrown considerable work on the Taxation Department beyond what was warranted. It is proposed that the profits of the next financial year be exempt."

(Note - The proposal referred to was that the exemption should be limited to profits which were used to return invested capital only.)

The exemption was granted as from 1st. July, 1925, by Act No. 51 of 1924, which added the following new provision to Section 14 of the Income Tax Assessment Act.

"14. The following incomes, revenues and funds shall be exempt from income tax -

(1a) The income derived by a person from the working of a mining property in Australia principally for the purpose of obtaining gold, or gold and copper, provided that in this case the output of gold shall not be less than forty per centum of the total value of the output of the mine - this exemption shall extend to dividends paid by a Company out of such income".

When the Income Tax Assessment Act was re-drafted in 1936, the exemption of income from gold mining was expressed in Section 23(o) and of dividends in Section 44(2)(c).

The Commissioner of Taxation advises that, at the time when gold mining profits were first exempted from taxation it was intended that the provision should be for a limited period of five years. In the Second Report of the Royal Commission on Taxation 1933-34, the Commissioners stated that:

"the concessions to be allowed in respect of income derived from a gold mining property appear to be a matter of policy to be decided by each Government, and we do not desire to submit any recommendations on the subject".

From 1931, the Australia price of gold rose considerably and production began to rise with increasing returns to the Companies. In 1935, the Commissioner of Taxation recommended to the Treasurer that the question of withdrawing the exemption should be considered. However, amendment of the Act was regarded as inadvisable. The same conclusion was reached on further consideration of the case by the Treasurer in 1938. In August, 1942, amongst proposals for fixing gold mining profits Cabinet considered withdrawing the exemption from income tax, but, in view of the small amount of revenue involved, and the difficulties of the industry during the war, no change was made.

It appears that the differential treatment of gold from other forms of mining, arose from three main factors -

- (a) gold is the basis of the world's currency.
- (b) the price of the metal is fixed and is not subject to normal market valuation.
- (c) the economy of certain parts of Australia, particularly Western Australia, is fundamentally dependent on gold mining

It is because of the persistence of these reasons, presumably, that the gold industry continues to be free from income tax. Although, of the above reasons (c) may be applicable to other metals, no other mining industry is in an exactly similar position to gold. Hence the application of Tableland Tin Company that the tin industry should be placed on precisely the same basis as gold cannot be supported. However, as is pointed out later, the total exemption of gold is equivalent to a special case under 23A with a depletion allowance equivalent to 100%. It is proposed later in this report that a depletion allowance in the case of tin and other minerals should be increased.

#### SECTION 23 (p)

23. - The following income shall be exempt from income tax -

- (p) income derived by a bona fide prospector from the sale, transfer or assignment by him of his rights to mine, in a particular area in Australia or in the Territory of New Guinea, for gold or for any metal or mineral which is specified in the regulations as a metal or mineral in respect of which this paragraph shall apply:

Provided that, where a deduction under section one hundred and twenty-three AA of this Act has been allowed or is allowable from the assessable income of the taxpayer of any year of income in respect of expenditure on exploration or prospecting in that area, this paragraph shall apply to so much only of the income as exceeds the sum of any deductions so allowed or allowable:

Provided further that this paragraph shall not apply in respect of a sale, transfer or assignment of any right to mine for a metal or mineral, other than gold, if -

- (i) any party or parties of the one part to the sale, transfer or assignment has or have the power (whether under the terms of the transaction or otherwise) to control, directly or indirectly, the entry into the transaction by, or the activities in connection with the mining rights of, a party of the other part; or
- (ii) any person or persons has or have the power (whether under the terms of the transaction or otherwise) to control, directly or indirectly, the entry into the transaction by, or the activities in connection with the mining rights of, a party of the one part and a party of the other part to the sale, transfer or assignment.

For the purpose of this paragraph "bona fide prospector" means a person, other than a company, who has personally carried out the whole or the major part

of the field work of prospecting for gold, or for the metal or mineral as the case may be, in the particular area; or who has contributed to the expenditure incurred in the work of prospecting and development in that area, and includes a company which has itself carried out the whole or the major part of such work".

The above exemption was extended from gold to certain specified minerals by an amendment to the Income Tax Assessment Act, Act No. 11 of 1947. It has been wisely introduced to encourage prospecting for certain minerals, more specifically those which are in short supply or are in urgent demand at the moment. From what has been said in the Introduction, however, it would appear that if this concession were extended to all minerals, as it might both logically and as a matter of policy, it cannot but provide a useful stimulus to prospecting. The extension of this Section to all minerals is not, at present, regarded as of vital importance, however, as it is possible to add to the list of specified minerals from time to time without difficulty.

#### SECTION 23A.

23A. (1). Where a person carries on mining operations in Australia (other than coal mining) for the purpose of, or for purposes which include the production of any base metal or rare mineral which is specified in the regulations as required for use in, or in connection with, the prosecution of the present war, an amount equal to twenty per centum of the amount remaining after deducting from so much of the assessable income of that person as is attributable to the production or is derived from the sale of the base metal or rare mineral so specified produced by those operations -

(a) all allowable deductions which relate to that income; and

(b) any other allowable deductions, or part thereof, which in the opinion of the Commissioner, may appropriately be related to that income,

shall be exempt from income tax.

This Section first came into force in 1942 and was followed by amendments in 1943. The exemption, it will be noticed, applies only to certain minerals, specified under 4A of the Regulations, and is current only during the "present war", but has not yet been withdrawn. In this Report it is proposed that this Section, or a similar exemption, should be a permanent feature of the Income Tax Assessment Act.

The Section was apparently incorporated in the Act in recognition of the fact that accelerated production from a mine meant accelerated depletion and a shorter profitable future life, that increased profits as a result of increased production during the war would mean decreased over-all profits later, and at the same time the increased war-time profits would mean increased taxation. The 20 per cent allowance was a means of encouraging increased output.

Although the term "depletion allowance" is not specifically mentioned in the Section, the allowance is fundamentally precisely that. The very wording of Sub-Section (2) of this Section recognises the fact that in the working of such a wasting asset as a mineral deposit the ultimate value of the deposit is being depleted (the Section uses the term

"depreciated"), and the allowance is thus a recognition of the capital value of the mineral extracted. The allowance has not been extended to all minerals, and is related only to the war, so that in this country recognition of capital depletion of a mineral asset for income tax purposes is a matter of policy, and is not yet a factual recognition of an accounting principle as it is in the mining industry.

In Sub-section (2), the term "depreciation" is used - in mining there is a clear distinction between depletion and depreciation. Depreciation applies to something which can be replaced, its effect is to reduce the value of what remains - when written off, the capital value has been returned, the owner is not entitled to further income tax allowance, and he is in the position to buy equivalent property. Depletion, however, applies to something which cannot be replaced, and in so far as much of the value of the property may be concealed in a mine - beyond the present development workings - depletion has no like effect on the value of what remains. The owner cannot buy equivalent property with the money received as depletion allowance.

Broadly, there may be three different views on what should be regarded as the capital value of the mineral extracted from a deposit:

- (a) the original purchase price of the mineral deposit itself,
- (b) the present value of the total profits to be earned in the future,
- (c) its commodity value in the ground.

It may be contended that the original purchase price of the mineral deposit (excluding plant etc.) or the exploration and development costs of a new deposit with lease and other preliminary expenses, represent the capital cost - and value - of the mineral asset. However, neither the purchase price, nor the exploration and development costs, represent the true capital value at any later time. As in any real property, there may be an accretion of capital value with development of the property and in consequence also of other relevant economic factors. If the mine were sold at a later date this increase in value would be apparent from the increased sale price. On the other hand, there may be a drop in value as the reserves position worsened during the latter years of a mine's life.

In the mining industry it is contended that the asset value is the present value of the total mineral to be won in the future - the present value being, in effect, the discounted summation of all future annual incomes (and losses), excluding cost of additional plant etc. Although this present value is the correct purchase value, from the point of view of the sale of the property, Income Tax authorities may point out that, if used for Income Tax purposes, it attributes all profits to the capital value of the mineral in the ground, whereas much of these profits are due to other factors which make up the mine - they may liken the position to entering on the Asset side of a Balance Sheet of a retail store the discounted future profits instead of the cost price of the commodities making up the stock on hand.

But the mineral in a mine is not adequately comparable with the commodities in a store. In a mine, for the most part, the existence of the mineral is largely hidden and can only be inferred; it becomes exposed only during the working of the mine to the extent of 1 to 10 or even more years' reserves

proven

at any particular date. The present value of a mineral deposit depends only partly on the reserves exposed at any moment. Although generally the amount of annual development work is sufficient to make good the annual depletion of reserves, the value of this depletion of a capital asset is something considerably more than the cost of development work done in exposing further reserves. It is this additional value which we desire to know for the purpose of an income tax depletion allowance.

Were it possible to assess the present value of the mineral deposit annually, this present value could be expressed in terms of each unit of reserves, and the value per unit applied to the total annual production, thus giving the depletion allowance. Such an annual assessment is not, however, practicable. But taking the national mining industry as a whole, the annual profit is a measure of the present value, and we are justified in relating present value, and therefore depletion allowance, at the end of any one year to that year's profit. The point at issue is to determine the percentage of this profit which should be allowed as depletion of the capital asset - a method by which this could be determined may be discussed briefly.

The Hoskold formula has been accepted by the mining industry as the standard basis of mine valuation since 1877. Other formulae have been put forward from time to time on the lines of the Hoskold formula, in accord with slightly varied points of view, but the variations which they introduce are so minor in character that they have not shaken the acceptance of the Hoskold formula. This formula may be expressed -

$$\text{Present value} = \frac{\text{annual net surplus}}{\text{sinking fund allotment} + \text{speculative interest rate.}}$$

The sinking fund allotment is that amount which, if invested annually at a safe rate of interest will accumulate to the capital value on exhaustion of the mine - in the formula it is expressed, like the speculative interest rate, as a percentage of unity as the present value. The formula recognises that the annual net surplus consists of two parts: one a return of capital, the other a true profit. The ratio which the sinking fund allotment bears to this allotment plus the speculative return is an index of what the ratio should be between depletion allowance and annual net surplus. A few examples may be taken in illustration -

With present safe interest rate 3%, life of reserves 10 years, the sinking fund allotment is

$$\frac{.03}{(1.03)^{10} - 1} = .09$$

The speculative interest rate may vary from 5% in the case of a safe mine to 30% or more for very risky propositions, but for a mine of 10 years certain reserves it is likely to be of the order of 6% for some minerals.

The annual surplus on the above risk rate, 6% is

$$.09 + .06 = .15.$$

Hence, the depletion allowance, the ratio between sinking fund allotment and surplus, for such a property is -

$$\frac{.09}{.15} = 60\%.$$



For a mine with a larger speculative interest rate, say 10%, and 20 years reserves, it would be

$$\frac{.04}{.04 + .1} = 28.6\%$$

It is apparent that the greater the reserves the lower the depletion allowance, and the greater the risk the lower the depletion allowance. With increased safe interest rates, the depletion allowance would decrease.

In this context, the annual net surplus on which the depletion allowance may be calculated should be the gross profit less all charges for redemption of plant and other similar capital expenditure.

With fixed safe interest rates, an absolute depletion allowance would vary from mine to mine according to (a) the reserves available and (b) the speculative character of the operations. Government's policy could be either to determine an average depletion allowance for the industry as a whole or the allowance could be varied according to the deposit. Section 23A at present follows the former policy, which is similar to that followed in Canada and U.S.A., but the extent of the allowance 20%, is that which would be equitable for deposits which have either abnormally high reserves or a very high risk rate. Formerly, the United States followed the policy of determining the allowance separately for each mine, but this was discarded for the present policy as a result of long experience.

For a tin-dredging property, the following would be reasonable expectations - life 15 years, risk rate 10%. On present safe interest rates, 3%, then -

Sinking fund allotment	-	$\frac{.03}{(1.03)^{15} - 1}$	=	.054.
Depletion allowance		$\frac{.054}{.154}$	=	35%

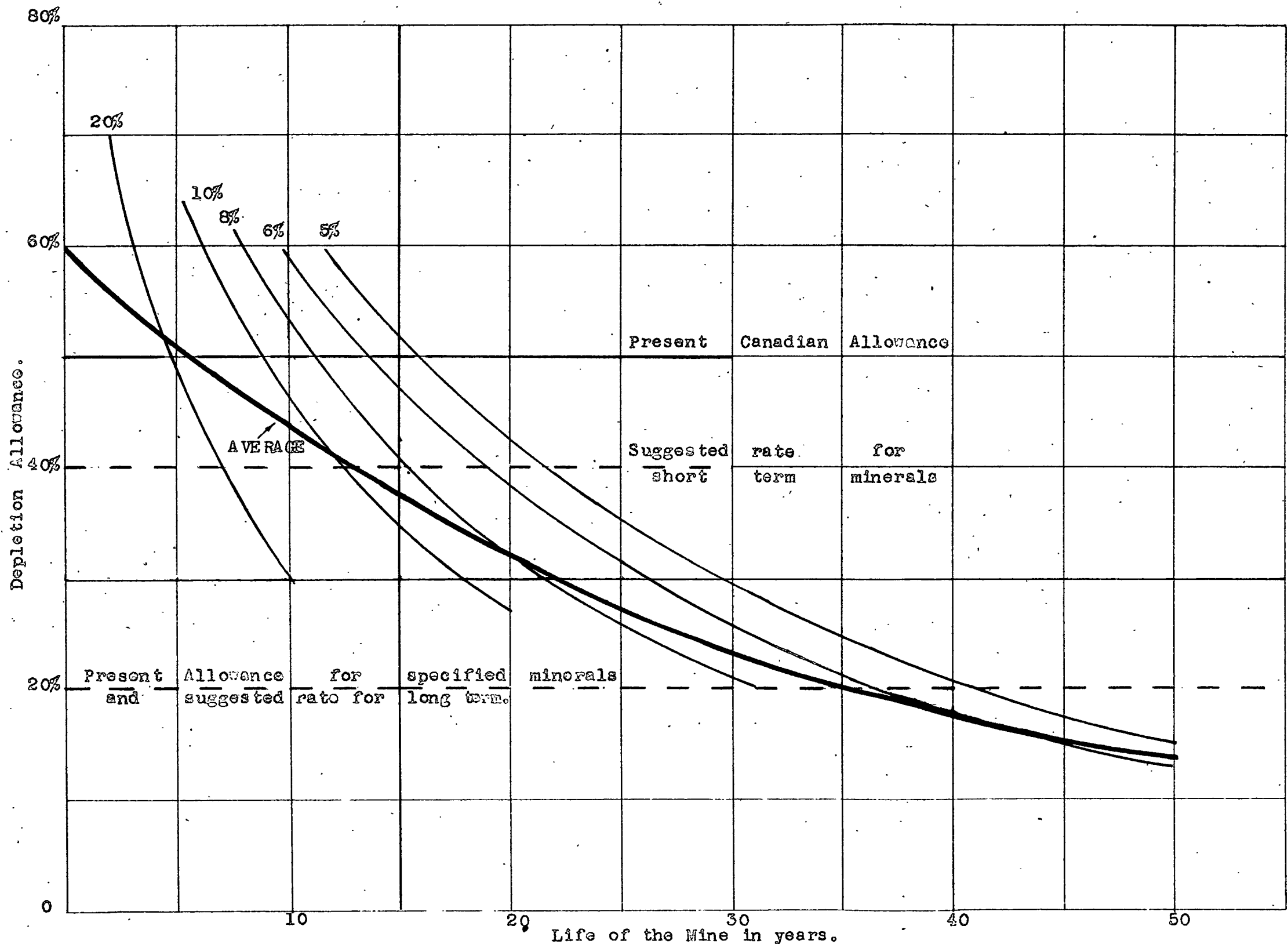
For an underground tin mine reasonable expectations would be - life 10 years, risk rate 15%. On present safe interest rates, 3%, then -

Sinking fund allotment	-	$\frac{.03}{(1.03)^{10} - 1}$	=	.087
Depletion allowance	-	$\frac{.087}{.237}$	=	36%

On the accompanying graph the percentage for sinking fund allotment is plotted against the life of the mine, using a fixed safe rate of 3%. According to the different speculative interest rates applicable to different minerals and different types of deposits, a series of curves results - in general the short life mines conform to the higher speculative rate, and the long life mines to the lower speculative rate. Averaging these curves, we obtain a curve starting at about 60% for short life mines and diminishing to about 15% for very long life mines. This suggests that according to the speculative risk attached to certain minerals, and their projected life, a simple scheme of equitable allowances may be devised. It may be pointed out that ~~out that~~ the exemption of the gold industry from taxation is a special case in which the depletion allowance is 100%; mines excluded from the benefits of Section 23A are a special case at the other end of the curve with depletion allowance of 0%. The present allowance under Section 23A represents an area covered by the lower part of the curve.

# GRAPH OF DEPLETION ALLOWANCE

Graph based on the Hoskold formula showing the percentage of annual surplus (i.e. Depletion Allowance) necessary to set aside as a sinking fund allotment to amortise the capital value of a mineral deposit over the life of the mine. Each curve represents an indicated Speculative or Risk rate of interest, appropriate to various deposits. Safe interest rate 3% taken throughout.



In the Introduction to this Report a quotation was given of comments made by the Special Taxation Committee on the proposal for depletion allowance made by the Mining Industry Advisory Panel, and the use by the Committee of the following terms: "Fundamental income tax principles", "fundamental accountancy principles", and "profit". It will be apposite to discuss these from the point of view of the mining industry having in mind what was also stressed in the Introduction, that the principles and policy of taxation in the mining industry should not be judged by standards conventional in other industries.

The special Committee's objection that the proposed allowance would be a straight-out exemption of profit is, one might say, a denial of a fundamental principle of accountancy - that mine surplus, which takes no account of the depletion of an asset, is not true profit. That "the higher the profits and the wealthier the concern, the greater the benefit" is surely outside the point at issue which is, that part of what the Special Committee refers to as profit is actually return of capital. Once this is recognised, depletion allowance is not a benefit or a concession, but something fundamentally allowable under Income Tax principles no matter what the profits may be or the degree of wealth of the concern; otherwise the income tax becomes a capital tax to the extent of its incidence on depletion. It is undeniable that depletion allowance increases with higher profits whether they be through increase of mineral prices or for any other reason - but the capital value of any property is related to its earning ability, so that with increase of surplus an increased amount must be set aside for depletion of assets before true profit is struck. It is, therefore, equitable and just that depletion allowance should increase with surplus.

Although taxation accountancy in this country may not have given credit for depletion allowance until the introduction of Section 23A, its recognition at present is scarcely such a departure from fundamental accountancy principles as is contended by the Special Committee. Indeed, its reality as a true and fundamental accounting principle forms the long accepted basis of mine valuation in all countries throughout the world - the universal recognition in the mining industry that part of surplus represents the return of the capital value of the depleting asset.

Viewed from the standpoint of the collector of taxation in his regard to other forms of business, and excluding the special position of mining, the fundamental principle of income tax collection enunciated by the Special Committee may be partly correct. But even in other forms of business it is recognised as a fundamental principle of taxation that accretion in value of capital assets is not a subject of taxation - it is with such an accretion of capital values that we are dealing under depletion.

The use of the term "benefit" as applied to depletion allowance by the Special Committee suggests that their comments have been conditioned by past usage in this country. Had it actually been the practice in Australia to enter depletion as an item in published mining accounts, instead of leaving it to the shareholders to recognise that this item formed a part of their annual dividends, it would have long been accepted that depletion is a legitimate return of capital and that taxation allowance for depletion is not merely a benefit or a concession.

Recognised as it is in other countries, the Special Committee would have been more correct had they referred rather to "fundamental income tax policy in Australia"; for the allowance does conform to a fundamental principle; its denial would be

a matter of fundamental policy. But as has been already pointed out, it has become temporarily recognised as a matter of policy under Section 23A, and it is suggested that its recognition as a principle should be continued in the future.

At present, certain minerals are excluded from depletion allowance under Section 23A; iron ore and lead-zinc minerals are important examples. Presumably this follows from the policy under which the Section was introduced - the encouragement of the mining of minerals in short supply during the war, minerals in ample supply being excluded. But, as a principle, depletion allowance is solely a capital allowance; and the total exclusion of any mineral is not equitably justifiable. The fact that some lead-zinc deposits are yielding high profits to-day is no ground ~~for~~<sup>for</sup> excluding them from a capital allowance. Also, it should be remembered that they have not always yielded high profits, and lean times are likely to return - to deny them the capital allowance during times of affluence and permit it during times of stress is not just, nor is it good economics. Viewed further as a matter of policy, although Australia may not be short of lead, world supplies in general are becoming increasingly difficult; development of lead-zinc mines - indeed of any mineral - should be encouraged, and all lead-zinc mines are not so affluent as are Broken Hill mines, e.g. Mt. Isa, Lake George and Read-Rosebery. The hazards of lead-zinc exploration are as great as for any mineral - few mines put such sums into exploration as do the Broken Hill Mines.

Depletion allowance in mining has been the subject of a very considerable amount of discussion in recent years, particularly between the Mining Industry Advisory Panel and the Taxation Department. There is a considerable amount of material on the subject on the files of the Bureau of Mineral Resources, and presumably on the files of the Taxation Department. As one who has had much to do with mine valuation outside of Australia, I can only express full accord with all that has been written. In this Report the subject is treated briefly and in a slightly different manner from the very full treatment by the Panel, but the result, and the suggestions emerging from it are similar. If further expansion of my own views are required I could not do better than refer to the material put up by the Panel.

#### SECTION 44.

44 (2) The assessable income of a shareholder shall not include dividends -

× (b) paid wholly and ~~ex~~clusively out of one or more of the following:-

(i) the amount of the income derived by a company which is exempt from income tax by reason of section twenty-three A of this Act;

(c) paid by a company wholly and exclusively out of the amount remaining after deducting from income (not being income which under this or the previous Act is or has been assessable income of the company) -

(i) which the company has derived from the working by it of a mining property in Australia or in the Territory of New Guinea; or

(ii) which the company has received as dividends from a company which derived income from the working by it of a

mining property in Australia or in the Territory of New Guinea and which are paid wholly and exclusively out of income so derived.,

and losses or outgoings incurred in gaining or producing that income which would have been allowable deductions if that income had been assessable income; or

(d) paid by a company wholly and exclusively out of the amount remaining after deducting from income (not being income in respect of which the company has paid or is liable to pay tax under this Act) -

(i) which the company has derived from the carrying on by it of mining operations in Australia or in the Territory of New Guinea for the purpose of obtaining petroleum; or

(ii) which the company has received as dividends from another company and which dividends are, by reason of the last preceding sub-paragraph, not included in the assessable income of the first-mentioned company, and out of which dividends are paid wholly and exclusively by the first-mentioned company, all outgoings (other than outgoings of a capital nature) incurred in gaining or producing that income.

Paragraph (b) of this sub-section equitably carries through, to the shareholder, the exemption under Section 23A, as also does paragraph (c) the exemption to gold-mining under Section 23(c), and paragraph (d) the exemption to petroleum mining under Section 123A.

Attention in discussion has been drawn to the taxation position which arises as amortisation allowances improve progressively the liquid resources of a mining company. Where operations are expected to last over many years the Directors are faced with the dilemma as to the method which should be employed in returning these funds into the hands of the shareholders. If distributed as dividends then the amortisation funds become assessable for income tax. If accumulated until termination of the mine, they can be distributed as a return of capital during liquidation, but the shareholder is deprived of the use of the money in the meantime. The alternative is to reduce capital progressively, but this is a procedure not lightly to be embarked upon.

From the point of view of the investor, there may be some justification for a proposal that dividends paid out of amortisation allowance should be granted a similar exemption under Section 44 to income exempt by reason of Sections 23A and 123A. However, we are dealing with two distinct forms of capital. Section 23A is concerned with a return of the capital value of a mineral asset which is being currently consumed. Amortisation allowances, vide Sections 122, 123 and 123AA, are concerned with capital which was an actual expenditure - if amortisation of such capital expenditure is dissipated in dividends, the scope for expansion of exploratory and development operations is diminished. The incentive for expanded activities is increased by building up capital reserves. The proposal cannot be justified either as a matter of policy or from the point of view of a book-keeping principle. An alternative is available to the shareholder should he at any time require a return of part of his capital - improvement in the liquid resources of a company, arising from the creation of reserve funds, is generally accompanied by an increase in share values, and he has the option of disposing of portion of his shares at their enhanced price.

SECTIONS 54(1) AND 55(1).

- 54 (1). Depreciation during the year of income of any property, being plant, or articles owned by a taxpayer and used by him during that year for the purpose of producing assessable income, and of any property being plant or articles owned by the taxpayer which has been installed ready for use for that purpose and is during that year held in reserve by him shall, subject to this Act, be an allowable deduction.
- 55 (1). In the first calculation of the depreciation to be allowed in respect of any unit of property, an estimate shall be made by the Commissioner of the effective life of the unit assuming that it is maintained in reasonably good order and condition, and the annual depreciation per centum shall be fixed accordingly.

These Sections are quoted here as their relation to Sections 122 and 123A is mentioned in the comments on the latter.

SECTION 80.

- 80 (1). For the purposes of this section, a loss shall be deemed to be incurred in any year when the allowable deductions (other than the deduction allowable under this section) from the assessable income of that year exceed the sum of that income and the net exempt income of that year, and the amount of the loss shall be deemed to be the amount of such excess.
- (2). So much of the losses incurred by a taxpayer in any of the seven years next preceding the year of income as has not been allowed as a deduction from his income of any of those years shall be allowable as a deduction in accordance with the following provisions:-
- (a) where he has not in the year of income derived exempt income, the deduction shall be made from the assessable income;
- (b) where he has in that year derived exempt income, the deductions shall be made successively from the net exempt income and from the assessable income.

It has been pointed out to me in discussion that Section 80 (2)(b), as at present worded, weakens the application of Section 23A, in that any loss carried forward from a previous year must first be deducted from exempt income of the subsequent years; and that as Section 23A creates exempt income, it is possible that a taxpayer will lose the benefit of some carried forward losses through cancellation out against Section 23A calculations of the subsequent year.

In view of the fundamental reason on which depletion is based, as given in this Report, the above argument cannot be sustained with any consistence - Section 23A, it is contended in this Report, does not create exempt income, but recognises a return of capital. Depletion is not concerned directly with the annual book-keeping data of profit and loss, except in-so-far as that profit and loss effects the accretion in value of the mineral deposit. Although as a straight forward fact in accountancy the argument may be valid, it must be recognised that losses do depreciate the value of a

property, and the degree to which these losses may affect exemption under Section 23A may be taken as a rough measure of that depreciation. No change in Section 80 is, in my opinion, desirable on the score of depletion.

Of interest in mining is the reverse picture to Section 80 - losses incurred in the years succeeding a year of profit. This may be of importance during the latter years of a mine's life when the mine is finally exhausted before the opportunity returns to enter a profitable period. It is admittedly difficult to devise an equitable basis for adjusting earlier taxation against such losses, and attention is merely drawn here to the position.

#### SECTION 84.

84. (1) the assessable income of a taxpayer shall include, in addition to rent, any premium received by him in the year of income, and any consideration so received for or in connection with his assent to any grant or assignment of a lease.

This Section is quoted because from the Bureau's files, it appears that when the question of depletion was discussed with the Taxation Department in 1945, the argument was made that accretion of capital could be regarded under Section 84. A reply to this argument was presented by Mr. G. Lindsay Clark in his letter dated 21st. May, 1944. As I find myself in complete agreement with Mr. Clark's presentation, it may be quoted here:

"In regard to this question of whether these mining titles are lease-holds in the ordinary sense of the word I would point out what very peculiar leases these Crown titles are. On mineral leases from the Crown the rent payable is quite independent of the value of the leases; the lease can be utterly exhausted during the tenure of the lease and rendered of no value whatever without any damages arising; also the practice of the law in all matters other than taxation is to regard the owner of the lease as an absolute owner of the mineral contents to do with as he sees fit. That is to say, the owner has the absolute property in the mineral during the lease. If you are concerned with what is a real lease in the sense of the lease of an hotel, the comparison, in mining, is that of one Company leasing its Crown lease title to others to work. In that event the terms of the lease are entirely different to the terms of the Crown title and always take into account the loss in value of the lease consequent upon the extraction of the ore.

Alternatively if Section 84 was intended to apply to a mineral title it is difficult to see the necessity for it, if as is contended by the Taxation officials, the added value to a mine by reason of additional ore reserves is taxable as a trading profit as opposed to a tax free capital profit.

