

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS, CANBERRA, AUSTRALIA

STATISTICAL BULLETIN : MINING AND QUARRYING, AUSTRALIA

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I. EXPLANATORY NOTES

1. Introduction. This bulletin contains detailed economic statistics, on an industry basis, relating to mining and quarrying operations in Australia in 1968, together with comparative data for recent years. The data presented in this bulletin represent the results of the annual Census of the Mining and Quarrying industry. Preliminary details of the 1968 Census and final details of previous years were shown in the bulletin Mining and Quarrying (Preliminary) 1968 (Reference No. 10.21).

These economic statistics supplement statistics being published by this Bureau on production, overseas trade and consumption of minerals and mineral products, on a commodity basis. Commodity statistics are published monthly in the bulletin Minerals and Mineral Products (Reference No. 10.19), quarterly in The Australian Mineral Industry, Part 2-Quarterly Statistics (Reference No. 10.17- a joint publication with the Bureau of Mineral Resources) and annually in the bulletins Minerals and Mineral Products (Preliminary) (Reference No. 10.40), Minerals and Mineral Products (Reference No. 10.18), Non-Rural Primary Industries (Reference No. 10.23) and in the Official Year Book. The latter two annual publications also contain economic statistics for the industry, as presented in this bulletin and the Year Book contains a considerable amount of descriptive comment relating to mining and quarrying in Australia in Chapter 27-Mineral Industry.

Users of this bulletin are also referred to The Australian Mineral Industry, Annual Review (Reference No. 10.17), published by the Bureau of Mineral Resources. The Review contains a general review of the industry's performance in each year, together with comprehensive reviews of particular mineral commodities.

Mineral exploration is not currently included in the scope of the annual Census, but annual censuses of mineral exploration activity are conducted separately. Data for the years 1965 to 1968 have been published in the bulletin Mineral Exploration, No.4, 1968 (Reference No. 10.41).

2. Definition of the mining and quarrying industry. For the purposes of the annual Census of Mining and Quarrying, the industry is defined as including all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc., and ore dressing and elementary smelting of gold and miscellaneous treatment of non-metallic minerals where these operations are carried out in an associated plant at or near the mine. However, establishments engaged in more complex metal smelting and/or refining, including those smelting and refining establishments associated with mining operations (e.g. as at Mt Isa, Queensland), are excluded from the mining and quarrying industry and classified to manufacturing industry.

Also included in the mining and quarrying industry are "quarries" operated by brickworks, cement works, etc., and those winning direct construction materials such as sand, gravel, building stone, and crushed and broken stone for road making, etc. The gathering of salt deposited in evaporation pans from brine solutions is also included in the mining industry. The data include estimates of value of output and value of production for fossicking activities, but fossickers and men engaged on small sundry claims are excluded from tables showing numbers of mines and employment. Activities associated with prospecting and the exploration for minerals are excluded at present. Mining properties under development are included.

Classification of mines and quarries. The mining and quarrying industry is classified into four major groups, namely, metal mining, fuel mining, non-metal (excluding fuel) mining, and construction material quarrying.

Mining and quarrying establishments are classified to these groups, and to sub-divisions of these groups, on the basis of the product or products of the establishments. This method of classification is straightforward for those establishments which produce only one product, but for mines and quarries which produce more than one product, classification is according to the most important mineral produced, in terms of value. There is one important exception to this general rule in that the mining establishment at Mount Isa is classified to the silver-lead-zinc industry rather than to the copper-gold industry.

The extent to which sub-division of the industry classification is possible is limited in practice by the fact that much of the data for individual industries has had to be grouped for publication to avoid revealing information supplied by sole producers or limited numbers of producers.

For mines and quarries which produce more than one product it is not possible to apportion particulars of operations (such as employment, salaries and wages paid, costs) to the minerals produced. In practice, then, these data are recorded only as a total for each mine, and the mine is classified to a particular industry as outlined above.

Prior to 1966 separate details of the iron ore mining industry were not available for publication owing to the small number of producers. Since 1966, it has been possible to publish Australian totals for the industry but, in most cases, separate details for each State are still not available for publication.

4. Scope of statistics. Mining and quarrying industry data are compiled from information collected in the annual Census of Mining and Quarrying conducted in all States, the Northern Territory and the Australian Capital Territory. The period covered by each Census is the twelve months ended 31 December, i.e. the calendar year. However, in a small number of instances, returns relating to other than a calendar year are accepted.

The principal items collected in the Census are as follows :

Number of mines and quarries.

Number of persons employed.

Salaries and wages paid.

Value of power, fuel and light used.

Value of materials, stores, etc. used.

Value of output.

Value of additions and replacements to fixed assets.

Mines and quarries employing fewer than four persons (termed small mines and quarries in this bulletin) are not required to provide statistics in the same detail as larger mines and quarries. In particular, data concerning salaries and wages paid and additions and replacements to fixed assets are not collected from these small units.

The statistics included in this bulletin are not intended to show a complete record of the income or expenditure of mines and quarries, nor to show the profits or losses of mines and quarries collectively or individually.

