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22 AP

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AUSTRALIAN MINERAL INDUSTRY

**ECONOMIC NOTES AND STATISTICS**

VOL. 4. No. 3

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1952.

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MINISTER — SENATOR THE HON. W. H. SPOONER.

SECRETARY — H. G. RAGGATT.

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## EXPLANATORY NOTES AND ABBREVIATIONS

All statistics relating to mine production in Australia are compiled from data supplied by the State Departments of Mines, supplemented in certain cases by other information available to the Bureau. The values quoted are those supplied by the State Departments of Mines.

All tonnages are in long tons (2240 lbs.) unless otherwise stated.

All values are in terms of Australian currency unless otherwise stated.

All statistics of imports and exports are supplied by the Commonwealth Statistician, Bureau of Census and Statistics.

The value of imports quoted represents the f.o.b. value converted to Australian currency at current rate of exchange on day of export of goods.

The value of exports includes the cost of containers, and is the f.o.b. value.

The following abbreviations are used throughout—

### Sources of Information—

|                                                |            |
|------------------------------------------------|------------|
| Bureau of Mineral Resources                    | B.M.R.     |
| Commonwealth Bureau of Census and Statistics   | Com. Stat. |
| State Mines Departments                        | S.M.D.     |
| State Statisticians                            | S.S.       |
| Joint Coal Board                               | J.C.B.     |
| Australian Mines and Metals Association (Inc.) | A.M.M.     |
| Royal Mints, Perth and Melbourne               | R.M.       |

### Statistical Items—

|                         |             |                         |        |
|-------------------------|-------------|-------------------------|--------|
| Estimated               | e           | Queensland              | Q'land |
| Incomplete              | i           | New South Wales         | N.S.W. |
| Data not yet received   | blank space | Aust. Capital Territory | A.C.T. |
| Not available           | n.a.        | Victoria                | Vic.   |
| Not recorded            | n.r.        | Tasmania                | Tas.   |
| Not elsewhere included. | n.e.i.      | South Australia         | S.A.   |
| None                    | —           | Western Australia       | W.A.   |
| Less than unity         | †           | Northern Territory      | N.T.   |
| Smelter production      | s.p.        |                         |        |
| Concentrates            | Cons.       |                         |        |

Amended from previous issue \*

## ACKNOWLEDGMENTS

The Bureau is dependent on the State Mines Departments and the Commonwealth Bureau of Census and Statistics for the essential statistical data on production, and imports and exports respectively, and the assistance of these Departments is gratefully acknowledged.

Certain other data, such as current market notes and prices, etc., are supplied by various private firms, Associations, the Royal Mints, and other Departments; to all who have contributed information for this quarterly publication the Bureau extends its thanks.

## THE INTERNATIONAL MATERIALS CONFERENCE.

### WASHINGTON.

The International Materials Conference in Washington has now been in session for twelve months. The deliberations of the various commodity Committees are being continued, and it may be of interest to review the work of these Committees to date.

On January 12th, 1951, the Governments of the U.K., U.S.A. and France issued a joint statement reporting their agreement that:

"Proposals should be made to other interested governments for the creation of a number of standing international commodity groups, representing the governments of producing and consuming countries throughout the free world which have a substantial interest in the commodities concerned. These commodity groups would consider and recommend to governments the specific action which should be taken, in the case of each commodity, in order to expand production, increase availabilities, conserve supplies, and assure the most effective distribution and utilization of supplies among consuming countries.

Early action is called for with respect to certain commodities. The Government of the United States has therefore agreed to send invitations immediately to other interested friendly governments for the establishment of certain of the standing commodity groups referred to above. Others can be created as the needs of the free world require. Also, the three governments will establish immediately in Washington a temporary Central Group to provide a servicing mechanism for the standing commodity groups. There will be early consultations with interested governments and appropriate international organizations with respect to the continuing functions and membership of the Central Group."

This statement announced the start of the International Materials Conference, and there has been no subsequent change in the fundamental conception of the purpose or work of the Conference. Small adjustments in organisation have been necessary, and the membership of some Committees has been extended from time to time, but there have been no major changes of policy. The autonomy of each of the commodity Committees has been preserved from the outset, and although this has led to different interpretations of related problems there is no disagreement regarding broad aspects of Committee functions. Proposals on price stabilisation have proved to be contentious and some member countries claim that the Conference is not empowered to make recommendations on this matter, but most Committees have taken the view that price stabilisation is a proper subject for discussion because it may well be the means of encouraging production or availability of scarce commodities. The independence of each Committee has enabled it to examine the problems particular to the commodities for which it is responsible without the restrictions which would be necessary if the problems for all commodities were regarded as of equal validity. This point may be illustrated by comparing the problems facing the Wool Committee with those facing the Tungsten-Molybdenum Committee; the economics of the pastoral industry are so dissimilar to those of the metal industry that any attempt to apply a common solution to the problems would be unrealistic.

It is apparent, however, that there are procedural and other matters of common interest to all Committees, and it has been found that informal dis-

For previous notes on the International Materials Conference see "Australian Mineral Industry—Economic Notes and Statistics," Vol. 3 No. 4, Vol. 4 No. 1, Vol. 4 No. 2.

ussions between representatives of the Committees have avoided unnecessary duplication in many cases. The ability of the Central Group to adjudicate or advise on matters concerning the commodity Committees is limited, because all member countries are not represented on the Central Group, and also because the Group includes representatives of organisations which are not members of the commodity Committees.

Australian representatives on the Metals and Mineral Committees are now Mr. F. J. Marcusson (Department of Trade and Customs), Mr. R. F. F. Hall (Department of Trade and Customs), and Mr. F. J. McGuinness (Ministry of National Development). Two representatives of the copper industry, Messrs. J. A. Bult (Metal Manufacturers Ltd.), and R. A. Walmsley (Electrolytic Refining and Smelting Co.), have been accredited as advisers to the Australian delegation, and have taken full part in the work of the Copper-Zinc-Lead Committee.

Membership of the Committees is as follows:—

**Central Group:**

Australia, Brazil, Canada, France, India, Italy, U.K., U.S.A., Organisation of American States, Organisation for European Economic Co-operation.

**Copper-Zinc-Lead:**

Australia, Belgium, Canada, Chile, France, Germany, Italy, Mexico, Norway, Peru, U.K., U.S.A.

**Sulphur:**

Australia, Belgium, Brazil, Canada, France, Germany, India, Italy, Mexico, New Zealand, Norway, Sweden, Switzerland, Union of South Africa, U.K., U.S.A.

**Tungsten-Molybdenum:**

Australia, Bolivia, Brazil, Canada, Chile, France, Germany, Japan, Portugal, Spain, Sweden, U.K., U.S.A.

**Manganese-Cobalt-Nickel:**

Belgium, Brazil, Canada, Cuba, France, Germany, India, Norway, Union of South Africa, U.K., U.S.A.

**Wool:**

Argentina, Australia, Belgium, France, Germany, Italy, New Zealand, Union of South Africa, U.K., U.S.A., Uruguay.

**Pulp-Paper:**

Australia, Austria, Belgium, Brazil, Canada, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, U.K., U.S.A.

**Cotton-Cotton Linters:**

Belgium, Brazil, Canada, France, Germany, India, Italy, Japan, Peru, Turkey, U.K., U.S.A.

The Wool and Cotton Committees examined the free world supply position in these commodities and reached the conclusion that an allocation scheme was unnecessary. Both Committees are now in recess, but the framework of their organisation is being maintained and they will resume discussions whenever the economic situation makes a further review necessary. The Pulp and Paper Committee has not considered it necessary to make an overall allocation, but has made emergency allocations of newsprint on a stopgap basis to certain countries.

Committees dealing with the metals and sulphur have followed a somewhat standardised procedure, viz.:

- (a) Examination of the historical pattern of production and consumption of each commodity.
- (b) Estimation of current and future requirements and production.
- (c) Establishment of the mechanics of an allocation scheme.
- (d) Determination of an equitable scheme of distribution of scarce commodities.
- (e) Examination of the implementation and effect of each allocation.

These stages necessarily overlap and are perhaps not as clear cut as they appear, but the work of each Committee has been conducted within this general framework. At the present time the emphasis is on stages (d) and (e), but the estimate of current and future requirements and production (stage b) is being kept under constant review. Some Committees have appointed sub-Committees to examine longer-term solutions of the supply problems—means by which production may be increased, establishment of end-use controls and the use of substitute materials, price stabilisation and related problems, etc.—but with the exceptions already mentioned and of lead and manganese the Committees have seen the need to recommend allocations to ease the impact of current shortages. The defects in any scheme of allocation are well known to all participants in the Conference, and there should be no fear that such schemes will be retained any longer than is considered absolutely necessary. In this respect it should be noted that member Governments have not delegated authority to any Committee to determine how much of a commodity may be consumed or must be made available. The Committees can therefore only recommend an allocation or other course of action, and it is certain that no member Government will accept such a recommendation if it is not supported by convincing proof of its necessity.

The following notes summarise the activities of each of the Committees dealing with metals and minerals:

**Copper-Zinc-Lead.** After a careful analysis of the statistical position the Committee decided that it would not be necessary to recommend an allocation of lead at the present time. This does not indicate that the position is entirely satisfactory—merely that the gap between estimated supply and requirements is not considered large enough to justify an allocation. The situation is reviewed from time to time, however, and the Committee will make a recommendation if the need arises.

The Committee was in no doubt that there is an acute shortage of copper and zinc, but it took some months of painstaking discussion before agreement was reached on an allocation which would be recommended to Governments for the fourth quarter of 1951. The method agreed upon was to give full priority to each country's stated defence requirements; then to meet stockpile requirements in part by allocating an arbitrary percentage (5% for copper and 3% for zinc) of each claimant country's consumption during 1950. The remainder of the estimated supply was then distributed as a percentage of the base year consumption of each country in the free world, but in some cases the base year consumption was arbitrarily adjusted to make allowance for any special circumstances which the Committee considered should be taken into account. These adjustments gave some elasticity to what would otherwise have been a rigid formula, and to some extent met the claims of those countries who had special cases to be considered.

The allocations arrived at by this method represented consumption quotas by all member and non-member countries. The recommendation made by the Committee was accepted by all members except Chile, who entered a



reservation that only 80 per cent. of her production of refined copper from large mines would be available for inclusion in the proposed scheme of distribution. This reservation was noted by the Committee but no action was taken until the effect on the scheme could be determined.

After reviewing amended estimates of production and requirements for 1952, it was apparent to the Committee that there had been no significant change in the position since the previous review, and that allocations of primary copper and zinc were necessary for the current year. The method of arriving at the first quarter scheme of distribution was similar to that outlined above for the fourth quarter, 1951, except that no priority was given for copper stockpile requirements, and the recommendation made to Governments was accepted, with the same reservation on behalf of Chile. It is gratifying that the Australian claim for an increased allocation of copper was recognised, and the amount of 12,500 metric tons now approved for the first quarter is much more in line with our minimum requirements than the previous quarter's allocation.

The Copper-Zinc-Lead Committee's allocation of primary copper and zinc for the fourth quarter, 1951, and first quarter of 1952 are shown in Table 1.

TABLE 1.  
ALLOCATION SCHEDULE — PRIMARY COPPER AND ZINC  
(in metric tons)

| Country.                               | Fourth quarter, 1951. |         | First quarter, 1952. |         |
|----------------------------------------|-----------------------|---------|----------------------|---------|
|                                        | Copper.               | Zinc.   | Copper.              | Zinc.   |
| Argentina                              | 2,060                 | 2,200   | 2,100                | 2,500   |
| Australia                              | 8,940                 | 13,010  | 12,500               | 13,000  |
| Austria                                | 2,370                 | 1,750   | 3,000                | 2,000   |
| Belgo-Lux Econ. Union                  | 16,480                | 23,160  | 20,200               | 26,000  |
| Brazil                                 | 3,090                 | 1,940   | 4,800                | 1,900   |
| Canada                                 | 27,580                | 12,780  | 31,500               | 15,000  |
| Chile                                  | 2,310                 | 1,020   | 2,300                | 1,100   |
| Denmark                                | 3,530                 | 1,500   | 3,900                | 1,550   |
| Egypt                                  | 1,230                 | 300     | 1,300                | 350     |
| Finland                                | 2,430                 | 1,020   | 2,450                | 1,050   |
| France                                 | 36,490                | 27,660  | 38,000               | 29,000  |
| French Africa                          | 1,650                 | 160     | 1,650                | 160     |
| Germany, Fed. Republic                 | 47,100                | 38,520  | 51,000               | 41,000  |
| Greece                                 | 620                   | 200     | 1,050                | 250     |
| India                                  | 8,570                 | 5,600   | 8,800                | 6,000   |
| Italy                                  | 24,200                | 9,390   | 24,500               | 9,000   |
| Japan                                  | 13,200                | 10,530  | 15,000               | 12,000  |
| Mexico                                 | 3,510                 | 2,620   | 3,500                | 3,850   |
| Netherlands                            | 6,800                 | 5,850   | 7,000                | 6,000   |
| Norway                                 | 3,310                 | 3,190   | 4,100                | 3,400   |
| Pakistan                               | 1,650                 | 200     | 1,700                | 300     |
| South Africa, Union of                 | 4,170                 | 3,100   | 5,000                | 3,500   |
| Spain                                  | 3,710                 | 4,020   | 4,900                | 4,050   |
| Sweden                                 | 13,710                | 5,670   | 13,100               | 5,550   |
| Switzerland                            | 5,570                 | 2,250   | 6,400                | 2,700   |
| Turkey                                 | 1,360                 | 20      | 1,500                | 50      |
| United Kingdom                         | 91,690                | 60,250  | 100,000              | 64,000  |
| United States                          | 333,770               | 228,460 | 366,000              | 229,000 |
| Yugoslavia                             | 4,950                 | 1,900   | 5,950                | 2,100   |
| Other Countries (less than 1,000 tons) | 1,110                 | 990     | 1,480                | 1,290   |
| TOTAL                                  | 677,160               | 469,260 | 744,680              | 487,650 |

**Tungsten-Molybdenum.** The United States of America has such a predominant interest in the production of molybdenum that the Committee has had very little to do other than to recommend an equitable scheme of distribution of the amount available for export from the U.S.A. This has enabled the Committee to give detailed consideration to the future of the tungsten market, and more time has been devoted to discussions on this topic than

on the determination of quarterly allocations. The Committee has announced *ad hoc* allocations for the third and fourth quarters, 1951, and first quarter, 1952, and has announced the intention to establish an allocation for the first half of 1952, into which the first quarter figures will be merged. The allocations announced to date have not been based on any formula or historical pattern, but the Committee has obtained from consuming countries data which may make it possible to relate future allocations to actual requirements. All commodity Committees have experienced difficulty in determining to what extent stated requirements are the true requirements, particularly where defence usages are concerned. The difficulty arises from differences in interpretation as to what constitutes a minimum essential requirement, and also from the natural reluctance of all countries to disclose their defence programmes. The attempt of the Tungsten-Molybdenum Committee to tackle this problem will be watched by the other Committees with great interest.