We submit that Section 84 was intended to cover a quite different class of title and its application to mineral titles was not visualised on the passing of the legislation.

It is appreciated, however, that it would be difficult if not impossible, to contest the existing legislation on these grounds but on equity a clear case exists for amendment".

Whether or not Section 84 has ever actually been applied to a mining lease I do not know. But the principles underlying mining leases - particularly the fundamental reason for a mining lease, to exhaust eventually its asset value - are so entirely different from those underlying other forms of leases that mining leases should be specifically excluded from this Section.

Relevant to the above, the provisions of Section 23(p) have been noted, but as the regulations under Section 23(p) specify certain minerals only, and the definition of bona fide prospector does not cover all mining lessors, the actual taxation position in regard to mineral leases is not clear.

SECTIONS 122 AND 123.

122. (1). Where a person, who is carrying on mining operations (other than coal mining) in Australia for the purpose of gaining or producing assessable income, incurs expenditure of a capital nature on necessary plant and development of the mining property, an amount ascertained in accordance with the provisions of this Section shall be an allowable deduction.

(2). Subject to the next succeeding sub-section, the deduction allowable under this Section shall be the amount ascertained by dividing the residual capital expenditure, as at the end of the year of income, by the number of years in the estimated life of the mine as at the end of the year of income.

(3). Unless an election is made, in accordance with the next succeeding sub-section, that this sub-section shall not apply in relation to the year of income, the amount of the deduction allowable shall not exceed the amount, if any, remaining after deducting from the assessable income of the year of income all allowable deductions (other than the deductions, if any, allowable under this Division).

(4). The election referred to in the last preceding sub-section shall be -

(a) made in writing signed by or on behalf of the person or partnership which incurred the expenditure; and

(b) delivered to the Commissioner on or before the last day for the furnishing of the return of income of that person or partnership of the year of income, or within such further time as the Commissioner allows.

(5). In this section, 'the residual capital expenditure' means the amount remaining after deducting from the sum of -

(a) any amount of expenditure incurred before the year of income which began on the first day of July, One thousand nine hundred and forty-six, which would have been allowable as a deduction in assessments to which this section applies if the section for which this section was substituted had remained in force; and



(b) the total amount of expenditure, incurred after the year of income which ended on the thirtieth day of June, One thousand nine hundred and forty-six, specified in sub-section (1) of this Section,

so much of the expenditure included in that sum as has been allowed or is allowable as a deduction under this Section from the assessable income of any previous year of income to which this Section applied.

(6). Where any amount of income derived by the taxpayer from the sale, transfer or assignment of rights to mine on any mining tenure is or has been exempt from income tax by virtue of paragraph (p) of section twenty-three of this Act, the amount which would otherwise be the residual capital expenditure for the purposes of this section shall be reduced by -

(a) any excess amount of expenditure, in relation to that tenure, to which sub-section (3) of section one hundred and twenty three AA of this Act applies or has applied; or (b) the amount of that exempt income.

whichever is the less."

123. (1). As an alternative to the deduction allowable by the last preceding section, so much of the assessable income of the year of income as is expended in that year or appropriated for development (the cost of which is not otherwise an allowable deduction) of such mining property and for new plant shall, at the option of the taxpayer, be an allowable deduction.

(2). So much of any money so appropriated as has not been expended for that purpose at the end of the year in which it was appropriated shall be included in the assessable income of the taxpayer of that year.

It is necessary to comment on these two Sections together as they are closely related. Section 122 as now worded was introduced in 1947, and represents with Section 123AA perhaps the most useful amendments from the mining point of view in the Income Tax Assessment Act introduced in recent years.

These two Sections each deal with two items of capital expenditure - Plant and Development - which should be sharply divided. We may comment on the latter first.

Capital Expenditure on Development. Sections 122 and 123 permit the recovery of capital invested in mine development, provided the annual income during the life of the mine is sufficient to cover the permissible deductions for development. The Sections are all that could be desired for the successful mine but they may not meet fully the requirements of the less successful mine.

According to the hazards of a particular mine (or a particular mineral), Sections 122 and 123 may have various degrees of application:

(i) Mines with a definite life and with marketing and operating conditions which ensure a regular income, will enjoy the maximum benefit of these concessions and will recover the full value of capital expenditure on development.

(ii) Where the mineral mined is liable to wide fluctuations in marketing and operating conditions, and therefore of income, the following positions arise:-

(a) The Mine may experience high income in its early years, followed by several years of decreasing returns, including losses, which may not permit the full writing off of development during the life of the mine - even though the initial high income might have fully covered development cost.

(b) The mine may incur losses during its early years, or yield an income less than the amount of deduction permissible for development, but may in its latter years provide an income which may eventually permit the writing off of the full cost of development.

Thus as between case (a) and (b), (a) is treated adversely compared with (b), even though the original estimates of life and income of (a) may have been on a sounder basis than is the case of (b). This differential treatment is anomalous.

(c) The mine may incur prolonged periods of losses, or yield a low income, at any time in the life of the mine, thus preventing the full cost of development from being written off, even though there may be highly profitable periods. Or accidents of flood, fire, collapse, etc. may terminate the life of a mine which may otherwise have had a profitable future. Such a mine may, through no fault of management or judgment, be at a decided disadvantage in payment of income tax as compared with other mines whose profitable periods were more fortunately timed.

It may be noted here that, in the case of petroleum, the hazards are fully recognised under Section 123A; and no income tax is charged until all capital expenditure, including prospecting, exploration and development, is fully written off. The hazards of prospecting, exploration and development in some mining ventures may be quite as great as those in petroleum, and they are increasing progressively. From this point of view, therefore, the difference in taxation treatment between petroleum and other forms of mining, becomes one, not of mere book-keeping procedure, but of policy.

Capital Expenditure on Plant, Mine Buildings, etc. Similar remarks apply to capital expenditure on plant and equipment as to capital expenditure in development, so far as treatment under these two Sections are concerned. However, there is one very important difference - when a mine goes into liquidation, development is generally worth nothing, whereas mine equipment and plant may have quite a considerable sale value. Thus, except in the case of a mine of several years activity which has enjoyed little in the way of profitable income, the concessions are adequate for plant and equipment.

Allowances for buildings used directly in mine operations are included under Sections 122 or 123, but not for other buildings which may have to be constructed by a mining company, such as miners' residences in outback areas. In mining, the effective life of a building is that of the mine (in the case of a comparatively short-life mine). If the mine goes into liquidation, the building may have no re-sale value, and from that point of view may be compared with development. It is suggested that the same concession should be extended to all buildings, and other non-realizable assets, as to development, but at the discretion of the Taxation Commissioner.

Both Sections 122 and 123 refer to plant. It may be pointed out that this term may be subject to varied interpretations under Section 54(2); the term "plant" has been

clearly defined as applied to that Section. A definition under Sections 122 and 123 should also be provided.

SECTION 123AA.

123 AA. (1) Subject to this Section, expenditure incurred by the taxpayer during the year of income on exploration or prospecting (other than for coal or gold, or for petroleum (as defined in the next succeeding Section)) on any mining tenures held or held under option shall be an allowable deduction.

(2). The amount of the deduction allowable under this Section shall not exceed the amount remaining after deducting from the assessable income derived from the carrying on by the taxpayer of a mining business, and from the activities of the taxpayer associated directly or indirectly with the carrying on by him of that business, all other allowable deductions which directly relate to that income.

(3). Where the amount of the expenditure exceeds the amount of the deduction allowable under this Section, the excess shall be deemed to be expenditure -

(a) incurred by the taxpayer in the first subsequent year of income from the assessable income of which he is (apart from this Section) entitled to a deduction under Section one hundred and twenty-two of this Act; and

(b) in respect of which he is entitled to a deduction under that Section (but not under Section one hundred and twenty-three of this Act).

(4). In this section 'exploration or prospecting' means -

(a) geological mapping, geophysical surveys, systematic search for mineralised areas, and detailed search by drilling or other means for ore deposits within those areas; and

(b) search for ore within or in the vicinity of an ore-body by drives, shafts, cross-cuts, winzes, rises and drilling, not being normal development"

This Section was introduced into the Income Tax Assessment Act in 1947, along with the amended Section 122. Under this Section, expenditure incurred in exploration and prospecting is an allowable deduction during the year it is incurred, and if the amount is in excess of income the excess is covered under Section 122 - in the latter case the comments made under Section 122 are applicable.

In the case of a new mining concern where prospecting and exploration has proved to be abortive so that the concern is compelled to go into liquidation without any compensating income, the only taxation concession which the shareholders may receive is that under Section 160AA, which will be discussed later.

SECTION 123A.

123A. (1). In this section -

"net assessable income" means the amount remaining after deducting from the assessable income derived

by the taxpayer from the sale of petroleum and its products all outgoings (other than outgoings of a capital nature) incurred in gaining or producing that assessable income and any taxes paid in respect of that assessable income;

"Net exempt income" means the amount remaining after deducting from the exempt income derived by the taxpayer from the sale out of Australia of petroleum and its products all outgoings (other than outgoings of a capital nature) incurred in gaining or producing that exempt income and taxes paid in respect of that exempt income;

"petroleum" means naturally occurring solid, liquid, or gaseous hydrocarbons in a free state but does not include any substance which may be extracted from rocks or minerals by any process of destructive distillation; and

"unrecouped capital expenditure" means the amount remaining after deducting from the total amount of capital expenditure incurred by the taxpayer prior to the year of tax in prospecting or mining for petroleum in Australia or the Territory of New Guinea and in plant necessary for the treatment of that petroleum the total of the net assessable income derived by the taxpayer prior to the year of income (except income in respect of which the taxpayer has paid or is liable to pay tax under this Act) and the net exempt income derived prior to and during the year of income.

(2). Where a taxpayer derives income from carrying on mining operations in Australia or the Territory of New Guinea for the purpose of obtaining petroleum, the amount of the unrecouped capital expenditure (not exceeding the amount remaining after deducting from the assessable income derived from the sale of that petroleum and its products all other deductions allowable in respect of that assessable income) shall be an allowable deduction.

(3). The provisions of Sections one hundred and twenty-two, one hundred and twenty-three and one hundred and twenty-three AA of this Act shall not apply to any expenditure which is taken into account in ascertaining the amount of the unrecouped capital expenditure.

This Section, introduced in 1939 with amendments in 1940, recognises that the hazards of petroleum mining are such that true profit is not earned until the capital expenditure is wiped off by annual surpluses. Whether this recognition is a matter of policy or of book-keeping principle might be a point of discussion, but that such a sweeping concession should be provided in the Income Tax Assessment Act must obviously have been prompted by a desire to encourage investment in such a hazardous enterprise.

In commenting on Sections 122 and 123 this difference in treatment of petroleum as compared with other forms of mining was noted. The hazards or chances of success in both may be equal, except that in petroleum the amount of the financial stake is generally higher. It is not suggested that the same eminently encouraging concession should be granted to all mining, but only that a similar treatment should be accorded to that part of any mining investment represented by non-realizable capital expenditure (exploration, prospecting, development)

SECTION 160AA:

160AA. (1). Where a taxpayer has, in the year of income, paid calls on shares owned by him in a mining company or syndicate carrying on mining operations in Australia for gold, silver, base metals, rare minerals or oil, or in any company carrying on afforestation in Australia as its principal business (not being calls which are allowable deductions under this Act), he shall be entitled to a rebate in his assessment of the amount obtained by applying to the amount of the calls (not exceeding the amount of the taxable income of the year of income) a rate equivalent to -

(a) where the taxpayer is not a company - one-third of the rate of tax appropriate to a taxable income from personal exertion equal to the taxable income of the taxpayer; or

(b) where the taxpayer is a company - one-third of the rate of tax payable by companies for the year of tax.

Section 160AA is entirely a matter of policy, with no fundamental book-keeping principle behind it nor has the concession any justification to be considered as a right. But, just as 23(o) directly encourages production, so 160AA may encourage development. The very fact that some concession on calls is still granted pre-supposes that Government remains in partial sympathy with the policy.

A note on this Section was prepared for the Secretary, Department of Supply and Development, dated 3rd. September, 1948. Some remarks from that note may be repeated here.

Before 1942, the shareholder was permitted 100 percent deduction on mining calls. This may, from one point of view, be regarded as an implicit recognition of the great hazards of mining. The reduction of the taxation concession on the calls paid, in 1942, to only one-third of the rate of taxation is perhaps an implied contentment that the hazards are not so great - the change in 1942 was associated with wartime conditions, however, when gold mining was discouraged and there was no need to encourage private investment of this type.

The hazards of mining today are as great as ever they were - if anything greater than formerly - and, if Government's policy remains the same, they would imply that the rate of concessions on calls should be the same as pre-war, now that war-time limitations on investments of this type are no longer essential.

In the note of 3rd. September, 1948, it was shown that, on the 1948 data available, and assuming an average rate of tax by shareholders as high as 5/6, the return to 100 percent rebate would amount to a tax concession of £112,000. Such a concession would admittedly be an encouragement to some shareholders to invest.

In commenting on Section 123AA a reference was made to its relation to Section 160AA. To an active mining company having productive revenue-earning operations besides exploration and prospecting activities, the amount spent on the latter may be free of income tax - and this allowance is

of increased value to the shareholder who pays tax on his dividends. On the other hand to an exploratory or prospecting company whose activities prove abortive, and which may thus be forced into liquidation, the only tax concession available to shareholders is the one-third rebate on calls. Section 123AA does, therefore, in its intention provide some support for the earlier policy of 100 percent rebate on mining calls under Section 160AA.

However, it cannot be too clearly emphasised that a case for any rebate on calls must be reviewed as a concession only, and determined exclusively as a matter of policy; it cannot be considered within the category of a "principle" or a "right". Nor should such a policy concession be taken into consideration in discussions respecting those aspects of mining taxation which are concerned with principles.

PART III:

GENERAL PROPOSALS.

The various amendments brought about in the Income Tax Act during 1947, as a result of recommendations of the Mining Advisory Panel, have considerably improved the taxation position so far as working and successful mines are concerned. Assuming that such mines remain profitable throughout their estimated life, the amended Act permits the application of sound accounting principles in the amortisation of capital originally put into a mine. However, the Act does not in some cases alleviate the burden on shorter-term less successful mines, and it is intended to make proposals to this end.

So far depletion allowance has been recognised only as a war-time allowance, and the proposal to place this allowance on a permanent basis will be made.

The above are the two main proposals put forward in this Report. However, the comments on various relevant Sections of the Act, in Part II of this Report, suggest that a few other amendments of a minor character may be desirable. The various Sections on which proposals are made will be taken in turn.

SECTION 23 (o)

If the proposals concerning Section 23A are accepted, then Section 23(o) may be deleted and the concession of 100% deduction allowance for gold incorporated under 23A.

SECTION 23 (A)

At present this Section is of war-time application, and has presumably therefore been introduced as a matter of policy. As was noted in the comments on this Section, in Part II, however, recognition of the allowance does conform to sound accounting principles and therefore, apart from its continuance as a matter of policy, it should be incorporated as a permanent feature of the Income Tax Assessment Act as a matter of principle. Further, it should be applicable to all minerals - the same accounting principles must apply to all minerals, no matter what may be their degree of urgency to local industry.

The rate of the allowance, or its percentage of the net income, may be dealt with as a matter of policy, however. From the point of view of correct accounting principles, each mineral and mine would need to be evaluated separately, but such a procedure would be impracticable. From the graph of depletion allowances discussed in Part II, it will be apparent that several methods of determining the rate of allowance may be considered:-

- (a) A uniform rate of depletion allowance for all minerals could be applied.
- (b) A particular rate of depletion allowance for specified minerals could be applied.
- (c) The rate of depletion allowance could be varied according to the life of the mine, either from year to year, or over a period of years.

(d) The rate of depletion allowance could vary according to the mineral and to the life of the mine - a combination of (b) and (c).

At present, apart from gold (which may be regarded as having a 100% depletion allowance under Section 23(c)), the allowance of 20% applies to most of the commoner minerals mined in Australia, with the exception of iron-ore, lead and zinc. For many of the minerals listed in 4A of the Regulations to which the allowance does apply, 20% is low, mainly because of the shortness of their profitable life, and for these a minimum depletion allowance of 35-50% would be more appropriate. An allowance of this order would certainly be more equitable for tin properties.

The present allowance, 20%, if applied to all minerals would favour considerably such long life mines as iron-ores, and the lead, silver-zinc mines of Broken Hill, as compared with such short-life mines as tin-dredging properties, tantalum, or mica mines. There is, therefore, justification for grading the allowance according to specified groups of minerals.

In Canada, until recently, two groups of minerals were recognised - gold and silver - which received 50% depletion allowance, and base metals which received 33-1/3% but recently the latter has been raised to 50%.

In Australia, in effect, three groups are at present recognised - gold mines which receive 100% depletion allowance under 23(c), minerals specified in 4A of the Regulations which receive 20%, and all other minerals which receive 0%. Although from the income tax point of view a uniform rate of depletion allowance is not so justified as a specified graded rate, it would be impracticable to specify a rate for each mine separately, but the application of rates suitable to each mineral (as at present) can be justified and is practicable. On the whole, the majority of profitable mines of the same mineral have a roughly comparable risk rate and prospective life - there are exceptions, particularly in the case of gold and tin.

The third proposal, although more approaching the ideal curve, if applied to all minerals on the same basis would favour some minerals relative to others, according to their respective risk rates of investment. The gradual annual diminution of the depletion allowance with life of the mine, following the average curve on the graph, might give rise to certain difficulties in assessment. On the other hand, if instead of reducing the allowance annually, the alternative were followed of a sudden drop in the allowance at wide intervals, the impact on each company's finances of this sudden increase in the taxation rate may give rise to internal difficulties, and may clash with inopportune periods of the profit-spread.

The fourth proposal possesses the characteristics of both (b) and (c).

It is as well to stress here a most important point - that the allowance in the case of the characteristically long life mines should not be unduly low. It must be remembered that even in the case of a long life mine, new ore-shoots, and even new deposits are commonly, and in fact generally found, which enhance the value of the mine in its later years, thus raising the depletion curve for these later years above that shown on the graph. It is also most important to promote active development throughout the life of a mine



and, by a paradox, it is, from the angle of the country, much more important to maintain an active development programme at the end of a long life mine than it is in the earlier part of its life. The reason for this is that the long term mine is probably very deep before it is abandoned, and exploration, therefore, from its bottom will probably be never resumed once the mine is abandoned, whereas it is much simpler to re-open a shallow mine and resume prospecting. Further, as taxation is ultimately an item of cost, a depletion allowance means a reduction of cost, and thus a reduction of the grade of ore which can be worked, an extended life for the mine, and a longer period over which the Taxation Department will draw revenue from the mine.

On the whole, it would appear that proposal (b) would be the most preferable. The depletion allowance equitable to each mineral is determined by the approximate life over which deposits of each mineral are commonly worked. On this basis the following scale is suggested.

- (a) 100 per cent - Gold. This should be retained as a policy concession because of the peculiar position of gold in the economies of a large area of the country.
- (b) 40 percent - Antimony, arsenic, aluminium, asbestos, beryllium, bismuth, caesium, columbium, graphite, ilmenite (and associated minerals), lithium, manganese, mercury, molybdenite, mica, opal, optical calcite, osmiridium, precious stones, sillimanite and kyanite (and associated minerals), tantalum, tin, vermiculite.
- (c) 20 percent - All other minerals.

In the cases where two or more minerals or metals are derived from the same mine, the rate should be that for the mineral or metal providing the highest gross revenue. It happens that the rate would almost invariably be the lower, for the mineral with a higher depletion rate would more generally be found as by-products of the former than vice-versa.

Should Government wish to view the rate of allowance as a matter of policy in addition to principle, it may be noted that the majority of the minerals included under the 40 percent rate are minerals which would not in general appear to provide a large amount of revenue - either to the miner as surplus, or to Government in taxation.

For mines receiving the allowance under the other main proposal of this Report - recovery of non-realizable capital - depletion allowance should not be permitted until the non-realizable capital has been written off against surplus.

#### SECTION 44.

This Section would need to be revised if the proposals covering Sections 23(o) and 23A are accepted.

#### SECTION 84.

If the comments made in Part II of this Report are accepted as relevant and valid, then mining leases should be specifically excluded from this Section.

SECTIONS 122, 123 AND 123AA.

Allowances under these three Sections permit the full return of capital put into a mine, provided the mine has a sufficiently lengthy profitable career.

For a mining concern which has developed its property right from the initial stages of prospecting, the various forms of capital expenditure may be written off, for taxation purposes, as follows:-

- (a) Prospecting, Exploration, Development - under Sections 122, 123, 123AA.
- (b) Plant, and buildings used directly for mine operations - under Sections 122 and 123.  
Note:- Other buildings, such as Miners' residences, are not covered.

For a mining concern which has purchased an existing mining property, capital expenditure, for taxation purposes, may be written off as follows:-

- (a) Purchase price of the Mining Lease - under (?) Section 88.
- (b) Development - under Sections 122, 123.
- (c) Plant and buildings used directly for mine operations - under Sections 122 and 123. Note:- Other buildings, such as miners' residence, are not covered.

However, few mining companies can be fully assured in their early stages that the whole of the capital will be returned. So far as the gold industry is concerned, the position is not worsened by income tax, as it is exempt; also, if an oil industry were to be established, the necessity for not increasing the hazards by taxation before capital is fully returned is recognised under Section 123A. For all other forms of mining, investors in the industry have to accept not only the hazard of non-return of capital, but also the payment of taxation on annual revenue surplus even though the sum of such annual surpluses may never return the capital.

It may be contended that this risk is attendant on any form of business. It is, however, a relatively minor risk in other industries in which the principal hazard is marketing risk, and in which loss of capital is largely confined to loss of goodwill and perhaps in part of stock. In mining, however, marketing is only one of many hazards which cannot be gauged in many cases, and which must be accepted. The proportion of capital invested other than in such realisable assets as plant and equipment is generally far greater in mining than in other forms of industry, and the less successful mining venture is likely to lose a far greater proportion of its capital.

Fundamentally, perhaps, the problem may be regarded as entirely one of policy. Every pound invested in mining is directed towards the development of this country's primary industry. It has been Government's policy that those with the courage to put their money into these hazardous enterprises should also pay income tax on their annual surplus, even though it may eventually turn out that over the brief life of a mine such surplus as is earned is not really profit if it does not return fully the capital invested.

If, in recognition of this, it should become Government policy to encourage development of the country's mineral resources by means of taxation provisions which also have an equitable basis of accounting procedure, then some form of provision may be considered on the lines of that granted to petroleum under Section 123A. It must be emphasised that any such provision cannot ensure a mine from failure, it can only ensure that the taxation hazard is not added to the normal capital risk.

It is now proposed that a mine should not be liable to taxation until that part of capital expended in non-realisable assets has been covered by annual surpluses.

When a mine goes into liquidation, the assets consist of:-

- (a) realisable assets - those on which the written down value may be realised, such as plant and part of buildings etc., and
- (b) non-realisable assets - those on which it is likely that realisation of their value will not be possible, such as the mine itself, dams, races, mine roads etc.

If the annual surpluses have not covered the non-realisable capital invested in the property, then the annual taxation simply adds to the capital loss - the surplus never was real profit and taxation has been paid out of a negative income.

There is, today, justification for the proposal which has now been made. Development of secondary industries has accelerated enormously and it is essential to accelerate also the production of mineral raw materials which, after all, form the basis of other industries. Easily found and easily developed mining properties are now of the past. Cost of prospecting, exploration and development today generally make up a very considerable proportion of the capital investment, certainly a far greater proportion than was formerly the case. Mining investors thus run the risk of much greater losses on money invested than in the earlier days of this country's mineral development. We are becoming increasingly dependent on finding new deposits, and it would seem sound policy to remove the added burden of taxation until there is certainty, that, in any mine, the surplus is real and not merely a return of invested capital.

Such a revision of the Income Tax Act should not correctly be described as a "concession", but is a recognition of the necessity for a special book-keeping procedure in mining, so far as return of invested capital is concerned. The effect on general taxation revenue would be slight. Such a treatment of non-realisable assets would free unsuccessful mines from taxation of such surpluses as they may have - it would be equitable to them, and the amount of revenue lost to Government would be very small. To the successful mine, it would merely mean that the liability for taxation is delayed for a year or so, but as the later allowance for amortisation would be less, taxation in later years is proportionately higher and the effect on taxation revenue is fully compensated over the life of the mine.

#### SECTION 123A.

The somewhat more hazardous position of the petroleum industry is recognised, and the necessity for encouraging all possible interest in establishing such an industry. It is not, therefore, proposed that the very

full concessions granted to this industry should be altered.

SECTION 160AA.

In Part II of this Report, the comments on this Section indicate the reasons why a return of 100% rebate may be considered as a matter of policy only, as a further incentive to the development of mining.

PART IV.

REVISION OF THE ACT.

If the proposals made in Part III of this Report are accepted or advisable, the opportunity may also be found to clarify and perhaps simplify the various special provisions granted to mining by grouping them as far as possible under the one Division.

It is suggested that this may be done by first deleting the following Sections: Section 23(o), 23A, 123 and 123AA. Section 23(o) referring to gold is included under 123AA below, with 100% depletion allowance. Section 23A becomes 123AA in a slightly different form.

All allowances appertaining to mining would be included under "Division 10, Mining", which would then consist of the following Sections:-

Section 122. - To read as at present, but deleting any reference to "development". Subsection (6) may need some revision.

Section 122A - (1) As an alternative to the deduction allowable by the last preceding section, so much of the assessable income of the year of income as is expended in that year or appropriated for new plant, shall, at the option of the taxpayer, be an allowable deduction.  
(2) So much of any money so appropriated as has not been expended for that purpose at the end of the year in which it has been appropriated shall be included in the assessable income of the taxpayer of that year.

Section 123. - (1) In this Section - "net assessable income" means the amount remaining after deducting from the assessable income derived by the taxpayer from the sale of a mineral and its products all outgoings (other than outgoings of a capital nature) incurred in gaining or producing that assessable income and any taxes paid in respect of that assessable income.

"Net exempt income" means the amount remaining after deducting from the exempt income derived by the taxpayer from the sale of the mineral and its products all outgoings (other than outgoings of a capital nature) incurred in gaining or producing that exempt income and any taxes paid in respect of that exempt income.

"Non-realizable expenditure" means expenditure on a mining property other than for machinery and other such assets which would have a realizable value if the mine went into liquidation - it will include purchase cost of the mineral deposit as such, and expenditure on prospecting, exploration, development, dams, races, roads within the mine lease, non-realizable buildings, preliminary expenses and such other expenditure as, in the opinion of the Commissioner, may be appropriately included.

"Unrecouped non-realizable expenditure" means the amount remaining after deducting from the total

amount of the non-realizable expenditure incurred by the taxpayer prior to the year of tax in prospecting or mining for mineral in Australia or the Territory of New Guinea the total of the net assessable income derived by the taxpayer prior to the year of income (except income in respect of which the taxpayer has paid or is liable to pay tax under this Act) and the net exempt income derived prior to and during the year of income.

(2) Where a taxpayer derives income from carrying on mining operations in Australia or the Territory of New Guinea for the purpose of obtaining minerals (other than coal, gold or petroleum) the amount of the unrecovered non-realizable expenditure (not exceeding the amount remaining after deducting from the assessable income derived from the sale of that mineral and its products all other deductions allowable in respect of that allowable income) shall be an allowable deduction.

(3) For the purpose of sub-section (2) of this Section, the allowance derived under Section 123AA shall not be an allowable deduction for the purpose of determining under sub-section (1) the amount of assessable income to be deducted from non-realizable expenditure in determining unrecovered non-realizable expenditure.

(4) Allowances under Sections 122, 122A and 123AA shall not be deductible until an amount equal to or in excess of the non-realizable capital expenditure has been fully recovered under this Section.

Section 123A- As at present with such amendments to Sub-section (3) as may be necessary, or alternatively, petroleum could be included as a special case by a slight modification of Section 123 above.

Section 123AA- (1) When a person carries on mining operations in Australia for the purpose of, or for purposes which include, the production of any specified mineral, an amount equal to a percentage, specified in the Regulations to this Act, of the amount remaining after deducting from such of the assessable income of that person as is attributable to the production, or is derived from the sale of the mineral so specified produced by those operations:-

- (a) all allowable deductions which relate to that income;
- (b) any other allowable deductions or part thereof, which, in the opinion of the Commissioner, may appropriately be related to that income.

shall be exempt from tax.  
(of present 23A)

(2) - (7)%. As at present.