5. Definitions of terms used. The attention of users of this bulletin is drawn to the definitions which appear on the section title pages throughout the bulletin. These definitions relate to the items listed above in section 4, and to the concept "value of production", statistics of which are derived from the data collected.

6. Collection methodology. The annual Census of Mining and Quarrying is carried out in association with the various State Mines Departments, although the extent of collaboration varies from State to State. In New South Wales, South Australia and the Northern Territory, all Census returns are collected by the Mines Departments, while in Victoria only those returns relating to mining (i.e. excluding construction material quarrying) are collected by the Mines Department. Census returns for construction material quarrying in Victoria, and all Census returns in Queensland, Western Australia, and Tasmania, are collected by the respective Deputy Commonwealth Statisticians.

Collection of data by the Mines Department is carried out under the authority of the various State Mining Acts, while collection of information by the Deputy Commonwealth Statisticians is carried out under the authority of the Census and Statistics Act 1905-1966. Under the terms of this latter Act, all returns supplied must be treated as confidential, and disclosure of information shown on individual returns is prohibited.

A representative specimen collection forms shown on pages 47 and 48 of the Non-Rural Primary Industries Bulletin, No. 2, 1965-66 and 1966-67 (Reference No. 10.23).

In view of the difficulty of obtaining much of the required information from small mines, detailed Census returns are collected only from mines and quarries employing four or more persons. However, estimates of numbers of mines and quarries, numbers employed, power, fuel, light, materials and stores, etc., used, value of output and value of production (based on the collection of simplified Census returns and/or Mines Department records) are made for the small mines and quarries omitted from the detailed census. Thus, estimates of totals for these major items are available for all mines and quarries. Data for other items refer only to mines and quarries employing four or more persons.

7. Coverage. The coverage of establishments engaged in mining (i.e. metal, fuel and non-metal mining) is considered, in general, to be satisfactory. There are problems in the coverage of non-metal mining in some States due to the fact that the extraction of some non-metallic mineral commodities is outside the administrative control of Mines Departments. Products chiefly affected are clay, limestones, salt and silica, and in these cases the Deputy Commonwealth Statisticians, wherever possible, collect statistics direct from the producers.

Coverage of establishments engaged in the quarrying of construction materials is incomplete in most States although, wherever possible, attempts have been made to improve coverage. This deficiency is due primarily to the inherent difficulty of obtaining complete lists of quarries (including those operated by governmental authorities), many of which operate intermittently and in varying locations. There is difficulty also in obtaining satisfactory returns from quarries operated in conjunction with some other activity, e.g. roadmaking, brickworks, etc. For similar reasons quarries operated in conjunction with large construction projects, such as the Snowy Mountains Hydro-electric Scheme, are excluded from these statistics.

In New South Wales, only a restricted range of information is available in respect of construction material quarrying. No statistics are available in relation to salaries and wages paid, power, fuel, materials, etc. used, and additions and replacements to fixed assets. As the construction material quarrying industry in New South Wales is of considerable importance in the Australian mining and quarrying industry (recorded value of output is about five per cent of the value of output of all mines and quarries) it is essential that careful attention be paid to these deficiencies when any analysis of relevant aggregate statistics is being carried out.

Other important deficiencies of coverage in construction material quarrying include the production of sand and gravel in Queensland and Western Australia.

Coverage of mining and quarrying establishments employing four or more persons is more complete than coverage of those employing fewer than four persons, although recourse to Mines Department records, wardens' reports and ore buyers' statements ensure that coverage of the smaller mines is of a reasonable standard. In some instances, however, such as the production of gemstones, it is recognised that coverage is deficient to a considerable extent. The nature of some extractive activities (such as gem mining) makes it extremely difficult to establish more adequate coverage of production by small units. It is considered, however, that overall coverage of small establishments is of a reasonable standard.

Details of the activities of establishments engaged in the mining and treatment of uranium ore have been excluded because of the confidential nature of these operations.

8. Rounding. Any discrepancies between totals and sums of components in tables are due to rounding.

9. Abbreviations. .. nil or less than half the unit shown.
n.a. not available.

II. MINING AND QUARRYING OPERATIONS.

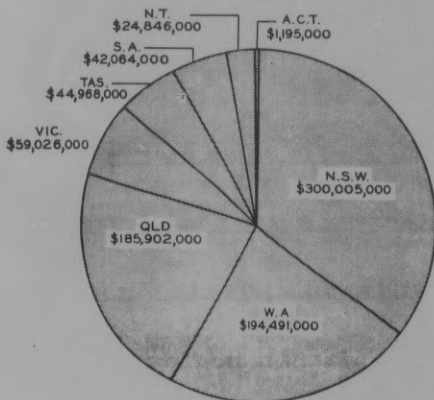
CLASSIFIED BY STATE AND BY INDUSTRY, 1968

WITH COMPARATIVE AUSTRALIAN DATA FOR THE YEARS 1964 TO 1967

10. Principal statistics and summary of mining and quarrying operations

For definitions of the terms used see the title pages of the relevant sections later in this bulletin.