The allocation for the third quarter, 1951, referred only to tungsten and molybdenum in ores and concentrates, but subsequent schemes included distribution of what the Committee calls primary products (i.e., the tungsten or molybdenum content of tungsten powder, alloys, etc.). Export and import quotas were included as part of the allocations.

A price commitment was incorporated in the allocation scheme for the third quarter. The commitment limited the prices to be paid for spot purchases of tungsten to a minimum of \$55.00 per short ton unit of WO<sub>3</sub> and a maximum of \$65.00. It was also agreed that prices for molybdenum during the quarter be in line with those prevailing in the U.S.A. Since this price commitment was not accepted by Brazil and was regarded unfavourably by some other member Governments, it was dropped from subsequent schemes.

The allocations of tungsten in ores and primary products are shown in Table 2, and the corresponding figures for molybdenum are contained in Table 3.

TABLE 2.  
ALLOCATION SCHEDULE — TUNGSTEN  
(in metric tons of contained metal)

|                                               | 3rd quarter, 1951.        |                      | 4th quarter, 1951.        |                      | 1st quarter, 1952.        |                      |
|-----------------------------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
|                                               | In ores and concentrates. | In primary products. | In ores and concentrates. | In primary products. | In ores and concentrates. | In primary products. |
| Argentina                                     | —                         | —                    | 15                        | —                    | 0.5                       | 1.5                  |
| Australia                                     | 15                        | —                    | 5                         | —                    | 18                        | 6                    |
| Austria                                       | —                         | —                    | 6                         | —                    | 7                         | 56                   |
| Belgium                                       | —                         | —                    | 3                         | —                    | 3                         | 14                   |
| Brazil                                        | —                         | —                    | 1                         | —                    | —                         | 1                    |
| Canada                                        | 26                        | —                    | 25                        | —                    | 28                        | 74                   |
| Finland                                       | —                         | —                    | 4                         | —                    | —                         | 4                    |
| France                                        | 280                       | —                    | 285                       | —                    | 323                       | —                    |
| Germany                                       | 290                       | —                    | 308                       | —                    | 348                       | 6                    |
| India                                         | —                         | —                    | 10                        | —                    | —                         | —                    |
| Italy                                         | —                         | —                    | 20                        | —                    | 23                        | 23                   |
| Japan                                         | —                         | —                    | 105                       | —                    | 103                       | —                    |
| Netherlands                                   | —                         | —                    | 8                         | —                    | 9                         | 5                    |
| Norway                                        | —                         | —                    | 7                         | —                    | —                         | 8                    |
| South Africa                                  | —                         | —                    | 10                        | —                    | —                         | 10                   |
| Spain                                         | 13                        | —                    | 14                        | —                    | 16                        | 11                   |
| Sweden                                        | 210                       | —                    | 202                       | —                    | 232                       | —                    |
| Switzerland                                   | —                         | —                    | —                         | —                    | —                         | 1                    |
| Turkey                                        | —                         | —                    | 3                         | —                    | —                         | 3.5                  |
| U.K.                                          | 695                       | —                    | 690                       | —                    | 779                       | —                    |
| U.S.A.                                        | 1,255                     | —                    | 1,550                     | —                    | 1,748                     | —                    |
| Yugoslavia                                    | 16                        | —                    | —                         | —                    | —                         | 11                   |
| Other Countries (less than 1 ton) and reserve | —                         | —                    | 4                         | —                    | 62.5                      | 7                    |
| TOTAL                                         | 2,800                     | —                    | 3,245                     | —                    | 3,700                     | 242                  |

The figures in Table 2 indicate a very satisfactory rate of increase in the production of tungsten, but it must be borne in mind that the demand for both tungsten and molybdenum is increasing at a greater rate and the estimated shortage is no less than it was a year ago. However, there is hope that the position will be eased late in 1952, when the defence programmes of larger consuming countries will have reached peak activity.

TABLE 3.  
ALLOCATION SCHEDULE — MOLYBDENUM  
(Metric tons of contained metal).

|                                               | 3rd quarter, 1951.<br>In ores and concentrates. | 4th quarter, 1951.<br>In ores and concentrates. | In primary products. | 1st quarter, 1952.<br>In ores and concentrates. | In primary products. |
|-----------------------------------------------|-------------------------------------------------|-------------------------------------------------|----------------------|-------------------------------------------------|----------------------|
| Australia                                     | —                                               | —                                               | 15                   | —                                               | 14                   |
| Austria                                       | —                                               | —                                               | 22                   | —                                               | 21                   |
| Belgium                                       | —                                               | 1.5                                             | 25.5                 | —                                               | 22                   |
| Brazil                                        | —                                               | —                                               | 8                    | —                                               | 8                    |
| Canada                                        | —                                               | —                                               | 50                   | —                                               | 75                   |
| Denmark                                       | —                                               | —                                               | —                    | —                                               | 1.5                  |
| Finland                                       | —                                               | —                                               | 2                    | —                                               | 2                    |
| France                                        | 195                                             | 239                                             | —                    | 239                                             | —                    |
| Germany                                       | 125                                             | 162                                             | —                    | 157.5                                           | —                    |
| Italy                                         | —                                               | 21                                              | 10                   | 20                                              | 10                   |
| Japan                                         | —                                               | 41                                              | —                    | 40                                              | —                    |
| Netherlands                                   | —                                               | 5                                               | 5                    | 5                                               | 5                    |
| Norway                                        | —                                               | —                                               | 1                    | —                                               | 2                    |
| Portugal                                      | —                                               | —                                               | 2                    | —                                               | 2                    |
| South Africa                                  | —                                               | —                                               | 5                    | —                                               | 5                    |
| Spain                                         | —                                               | —                                               | 7                    | —                                               | 7                    |
| Sweden                                        | 100                                             | 109                                             | —                    | 109                                             | —                    |
| Switzerland                                   | —                                               | —                                               | 12                   | —                                               | 12                   |
| Turkey                                        | —                                               | —                                               | 4                    | —                                               | 4                    |
| U.K.                                          | 515                                             | 555                                             | —                    | 545                                             | —                    |
| U.S.A.                                        | 3,420                                           | 3,736                                           | —                    | 3,644                                           | —                    |
| Yugoslavia                                    | —                                               | —                                               | 4                    | —                                               | 4                    |
| Other Countries (less than 1 ton) and reserve | 45                                              | 20.5                                            | 6.5                  | 40.5                                            | 1                    |
| TOTAL                                         | 4,400                                           | 4,890                                           | 179                  | 4,800                                           | 195.5                |

The reduction in the amount of molybdenum in concentrates distributed in the first quarter, 1952, does not indicate a drop in production since the previous quarter. The fourth quarter, 1951, estimated production of 4,890 metric tons included an amount of 170 tons from stocks in one of the producing countries, and the current production for the quarter was therefore 4,720 tons.

Discussions on the future of the tungsten market have centred on the belief that the best inducement to increase production at the present time is a guaranteed stable market for a period long enough to justify capital expenditure on developmental operations. The Committee has drafted an agreement under which the consumer countries would guarantee to purchase a specified quantity of tungsten and the producer countries would use their best endeavours to supply that amount within a stated period. Floor and ceiling prices are incorporated in the draft agreement. At the time of writing there is some doubt as to whether the proposal will be accepted by all member Governments, some of whom are opposed in principle to price stabilisation measures. If no agreement is reached, it may be anticipated that those producers whose output is not covered by existing long term contracts are likely to lose their market as soon as the world supply position eases and the present inflated price level falls.

The Tungsten-Molybdenum Committee joined with the Manganese-Cobalt-Nickel Committee in an investigation of the use of these five commodities and

to consider measures for their conservation. A sub-Committee of experts was convened, and after a period of intensive investigation presented a comprehensive report to the two Committees. This report is expected to be published for general distribution, since its full value will not be felt until it is available to all industries which use the metals.

**Manganese-Cobalt-Nickel.** Australia is not a member of this Committee and consequently did not participate in the discussions which preceded announcement of cobalt and nickel allocations for the fourth quarter, 1951. The Committee decided that the supply position for manganese did not justify an allocation scheme, but its study showed that the production of primary nickel, oxides, and salts in the fourth quarter, 1951, would amount to approximately 31,500 metric tons as against stated requirements of 56,800 tons. For cobalt, the estimated deficit would amount to about 2,000 tons or 50 per cent of stated requirements. An allocation scheme was devised on the following basis:—

- Direct defence requirements were given priority and met in full.
- Strategic stockpile requirements were recognised in principle, but no allowance could be made for these as far as nickel was concerned. In the case of cobalt, a small allowance was made, equivalent on an annual basis to 5% of base period consumption.
- The balance of available supplies was distributed as a percentage of a base period consumption — 85% in the case of nickel and 80% in the case of cobalt.
- Special circumstances were taken into account by adjusting the allocations of certain countries.

Allocations arrived at by this method are shown in Table 4.

The Committee has not yet announced allocations for the first quarter, 1952, but there are indications that the quantities available for distribution will be slightly smaller than for the previous quarter.

TABLE 4.  
ALLOCATION SCHEDULE — NICKEL AND COBALT.  
4th Quarter, 1951.  
(Metric tons of contained metal.)

| Country.                                         | Total Allocation of Nickel. | Total Allocation of Cobalt. |
|--------------------------------------------------|-----------------------------|-----------------------------|
| Argentina                                        | 10                          | 2.5                         |
| Australia                                        | 197                         | 13.3                        |
| Austria                                          | 225                         | 20.0                        |
| Belgo-Lux. Econ. Union                           | 108.5                       | 26.0                        |
| Brazil                                           | 50                          | 5.1                         |
| Canada                                           | 750                         | 29.3                        |
| Denmark                                          | 22                          | 4.2                         |
| Finland                                          | 24                          | 0.4                         |
| France                                           | 1,461                       | 75.0                        |
| Germany                                          | 1,425                       | 127.5                       |
| India                                            | 245                         | 14.1                        |
| Italy                                            | 265                         | 14.5                        |
| Japan                                            | 485                         | 60.4                        |
| Mexico                                           | 8                           | 0.8                         |
| Netherlands                                      | 66                          | 39.8                        |
| New Zealand                                      | 3                           | 14.6                        |
| Norway                                           | 68                          | 3.7                         |
| Spain                                            | 50                          | 5.0                         |
| Sweden                                           | 736                         | 42.2                        |
| Switzerland                                      | 113.5                       | 1.9                         |
| Union of South Africa                            | 16                          | 5.2                         |
| United Kingdom                                   | 5,088                       | 329.1                       |
| United States                                    | 19,690                      | 1,212.4                     |
| Yugoslavia                                       | 30                          | 0.5                         |
| Other Countries (5 tons or less of either metal) | 17.8                        | 2.1                         |
| TOTAL                                            | 31,153.8                    | 2,049.6                     |

**Sulphur.** This Committee deals with only one commodity and has therefore been able to give greater attention to cases for special consideration. As a result, the allocations are not closely related to any formula, and there have been more individual adjustments to meet circumstances in certain countries than is the case in other commodities. The stock position in some countries has been taken into account, and the Committee has reduced the import quota in cases where stocks are considered to be above a reasonably safe level. Australia has been affected to the extent of having to reduce stocks by 20,000 long tons during the second half of 1951. This will have a serious effect on the future supply of superphosphate, and the increased recovery of sulphur from domestic sulphides is now of even greater urgency than it has been in the past. The allocations announced by the Sulphur Committee are shown in Table 5. The quantities represent the agreed level of consumption by each country, subject to certain reservations expressed at the time of acceptance of the schemes. The Brazilian government did not accept the plan of distribution for the fourth quarter, 1951.

TABLE 5.  
ALLOCATION SCHEDULE — CRUDE SULPHUR.  
(Thousands of long tons.)

|                                        | 3rd quarter,<br>1951. | 4th quarter,<br>1951. | 1st half,<br>1952. |
|----------------------------------------|-----------------------|-----------------------|--------------------|
| Argentina                              | 8.2                   | 8.2                   | 14.5               |
| Australia                              | 31.6                  | 30.8                  | 58.2               |
| Austria                                | 6.5                   | 8.2                   | 9.3                |
| Belg.-Luxembourg                       | 17.8                  | 17.1                  | 29.7               |
| Brazil                                 | 13.5                  | 13.0                  | 30.0               |
| Cuba                                   | 2.9                   | 2.9                   | 6.2                |
| Finland                                | 4.5                   | 5.8                   | 9.2                |
| France                                 | 31.2                  | 29.6                  | 64.5               |
| French North Africa                    | 4.5                   | 4.9                   | 10.0               |
| Germany                                | 15.1                  | 19.1                  | 38.5               |
| India                                  | 11.4                  | 11.0                  | 23.0               |
| Italy                                  | 36.0                  | 36.0                  | 88.0               |
| Mexico                                 | —                     | 3.0                   | —                  |
| New Zealand                            | 16.6                  | 16.0                  | 34.2               |
| Norway                                 | 6.3                   | 9.0                   | 14.5               |
| Portugal                               | —                     | 2.3                   | —                  |
| South Africa                           | 16.2                  | 15.6                  | 33.0               |
| Sweden                                 | 15.1                  | 14.7                  | 31.5               |
| Switzerland                            | 6.8                   | 6.3                   | 10.9               |
| U.K.                                   | 106.3                 | 102.3                 | 194.9              |
| U.S.A. and Canada                      | 1,050.0               | 1,098.5               | 2,226.0            |
| Uruguay                                | —                     | 1.2                   | 1.8                |
| Oil Refineries                         | 8.5                   | 8.5                   | 17.0               |
| Other (1,000 tons or less per quarter) | 6.4                   | 3.8                   | 8.5                |
| TOTAL                                  | 1,415.4               | 1,467.8               | 2,953.4            |

The Committee has made a careful review of the statistics relating to the production and consumption of sulphur in the free world, and the most recent estimates for 1948-1952 are summarised in Table 6.