(of present 23A)  
(8)%. To be deleted.

The following amendment would be necessary in Regulation 4A for the purpose of this suggested Section :-

Substitute for 4A.

4A. For the purpose of Section 123AA of the Act the

following shall be the percentage of depletion allowance for each of the minerals or metals specified.

- (a) 100 percent - Gold.
- (b) 40 percent - Antimony, arsenic, aluminium, asbestos, beryllium, bismuth, caesium, columbium, graphite, ilmenite (and associated minerals) lithium, manganese, mercury, molybdenite, mica, opal, optical calcite, osmiridium, precious stones, sillimanite and kyanite (and associated minerals), tantalum, tin, vermiculite.
- (c) 20 percent - All other minerals.

Where a mine produces gold and other mineral or metal, it shall be classed as a gold mine provided that the value of the output of gold is not less than forty per centum of the total value of the output of the mine.

Where a mine produces two or more of the above specified minerals, the allowance shall be at the rate of that producing the highest gross revenue.

Section 124. Section 124 to become 124(1) and to read as at present, the following definition to be added -

- (2) For the purpose of this Division "plant" includes -

Animals used as beasts of burden, or working beasts, motor vehicles, rolling stock, machinery, implements, rails, pipes, and all other equipment, as, in the opinion of the Commissioner, is of a realisable nature.

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In addition to the above Amendments, if the proposals made in Part III are accepted, slight amendments to Section 44, 84 and 160AA would also be necessary.

(J. A. DUNN.)  
Mineral Economist.  
17/12/1948.

APPENDIX I.

THE AUSTRALIAN TIN INDUSTRY.

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## THE AUSTRALIAN TIN INDUSTRY.

### 1. Introduction.

The term "The Tin Industry" is in general meant to apply to the tin mining industry - the primary side of the metal, which is at present the more important in this country. As yet no large secondary industry based on tin has been established in this country, although a large number of secondary industries consume small amounts of tin in the production of other commodities.

This Appendix is intended merely to give a brief review of the tin industry, sufficient to provide a picture of its economic position as a whole in Australia, so that the effects which taxation may have on the industry will be more clearly appreciated.

In dealing with the economics of the tin or any other mineral industry, we are dealing with an aggregate of many separate economic units as represented by each mine. The independence of these units is much more pronounced in mining than are the various producers in most other industries, for grade and reserves - which are not decisive factors in most other industries - form the basis of the economics of each mine individually; as they vary from mine to mine, the economics of each mine requires separate appreciation. In Appendix II of this Report the relevant economic data for various tin mines in Australia are given.

It is desired to express here appreciation of the assistance so readily provided by many concerned in the tin-industry - the enquiry would not have been possible without their co-operation. In particular the Department of Mines in Queensland and New South Wales assisted in arranging visits and provided helpful information. The data concerning the various mines in the Schedules accompanying Appendix II has been provided by the mining companies concerned. The latter, with only one or two exceptions, have been most cordially co-operative during the enquiry, and have helped in every possible way. The compilation of data has, in some cases, entailed considerable additional labour to their office staffs. The individual or private miners, though helpful in personal discussion, have not shown in general an equal readiness to provide data on the taxation aspect of their operations - such an attitude is perhaps understandable.

2. Producing Countries.

Although production of tin-ore in the form of concentrates is relatively small in Australia as compared with the production of several other countries, such domestic output as is available is of importance in the economy of this country. Our position in the world output of tin in concentrates is indicated by Table 1.

Table 1 - Tin content of concentrates produced in principal countries.

	<u>1939.(a)</u>	<u>1947.(b)</u>
	Tons.	Tons.
Malaya	53,290	27,026
N.E.I.	27,755	15,915
Siam	15,638	1,401
Burma	5,964	600
China	13,079	4,000
Bolivia	27,215	33,259
Nigeria	9,437	9,139
Congo	8,147	14,897
Australia	3,654	2,280
	<hr/>	<hr/>
WORLD TOTAL:	174,000	113,500

(a) Imperial Institute Statistical Summary, 1938-1944.(excluding Australia)

(b) Statistical Bulletin of the International Tin Study Group (excluding Australia)

Other countries either have a considerable exportable surplus of ore, or are large importers of tin in the form of metal or concentrates, but Australia is in the unusual position of having a domestic production of metal which, in recent years, has nearly balanced consumption. Formerly, we had quite a useful surplus for export, but production has so diminished that imports are now likely to become of greater importance with increasing consumption. Table 2 shows the Australian production of tin concentrates, in terms of metal content, over the past 18 years.

Table 2 - Tin content of Australian concentrates production, 1931-1948.

	Tons.		Tons.		Tons.
1931.	1,647	1937.	3,171	1943	2,590
1932	1,976	1938.	3,320	1944	2,595
1933	2,621	1939.	3,654	1945.	2,279
1934.	2,857	1940.	3,910	1946.	2,099
1935.	3,053	1941.	3,499	1947.	2,453
1936.	2,903	1942.	2,963	1948.	1,854.

These figures illustrate the rise in output as we climbed out of the depression of 1931-32, the stimulation in output during the early days of the war, followed by a steady falling away of output. This reduction in output since 1941 is more serious than the figures would indicate, for, in the last two years, a single producer, Tableland Tin Dredging Co. Ltd., has increased its output until it is now some 25 percent of the total - were it not for this company, the general position would be worse than the figures indicate.

The above Australian production figures have been used in preparing the accompanying graph, on which consumption and refined metal production are also shown. It will be noticed on the graph that production of tin in concentrates over several years is below refined metal production. A partial explanation of this is that the tin content of concentrates is calculated as 70%, whereas the average is probably above this figure.

### 3. Mining.

The greater part of the world's production of tin is obtained from alluvial deposits, mainly by dredging or sluicing. The large annual production in Malaya, Netherlands East Indies, and Siam has been made possible by modern tin-dredged, some of which are capable of treating over 5 million cubic yards of alluvium a year. Such dredges may have an initial capital cost of £500,000, but their efficiency is such that they are able to treat alluvium containing only a fraction of a lb. of tin per yard. Details of grade and working costs of Australian dredges are given in Appendix II, under Tableland Tin Dredging N.L., and Dorset Dredge.

Sluicing plants in general treat ground which for various reasons, is not suitable for dredges. The cost of the initial plant may be small compared with the cost of a dredge, but the working costs are higher per yard of alluvium; hence the grade of alluvium worked by sluicing must be higher, and generally is greater than 1 lb. tin per yard. Some typical Australian grades and costs of sluicing operations are given in Appendix II under Sugarloaf Tin N.L., and Endurance Tin Mining Co. Ltd.

Although formerly, up to the end of last century, lode tin production by underground methods of mining was of greater importance, at the present day production of lode tin is relatively minor as compared with alluvial tin. However, Bolivian concentrates are still obtained almost entirely from lode mines. The cost of production of lode tin, involving mining, crushing, grinding and concentration, is generally greater per ton of concentrates than is the case of much alluvial tin. Further, as a rule the concentrates produced from lode mines are not so clean, or free from impurities, as the concentrates from alluvial deposits - the Bolivian ores are particularly notable for their impurities. In Appendix II, the details of grade and working costs of Aberfoyle Tin N.L. represent lode tin mining under payable conditions.

In Australia, the greater part of the annual output is derived from alluvial mining - the largest producer is the Tableland Tin Dredge in Queensland with an annual output now over 700 tons of concentrates. The second largest producer is a lode mine, Aberfoyle Tin N.L., with an annual output exceeding 400 tons of concentrates.

#### 4. Smelter Output.

Amongst the principal countries which smelt tin concentrates, Australia's position is illustrated by the data in Table 3 of metal smelted during the representative pre-war and post-war years 1939 and 1947 respectively:-

Table 3 - Metal smelted in principal countries.

	<u>1939.</u>	<u>1947.</u>
Malaya	80,523	29,318
N.E.I.	14,430	-
China	9,892	3,600 (estimated)
United Kingdom	35,000 (est.)	27,544
Netherlands	14,430	8,750
Belgium	3,965	12,059
Germany	2,200	-
Belgium Congo	4,124	3,588
Argentina	1,080	480
U.S.A.	500	33,280
Australia	<u>3,294.</u>	<u>2,377.</u>
WORLD TOTAL:	<u>170,500</u>	<u>123,500</u>

Statistical Bulletin of the International Tin Study Group supplemented by Imperial Institute Statistical Summary, 1938-1944.

The most important feature which these figures illustrate is the dominant position as a tin smelter held since the war by U.S.A. The great Longhorn Smelter, in Texas, was established in 1938 for the treatment of imported concentrates largely from Bolivia. However, Malayan smelter production may be expected to increase and retain its pre-war position as tin mines in the East become fully rehabilitated.

Australia's smelting capacity, about 6,000 tons per year, is far greater than the actual output, which is, of course, limited by the supply of domestic concentrates to the smelters. Table 4, gives the smelter output in Australia since 1931.

Table 4 - Australian smelter output.

	<u>Tons.</u>		<u>Tons.</u>		<u>Tons.</u>
1931.	1,690	1937.	2,907	1943.	2,565
1932.	1,958	1938.	3,229	1944.	2,442
1933.	2,360	1939.	3,294	1945.	2,359
1934.	2,330	1940.	3,544	1946.	2,225
1935.	2,837	1941.	3,656	1947.	2,377
1936.	2,717	1942.	3,024	1948.	1,884

Imperial Institute Statistical Summary 1938-1944 and Statistical Bulletin of International Tin Study Group.

There are two smelters in this country, Messrs. O. T. Lompriere & Co., and T. H. Kelly, both located in Sydney. They share the output between them, with the result that neither is working even at half capacity. It may be readily appreciated that this does not lead to economic efficiency, particularly at the present time when division of output between the two smelters has the assent of Government, and the fixed sale price of tin is in part governed by the accepted smelting charges of these two firms.

## 5. Marketing.

Concentrates. The marketing of tin concentrates varies somewhat in different countries. The world's two leading tin smelters, apart from the Longhorn smelter in U.S.A., are the Straits Trading Company Ltd., Singapore, and the Eastern Smelting Co., Penang. Most of the tin mining companies in the East sell direct to one or other of these two smelting companies or to their Agents. Smaller producers sell their concentrates to licensed ore dealers, sometimes by tender, and the dealers then transport the ore to the smelters' ore-buying agency.

Smelters in Europe, and U.S.A. generally purchase concentrates direct from producers for a stated contract period, the price normally varying according to the market.

In Australia, the larger tin mining Companies sell and ship their concentrates direct to one or other of the two smelters in Sydney, an advance of up to 80% being paid by the latter at the time of sale, and the balance paid subsequent to the receipt and assay of the ore. Smaller producers sell either direct to local representatives of the smelters, or to Agents who purchase the concentrates on visual inspection. The two smelters, Messrs. O. T. Lompriere & Co. and T. H. Kelly, have at present a mutual understanding whereby the whole of the concentrate production in Australia is shared equally between them. In some cases the same representatives or Agents act for both. Buyers, whether they be smelters, representatives, or Agents, purchase concentrates on the basis of a price per unit (one per cent) of metallic tin content. Generally a standard is imposed, say of 70 percent tin, below which penalties are deducted - sometimes a bonus is paid for concentrates assaying over the standard. Penalties are imposed also for impurities in excess of stipulated amounts - such impurities include sulphur, arsenic, wolfram, bismuth, copper, lead zinc and antimony. The following schedule is a typical smelter's buying tariff.

Unit Price - Concentrates assaying 70% or higher - 111/-d.  
per unit delivered Sydney.

### Deductions for concentrates assaying less than 70%.

69.9% down to 60%	-----	1½d. per unit
59.9% down to 50%	-----	2d.   "   "
49.5% down to 40%	-----	6d.   "   "

Note - Calculated on a sliding scale, e.g. the deduction on concentrates assaying 55.5% would be 2/1d.

Penalties for impurities.

Sulphur	-	Up to 0.15%	-----	No charge
		Over 0.15%	-----	£2.0.0. per ton.
Arsonic	-	Up to 0.1%	-----	No charge
		Over 0.1%	-----	2/- per ton for each 0.1% or part thereof present.

In addition where arsonic is in excess of 0.1%, a roasting charge of £2.0.0. per ton is to be charged unless a penalty of £2.0.0. is already incurred for Sulphur.

Combined impurities (Zn, Pb, Cu, Bi, Sb.)

6/-d. per ton for each 0.1% or part thereof present with a minimum charge of £2.0.0. per ton.

Wolfram	-	Up to 0.5%	-----	No charge.
		Over 0.5%	-----	10/- per ton for each 1% or part thereof present.

Overseas, the price paid per unit for concentrates is governed by the current price of metallic tin, from which are deducted returning charges made by the smelter; an example of a typical returning charge in the United Kingdom is given under "Prices". In Australia at the present time, the price of concentrates per unit of tin content paid by the smelters has been fixed by the Prices Commissioner, and the price of metallic tin is adjusted accordingly, by adding agreed smelter and other charges to the price of concentrates.

Metal. Overseas, the allocation of tin to each country is made by the Combined Tin Committee, the main participants in which are the United Kingdom and United States. Imports up to the quantities allocated by the Committee are made direct by smelters to each country. Allocation of tin within each country is a matter of domestic concern.

In Australia, the tin is issued to consumers direct by the smelters and, owing to the present shortage, allocations of the metal are carefully controlled by them. Such imports of tin as are made at present, on allocation by the Combined Tin Committee, are imported direct from Singapore on Government account. These imports are divided between the two smelter companies who act as distributors, and the metal is sold on their own account, the smelters recouping Government within three months of deliveries.

Because of the shortage of tin at present in Australia, export of concentrate and metal is prohibited under the Customs Act 1901-1947, Section 112, except on the production by the intending exporter to the Collector of Customs of a covering approval issued by the Department of Supply and Development.

## 6. Prices.

A characteristic feature of tin is the periodical wide variation in price of the metal even within a single year, caused mainly by the inelasticity between supply and demand. The price of tin is a relatively minor item in the actual cost of the final commodities in which the metal and its alloys are used, and a fall in price following over-production gives rise to no strong incentive for increased demand. When demand exceeds production, there is a time lag before the incentive of increased prices causes a boost in production, and prices rise sharply.

In Table 5, the London prices of tin since 1931, as published by the International Tin Study Group, are shown.

Table 5 - London Tin Prices.

	£stg. per ton.		
	<u>Highest.</u>	<u>Lowest.</u>	<u>Average.</u>
1931	142	100	118
1932	158	102	136
1933	227	141	195
1934	244	222	230
1935	245	208	226
1936	245	175	205
1937	311	181	242
1938	217	153	190
1939	272	209	226
1940	290	232	257
1941	283	255	262 (a)
1942	276	276	276
1943	276	276	276
1944	301	301	301
1945	301	301	301
1946	382	301	323
1947	513	382	428
1948	572	513	-

(a) Average for 11 months.

Statistical Yearbook of International Tin Research & Development Council, and Statistical Bulletin of International Tin Study Group.

NOTE: Prices, up to and including 1941, are for standard cash tin (ex warehouse), and thereafter for refined tin delivered consumers' works.

From the end of 1941, a free market for tin ceased to operate abroad, and the metal came under the control of the Combined Raw Materials Board and subsequently, at the end of 1945, under the Combined Tin Committee, the main participants being the United States and United Kingdom.

It is interesting to note that tin prices in recent years have been determined by price contracts between Bolivia and the United States. Much of Bolivian production is smelted in Texas, generally under a price contract for one year. As the Lancashire smelters are partly owned by Bolivian producers, the United Kingdom is also a buyer of Bolivian tin ore. There is an understanding between the United Kingdom and the United States on the Combined Tin Committee to buy at the same price,

and this price in turn is the basis for price negotiations with Nigerian and Malayan producers. Malayan miners have maintained that as U.S.A., being a consumer, would naturally negotiate to buy Bolivian tin-ore at the lowest possible price, this same price is by comparison, too low for the Malayan concentrates, which are cheaper to treat.

In Australia, the price of tin came under the control of the Commonwealth Government in early 1940. During the war the controlled price of the Combined Raw Materials Board was followed in Australia, but since the war the price has lagged behind the overseas price. Table 6 indicates the successive rises which have taken place in Australia since the control commenced. The data represents the fixed maximum selling price ex-Smelters' Works for sales of 10 cwt. or more of ingots weighing 70 lb. or more.

Table 6 - Australian tin metal prices.

14th. Feb. 1940.	£306 per ton.
8th. April, 1941.	£320 per ton.
1st. May, 1942.	£371 per ton.
8th. April, 1943.	£376 per ton.
6th. Sept. 1946.	£383 per ton.
23rd. April, 1947.	£418 per ton.
9th. Sept. 1947.	£515 per ton.
1st. March, 1948	£550 per ton.
12th. July, 1948.	£620 per ton.

Commonwealth Gazette.

The present Australian price of tin, £A620, may be compared with the United Kingdom price, £A711.5 (average ex works) - a difference of £A91. It is apposite for the producer to ask the question - Is this difference justified?

It has already been pointed out that in the final individual commodities in which tin and its alloys are used and sold to the Australian public, the price changes of tin are small and unimportant items of cost. The price of tin may be of importance in the cost of solder, bearing metals and other alloys, but the amount of solder and alloys used in the manufacture of each article as marketed is small. The tin producers thus have quite a legitimate argument that, on the basis of overseas prices, the Australian producer is being penalised in order to provide the Australian public with tin at a cost which has little overall effect on the final price of the goods into which it enters.

In deciding whether or not control should continue, the question must be asked - Which is preferable, to stimulate the Australian output of this metal, which has been steadily declining, by permitting a world price to the primary producers, or to enforce a lower price which has no really useful effect on the economy of secondary industries? To those closely associated with the mining industry there can be only one answer.

The above prices deal with the metal - the smelter product. So far as the mining industry in Australia is concerned, the price paid by the smelters for tin concentrates is of greater importance. Since price controls were instituted, the prices per unit of tin shown in Table 7 have been paid for tin concentrates assaying 70 percent or over; penalties according to a standard scale are made for concentrates below 70 percent; and for impurities;



Table 7 - Australian tin concentrates prices.

1942	66/-	per unit (= £231 per ton 70% concentrate)
1946	76/-	per unit (= £266 per ton 70% concentrate)
1947	92/-	per unit (= £322 per ton 70% concentrate)
1948	111/-	per unit (= £389 per ton 70% concentrate)

The present price, 111 shilling per unit, is equivalent to £388.10. per ton of 70 percent concentrates delivered at Sydney, or £555 per ton of contained tin.

The present price of metal includes the following charges:-

Concentrates	555. 0. 0. per ton tin
Smelter charges	46.10. 0.
Equalisation Pool charge	<u>18.10. 0.</u>
	£620. 0. 0. per ton

The Equalisation Pool charge is added in order to permit the small amount of imported tin to be sold at the same price as the domestic product.

Some of the Australian producers contend that they could obtain a higher figure for their concentrates abroad. In July, 1948, the British Metal Corporation Ltd., quoted the following current terms for good grade concentrates in the U.K. :-

Tin. Less 1 unit at the Ministry of Supply's authorised tin-ore buying price - £559 per ton (£A698.15.0 ton)

Returning Charges. £9.10. (£A11.17.6) per ton, basis 70 percent tin, minus 2/6d. for each unit above 70 percent up to 74 percent, plus 5/- for each unit below 70 percent down to 60 percent, fractions pro rata.

Delivery. Free to buyer's works, Bootle, Cost from c.i.f. Liverpool to delivered Bootle is approximately £1 per ton.

On these figures the price paid for 70 percent concentrates, landed at Liverpool is £375/14 (£A469.12) per ton. For Australian concentrates, allowing 144/6 per ton freight, the price ex Australian ports would be £368.9.6. (£A460.12) per ton approximately.

This price £A460.12. which the Australian producer could obtain were he permitted to ship his concentrates overseas may be compared with the price £388.10 paid by Australian smelters, to whom he is forced, by export restrictions, to sell his output.

The difference is partly attributable to the remarkably high smelting charges allowed to the two Australian smelting firms, £46.10., in fixing the price of tin. It is, indeed, not improbable that if Australian concentrates could be shipped abroad at the prices now paid by Australian smelters and re-imported as tin metal, the total cost would probably be lower than the present Australian fixed price, after addition of the necessary United Kingdom smelting charges and freight.

The Australian ore producer certainly has some justification for the contention that he is penalised on the price paid for his concentrates, in order to permit two companies to continue the inefficient smelting of concentrates the amount of which is insufficient for even one company to smelt efficiently.

#### 7. Consumption.

The principal consuming countries of tin for two representative years are indicated in Table 8.

Table 8 - Principal consuming countries.

	<u>1939.</u>	<u>1947.</u>
	Tons.	Tons.
U.S.A.	66,583	63,078
U.K.	27,279	27,384
Germany	11,000	904
Japan	11,184	1,632
France	7,726	9,931
India	3,524	5,048
Canada	2,488	3,819
Italy	3,716	1,980
Sweden	2,917	1,176
Australia.	2,272	2,551
	<hr/>	<hr/>
WORLD TOTAL:	158,100	136,900
	<hr/>	<hr/>

Statistical Bulletin of International Tin Study Group  
(excluding Australia).

The above data represent consumption of primary tin, or new tin absorbed by industry from the smelter product of newly mined ore. In addition a large amount of tin from scrap and waste is recovered and put back into industry. There is no complete record of this secondary tin which augments the primary supply, but the recorded secondary tin in the U.S.A. for the above representative years is 15,845 tons and 24,103 tons respectively.

The cost of recovering tin by the de-tinning of scrap tinplate and from tin-bearing alloys is such that it is normally not economic, unless possible on a large scale - the cost of collecting scrap is generally prohibitive. The small consuming countries, therefore, do not find the production of secondary tin from scrap to be economic. In Australia the amount of secondary tin re-entering industry although not recorded is very minor.

Table 9 - Uses of tin in industry.

1. Pure Tin.

Rolling - Foil for wrapping Food.

Extrusion - Collapsible tubes for Toilet Preparations, Paint, Food, Ointments, etc. Pipes.

Powder - Decoration.

2. Tin Coatings.

Chemical Precipitation - Buttons, Pins, Safety Pins, Thimble, Chain Units etc.

Electro Deposition - Tin - Lighting Fixtures, Cans for Powders, Cigarettes, Tobacco, Oil, Paint, Polishes, Films etc.

- Anodic Treatment - Decoration.

- Alloys - Bronzing, Speculum Plating.

Spraying - Decoration.

Hot Dipping - Tin - Food cans, Kitchenware, Toys, Gas Motors, Advertising Signs, Crown Corks, Road signs, Dairy Equipment, Hot Water Apparatus, Tinned wire, tin-washed Lead Pipes etc.

Alloys- Terneplate for car bodies, Roofing, Drums and Kegs.

3. Tin Alloys.

Solder - Cans, Cars & Aero Radiators, Telephones, Radio, Electro-Motors, Generators, Refrigerators, General Plumbing.

White Metal bearing alloys - Motor Cars, Railway Rolling Stock, Marine & Stationary Engines

Bronze - Motor Cars, Railway Rolling Stock, Engines, Machines, Gears, Pumps, Valves, Springs, Chemical Plant, Pipe Unions, Statuary, Bells, Coils, Wire Screens for Paper Making, Ornamental Fittings.

Type Metals - Stereotype, Monotype, Linotype, Intertype, Typograph, Electro-backing.

Pewter - Arts objects, Liturgical objects, Decorative Work, Domestic utensils.

Other Alloys - Miscellaneous - Capsules, Cable Sheathing, Packing Rings, Die Casting, Alloys, Pattern Alloys.

Fusible Alloys- Fire Extinguishers, Fire Alarms, Boiler Safety Plugs, Castings & Moulds etc.

Dental Amalgams - Dental Fillings.

4. Tin Compounds.

Organic - Lubricating Oils, Pharmaceutics, Textile Oils.

Inorganic - Enamels, Textile, Dyeing, Bleaching Agents, Weighting Natural Silk.

Table 9 indicates the spread of tin through industry. Taking the world's annual output of tin as a whole, approximately 40 percent is used in the manufacture of tinplate (sheet metal coated with tin) and terneplate (sheet steel coated with a tin-lead alloy). A great number of tin-bearing alloys is used in industry, and of these solder absorbs over 20 percent of the annual tin production. The metal is used also in the form of collapsible tubes and foil for wrapping food etc. and pipes for conveying distilled water, oils, chemicals. The remainder is used for tinning, and in tin compounds used in enamels, the textile industry and the oil industry.

In Australia no tin-plate industry has been established to date, and consumption of tin is by innumerable consumers mainly manufacturing solders and various other alloys such as babbitt metal, bronze, etc. Any market survey would necessarily cover a very wide field of petty consumers.

By 1953, it is expected that a tinplate works will have been established at Port Kembla, N.S.W. with an annual output of 120,000 tons of tinplate, consuming 2,000 - 2,500 tons of tin. Australia will then become more or less self-sufficient in production of tin-plate, but on present indications will be increasingly dependent on imports of ingot tin.

It has been estimated by the Minerals Production Directorate that the 1948 minimum requirements in this country will be 2,800 tons - actual consumption will be much below this. An estimate made early in 1947 of the distribution of consumption for that year was as follows:-

Tin oxide - vitreous enamelware	130 tons.
Printers' metals	50 tons.
Gas and water meters	20 tons.
Collapsible tubes	60 tons.
Terne sheet and Plate	70 tons.
Railways and Tramways	80 tons.
Solder (food preserves)	450 tons.
Solder (other uses)	520 tons.
Casting Alloys	300 tons.
Bearing Metals	300 tons.
Tinning	450 tons.
Miscellaneous.	140 tons.

In Table 10 the apparent consumption of tin in Australia during recent years is given. This consumption excludes tin imported in the form of tin-plate, and refers to ingot tin only. The amounts for each year are derived by deducting exports from the total of imports and domestic production of refined metal.

Table 10 - Apparent Consumption of Tin in Australia.

<u>Year</u>	<u>Tons.</u>	<u>Year</u>	<u>Tons.</u>	<u>Year</u>	<u>Tons.</u>
1931	1,080	1937	2,245	1943	2,338
1932	1,113	1938	2,188	1944	2,049
1933	1,256	1939	2,111	1945	1,992
1934	1,158	1940	2,453	1946	2,093
1935	1,884	1941	3,094	1947	2,550
1936	1,980	1942	3,010	1948	2,284

Calculated from production of refined metal plus imports less exports of metallic tin, by Bureau of Mineral Resources.

## 8. International Tin Agreements.

Following the 1914-18 War, the world capacity for production of tin expanded rapidly as larger dredges were increasingly introduced into Malaya. This had a disastrous effect on price, and international agreements became necessary to control production.

The first of these Agreements was the Bandoong Agreement of the early twenties, under which a supplementary stock was formed to reduce producers' available stocks. Next, in 1929, the Tin Producers' Association came into existence with the object of adjusting the great margin of production over consumption, and a voluntary scheme of restricted output was initiated, but owing to the ineffectiveness of the scheme the International Tin Committee came into existence in 1931, leading to the restriction of output by the British, Dutch and Bolivian Governments. This restriction scheme was worked in conjunction with an International Tin Pool, the object being to adjust the price by means of stocks accumulated by the Pool. The Tin Pool was dissolved in 1933, a new agreement under the International Tin Committee came into force in 1934, and was renewed in 1937, for the control of production and stocks, other countries joining the Agreement. In 1938 a Buffer Pool was built up by the Committee to take care of over-production.

The International Tin Committee's activities were reasonably successful in exerting some influence on price stabilisation, but the war came along before the full efficacy of the Buffer Pool could be felt. At the beginning of the War, the price of tin was fixed by the British Ministry of Supply, but control was soon removed and a free price permitted through 1940 and 1941, until Japan entered the War. From then on the Combined Raw Materials Board allocated such supplies of tin as were available, and at the end of 1945 the Combined Tin Committee took over the control, the main participants being U.K. and U.S.A.

Control of allocation of tin is still exerted by the Combined Tin Committee, but the International Tin Study Group has now come into existence, and a scheme for the further control of tin by means of an Agreement under the International Trade Organisation is under preparation. Whereas pre-war Agreements were between producers only, the proposed new Agreement will combine the interests of both producers and consumers. Although Australia took no part in the pre-war control, it is expected that she will be a signatory to the new Agreement.