MINING AND QUARRYING
VALUE OF OUTPUT BY STATES-AUSTRALIA, 1968
TOTAL VALUE OF OUTPUT - \$852,497,000



PRINCIPAL FINANCIAL STATISTICS
MINING AND QUARRYING, 1964 TO 1968

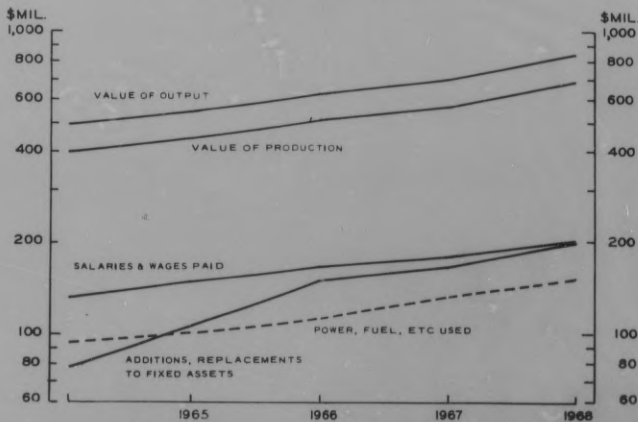


TABLE 1. - MINING AND QUARRYING : PRINCIPAL STATISTICS, AUSTRALIA 1964 TO 1968

Item	1964	1965	1966	1967	1968	Percentage variation 1968 on 1967
Number of mines and quarries (a) -	- number -					%
Metal mining	799	765	782	875	839	-4.1
Fuel mining	189	177	167	160	160	0.0
Non-metal mining	756	802	973	1,098	1,152	+4.9
All mining	1,744	1,744	1,922	2,133	2,151	+0.8
Construction material quarrying	1,148	1,234	1,276	1,280	1,395	+9.0
All mining and quarrying	2,892	2,978	3,198	3,413	3,546	+3.9
Average number employed, whole year (a)	45,756	46,755	48,589	50,308	51,774	+2.9
	- \$'000 -					
Salaries and wages paid (b)	132,946	148,761	169,636	183,411	202,922	+10.6
Value of power, fuel, light, materials and stores etc. used (a)	94,952	101,041	113,423	133,689	154,846	+15.8
Value of output (a)	492,800	542,370	625,152	698,636	852,497	+22.0
Value of production (a)	397,846	441,330	511,728	564,947	697,652	+23.5
Value of additions and replacements to fixed assets (b)	77,194	107,128	149,661	167,664	200,043	+19.3

(a) All mines and quarries. (b) Larger mines and quarries only.

TABLE 2. - MINING AND QUARRYING : PRINCIPAL STATISTICS, BY INDUSTRY, AUSTRALIA, 1968

Industry			Number of mines and quarries (a)	Average number employed during whole year (a)	Salaries and wages paid (b)	Value of power, fuel, light, materials, etc., used (a)	Value of output (a)	Value of production (a)	Value of additions, etc. to fixed assets (b)
Metal mining -			- No. -		- \$'000 -				
Gold	..	..	160	3,602	11,465	7,397	25,831	18,434	2,516
Silver-lead-zinc	..	..	30	9,490	49,225	26,479	173,337	146,858	8,350
Copper-gold	..	..	214	3,016	10,780	14,501	39,232	24,731	7,234
Tin	..	..	341	1,544	5,056	4,336	17,317	12,982	3,651
Mineral sands	..	..	23	2,694	10,015	9,761	38,379	28,618	11,470
Iron	..	..	12	1,999	9,631	16,047	131,518	115,471	18,829
Other metal	..	..	59	1,670	7,372	4,914	43,571	38,658	14,373
<u>Total metal mining</u>			839	24,015	103,544	83,434	469,185	385,751	66,423
Fuel mining -									
Black coal (c)	..	..	155	16,308	75,607	49,125	228,094	178,969	109,281
Brown coal	..	..	5	1,487	5,729	1,987	21,555	19,568	7,668
<u>Total fuel mining</u>			160	17,795	81,335	51,112	249,649	198,537	116,949
Non-metal (excluding fuel) mining -									
Clays	..	..	341	771	1,081	928	8,835	7,907	84
Gypsum	..	..	50	123	271	276	2,165	1,889	185
Limestone	..	..	96	952	3,265	3,519	12,382	8,863	1,013
Salt	..	..	36	371	1,251	883	3,600	2,717	7,596
Other non-metal	..	..	629	1,216	885	588	9,946	9,358	1,049
<u>Total non-metal mining</u>			1,152	3,433	6,753	6,193	36,928	30,735	9,927
<u>Total all mining</u>			2,151	45,243	191,632	140,739	755,762	615,023	193,299
Construction material quarrying			1,395	6,531	11,290	14,106	96,735	82,629	6,744
<u>TOTAL ALL MINING AND QUARRYING</u>			3,546	51,774	202,922	154,846	852,497	697,552	200,043

(a) All mines and quarries. (b) Larger mines and quarries only. (c) Includes other fuel mining.