TABLE 6.  
PRODUCTION AND CONSUMPTION OF SULPHUR, 1949-1952.  
(Thousands of long tons of sulphur content.)

| Year             | Production | Consumption | Elemental Sulphur | Sulphur in Sulphides | All other forms. | Total  |
|------------------|------------|-------------|-------------------|----------------------|------------------|--------|
| 1948             | 5,120      | 5,120       | 5,120             | 3,425                | 1,201            | 9,746  |
| 1949             | 5,047      | 5,047       | 5,047             | 3,237                | 1,081            | 9,377  |
| 1950             | 5,419      | 5,419       | 5,419             | 3,898                | 1,256            | 10,201 |
| 1951             | 5,564      | 5,564       | 5,564             | 3,547                | 1,111            | 10,077 |
| 1952             | 6,329      | 6,329       | 6,329             | 4,165                | 1,514            | 11,243 |
| Est. Requirement | 5,423      | 5,423       | 5,423             | 4,393                | 1,275            | 11,528 |
| Production       | 7,135      | 7,135       | 7,135             | 4,451                | 1,705            | 13,291 |
| Est. Requirement | 5,700      | 5,700       | 5,700             | 4,745                | 1,390            | 11,835 |
| Production       | 7,597      | 7,597       | 7,597             | 5,000                | 1,922            | 14,519 |
| Est. Requirement | —          | —           | —                 | —                    | 1,523            | 1,523  |

The figures in Table 6 show that the estimated gap between production and requirements in 1952 is more than 1,750,000 tons. Since the total estimated production includes at least part of the production from some newly developed properties in Texas and Louisiana, the press announcement that discovery of a new dome in Louisiana would end the sulphur shortage by the end of 1952 is clearly an exaggeration. Even if production at the rate of 500,000 tons per year could be achieved from this discovery later this year, the deficit in world supplies would still be substantial and warrants the most vigorous efforts to develop every possible source of sulphur, both elemental and in sulphides.

The consumption of elemental sulphur according to end uses is shown in Table 7, which is also based on the Committee's review of the position in the free world.

TABLE 7.  
CONSUMPTION OF ELEMENTAL SULPHUR BY END USES.  
(Thousands of long tons.)

|                    | 1949                  |               | 1950                  |               | 1951                       |               | 1952                       |               |
|--------------------|-----------------------|---------------|-----------------------|---------------|----------------------------|---------------|----------------------------|---------------|
|                    | Con-<br>sump-<br>tion | % of<br>total | Con-<br>sump-<br>tion | % of<br>total | Est. re-<br>quire-<br>ment | % of<br>total | Est. re-<br>quire-<br>ment | % of<br>total |
| Sulphuric acid     | 3,539                 | 65.3          | 3,990                 | 63.0          | 4,410                      | 61.8          | 4,573                      | 60.2          |
| Sulphur dioxide    | 732                   | 13.5          | 888                   | 14.0          | 1,023                      | 14.3          | 1,131                      | 14.9          |
| Carbon bisulphide  | 377                   | 7.0           | 515                   | 8.2           | 612                        | 8.6           | 670                        | 8.8           |
| Special Agric uses | 410                   | 7.5           | 420                   | 6.6           | 503                        | 7.1           | 514                        | 6.8           |
| Other uses         | 361                   | 6.7           | 516                   | 8.2           | 587                        | 8.2           | 709                        | 9.3           |
| TOTAL              | 5,419                 |               | 6,329                 |               | 7,135                      |               | 7,597                      |               |

The apparent decrease in the proportion of elemental sulphur used in the production of sulphuric acid is due to the increasing use of sulphur from sulphides and other sources. According to Committee estimates, more sulphuric acid will be made from sulphide sulphur than from elemental sulphur in 1952.

**Conclusion.** The future of the International Materials Conference cannot be forecast with any degree of certainty, but there is little doubt that it will continue to function during the first half of 1952. The belief is widely held that an improvement in the overall supply position towards the end of this year is likely, when the major defence programmes will be at or past their peak, and an easing in the demand for defence materials will be associated with a rising rate of production. It remains to be seen whether such improvement will be substantial enough to justify a curtailment or complete suspension of the Conference.

I. C. H. CROLL.

21st January, 1952.

#### ASSISTANCE IN PROCURING SUPPLIES.

One of the functions of the Mineral Resources Bureau is to assist the mineral industry in securing supplies during the present period of shortage, and thus enable the industry to obtain a fair share of available materials. Assistance has been rendered for quite a wide variety of materials, ranging from heavy earth-moving equipment to such items as cyanide for treatment purposes. To this end, the Bureau acts as a contact with other Government Departments, and generally furthers the interests of the mineral industry by sponsoring, for example, applications for import licences.

# MINERAL AND METAL CONTROLS.

The complete list of minerals and metals subject to export control was published on pp. 38-40, Vol. 4 No. 2 of this Journal. There is one addition:—

The Comptroller General of Customs has advised that action is being taken to add the following items to the Third Schedule to the Customs (Prohibited Exports) Regulations:—

"177. Diamonds and manufactures of diamonds."

Pending promulgation of the amending regulation, all applications for permits to export diamonds or manufactures of diamonds are to be referred to the Department of Defence Production.

Export permits are not required for diamonds when manufactured into jewellery, if the export of such jewellery is made in compliance with the provisions of the Banking Regulations.

## CURRENT MARKET PRICES OF SOME IMPORTANT MINERALS AND METALS.

### CHANGES IN AUSTRALIAN METAL PRICES.

On 1st December, 1951, the selling price of antimony changed from £525 per ton to £495 per ton.

### REFINED METAL — OFFICIAL SELLING PRICES, 25th JANUARY, 1952.

|                      | United Kingdom.                  |                                      | Australia.                         | United States.                    |                                    |
|----------------------|----------------------------------|--------------------------------------|------------------------------------|-----------------------------------|------------------------------------|
|                      | Sterling<br>Currency<br>per ton. | Australian<br>Equivalent<br>per ton. | Australian<br>Currency<br>per ton. | Dollar<br>Equivalent<br>cents/lb. | Australian<br>Currency<br>per ton. |
| Copper-electrolytic  | £227 0 0                         | £283 15 0                            | £285 0 0                           | 27.5                              | £275 0 0                           |
| Lead                 | £175 0 0                         | £218 15 0                            | £65 0 0                            | 19.0                              | £190 0 0                           |
| Zinc                 | £190 0 0                         | £237 10 0                            | £65 0 0                            | 20.29                             | £202 18 0                          |
| Tin                  | £1002 10 0                       | £1253 2 6                            | £1150 0 0                          | 103.0                             | £1030 0 0                          |
| Antimony             | £365 0 0                         | £456 5 0                             | £495 0 0                           | 50.0                              | £500 0 0                           |
| Silver, per fine oz. | £0 6 5                           | £0 8 0 1/4                           | £0 8 0 1/4                         | 88.0                              | £0 7 10 1/4                        |
| Gold, per fine oz.   | £12 8 0                          | £15 10 0                             | £15 9 10                           | £35.0                             | £15 12 6                           |

### ORES, CONCENTRATES, ETC.

All prices are quoted in Australian currency per long ton (2,240 lb.) unless otherwise specified, e.g. (a) per lb., (b) per unit, (c) per tray oz.

#### ASBESTOS:

|                                                                 |                                         |
|-----------------------------------------------------------------|-----------------------------------------|
| W.A. Crocidolite, first grade, Selling price, f.o.b. Fremantle  | £336—Aust. Blue Asbestos (In, 1952)     |
| W.A. Crocidolite, second grade, Selling price, f.o.b. Fremantle | £252—Aust. Blue Asbestos (In, 1952)     |
| W.A. Crocidolite, third grade, Selling price, f.o.b. Fremantle  | £190 8/-—Aust. Blue Asbestos (In, 1952) |

#### BARITE:

|                                                   |                                |
|---------------------------------------------------|--------------------------------|
| First grade, ground, Selling price, deliv. Sydney | £40—McLeod & Co. (Jan., 1952). |
| Second grade, ground, Selling price, deliv. Syd.  | £30—McLeod & Co. (Jan., 1952). |
| Third grade, ground, Selling price, deliv. Sydney | £15—McLeod & Co. (Jan., 1952). |

#### BISMUTH:

(a) London price, min. 2 cwt. 28/- stg.

#### BERYL:

(b) Min. 9.5% BeO, Buying price, f.o.b. Aust. ports £13 2/6—U.K. Ministry of Supply.

#### COLUMBITE:

(b) London price, combined oxides, c.i.f. 256/- stg.

#### FLUORASPAR:

|                                                           |                                                 |
|-----------------------------------------------------------|-------------------------------------------------|
| 90% CaF <sub>2</sub> , Buying price, f.o.b. Mungana, Qld. | £9 17/6—Frank Hambridge Pty. Ltd. (Jan., 1952). |
| 85% CaF <sub>2</sub> , Buying price, f.o.b. Mungana, Qld. | £8 12/6—Frank Hambridge Pty. Ltd.               |
| 90% CaF <sub>2</sub> , Selling price, delivered Sydney    | £21 1/9—Frank Hambridge Pty. Ltd.               |
| 85% CaF <sub>2</sub> , Selling price, delivered Sydney    | £20 1/9—Frank Hambridge Pty. Ltd.               |

#### GRAPHITE:

First grade, amorphous, selling price delivered in Sydney £70—McLeod & Co. (Jan., 1952).

#### GYPSUM:

Selling price, f.o.r. Conoble and Manara £1/13/-—C.S.R. Co. Ltd. (Oct., 1951).

#### MAGNESITE:

Field, calcined, Selling price, f.o.b. N.S.W. ports £20 to £25—Field Mag. & Ref. Pty. Ltd. (Nov., 1950).

#### MANGANESE ORE:

Battery ore, min. 75% MnO<sub>2</sub>, Buying price, f.o.r. N.S.W. £14/10/-—Metals & Ores Pty. Ltd. (Jan., 1952).

#### MICA:

(a) Muscovite, Prices ex Mica Store, Melbourne—Ministry of National Development (Jan., 1952).

|                    | CLEAR.  |          | COMMERCIAL CLEAR. |          | STAINED. |          |
|--------------------|---------|----------|-------------------|----------|----------|----------|
|                    | Buying. | Selling. | Buying.           | Selling. | Buying.  | Selling. |
| Over extra special | 225/-   | 258/9    | 156/-             | 179/6    | 82/-     | 94/3     |
| Extra special      | 202/6   | 233/-    | 140/-             | 161/-    | 69/-     | 79/3     |
| Special            | 175/-   | 201/3    | 121/-             | 139/3    | 56/-     | 64/6     |
| A1                 | 150/-   | 172/6    | 94/-              | 108/-    | 50/-     | 57/6     |
| 1                  | 125/-   | 143/9    | 75/-              | 86/3     | 44/-     | 46/-     |
| 2                  | 100/-   | 115/-    | 63/-              | 72/6     | 35/-     | 38/6     |
| 3                  | 87/6    | 100/9    | 56/-              | 64/6     | 25/-     | 28/-     |
| 4                  | 69/-    | 79/3     | 44/-              | 50/6     | 19/-     | 21/-     |
| 5                  | 44/-    | 50/6     | 32/-              | 36/9     | 8/-      | 10/-     |
| 6                  | 19/-    | 21/9     | 12/6              | 14/6     | 4/-      | 6/-      |

#### MOLYBDENITE:

(b) London price, 85% MoS<sub>2</sub>, c.i.f. 103/1/- 103/7/4

#### MONAZITE CONS.:

Buying price, 98-99% monazite, f.o.b. Australian ports £95 Stg.—London Buyers.

#### PHOSPHATE ROCK:

Phosphate rock, c.i.f. and e. £3/16/- to £5/2/-—British Phosphate Commissioners.

#### PIGMENTS:

Yellow ochre, 2nd gr. Selling price, deliv. Sydney £25/10/-—McLeod & Co. (Jan., 1952).  
Raw umber, 1st grade, Selling price, deliv. Sydney £18—McLeod & Co. (Jan., 1952).  
Burnt umber, 1st grade, Selling price, deliv. Sydney £35/10/-—McLeod & Co. (Jan., 1952).  
Red ochre, 2nd grade, Selling price, deliv. Sydney £20—McLeod & Co. (Jan., 1952).

#### PLATINUM:

(c) London price, refined £27 stg. to £33 5/8.

#### RUTILE:

Domestic Selling price, f.o.r. Works £36 to £50 (Feb., 1952).  
Overseas Selling price, f.o.b. Brisbane £40 to £55 (Feb., 1952).

#### SILLIMANITE:

Selling price, f.o.b. Port Adelaide £8/18/-—Aust. Ind. Minerals, N.L. (Feb., 1952).  
Selling price, f.o.b. Broken Hill £4/10/-.

#### TALC:

First grade, ground, Selling price, deliv. Sydney £36/10/-—McLeod & Co. (Jan., 1952).  
Third grade, ground, Selling price, deliv. Sydney £20—McLeod & Co. (Jan., 1952).

#### TANTALUM:

(b) London price ore 60-65% Ta<sub>2</sub>O<sub>5</sub> £20 to £22 stg.

#### TIN CONS.:

(b) 70% Cons., Buying price, delivered in Sydney 200/-.

#### TUNGSTEN ORE (Wolfram and Scheelite):

(b) London price, 65% WO<sub>3</sub>, c.i.f. £26/5/- (Stg.).

#### ZIRCON:

Domestic Selling price, f.o.r. Works £10/10/- (Feb., 1952).  
Overseas Selling price, f.o.b. Brisbane £12 to £13 (Feb., 1952).

# SMELTER AND REFINERY PRODUCTION OF METALS IN AUSTRALIA.

|                        | Gold<br>Mint Issue<br>fine oz. | Silver (a)<br>fine oz. | Copper (b)<br>tons. | Pig Iron<br>tons. | Ingot Steel<br>tons. |
|------------------------|--------------------------------|------------------------|---------------------|-------------------|----------------------|
| <b>Yearly Totals—</b>  |                                |                        |                     |                   |                      |
| 1948                   | 801,079                        | 6,465,616              | 11,389              | 1,139,596         | 1,158,047            |
| 1949                   | 794,375                        | 5,857,502              | 9,858               | 1,029,300         | 1,131,100            |
| 1950                   | 745,550                        | 6,883,941              | 13,552              | 1,314,800         | 1,425,600            |
| <b>Monthly Totals—</b> |                                |                        |                     |                   |                      |
| January                | 46,297                         | 396,244                | 475                 | 86,800            | 92,900               |
| February               | 70,310                         | 554,602                | 519                 | 86,800            | 97,500               |
| March                  | 65,565                         | 583,206                | 848                 | 99,400            | 107,300              |
| April                  | 53,900                         | 616,862                | 598                 | 115,500           | 129,200              |
| May                    | 44,138                         | 536,943                | 2,045               | 111,600           | 116,000              |
| June                   | 86,276                         | 683,758                | 704                 | 107,000           | 114,900              |
| July                   | 35,362                         | 543,440                | 1,703               | 106,700           | 111,700              |
| August                 | 108,098                        | 782,175                | 1,561               | 124,600           | 138,500              |
| September              | 68,473                         | 444,268                | 1,076               | 120,600           | 132,300              |
| October                | 49,804                         |                        | 1,143               | 121,500           | 123,700              |
| November               | 65,140                         |                        | 1,142               | 127,300           |                      |
| December               |                                |                        |                     |                   |                      |

Source: R.M. Com. Stat. A.M.M. Com. Stat. Com. Stat.

|                       | Lead<br>tons. | Lead Bullion<br>(99.3% Pb)<br>tons. | Tin<br>tons. | Zinc<br>tons. |
|-----------------------|---------------|-------------------------------------|--------------|---------------|
| <b>Yearly Totals—</b> |               |                                     |              |               |
| 1948                  | 157,505(c)    | 30,870(d)                           | 1,884        | 81,312        |
| 1949                  | 150,056(c)    | 32,901(e)                           | 1,955        | 80,956        |
| 1950                  | 160,526(e)    | 37,350(f)                           | 2,013        | 83,652        |

|                        |        |       |     |       |
|------------------------|--------|-------|-----|-------|
| <b>Monthly Totals—</b> |        |       |     |       |
| January                | 13,511 | 2,530 | 182 | 6,603 |
| February               | 13,528 | 860   | 128 | 6,484 |
| March                  | 14,989 | 2,825 | 59  | 6,223 |
| April                  | 13,926 | 2,770 | 85  | 6,063 |
| May                    | 14,133 | 3,140 | 123 | 5,532 |
| June                   | 14,103 | 2,005 | 153 | 5,690 |
| July                   | 15,801 | 3,510 | 151 | 6,677 |
| August                 | 12,785 | 2,835 | 139 | 6,077 |
| September              | 12,421 | 3,080 | 94  | 5,909 |
| October                | 12,789 | 2,775 | 169 | 6,883 |
| November               | 12,159 | 2,950 | 77  | 7,160 |
| December               |        | 2,875 |     |       |

Source: A.M.M. A.M.M.