## 9. Distribution of Tin in Australia.

The production of tin concentrates in Australia, in 1947, was as follows:-

### Queensland.

Tableland Tin Dredging N.L.	1,064 tons.
Others.	332 tons.

1947  
689 tons  
332 "

### Tasmania.

Aberfoyle Tin N.L.	474 tons.
Storcy's Creek Tin Mine	47 tons.
Endurance Tin	138 tons.
Dorset Flat Dredge	110 tons.
Briscoe Cons. N.L.	104 tons.
Mt. Bischoff Tin Mining Co.	53 tons.
Ronison Assoc. Tin Mines.	87 tons.
Others	150 tons.

3,266 tons  
15  
75  
129  
20  
9  
155

N.S.W.

E. Cleghorn.	40 tons.	} 615 tons
New Butlers.	33 tons.	
J. Symes	43 tons.	
E. Cox.	60 tons.	
Burma Malay Tin Ltd.	35 tons.	
Others	580 tons.	

Victoria.

Cocks Elderado	87 tons	49
Others	Nil	Nil

W.A.

F. E. D. Freeman	6 tons	} 35
Others	18 tons	

Northern Territory

20 tons. 27

Queensland. Tin production Queensland as at present mainly from the Atherton Tableland. Here there are two main localities - the Mt. Garnet area producing alluvial tin, and the Herberton area producing mainly lode tin. The operations of Tableland Tin Dredging N.L., easily the largest tin operators in Australia at the present time, are situated along Return Creek, close to Mt. Garnet. On the present lease area the reserves at the current rate of dredging will suffice until 1956.\*

Tin is known to occur along adjacent valleys - Smith's Creek, Battle Creek, and Nettle Creek - all of which are tributaries of the Herbert River. Prospecting is now being actively pursued and, particularly along Smith's Creek, results have been quite promising. The Smith's Creek area is not particularly accessible, but the main difficulty in development of tin operations here is power supply, a difficulty which will be removed when the State electric power scheme reaches the area in 1953-54. The annual rainfall is some 26 inches which falls in 2-3 months, but with storage the water supply should normally be adequate. Although stream pollution from the Tableland Tin operation has been a difficulty, it is probable that the type of alluvium along Smith's Creek may be less of a problem.

It is apparent that much has yet to be learnt from the tin possibilities of this part of the Atherton Tableland but from the tin-bearing areas proved to date, the indications are that this may become an increasingly important tin-producing area.

In the Herberton district there are three tin mining localities - Herberton, Watsonville, and Irvinebank. Formerly some minor veins in the hill just to the north of Herberton town yielded a small output but are not now being worked. A few miners are working small veins near Watsonville, 7 miles west of Herberton, but the greatest activity is around Irvinebank, 17 miles south-west of Herberton. The total number of men employed on tin production in this region is about 100; they work either individually or in small syndicates or partnerships. Production in this area is far from capacity, even in the present working mines. No miner makes any attempt to earn more than £800-£1000 a year, preferring to retain his reserves for future years of lower taxation.

In the Stanthorpe district the only mine of any size now working is Sugarloaf Tin, a sluicing proposition producing about 20 tons of concentrates annually. In addition there are a number of prospectors who sell small parcels to the local Agents; some are orchardists or old age pensioners who do not even take out

\* The Company now own estimated their reserves.  
20/4/52

a claim. In this district it would appear that no revival of tin-output is likely, there are no additional areas which are likely to be important, although small-scale tin-washing may be maintained for some years. There has also been a minor output of tin from the Kangaroo Hills, and from Annan River, west of Cooktown.

Tasmania. The North-eastern corner of Tasmania is the most important tin area in that State. The largest producer, Aberfoyle Tin N.L. at Rossarden, is an under-ground mine which intends to expand production and has a lengthy future. The adjacent Storey's Creek mine yields a little tin in addition to wolfram. Other output in this part of Tasmania is of alluvial tin, mainly along the valley of the Ringarooma river, but there are only two large producers, Dorset Flat Dredge (a Commonwealth Government project), and Endurance Tin Mine. During the War Brisbane Consolidated N.L. gave the largest output of tin in Australia, but this remarkable mine was closed down this year - the mine may be re-opened by a small syndicate and worked in a small way in the near future. Shallow sluicing is carried out also in other parts of the North-east.

On the West Coast the only producer is Renison Associated Tin Mines at Renison Bell. The sulphide ore-bodies here are worked by open cut and, with adequate exploration, there is every likelihood of a lengthy future. Mt. Bischoff Tin Mining Co., a Commonwealth Government war-time project, has now closed down; its possible revival by other interests is still under consideration.

The north-eastern area of Tasmania is likely to yield an important output of tin for many years, mainly from the Aberfoyle mine. There is still adequate scope for future exploration work in the Rossarden area and, with improvement in general conditions, it is not improbable that output in this area may expand. To the north-east, towards St. Helens on the eastern coast, there has been a revival of activity by small-scale miners following recent increased in the price of tin, and places formerly thought to be unprofitable are now being reconsidered. Along the valley of the Ringarooma there are several known and prospective alluvial tin areas which might come into production. Some tin has been found in the extensive marshes at the mouth of the Ringarooma and these are said to warrant extensive boring. It seems likely that given the necessary incentive, an increase of tin production in this area is possible.

New South Wales. Tin is produced in the New England region in the north-eastern part of the State. The production is mainly around Tingha, where there are three or four sluicing plants of importance, with a number of smaller plants. The output today is entirely from sluicing, no deep leads are being worked now.

A few small plants are operating around Emmaville and in addition there are a number of fossickers. No deep leads are being worked in this vicinity, although it is reported that some deep leads - particularly the Vegetable Creek lead - afford possibilities for development. Other sluicing areas of minor importance are around Glen Innes, Tentersfield, Kikoira, Bendemeer and Mount Tallobung.

In the Torrington area tin bearing veins in granite have been worked, but only two mines are at present working in a desultory fashion. With improvement of labour and other conditions it is not unlikely that there would be some revival of underground mining in the Torrington area.

There is nothing to suggest that tin-production is likely to be revived to any extent in New South Wales., although the Torrington area still may have possibilities; certainly there are no tin prospects in the State comparable with the possibilities in Northern Queensland and north-eastern Tasmania.

Victoria. With termination of dredging by Cocks Eldorado Gold Dredging N.L. during the next few months, tin production in Victoria will cease. No revival of tin mining in this State may be expected.

Western Australia. There has been a small intermittent production of tin from the Greenbushes area in Western Australia. This State was not visited during the present enquiry, but Mr. Cook, Mining Engineer to the Bureau, informs me that there are possibilities of some revival of tin production along with tantalite mining.

Northern Territory. A very small amount of tin is still obtained from the northern part of the Northern Territory; the main producing area has been Mount Wells.

#### 10. The Principal Australian Mines.

In the previous section it was pointed out that apparently the main scope for further development of the tin industry is in the Atherton Tableland in Northern Queensland, and possibly in North-eastern Tasmania. Details of the present-day positions of the principal working mines are given in Appendix II, but a brief review of them may be given here.

Tableland Tin Dredging N.L., Queensland, is now Australia's major producer with an average output in excess of 800 tons of concentrates in each of the last two years. For the first 6 years the Company for various reasons was in financial difficulties, but during the last two years has rapidly attained a very strong financial position, and dividends paid considerably exceed non-realizable assets. About 8 years' reserves remain in the present lease, and with reasonably stable economic conditions the mine should be a consistent dividend payer, with a production ranging between 700 and 900 tons of concentrates annually. \*

Sugarloaf Tin N.L., a sluicing Company in the Stanthorpe district, South Queensland, has let out its leases on tribute during most of its life. The company has recently resumed sluicing operations on one of its remaining leases. Two years' reserves remain on this lease, and perhaps a further 3-5 years on neighbouring leases. The Company has not had a successful career - it is doubtful whether dividends will return the capital invested in full. The production is of the order of 20-30 tons of concentrates per annum, varying widely with the grade of alluvium. At the present time the books of the Company show a consistent loss, and it is difficult to see any possibility of an improvement.

Aberfoyle Tin N.L., working a lode mine at Rossarden, North-eastern Tasmania, is the second largest tin producer in Australia, with an annual output now exceeding 400 tons of concentrates. Recoveries from the ore milled have averaged 1.39 percent tin and .19 percent tungstic oxide. The Company has paid dividends consistently since 1935, it is one of the most successful mining companies in Australia, and is in a remarkably strong financial position. The life of the mine is indefinite - the lodes at depth, 867 feet, are consistent in grade and dimensions with upper levels. Exploration and development is being vigorously pursued, and with suitable economic conditions an expanded output is contemplated.

Dorset Tin dredge has been operated by the Commonwealth Government since 1944, on alluvial flats along the Ringarooma River. At the present rate of production, about 110 tons of concentrates per annum, reserves for about 12 years remain on the present and adjacent leases. Although the dredge has shown a working profit, and costs compare favourably with dredging

\* These reserve figures were the Company's, and in the event have proved to be grossly overestimated both as to quantity and grade. The Co's promising future was therefore not realized. Any future re-estimates of the Co. should not be accepted, except after the most careful independent scrutiny.



operations in other parts of Australia, viewed as a Company venture, in which other items of cost not included in Government accounts would be debited, it is unlikely that the operations would ultimately be regarded as particularly successful.

Endurance Tin Mining Company N.L. has been sluicing alluvial leases in the Ringarooma valley during the last 25 years. Production is now of the order of 50 - 110 tons of concentrates per year varying according to the grade of ground sluiced. Reserves in the present leases suffice for 5 years, but adjacent areas have still to be bored. The Company has been an intermittent dividend payer for many years. Although realisable assets are rather less than the issue share capital, the Company is in quite a sound position for the continuation of sluicing provided that costs do not rise unduly.

Briscis Consolidated N.L., which worked a sluicing property at Derby, north-eastern Tasmania, is now in liquidation. Nevertheless it is of interest to summarise this Company's activities. After careful estimation of all the hazards and costs (which were confirmed in subsequent operations) the Company commenced operations in 1934, but experienced serious set-backs for the first three years. From then on it commenced paying dividends. During the early stages of the war it was the largest tin producer in Australia, but output then dropped as difficulties increased, largely because of war-time conditions of operations, culminating in a great slip of alluvium in 1946 which inundated the workings. Since then the Company has been engaged in winding up. Financially, for an original capital investment of £150,000, £127,500 has been paid in dividends, £64,363 in taxation; on finally winding up the total return to the shareholders will be only about 6/- per 5/- share over their 15 years investment - with income tax paid by shareholders on the dividends, it is doubtful whether their net return will repay their capital. This mine very clearly demonstrates the contention that the financial position of a mine can be finally judged only from its life history as a whole - the division of profits on an annual basis is entirely artificial, and the resulting impact of taxation is likely to be particularly onerous for such operations which depend for their income on the depletion of a wasting asset.

Renison Associated Tin Mines, is mining a group of sulphide ore-bodies, mainly by open cut, at Renison Bell, about 20 miles north of Zeehan on the west coast of Tasmania. Output is variable but was 87 tons of concentrates in 1947. The grade of ore is about 1 percent, but 60 percent is lost in the tailings discharged down the creek. Reserves are not developed and the future life of the Company is unknown. The Company has a loan of £1,500 from the Commonwealth Government, and a loan of £2,000 from the Tasmanian Government which is being reduced. The Company is weak financially, not noteworthy for its efficiency, and if it continues to operate organised as at present its financial position will remain uncertain.

New Butler's Tin Mine, operating a lode tin mine near Torrington, N.S.W., has had a difficult career. At present, its troubles are largely due to shortage of labour. Victory Tin, N.L., recently commenced work on an alluvial lease near Tingha, N.S.W., but the ground was abandoned after operations showed that values were unprofitable, and another lease will shortly be worked.

Of the innumerable small producers in Queensland, New South Wales, and Tasmania, who provide about 30 percent of the total output, most can be said to be merely making a living at tin-mining, few are making large profits. Undoubtedly many of them could earn more, but some have no wish to make more than a reasonable living - in some cases this attitude is induced by the high rate of taxation, in others it is a simple attitude of working no more than is necessary.

LONG TONS

350000

£ STERLING

700

# WORLD TIN PRODUCTION AND PRICE.

300000

250000

200000

150000

100000

50000

600

500

400

300

200

100

0

LONG TONS

4000

£ AUSTRALIAN

800

3500

3000

2500

2000

1500

1000

500

700

600

500

400

300

200

100

0

## AUSTRALIAN TIN PRODUCTION, CONSUMPTION, PRICE.

DRAWN BY GEOPHYSICAL DRAWING SECTION

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11. The economic position of the tin industry.

General. In recent years the tin industry in Australia cannot be said to have conformed to the economic cycle of other industries. The accompanying graph of production, consumption, and price of the metal in Australia emphasises the downward plunge of production since 1941, notwithstanding the decided increase in price during the period. This is in striking contrast to the mounting production of other commodities during this seller's market period. From a country having an exportable surplus of tin, we now appear to have become a country deficient in this metal.

What are the causes of this decided fall in production? Is it a passing phase in an individual tin-mining cycle? Is it a consequence of costs, prices, controls, taxation, or some other impeding influence? These are pertinent questions to be asked if we wish to seek a cause and a cure.

It was pointed out in the Introduction to this Appendix that the general economics of the tin mining industry is nothing more than an aggregate of the economic positions of the various mines - this is well illustrated by the widely contrasting financial positions of the mines detailed in Appendix II.

Although the large producer Briscoe Consolidated N.L., has gone out of production, its loss has been much more than compensated by the production of Tableland Tin Dredging N.L.. By and large, the position has been due to the reduced output from the innumerable small producers.

This reduction in output may be attributed partly to the actual or approaching exhaustion of old fields, partly to the scarcity of labour in the industry, partly to the effects of lack of development during the war and which are now becoming evident, and partly to other economic factors. All of these factors are contributory.

The first factor, as has been pointed out in a previous section, is important, particularly in some of the dying fields of New England, N.S.W. The second factor, shortage of labour, is undoubtedly contributory - indeed it is a cause for surprise, perhaps, that there are men who prefer this occupation at the present time when labour is so scarce in other more congenial industries.

Lack of development during the war is certainly one of the dominant causes of the present low output of the Australian industry. It illustrates so well the contention of those engaged in the mining industry that if development is impeded for a period its effect will be felt for a long time to come. Production must be accompanied by exploration and development if output is to be maintained, any restriction on exploration or development ultimately means a drop in output. During the war, the emphasis was on output, scarcity of manpower did not permit adequate work on operations which were not of an immediately productive nature. Hence, new ground has now to be found and tested - work which would normally have been done during the years 1943-1946. That such ground exists has been pointed out in the previous section; exploration is being pushed ahead in Northern Queensland, but its effects cannot become evident for a few years yet. It leads to the view that the present slump in output is a passing phase of the industry, provided the general economics of prices, costs, etc. are attractive. These latter may now be discussed briefly.

Cost and Price. Before the war, the price of tin throughout the world was governed by the output and the low cost of production of concentrates in Malaya and neighbouring countries. Since the war, following rehabilitation of the Eastern mines, it is

apparent that cost of production in these countries has increased greatly. Various estimates have been made. At a meeting of the Malayan Union Advisory Council in 1947, Mr. H. S. Lee said:

"Compared with pre-war the cost of labour has gone up  $2\frac{1}{2}$  times, food five times, fuel oil 120 percent, engine oil 170 percent, coal 120 percent, transport 200 percent, timber 200 percent, spare parts for pumps 200 percent, and machinery about 100 percent.

Allocating the cost of operation in its proper proportions I find that the total cost of production is now 270 percent as compared with 100 percent in 1941".

Mr. Ivan Spens, Chairman of the London Tin Corporation, speaking at the annual meeting of the Corporation in London in September, 1947, said:

"Operating costs at present are at least double the pre-war figure".

So far as can be judged, costs in the East are likely to be a minimum of 100 percent over the pre-war figure. The post-war increase in the price of tin is a reflection not only of world demand but also of cost, and as the latter is now a permanent increase - and as the broader features of the economics of the tin industry will again be dependent on conditions in the East - the present price of tin is a guide to the future price.

In Bolivia the output of tin concentrates was pushed to the limit during the war. The tin industry is vital to Bolivia, for the export duty on tin concentrates alone provides more than half the country's total revenue. Some of the mines have been seriously depleted and costs have soared. At recent meetings of the International Tin Study Group to discuss proposals for a Tin Agreement, the Bolivian representative was insistent that the price of tin should be stabilised at £stg. 600 a ton. Although it is apparent that Bolivia's demands were conditioned by the necessity for bargaining, the closing down of some Bolivian mines when tin was prices at over £stg. 500 a ton indicates the seriousness of the economic position of the Bolivian tin industry.

In Australia, costs have certainly risen, but notwithstanding that the domestic price of tin is below the world-price - the Australian producers of tin concentrates are probably receiving a lower price than producers in any other country at the moment - producers are now making larger surpluses than they have made for several years. So far as established mines are concerned, with plant in good condition, costs in this country would now appear to compare favourably with those in any country. A perusal of the positions of such companies as Tableland Tin and Aberfoyle in Appendix II of this Report, will indicate the remarkable change which has been brought about in the position of the former, and the thoroughly stable position of the latter, largely due to recent increases in price, backed by efficiency and determination during less favourable times. Concerns which are not making a profit to-day are in that position either because the deposits are low grade, or because of local difficulties or inefficiency.

That is the position at present for established mines. For new mines which have to pay far more for capital equipment, the position is different. A tin dredge which formerly cost £75,000 would now cost at least £250,000 if available, the return on this capital even in terms of present surpluses in the tin industry would not be so attractive. A mine such as Aberfoyle, in which the paid-up capital is £62,500 would almost certainly require at

least £300,000 if floated today. Even established mines will find it necessary to replace obsolete or worn-out plant during the next few years, and from now on the price-cost position of the tin industry in Australia is likely not to remain as favourable as the present peak position.

Demand and Supply. At the end of the war overseas estimates of the future world demand for tin were of the order of 250,000 tons per year. It is now apparent that the world demand will be far short of this; for a time at least it is likely to be little different from the pre-war demand and will be of the order of 150,000 to 200,000 tons. This is well within the pre-war capacity for production, and in fact rehabilitation of Eastern tin producers has been so rapid that production has even now almost caught up with demand. If, despite political or other disturbances, Eastern producers can attain their pre-war output, then the danger of over-production will return almost immediately. This danger is clearly appreciated by the International Tin Study Group, and has been the cause of discussions with the view to the submission of an International Tin Agreement to the various signatory countries, including Australia, under the International Trade Organisation.

Possibilities of over-production, with the necessity of adjusting supply to demand, are inherent in the tin industry during the next one or two decades. But from a longer term outlook, it must be emphasised that, so far as we can judge now, world reserves of tin, like world reserves of several other metals, have a limited life - it has been estimated that in Malaya, easily the most important tin-ore producing country, reserves are of the order of 30 years on present-day consumption. Although such estimates are likely to prove conservative, they do emphasise that 30 years hence tin dredging is likely to give place to underground mining in increasing importance - to types of deposits which are more difficult to find, more costly to work, and for tin in general of lower capacity production. With this world picture in mind we may turn to the position in Australia. It has been remarked that Australia might advisedly do nothing to stimulate local production, but hold its known reserves for the future, particularly for critical periods. This is a viewpoint which, in the present stage of development of this country, no mineral economist could support from any angle. It may be taken for granted that industry will find increasing substitutes for many purposes in which tin is used - as happened during the war - and it is not improbable that as tin reserves fade so other materials will take the place of the metal and countries which have held their reserves may find them to be of decreasing relative importance. If we hold our reserves for critical periods, such as war, we will find, as in the last war, that it takes several years to get mines up to maximum production - the best preparation for national emergencies is to have production developed to the maximum for peacetime consumption. Further, it may be said that production begets reserves - production itself provides the stimulus to seek for and expand reserves. A mine may commence in a small way and develop eventually into a large producer - Aberfoyle is a good example of this. Or the establishment of a mine in a certain locality may stimulate prospecting and development of reserves in that area - exploration on the Atherton Tableland in the neighbourhood of Tableland Tin Co's. operations is an example. Stimulation of production, not reservation of reserves, is, in the present stage of the Australian tin industry (and of most minerals), the best means of ensuring that the maximum use is made of our resources.

During 1948 total consumption of metal in Australia was 2,334 tons, requiring imports of 450 tons. By about 1953, when the Port Kembla tin-plate works, to be established by Australian Iron & Steel Ltd., is likely to be

in production, Australian consumption will probably be of the order of 5,500 tons annually. Unless production receives a sufficient impetus by then, we shall be importing approximately 3,000 tons annually - in terms of present price levels about £stg. 2,000,000.

In the immediate future, therefore, unless there is some stimulation of production, imports of tin into Australia must rise.

We may define the Australian position more explicitly. During the next 8 years we may expect a steady production of about 1,100 tons of tin from two producers - Tableland Tin Dredging N.L., and Aberfoyle Tin N.L. - providing there are no adverse circumstances such as prolonged drought which would reduce Tableland Tin Company's output. Apart from \* Tableland Tin and Aberfoyle, no other large producers are in sight. The only medium-scale producers now working, or likely to be working during the next 8 years so far as can now be judged, are Endurance Tin, Dorset Dredge and Renison Associated Tin Mines, from which a further 230-250 tons a year may be expected. The total output from these five mines is about 1350 tons; this may be regarded as the steady base production of the Australian tin industry, and is about 1,200 to 1,500 tons short of Australia's annual requirements of ingot tin until 1953, and about 4,000 tons short of the annual requirements from then on, after the tin-plate works at Port Kembla come into production. To bridge the gap between this base production and our annual consumption, we are dependent on the fluctuating output of innumerable small producers (the output of which in 1947 was about 700 tons), and on imports; the entry of other large or medium-scale producers into the industry is a possibility later.

If we wish to keep imports to a minimum we are dependent for the present on increased production from the small producers. Although output for 1948 from the small producers will probably be decidedly less than in 1947, undoubtedly the output from these producers could be increased, given the necessary stimulus, certainly in Northern Queensland, perhaps not so readily in New South Wales and Tasmania.

Although over a short term - during the next 5 years - increased output will depend on the small producers, no matter what the incentives may be it is difficult to foresee an increase in output of more than about 200 tons above their 1947 figure. Hence it does not appear probable that the gap between domestic consumption and output could be completely closed during the next few years.

Over a longer term - beyond the next 5 years - no great increase can be expected from the small producer. The kind of tin-bearing ground suitable for the individual tin miner or partnership is largely approaching exhaustion, and the small tin miner, as a type, is becoming increasingly scarce - it is indeed somewhat remarkable that there are still men who will take up this occupation. Increased output will depend in the long run upon opening up new reserves on a scale comparable with Tableland Tin, or Aberfoyle. The scope for the development of new areas is there. Perhaps the most important is the Smith's Creek area on the Atherton Tableland, but expansion of output in the North-east of Tasmania seems equally likely, given the incentives.

Incentives to increased production in Australia. Granted that it is desirable that tin production should be expanded in Australia, there must be certain changes in outlook. During the past few years of control, there is little question that the smelters and the innumerable small consumers have received favourable treatment at

\* As a I turned out, some misadventure of  
this has passed review. *Q*  
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the expense of the miner - it is the miner who must receive the dominant consideration if there is to be expanded output.

It has been remarked above that, although production has progressively declined in recent years, the present economic position of the industry in Australia from the price-cost spread point of view is at its peak, and in the immediate future it is not likely to continue to enjoy quite the highly favourable position of the present. But, despite this prognosis, production need not necessarily decline for, carefully fostered, and with some assurance of stability and the encouragement of exploration, there are possibilities of expanded production.

Assurance of stability means, in general, stability of price and consumption. At the present time the Australian price of tin is below world parity - there is now no serious economic reason why the price of this metal should not be the same as the official United Kingdom price. Any necessary adjustment in price will be negligible in its effect on commodities, but may be very useful as a stimulant to production - such rises in prices as have taken place in the last two years have certainly been a stimulus to larger companies.

Future prices will, presumably, be controlled by the new International Tin Agreement at present being discussed by the International Tin Study Group. Whether this Agreement will be able to prevent such violent fluctuations in price as have been experienced in the past, remains to be seen. But as Australia will be a signatory to that Agreement, the price of tin in this country should be on a par with prices elsewhere.

To the Companies - who mainly determine the basic steady production in Australia - any improvement in price is a real incentive to increase production, to increase capacity, and to increase reserves by mining lower grade ore. To the small producer - the individual miner or partnership - an increase in price is regarded from the viewpoint of the individual. Some, whose taxation may not be very large, would take advantage of the higher price and do their utmost to increase production. Others, to whom taxation is something to be avoided in any case, would not endeavour to increase output, and on the contrary might adjust their output to a lower level which would still provide the same income as formerly, in order to avoid payment of increased income tax. Others again look upon a tin deposit, if it is a good one, as a means of making a reasonable livelihood; such a miner is content to obtain from his mine a comfortable income over a number of years, rather than that he should deplete it rapidly and have to move on elsewhere. However, the miners who may be tempted to decrease their output purposely, following an increase in price, are responsible for only a small proportion of the total output; their reduced output would tend to be far outweighed by those who would increase output, and by lower grade properties which may be opened up following an increase in price.

Export of concentrates is prohibited for the present because of shortage of tin in this country. From the tin miners' point of view that is not a valid argument for continuance of control. In effect, the prohibition means that two smelters are being kept in inefficient operation to do work which is well within the capacity of one of them. Further, the shortage is a domestic one, the amount of tin allocated by the Combined Tin Committee is determined by the difference between domestic smelter output and domestic consumption - with increase in overseas smelter output allocations are becoming more liberal. The only immediate valid argument for continuation of control would be shortage of shipping.

If control on the export of concentrates were lifted - and providing the Australian price of the metal were on a par



with the world price - certain changes would take place in the industry. Those producers who were dissatisfied with the prices paid by Australian smelters could ship their concentrates overseas for treatment, which would force the two Australian smelters to revise their charges. Any downward revision of smelter charges is equivalent to an increase in price to the miner. If, in the course of time, output has not been stimulated to justify the continuation of both smelters, one or other of them will be compelled to close down, with resulting increase in efficiency of the remaining smelter. With vigorous competing overseas smelters, a single Australian smelter would not be in the position of having a monopoly.

Assurance of stability to the producer also involves questions of taxation. Had Briseis Consolidated N.L. known in 1934 that income tax was to reach the peak experienced during the war it is doubtful whether the Company would have been floated. The estimates made at that time were very carefully analysed, and subsequent operations confirmed them closely, but estimates of income tax could only be judged by the rates ruling at the time operations were commenced.

## 12. The effect of Taxation.

General. If taxation is to be partly governed by policy considerations such as the desirability of stimulating output, then there is certainly a case for some taxation adjustment in the tin industry. The tin industry, only, has been the subject of this enquiry but, if a broad view is taken of the mining industry as a whole, it is certain that an equally cogent case for taxation adjustments could be made on similar and other grounds for each of the majority of other metals and minerals.

In order to place taxation in the tin mining industry in some perspective, the taxation returns during the last 12 years for four of the principal mines - those for which full figures are available - are given in Table 11. To provide a comparison, the production and income of these four mines are also given in the Table.

Table 11 - Taxation paid by principal Companies since 1937.

	<u>T'land.</u>	<u>S'loaf.</u>	<u>A'foyle.</u>	<u>Briseis.</u>	<u>Total Tax</u>	<u>Total Concen- trates Produc- tion. Tons.</u>	<u>Total Net Income £</u>
1937	-	1,181	2,838	-	4,019	569	37,338
1938	-	301	2,357	4,930	7,588	891	40,386
1939	-	286	4,625	2,821	7,732	891	69,911
1940	-	344	6,702	36,912	43,958	1,337	73,853
1941	-	578	4,879	14,533	19,990	1,148	68,136
1942	1,267	730	23,215	5,167	30,379	1,088	94,922
1943	-	783	20,339	-	21,122	869	73,467
1944	-	826	6,793	-	7,619	1,146	72,779
1945	34,137	537	-	-	34,674	1,606	126,243
1946	3,816	-	9,988	-	13,804	1,131	52,312
1947	12,776	-	14,238	-	27,014	1,326	133,532
1948	27,400	-	25,119	-	52,519	1,301	204,485
	79,396	5,566	121,093	64,363	270,418	13,303	1047,364



In the absence of complete taxation data of all the tin-mining operators, it is difficult to judge what proportion of the total tax paid by the tin industry is represented by those four companies. It may be pointed out, however, that of the innumerable smaller producers, the incomes of very few are sufficient to be assessable for tax, and the income of most of the medium producers is relatively small with concomitantly small tax liability. The total taxation paid during the 12 years by the tin-mining industry as a whole would probably be between £300,000 and £350,000.