TABLE 3. - MINING AND QUARRYING : PRINCIPAL STATISTICS, 1968

State or Territory			Number of mines and quarries (a)	Average number employed during whole year (c)	Salaries and wages paid (b)	Value of power, fuel, light, materials, etc., used (a)	Value of output (a)	Value of production (a)	Value of additions, etc. to fixed assets (b)
			- No. -		- \$'000 -				
New South Wales	..	..	1,381	23,743	92,650	60,509	300,005	239,496	37,397
Victoria	..	..	538	3,905	13,514	11,152	59,026	47,875	80,935
Queensland	..	..	743	10,344	44,499	33,851	185,902	152,050	22,305
South Australia	..	..	364	1,933	5,563	5,779	42,064	36,285	4,130
Western Australia	..	..	280	7,363	28,112	26,723	194,491	167,768	39,119
Tasmania	..	..	168	3,276	12,574	12,340	44,968	32,628	8,294
Northern Territory	..	..	58	1,132	5,707	4,210	24,846	20,635	7,756
Australian Capital Territory	..	..	14	78	302	281	1,195	914	107
<u>AUSTRALIA</u>			3,546	51,774	202,922	154,846	852,497	697,652	200,043

(a) All mines and quarries. (b) Larger mines and quarries only.

TABLE 4. - SUMMARY OF MINING AND QUARRYING OPERATIONS, AUSTRALIA

Year	Metal mining	Fuel mining	Non-metal (excl. fuel) mining	Total all mining	Construction material quarrying	Total all mining and quarrying
NUMBER OF MINES AND QUARRIES (All mines and quarries)						
1964	799	189	756	1,744	1,148	2,892
1965	765	177	802	1,744	1,234	2,978
1966	782	167	973	1,922	1,276	3,198
1967	875	160	1,098	2,133	1,280	3,413
1968	839	160	1,152	2,151	1,395	3,546
NUMBER OF MINES AND QUARRIES (Larger mines and quarries only)						
1964	148	183	159	490	435	925
1965	153	170	148	471	430	901
1966	161	162	149	472	428	900
1967	162	155	135	452	421	873
1968	157	154	163	474	438	912
AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR (All mines and quarries)						
1964	19,178	17,037	2,783	38,998	6,758	45,756
1965	19,759	17,101	2,795	39,655	7,100	46,755
1966	21,961	16,929	2,930	41,820	6,769	48,589
1967	23,688	17,125	2,803	43,616	6,692	50,308
1968	24,015	17,795	3,433	45,243	6,531	51,774
SALARIES AND WAGES PAID (Larger mines and quarries only) (\$'000)						
1964	59,986	57,348	6,248	123,582	9,364	132,946
1965	70,177	61,445	6,388	138,010	10,751	148,761
1966	85,696	65,863	6,821	158,380	11,256	169,636
1967	95,495	71,210	5,570	172,275	11,136	183,411
1968	103,544	81,335	6,753	191,632	11,290	202,922

TABLE 4. - SUMMARY OF MINING AND QUARRYING OPERATIONS, AUSTRALIA - continued

Year	Metal mining	Fuel mining	Non-metal (excl. fuel) mining	Total all mining	Construction material quarrying	Total all mining and quarrying
TOTAL VALUE OF POWER, FUEL, LIGHT AND MATERIALS AND STORES USED (All mines and quarries) (\$'000)						
1964	49,234	30,648	5,342	85,226	9,728	94,952
1965	50,427	33,827	5,720	89,974	11,067	101,041
1966	57,883	37,828	5,641	101,351	12,072	113,423
1967	72,329	43,036	5,209	120,574	13,115	133,689
1968	83,434	51,112	6,193	140,739	14,106	154,846
VALUE OF OUTPUT (All mines and quarries) (\$'000)						
1964	244,254	147,508	27,802	419,562	73,236	492,800
1965	265,470	167,484	29,311	462,266	80,104	542,370
1966	329,018	180,676	32,113	541,807	83,344	625,152
1967	372,803	202,071	31,940	606,814	91,822	698,636
1968	469,185	249,649	36,928	755,762	96,735	852,497
VALUE OF PRODUCTION (All mines and quarries) (\$'000)						
1964	195,018	116,860	22,460	334,338	63,508	397,846
1965	215,043	133,658	23,591	372,292	69,037	441,330
1966	271,136	142,849	26,472	440,456	71,272	511,728
1967	300,474	159,035	26,730	486,240	78,708	564,947
1968	385,751	198,537	30,735	615,023	82,629	697,652
VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS (Larger mines and quarries only) (\$'000)						
1964	42,462	25,368	3,497	71,327	5,867	77,194
1965	62,906	34,810	2,109	99,825	7,303	107,128
1966	90,203	50,548	3,638	144,387	5,273	149,661
1967	74,939	76,783	8,302	160,024	7,640	167,664
1968	66,423	116,949	9,927	193,299	6,744	200,043