(a) Yearly totals neglect small recovery of secondary silver from scrap, etc., included in monthly totals.

(b) Includes some cathode copper sold direct to industry during 1948 and 1949.

(c) Yearly totals exclude lead recovered from scrap.

(d) Containing 30,165 tons lead.

(e) Containing 32,621 tons lead.

(f) Containing 37,089 tons lead.

# PRODUCTION OF PRINCIPAL MINERALS AND METALS IN AUSTRALIA.

| Item.                      | Half-year ended 30/6/1951.<br>Ore or Cons.<br>Tons. | Contents.<br>Tons. | Value.<br>£A | Quarter ended 30/9/51.<br>Ore or Cons.<br>Tons. | Contents.<br>Tons. | Value.<br>£A |
|----------------------------|-----------------------------------------------------|--------------------|--------------|-------------------------------------------------|--------------------|--------------|
| <b>ALUNITE.</b>            |                                                     | crude potash.      |              |                                                 | crude potash.      |              |
| N.S.W.                     | 223*                                                | 17*                | 1,534*       | 87                                              | 6                  | 599          |
| <b>ANTIMONY CONS.</b>      |                                                     | antimony           |              |                                                 | antimony.          |              |
| Q'land                     | 7                                                   | 4                  | 610          | 18                                              | 9                  | 2,313        |
| N.S.W.                     |                                                     | 287*               | n.a.         |                                                 | 161                | n.a.         |
| Vic.                       | 19                                                  | 9                  | 2,130        | 33                                              | 8                  | 3,000        |
|                            |                                                     | 300*               |              |                                                 | 178                |              |
| <b>ARSENIC—White.</b>      |                                                     |                    |              |                                                 |                    |              |
| Vic.                       | n.a.                                                |                    |              | n.a.                                            |                    |              |
| <b>ASBESTOS.</b>           |                                                     |                    |              |                                                 |                    |              |
| Chrysotile.                |                                                     |                    |              |                                                 |                    |              |
| N.S.W.—Fibre               | 183                                                 |                    | 17,768       | 106                                             |                    | 10,210       |
| Fines                      | 29                                                  |                    | 482          | 13                                              |                    | 310          |
| W.A.                       | 278                                                 |                    | 11,945*      | —                                               |                    | —            |
|                            | 490                                                 |                    | 30,195*      | 119                                             |                    | 10,520       |
| Crocidolite                |                                                     |                    |              |                                                 |                    |              |
| S.A.                       | 4                                                   |                    | 159          | —                                               |                    | —            |
| W.A.                       | 395                                                 |                    | 55,623       | 365                                             |                    | 51,418       |
|                            | 399                                                 |                    | 55,782       | 365                                             |                    | 51,418       |
| <b>BARITE.</b>             |                                                     |                    |              |                                                 |                    |              |
| N.S.W.                     | 438                                                 |                    | 614          | 105                                             |                    | 163          |
| S.A.                       | 2,733                                               |                    | 10,932       | n.a.                                            |                    | —            |
| W.A.                       | —                                                   |                    | —            | 5                                               |                    | —            |
|                            | 3,171                                               |                    | 11,546       |                                                 |                    | —            |
| <b>BAUXITE.</b>            |                                                     |                    |              |                                                 |                    |              |
| N.S.W.                     | 779                                                 |                    | 830          | 325                                             |                    | 366          |
| Vic.                       | 1,231                                               |                    | 2,041        | 695                                             |                    | 1,355        |
|                            | 2,010                                               |                    | 2,871        | 1,020                                           |                    | 1,723        |
| <b>BENTONITE.</b>          |                                                     |                    |              |                                                 |                    |              |
| W.A.                       | 329                                                 |                    | 983          | —                                               |                    | —            |
| <b>BERYL.</b>              |                                                     | BeO units.         |              |                                                 | BeO units.         |              |
| W.A.                       | 3                                                   | 38                 | 291          | 74                                              | 897                | 8,843        |
| <b>BISMUTH.</b>            |                                                     | bismuth.           |              |                                                 | bismuth.           |              |
| Q'land, Tas.               |                                                     |                    |              |                                                 |                    |              |
| N.S.W.                     |                                                     | 1,068 lb           | n.a.         |                                                 | 915 lb.            | n.a.         |
| W.A.                       | 187 lb.                                             | 128 lb             | 84           | —                                               | —                  | —            |
| <b>CADMIUM.</b>            |                                                     | cadmium.           |              |                                                 | cadmium.           |              |
| N.S.W.                     |                                                     | 276*               | n.a.         |                                                 | 143                | n.a.         |
| Tas.                       |                                                     | 19*                | n.a.         |                                                 | 9                  | n.a.         |
|                            |                                                     | 295*               |              |                                                 | 152                |              |
| <b>CEMENT—Portland (a)</b> |                                                     |                    |              |                                                 |                    |              |
| Total Australia            | 601,400                                             |                    | n.a.         | 297,800                                         |                    | n.a.         |



## PRODUCTION

| Item.                              | Half-year ended 30/6/1951. |                    |                  | Quarter ended 30/9/51. |                    |              |
|------------------------------------|----------------------------|--------------------|------------------|------------------------|--------------------|--------------|
|                                    | Ore or Cons.<br>Tons.      | Contents.<br>Tons. | Value.<br>£A     | Ore or Cons.<br>Tons.  | Contents.<br>Tons. | Value.<br>£A |
| <b>CLAYS—Kaolin.</b>               |                            |                    |                  |                        |                    |              |
| Q'land, N.S.W. . . . .             | n.a.                       |                    |                  | n.a.                   |                    |              |
| Vic. . . . .                       | 2,847                      |                    | 6,827            | 609                    |                    | 3,020        |
| Tas. . . . .                       | 4,099                      |                    | 14,047           | 1,991                  |                    | 7,789        |
| S.A. . . . .                       | (d)                        |                    |                  | n.a.                   |                    |              |
| W.A. . . . .                       | 12                         |                    | 19               | —                      |                    | —            |
| <b>other.</b>                      |                            |                    |                  |                        |                    |              |
| Q'land . . . . .                   | n.a.                       |                    |                  | n.a.                   |                    |              |
| N.S.W. (b) . . . . .               | 691,971(e)                 | (e)173,240         | 398,904(e)       |                        | (e)99,730          |              |
| Vic. (c) . . . . .                 | 2,903                      | 1,377              | 2,522            |                        | 1,266              |              |
| Tas. . . . .                       | n.r.                       |                    | n.r.             |                        |                    |              |
| S.A. (f) . . . . .                 | 6,817                      | 9,510              | n.a.             |                        |                    |              |
| W.A. (g) . . . . .                 | 18,122                     | 10,251             | 6,466            |                        | 2,675              |              |
| <b>COAL—Black.</b>                 |                            |                    |                  |                        |                    |              |
| Q'land . . . . .                   | 1,103,024                  | n.a.               | n.a.             |                        |                    |              |
| N.S.W. . . . .                     | 5,866,245                  | (e)12,969,000      | 3,814,904        | (e)9,512,000           |                    |              |
| Vic. . . . .                       | 64,683                     | 283,383            | 45,598           | 172,773                |                    |              |
| Tas. . . . .                       | 99,445                     | 123,475            | 66,279           | 86,691                 |                    |              |
| S.A. . . . .                       | 172,769                    | 177,808            | n.a.             |                        |                    |              |
| W.A. . . . .                       | 415,584                    | 778,009*           | 224,168          | 388,768                |                    |              |
| <b>Brown.</b>                      |                            |                    |                  |                        |                    |              |
| Vic. . . . .                       | 3,800,317                  | 916,937            | 2,109,999        | 709,201                |                    |              |
| <b>COBALT.</b>                     |                            |                    |                  |                        |                    |              |
| N.S.W. . . . .                     | cobalt.<br>20.7*           | n.a.               | cobalt.<br>10.6  | n.a.                   |                    |              |
| <b>COPPER.</b>                     |                            |                    |                  |                        |                    |              |
| Q'land . . . . .                   | copper.<br>1,738           | 387,944            | copper.<br>1,305 | 310,191                |                    |              |
| N.S.W. . . . .                     | 1,837                      | n.a.               | 1,021            | n.a.                   |                    |              |
| Tas. . . . .                       | 16,815                     | 3,737              | 859,517          | 1,666                  | 485,152            |              |
| S.A. . . . .                       | —                          | —                  | —                | n.a.                   |                    |              |
| W.A. . . . .                       | 27                         | 3                  | 278              | 3                      | 403                |              |
| N.T. . . . .                       | 542                        | 127                | 27,485           | 7                      | 665                |              |
| <b>COPPER Ore—for fertilizers.</b> |                            |                    |                  |                        |                    |              |
| W.A. . . . .                       | 751                        | 55                 | 8,690            | 81                     | 14                 | 1,542        |
| N.T. . . . .                       | 72                         | 15                 | 3,240            | 11                     | 3                  | 791          |
| <b>DAMOURITE.</b>                  |                            |                    |                  |                        |                    |              |
| S.A. . . . .                       | 269                        | —                  | —                | —                      | —                  | —            |
| <b>DIAMONDS, INDUSTRIAL.</b>       |                            |                    |                  |                        |                    |              |
| N.S.W. . . . .                     | 63 carats                  | (e)127             | 49 carats        | (e)98                  |                    |              |

(a) Com. Stat.  
 (b) Brick clay and shale only.  
 (c) Pottery clay only.  
 (d) Included elsewhere.  
 (e) All types including kaolin.  
 (g) Fireclay, cement and pottery clay.

## PRODUCTION.

| Item.                  | Half-year ended 30/6/51. |                    |              | Quarter ended 30/9/51. |                    |              |
|------------------------|--------------------------|--------------------|--------------|------------------------|--------------------|--------------|
|                        | Ore or Cons.<br>Tons.    | Contents.<br>Tons. | Value.<br>£A | Ore or Cons.<br>Tons.  | Contents.<br>Tons. | Value.<br>£A |
| <b>DIATOMITE.</b>      |                          |                    |              |                        |                    |              |
| Q'land . . . . .       | n.a.                     |                    |              | n.a.                   |                    |              |
| N.S.W. . . . .         | 2,605                    |                    | 8,194        | 1,195                  |                    | 2,795        |
| Vic. . . . .           | 376                      |                    | 4,025        | 194                    |                    | 1,164        |
| W.A. . . . .           | —                        |                    | —            | 198                    |                    | 2,700        |
| <b>DOLOMITE.</b>       |                          |                    |              |                        |                    |              |
| Q'land . . . . .       | n.a.                     |                    |              | n.a.                   |                    |              |
| N.S.W. . . . .         | 11,269                   |                    | 13,501       | 1,824                  |                    | 4,251        |
| S.A. . . . .           | 22,276                   |                    | 11,138       | n.a.                   |                    |              |
| W.A. . . . .           | 85                       |                    | 362          | —                      |                    | —            |
| <b>FELSPAR.</b>        |                          |                    |              |                        |                    |              |
| N.S.W. . . . .         | 3,824                    |                    | 11,834       | 2,890                  |                    | 7,084        |
| S.A. . . . .           | 1,935                    |                    | 5,805        | n.a.                   |                    |              |
| W.A. . . . .           | 526                      |                    | 2,019        | 458                    |                    | 1,920        |
| <b>FLINT.</b>          |                          |                    |              |                        |                    |              |
| S.A. . . . .           | 324                      |                    | 2,543        | n.a.                   |                    |              |
| <b>FLOURSPAR.</b>      |                          |                    |              |                        |                    |              |
| Q'land . . . . .       | 21                       |                    | 225          | 194                    |                    | 1,358        |
| Vic. . . . .           | 100                      |                    | 759          | 45                     |                    | 360          |
| <b>FULLERS EARTH.</b>  |                          |                    |              |                        |                    |              |
| N.S.W. . . . .         | 30                       |                    | 92           | 15                     |                    | 46           |
| <b>GLASS SAND.</b>     |                          |                    |              |                        |                    |              |
| Q'land, Vic. . . . .   | n.r.                     |                    |              | n.r.                   |                    |              |
| N.S.W. . . . .         | 7,220(i)                 |                    | (i)1,465     | 5,834(i)               |                    | (i)1,167     |
| S.A. . . . .           | (d)                      |                    |              | (d)                    |                    |              |
| W.A. . . . .           | 3,200                    |                    | 2,224        | 1,824                  |                    | 1,293        |
| <b>GLAUCONITE.</b>     |                          |                    |              |                        |                    |              |
| W.A. . . . .           | 222                      |                    | 6,513        | 176                    |                    | 5,280        |
| <b>GOLD.</b>           |                          |                    |              |                        |                    |              |
|                        | gold fine oz.            |                    |              | gold fine oz.          |                    |              |
| Q'land. . . . .        | 31,412                   | 486,623            |              | 21,266                 | 329,445            |              |
| N.S.W. . . . .         | 27,181*                  | 421,080            |              | 11,754                 | 182,089            |              |
| Vic. . . . .           | 31,705                   | 491,164            |              | 16,548                 | 256,357            |              |
| Tas. . . . .           | 7,491                    | 117,579            |              | 3,372                  | 52,232             |              |
| S.A. . . . .           | 178                      | 2,758              |              | n.a.                   |                    |              |
| W.A. . . . .           | 320,702                  | 4,968,208          |              | 147,399                | 2,283,450          |              |
| N.T. . . . .           | 23,097                   | 357,807            |              | 7,207                  | 111,642            |              |
| <b>GRAPHITE.</b>       |                          |                    |              |                        |                    |              |
| Q'land, N.S.W. . . . . | —                        |                    | —            | —                      |                    | —            |
| S.A. . . . .           | 13                       |                    | 448          | n.a.                   |                    |              |