Taxation paid by the tin mining operators therefore apparently averaged between £25,000 and £30,000 per annum during the past 12 years - this, of course, excludes the further taxation paid by shareholders. In terms of total taxation revenue from Australian industry, this is a very small figure. Of the taxation amendments suggested in this Report, only that concerned with depletion would noticeably affect taxation revenue, and, in terms of the above average amounts, its effect would be a reduction of the order of £5-6000 a year on company tax - possibly a total of £10,000 - £12,000 in taxation revenue including taxation on shareholders.

The above estimates are, of course, only very rough approximations in the absence of complete data, but they serve to emphasise how small is the amount of Government revenue derived from taxation in the tin industry.

On the other hand, it might be contended that taxation is similarly a relatively small item to the industry itself. However, it may be repeated that the economics of the tin industry is an aggregation of the economic positions of the individual producers. It is the effect of taxation on the individual mine that matters. A striking instance may be quoted; the tax paid by Brisco's Consolidated N.L. in 1940, £36,912, is greater than any amount ever paid by a tin mining company in the history of Australian mining. Yet that Company has not provided a reasonably profit to its shareholders over its history as a whole - that one year's tax has meant the difference between a successful and an unsuccessful financial undertaking.

We may discuss, finally, the effect of taxation on the output of the tin producers. For this purpose the effect on the small and larger producers may be discussed separately. The small producer, if working a mine which is not immediately payable, may move elsewhere. If on a profitable deposit he is able to vary his income at will, within the limits of the deposit and his capacity for work. As a rule, he has little or no capital sunk into his venture. The Mining Company is in an entirely different position. It has a considerable amount of capital invested in the mine, it must commonly accept the prospect of several years' unprofitable work before a reasonable income is experienced, and by the very nature of its organisation and activities must produce at an optimum rate to maintain over-all costs at a reasonable level. Further, the members of a Company are taxed twice on their return - Company tax and tax on personal income.

Small producers. It has been pointed out in the previous section of this Appendix that increased production during the next 5 years or so will depend largely upon the small-scale producer. Taxation reduction to some of this group of producers would undoubtedly be an incentive - only negative data can be provided to support this view (partly because of the poor response of the miners to requests to supply data); the fact that the majority do not earn sufficient to make them eligible to pay tax, or pay only a low rate, reflects the scope for increased earnings.

To some of these small producers, the fact that their rate of tax will increase with their output is a deterrent. Some of them suggested that this deterrent may be removed by assessing a fixed rate of tax per hundredweight of tin produced - comparable to the tax on rabbit-skins (many small producers add to their income by rabbiting, which probably prompted the suggestion). But a tax of this form would bear unduly on the flossicker or very small producer who cannot earn enough in any case to make him eligible for tax. Further, miners of other minerals would be justified in applying for a similar concession.

Amongst the individual miners or partnerships there are two or three who have before them the possibility of earning a considerable income which would put them into a higher taxation rate, possibly a rate higher than that for Companies. It might be an incentive in such cases to place a maximum of 6/- in the £ on earnings from tin mining.

However, the relatively small increase in short term production which any special tax concessions to the small producers in the tin industry would yield, does not justify the application of such special concessions. The deterrent of taxation to the small producer would be partially removed by allowing a higher depletion allowance than the present 20% under 23A, as has been suggested in this Report.

Ultimately, from the long term point of view, it is the effect of taxation on the larger producers, the mining companies, that is the more important. The following remarks have this long term outlook in mind.

Companies. Mining Companies may be divided into the following categories:-

1. Those which struggle along with financial difficulties all their operating life, and continue with the hope of retrieving at least part of their capital - e.g. New Butlers (to date), Sugarloaf Tin N.L.
2. Those which do reasonably well in their earlier stages, but later encounter financial difficulties, e.g. Briscoe.
3. Those which pass through a long period of financial difficulties before attaining financial strength - Tableland Tin Dredging N.L.
4. Those with varying fortunes over the years, the small overall profits providing the stimulus to further development - e.g. Endurance Tin Mining Co., Renison Associated Tin Mines N.L.
5. Those which meet with financial success almost from their inception - e.g. Aberfoyle Tin N.L., Cocks Eldorado.

It may be suggested that, in normal times, taxation provisions should be such that (3) does not feel the taxation impact until it is fully prepared to meet it, that (4) and (5) should be encouraged to make use of whatever success they may have in providing a means to stimulate further development, and that (2) and (4) are taxed more evenly over a spread of high and low income years.

A mine can only be judged as a whole - there is an ultimate reserve, always being depleted - and, in the final analysis, dissection of the financial position on an annual basis is artificial. It may be that the richest part is worked

early, the poorest later - the mine starts with a flourish and ends in penury. Or the mine has a tough battle to start with, ending perhaps with a flourish. It is fortunate if the surplus is more evenly earned over its history, for then taxation is more equitably distributed over the life of the mine as a whole.

From this point of view there is justification for the contention that the principles and policy of taxation in mining should not be judged by standards in other industries - taxation of income from a depleting mineral asset should be governed by the overall peculiarities of that income.

In mining taxation, it is believed that both policy and principles should be directed towards the following desiderata -

- (a) The equitable assessment of taxation according to the history of the mine as a whole.
- (b) The encouragement of new mining ventures by arranging that taxation shall not add to the early hazards until the mine is established.
- (c) Encouraging development in order to extend the life of the mine to the maximum by providing an allowance for depletion.

Desideratum (a) is partly catered for under Section 80 of the Income Tax Assessment Act, in that losses preceding a year of profit may be offset against that income. In mining, however, losses following a year of profit should have equal consideration - this may be of assistance to some mines, which, following a profitable period, may suffer losses and close down before enjoying a further profitable period. However, it would be difficult to devise a suitable means by which the necessary refunds of past taxation could be made, and the suggestion is contrary to present-day taxation procedure.

Desiderata (b) and (c) form the subject of the two main proposals in the accompanying report - (i) the reduction of the early hazards by writing off non-realizable assets before annual surplus becomes subject to taxation, and (ii) the depletion allowance under Section 23A should be made permanent on an amended scale.

The first of these proposals is more particularly directed at encouraging the investment of money in new ventures - the investor is relieved of a possible financial hazard additional to those inherent in the mine until it is thoroughly established. The second proposal, besides making mining investment more attractive to the new investor, makes further development and expansion of output more attractive to the established company.

There are no concrete data which can be tabulated to indicate that the present allowances, concessions, and scale of taxation are deterrents to the establishment of new companies. By and large, in consequence of its higher hazards, the average investor looks upon mining as something of a gamble as compared with investments in other industries - he will accept this gamble, particularly in these days of low interest rates when almost any opportunity for investment is eagerly sought. With the first sign of tightening of money, mining investments are immediately effected. The more the hazards of mining are reduced, and the investment made attractive to the public, the more stable will mining investments become, and the greater will be the proportion of investors who look upon mining as a sound investment and not as a gamble.

The argument may be raised that as there is no difficulty in finding capital no change in the Income Tax Act is desirable - but those associated closely with the mining industry could not accept such an argument. To the sound and consistent investor in mining - the backbone of the industry - questions of this nature are outside the realm of bargaining; to them these questions are a simple matter of whether or not taxation is equitable in order that mining investment shall be made sounder, and thus development be encouraged even during periods when capital is not so freely available.

In the tin industry, there is scope for further development. This development is likely to take place during the next few years, should the incentive be there. Whether capital will be so readily available two or three years hence is difficult to foresee, but it should certainly be more readily available if the taxation proposals made in this Report are accepted.

Most of the present developed mines, if successful, have now got beyond the stage when non-realizable assets are a hazard. In its early stages Tableland Tin would certainly have been in a happier position had proposals made in this report been available; and certainly under those proposals the return to shareholders in Briseis mine would have been a more adequate compensation for their investment. To the established and successful company, however, the concern is with the rate of tax and the allowances relevant to mining.

In discussion it is apparent that the present scale of taxation is regarded by established companies as a deterrent to expansion of their output. No factual data can be given in support of the soundness or otherwise of this viewpoint - it is an attitude of mind of the mines concerned. Certain mines, such as Aberfoyle and Storey's Creek, could undoubtedly expand output after a considerable capital expenditure, but with the present capital invested the returns at the moment are adequate to the shareholders - at the present rate of taxation, and the uncertainty of continuance of the depletion allowance under Section 23A, the return on the greatly increased capital expenditure required is not so attractive. Although this is undoubtedly the attitude of the mining companies, it is not unlikely that it is, in part, conditioned by the difficulties in obtaining capital equipment and their high cost, with also labour and other shortages.

In the case of dredging and sluicing properties, such as Tableland Tin and Endurance - increase in output means a complete new equipment unit - a new dredge may require a further capital expenditure of £500,000. The life of the reserves would be cut by half; there might be a slight overall reduction in costs, and although annual surplus would be doubled, the position of the shareholder would not be so favourable, partly because of the higher rate of taxation on his dividends and partly because of the greater proportion of those dividends which he must regard as return of capital.

However, apart from questions of straight-out policy, no case can be made out on grounds of principle that the rate of taxation in mining should be different from the rate applied to other industries. But there is a logical case, and one based on sound principles, for providing allowances in mining different from those of other industries. The necessity for treating amortisation in mining differently from amortisation in other industries is now fully recognised under Division 10 of the Income Tax Act. The recognition of depletion as a permanent allowance now remains to be made. Where a wasting asset is concerned, the absence of a depletion allowance in taxation is

tantamount to a penalty on efficiency. A mine such as Aberfoyle has by its insistence on efficiency acquired a greatly enhanced value, annually represented by its profits. Yet for the same eventual output but spread over a larger period, investors in a less efficient mine are likely to receive a greater return. Such an allowance, as proposed in this report, would provide all the differential treatment in mining that is desirable either logically or on principle.

In conclusion, a remark may be made which, although irrelevant to principles of taxation, is significant to Australia's over-all mineral economy, and emphasises the desirability of introducing equitable taxation proposals now rather than waiting until the industry again slides into a nadir of depression. Fundamentally, any decrease in taxation payments represents to the producer a decrease in over-all costs. With decrease in over-all costs, for the same capital investment or in some cases with a slight increase in capital expenditure, a lower grade of ore may be worked, thus increasing the over-all reserves of the country. These are changes which can be made during periods of affluence, not in periods of depression. Also, in the case of a long-life mine which is approaching the end of its reserves, a depletion allowance is equivalent to a reduction of costs and is an inducement to the mining of additional lower grade ore thus prolonging the life of the mine - it is for this reason that even on the longest life mine a depletion allowance is desirable. Thus, it may be emphasised that any present reduction of taxation may be compensated in the future in consequence of the longer life over which each mine will pay taxation. Although it may appear anomalous that the application for taxation amendments should have been made by Tableland Tin Dredging N.L. perhaps the most successful tin company in Australia today, it may be remarked that this Company has, in its neighbourhood, probably more scope for future development than any other concern. It may be assumed that it was with these developments in mind and the background of its early struggle that the Company made its application.

(J. A. DUNN.)  
Mineral Economist.  
1-12-1948.

APPENDIX 11.FINANCIAL POSITION OF AUSTRALIAN TIN MINES.

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1. Tableland Tin Dredging N.L. Schedules i-vii	1.
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3. Aberfoyle Tin N.L. Schedules i-iii	5.
4. Dorset Tin Dredge. Report by Mr. J. K. Pattison, pp.i-x	6.
5. Endurance Tin Mining Co. Ltd. Schedules i-ii	7.
6. Briseis Consolidated N.L. Schedules i-iii	8.
7. Renison Associated Tin Mines. Schedules i-ii	11.
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10. Small Producers. Schedules i-iii	15.

1. TABIELAND TIN DREDGING N.L.

History and Reserves. This is now the largest tin producing company in Australia. The site of the Company's dredging operations is on Return Creek at Mt. Garnet, North Queensland. A rather complete picture of the Company's financial history is contained in the attached schedules. Although incorporated in 1937, some seven years elapsed before the stage of full operations was reached and, from the financial point of view, the company has attained a favourable position only during the last 2 or 3 years - the first dividend to ordinary shareholders was paid in the latter half of 1947.

During the financial year ended the 30th. June, 1938, no mining operations were conducted, but in the following year a small dredge which was on the property at the time of its acquisition operated in an experimental fashion. Subsequent to overhaul and substantial improvements, the dredge continued experimental operations during 1940 and 1941, but during the financial year ended 30th. June, 1942, the dredge was lost through flood and was the subject of insurance claim.

In the meantime the present large No. 2 Dredge was under construction and came into operation in February, 1943. As is usual with such equipment in its early stages of operation, mechanical and other difficulties were experienced and had to be overcome, and up to 30th. June, 1944, the dredge worked only for two-thirds of the period. From 1st. July, 1944, full operational activity commenced.

Mechanically, the dredge at the moment is working under difficulties owing to acute lack of spares - many of the buckets are long past their normal life and in a deplorable condition. One serious mishap might mean complete closing down for months. It says much for the management that the yardage treated is maintained at such a high level.

One of the difficulties is water shortage - operations have closed down recently for a few weeks because of insufficient water for dredging purposes.

A serious problem which this Company has had to face is the claim by farmers and the town of Ingham that the company's operations have caused pollution of the Herbert river. This is due to the difficulty in settling the clay content of the alluvium.

At the current rate of dredging, over 4 million cubic yards per annum, the workable ground remaining in the present leases provides reserves which will suffice until 1956. Beyond that period continuation of the present Company's operations will depend on results of prospecting in the neighborhood. So far as can be judged at present, additional tin-bearing ground is likely to be available, but economic conditions at the time will be the determining factor in the continuation of operations.

Financial Position. The Schedules (i) to (vii) are self-explanatory, but some brief remarks on them may be made.

(i) Liabilities. Issued capital £326,000. Total shareholders Funds £517,664.

(ii) Assets. This statement indicates the improvement in the Company's position in recent years. The amount of £5,329 under 1943/44 against No. 1 Dredge was absorbed in mine expenditure, being salvaged plant used in mine operations. Such early

capital expenditure as Property and Mining Rights, Boring and Development, Preliminary Expenses and Establishment Account have been written off - amounts totalling £32,076.

Of the remaining assets, the following cannot be classed as realisable - Water Supply, Railway Siding and Roads, totalling about £85,000. If for some unforeseen adverse circumstance the Company were forced to close down, these assets would be unlikely to have any market value - part of mine buildings and transmission lines would be in a similar position. The realisable asset-backing per £1 share is now about 29/-. Of this backing, 15/6 is represented by the dredge, which, under a combination of adverse circumstances could become a total loss apart from such insurance claim as may be permitted.

(iii) Details of production, yardage and income. The Company has not the full statistics of production available for the early year ended 30th. June, 1939, and that year is omitted in this schedule - the financial data for the year appears in the other schedules however.

(iv) Profits and Losses, and Profits and Losses Appropriation Accounts. The profits and losses shown are those in the published accounts. In these Accounts no provision is made for amortisation, but the amounts allowed by the Taxation Department are shown in schedule (v). In the Profit and Loss Appropriation Account, the dividends shown for 1947 and 1948 refer to the taxable portion, the balance being paid out of Tax Free Profits Reserve. It will be noted that the Company was not in the position to write off anything from Property and Mining Rights, or to commence building up any reserves until 1944/45 - Property and Mining Rights were finally written off in 1947. Under 1942/43, the balance of No. 1 Dredge written off represents £19,794 for the Dredge, and £7,529 for stores adjusted in 1942/43 and referred to in schedule (v). Under 1943/44, sale of Dredge parts, £2,564, represents the sale of some salvaged parts of No. 1 Dredge which had been written off during the previous year.

(v) Statement of Surplus, with Taxation Department's Adjustments for Depreciation, Amortisation and Taxation. The final net surplus shown is that actually available for distribution to shareholders after taxation. The amortisation shown is that allowed by the Taxation Department over the life of mine and does not appear elsewhere in the Company's accounts.

(vi) Depreciation written off. Details of depreciation in this statement are those of depreciation included in the published accounts; amortisation does not appear in this statement.

(vii) Dividends paid. Arrears of Preference Dividends are now paid up to date.

The distribution of any dividend to ordinary shareholders had to be deferred for a period of 9 years from the inception of the company. With the present realisable asset backing of the company, and the economic position of the tin industry as at present, the shareholders would at least appear to be assured of a good return on their investment. See  
Footnote.

Taxation Position of the Company. To 1947/48 the total allowed under Section 122 is £134,975. Total surplus after allowing for this amortisation is £225,625. Total tax paid to date, and anticipated for 1947/48, £79,396. Total net surplus available to the Shareholders, £146,229 to 30th. June, 1948 - to 30th. June, 1947, the total surplus did not cover the non-realisable assets, but these have now been amply covered by the surplus of the past year.



This company has now got through its difficult period, but there were times during the first 7 years when the position must have given rise to anxiety, particularly in 1942. Even to 1944/45, when the company paid £34,137 in taxation, the position was still precarious.

It happens that the position of this Company would not have been much different had the proposal made in this Report been applied of allowing non-realisable assets to be written off before the Company became liable for income tax. The reason is that the abnormal surplus of 1944/45 would have permitted almost the entire balance of those assets to be written off in that one year, and certainly by 1945/46. Since then, however, the allowance for amortisation would have been less by approximately one-third, and the tax correspondingly higher. As the actual amortisation allowances today are quite different from those between 1939-1943, as also is the rate of taxation, there is no real basis for a detailed comparison apart from the above generalisation. The final result to the Taxation Department would have been similar, but the shareholder would have covered the hazard of his investment at an earlier date.

So far as the proposed depletion allowance is concerned, it would not come into effect until the non-realisable assets have been wiped off. At the stage which the mine has now reached, and with economic conditions as we can judge them during the remaining life of the mine, the capital value of the property has been considerably improved. After allowing for amortisation and company tax, the annual profit should now be of the order of £40,000 or £53 per ton approximately. A reasonable risk rate for such a property is 8 percent. The present value of the mineral reserves is about £200,000 - and adding the realisable assets, £490,000 or 30/- per £1 share (including preference, deferred, and ordinary shares). In the absence of a depletion allowance this increment in capital value can be enjoyed free of taxation by the shareholder only if he sells his shares. The increment in value for the remaining 6,000 tons reserves of concentrates is equal to about £33 per ton - about 62 percent of the annual net surplus per ton. The figures are very rough estimates, but they serve to indicate the high depletion rate on such a short-term operation.

The above valuation may be criticised on the basis that it has been assumed that amortisation will wipe out expenditure on plant, buildings, etc. by the termination of the lease. Taking the amortisation and depreciation to be that allowed for taxation purposes, £36,000, the expected surplus before deducting amortisation, but deducting tax, will be £76,000. This gives a total value for mine and plant etc. of £395,000, whilst fixed assets total £434,000. The conclusion from this is, not that the concentrates in the ground have a negative value, but that either the amortisation allowed by the Taxation Department is quite inadequate, or the mine plant will have a very considerable market value when the mine is worked out.

Footnote

The above picture was based on the Co's then estimate of quantity & grade of reserve. These have proved completely false, due possibly to careless exploration. In addition, mistakes have further reduced the Co's earnings. It is apparent that any estimate which this Co. puts up, which cannot be carefully checked independently, must be treated with the greatest conservatism.

*[Signature]*  
20/2/52

TABLELAND TIN DREDGING NO LIABILITY

(i) MOVEMENT OF LIABILITIES

	<u>1939</u>	<u>1940</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1944</u>	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>
SHARE HOLDERS FUND.										
Ordinary Shares	171,374	224,263	233,488	233,652	234,181	234,247	240,000	240,000	240,000	240,000
Deferred Shares	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Cumulative Preference Shares	-	-	45,833	80,000	80,000	80,000	80,000	80,000	80,000	80,000
Preference Shareholders Reserve	-	-	-	-	-	-	4,000	8,000	12,000	16,000
General Reserve	-	-	-	-	-	-	40,000	60,000	65,451	105,451
Tax Free Profits Reserve	-	-	-	-	-	-	-	-	17,416	17,750
Profit and Loss Appropriation Account	-	See contra	2,655	12,924	See contra	See contra	13,777	9,437	36,421	52,463
CURRENT LIABILITIES.										
Sundry Creditors	16,267	8,235	9,828	31,273	46,215	26,127	20,043	15,551	21,049	15,647
Deputy Commissioner of Taxation	-	-	-	-	-	-	-	36,267	-	-
Provision for Taxation	-	-	-	-	-	-	30,000	5,000	13,000	27,624
Sub Total	16,267	8,235	9,828	31,273	46,215	26,127	50,043	56,818	34,049	43,271
Bank of New South Wales	See contra	See contra	7,232	71,866	113,177	138,423	54,967	27,590	5,567	See contra
Sub Total	16,267	8,235	17,060	103,139	159,392	164,550	105,010	84,808	39,616	43,271
Total -	£193,641	£238,498	£308,040	£435,715	£479,573	£484,797	£488,787	£488,245	£496,564	£560,935

## TABLELAND TIN DREDGING NO LIABILITY

## (ii) MOVEMENT OF ASSETS.

ASSETS.	<u>38/1939</u>	<u>39/1940</u>	<u>40/1941</u>	<u>41/1942</u>	<u>42/1943</u>	<u>43/1944</u>	<u>44/1945</u>	<u>45/1946</u>	<u>46/1947</u>	<u>47/1948</u>
<b>FIXED</b>										
Property and Mining Rights	20,000	20,000	20,000	20,000	20,000	20,000	15,000	10,000	-	-
Water Supply	35,485	40,823	42,196	63,637	64,753	67,835	78,560	81,051	81,051	81,051
Power Plant	27,524	31,892	32,588	32,852	33,085	32,938	33,777	34,015	34,648	} 341,851
No. 1 Dredge	52,986	63,816	71,793	71,560	5,329	-	-	-	-	
Sundry Plant and Equipment	10,615	10,422	12,448	13,188	10,319	9,680	9,749	10,824	10,936	
Mine Buildings	7,557	8,149	11,973	15,043	17,767	21,918	29,352	34,227	56,034	
No. 2 Dredge	5,000	9,554	69,246	164,807	242,501	246,047	247,197	247,197	253,135	
Railway Siding and Roads	3,438	3,525	3,525	3,545	3,545	3,545	3,545	3,545	3,710	} 4,841
Motor Trucks	939	4,582	4,618	5,294	4,137	3,754	3,713	3,342	5,247	
Transmission Lines	2,292	2,838	4,937	5,220	5,438	5,715	5,715	5,715	5,715	
Telephone Construction	155	270	270	270	469	469	469	469	469	
Office Furniture	832	1,009	1,039	1,073	1,114	1,076	969	871	814	
Steam Shovel	-	876	1,337	1,580	1,680	-	-	-	-	-
Emergency Light and Power Unit	-	166	166	166	166	166	166	166	166	166
Boring and Development	-	-	865	3,465	3,474	3,474	-	-	-	-
Sub Total	166,823	197,922	277,001	401,300	413,777	416,617	428,212	431,422	431,915	434,826
<b>FLOATING</b>										
Stock on Hand - Tin	616	870	225	30	30	-	-	-	-	-
Stores on Hand	2,975	11,999	11,394	21,155	20,583	32,909	39,437	39,334	34,211	32,869
Sundry Debtors	1,446	2,190	7,134	3,514	6,418	5,969	4,619	3,994	2,578	2,732
Tin - Finals	-	-	3,197	-	7,097	10,165	8,123	6,298	12,225	5,320
Bank of New South Wales	1,356	17,745	See contra	See contra	See contra	See contra	See contra	See contra	See contra	19,706
A.M.E. and Tableland Tin Trust Account	-	-	-	-	-	9,553	7,646	2,094	6,052	7,260
Prepaid Expenses	-	125	325	511	1,037	876	699	824	783	798
Petty Cash and Cash on Hand	-	25	27	103	179	43	151	279	140	424
Preliminary Expenses	1,000	1,000	2,878	2,743	2,743	2,743	-	-	-	-
Establishment Account	5,859	5,859	5,859	5,859	5,859	5,859	-	-	-	-
Profit and Loss Account	13,566	763	See contra	See contra	21,850	63	See contra	See contra	See contra	See contra
Special Reserve Investment Fund (Commonwealth Inscribed Stock)	-	-	-	-	-	-	-	4,000	8,000	16,000
Commonwealth Treasury Bonds	-	-	-	-	-	-	-	-	-	41,000
	£193,641	£238,498	£308,040	£435,715	£479,573	£484,797	£488,787	£488,245	£496,904	£560,935

TABLELAND TIN DREDGING N.L.

(iii) DETAILS OF PRODUCTION, YARDAGE AND INCOME.

	<u>1939/40.</u>	<u>1940/41.</u>	<u>1941/42.</u>	<u>1942/43.</u>	<u>1943/44.</u>	<u>1944/45.</u>	<u>1945/46.</u>	<u>1946/47.</u>	<u>1947/48.</u>
<u>Production of Tin.</u>									
Tons of Concentrates	228	157	172	101	496	1,000	633	755	835
Average Assays	74.6	73.19	72.28	72	71.75	71.96	72.79	72.4	71.83
Recovery per c. yd. (lbs.)	.7	.56	.5	.30	.366	.52	.44	.40	.425
Cubic Yards Dredged	726,000	665,000	768,000	713,000	3031,000	4301,000	3224,000	4246,000	4372,000
<u>Income.</u>									
Realisation on Tin Concentrates	44,029	31,047	35,722	23,554	110,551	229,154	146,931	194,150	257,748
Realisation per ton Concentrates	£193	£196	£206	£233	£223	£229	£232	£256	£308
Other Income	280	295	373	309	879	245	261	441	1,131
Recovery & Loss of Profits									
Insurance	-	8,833	1,167	-	2,564	-	-	-	-

TABLELAND TIN DREDGING NO LIABILITY

(iv) STATEMENT OF PROFITS AND LOSSES AND PROFIT AND LOSS APPROPRIATION ACCOUNT.

	<u>1938/39</u>	<u>1939/40</u>	<u>1940/41</u>	<u>1941/42</u>	<u>1942/43</u>	<u>1943/44</u>	<u>1944/45</u>	<u>1945/46</u>	<u>1946/47</u>	<u>1947/48.</u>
Balance from Tin Sales	8,785	44,309	31,047	35,722	23,554	110,557	229,154	146,831	104,150	257,748
Other Revenue	202	-	295	373	309	879	245	261	441	1,131
Recovery loss of profits insurance	-	-	8,833	1,167	-	-	-	-	-	-
Sales of Dredge Parts	-	-	-	-	-	2,564	-	-	-	-
<b>Total</b>	<b>£8,987</b>	<b>£44,309</b>	<b>£40,175</b>	<b>£37,262</b>	<b>£23,863</b>	<b>£113,994</b>	<b>£229,399</b>	<b>£147,192</b>	<b>£194,591</b>	<b>£258,879</b>
Operating Expenditure	21,553	30,506	35,753	25,997	30,897	91,207	108,784	102,598	113,653	128,503
Provision for Directors' Fees	1,000	1,000	1,000	1,000	417	1,000	1,000	1,000	1,000	1,000
Provision for Taxation	-	-	-	-	-	-	30,000	12,534	13,000	27,400
<b>Total</b>	<b>£22,553</b>	<b>£31,506</b>	<b>£36,753</b>	<b>£26,997</b>	<b>£31,314</b>	<b>£92,207</b>	<b>£139,784</b>	<b>£116,132</b>	<b>£127,653</b>	<b>£156,903</b>
<b>Surplus/Deficit</b>	<b>Dr. £13,566</b>	<b>£12,803</b>	<b>£3,422</b>	<b>£10,265</b>	<b>Dr. £7,451</b>	<b>£21,787</b>	<b>£89,615</b>	<b>£31,060</b>	<b>£66,938</b>	<b>£101,976</b>

PROFIT AND LOSS APPROPRIATION ACCOUNT.