TABLE 5. - SUMMARY OF MINING AND QUARRYING OPERATIONS

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
NUMBER OF MINES AND QUARRIES (All mines and quarries)								
1964	936	469	544	336	339	174	94	2,892
1965	1,041	469	578	321	307	184	78	2,978
1966	1,204	462	596	358	305	182	91	3,198
1967	1,209	558	727	375	280	177	87	3,413
1968	1,381	538	743	364	280	168	72	3,546
NUMBER OF MINES AND QUARRIES (Larger mines and quarries only)								
1964	285	200	164	114	102	42	18	925
1965	293	187	150	99	107	46	19	901
1966	281	182	155	106	104	51	21	900
1967	297	177	146	91	101	53	18	873
1968	321	182	155	84	104	44	22	912
AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR (All mines and quarries)								
1964	21,201	4,250	8,016	2,049	7,037	2,548	655	45,756
1965	22,177	4,326	7,205	2,063	7,663	2,547	774	46,755
1966	22,334	4,279	8,680	1,988	7,595	2,816	897	48,589
1967	22,873	4,226	9,921	1,962	7,172	3,068	1,086	50,308
1968	23,743	3,905	10,344	1,933	7,363	3,276	1,210	51,774
SALARIES AND WAGES PAID (Larger mines and quarries only) (\$'000)								
1964	63,364	11,512	23,826	5,328	18,578	8,010	2,326	132,946
1965	71,849	12,559	25,095	5,457	21,737	8,909	3,155	148,761
1966	76,302	13,070	37,314	5,554	23,865	9,877	3,654	169,636
1967	82,360	13,052	40,145	5,522	25,597	11,849	4,887	183,411
1968	92,650	13,514	44,499	5,563	28,112	12,574	6,009	202,922

TABLE 5. - SUMMARY OF MINING AND QUARRYING OPERATIONS - continued

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
TOTAL VALUE OF POWER, FUEL, LIGHT, MATERIALS AND STORES USED (All mines and quarries) (\$'000)								
1964	37,318	7,836	22,880	4,870	13,204	6,874	1,972	94,952
1965	41,901	8,968	19,222	5,487	13,880	8,689	2,894	101,041
1966	47,849	9,718	23,113	5,704	15,821	8,733	2,486	113,423
1967	53,113	9,957	28,070	5,854	24,052	9,490	3,154	133,689
1968	60,509	11,152	33,851	5,779	26,723	12,340	4,492	154,846
VALUE OF OUTPUT (All mines and quarries) (\$'000)								
1964	233,298	44,892	97,286	38,938	45,366	25,048	7,972	492,800
1965	267,673	48,926	98,964	39,466	49,072	28,998	9,272	542,370
1966	263,751	53,156	138,483	41,954	78,918	34,561	14,328	625,152
1967	275,929	57,339	135,510	40,449	134,319	34,688	20,403	698,636
1968	300,005	59,026	185,902	42,064	194,491	44,968	26,041	852,497
VALUE OF PRODUCTION (All mines and quarries) (\$'000)								
1964	195,980	37,056	74,406	34,068	32,162	18,174	5,998	397,846
1965	225,771	39,958	79,742	33,979	35,192	20,309	6,378	441,330
1966	215,902	43,438	115,370	36,250	63,097	25,828	11,842	511,728
1967	222,817	47,382	107,440	34,595	110,267	25,197	17,250	564,947
1968	239,496	47,875	152,050	36,285	167,768	32,628	21,549	697,652
VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS (Larger mines and quarries only) (\$'000)								
1964	23,842	8,746	25,992	2,316	12,088	1,060	3,150	77,194
1965	31,859	9,708	21,798	3,877	28,375	5,701	5,810	107,128
1966	42,073	7,546	35,404	2,257	29,715	25,162	7,505	149,661
1967	39,654	26,472	37,847	2,183	34,875	21,329	5,305	167,664
1968	37,397	80,935	22,305	4,130	39,119	8,294	7,863	200,043

11. Number of establishments, by industry

Definitions of terms used.

Small and larger mines and quarries. For the purpose of the Annual Census, a small mine or quarry is defined as an establishment employing fewer than four (4) persons and larger mines or quarries are establishments employing four (4) or more persons, during the period worked by the establishment. However, some gold mines in Western Australia, employing four (4) or more persons, for which a limited range of information is available, have been classified with mines employing less than four persons.