441,766\* 6,845,219



## PRODUCTION

| Item.                   | Half-year ended 30/6/1951. |                    |             | Quarter ended 30/9/1951. |                    |              |
|-------------------------|----------------------------|--------------------|-------------|--------------------------|--------------------|--------------|
|                         | Ore or Cons.<br>Tons.      | Contents.<br>Tons. | Value<br>£A | Ore or Cons.<br>Tons.    | Contents.<br>Tons. | Value.<br>£A |
| <b>GYPSUM.</b>          |                            |                    |             |                          |                    |              |
| N.S.W. ....             | 43,590                     |                    | 31,923      | 31,495                   |                    | 20,046       |
| Vic. ....               | 16,041                     |                    | 10,876      | 12,891                   |                    | 12,250       |
| S.A. ....               | 62,831                     |                    | 47,123      | n.a.                     |                    |              |
| W.A. ....               | 32,449                     |                    | 19,368      | 20,170                   |                    | 11,913       |
|                         | 154,911                    |                    | 109,290     |                          |                    |              |
| <b>ILMENITE CONS.</b>   |                            |                    |             |                          |                    |              |
|                         |                            | ilmeneite.         |             |                          | ilmeneite          |              |
| Q'land. (o) ....        | 11                         | 10                 | 40          | —                        | —                  | —            |
| N.S.W. (o) ....         | 60                         | 56                 | 175         | 188                      | 152                | 629          |
|                         | 71                         | 66                 | 215         | 188                      | 152                | 629          |
| <b>IRON ORE.</b>        |                            |                    |             |                          |                    |              |
|                         |                            | iron               |             |                          | iron               |              |
| S.A. ....               | 1,144,397                  | 686,636            | 1,134,660   | 616,583                  | 369,950            | 611,445      |
| W.A. ....               | 9,438                      | 5,040              | 75,455      | 14,696                   | 9,021              | 56,345       |
|                         | 1,153,835                  | 691,676            | 1,210,315   | 631,481                  | 378,971            | 667,790      |
| <b>IRON OXIDE</b>       |                            |                    |             |                          |                    |              |
| Q'land. ....            | n.a.                       |                    |             | n.a.                     |                    |              |
| N.S.W. (o) ....         | 5,259*                     |                    | 13,456*     | 2,800                    |                    | 7,699        |
| Tas. ....               | 1,280*                     |                    | n.a.        | 794                      |                    | n.a.         |
| S.A. ....               | 230                        |                    | n.a.        | n.a.                     |                    |              |
| <b>KAOLIN—See CLAYS</b> |                            |                    |             |                          |                    |              |
| <b>LEAD.</b>            |                            |                    |             |                          |                    |              |
|                         |                            | lead               |             |                          | lead               |              |
| Q'land. ....            |                            | 14,527             | 2,527,764   |                          | 9,385              | 1,993,977    |
| N.S.W. ....             |                            | 82,007*            | n.a.        |                          | 43,223             | n.a.         |
| Tas. ....               |                            | 3,803              | 247,181     |                          | 2,002              | 130,150      |
| S.A. ....               |                            | 4                  | 496         |                          | n.a.               |              |
| W.A. ....               | 1,321                      | 962                | 109,393     | 704                      | 563                | 76,124       |
| N.T. ....               |                            | —                  | —           |                          |                    |              |
|                         |                            | 101,303            |             |                          |                    |              |
| <b>LIMESTONE.</b>       |                            |                    |             |                          |                    |              |
| Q'land. ....            | 4,280                      |                    | 6,275       | 1,166                    |                    | 3,725        |
| N.S.W. ....             | 534,741                    |                    | 190,600     | 271,985                  |                    | 115,696      |
| Vic. ....               | 197,833                    |                    | 89,935      | 117,383                  |                    | 52,703       |
| Tas. ....               | 73,627*                    |                    | n.a.        | 41,040                   |                    | n.a.         |
| S.A. ....               | 382,038                    |                    | 220,778     | n.a.                     |                    |              |
| W.A. ....               | n.r.                       |                    | n.r.        | n.r.                     |                    |              |
| <b>MAGNESITE.</b>       |                            |                    |             |                          |                    |              |
| N.S.W. ....             | 17,219                     |                    | 41,125      | 9,444                    |                    | 23,356       |
| S.A. ....               | 375                        |                    | 750         | n.a.                     |                    |              |
| W.A. ....               | 610                        |                    | 1,358       | 237                      |                    | 593          |
|                         | 18,204                     |                    | 43,233      |                          |                    |              |
| <b>MANGANESE ORE</b>    |                            |                    |             |                          |                    |              |
| Q'land. W.A. ....       | —                          |                    | —           | —                        |                    | —            |
| N.S.W. (o) ....         | 1,261                      |                    | 11,377      | 695                      |                    | 6,629        |
| S.A. ....               | 27                         |                    | 320         | n.a.                     |                    |              |
|                         | 1,288                      |                    | 11,697      |                          |                    |              |

(o) Despatches

## PRODUCTION

| Item.                    | Half-year ended 30/6/1951. |                          |              | Quarter ended 30/9/1951. |                    |              |
|--------------------------|----------------------------|--------------------------|--------------|--------------------------|--------------------|--------------|
|                          | Ore or Cons.<br>Tons.      | Contents.<br>Tons.       | Value.<br>£A | Ore or Cons.<br>Tons.    | Contents.<br>Tons. | Value.<br>£A |
| <b>MICA—Cut.</b>         |                            |                          |              |                          |                    |              |
| N.T. ....                | 29,492 lb.                 |                          | 33,284       | 11,704 lb.               |                    | 12,616       |
| <b>Scrap.</b>            |                            |                          |              |                          |                    |              |
| N.T. ....                | —                          |                          | —            | 37                       |                    | 550          |
| <b>MINERAL PIGMENTS.</b> |                            |                          |              |                          |                    |              |
| N.S.W. (k) ....          | 470                        |                          | 1,109        | 324                      |                    | 811          |
| Tas. (l) ....            | 20                         |                          | 40           | 4                        |                    | 14           |
| W.A. (l) ....            | 125                        |                          | 1,444        | —                        |                    | —            |
| N.T. (p) ....            | 47                         |                          | 575          | 37                       |                    | 222          |
| <b>MOLYBDENITE</b>       |                            |                          |              |                          |                    |              |
|                          |                            | MoS <sub>2</sub> content |              |                          |                    |              |
| Q'land. ....             | 0.3                        | n.a.                     | 180          | —                        |                    | —            |
| N.S.W. (o) ....          | 0.2                        | 0.13                     | 88           | n.a.                     |                    | —            |
|                          |                            |                          | 268          |                          |                    |              |
| <b>MONAZITE</b>          |                            |                          |              |                          |                    |              |
|                          |                            | monazite                 |              |                          | monazite           |              |
| Q'land. ....             | —                          | —                        | —            | 2.0                      | 1.8                | 215          |
| N.S.W. ....              | 4.0                        | 3.6                      | 234          | 12.5                     | 11.9               | 1,341        |
|                          | 4.0                        | 3.6                      | 234          | 14.5                     | 13.7               | 1,556        |
| <b>OIL—Crude.</b>        |                            |                          |              |                          |                    |              |
| Vic. ....                |                            | 27,376 gals.             | 972          |                          | 16,720 gals.       | 529          |
| <b>OIL SHALE.</b>        |                            |                          |              |                          |                    |              |
|                          |                            | Crude oil—gals.          |              |                          | crude oil—gals.    |              |
| N.S.W. ....              | 40,614                     | 1,645,544                | 91,950       | 21,667                   | 697,677            | 50,917       |
| <b>OPAL.</b>             |                            |                          |              |                          |                    |              |
| Q'land. N.S.W. ....      |                            |                          | n.a.         |                          |                    | n.a.         |
| S.A. ....                |                            |                          | (i)4,217     |                          |                    | n.a.         |
| <b>OSMIRIDIUM.</b>       |                            |                          |              |                          |                    |              |
|                          |                            | osmiridium               |              |                          | osmiridium         |              |
| Tas. ....                |                            | 9.2 oz.                  | 403          |                          | —                  | —            |
| <b>PHOSPHATE ROCK.</b>   |                            |                          |              |                          |                    |              |
| N.S.W. ....              | n.a.                       |                          |              | n.a.                     |                    |              |
| S.A. ....                | 3,000                      |                          | 4,125        | n.a.                     |                    |              |
| <b>PLATINUM CONS.</b>    |                            |                          |              |                          |                    |              |
|                          |                            | platinum                 |              |                          |                    |              |
| N.S.W. (o) ....          | 13 oz.                     | 8 oz.                    | 281          | —                        | —                  | —            |
| <b>PYRITE CONS.</b>      |                            |                          |              |                          |                    |              |
|                          |                            | sulphur                  |              |                          | sulphur            |              |
| Q'land. (e) ....         | 4,500                      | 2,250                    | 11,300       | 2,250                    | 1,125              | 5,650        |
| N.S.W. ....              | 9,956                      | 4,715                    | 13,440       | 6,990                    | 3,292              | 7,340        |
| Tas. ....                | 25,500                     | 12,751                   | 54,825       | 11,474                   | 5,737              | 24,669       |
| S.A. ....                | 53                         | 26                       | 226          | n.a.                     |                    |              |
| W.A. ....                | 21,339                     | 9,027                    | 133,515      | 9,661                    | 4,011              | 59,154       |
|                          | 61,348                     | 28,769                   | 213,306      |                          |                    |              |
| <b>QUARTZITE</b>         |                            |                          |              |                          |                    |              |
| N.S.W. (r) ....          | 2,623                      |                          | 2,257        | 1,941                    |                    | 1,759        |

## PRODUCTION.

| Item.                                | Half-year ended 30/6/1951. |                                                                          |              | Quarter ended 30/9/1951. |                                                                          |              |
|--------------------------------------|----------------------------|--------------------------------------------------------------------------|--------------|--------------------------|--------------------------------------------------------------------------|--------------|
|                                      | Ore or Cons.<br>Tons.      | Contents.<br>Tons.                                                       | Value.<br>£A | Ore or Cons.<br>Tons.    | Contents.<br>Tons.                                                       | Value.<br>£A |
| <b>RUTILE CONS.</b>                  |                            |                                                                          |              |                          |                                                                          |              |
|                                      |                            | (s)rutile                                                                |              |                          | (s)rutile                                                                |              |
| Q'land. . . . .                      | 6,273                      | 6,263                                                                    | 136,175      | 3,235                    | 3,227                                                                    | 77,274       |
| N.S.W. . . . .                       | 11,160                     | 11,062*                                                                  | 236,279*     | 5,709                    | 5,645                                                                    | 137,650      |
|                                      | 17,433                     | 17,325*                                                                  | 372,454*     | 8,944                    | 8,872                                                                    | 214,924      |
| <b>SALT—Crude.</b>                   |                            |                                                                          |              |                          |                                                                          |              |
| Q'land. Vic.<br>W.A. . . . .         | n.r.                       |                                                                          |              | n.r.                     |                                                                          |              |
| S.A. . . . .                         | 107,605                    |                                                                          | 215,210      | n.a.                     |                                                                          |              |
| <b>SERPENTINE.</b>                   |                            |                                                                          |              |                          |                                                                          |              |
| N.S.W. . . . .                       | 198                        |                                                                          | 149          | 132                      |                                                                          | 104          |
| <b>SILICA</b>                        |                            |                                                                          |              |                          |                                                                          |              |
| N.S.W. . . . .                       | n.a.                       |                                                                          |              | n.a.                     |                                                                          |              |
| Tas. . . . .                         | 3,229*                     |                                                                          | 1,596        | 1,772                    |                                                                          | 1,280        |
| S.A. . . . .                         | 1,362                      |                                                                          | 1,500        | n.a.                     |                                                                          |              |
| <b>SILLIMANITE.</b>                  |                            |                                                                          |              |                          |                                                                          |              |
| N.S.W. . . . .                       | 430                        |                                                                          | 1,526        | 29                       |                                                                          | 145          |
| S.A. . . . .                         | 214                        |                                                                          | 1,300        | n.a.                     |                                                                          |              |
|                                      | 644                        |                                                                          | 2,826        |                          |                                                                          |              |
| <b>SILVER.</b>                       |                            |                                                                          |              |                          |                                                                          |              |
|                                      |                            | fine oz.                                                                 |              |                          | fine oz.                                                                 |              |
| Q'land. . . . .                      |                            | 1,174,181                                                                | 451,157      |                          | 757,586                                                                  | 306,864      |
| N.S.W. . . . .                       |                            | 3,163,144                                                                | n.a.         |                          | 1,733,622                                                                | n.a.         |
| Vic. . . . .                         |                            | 1,703                                                                    | 634          |                          | 2,216                                                                    | 741          |
| Tas. . . . .                         |                            | 489,707                                                                  | 163,072      |                          | 234,765                                                                  | 78,177       |
| S.A. . . . .                         |                            | 88                                                                       | 26           |                          | n.a.                                                                     |              |
| W.A. . . . .                         |                            | 93,407                                                                   | 42,274       |                          | 54,868                                                                   | 18,200       |
| N.T. . . . .                         |                            | n.a.                                                                     |              |                          | n.a.                                                                     |              |
| <b>TALC.</b>                         |                            |                                                                          |              |                          |                                                                          |              |
| N.S.W. (t) . . . .                   | 689                        |                                                                          | 2,950        | 422                      |                                                                          | 1,577        |
| S.A. . . . .                         | 3,994                      |                                                                          | 23,959       | n.a.                     |                                                                          |              |
| W.A. . . . .                         | 81                         |                                                                          | 1,091        | 394(v)                   |                                                                          | 3,727        |
| <b>TANTALO/COL-<br/>UMBITE CONS.</b> |                            |                                                                          |              |                          |                                                                          |              |
|                                      |                            | units Ta <sub>2</sub> O <sub>5</sub> +<br>Nb <sub>2</sub> O <sub>5</sub> |              |                          | units Ta <sub>2</sub> O <sub>5</sub> +<br>Nb <sub>2</sub> O <sub>5</sub> |              |
| W.A. (o) . . . .                     | 1,824 lb.                  | 60                                                                       | 605          | 1,150 lb.                | 40                                                                       | 449          |
| N.T. . . . .                         | 515                        | 18                                                                       | 260          | —                        | —                                                                        | —            |
|                                      | 2,339                      | 78                                                                       | 865          | 1,150                    | 40                                                                       | 449          |

(c) Despatches.