Brought Forward		Dr. 13,566	Dr. 763	Dr. 2,659	1,324	Dr. 21,850	Dr. 63	Dr. 13,777	Dr. 9,437	Dr. 36,422
Plus Net Profit	Dr. 13,566	12,803	3,422	10,265	Dr. 7,451	21,787	89,615	31,060	66,938	101,976
Plus Taxation Provision Written Back	-	-	-	-	-	-	-	-	3,313	-
<b>Balance No. 1 Dredge Written off</b>	<b>Dr. 13,566</b>	<b>Dr. 763</b>	<b>2,659</b>	<b>12,924</b>	<b>5,473</b>	<b>Dr. 63</b>	<b>89,552</b>	<b>44,837</b>	<b>79,688</b>	<b>138,398</b>
<b>WRITTEN OFF</b>					<b>Dr. 27,323</b>					
Property and Mining Rights							Dr. 5,000	Dr. 5,000	Dr. 10,000	
Forfeited Shares							Dr. 5,720			
Preliminary Expenses							Dr. 2,743			
Establishment Account							Dr. 5,859			
<b>RESERVE TRANSFERS.</b>										
Preference Shareholders Reserve							Dr. 4,000	Dr. 4,000	Dr. 4,000	4,000
General Reserve							Dr. 40,000	Dr. 20,000	Dr. 20,000	40,000
Tax Free Profits Reserve							-	-	Dr. 5,000(part)	14,201(part)
<b>DIVIDENDS - PREFERENCE SHAREHOLDERS</b>							Dr. 12,453	Dr. 6,400	Dr. 4,267(part)	27,733(part)
<b>Carried Forward Dr.</b>	<b>13,566</b>	<b>Dr. £763</b>	<b>£2,659</b>	<b>£12,924</b>	<b>Dr. £21,850</b>	<b>Dr. £63</b>	<b>£13,777</b>	<b>£9,437</b>	<b>£36,421</b>	<b>£52,464.</b>

WASLELAND TIN DREDGING NO LIABILITY

(v) STATEMENT OF SURPLUS SHOWING TAXATION DEPARTMENT'S ADJUSTMENTS OF DEPRECIATION, AMORTISATION AND TAXATION.

		<u>1938/39</u>	<u>1939/40</u>	<u>1940/41</u>	<u>1941/42</u>	<u>1942/43</u>	<u>1943/44</u>	<u>1944/45</u>	<u>1945/46</u>	<u>1946/47</u>	<u>1947/48</u>
Surplus/Deficit											
As per Statement of Profits & Losses	Dr.	13,566	12,803	3,422	10,265	Dr. 7,451	21,787	89,615	31,060	66,938	101,976
Add Taxation provided in accounts		-	-	-	-	-	-	30,000	12,534	13,000	27,400
Add Depreciation included in accounts		2,090	1,602	1,433	1,435	1,582	1,538	1,577	3,481	1,963	1,297
	Dr.	11,476	14,405	4,855	11,700	Dr. 5,869	23,325	121,192	47,075	81,901	130,673
Less allowed by Taxation Department											
Depreciation		1,026	1,119	1,715	1,746	1,430	1,377	1,296	1,594	2,228	1,594
Dredge and Suspense Stores Written off		-	-	-	-	7,529	-	-	-	-	-
Amortisation (not included in accounts)		-	2,022	2,984	4,531	4,931	20,326	32,486	33,371	34,224	34,627
		12,502	11,264	156	5,423	Dr. 19,759	1,622	87,410	12,110	45,449	94,452
Less Taxation Assessed		-	-	-	1,267	-	-	34,137	3,816	12,776	27,400
Available Net Profit	Dr.	£12,502	£11,264	£156	£4,156	Dr. £19,769	£1,622	£53,273	£8,294	£32,673	£67,052

(vi) STATEMENT OF DEPRECIATION WRITTEN OFF.

	<u>1939</u>	<u>1940</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1944</u>	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>
Mine Buildings	398	372	253	344	388	500	574	2,135	-	
Sundry Plant and Equipment	1,179	1,147	593	644	620	510	496	878	704	
Office Furniture and Equipment	44	83	111	109	108	115	108	97	95	
Motor Vehicles	469	-	476	338	466	413	399	371	1,165	
	£2,090	£1,602	£1,433	£1,435	£1,582	£1,538	£1,577	£3,481	£1,964	

(vii) STATEMENT OF DIVIDENDS PAID

	<u>1939</u>	<u>1940</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1944</u>	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>
DIVIDEND 8% CUMULATIVE PREFERENCE										
To 30/6/42 )							6,053			
To 30/6/43 ) Paid	Nil	Nil	Nil	Nil	Nil	Nil	6,400			
To 30/6/44 )								6,400		
To 30/6/45 )									6,400	
To 30/6/46 )									Nil	
To 30/6/47 ) Paid									Nil	12,800
To 30/6/48 )										
DIVIDEND ORDINARY AND DEFERRED										
Nil							£12,453	£6,400	£6,400	£28,800

NOTE:	8% Preference Dividend	6,400
	8% Ordinary Dividend & equivalent	22,800
		<hr/>
	Deferred Dividend	35,200
		<hr/>

## 2. SUGARLOAF TIN N.L.

History and Reserves. This Company was formed in 1927, to sluice tin leases in the Stanthorpe district, S. E. Queensland. Operations were under the direction of a Working Manager to 1930, but, because production was unprofitable, the operations were continued until 1947 by tribute parties, the Company receiving a rate of tribute varying from 20 to 25 percent of the gross value of tin won after deducting freight from Stanthorpe to Sydney.

Since 1947, the Company has had no property under tribute, and is now undertaking sluicing operations on only one lease. In this property 2 years' reserves remain; but other properties are said to contain small reserves sufficient for a further 3 years, with perhaps additional reserves in a property at Red Hill which requires to be re-bored.

The plant is old and in poor condition, a large amount of time being spent on repairs. There is nothing about the whole of these operations which would give rise to any feeling of optimism on either their efficiency or their future.

Financial Position. The Company has provided the attached schedule (ii) of its financial history so far as this can be ascertained on the records available. The schedule is admittedly incomplete, and it has not been possible to reconcile satisfactorily the various columns owing to the prolonged absence of the Legal Manager because of illness. The taxation shown against 1934 and 1938 is the taxation payment for several years.

The Balance Sheet and Profit and Loss Accounts for 1946-47 are also attached, schedule (i). It has not been possible also to reconcile fully the debit balance carried forward in the Profit and Loss Appropriation Account with the data in schedule (ii), but this balance does include dividends paid.

There would appear to be no sound justification for using the data of this mine as a reliable basis for any discussion on taxation. Directors of the Company, and apparently the major shareholders, belong to O. T. Lempriere & Co., tin smelters and purchasers of tin concentrates. Income from realisation of concentrates has to be taken for granted.

Notwithstanding that the Company's books have persistently shown an accumulated loss, the Company has apparently paid £5,901 in taxation and £24,975 in dividends to date. The taxation, of course, follows from the difference in the basis on which amortisation and depreciation have been charged - as between that allowed for taxation purposes and that applied in the books of the Company. In the event, and accepting the broad reliability of Schedule (ii) it would appear that Dividends have been distributed virtually out of amortisation (to 1940), and have been essentially a partial return of capital, on which the shareholders have paid income tax.

It is quite obvious that there is now not the slightest chance of return of capital, and it is indeed difficult to understand why mining is continued. An inference is that the concentrates are of value to the tin-smelting Company whose Directors are on the Board. So far as realisable assets are concerned, the machinery and plant are in such poor condition that an approximate valuation of £5,000 would be optimistic - the book value may be flattering.

SUGARLOAF TIN NO LIABILITY.

BALANCE SHEET AS AT 30TH. JUNE. 1947.

LIABILITIES.

Subscribed Capital	£67,280. 0. 0.	
Sundry Creditors	<u>101. 4. 11.</u>	
	£67,381. 4. 11.	<u>£67,381. 4. 11.</u>

ASSETS.

Mine Property (at Cost, less Depreciation)	12,841. 15. 5.	
Less Sales	<u>40. 0. 0.</u>	12,801. 5. 5.
Machinery & Plant (at Cost, less depreciation)		3,850. 8. 3.
Motor Vehicles (at Cost)		215. 0. 0.
Buildings (at Cost, less Depreciation)		-
Office furniture & fittings (at Cost less Depreciation)		32. 13. 0.
Stores, tools, firewood (at Valuation)		62. 2. 6.
Bank		79. 5. 1.
Commonwealth Loan		993. 8. 9.
Profit & Loss A/c (loss)		<u>49,347. 1. 11.</u>
		£67,381. 4. 11.

WORKING PROFIT & LOSS ACCOUNT TO 30TH. JUNE. 1947.

Income.

From tributes	1,351. 8. 5.	
Tin at Glen Aplin	2,292. 17. 5.	
Interest	31. 10. 0.	
Loss on Working Account	<u>242. 2. 10.</u>	3,917. 18. 8.

Cost.

Mine: Lease Rents	26. 5. 0.	
Maintenance Plant	417. 18. 8.	
Management	255. 11. 6.	
Shifting Plant	350. 15. 0.	
Development Glen Alpin	2,224. 14. 6.	
Insurances	52. 8. 11.	
Travelling & Inspection	103. 14. 0.	
Rates & taxes	33. 17. 8.	
Mine office expenses	<u>21. 9. 5.</u>	3,486. 14. 8.

Melbourne expenditure.

Directors' Fees	240. 0. 0.	
Management, Audit Fees etc.	<u>191. 4. 0.</u>	<u>431. 4. 0.</u>
		3,917. 18. 8.

PROFIT AND LOSS APPROPRIATION ACCOUNT.

Total loss carried forward on 30/6/47 - £49,347. 1. 11.



## SUGARLOAF TIN NO LIABILITY

## (ii) STATEMENT OF FINANCIAL HISTORY

Year	Cubic Yrds. Treated	Tin Ore Recovered Tons	Av'ge Value per Cubic Yard lbs.	Realiza- tion	Tribute Received £	Sundry Revenue	Develop- ment Expenditure £	Mine Costs	Deprec- iation	Administra- tive Costs £	Net Profit before Taxn. £	Net Loss before Taxation	Taxation	Dividend Paid
1928	296,070	190	1.44	33,348	-	18	-	24,857	6,547	1,729	-	1,410	-	-
1929	180,240	100.7	1.24	14,947	-	-	-	16,551	5,904	1,354	-	8,863	-	-
1930	106,000	81.3	1.93	8,948	-	-	-	10,512	5,311	976	-	6,850	-	-
1931	6,500	4.1	1.5	-	283	-	-	522	4,773	631	-	5,643	-	-
1932	112,000	74.875	1.4	-	1,345	5	-	301	4,296	245	-	3,492	-	-
1933	168,300	108.75	1.45	-	2,551	4	-	211	3,970	414	-	2,039	-	-
1934	172,000	93.9	1.22	-	4,074	40	-	334	3,903	441	-	564	335	-
1935	152,000	94.7	1.39	-	4,436	22	-	214	3,256 ) 1,401 )	483	-	915	-	-
1936	184,323	122.82	1.49	-	4,694	65	-	229	2,860	545	1,124	-	-	3,330
1937	141,900	83.75	1.4	-	4,287	95	-	184	2,531	616	1,050	-	1,181	4,995
1938	125,600	83.5	1.49	-	3,519	107	-	668	2,270	595	93	-	301	1,665
1939	111,700	74.8	1.5	-	2,971	60	-	272	2,029	541	139	-	236	3,330
1940	118,400	82.42	1.56	-	3,962	81	-	244	536	521	2,741	-	344	1,665
1941	104,300	74.74	1.6	-	3,739	74	-	236	-	520	3,055	-	578	1,665
1942	104,130	82.81	1.78	-	4,242	62	-	233	-	513	3,558	-	730	3,330
1943	88,900	65.20	1.05	-	3,957	57	-	376	-	504	3,133	-	783	1,665
1944	102,200	56.75	1.24	-	3,427	33	-	438	-	526	2,496	-	826	3,330
1945	59,100	30.15	1.44	-	2,244	99	-	1,656	-	593	94	-	537	-
1946	55,850	27.90	1.12	-	1,470	33	1,778	1,288	-	522	-	1,392	-	-
1947	26,559 ) 21,305 )	16.25 11.20	1.37 1.15	2,293	1,351	32	2,225	1,267	-	431	-	242	-	-
				60,536	52,462	955	4,003	60,590	49,587	12,700	17,533	31,410	5,901	24,975

From 1931 to 1947 the Mine was worked by Tributaries - the Co. receiving royalty of from 20%-25% of gross value of tin ore - 1,199 tons - estimated value - £228,000.

### 3. ABERFOYLE TIN N.L.

History and Reserves. The Aberfoyle tin mine, situated at Rossarden, north-eastern Tasmania, was first discovered early in 1926. The Company was formed in December of that year, with a capital of £25,000 in 1,000 shares of £25 each, but in 1927 the shares were raised to £50, increasing the capital to £50,000. With reconstruction of the Company in 1931, the nominal capital was raised to £75,000, consisting of 50,000 ordinary shares of £1 each, and 25,000 10 percent cumulative preference shares of £1 each, but only £12,500 of the latter were issued. In 1936, the existing shares were split into 5/- units, and the nominal capital increased to £150,000 (100,000 preference and 200,000 ordinary shares), but the issued capital remained at £62,500.

In 1932 after extensive exploration and development work, production commenced. Development work has now reached No. 8 level, 867 feet from surface. The early mill has been replaced by a new mill which came into operation in 1945.

The system of ore veins occurs in a zone about 400 feet wide, striking a few degrees west of north; payable veins extend for 1400 feet along the strike. Dips to the west vary from 45° to nearly vertical. Width of the veins is from less than one inch to over 7 feet. Reserves in sight cover 5 years' production. Payability at the bottom of the mine is as good as it has been elsewhere, and development in depth is being vigorously pursued. Preparations for detailed exploration of the adjacent country rock by diamond drilling are also now being made with a view to finding new ore bodies and still further expanding the output of the Company.

There are every grounds for regarding this mine as having a prolonged future, with prospects as good if not even better than they have been in the past. The management is vigorous, and has not been diffident at putting back revenue into further development, thus leading to gradually expanded production.

Financial Position. Statistics of the financial position of the Company since production commenced are given in the attached Balance Sheet as at 30/6/1948 (i), and Schedules (ii) and (iii).

As is the case of any really successful mine, the present Income Tax Act permits adequate provision for writing off capital expenditure and encourages developmental and exploratory work. To a mine which has been as successful as this, the allowance for depletion is of importance. The capital value of the mine and of the ore in it, has been considerably enhanced by the vigorous policy of the Company. That policy, although it leads to finding more ore, also leads to an increased rate of production and ultimate depletion.

On the basis of present day taxation, prices, and production, a minimum surplus (after deducting tax) expected during the next few years would be £40,000 annually. Valuing now only the ore in sight, i.e. 5 years' reserves, and allowing even as high as 8 percent risk rate, the 2700 tons of mixed concentrates will be worth £148,000, less the depreciated value of plant (say £50,000) - about £100,000 or £37 per ton of concentrate reserves. The actual net annual surplus per ton is £73, of which £37, or 50 percent, is return of capital value of the mineral, or depletion. This, as a matter of fact, is an extremely low estimate - if the Aberfoyle Mine were sold today, the mine, exclusive of plant etc., would certainly be rated at well over £200,000, justifiably extrapolating its life well beyond that of the 5 years' ore in sight, but calculating at a higher risk rate.

ABERFOYLE TIN NO LIABILITY

(i)

BALANCE SHEET AS AT 30TH JUNE, 1948.

LIABILITIES

Shareholders' Funds:

Capital	Nominal	Subscribed & Paid-up	
Preference Shares:			
10% Cum. and Participating -			
£1 each	25,000	-	
5/- each	25,000	12,500	
Ordinary Shares:			
£1 each	50,000		
5/- each	50,000	50,000	
	150,000	62,500	
Reserves -			
General	13,000		
Dividend Equalisation	3,250		
Investments Fluctuation	500	16,750	
Profit & Loss Appropriation Account		2,689	81,939

Appropriations for Plant & Development

New Mill Project -			
Balance at 1/7/1947	49,510		
Add Appropriation 30/6/48	1,702	51,212	
New Plant & Development -			
Balance at 1/7/47	8,484		
Add Appropriation 30/6/48	15,000	23,484	
			74,696

Current Liabilities:

Sundry Creditors	8,830		
Provision for Income Taxes	25,100		
Dividends Payable	34,375	68,305	

£224,940

ASSETS

Fixed Assets

Mine Property and Development, at Cost, less amount written off	48,444	
Plant & Buildings, at Cost, less Depreciation written off	14,066	
New Mill Project -		
Plant and Buildings, Cost to date	51,212	113,722

Investments, at Cost:

Commonwealth Treasury Bonds:-	25,076	
Australian Drillers Pty. Ltd.	600	25,676

Current Assets

Cash at Bankers	13,155	
Sundry Debtors and Prepaid Expenses	28,760	
Concentrates on hand, at Market Value	30,150	
Stores at Mines, at Cost or Under	13,477	85,542

£224,940

ABERFOYLE TIN NO LIABILITY

MINE PRODUCTION

Period	Tons Milled	Tin Concentrates Produced (Tons)	Tin (Sn.) Tons	Wolfram Concentrates Produced (Tons)	WO <sub>3</sub> Tons	Percentage Tin to Tons Milled	Percentage WO <sub>3</sub> to Tons Milled	Percentage WO <sub>3</sub> & Sn. to Tons Milled
19 months to 30/6/1933	9,067	191.1205	125.4704	13.7000	9.9923	1.384	0.110	1.494
Year 30/6/1934	10,234	213.9048	140.4269	9.7432	6.8093	1.368	0.066	1.434
Year 30/6/1935	13,218	301.7671	202.0409	26.3074	18.9900	1.526	0.144	1.670
Year 30/6/1936	14,791	313.6939	215.5540	37.2639	26.8353	1.456	0.181	1.637
Year 30/6/1937	13,289	268.6732	183.9395	33.6787	24.1512	1.384	0.181	1.565
Year 30/6/1938	13,686	263.2029	177.2287	36.1821	25.5564	1.294	0.187	1.481
Year 30/6/1939	14,725	310.9953	214.9630	32.1319	22.9999	1.459	0.156	1.615
Year 30/6/1940	16,327	344.6402	239.1550	25.0486	17.6919	1.465	0.108	1.573
Year 30/6/1941	16,270	322.8726	230.6772	25.9474	18.9121	1.418	0.116	1.534
Year 30/6/1942	16,732	376.3044	280.1759	60.1679	43.6434	1.674	0.261	1.935
Year 30/6/1943	16,503	344.9798	248.9128	69.1951	50.1118	1.508	0.304	1.812
Year 30/6/1944	16,553	327.5701	242.4863	65.9789	47.0701	1.47	0.28	1.75
Year 30/6/1945	19,191	334.6870	242.1684	56.7826	40.3687	1.26	0.21	1.47
Year 30/6/1946	21,443	338.7041	241.2572	59.7651	42.0391	1.13	0.19	1.32
Year 30/6/1947	27,829	440.5632	315.3614	67.4366	48.2573	1.13	0.17	1.30
Year 30/6/1948	28,002	460.1	329	83.4	59	1.17	0.21	1.38
Totals to 30/6/1948	267,860	5143.8	3629	702	502	1.39	0.19	1.58

ABERFOYLE TIN NO LIABILITY

SUMMARY OF FINANCIAL ACCOUNTS.

Period Ended	Proceeds of Concentrates				Other Income	Total Income	Costs					Development Expenditure charged against Profits
	Tin	Wolfram	Flue Dust	Total			Mining	Treatment	Mine Expenses	Adminis- tration	Total Costs	
30/6/33	£25,197	£630		£25,827	£35	£25,862	£7,025	£2,897	£4,750	£1,541	£16,213	
30/6/34	33,005	1,368		34,373	896	35,269	11,965	3,478	4,498	2,022	21,953	
30/6/35	51,884	3,911		55,795	784	56,579	16,401	4,718	5,280	2,019	27,418	
30/6/36	48,600	5,205		53,805	335	54,140	17,552	4,655	5,917	2,417	30,541	
30/6/37	51,548	9,081		60,629	524	61,153	19,046	5,122	5,570	2,382	32,120	
30/6/38	38,167	10,869		49,036	216	49,252	21,106	5,708	7,172	2,423	36,142	
30/6/39	54,908	7,039		61,947	308	62,255	22,797	5,307	8,449	2,441	38,994	2,942
30/6/40	67,942	5,657		73,599	396	73,995	25,868	5,594	11,502	2,386	45,350	2,587
30/6/41	64,342	5,869		70,211	587	70,798	£8,628	7,226	9,003	2,418	47,275	2,137
30/6/42	84,984	19,161		104,145	1,181	105,326	33,928	7,551	9,582	1,991	53,052	484
30/6/43	81,546	28,193		109,739	1,562	111,301	33,364	7,814	11,576	2,973	55,727	207
30/6/44	79,399	26,176		105,575	1,725	107,300	33,417	8,638	11,431	2,672	56,158	6,973
30/6/45	79,141	22,203		101,344	875	102,219	36,682	9,327	11,724	2,549	60,282	2,587
30/6/46	78,421	20,226	£1,475	100,122	1,517	101,639	43,957	8,848	10,456	2,398	65,659	3,381
30/6/47	114,392	26,167	4,621	147,180	1,024	148,204	60,367	12,750	12,932	2,335	88,384	1,067
30/6/48	172,073	43,726	7,292	211,666	564	212,630	-	-	-	2,725	104,901	1,972
Totals to 30/6/48	£1,125,549	£237,481	£13,388	£1,364,993	£12,929	£1,377,922	-	-	-	-	£780,439	£24,337.

Depreciation.	Total.	Net Profit before Taxation.	Taxation as per P & L A/c	Net Profit as per P & L A/c.	New Mill Plant & Bldgs. & Development from Appropriation Account.	Development Expenditure charged to "Mine Prop-erty & Develop-ment A/c.	Additional Deprec-iation from Appropriation Account.	Divid-ends paid.
£1,000	£17,213	£8,649		£8,649		£1,187		£5,014
1,500	23,453	11,816	£1,131	10,685		1,192		7,813
2,000	29,418	27,161	1,392	25,769		803		12,500
2,000	32,541	21,599	3,274	18,325		1,929	£3,412	12,500
2,000	34,120	27,033	2,838	24,195		8,042	3,500	12,500
1,000	37,412	11,840	2,357	9,483		9,157		9,375
1,641	43,577	18,678	4,625	14,053				7,813
2,073	50,010	23,985	6,702	17,283				12,500
2,154	51,566	19,232	4,879	14,353				12,500
1,970	55,506	49,820	23,215	26,605				24,739
1,716	57,650	53,651	20,339	33,312				33,334
1,875	65,006	42,294	6,793	35,501	£17,250			19,792
2,328	65,197	37,022		37,022	24,702			12,500
1,712	70,752	30,837	9,988	20,899	7,205			14,062
3,378	92,829	55,375	14,238	41,137	8,837			31,250
3,248	110,121	102,509	25,119	77,390	16,702			59,375
£31,595	£836,371	£541,551	£126,890	£414,661	£74,696	£22,310	£6,912	£287,567

4. DORSET TIN DREDGE.

This Dredge has been operated by the Commonwealth Government on alluvial flats along the Ringarooma river in North-eastern Tasmania since November, 1944. The area of the lease is 562 acres, and it is estimated that, with adjacent available areas, the life of the operation should be about 12 years from the end of 1947. The dredge is in excellent condition, and the technical management is quite comparable. In efficiency with any similar project in this country - this is amply demonstrated by the fact that operating costs per yard, 3.92 pence in 1947, are lower than for any similar operation of any Company in Australia, except perhaps Victoria Gold. However, although the project has been showing an operating profit as a Government project, the accounts do not include certain charges which, if the dredge had been operated by a company, would have been deducted from the working profit. These charges include such items as depreciation, writing off of preliminary expenses, Director's fees, additional salaries (for work now done by Supply and Development Officers in Melbourne), Workers Compensation Insurance, Dredge Insurance, and taxation.

In order to obtain a comparable picture, Mr. J. K. Pattison, Cost Investigator in the Bureau of Mineral Resources, has drawn up the attached note of the position if the project had been operated as a Company. This note indicates that to 5/11/47, the project would have shown a net overall loss carried forward of £4,112, but that following the two early years of loss, the project had reached a surplus-earning stage. To date, the project would not yet have been liable for tax. In the meantime the hypothetical Directors would have had to consider the course to take with the sums which appear in the accounts as depreciation and written off preliminary expenses - they could be allowed to accumulate and thus be withheld from the hypothetical shareholders until the operation terminates, or the capital could be reduced (a proceeding attendant with various complications), or, if not taken into the accounts, the equivalent moneys could be paid to the shareholders as dividends, but would be liable to taxation in the hands of the shareholders even though the amounts are fundamentally a return of capital from the point of view of the life of the project as a whole.

Viewed as a commercial proposition, it is difficult at this stage to judge whether in the remaining 12 years life of the project the allowances under the present Income Tax Act would permit the eventual full return of capital, plus a reasonable return on the investment, but the results to date do not provide any justification for optimism. If at any time a taxable surplus were earned, the taxation proposals made in this Report would alleviate the position of the hypothetical Company to the extent that the writing off of preliminary expenses would be an allowable deduction, and the depletion allowance would be greater.

REPORT BY MR. J. K. PATTISON ON  
THE DORSET TIN DREDGING PROJECT.

The operating results of the Dorset Tin Dredging Project from the commencement of business - 8/11/44 to 25/2/48 are as set out hereunder:-

Operating Profit 8/11/44 to 7/11/45 - £6,526.  
Operating Profit for year ended 6/11/46 - £9,000.  
Operating Profit for year ended 5/11/47 - £12,859.  
Operating Profit for 16 weeks ended 26/2/48 - £10,230.

I consider that if the Dorset Tin Dredging Project had been operated as a No Liability Mining Company and not as a Government Venture, many and varied would have been the charges and outgoings offset against the operating profits set out above; the charges and outgoings which I have offset below are I consider quite normal and not minimised or exaggerated to any degree.

I have endeavoured to confine the report to four phases, viz.;

- (A) Why it is considered these charges and outgoings would be made, if the project was conducted by a No Liability Mining Company.
- (B) The ascertainment of the charges and outgoings.
- (C) The manner of offsetting the charges and outgoings, and thereby arriving at the net mining profits or losses.
- (D) Conclusion drawn from the result obtained.

(A) Why it is considered these charges and outgoings would be made, if the project was conducted by a No Liability Mining Company.

(1) Depreciation.

Unless assets are depreciated, it is obvious, that, on the Balance Sheet of each year, their values will be overstated, and a proper perspective of the state of the business will not therefore be given.

A Mine, and similarly a Dredging Project, is regarded as a wasting asset and it has been argued from a theoretical point of view i.e. in text books, that depreciation and reserve funds as applicable to plant and buildings, are therefore unnecessary. It is however, I consider, sound business administration to depreciate assets because, even allowing for the fact that they are maintained in an excellent state of repair, there always exists the possibility of obsolescence, a sudden fall in market price, or a sudden deterioration in the usefulness of the assets at a time when either ore or alluvial reserves are still available. Also, it is true, that the inevitable decrease in the value of utilized assets is brought about in the earning of income and should equitably be a charge against that income.

It is therefore proposed to charge depreciation on the various assets of the Dorset Tin Dredging Project.

The rates of depreciation charged have been arrived at after consultation with Mr. Cook and also by reference to Income Tax (Depreciation) Order No. 1217

The diminishing balance method of depreciation has been used while additions to and depletions of the assets have also been taken into account by treating the value of the assets as at the end of the year as the depreciated value for the purposes of that year.

(2) Consultants fees and expenses and Supervision.

The above amounts total £9,556 and are in the nature of Preliminary Expenses. If the Project had been operated by a No Liability Mining Company, then steps would have been taken to write this amount off against revenue over a period of say three, five or seven years depending upon whether the amount is small, large or very large. By reason of the fact that the amount can be considered large and that a fair amount of uncertainty would exist as to the actual life of the project, it is considered that an effort would have been made to extinguish the amount within five years from the date or dates on which the expenditure was incurred.

(3) Directors Fees.

It is difficult to determine what amount would represent normal directors fees, if the project was being operated privately but in an effort to trace some precedent I searched the accounts of Cocks Eldorado Gold Dredging No Liability at the Registrar-General's Office, Melbourne. That Company has a paid-up capital of £137,500 and paid £682 by way of Directors fees for the year ended 27/12/47 and as the Commonwealth Provision for the Dorset Project is £115,000, it is thought that an annual charge of £600 would be a reasonable one, in this regard.

(4) Additional Salaries.