TABLE 6. - NUMBER OF MINES AND QUARRIES, 1968

(All mines and quarries)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	13	7	25	1	110	..	4	..	160
Silver-lead-zinc ..	11	..	6	5	5	1	2	..	30
Copper-gold ..	16	1	174	7	7	1	8	..	214
Tin ..	37	4	241	..	15	31	13	..	341
Mineral sands ..	12	..	6	..	4	1	..	..	23
Iron ..	..	..	..	1	8	1	2	..	12
Other metal ..	18	1	18	3	8	5	6	..	59
<u>Total metal mining</u> ..	107	13	470	17	157	40	35	..	839
Fuel mining -									
Black coal -									
Underground ..	81	1	43	..	2	3	..	..	130
Open cut ..	11	..	7	1	1	..	..	..	20
<u>Total black coal mining</u> ..	92	1	50	1	3	3	..	..	150
Brown coal ..	..	5	..	..	..	..	..	..	5
Other fuel ..	..	1	3	..	1	..	..	..	5
<u>Total fuel mining</u> ..	22	6	53	1	4	3	..	..	160
Non-metal (excluding fuel) mining -									
Clays ..	182	52	38	37	20	12	..	..	341
Gypsum ..	7	25	..	10	8	..	..	..	50
Limestone ..	18	19	23	16	11	9	..	..	96
Salt ..	..	8	3	19	6	..	..	..	36
Other non-metal ..	492	2	86	(a) 31	15	3	..	..	629
<u>Total non-metal mining</u> ..	692	66	150	113	60	24	..	..	1,152
<u>Total all mining</u> ..	898	126	673	131	221	67	35	..	2,151
Construction material quarrying ..	(b) 483	412	70	233	59	101	23	14	1,395
<u>TOTAL ALL MINING AND QUARRYING</u>	1,381	538	743	364	280	168	58	14	3,546

(a) Excludes the diggings of approximately 1,000 opal prospectors. (b) Excludes Local Government and Department of Main Roads quarries.

TABLE 7. - NUMBER OF SMALL AND LARGER MINES AND QUARRIES, 1968

Industry	N.S.W.		Vic.		Qld		S.A.		W.A.		Tas.		N.T.		A.C.T.		Aust.	
	L.	S.	L.	S.	L.	S.	L.	S.	L.	S.	L.	S.	L.	S.	L.	S.	L.	S.
Metal mining -																		
Gold ..	..	13	4	3	1	24	..	1	17	93	..	..	3	1	..	..	25	135
Silver-lead-zinc ..	6	5	..	..	1	5	2	3	4	1	1	..	1	1	..	..	15	15
Copper-gold ..	4	12	1	..	9	165	..	7	4	3	1	..	2	6	..	..	21	193
Tin ..	15	22	2	2	9	232	..	..	5	10	9	22	2	11	..	..	42	299
Mineral sands ..	12	..	..	..	6	..	..	..	4	..	1	..	..	..	..	..	23	..
Iron ..	..	..	..	..	..	..	1	..	8	..	1	..	2	..	..	..	12	..
Other metal ..	4	14	..	1	3	15	1	2	6	2	3	2	2	4	..	..	19	40
<u>Total metal mining</u> ..	41	66	7	6	29	441	4	13	48	109	16	24	12	23	..	..	157	682
Fuel mining -																		
Black coal -																		
Underground ..	80	1	1	..	43	..	..	..	2	..	2	1	..	..	..	..	128	2
Opencut ..	8	3	..	..	7	..	1	..	1	..	..	..	..	..	..	..	17	3
<u>Total black coal mining</u>	88	4	1	..	50	..	1	..	3	..	2	1	..	..	..	..	145	5
Brown coal ..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..
Other fuel ..	..	..	1	..	2	1	..	..	1	..	..	..	..	..	..	..	4	1
<u>Total fuel mining</u> ..	88	4	7	..	52	1	1	..	4	..	2	1	..	..	..	..	154	6
Non-metal (excluding fuel) mining -																		
Clays ..	38	144	15	37	..	38	4	33	6	14	..	12	..	..	..	..	63	278
Gypsum ..	2	5	1	24	..	..	2	8	1	7	..	..	..	..	..	..	6	44
Limestone ..	10	8	7	12	14	9	7	9	1	10	4	5	..	..	..	..	43	53
Salt ..	..	..	5	3	3	..	4	15	6	..	..	..	..	..	..	..	18	18
Other non-metal (a) ..	20	472	..	2	6	80	4	27	3	12	..	3	..	..	..	..	33	596
<u>Total non-metal mining</u>	70	629	28	78	23	127	21	92	17	43	4	20	..	..	..	..	163	989
<u>Total all mining</u> ..	199	699	42	84	104	569	26	105	69	152	22	45	12	23	..	..	474	1677
Construction material quarrying (b)	122	361	140	272	51	19	58	175	35	24	22	79	3	20	7	7	438	957
<u>TOTAL ALL MINING AND QUARRYING</u>	321	1,060	182	356	155	588	84	280	104	176	44	124	15	43	7	7	912	2,634

(a) Excludes the diggings of approximately 1,000 opal prospectors in South Australia. (b) Excludes Local Government and Department of Main Roads quarries in New South Wales.