(k) Yellow and red ochre and brown umber.

(l) Red ochre.

(p) Yellow ochre.

(r) For ferro alloys and other purposes. Excludes material used directly as a building or road material.

(s) Content of all beach sand concentrates.

(t) Includes steatite and pyrophyllite.

(v) Includes soapstone.

## PRODUCTION.

| Item.                | Half-year ended 30/6/1951. |                           |              | Quarter ended 30/9/1951. |                           |              |
|----------------------|----------------------------|---------------------------|--------------|--------------------------|---------------------------|--------------|
|                      | Ore or Cons.<br>Tons.      | Contents.<br>Tons.        | Value.<br>£A | Ore or Cons.<br>Tons.    | Contents.<br>Tons.        | Value.<br>£A |
| <b>TIN.</b>          |                            |                           |              |                          |                           |              |
|                      |                            | tin                       |              |                          | tin                       |              |
| Q'land. . . . .      | 230                        | 161                       | 129,479      | 101                      | 71                        | 68,095       |
| N.S.W. . . . .       | 267                        | 193                       | (e) 193,000  |                          | 88                        | n.a.         |
| Vic. . . . .         | 25                         | 18                        | 16,550       | 15                       | 11                        | 11,450       |
| Tas. . . . .         |                            | 344                       | 443,608      |                          | 174                       | 205,505      |
| W.A. (o) . . . .     | 33                         | 23                        | 20,089       | 13                       | 9                         | 8,751        |
| N.T. . . . .         | 19                         | 12                        | 11,950       | 7                        | 4                         | 4,524        |
|                      |                            | 751                       | 814,676      |                          | 357                       |              |
| <b>TUNGSTEN.</b>     |                            |                           |              |                          |                           |              |
|                      |                            | 65% WO <sub>3</sub> Cons. |              |                          | 65% WO <sub>3</sub> Cons. |              |
| Scheelite Cons.      |                            |                           |              |                          |                           |              |
| Q'land. . . . .      |                            | —                         | —            |                          | 0.7                       | 1,351        |
| N.S.W. . . . .       | 2.0                        | 2.2                       | 3,630        | 3.7                      | 4.2                       | 8,667        |
| Tas. . . . .         | 394.7                      | 369.7                     | 773,725      | 276.0                    | 258.6                     | 550,905      |
| W.A. . . . .         | —                          | —                         | —            | 0.1                      | 0.1                       | 189          |
|                      | 396.7                      | 371.9                     | 777,355      | 280.5                    | 263.6                     | 561,112      |
| <b>Wolfram Cons.</b> |                            |                           |              |                          |                           |              |
|                      |                            | 65% WO <sub>3</sub> Cons. |              |                          | 65% WO <sub>3</sub> Cons. |              |
| Q'land. . . . .      | 52                         | 54*                       | 77,951       | 33                       | 34                        | 63,149       |
| N.S.W. . . . .       | 8*                         | 5                         | n.a.         | 11                       | 8                         | n.a.         |
| Tas. . . . .         | 191                        | 199                       | 226,473      | 126                      | 131                       | 250,034      |
| W.A. . . . .         | —                          | —                         | —            | 4                        | 4                         | 7,116        |
| N.T. . . . .         | 57                         | 53                        | 96,841       | 44                       | 40                        | 78,810       |
|                      | 308                        | 311                       |              | 218                      | 217                       |              |
| <b>VERMICULITE.</b>  |                            |                           |              |                          |                           |              |
| W.A. . . . .         | 18                         |                           | 162          | 18                       |                           | 158          |
| <b>ZINC.</b>         |                            |                           |              |                          |                           |              |
|                      |                            | zinc                      |              |                          | zinc                      |              |
| Q'land. . . . .      |                            | 9,723                     | 1,806,732    |                          | 6,330                     | 1,392,579    |
| N.S.W. . . . .       | 134,561*                   | 70,184*                   | 4,484,707*   | 69,652                   | 36,294                    | 2,801,924    |
| Tas. . . . .         | 20,688                     | 10,145                    | 659,421      |                          | 4,949                     | 321,668      |
| W.A. . . . .         |                            | 3                         | (d)          | 11                       | 1                         | 50           |
|                      |                            | 90,055*                   |              |                          | 47,574                    | 4,516,221    |
| <b>ZIRCON CONS.</b>  |                            |                           |              |                          |                           |              |
|                      |                            | (s)zircon                 |              |                          | (s)zircon                 |              |
| Q'land. . . . .      | 5,268                      | 5,730                     | 62,388       | 2,354                    | 2,620                     | 29,449       |
| N.S.W. . . . .       | 17,223                     | 17,395*                   | 151,801*     | 7,927                    | 8,013                     | 76,624       |
|                      | 22,491                     | 23,125*                   | 214,189*     | 10,281                   | 10,633                    | 106,073      |

# IMPORTS OF PRINCIPAL MINERALS AND METALS INTO AUSTRALIA

| Item and Country of Origin.     | Half-year ended 30/6/51. |         | Quarter ended 30/9/51. |         |
|---------------------------------|--------------------------|---------|------------------------|---------|
|                                 | Tons.                    | £A.     | Tons.                  | £A.     |
| <b>ALUMINIUM—Ore (Bauxite).</b> |                          |         | 15                     | 1,675   |
| Ingots                          |                          |         |                        |         |
| U.K.                            | 35                       | 7,071   | †                      | 244     |
| Canada                          | 3,406                    | 584,830 | 350                    | 61,293  |
| U.S.A.                          | 68                       | 3,716   | 20                     | 2,050   |
| Other                           | 86                       | 13,360  | 765                    | 132,307 |
|                                 | 3,595                    | 608,977 | 1,135                  | 195,894 |
| Rods, Bars, etc.                |                          |         |                        |         |
| Australia (re-imports)          | —                        | —       | †                      | 3       |
| U.K.                            | 61                       | 19,028  | 251                    | 1,396   |
| Other                           | 4                        | 3,532   | †                      | 308     |
|                                 | 65                       | 22,560  | 251                    | 1,707   |
| Plates, Sheets, etc.            |                          |         |                        |         |
| U.K.                            | 1,425                    | 404,438 | 511                    | 132,849 |
| Other                           | 5                        | 2,981   | 333                    | 166,578 |
|                                 | 1,430                    | 407,419 | 844                    | 299,427 |
| Scrap                           |                          |         |                        |         |
| Canada                          | —                        | —       | 1,970                  | 324,900 |
| Others                          | 42                       | 3,896   | 1                      | 436     |
|                                 | 42                       | 3,896   | 1,971                  | 325,336 |
| <b>ANTIMONY—Ores and Cons.</b>  |                          |         |                        |         |
| South Africa                    | 500                      | 94,010  | 300                    | 66,358  |
| Siam                            | 54                       | 4,381   | —                      | —       |
| Others                          | —                        | —       | †                      | 30      |
|                                 | 554                      | 98,391  | 300                    | 66,388  |
| <b>Metal.</b>                   |                          |         |                        |         |
| U.K.                            | 56                       | 15,684  | 5                      | 2,526   |
| <b>ARSENIC—Pentoxide.</b>       |                          |         |                        |         |
| U.K.                            | 15                       | 1,033   | —                      | —       |
| Sweden                          | 2                        | 69      | —                      | —       |
|                                 | 17                       | 1,102   | —                      | —       |
| <b>Trioxide.</b>                |                          |         |                        |         |
| Sweden                          | 497                      | 25,881  | 555                    | 37,387  |
| Japan                           | 135                      | 10,103  | 60                     | 4,544   |
| Other                           | 147                      | 6,731   | 100                    | 4,703   |
|                                 | 779                      | 42,715  | 715                    | 46,634  |
| <b>ASBESTOS—Chrysotile.</b>     |                          |         |                        |         |
| Canada                          | 4,338                    | 264,569 | 1,899                  | 116,289 |
| Other                           | 1,947                    | 162,462 | 765                    | 66,317  |
|                                 | 6,285                    | 427,031 | 2,664                  | 182,606 |
| <b>Crocidolite.</b>             |                          |         |                        |         |
| South Africa                    | 1                        | 1,245   | —                      | —       |

## IMPORTS.

| Item and Country of Origin.    | Half-year ended 30/6/51. |         | Quarter ended 30/9/51. |           |
|--------------------------------|--------------------------|---------|------------------------|-----------|
|                                | Tons.                    | £A.     | Tons.                  | £A.       |
| <b>Amosite.</b>                |                          |         |                        |           |
| Canada                         | 318                      | 23,631  | 155                    | 10,905    |
| South Africa                   | 3,117                    | 148,913 | 2,057                  | 109,878   |
| Southern Rhodesia              | 183                      | 16,621  | 82                     | 5,279     |
| Other                          | 255                      | 22,978  | —                      | —         |
|                                | 3,873                    | 212,143 | 2,294                  | 126,062   |
| <b>Other</b>                   |                          |         |                        |           |
| Canada                         | 1,974                    | 111,694 | 468                    | 27,389    |
| South Africa                   | 616                      | 45,100  | 217                    | 14,508    |
| Other British                  | 149                      | 10,388  | 194                    | 12,028    |
| Other                          | †                        | 3       | †                      | 9         |
|                                | 2,739                    | 167,185 | 879                    | 53,934    |
| <b>BARITE—Ground</b>           | 19                       | 451     | 5                      | 112       |
| <b>BENTONITE.</b>              |                          |         |                        |           |
| British Countries              | †                        | 13      | 13                     | 146       |
| U.S.A.                         | 880                      | 10,354  | 2,987                  | 9,270     |
| Other Foreign                  | 14                       | 282     | 29                     | 634       |
|                                | 894                      | 10,649  | 3,029                  | 10,050    |
| <b>BISMUTH—Metal.</b>          |                          |         |                        |           |
| U.K.                           | 9,548 lb.                | 10,311  | 8,960 lb.              | 13,571    |
| <b>Carbonate.</b>              |                          |         |                        |           |
| U.K.                           | 1,668 lb.                | 2,836   | 1,030 lb.              | 1,928     |
| <b>CALCIUM CARBIDE.</b>        |                          |         |                        |           |
| U.K.                           | 761                      | 18,594  | —                      | —         |
| South Africa                   | 394                      | 10,684  | 394                    | 10,866    |
|                                | 1,155                    | 29,278  | 394                    | 10,866    |
| <b>CEMENT—White.</b>           |                          |         |                        |           |
| U.K.                           | 1,849                    | 19,540  | 10,372                 | 81,785    |
| Japan                          | †                        | 1       | 124,490                | 799,976   |
| Other                          | 151                      | 2,442   | 23,381                 | 220,407   |
|                                | 2,000                    | 21,983  | 158,243                | 1,102,168 |
| <b>Grey.</b>                   |                          |         |                        |           |
| U.K.                           | 21,576                   | 140,265 | 222                    | 4,060     |
| South Africa                   | 146                      | 963     | —                      | —         |
| Japan                          | 23,218                   | 160,712 | —                      | —         |
| Sweden                         | 15,763                   | 89,971  | —                      | —         |
| Other                          | 4,665                    | 61,061  | 25                     | 828       |
|                                | 65,371                   | 452,975 | 247                    | 4,888     |
| <b>Other.</b>                  |                          |         |                        |           |
| U.K.                           | 948                      | 11,022  | —                      | —         |
| South Africa                   | 50                       | 282     | —                      | —         |
|                                | 998                      | 11,304  | —                      | —         |
| <b>CHROMIUM—Ores and Cons.</b> |                          |         |                        |           |
| U.K.                           | 1                        | 129     | 1                      | 146       |
| Southern Rhodesia              | 1,006                    | 8,258   | —                      | —         |
| New Caledonia                  | 700                      | 8,403   | 233                    | 2,806     |
|                                | 1,707                    | 16,790  | 234                    | 2,954     |

| IMPORTS.                         |                                       |                                     |                 |
|----------------------------------|---------------------------------------|-------------------------------------|-----------------|
| Item and Country of Origin.      | Half-year ended 30/6/51.<br>Tons. £A. | Quarter ended 30/9/51.<br>Tons. £A. |                 |
| CLAYS—Ball Clay.                 | 201                                   | 1,360                               | 145 967         |
| U.K. . . . .                     | —                                     | —                                   | —               |
| China Clay.                      | 143                                   | 3,493                               | 301 3,202       |
| U.K. . . . .                     | —                                     | —                                   | —               |
| Other . . . . .                  | 143                                   | 3,493                               | 301 3,208       |
| Fire Clay.                       | 257                                   | 2,696                               | 88 526          |
| U.K. . . . .                     | —                                     | —                                   | —               |
| N.E.I. . . . .                   | 138                                   | 1,654                               | 113 1,019       |
| U.K. . . . .                     | 377                                   | 7,787                               | 60 1,196        |
| U.S.A. . . . .                   | 55                                    | 877                                 | 92 1,112        |
| Other . . . . .                  | 570                                   | 10,318                              | 265 3,327       |
| COAL.                            |                                       |                                     |                 |
| Australia (re-import) . . . . .  | 200                                   | 600                                 | — —             |
| India . . . . .                  | 33,417                                | 94,089                              | 38,606 111,098  |
| South Africa . . . . .           | 181,935                               | 588,667                             | 8,666 96,801    |
|                                  | 215,552                               | 683,356                             | 47,272 207,899  |
| COPPER—Ores and Cons.            |                                       |                                     |                 |
| Papua . . . . .                  | 1                                     | 10                                  | — —             |
| Pigs, Ingots, etc.               |                                       |                                     |                 |
| South Africa . . . . .           | 250                                   | 99,144                              | 50 14,532       |
| Belgium . . . . .                | 1,075                                 | 272,739                             | 198 87,035      |
| Belgium Congo . . . . .          | 4,500                                 | 1,142,617                           | 4,500 1,163,003 |
| Germany West . . . . .           | 3,491                                 | 584,497                             | — —             |
| Japan . . . . .                  | 246                                   | 63,145                              | — —             |
| Northern Rhodesia . . . . .      | —                                     | —                                   | 1,000 234,059   |
|                                  | 9,562                                 | 2,162,202                           | 5,748 1,498,689 |
| Rods, Bars, etc.                 |                                       |                                     |                 |
| Belgium . . . . .                | 5,025                                 | 1,370,957                           | 100 28,001      |
| Japan . . . . .                  | 855                                   | 205,439                             | — —             |
| Other . . . . .                  | 5                                     | 1,658                               | 26 6,314        |
|                                  | 5,885                                 | 1,578,054                           | 126 34,315      |
| Plates, Sheets, etc.             |                                       |                                     |                 |
| U.K. . . . .                     | 493                                   | 144,094                             | 300 95,494      |
| Others . . . . .                 | —                                     | 182                                 | 30 12,465       |
|                                  | 493                                   | 144,276                             | 330 107,959     |
| Pipes, Tubes, etc.               |                                       |                                     |                 |
| Australia (re-imports) . . . . . | 1                                     | 30                                  | — —             |
| U.K. . . . .                     | 59                                    | 23,259                              | 58 25,361       |
| Other . . . . .                  | 21                                    | 10,023                              | 32 23,552       |
|                                  | 81                                    | 33,312                              | 90 48,913       |