If the Dorset Project was being conducted privately some person or persons would, of necessity, have to be employed to perform the following office duties, which would be supplementary to those at present carried out by the clerk stationed at the Dredge Site:-

- (a) The purchase of stores and equipment (Now carried out by Mr. Boulter - Purchasing Officer.)
- (b) The general accounting and book-keeping (Now carried out by Finance Branch (Minerals) Section)
- (c) The keeping of the various Statutory and Statistical books prescribed (Not kept at present, as the project is not a No Liability Mining Company within the meaning of the Companies Act.)

The person carrying out the above duties would need to be a practical if not a qualified accountant, have a working knowledge of the legislation as applicable to No Liability Mining Companies, and at least have had some office experience; it is therefore considered that such a person could be designated as Secretary-Accountant and could command a salary in the vicinity of £800 per annum.

(5) Workers Compensation Insurance.

At present, any payments on account of injury to workmen are met out of the Minerals Production Trust Fund, but in



the event of the Dorset Project being operated by outside interests, it would be obligatory to pay the premiums prescribed under the Workers Compensation Insurance Act.

Prior to 1st. September, 1946, the annual rate of premium was one pound seventeen shillings and six pence (£1.17.6) per one hundred pounds (£100) of salaries and wages paid. The rate was then amended to two pounds sixteen shillings and three pence (£2.16.3.) per one hundred pounds (£100) of salaries and wages paid.

(6). Dredge Insurance.

Mr. F. Grey Wilson, the Consulting Engineer to the Dorset Tin Dredging Project, considers that if the Venture was being carried on privately, those responsible for its operation would almost certainly insure the Dredge; he suggests Sixty thousand pounds (£60,000) and twelve shillings and six pence (12/6d) per centum as a reasonable insurable value and rate of premium respectively.

(7). The incidence of Taxation.

As the question of taxation would be a big factor in the private operation of the Project the following items are discussed:-

(i) Sales Tax.

As mining equipment and stores (other than food) are exempt from Sales Tax, this tax has not been considered.

(ii) Land Tax.

By virtue of the small area of the Dorset Project, six hundred (600) acres and the relatively low unimproved value of the land, the amount payable in this connection would be extremely small, if anything.

(iii) Payroll Tax.

If any employer pays salaries or wages or both in excess of £20 per week (not including his or any partner's drawings) that employer shall be liable for payroll tax.

The rate of tax payable is sixpence (6d.) in each £ on the amount by which the total of the salaries and wages paid for each month exceeds eight-six pounds thirteen shillings and four pence (£86.13.4).

(iv) Income Tax.

The taxes and rates thereof payable by a Company are as follows:-

- (a) Ordinary Income Tax - six shillings for every £1 of the taxable income.
- (b) Super Income Tax - one shilling for every £1 of the taxable income in excess of £5,000.
- (c) Undistributed Income Tax - two shillings for every £1 of that portion of the taxable income which the company has not distributed as dividends.

Section 23A (1) of the Income Tax Assessment Act, provides that where a person or company carries on mining operations in Australia (other than coal mining) for the purpose of, or for mineral which is specified in the regulations as required for use in or in connection with the prosecution of the present war, (tin is specified in Regulation 4A) an amount equal to twenty per centum of the net assessable income as is attributable to that base metal or rare mineral shall be exempt income. It will be appreciated therefore that eighty per centum of the net profits derived from the dredging of tin form the only taxable income from that particular source.

As this section, in conjunction with regulation 4(a), provides for the exemption of twenty per centum of the net assessable income attributable to the base metal, tin, it is necessary to fix upon a figure for each year as is representative of the net assessable income from tin. I have done this by apportioning the total costs for each year, which would be allowable deductions, against the gross income derived from tin and gold each year in proportion to the respective values won.

Section 122 (1) provides that where a person, who is carrying on mining operations (other than coal mining) in Australia for the purpose of gaining or producing assessable income, incurs expenditure of a capital nature on necessary plant and development of the mining property, an amount ascertained in accordance with the provisions of this section shall be an allowable deduction.

Section 122 (2) provides that the deduction be ascertained by dividing the residual capital expenditure as at the end of the year of income by the number of years in the estimated life of the mine as at the end of that year of income.

Section 122 (3) provides that unless an election is made to the contrary, the deduction allowable shall not exceed the amount remaining after deducting from the net assessable income all allowable deductions. e.g. If £10,000 was expended upon the plant and development of a mining property and say the estimated life of the mine was ten years, the taxpayer company would be entitled to an annual deduction of £1,000 for ten years; if however the amount remaining, after deducting from the net assessable income of any year all allowable deductions, was say £800 only, then £800 of the £1,000 would be allowed as a deduction in that year and the balance of £200 carried forward as part of the residual capital expenditure.

I intend to ignore explanations of Sub-sections (4) (5) and (6) of Section 122, but will duly apply their provisions and variations at a later stage, if necessary.

(B) The ascertainment of the charges and outgoings.

(1) Depreciation.

(a) Dredge.

Capital cost as at 7/11/45	£82,950	
Less		
Depreciation $7\frac{1}{2}\%$ for year ended 7/11/45	6,221	£6,221
	£76,729	
Plus adjustments during year ended 6/11/46.	£61	
Written down value as at 6/11/46	£76,790.	
Less		
Depreciation $7\frac{1}{2}\%$ for year ended 6/11/46.	£ 5,759	£5,759

Written down value as at 5/11/47	£71,031	
<u>Less</u>		
Depreciation 7½% for year ended 5/11/47	£ 5,328	£5,328

(b) Plant and Equipment

Capital Cost as at 7/11/45	£ 4,460	
<u>Less</u>		
Depreciation 10% for year ended 7/11/45	£ 446	£446
	<u>£ 4,014</u>	

Plus adjustments during year  
ended 6/11/46. £ 135

Written down value as at  
6/11/46 £ 4,149

<u>Less</u>		
Depreciation 10% for year ended 6/11/46	£ 415	£ 415
	<u>£ 3,734</u>	

Plus adjustments during year  
ended 5/11/47 £ 442

Written down value as at  
5/11/47 £ 4,176

<u>Less</u>		
Depreciation 10% for year ended 5/11/47	£ 418	£418

(c) Buildings and Cottages

Capital Cost as at 7/11/45	£ 3,165	
<u>Less</u>		
Depreciation 3% for year ended 7/11/45	95	£ 95.
	<u>£ 3,070</u>	

Plus adjustments during year  
ended 6/11/46 £ 60

Written down value as at  
6/11/46 £ 3,130

<u>Less</u>		
Depreciation 3% for year ended 6/11/46	£ 94	£94

Written down value as at  
5/11/47 £ 3,036

<u>Less</u>		
Depreciation 3% for year ended 5/11/47	£ 91	£91

(2) Preliminary Expenses.

As it has been suggested that a No Liability Mining Company would write this amount off against revenue over a period of five years, the periods and the amounts in respect of each are as hereunder:-

Year ended 7/11/45	£1,912.	£1,912.
Year ended 6/11/46	£1,911.	£1,911.
Year ended 5/11/47.	£1,911.	£1,911.

(3) Directors Fees.

Year ended 7/11/45	£600.	£600
Year ended 6/11/46	£600	£600
Year ended 5/11/47	£600	£600

4. Additional Salaries - Secretary-Accountant.

Year ended 7/11/45	£800	£800
Year ended 6/11/46	£800	£800
Year ended 5/11/47	£800	£800

5. Workers Compensation Insurance.Year ended 7/11/45.

Salaries and Wages paid - £16,510

Premium payable -  $\frac{16510}{100} \times 1-17-6 =$  £310      £310

Year ended 6/11/46.

Salaries and Wages paid to 1st. Sept.  
1946 - £13,367.

$\frac{13367}{100} \times 1-17-6 =$  £251

Salaries and Wages paid after 1st. Sept.  
1946 - £4,240.

$\frac{4240}{100} \times 2-16-3 =$  £119

Premium payable.      £370      £370

Year ended 5/11/47.

Salaries and Wages paid - £18,290.

Premium payable -  $\frac{18290}{100} \times 2-16-3 =$  £514      £514.

(6) Dredge Insurance.Year ended 7/11/45.

£60,000 @ 12/6 per centum.

Premium Payable - £375.      £375.

Year ended 6/11/46.

£60,000 @ 12/6 per centum.

Premium Payable - £375.      £375.

Year ended 5/11/47.

£60,000 @ 12/6 per centum

Premium payable - £375.      £375

(7) The incidence of Taxation.(i) Sales Tax.

NIL

(ii) Land Tax.

NIL

(iii) Payroll Tax.Year ended 7/11/45.

Wages paid - £17,110.

Less Exempt Income£86.13.4 x 12 - £1,040

Taxable Income £16,070.

Tax payable £16,070 @ 6d. in £ - £402. £402.Year ended 6/11/46.

Wages paid - £18,207.

Less Exempt Income£86.13.4 x 12 - £1040Taxable Income £17,167Tax payable - £17,167 @ 6d. in £ - £429. £429.Year ended 5/11/47.

Wages paid - £18,890.

Less Exempt Income£86.13.4 x 12 £1040Taxable Income £17,850Tax payable - £17,850 @ 6d. in £ - £446. £446.(iv) Income Tax.Operating Profit for year ended 7/11/45. £6,526.Less exempt income under Section 23A(1)  
of the Income Tax Assessment Act.743  
£5,783

Not assessable income

Less Directors Fees £600

Additional Salaries £800

Workers Compensation

Insurance Premiums £310

Dredge Insurance

Premium £375

Payroll Tax £402£2,487

£3,296.

Estimated Life.12 years. Less Deduction on account of  
expenditure of a Capital Nature  
under Section 122 of the Income  
Tax Assessment Act.£3,296 =

Taxable Income

Nil

Tax Payable

NilOperating Profit for year ended  
6/11/46

£9,000

Less exempt income under Section 23A(1)of the Income Tax Assessment Act.

Not assessable Income

£1,145£7,855

<u>Less</u> Directors Fees	£600	
Additional salaries	£800	
Workers Compensation		
Insurance Premiums	£370	
Dredge Insurance		
Premium	£375	
Payroll Tax	<u>£429</u>	<u>£2,574</u>
		<u>£5,281</u>

Estimated Life

11 years. Less Deductions on account of expenditure of a capital nature under Section 122 of the Income Tax Assessment Act. £5,281 \*

Taxable Income Nil

Tax Payable Nil

Operating Profit for year ended  
5/11/47 £12,859

Less exempt income under Section 23( ) (1) of the Income Tax Assessment Act £1,846  
Net assessable income £11,013

<u>Less</u> Directors Fees	£600	
Additional salaries	£800	
Workers Compensation		
Insurance Premium	£514	
Dredge Insurance		
Premium	£375	
Payroll Tax	<u>£446</u>	<u>£2,735</u>
		<u>£8,278</u>

Estimated Life

10 years. Less Deduction on account of expenditure of a Capital Nature under Section 122 of the Income Tax Assessment Act. £8,278 \*

Taxable Income Nil

Tax Payable. Nil

(As the capital expenditure on necessary plant and development totalled £105,028 as at 5/11/47 and the amounts of £3,296\*, £5,281\* and £8,278\* have already been allowed, there still remains an amount of £88,173, plus or minus any further adjustments, to be allowed by way of future deductions for income tax purposes).

In regard to the calculation above of income tax that would be payable if the project was conducted by a No Liability Company, it is mentioned that depreciation is not allowable on the assets of a mining company in a case in which a deduction is allowed on account of recoupment of capital expenditure; the portion of preliminary expenses written off each year is also not an allowable deduction for income tax purposes, as such amounts are items of a capital nature and Section 51(1) of the Income Tax Assessment Act does not permit of their allowance.

As no sure criterion can result either for taxation or profit purposes from a consideration of the sixteen weeks period (6/11/47 to 25/2/48), it is not proposed to show figures from which no conclusion can be drawn. It will be seen, however, that the operating profit for this period £10,230, is not far short of that for the whole year ended 5/11/47 and exceeds by far that of the year ended 7/11/45. (The fact that Mr. Cook regards the improved operating profit of the sixteen week period as the result of a temporary purple patch has a braking effect on over-optimism).

- (c) The manner of offsetting the charges and outgoings and thereby arriving at the net mining profits or losses.

Net operating profit for year ended  
7/11/45 as now conducted - £6,526

Less

Depreciation.		
Dredge	£6,221	
Plant & Equipment	446	
Buildings & Cottages	95	£6,762
Preliminary Expenses		1,912
Directors Fees		600
Additional Salaries		800
Workers Compensation Insurance Premium		310
Dredge Insurance Premium		375
Payroll Tax		402
Taxation		Nil
		<u>£11,261.</u>

Net loss if conducted by a No  
Liability Mining Company. £ 4,735

Net Operating profit for year ended  
6/11/46 as now conducted - £ 9,000

Less

Depreciation		
Dredge	£5,759	
Plant & Equipment	415	
Buildings & Cottages	94	£6,268
Preliminary Expenses		£1,911
Directors Fees		600
Additional Salaries		800
Workers Compensation Insurance Premium		370
Dredge Insurance Premium		375
Payroll Tax		429
Taxation		Nil
		<u>£10,755.</u>

Net loss if conducted by a No  
Liability Mining Company.

Net operating profit for year ended  
5/11/47 as now conducted £12,859.

Less

Depreciation		
Dredge	£5,328	
Plant & Equipment	418	
Buildings & Cottages	91	£5,837
Preliminary Expenses		1,911
Directors Fees		600
Additional Salaries		800
Workers Compensation Insurance Premium		514
Dredge Insurance Premium		375
Payroll Tax		446
Taxation		Nil
		<u>£10,483</u>

Net Profit if conducted by a No  
Liability Mining Company. £ 2,376.

The Profit and Loss Appropriation Account as at 5/11/47 would therefore appear as follows:-

Profit and Loss Appropriation Account.

Loss (year ended 7/11/45	£4,735.	By Net Profit (year ended 5/11/47)	£2,376.
Loss (year ended 6/11/46	£1,753.	By Net overall loss to date.	£4,112.
	£6,488		£6,488
Loss carried forward	£4,112.		

(D) Conclusions drawn from the result obtained.

The Commonwealth Provision for the above project is £115,000, and if the project were being conducted by a No Liability Mining Company, this amount, as is reasonable, would represent funds contributed by shareholders and therefore be regarded in the nature of paid-up capital. Consequently we have the position that the Company has been operating for three years and is still not in a position to declare a dividend of any per centum whatever; although this may not be extraordinarily abnormal for a Mining Company, it must be remembered at the same time that the prospects cannot be considered to be very bright, in that the charges and outgoings, that have been offset, represent conservative estimates and I doubt very much whether a Mining Company could reduce these costs to any extent.

It is mentioned however that the "Preliminary Expenses" account will be finally extinguished against the revenue of the year ended November, 1949, and Depreciation written off will become smaller each year as the written down value of the assets decreases as against the above, is it not reasonable to assume that as the charge on account of Depreciation lessens, the cost of repairs will increase by virtue of the increasing age of the assets and the extent to which they have already been utilized? So, in the computation of future commercial profits of the Dorset Enterprise if conducted by outside interests, it is logical to anticipate little reduction to the charges and outgoings as offset in the calculations in this report.

As now constituted, the Dorset Tin Dredging Project is operating profitably.

(J. K. PATTISON)  
Cost Investigator.



5. ENDURANCE TIN MINING COMPANY N.L.

Operations. The Endurance Tin Mining Co. has been sluicing alluvial tin leases during the last 25 years, along the valley of the Ringarooma River, close to Mount Cameron in North-eastern Tasmania.

In the present lease, where sluicing commenced in 1945, the remaining reserves of  $2\frac{1}{2}$  million cub. yards will be sufficient for 5 years, but adjacent areas have still to be bored. In the present workings, the alluvial face is up to 80 feet high, but most of the tin is in the lower 18 feet. A little gold is associated. White clay seams occur in the area and a deposit on one of the leases is worked and the clay sent to the paper industry.

Financial Position. The Company has not provided details of the past financial history. The accompanying data is from the published Annual Report for 1947/48.

Under Liabilities, the Suspense Account represents small overdrawals on several accounts.

Under Assets, apparently the Distribution Account represents a tax free 6d. per share distribution to shareholders of certain available capital funds, and is really a contra account.

In recent years Plant and Machinery is dealt with under Section 123. Although in the accounts depreciation was not formerly shown for taxation purposes, the amount has been written off fully under Section 122.

Mine Development account, £23.10.3. represents the balance in 1942, and has remained at this figure since, as further expenditure is not written off under Section 123.

Stripping Removal Suspense Account represents an amount expended in one year for removal of overburden and is being written off over 3 years.

In calculating depletion allowance for income tax purposes, under Section 23A, no allowance is made for the income from white clay.

Details of the amount of dividends paid to date have not been supplied, but the 1947 dividend was the 22nd. - presumably at least £55,000 has been paid over the 25 years. The realisable assets total approximately £40,000, which is rather less than the issued share capital. Nevertheless the Company is in quite a sound position for continuation of sluicing, provided that costs do not rise unduly - they are now over 12d. per cub. yard.

From the taxation point of view, the company has benefited fully from admissible taxation allowance. Depletion allowance should be of equal application to white clay, which is even in shorter supply than tin. With rising costs, and lowering of grade, the amount of depletion allowance will be of increasing importance to this company.

ENDURANCE TIN MINING CO.FINANCIAL YEAR TO JUNE, 1948.LIABILITIES.

Authorised Capital, 200,000 @ 5/- - £50,000		
Issued Shares		£47,356. 5. 0.
Premium on Shares		650. 0. 0.
Sundry Creditors		1,088.13. 6.
Depletion Allowance Fund.		
Balance 1/7/46.	2860.14. 4	
Estimated for year	<u>1195.19. 2.</u>	4,056.13. 6.
Suspense A/c.		13. 7. 7.
Provision for Taxation		1,904. 0. 0.
P & L. Approp.. A/c. balance.		<u>5,351.18. 1.</u>
		<u>£60,420.17. 8.</u>

ASSETS.

Mining Plant & Machinery 1/7/46	21,881. 8. 7.	
Odd purchases for year	<u>615.19. 6.</u>	
	22,497. 8. 1.	
Less written off, Sect. 123.	<u>615.19. 6.</u>	21,881. 8. 7.
Mining Property		13,030.19. 5.
Distribution Account.		4,735.12. 6.
Mine Development Account		23.10. 3
Stripping Removal Suspense A/c	3,675. 0. 0.	
Less Loss taken into year	<u>1,225. 0. 0.</u>	2,450. 0. 0.
Liquid Assets.		
C'wealth Bank Loan.	4,780. 1. 5.	
Commercial Bank of A'sia Ltd.	4,450.16. 9.	
Tin on Hand	8,000. 0. 0.	
Gold on Hand	156.19. 7.	
Sundry Debtors	<u>911. 9. 6.</u>	18,299. 7. 1.
		<u>60,420.17. 8</u>

Production.

Treated	516,700 cub. yards.
Grade	.57 lb. per cub. yards.
Concentrates produced	132.07 tons.
Gold produced	17.43 oz.
Costs per yard	10.72d.

Income.

Tin Sales	30,119.12. 3.
Tin on hand	8,000. 0. 0.
Gold on hand	156.19. 7.
White clay a/c.	<u>522. 1.11.</u>
	38,798.13. 9.

ENDURANCE TIN MINING CO.Mine Costs.

Tin on hand 1/7/47.		£5,919.12.10
Wages	14,607. 0. 3.	
Plant repairs & renewals	1,227.13.11.	
Stores	1,090. 7. 5.	
Rent & Rates	427.18. 4.	
Insurance	398. 4. 4.	
Freight & cartage	611.11. 0.	
Payroll tax	121.15. 5.	
Timber.	482.14. 4.	
Electric Power	2,618. 5. 6.	
Management Expenses	<u>826.14.10.</u>	22,412. 5. 4.
Stripping Removal Suspense A/c.		1,225. 0. 0.
Profit & Loss A/c (Profit)		<u>9,241.15. 7.</u>
		38,798.13. 9.

P & L. A/c.

Interstate	55. 8.10.	Profit from Tin A/c.	9,241.15. 7.
Plant A/c (new plant		C' wealth loan	
written off under		interest	175. 2. 6.
Section 123).	615.19. 6.		
P & L. Approp. A/c	<u>8745. 9. 9.</u>		
	£9416.18. 1.		£9416.18. 1.

P & L. Approp. A/c.

Dividend A/c (out	2367.16. 3.	Brought fwd.	2074. 3. 9.
of taxable		P & L. A/c.	8745. 9. 9.
profits)			
Depletion Allowance	1195.19. 2.		
Provision for			
Taxation	1904. 0. 0.		
Balance to Balance			
Sheet.	<u>5351.18. 1.</u>		
	£10819.13. 6.		£10819.13. 6.

6. BRISEIS CONSOLIDATED N.L.

History. This mine is situated at Derby, North-eastern Tasmania. A British Company, Briseis Tin and General Mining Co., operated the mine from 1900, but heavy floods and the bursting of the Cascade Dam in 1929 destroyed the mine.

An Australian Company, Briseis Consolidated N.L., commenced operations in 1934, and because of the availability of electrical power, was able to handle annually double the amount of material of the older Company, although the grade was almost half. The risks had been carefully assessed, and it was decided that their acceptance was justified by the prospects of success. It was estimated that the mine had 13 years' life, with reserves totalling 4500/5000 tons of concentrates. According to the Company, it was estimated that they would be able to treat 650,000 cubic yards of drift annually, at a mine cost of eighteen-pence per cub. yard; with a recovery of 1.7 lbs., or an average of 430 tons of tin oxide per annum, a profit of £50,000 per annum would be made with tin at £stg. 250 per ton. The Company have pointed out that the actual average figures have been close to the estimates, but that the increased costs and taxation of the war years had not been foreseen.

The Company was incorporated in Canberra in 1934 with a capital of £150,000 in 5/- shares, of which 135,000 fully paid 5/- shares were allotted to the vendors, Burma Malay Tin Ltd., who had obtained an option on the property. Following adjustments with the vendors, the Company finally paid 33,400 shares less for its assets than was provided for in the prospectus, and these shares were sold at par, 5/- each, the proceeds £8,350 being applied in reduction of the amount allocated as cost of the assets acquired from the vendors. The remainder of the capital, 465,000 shares of 5/- each, was issued and paid for in cash. The Vendors also received £25,000 in cash on the balance of the purchase money.

By 1936, development and construction work had proceeded to the point where production could commence in June. In August, 22 inches of rain, culminating in 4 inches on the 24th., brought down the Ringarooma river in heavy flood, and although the river channel alongside the workings had been increased by 50 percent, the flood overflowed the bank into the workings. Production was delayed a further 10 months to July, 1937, necessitating borrowing £32,000 in debentures. From 1934 to the completion of reclamation in June, 1937, £101,555 had been spent on development. Production from then on was continuous, and was affected only by occasional falls of barren drift from the top of the 300 foot face filling the bottom and necessitating removal to make lower drift again accessible.

During the war, operations became increasingly difficult. Labour was scarce, dropping from 180 to 130 men, and the removal of the basalt overlying the drift was a source of anxiety. It became a question of either reducing output by diverting labour to the basalt overburden, or of taking a chance on the latter, but at no time was the management able to remove the basalt overburden as far ahead of the drift face as they would have liked - this was the cause of the eventual destruction of the mine. During 1945 and early 1946, excessive rainfall caused heavy slips of drift and overburden into the bottom, increasing costs. In July, 1946, continuous rain caused heavy slips of upper drift, often burying the elevators on the bottom, then, later in the month, the basalt overburden commenced to move carrying away the shelf upon which this operation was conducted. There was now no alternative to abandonment

of the bottom, salvaging such machinery as was situated above the level of the debris. Although the remaining drift carried 700 tons of tin oxide, the cost of rehabilitating the mine, and working, would have been in excess of the value of these abandoned reserves.

Small-scale shallow sluicing of part of the ground was continued whilst the company was winding up, but the Company finally ceased operations in August, 1948. It is understood that a local Tasmanian syndicate proposes to continue small-scale operations.

Financial Position. The financial position is summarised in the attached schedules. The final position of the Company will not be known until the books are closed. On the 24th. June, the Company remarked :-

"Based on the Balance Sheet as at 31st. December, 1947, the shareholders may receive, on liquidations, about £49,685 less winding up expenses. This amount, together with dividends already distributed to the shareholders of £127,500 of which only £10,000 was tax free in the hands of the shareholders, represents a possible return of approximately 5/11d. per share.

This represents, to the shareholder a return of 11d. profit on an investment of 5/- over a period of approximately 14 years, which shows a profit of .8 pence per share per year, or 1.3% per annum".

Probably the final position will be a return rather over 6/- per share, but this does not affect the fundamental contention that the mine has done little more than return the capital invested in it. In the event, the £64,000 paid in taxation has been a tax on capital. Income tax paid by shareholders on the £117,500 dividends, also, represents in the event a tax on capital - indeed, deducting Income Tax paid by shareholders from the eventual return of about 6/- per share, it is doubtful whether their net return will be 5/-, the original investment.

This Company from start to finish was efficiently managed. A fine undertaking, imaginative in scope and requiring great engineering skill in its operation, the hazards involved were fully appreciated - these hazards were greater perhaps than in any other form of business. Curtailment of operation was due to one of the physical hazards which had been appreciated from the beginning, but the final adverse financial position is unquestionably due to the great increase in taxation and war-time costs - in the final analysis these have proved the greatest hazard which have prevented what would otherwise have been a successful financial position.

The financial results of this Company lend point to the question - should the inherent hazards of mining be increased by the hazards of taxation as at present assessed and thus discourage development of the country's mining resources, or should not the taxation hazard be withheld until such time as the greatest of the financial hazards have been removed by return of that capital locked up in non-realizable assets?

Such amendments to the Income Tax Act as came into force in 1947 would have made no difference to the position of this Company. But had it been permissible to write-off the non-realizable part of capital expenditure, represented by development and similar expenses, before becoming liable to taxation, the financial position would have been very different - liability for taxation would not have commenced until 1941. For income tax purposes, ten years was taken as the probable life of

the mine, the first deduction being for 1937, so that had the company continued to earn a surplus in excess of amortisation, Section 122 would have been adequate - in the event amortisation and depreciation were in excess of gross surplus during the later years.

Briseis Consolidated N.L. is an excellent illustration of the contention that the financial position of a mine is to be judged not from individual annual returns, but from its financial history as a whole. Viewed in this light, the tax paid in 1940 by this Company - the largest amount ever paid by a single tin-mining concern in the history of Australia - over emphasised the true profits of the operations. Had it been possible to apply Section 80 in reverse - to obtain a partial refund of past taxation against losses or reduced income in the future - the position would have been different, and the financial results **would** have approached those anticipated when the estimates were prepared in 1934.

BRISEIS CONSOLIDATED NO LIABILITY  
BALANCE SHEET AS AT 31ST DECEMBER, 1947.

(i)

LIABILITIES		ASSETS	
Authorised & Issued Capital		Mining and Real Property Leases - At Cost	£6,616
600,000 Shares of 5/- each, fully paid	150,000	Development Account - At Cost at 31st	
Depreciation Reserve - Used in business	9,904	December, 1947	81,383
Tax Free Income Account	421	Plant, Machinery & Motor Vehicles - At Cost	14,683
		Pipe Columns - At Cost	8,445
		Mine Buildings - At Cost	2,004
		Office Furniture & Fittings - At Cost	206
	160,325	Stores on Hand - At Mine General Manager's	
Less Profit and Loss Appropriation		Valuation	1,046
Account - Debit Balance	2,407	Tin on Hand - At Mine General Manager's	114,383
		Valuation	6,534
	157,918	Sundry Debtors - At Face Value	11,661
Sundry Creditors	483	Deposits at Call	23,450
		Commercial Banking Co. of Australia Ltd.	2,363
		Cash on Hand	10
	£158,401		44,018
			£158,401

(ii) PROFIT AND LOSS APPROPRIATION ACCOUNT 31ST DECEMBER, 1947.