TABLE 8. - NUMBER OF MINES AND QUARRIES : AUSTRALIA

(All mines and quarries)

Industry	1964	1965	1966	1967	1968
Metal mining -					
Gold ..	246	193	179	171	160
Silver-lead-zinc ..	20	32	30	32	30
Copper-gold ..	86	75	124	174	214
Tin ..	371	391	363	393	341
Mineral sands ..	20	21	23	25	23
Iron ..	}	53	{	11	12
Other metal ..				69	59
<u>Total metal mining</u> ..	799	765	782	875	839
Fuel mining -					
Black coal -					
Underground ..	169	159	145	136	130
Opencut ..	10	9	13	14	20
<u>Total black coal mining</u> ..	179	168	158	150	150
Brown coal ..	7	6	5	5	5
Other fuel ..	3	3	4	5	5
<u>Total fuel mining</u> ..	189	177	167	160	160
Non-metal (excluding fuel) mining -					
Clays ..	299	285	284	340	341
Gypsum ..	38	34	30	66	50
Limestone ..	97	91	95	95	96
Salt ..	40	33	34	35	36
Other non-metal ..	282	359	530	562	629
<u>Total non-metal mining</u> ..	756	802	973	1,098	1,152
<u>Total all mining</u> ..	1,744	1,744	1,922	2,133	2,151
Construction material quarrying ..	1,148	1,234	1,276	1,280	1,395
<u>TOTAL ALL MINING AND QUARRYING</u>	2,892	2,978	3,198	3,413	3,546

TABLE 9. - NUMBER OF SMALL AND LARGER MINES AND QUARRIES : AUSTRALIA

Industry			1964		1965		1966		1967		1968	
			Larger	Small	Larger	Small	Larger	Small	Larger	Small	Larger	Small
Metal mining -												
Gold	..	..	39	207	39	154	30	149	29	142	25	135
Silver-lead-zinc	..	..	12	8	11	21	11	19	13	19	15	15
Copper-gold	..	..	16	70	15	60	14	110	16	158	21	193
Tin	..	..	41	330	39	352	52	311	47	346	42	299
Mineral sands	..	..	20	..	21	..	23	..	25	..	23	..
Iron	..	..	20	36	28	25	11	..	11	..	12	..
Other metal	..	..					20	32	21	48	19	40
<u>Total metal mining</u>			148	651	153	612	161	621	162	713	157	682
Fuel mining -												
Black coal -												
Underground	..	..	166	3	154	5	143	2	134	2	128	2
Openout	..	..	10	..	9	..	11	2	12	2	17	3
<u>Total black coal mining</u>			176	3	163	5	154	4	146	4	145	5
Brown coal	..	..	5	2	5	1	5	..	5	..	5	..
Other fuel	..	..	2	1	2	1	3	1	4	1	4	1
<u>Total fuel mining</u>			183	6	170	7	162	5	155	5	154	6
Non-metal (excluding fuel) mining -												
Clays	..	..	61	238	57	228	52	232	45	295	63	278
Gypsum	..	..	9	29	7	27	7	23	6	60	6	44
Limestone	..	..	43	54	40	51	41	54	42	53	43	53
Salt	..	..	13	27	13	20	15	19	15	20	18	18
Other non-metal	..	..	33	249	31	328	34	496	27	535	33	596
<u>Total non-metal mining</u>			159	597	148	654	149	824	135	963	163	989
<u>Total all mining</u>			490	1,254	471	1,273	472	1,450	452	1,681	474	1,677
Construction material quarrying			435	713	430	804	428	848	421	859	438	957
<u>TOTAL ALL MINING AND QUARRYING</u>			925	1,967	901	2,077	900	2,298	873	2,540	912	2,634

12. Employment, by industry

Definitions of terms used.

Persons employed. All persons, including working proprietors, engaged in and around the mine on mining and developmental operations, in underground and surface workshops, in crushing and ore-dressing operations, in carting ore to crushing or dressing works at or near the mine (to screens at coal mines), and in removal of overburden, are included. Salaried staff engaged in the management of the mine are included, but head office staffs are excluded.

Average employment during period worked. This represents the aggregate of the average number of persons employed in each mine or quarry during its period of operation (whether operating for the whole or only part of the year).

Average employment during whole year. These figures convert average employment during period worked to the equivalent number of man-years of labour input. They are calculated by reducing average employment during period worked by the proportion that the period worked bears to the total possible working days during the year.

Employment on last full working day. These figures show the number of persons working in mines and quarries at the end of the year. As many mines close for the Christmas/New Year period, figures are recorded if the last day of employment reported for the year occurred in December.

Larger mines and quarries. Those employing four or more persons.