| IMPORTS.                         |                                       |                                     |                |
|----------------------------------|---------------------------------------|-------------------------------------|----------------|
| Item and Country of Origin.      | Half-year ended 30/6/51.<br>Tons. £A. | Quarter ended 30/9/51.<br>Tons. £A. |                |
| Scrap.                           |                                       |                                     |                |
| Australia (re-imports) . . . . . | 1                                     | 21                                  | — —            |
| U.K. . . . .                     | 2                                     | 327                                 | — —            |
| New Guinea . . . . .             | 24                                    | 3,112                               | — —            |
| Other . . . . .                  | 2                                     | 108                                 | — 25           |
|                                  | 29                                    | 3,568                               | — 25           |
| INDUSTRIAL DIAMONDS              | carats                                |                                     | carats         |
| U.K. . . . .                     | 701                                   | 1,376                               | 2 9            |
| South Africa . . . . .           | 70,370                                | 173,979                             | 35,814 104,165 |
| Belgium . . . . .                | 338                                   | 401                                 | — —            |
| Belgian Congo . . . . .          | 19,265                                | 30,284                              | 11,750 15,519  |
| Other . . . . .                  | 32                                    | 474                                 | 2 20           |
|                                  | 90,706                                | 206,514                             | 47,568 119,713 |
| DIATOMITE.                       |                                       |                                     |                |
| U.S.A. . . . .                   | 714                                   | 17,312                              | 221 6,524      |
| Other . . . . .                  | 68                                    | 3,221                               | 59 2,228       |
|                                  | 782                                   | 20,533                              | 280 8,752      |
| FELSPAR . . . . .                | 89                                    | 738                                 | 166 2,107      |
| FLUORSPAR.                       |                                       |                                     |                |
| U.K. . . . .                     | 236                                   | 3,456                               | 109 1,934      |
| Germany (W.) . . . . .           | 300                                   | 3,642                               | — —            |
| Spain . . . . .                  | 49                                    | 2,118                               | 99 7,772       |
|                                  | 585                                   | 9,226                               | 208 9,706      |
| FRENCH CHALK.                    |                                       |                                     |                |
| India . . . . .                  | 115                                   | 2,228                               | 73 1,382       |
| Italy . . . . .                  | 57                                    | 1,746                               | 10 240         |
| Other . . . . .                  | 2                                     | 100                                 | 2 126          |
|                                  | 174                                   | 4,074                               | 85 1,748       |
| FULLER'S EARTH.                  |                                       |                                     |                |
| U.K. . . . .                     | 66                                    | 1,540                               | 279 2,178      |
| Other . . . . .                  | 3                                     | 108                                 | — —            |
|                                  | 69                                    | 1,648                               | 279 2,178      |
| GOLD—Bar, Dust, Ingot, Sheet.    | fine oz.                              |                                     | fine oz.       |
| New Guinea . . . . .             | 52,285                                | 809,330                             | 9,241 143,160  |
| Papua . . . . .                  | 29                                    | 464                                 | — —            |
| New Zealand . . . . .            | 10,423                                | 161,484                             | 59 913         |
| Other . . . . .                  | 6                                     | 93                                  | 14 217         |
|                                  | 62,743                                | 971,311                             | 9,314 144,290  |

## IMPORTS

| Item and Country of Origin                                    | Half-year ended 30/6/51<br>Tons | £A.     | Quarter ended 30/9/51<br>Tons | £A.    |
|---------------------------------------------------------------|---------------------------------|---------|-------------------------------|--------|
| <b>GRAPHITE—Flake</b>                                         |                                 |         |                               |        |
| U.K.                                                          | 18                              | 2,103   | 3                             | 790    |
| Ceylon                                                        | 83                              | 710     | 3                             | 50     |
| Madagascar                                                    | 55                              | 3,923   | 60                            | 4,787  |
|                                                               | 96                              | 6,736   | 63                            | 5,627  |
| <b>Crystalline</b>                                            |                                 |         |                               |        |
|                                                               | 42                              | 2,013   | 5                             | 374    |
| <b>Amorphous</b>                                              |                                 |         |                               |        |
| Ceylon                                                        | 340                             | 14,557  | 61                            | 4,331  |
| Other                                                         | 96                              | 7,404   | 56                            | 3,570  |
|                                                               | 436                             | 21,961  | 117                           | 7,901  |
| <b>IRON—Ore and Cons.</b>                                     |                                 |         |                               |        |
| New Caledonia                                                 | 2,903                           | 2,761   | —                             | —      |
| Other                                                         | —                               | 32      | 7                             | 6      |
|                                                               | 2,904                           | 2,793   | 7                             | 6      |
| <b>Pig</b>                                                    |                                 |         |                               |        |
| U.K.                                                          | 1,034                           | 19,796  | 486                           | 11,417 |
| Belgium                                                       | 3                               | 279     | 500                           | 18,777 |
| France                                                        | 6,382                           | 123,662 | 100                           | 2,996  |
| Germany, West                                                 | 1,000                           | 15,984  | —                             | —      |
| Other                                                         | —                               | —       | 486                           | 19,719 |
|                                                               | 8,425                           | 159,721 | 1,572                         | 52,909 |
| <b>Ferromanganese</b>                                         |                                 |         |                               |        |
| U.K.                                                          | 22                              | 4,237   | 5                             | 782    |
| France                                                        | 10                              | 2,109   | 41                            | 7,996  |
|                                                               | 32                              | 6,346   | 46                            | 8,778  |
| <b>Ingot and Billets (high grade carbon and alloy steels)</b> |                                 |         |                               |        |
| U.K.                                                          | 207                             | 10,336  | 7                             | 584    |
| Other                                                         | —                               | —       | 7                             | 12     |
|                                                               | 207                             | 10,336  | 7                             | 596    |
| <b>Ingot and Billets (other)</b>                              |                                 |         |                               |        |
| U.K.                                                          | 386                             | 18,480  | 124                           | 7,651  |
| Other                                                         | 201                             | 7,166   | 112                           | 13,100 |
|                                                               | 587                             | 25,646  | 236                           | 20,751 |
| <b>Bars and Rods (stainless)</b>                              |                                 |         |                               |        |
| U.K.                                                          | 1,238                           | 81,765  | 167                           | 30,649 |
| Other                                                         | 73                              | 7,351   | 343                           | 16,454 |
|                                                               | 1,311                           | 89,116  | 510                           | 47,103 |

## IMPORTS

| Item and Country of Origin           | Half-year ended 30/6/51<br>Tons | £A.       | Quarter ended 30/9/51<br>Tons | £A.       |
|--------------------------------------|---------------------------------|-----------|-------------------------------|-----------|
| <b>Bars and Rods (other)</b>         |                                 |           |                               |           |
| Australia (re-imports)               | —                               | —         | 77                            | 1,362     |
| U.K.                                 | 31,822                          | 1,529,500 | 6,547                         | 418,847   |
| Belgium                              | 2,730                           | 106,353   | 4,069                         | 223,808   |
| France                               | 5,476                           | 200,928   | 5,273                         | 233,115   |
| Germany (W)                          | 1,167                           | 44,607    | 939                           | 55,605    |
| Japan                                | 4,601                           | 228,328   | 10,577                        | 437,941   |
| Other                                | 1,711                           | 183,760   | 316                           | 98,606    |
|                                      | 48,827                          | 2,293,476 | 27,788                        | 1,469,284 |
| <b>Temper Plates and Sheets</b>      |                                 |           |                               |           |
| U.K.                                 | 783                             | 66,037    | 104                           | 6,471     |
| Japan                                | 167                             | 21,914    | —                             | —         |
| U.S.A.                               | 115                             | 10,777    | 77                            | 6,239     |
|                                      | 1,065                           | 98,728    | 181                           | 14,710    |
| <b>Thinplate (other)</b>             |                                 |           |                               |           |
| U.K.                                 | 39,333                          | 3,185,733 | 16,415                        | 1,745,059 |
| Japan                                | 2,495                           | 284,373   | 2,373                         | 416,180   |
| U.S.A.                               | 27,907                          | 2,798,426 | 10,286                        | 1,011,667 |
| Other                                | 7                               | 11        | 116                           | 4,112     |
|                                      | 69,735                          | 6,268,545 | 29,190                        | 3,177,018 |
| <b>KYANITE</b>                       |                                 |           |                               |           |
| India                                | —                               | —         | —                             | —         |
| <b>MAGNESITE</b>                     |                                 |           |                               |           |
| New Caledonia                        | 387                             | 1,613     | —                             | —         |
| Other                                | 29                              | 1,583     | 40                            | 1,722     |
|                                      | 416                             | 3,196     | 40                            | 1,722     |
| <b>MANGANESE—Ore (Battery grade)</b> |                                 |           |                               |           |
| Gold Coast                           | 1,250                           | 18,825    | —                             | —         |
| Other                                | —                               | —         | 7                             | 755       |
|                                      | 1,250                           | 18,825    | 7                             | 755       |
| <b>Ore (Metallurgical)</b>           |                                 |           |                               |           |
| New Zealand                          | 16                              | 299       | 128                           | 2,466     |
| Fiji                                 | 10                              | 112       | 30                            | 572       |
| Other                                | —                               | —         | 158                           | 3,038     |
|                                      | 26                              | 411       | 158                           | 3,038     |
| <b>Metal (in fine powder)</b>        |                                 |           |                               |           |
| U.K.                                 | 64                              | 2,537     | 5                             | 466       |
| <b>MERCURY</b>                       |                                 |           |                               |           |
| Italy                                | 6,084 lb                        | 4,337     | 380 lb                        | 460       |
| Spain                                | 72,037                          | 115,983   | 7,235                         | 9,959     |
| Other                                | 1,543                           | 1,716     | 3,383                         | 4,225     |
|                                      | 79,664                          | 122,036   | 10,998                        | 14,644    |



## IMPORTS

| Item and Country of Origin     | Half-year ended 30/6/51 |            | Quarter ended 30/9/51 |            |
|--------------------------------|-------------------------|------------|-----------------------|------------|
|                                | Tons                    | £A.        | Tons                  | £A.        |
| MICA-Muscovite-Untrimmed       |                         |            |                       |            |
| India                          | 236,562 lb              | 16,166     |                       |            |
| Other                          | 1,000                   | 1,192      |                       |            |
|                                | 237,562                 | 17,358     |                       |            |
| Other-untrimmed                |                         |            |                       |            |
| U.K.                           |                         |            | 2 lb                  | 2          |
| India                          | 31,370 lb               | 2,035      | 2,172                 | 2,435      |
|                                | 31,370                  | 2,035      | 2,174                 | 2,437      |
| Muscovite-trimmed              |                         |            |                       |            |
| India                          | 14,140 lb               | 18,125     | 1,640 lb              | 25,687     |
| Other-trimmed                  |                         |            |                       |            |
| U.K.                           | 6,521 lb                | 1,279      | 1,011 lb              | 708        |
| India                          | 17,525                  | 4,951      | 146                   | 127        |
|                                | 24,046                  | 6,230      | 1,157                 | 835        |
| Ground                         |                         |            |                       |            |
| U.K.                           | 4,000 lb                | 152        |                       |            |
| India                          | 662                     | 1,532      |                       |            |
|                                | 4,662                   | 1,684      |                       |            |
| NICKEL-Pigs, Ingots, etc       |                         |            |                       |            |
| U.K.                           | 111                     | 59,373     | 59                    | 47,713     |
| Canada                         | 842                     | 138,921    | 3                     | 1,580      |
|                                | 953                     | 198,294    | 32                    | 49,293     |
| Bars, Rods, etc                |                         |            |                       |            |
| U.K.                           | 7                       | 6,284      | 3                     | 2,606      |
| Other                          | 7                       | 6,293      | 3                     | 2,606      |
| PETROLEUM & PETROLEUM PRODUCTS | 757,110.044 gals        | 35,668,200 | 389,063,577 gals      | 19,068,047 |
| PHOSPHATE-Rock                 |                         |            |                       |            |
| Australia (re-import)          | 24                      | 32         |                       |            |
| Nauru                          | 336,267                 | 535,097    | 63,708                | 296,293    |
| New Guinea                     | 9,300                   | 12,323     |                       |            |
| Christmas Is.                  | 115,314                 | 394,412    | 99,280                | 297,648    |
| Gilbert & Ellice Is.           | 31,339                  | 46,416     | 37,161                | 55,407     |
| Other                          |                         |            | 21,227                | 82,681     |
|                                | 492,244                 | 989,280    | 321,376               | 732,029    |
| PLATINUM-Blocks, etc           |                         |            |                       |            |
| U.K.                           | 311 oz                  | 8,161      | 78 oz                 | 2,688      |
| PLATINUM GROUP METALS          |                         |            |                       |            |
| U.K.                           | 335 oz                  | 5,462      | 169 oz                | 2,053      |

## IMPORTS

| Item and Country of Origin | Half-year ended 30/6/51 |           | Quarter ended 30/9/51 |           |
|----------------------------|-------------------------|-----------|-----------------------|-----------|
|                            | Tons                    | £A.       | Tons                  | £A.       |
| POTASH SALTS-Chloride      |                         |           |                       |           |
| France                     | 3,578                   | 83,378    | 1,355                 | 13,434    |
| Other                      | 700                     | 16,081    |                       |           |
|                            | 4,278                   | 99,459    | 1,355                 | 13,434    |
| SALT-Rock                  |                         |           |                       |           |
| U.K.                       | 1,938                   | 9,263     | 584                   | 2,921     |
| Table                      |                         |           |                       |           |
| U.K.                       | 2,914,133 lb            | 45,027    | 3,231,058 lb          | 38,072    |
| Dairy                      |                         |           |                       |           |
| U.K.                       | 448,200 lb              | 1,152     | 816,804 lb            | 2,219     |
| Other, net                 | 8,268,633 lb            | 23,023    | 3,389,988 lb          | 15,497    |
| LLIMANITE                  | 28                      | 670       |                       |           |
| SILVER-Bars, Ingots, etc   | fine oz                 |           | fine oz               |           |
| New Guinea                 | 22,707                  | 8,627     | 4,481                 | 1,749     |
| New Zealand                | 2,589                   | 869       | 5,523                 | 1,235     |
| Other                      | 1,255                   | 390       | 2,467                 | 823       |
|                            | 26,551                  | 9,886     | 12,471                | 3,807     |
| SULPHUR                    |                         |           |                       |           |
| Italy                      | 33,582                  | 897,420   |                       |           |
| U.S.A.                     | 27,490                  | 280,694   | 21,657                | 328,460   |
| Other                      | 15                      | 815       | 1                     | 45        |
|                            | 61,087                  | 1,178,929 | 21,658                | 328,505   |
| TIN-Ingots                 |                         |           |                       |           |
| U.K.                       | 4                       | 14,832    | 7                     | 73        |
| Malaya                     | 941                     | 1,367,396 | 816                   | 1,077,001 |
|                            | 950                     | 1,382,228 | 816                   | 1,077,074 |
| TITANIUM WHITE             |                         |           |                       |           |
| U.K.                       | 427                     | 62,383    | 272                   | 42,446    |
| Other                      | 282                     | 48,667    | 50                    | 36,798    |
|                            | 709                     | 111,050   | 322                   | 79,244    |