To cost of cancellation of Power Contract	1,463	By Balance brought forward	26,872
To cost of Salvaging Plant, Pipes, etc.	236	" Net Profit	11,219
To Loss on Realisation of Assets ..		" Transfer from General Reserve	21,223
Difference between the Cost & Selling			
Price of Dams and Races and Parts of			59,314
Freehold Land, Mine Buildings, Plant		" Debit Balance as per Balance Sheet	2,407
and Stores which were sold, plus wages			
and salaries incurred on realisation	60,022		
	£61,721		£61,721

(iii) SUMMARY OF OPERATIONS AND RESULTS

	Cubic Yards Drift Treated	Cubic Yards Overburden Treated	Ratio Drift to Overburden	Tons Tin Con- centrates Produced	Value of Drift Pounds per cub. yard	Nett Realis- ation	Realis- ation Per Ton Concen- trates	Mine Costs	Costs Per cub. yard Drift Treated	Tax- ation	Nett Profit before Develop- ment and Deprec'n	Develop- ment	Divi- dends Paid
1934	Commenced Development in September, 1934.												
1935	Development												
1936	Completed Development, commenced operation July. Flooded August. Cost £32,000 to rehabilitate. Commenced operations July, 1937.												
1937	331,000	121,000	2.74	211.5	1.43	38,443	182	24,884.3	18.01		9,255	81,382*	
1938	722,000	215,000	3.36	544.1	1.68	90,135	160	48,576.0	16.15	4,930	30,083	1,630	7,500
1939	741,000	277,000	2.68	505.3	1.52	96,314	191	49,470.0	16.02	2,821	39,145	1,667	30,000
1940	752,000	202,000	3.72	681.5	2.03	135,954	199	51,840.2	16.54	36,912	42,003	7,679	37,500
1941	733,000	205,000	3.58	592.9	1.81	125,022	211	57,979.2	18.98	14,533	48,731	6,304	30,000
1942	707,000	237,000	2.98	457.3	1.45	105,188	231	61,865.1	21.00	5,167	35,236	3,957	7,500
1943	740,000	203,000	3.69	358.0	1.05	87,494	242	67,201.6	21.56		14,305	5,073	
1944	711,000	217,000	3.28	264.6	.84	73,098	277	61,039.8	20.60		12,889	6,687	7,500
1945	790,000	271,000	2.92	233.1	.66	64,441	277	61,095.0	18.73		293	781	7,500
1946 (6 months)	368,000	99,000	3.73	109.0	.66	30,320	277	28,538.0	18.60		192	482	
Total & Averages	6,603,000	2,047,000	3.30	3,958	1.34	846,409	189	512,449.2	18.70	64,363	232,132	115,642	127,500
→ 1946	-	-	-	22	-	5,855		13,737	-	-	Loss 9,345	-	-
→ 1947	320,000	-	-	103	.72	30,962		17,778	-	-	11,219	-	-

\* £101,555 less £20,173 for realisation on small production tin to July, 1937. → Data for shallow workings since July, 1946.

7. RENISON ASSOCIATED TIN MINES.

Operations. This Company's operations are situated at Renison Bell about 20 miles north of Zeehan, on the West Coast of Tasmania. Mining here dates back to about 1900; the ore was first found during construction of the Emu Bay Railway. About 10 years ago a number of leases were consolidated into the present Company.

Several ore bodies scattered over a large area have been worked to date. At present, the main mining is about 1 mile from the mill which is situated on the railway line. The ore-bodies are undulating flat "makes" of dense sulphide (pyrrhotite, marcasite and some pyrite) up to 30 feet in thickness, in slates and tuffs; the tin is generally mainly in the lower part of the ore-bodies, particularly in the minor folds. The tin content may be 4% at the bottom of the makes, grading to .6% or barren higher up - occasional assays may show 10% or even 20% in small basins. Mill heads average about 1% of tin, over a production of about 250 tons of ore per week.

Little development work is done, the ore bodies are followed by open cut until they thin out or until the overburden becomes too great to handle. No really systematic exploration by diamond drilling is undertaken, although scope for such exploration is ample in this area.

The over-all recovery of tin is only about 60%. The tailings, containing 40% of the tin in the ore, go to waste down the creek. This extremely poor recovery is partly due to the fineness of tin in the ore, and partly, perhaps, to the necessity of fine-grinding for flotation; nevertheless, it is remarkable that little or no improvement seems to have been made in the milling results over the years. It is equally remarkable that tailings with such a high tin content have not been stacked but permitted to go to waste.

No attempt seems to have been made to develop reserves and the future life of the property is quite unknown. However, even although nothing can be said in praise of the organisation and the standard of efficiency of this Company's operations, the history and occurrence of the ore would indicate that it will manage to keep in existence for several years yet. Some of the Directors of this Company are also Directors of Sugarloaf Tin N.L., Queensland, and the attitude of both Boards of Directors to mining seems to be similar.

Financial Position. Apart from the 1946/47 balance sheet, the management has not supplied tabulated details of the operations. The legal management recently changed hands, and the new Legal Manager writes:-

"Profits during the last few years have been insufficient to justify taxation, but I understand that the affairs of the Company during the early period of its operations are so involved that the Taxation Department has not yet had an opportunity of making a complete investigation".

In a further letter he writes:-

"The Company's liability to taxation is most indefinite and the early returns and figures submitted to the Department were in such an unsatisfactory state that the Commissioner of Taxation allowed me to re-draft all the statements relating to expenditure and depreciation, right back to 1934, which was the date of the formation of the Company.



When the Company was formed, it failed to make an election under Section 123 of the Income Tax Act and as a result it was compelled to accept depreciation deductions as provided under Section 122. In the early years the Company made practically no profit, and during these years I estimated the life of the Mine to be fairly long with the object of writing off a small amount of depreciation and conserving expenditure for writing off against the higher profits when things got properly going. Originally I wrote off depreciation at the rate of 1/25, but in recent years I have been writing off at 1/5. Whether or not these amounts would be acceptable to the Department, I cannot say".

A summary of the accounts as given in the 1945/47 Annual Report is attached.

Under Liabilities, the Capital Reserve account was created by writing up the Assets. After purchase of the plant for £9,000, it was re-valued to improve the apparent position of the Company.

The Company has had loans from both the Commonwealth and State Governments. The Tasmanian Government loan is being reduced.

Under Fixed Assets the Mine Account comprises the original purchase price of the mine, £9,000, and the remainder includes exploration and development. Expenditure on houses for employees represents loans repaid over 10 years at 4%.

So far as the published accounts are concerned, no depreciation or amortisation is charged against surplus - the revenue position is, therefore, much less favourable than it appears. There are no reserves for renewal or modernising of plant. For taxation purposes, depreciation is now deducted on the basis of 5 years' life of the mine.

Allowing the undepreciated full book value for plant etc. the assets of a realisable nature would rather more than cover the share capital invested. On the present policy of handing out the maximum amount of dividends, the company will continue in its past and present hand-to-mouth manner.

RENISON ASSOCIATED TIN MINES N.L.  
FINANCIAL YEAR TO 30TH. JUNE, 1947.

LIABILITIES.

Nominal & Paid up Capital	50,000. 0. 0.	
Capital Reserve A/c. (created by writing up Assets).	10,826. 0. 2.	
P & L. Approp. A/c.	<u>29,685. 2. 10.</u>	90,511. 3. 0.
Commonwealth Govt.	1,500. 0. 0.	
Tasmanian Govt.	2,000. 0. 0.	
Forfeited Shares held in Trust.	<u>28. 6. 6.</u>	
	3,528. 6. 6.	
Creditors	<u>1,249. 17. 2.</u>	<u>4,778. 3. 8.</u>
		<u>95,289. 6. 8.</u>

ASSETS.

## Fixed.

Mine a/c at 1/7/46	28,909. 3. 3.	
Expenditure during year	<u>639. 11. 3.</u>	29,548. 14. 6.
Milling Plant at 1/7/46.	29,981. 17. 8.	
Expenditure during year	<u>349. 3. 7.</u>	30,331. 1. 3.
Mining Plant at 1/7/46	3,788. 12. 11.	
Expenditure during year	<u>32. 5. 9.</u>	3,820. 18. 8.
Electric Light & Power Line	6,844. 12. 6.	
Expenditure during year	<u>555. 13. 4.</u>	7,400. 5. 10.
Assay Plant.		115. 16. 3.
Surface tramways etc.		5,000. 8. 10.
Rolling Stock.		1,212. 8. 0.
Locomotives		1,150. 0. 0.
Horses & Harness		53. 18. 8.
Mine Buildings at 1/7/46	3,615. 11. 3.	
Expenditure during year	<u>248. 18. 2.</u>	3,864. 9. 5.
Office furniture and telephones.		111. 11. 0.
Expenditure on houses for employees.		<u>2,109. 14. 7.</u>
		84,719. 7. 0.

## Current.

Mines Stores, tools etc.	3,521. 11. 8.	
Sundry Debtors	321. 18. 0.	
Tin concentrates in settlement.	2,724. 1. 9.	
E.S. & A. Bank	3,870. 17. 3.	
Renison Community Centre	<u>131. 11. 0.</u>	<u>10,569. 19. 8.</u>
		<u>95,289. 6. 8.</u>

RENISON ASSOCIATED TIN MINES N.L.Production.

Ore treated	12,771 tons
Grade	1.06%
Concentrates produced	.109 tons
Tin content	75.756 tons.

<u>Costs:</u>	Mining	10/1.8 per ton	
	Transport	1/2.92	" "
	Treatment	8/6.86	" "
	Maintenance	3/11.88	" "
	Mine Overheads	5/2.64	" "
	Power & Light	2/0.54	" "
		<u>31/2.69</u>	" "

Profit and Loss Account.Income.

Proceeds on tin conc.	28,282. 3. 5.	
Less expenses on realisation	<u>842.14. 1</u>	27,439. 9. 4.
Rents		187. 9. 9.
Discount		<u>16.16. 4.</u>
		27,643.15. 5.

Working Costs.

Mine, Transport, Mill and Maintenance	17,742. 9. 1.
Overheads	3,067. 0.10.
General Expenses	1,105.14. 2.
Net Profit	<u>5,728.11. 4.</u>
	27,643.15. 5.

Profit & Loss Appropriation Account.

Dividend (6 $\frac{1}{4}$ %)	3,125. 0. 0.	Balance 1/7/46.	27,081.11. 6.
Bal. carried forward	<u>29,685. 2.10.</u>	Net Profit	<u>5,728.11. 4.</u>
	<u>32,810. 2.10.</u>		<u>32,810. 2.10.</u>

(In 1947/48, dividend increased to £6,250, working costs reduced to 28/8.4688 per ton, net profit 28/8.688)

8. COCKS ELDORADO GOLD DREDGING N.L.

History. This Company was floated in 1934 to dredge an area of ground at Eldorado, along Reedy Creek, 15 miles east of Wangaratta, Victoria. Previous companies had worked part of the area by underground methods and by sluicing. It has been essentially a gold producing project, with also a useful output of tin. Production commenced in 1936, and has continued since, but the area is now almost worked out and operations will cease during the next few months.

Financial Position. Being primarily a gold producer, the Company has not been subject to income tax. Nevertheless, statistics of production and of the financial position are included here, in order to give a comparative picture.

It is not yet decided whether the Company will continue to operate the dredge in another part of Victoria now under investigation, or whether the dredge will be sold and the Company wound up. In the latter event, the Company's asset position would be more or less as represented in the Balance Sheet for 1947. The dredge at the present time would have a good sale value (provided there is someone in Australia who wants to buy a dredge, and this appears to depend on developments in Northern Queensland) and the shareholders would have returned to them rather over £80,000. Dividends to date have totalled £192,500, so that the total return would be over £270,000, or about £1 for each of the 275,000 10/- shares. Over a period of 13 years, this represents an interest rate of approximately 8% - not at all a high rate for this form of investment.

Had this Company been subject to income tax, the total tax would have been rather more than £50,000, reducing the total return to about 16/- per share, and representing an interest rate of approximately  $4\frac{1}{2}\%$  - an unattractive risk rate for this form of investment.

C. Eld. Co.

COCKS ELDORADO GOLD DREDGING NO LIABILITY.

(1) BALANCE SHEET AT 30TH. SEPTEMBER, 1947.

LIABILITIES.

Shareholders' Funds:

Capital -

Subscribed and Paid up.

275,000 shares of 10/- each 137,500.

Reserves -

General 10,000

Repairs & Renewals 951 10,951.

Profit & Loss Appropriation Account 4,918 153,369

Current Liabilities

Sundry Creditors 2,564

£155,933

ASSETS:

Fixed Assets:

Mine Property, Freehold Land and Development at cost £51,357.

Bucket Dredge at Cost, less Depreciation  
Written off to 30/9/44 £57,959.

Other Plant and Buildings at cost, less Depreciation  
written off to 30/9/47. 4,406 62,365 113,722

Investment at Cost 13,500

Current Assets

Cash at Bankers. 10,288  
Bank - Fixed Deposits 150  
Gold at Mint 2,483  
Sundry Debts, at face value 5,549  
Tin Concentrates on Hand,  
at valuation 1,600  
Stores on hand, at cost or  
under 3,131  
Prepayments. 59 23,260

Intangible Asset

Bucket Band Suspense 5,451

£155,933

COCKS EL DORADO GOLD DREDGING NO LIABILITY.

(ii) PRODUCTION FIGURES TO 30/9/1947.

Period ended.	Cubic yards dredged.	GOLD PRODUCED.			TIN CONCENTRATES.	
		Smelted Ounces.	Fine Ounces.	Smelted Grains per c. yd.	Tons.	lbs. per c. yd.
30/9/1936	239,600	144.5	130.83	0.29	5.0	0.04
30/9/1937	1,899,816	6,484.6	6,331.37	1.64	114.5	0.13
30/9/1938	1,846,660	10,599.75	10,410.16	2.75	181.09	0.22
30/9/1939	1,476,718	5,226.0	5,115.90	1.70	124.38	0.19
30/9/1940	2,419,317	6,731.5	6,473.49	1.34	114.79	0.11
30/9/1941	2,106,816	4,500.5	4,344.29	1.02	86.38	0.09
30/9/1942	2,401,460	4,986.5	4,889.14	1.00	87.47	0.08
30/9/1943	2,079,490	3,472.75	3,401.17	0.80	57.23	0.06
30/9/1944	1,941,820	3,209.75	3,146.24	0.79	53.53	0.06
30/9/1945	1,680,930	2,464.75	2,417.29	0.70	46.82	0.06
30/9/1946	1,747,860	2,624.5	2,572.76	0.72	56.43	0.08
30/9/1947	1,938,615	3,083.25	3,013.66	0.77	68.39	0.08
TOTALS:	21,779,102	53,528.35	52,246.30	1.18	996.01	0.102

COCKS ELDORADO GOLD DREDGING NO LIABILITY.

(iii) SUMMARY OF FINANCIAL RETURNS TO 30/9/1947.

Period Ended	Value of Gold Produced.	Pence per c.yd.	Value of Tin Concentrates.	Pence per c.yd.	Total Gold and Tin.	Pence per c.yd.	Other Income	Total Income	Pence per c.yd.	Mine Costs	Pence per c.yd.
30/9/35											
30/9/36	£1,124	1.12	£810	0.81	£1,934	1.93	£315	£2,249	2.25	£2,954	2.95
30/9/37	55,480	7.01	24,971	3.15	80,451	10.16	26	80,477	10.17	27,257	3.44
30/9/38	90,825	11.80	29,539	3.84	120,364	15.64	683	121,047	15.73	37,407	4.86
30/9/39	48,158	7.83	23,336	3.79	71,494	11.62	463	71,957	11.7	38,621	6.28
30/9/40	63,530	6.30	24,080	2.39	87,610	8.69	565	88,175	8.75	41,671	4.13
30/9/41	42,791	4.87	18,624	2.12	61,415	6.99	998	62,413	7.11	36,355	4.14
30/9/42	48,835	4.88	19,768	1.98	68,603	6.86	516	69,119	6.91	38,750	3.87
30/9/43	34,799	4.01	13,762	1.59	48,561	5.60	1,241	49,802	5.75	37,454	4.32
30/9/44	32,243	3.99	12,593	1.55	44,836	5.54	958	45,794	5.66	33,779	4.18
30/9/45	25,469	3.64	11,098	1.58	36,567	5.22	326	36,893	5.27	34,214	4.88
30/9/46	27,689	3.80	13,046	1.79	40,735	5.59	544	41,279	5.67	38,292	5.26
30/9/47	31,449	3.89	18,574	2.30	50,023	6.19	628	50,651	6.27	43,021	5.33
TOTALS:	£502,392	5.53	£210,201	2.32	£712,593	7.85	£7,263	£719,856	7.93	£409,755	4.52

Adminis- tration Costs.	Pence per c.yd.	Total Costs	Pence per c.yd.	Develop- ment charged against Profits.	Depreci- ation.	Net Profit as per P & L A/c.	Pence per c.yd.	Development charged to "Mine Prop- erty & Devel- opment A/c."	Dividends.	Gold Tax Paid.
								£4,058.		
								7,545		
£496	.5	£3,450	3.45		10,000	£1,201	1.20	257	£27,500	
1,630	.21	28,887	3.65		10,000	41,590	5.25	2,347	55,000	
1,929	.25	39,336	5.11		5,608	71,711	9.32		13,750	
2,490	.4	41,111	6.68	1,441	7,853	23,797	3.87		41,250	5,269
2,515	.25	44,186	4.38	616	3,981	5,520	3.52		20,625	3,693
2,289	.26	38,644	4.4	2,193	3,732	17,595	2.00		20,625	2,387
2,202	.22	40,952	4.09	5,217	2,000	21,218	2.12		6,875	744
1,874	.22	39,328	4.54	59	2,000	8,415	0.97		6,875	732
1,971	.24	35,750	4.42	213	2,000	7,831	0.97			311
1,938	.28	36,152	5.16	960	660	879	0.12			-
1,948	.27	40,240	5.53		614	425	0.06			1,331
1,559	.19	44,580	5.52	381	723	4,967	0.61			
22,841	.25	£432,616	4.77	£29,080	£47,171	£230,989	2.55	£14,207	£192,500	£14,467.

9. NEW BUTLER'S TIN MINES, N.L.

This Company was formed in 1940 to work tin lodes 6 miles from Torrington, New South Wales. During the War the Federal Government made available £1,900 for the purpose of sinking a shaft 60 feet. In March, 1943, a further advance of £2,000 was made for equipment - boiler, compressor, winding engine etc. - but when production commenced most of the men who were employed on the mine were withdrawn by the Civil Construction Corps, according to the management. To keep the mine unwatered, it was let on tribute until 1945, when the Company purchased a 10-head battery, complete, from Government at a cost of £2,500 - £500 was paid as deposit and the balance is being paid at the rate of £10 per ton of tin concentrates produced.

After the War, the Company constructed a permanent water-supply, but this was washed away by a cloud-burst just as it approached completion. Several of the men employed on the mine, believing the mine would close down, left the district. Labour is still scarce, and as a result the mine is able to work only one shift.

Ore reserves, developed to 31/10/47, were estimated at 4,500 - 5,000 tons of  $1\frac{1}{2}\%$  to  $2\%$  tin oxide. The two main lodes have been driven on for 300 and 880 feet respectively, and appear to be persistent.

The mine has been worked consistently at a loss, but the management state that since the last price increase in June, 1948, a small profit is being made. No dividend has yet been paid. The financial position as at 31/10/47 is given in the attached statement.

When this Company does earn reasonable profits, the taxation amendments suggested in this Report would undoubtedly be of considerable help.

The same group of Directors also form the Boards of Curnow's Tin Mine and New England Tin Mine, in the same locality. Curnow's Tin Mine is let on tribut. New England Tin Mine has been closed since 1945, and because of lack of capital and manpower there is no present intention of re-opening.



NEW BUTLER'S TIN MINES.

FINANCIAL YEAR ENDED 31/10/1947.

Liabilities:

Authorised & subscribed capital	£18,000
Mines Dept. Loan & Battery A/c.	6,335
Creditors	612
Bank	841.

Assets:

Mine Property	5,475
Plant etc.	9,286
Motor Truck	80
Dam Construction	1,351
Stores	178
Working Account	9,091
Debitors	327.

Production:

Ore Crushed	-	1410 tons.
Production	-	24 tons 15 cwt. tin concentrates.
		1 ton 7 cwt. wolfram concentrates.
Grade	-	1½ to 2 percent tin oxide.

Working A/c - Loss £243.

Profit and Loss Approp. A/c - accumulated Loss £9,091.

No taxation or dividends yet paid.

10. SMALL PRODUCERS.

Queensland. The numerous producers of tin in the Herberton and adjacent areas - approximately 100 men - although important in the aggregate are individually very minor producers. In discussing taxation matters, they are quite vociferous, but are reticent in supplying data which would assist in providing any picture of the effect of taxation on their production. During my visit a number of the producers agreed to go through such records as they have maintained and provide figures, but notwithstanding the active personal co-operation of the Inspector of Mines, the response has been disappointing. This poor response gives the impression of indifference to taxation matters. Such few returns as have been submitted certainly do not suggest that, on the whole, the amount of tax paid by private tin producers has been unduly onerous to them, but earnings have not been sufficiently great to bring them into the higher taxation range.

The majority of these small producers are men who are content to make a reasonable living. A number of them own underground mines with available reserves which they admit could undoubtedly be worked more rapidly, but they see no point in doing so. Some may ascribe this attitude to high taxation, but it is doubtful whether they would work differently whatever the rate of taxation may be - it would still be taxation to them and regarded as a potential loss to be avoided. For example, a miner may have reserves of tin-ore which at present prices may be worth to him £8,000. He is perfectly content to mine this at the rate of £800 a year, working say only 100 days of the year - on this amount he lives reasonably well and with various items of expenditure which he can justify, and allowable deductions, he pays a minimum of tax. If he increased production by working the full year, he would be liable to pay a higher income tax rate, but by reducing production to an income which provides merely reasonable living conditions, he is assured of such a living for many years to come - if the price of tin goes up, he works even less, if it drops he works a little more. Possibly if there were no tax at all, or if there were a fixed tax on production, say so much per cent, his attitude may be different, but I doubt whether all would change their outlook. Although some have suggested the latter form of tax, it would be relatively unfair to the fossickers and very small producers who normally cannot earn enough to be liable for tax, no matter how hard they work.

It is my opinion that, fundamentally, the present taxation does not impose any greater hardship on the smaller tin producer than that experienced in any other small business. It is doubtful whether taxation has any considerable effect on small scale production in the Herberton area - there may be a few cases in which it may, but in the aggregate they would be of so little importance in Australia's total production that they do not warrant consideration of any special treatment for income tax purposes.

New South Wales. In New South Wales, most of the small producers are working sluicing properties, the conditions of working being different from the small underground mines in Northern Queensland. Although the Pond's Syndicate (2 partners, brothers), Tingha Hydraulic Mine Mines (2 partners, father and son), at Tingha, E. Cleghorn at Bendemeer, and the New Butler's Tin Mining Co. (an underground mine near Torrington) are important producers, tin mining in New South Wales on the whole can be regarded as essentially a poor man's occupation. However, in the aggregate, production in 1947 was 525 tons of concentrates, about one-sixth of the total production.

Burma-Malay Tin Ltd., have recently disposed of their property near Emmaville, and with closing down of Briscoe Consolidated N.L. in Tasmania, have no further interests in mining here.

A new Company, Victory Tin N.L. was formed recently to sluice near Tingha, but early operations showed that the lease was unpayable. A new lease has since been arranged.

As in Queensland, the small private producers have not shown any desire to supply figures relating to taxation, and the figures attached are of little value in drawing conclusions. Apart from the sluicing concerns mentioned above there are many small hydraulic plants and also a number of fossickers; few earn enough to make them eligible for tax - some go rabbiting for part of the year. Much of the ground has been worked repeatedly and is so poor that even though the miner may work energetically the whole year he may barely make a living - I understand that many continue this occupation because it is the only one of which they have any knowledge. It is surprising to find, however, that a number of young men of more than average intelligence have taken up tin-sluicing since the end of the war - apparently attracted to the type of life.

Apart from the possibility of re-opening underground mines in the Torrington area, and possibly some deep leads around Emmaville, there appears to be no scope for the expansion of the tin industry in this region. Certainly from the taxation angle, it is doubtful whether taxation has any really important effect on production.

(J. A. DUNN.)  
Mineral Economist.

QUEENSLAND.

	<u>Year.</u>	<u>Production.</u>	<u>Gross Income.</u>	<u>Expenditure.</u>	<u>Net Income.</u>	<u>Tax Assessed.</u>
<u>F. G. Byrne, Irvinebank.</u>	1946/47	-	-	-	£961	£224.
<u>J. C. Peters, Irvinebank.</u>	1944/5.	11 ton 13 cwt *	£2665 *	-	£615	£235.
	1945/6.	15 ton 8 cwt *	£3480 *	-	£537.	£ 44.
	1946/7.	16 ton 6 cwt *	£4249 *	-	£507.	£ 17.
<u>D. W. Morris -</u>	1942/43.	4 ton 2 cwt *	£ 931 *	-	£307.	£ 19.
Partner submitted	1943/4.	4 ton 10 cwt *	£ 914 *	-	£358.	£ 36.
no data	1944/5	4 ton 10 cwt *	£ 935 *	-	£283	£ 17
	1945/6	1 ton 6 cwt *	£ 259 *	-	£274	£ 3
	1946/7	7 ton 5 cwt *	£1960 *	-	£535	£ 93.

\* Calendar year figures.

NEW SOUTH WALES.

<u>Names and Partners.</u>	<u>Year</u>	<u>Production.</u>	<u>Gross Income</u>	<u>Total Expenditure</u>	<u>Depreciation</u>	<u>Taxable Income</u>	<u>Tax Assessment</u>
<u>E. G. Cleghorn.</u>	1942/43.	-	13506	10720	350	2436 )	
	1943/44.	-	9748	8847	270	631 )	No
<u>Watsons Creek</u>	1944/45	-	8434	6448	373	1613 )	Assessment
	1945/46	-	10260	6998	546	2716 )	yet made.
	1946/47	-	10272	9892	474	Loss 94 )	

Ponds Syndicate, Tingha

E. Cox.	1942/43	124.2 tons	28652	26768	-	1884.	329 *
F. E. Cox	-	-	-	-	-	-	33
E. Cox	1943/44	97.8 tons	29352	27098	-	2254	426 *
F. E. Cox	-	-	-	-	-	-	60
	1944/45	99.35 tons	26206	30909	-	Loss 4703	Nil
	1945/46	78.55 tons	30944	29450	-	1494	Nil
	1946/47	56.5 tons	20867	24896	-	Loss 4029	Nil

\* Includes tax from other sources, £175 in 1943, and £140 in 1944.

<u>Marshall &amp; Son.</u>	1942/43.		553	277	-	326	Nil
	1943/44		1017	348	-	670	Nil
<u>Hogue's Creek</u>	1944/45		865	479	-	386	247 *
	1945/46		1348	490	-	858 )	Not yet
	1946/47		2362	1132	246	984 )	assessed.

\* 1945/46 assessment - 2 married partners nil, 3 single partners £82 each.

See next page for Dettman Partnership.

DETTMAN PARTNERSHIP.

Production Concentrates.	Gross Income.	Total Expenditure.	Depletion.	Taxable Income.
1943.17.7.1.12	4300	1156	20% as allowed	3144
1944.13.2.2.7.	4006	1102	Section 23a.	2904
1945.19.1.3.19	4632	2590	"	2062
1946.10.2.0.12.	2677	1787	"	890
1947.16.7.1.0.	4146	2096	"	2050

Distribution to Partners.Trading as "Spot" Syndicate.

	1943.	1944.	1945.	1946.	1947.
"4 D's" Syndicate	£1048	1119	902	566	507
E.L.H. Dettman	878	373	387	108	150
F.C. Dettman	390	373	387	108	150
A.R. Dettman	390	373	386	108	150
W.S. Orchard	146	227	-	-	-
A.W. Smith	146	215	-	-	-
J.S. Agnew	146	224	-	-	-

Distribution of proceeds to "4 D's" Syndicate taken to Income Tax Returns of partners.Share from "Spot" Syndicate to "4 D's" Syndicate.

Year.	Share.	Expenditure.	
1943	1048	901	) The "4 D's" Syndicate are the plant owners, Expenditure as shown includes repairs and maintenance and depreciation.
1944	1119	476	
1945	902	720	
1946	566	526	
1947	507	438	

Gross tax of partners as assessed; sectional rebates and provisional tax has been excluded.

	1943.	1944.	1945.	1946.	1947.
E.L.H. Dettman	£88.3.0.	103.7.0.	50.7.0.	4.11.0.	Not yet
A.R. Dettman	55.16.	26.0.0.	56.4.0.	Nil	assessed
F. C. Dettman	56.4.0.	50.16.0	68.13.0	"	"
H.E. Dettman					

Tax as assessed of partners Messrs. Orchard, Smith and Agnew for the years 1943 and 1944 are not obtainable.