# EXPORTS OF PRINCIPAL MINERALS AND METALS FROM AUSTRALIA

| Item and Destination     | Half-year ended 30/6/51 |         | Quarter ended 30/9/51 |         |
|--------------------------|-------------------------|---------|-----------------------|---------|
|                          | Tons                    | £A      | Tons                  | £A      |
| ALUMINIUM—Ore (Bauxite)  | —                       | —       | —                     | —       |
| Fin. Ingot, Etc.         | —                       | —       | —                     | —       |
| Roller and Drawn Shapes  | 20                      | 7,652   | 10                    | 4,914   |
| Scrap                    | 7                       | 51      | —                     | —       |
| ARSENIC—Pentoxide        | —                       | —       | —                     | —       |
| Trioxide                 | 5                       | 296     | 4                     | 1,027   |
| ASBESTOS—Crude and Fibre | —                       | —       | —                     | —       |
| U.K.                     | 22                      | 2,232   | 21                    | 2,653   |
| U.S.A.                   | 104                     | 11,767  | 66                    | 7,250   |
| Other                    | 121                     | 21,513  | 103                   | 13,405  |
|                          | 247                     | 35,512  | 190                   | 24,508  |
| BARITE—Crude             | —                       | —       | —                     | —       |
| Ground                   | 15                      | 143     | 81                    | 1,646   |
| British Consign.         | 474                     | 5,819   | 220                   | 4,150   |
| Other                    | 260                     | 4,334   | —                     | —       |
|                          | 734                     | 10,153  | 220                   | 4,150   |
| BERMUTH—Ore and Cons.    | —                       | —       | —                     | —       |
| CADMIUM—Bars, Rods, Etc. | —                       | —       | —                     | —       |
| U.K.                     | 44                      | 100,984 | 25                    | 54,739  |
| Other                    | 7                       | 1,561   | 7                     | 644     |
|                          | 44                      | 102,545 | 25                    | 55,383  |
| CALCIUM CARBIDE          | —                       | —       | —                     | —       |
| Pacific Islands          | 38                      | 2,143   | 4                     | 182     |
| India                    | 100                     | 4,225   | —                     | —       |
|                          | 138                     | 6,368   | 4                     | 182     |
| CEMENT                   | —                       | —       | —                     | —       |
| U.K.                     | 293                     | 1,885   | —                     | —       |
| New Guinea               | 51                      | 467     | —                     | —       |
| Papua                    | 282                     | 1,798   | 75                    | 10      |
| Fin.                     | 880                     | 6,643   | 367                   | 2,881   |
| Timor (Portuguese)       | 99                      | 724     | —                     | —       |
| Other                    | 122                     | 1,231   | 115                   | 1,392   |
|                          | 1,737                   | 12,743  | 557                   | 4,946   |
| CLAYS                    | —                       | —       | —                     | —       |
| New Zealand              | 131                     | 2,207   | 178                   | 5,069   |
| Sweden                   | 96                      | 439     | —                     | —       |
| Other                    | 16                      | 199     | 120                   | 854     |
|                          | 243                     | 2,845   | 298                   | 5,923   |
| COAL                     | —                       | —       | —                     | —       |
| Fin.                     | 13,101                  | 46,504  | 6,308                 | 23,454  |
| New Caledonia            | 27,664                  | 100,253 | 28,868                | 106,264 |
| Other                    | 1,075                   | 4,109   | 2,141                 | 8,039   |
|                          | 41,840                  | 150,866 | 37,317                | 137,757 |

## EXPORTS

| Item and Destination     | Half-year ended 30/6/51 |         | Quarter ended 30/9/51 |         |
|--------------------------|-------------------------|---------|-----------------------|---------|
|                          | Tons                    | £A      | Tons                  | £A      |
| COPPER—Pig, Ingots, etc. | 2                       | 373     | —                     | —       |
| Rods, Bars, etc.         | 8                       | 1,391   | —                     | —       |
| Plates, Sheets, Strips   | 22                      | 8,578   | 5                     | 286     |
| Pipes and Tubes          | 13                      | 6,058   | 2                     | 913     |
| Scrap                    | —                       | —       | 6                     | 3,587   |
| INDUSTRIAL DIAMONDS      | —                       | —       | —                     | —       |
| U.K.                     | 3,967                   | 10,921  | —                     | —       |
| India                    | 3,000                   | 3,375   | 4,000                 | 6,000   |
| Others                   | 3                       | 26      | 1,000                 | 1,500   |
|                          | 6,970                   | 14,322  | 5,000                 | 7,500   |
| DIATOMITE                | —                       | —       | —                     | —       |
|                          | 6                       | 164     | 26                    | 734     |
| FELSPAR                  | —                       | —       | —                     | —       |
|                          | 276                     | 1,389   | 101                   | 512     |
| GOLD—Ore and Cons.       | —                       | —       | —                     | —       |
| U.S.A.                   | 67,200 lb               | 3,400   | 112,000 lb            | 7,500   |
| Other                    | —                       | —       | 5                     | 500     |
|                          | —                       | —       | 112,006               | 8,000   |
| GRAPHITE                 | —                       | —       | —                     | —       |
| New Zealand              | 35                      | 1,607   | 3                     | 467     |
| Other                    | 7                       | 85      | 21                    | 1,284   |
|                          | 35                      | 1,693   | 26                    | 1,751   |
| GYPSUM                   | —                       | —       | —                     | —       |
| New Zealand              | 4,050                   | 3,397   | 2,550                 | 2,264   |
| IMENITE CONS.            | —                       | —       | —                     | —       |
| U.K.                     | —                       | —       | 150                   | 618     |
| U.S.A.                   | —                       | —       | 45                    | 293     |
| Other                    | —                       | —       | 210                   | 1,365   |
|                          | —                       | —       | 405                   | 2,276   |
| IRON AND STEEL           | —                       | —       | —                     | —       |
| Pig                      | 441                     | 84,968  | 309                   | 11,584  |
| Ferromanganese           | 10                      | 653     | —                     | —       |
| Ingots, Blooms, etc.     | —                       | —       | —                     | —       |
| New Zealand              | 1,812                   | 24,587  | 20                    | 468     |
| Other                    | —                       | —       | 7                     | 268     |
|                          | —                       | —       | 20                    | 736     |
| Bars and Rods            | —                       | —       | —                     | —       |
| New Zealand              | 3,317                   | 74,146  | 223                   | 12,987  |
| Other                    | 303                     | 14,655  | 127                   | 5,917   |
|                          | 3,620                   | 88,801  | 350                   | 18,904  |
| LEAD—Cons.               | —                       | —       | —                     | —       |
| U.K.                     | 14                      | 1,056   | —                     | —       |
| Belgium                  | 5,113                   | 353,391 | 6,791                 | 471,418 |
| U.S.A.                   | 624                     | 48,100  | 1,351                 | 19,559  |
| Other                    | —                       | —       | 56                    | 1,887   |
|                          | 5,751                   | 402,547 | 8,198                 | 672,864 |

## EXPORTS.

| Item and Destination             | Half-year ended 30/6/51 |           | Quarter ended 30/9/51 |           |
|----------------------------------|-------------------------|-----------|-----------------------|-----------|
|                                  | Tons.                   | £A.       | Tons.                 | £A.       |
| Bullion                          |                         |           |                       |           |
| U.K.                             | 10,810                  | 2,031,782 | 4,221                 | 1,593,895 |
| Belgium                          | 20                      | 466       | 82                    | 6,300     |
| Germany (W.)                     | 1,974                   | 388,499   | —                     | —         |
| U.S.A.                           | 3,355                   | 515,894   | 2,790                 | 250,998   |
|                                  | 16,159                  | 2,936,641 | 7,093                 | 1,851,193 |
| Pig, etc.                        |                         |           |                       |           |
| U.K.                             | 41,750                  | 6,692,654 | 20,803                | 3,950,029 |
| New Zealand                      | 302                     | 50,430    | 1,830                 | 366,412   |
| India                            | 1,146                   | 222,375   | —                     | —         |
| Pakistan                         | 1,915                   | 433,560   | —                     | —         |
| South Africa                     | 208                     | 38,680    | 479                   | 138,424   |
| Belgium                          | 400                     | 101,450   | 649                   | 161,753   |
| U.S.A.                           | 9,648                   | 1,752,412 | 999                   | 210,125   |
| Other                            | 2,313                   | 463,697   | 479                   | 119,415   |
|                                  | 57,682                  | 9,755,258 | 25,239                | 4,946,158 |
| Sheet, Piping                    | 209                     | 44,236    | 138                   | 29,131    |
| Other Shapes                     | 4                       | 149       | 12                    | 2,935     |
| Scrap                            | 2                       | 113       | —                     | —         |
| MANGANESE—Ore                    | —                       | —         | —                     | —         |
| MERCURY                          | 507 lb.                 | 218       | 2,409 lb.             | 1,294     |
| MICA—Crude                       | 2,244 lb.               | 40        | 1,041 lb.             | 2,217     |
| PETROLEUM & PETROLEUM PRODUCTS   | 2,756,847               | 312,399   | 1,273,876 gal.        | 181,592   |
| PLATINUM & PLATINUM GROUP METALS | 255 oz.                 | 1,806     | 215 oz.               | 7,160     |
| RUTILE—Cons.                     |                         |           |                       |           |
| U.K.                             | 4,670                   | 120,075   | 2,573                 | 71,139    |
| U.S.A.                           | 5,411                   | 112,415   | 2,192                 | 46,052    |
| Other                            | 6,557                   | 131,866   | 5,433                 | 124,109   |
|                                  | 16,638                  | 364,356   | 10,198                | 241,300   |
| SALT—Rock                        | 8                       | 115       | 15                    | 172       |
| Table                            |                         |           |                       |           |
| New Guinea                       | 176,013 lb.             | 1,014     | 2,918 lb.             | 77        |
| Other Aust. Territories          | 66,944                  | 468       | 23,300                | 166       |
| New Zealand                      | 1,131,200               | 2,143     | —                     | —         |
| Finl.                            | 192,856                 | 715       | 8,960                 | 51        |
| Other                            | 97,136                  | 670       | 15,148                | 209       |
|                                  | 1,664,149               | 5,010     | 50,326                | 505       |
| Other net                        |                         |           |                       |           |
| New Zealand                      | 4,157,072 lb.           | 8,548     | 17,007,274 lb.        | 35,664    |
| Other                            | 377,796                 | 1,785     | 374,374               | 2,093     |
|                                  | 4,534,868               | 10,333    | 17,381,648            | 37,757    |
| SILLIMANITE                      | 271                     | 1,381     | —                     | —         |

## EXPORTS

| Item and Destination                | Half-year ended 30/6/51 |           | Quarter ended 30/9/51 |           |
|-------------------------------------|-------------------------|-----------|-----------------------|-----------|
|                                     | Tons.                   | £A.       | Tons.                 | £A.       |
| SILVER—Bars, Ingots, Sheets         |                         |           |                       |           |
| U.K.                                | 4,472,930 oz.           | 1,739,566 | 1,428,918 oz.         | 571,340   |
| Other                               | —                       | —         | 18                    | 8         |
|                                     | —                       | —         | 1,428,936             | 571,348   |
| SUPERPHOSPHATE                      | 9                       | 98        | 971                   | 1,516     |
| TANTALUM & COLUMBIUM—Ores and Cons. | —                       | —         | —                     | 945       |
| TIN—Ore                             | 3                       | 1,884     | —                     | —         |
| Cons.                               |                         |           |                       |           |
| U.K.                                | —                       | —         | 37                    | 7,730     |
| Singapore                           | 13                      | 10,100    | 8                     | 6,000     |
|                                     | —                       | —         | 13                    | 10,100    |
|                                     | —                       | —         | 35                    | 18,730    |
| Ingots                              | 9                       | 20        | —                     | —         |
| TIN—Scrap                           | —                       | —         | 138                   | 1,896     |
| TUNGSTEN                            |                         |           |                       |           |
| Scheelite—Cons.                     | —                       | —         | 25                    | 60,000    |
| Wolfram—Cons.                       | 106                     | 118,658   | 78                    | 124,073   |
| Ores & Cons—net                     | 530                     | 868,008   | 316                   | 566,441   |
| ZINC—Cons.                          |                         |           |                       |           |
| U.K.                                | 54,015                  | 1,965,051 | 25,108                | 1,334,860 |
| Belgium                             | 14,815                  | 1,146,941 | 7,034                 | 1,035,052 |
| U.S.A.                              | 3,176                   | 52,574    | —                     | —         |
| Other                               | —                       | —         | 3                     | 831       |
|                                     | 72,006                  | 3,164,566 | 32,142                | 2,370,743 |
| Blocks                              |                         |           |                       |           |
| U.K.                                | 10,101                  | 1,823,243 | 2,706                 | 505,850   |
| Other                               | 539                     | 102,096   | 741                   | 214,441   |
|                                     | 10,640                  | 1,925,339 | 3,447                 | 720,293   |
| Plates, Sheets                      | 34                      | 12,899    | 97                    | 28,196    |
| Circles, Strips                     |                         |           |                       |           |
| India                               | 571                     | 146,147   | 325                   | 88,901    |
| Singapore                           | 359                     | 95,234    | 106                   | 31,312    |
| Other                               | 109                     | 29,352    | 66                    | 19,919    |
|                                     | 1,039                   | 270,733   | 497                   | 140,132   |
| Dust                                | 1                       | 240       | 1                     | 421       |
| Scrap                               | 52                      | 2,677     | 1                     | 107       |
| ZIRCON—Cons.                        |                         |           |                       |           |
| U.K.                                | 4,105                   | 53,316    | 1,800                 | 26,629    |
| U.S.A.                              | 11,755                  | 127,497   | 6,683                 | 77,770    |
| Other                               | 3,603                   | 44,332    | 2,519                 | 30,174    |
|                                     | 19,463                  | 225,055   | 11,002                | 134,573   |