TABLE 10. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR, 1968

(All mines and quarries)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	6	101	(a)	..	3,263	..	(a)	..	3,602
Silver-lead-zinc ..	4,287	..	5,501	(a)	16	(a)	76	..	9,490
Copper-gold ..	388	5		5	(a)	(a)	(a)	..	3,016
Tin ..	213	30	377	..	147	749	28	..	1,544
Mineral sands ..	1,552	..	780	..	(a)	(a)	..	..	2,694
Iron ..	..	..	..	(a)	(a)	(a)	118	..	1,999
Other metal ..	41	..	(a)	(a)	(a)	(a)	215	..	1,670
<u>Total metal mining</u> ..	6,487	136	7,093	452	5,877	2,909	1,061	..	24,015
Fuel mining -									
Black coal -									
Underground ..	12,452	(b) 112	(b) 1,645	..	(b) 677	60	..	..	(b) 14,946
Open-cut ..	272	..	656	253	181	..	..	..	1,362
<u>Total black coal mining</u> ..	12,724	(b) 112	(b) 2,301	253	(b) 858	60	..	..	(b) 16,308
Brown coal ..	..	1,407	..	..	..	..	..	..	1,487
<u>Total fuel mining</u> ..	12,724	1,599	2,301	253	858	60	..	..	17,795
Non-metal (excluding fuel) mining -									
Clays ..	469	134	53	55	50	10	..	..	771
Gypsum ..	13	(a)	..	(a)	(a)	..	..	..	123
Limestone ..	308	(a)	230	131	(a)	82	..	..	952
Salt ..	..	(a)	(a)	(a)	153	..	..	..	371
Other non-metal ..	923	(a)	(a)	(c) 99	(a)	2	..	..	1,216
<u>Total non-metal mining</u> ..	1,713	361	478	529	258	94	..	..	3,433
<u>Total all mining</u> ..	20,924	2,096	9,872	1,234	6,993	3,063	1,061	..	45,243
Construction material quarrying	2,819	1,809	472	699	370	213	71	78	6,531
<u>TOTAL ALL MINING AND QUARRYING</u>	23,743	3,905	10,344	1,933	7,363	3,276	1,132	78	51,774

(a) Not available for publication. (b) Includes other fuel mining. (c) Excludes approximately 900 opal prospectors.

12. Employment, by industryDefinitions of terms used.

Persons employed. All persons, including working proprietors, engaged in and around the mine on mining and developmental operations, in underground and surface workshops, in crushing and ore-dressing operations, in carting ore to crushing or dressing works at or near the mine (to screens at coal mines), and in removal of overburden, are included. Salaried staff engaged in the management of the mine are included, but head office staffs are excluded.

Average employment during period worked. This represents the aggregate of the average number of persons employed in each mine or quarry during its period of operation (whether operating for the whole or only part of the year).

Average employment during whole year. These figures convert average employment during period worked to the equivalent number of man-years of labour input. They are calculated by reducing average employment during period worked by the proportion that the period worked bears to the total possible working days during the year.

Employment on last full working day. These figures show the number of persons working in mines and quarries at the end of the year. As many mines close for the Christmas/New Year period, figures are recorded if the last day of employment reported for the year occurred in December.

Larger mines and quarries. Those employing four or more persons.

TABLE 10. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR, 1966

(All mines and quarries)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	6	101	(a)	..	3,263	..	(a)	..	3,602
Silver-lead-zinc ..	4,287	..	5,501	(a)	16	(a)	76	..	9,490
Copper-gold ..	388	5		5	(a)	(a)	(a)	..	3,016
Tin ..	213	30	377	..	147	749	28	..	1,544
Mineral sands ..	1,552	..	780	..	(a)	(a)	..	..	2,694
Iron ..	..	..	..	(a)	(a)	(a)	118	..	1,999
Other metal ..	41	..	(a)	(a)	(a)	(a)	215	..	1,670
<u>Total metal mining</u> ..	6,487	136	7,093	452	5,877	2,909	1,061	..	24,015
Fuel mining -									
Black coal -									
Underground ..	12,452	(b) 112	(b) 1,645	..	(b) 677	60	..	..	(b) 14,946
Opencut ..	272	..	656	253	181	..	..	..	1,362
<u>Total black coal mining</u> ..	12,724	(b) 112	(b) 2,301	253	(b) 858	60	..	..	(b) 16,308
Brown coal ..	..	1,407	..	..	..	..	..	..	1,487
<u>Total fuel mining</u> ..	12,724	1,599	2,301	253	858	60	..	..	17,795
Non-metal (excluding fuel) mining -									
Clays ..	469	134	53	55	50	10	..	..	771
Gypsum ..	13	(a)	..	(a)	(a)	..	..	..	123
Limestone ..	308	(a)	230	131	(a)	82	..	..	952
Salt ..	..	(a)	(a)	(a)	153	..	..	..	371
Other non-metal ..	923	(a)	(a)	(c) 99	(a)	2	..	..	1,216
<u>Total non-metal mining</u> ..	1,713	361	478	529	258	94	..	..	3,433
<u>Total all mining</u> ..	20,924	2,096	9,872	1,234	6,993	3,063	1,061	..	45,243
Construction material quarrying	2,819	1,809	472	699	370	213	71	78	6,531
<u>TOTAL ALL MINING AND QUARRYING</u>	23,743	3,905	10,344	1,933	7,363	3,276	1,132	78	51,774

(a) Not available for publication. (b) Includes other fuel mining. (c) Excludes approximately 900 opal prospectors.

TABLE 11. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR : AUSTRALIA

(All mines and quarries)

Industry			1964	1965	1966	1967	1968
Metal mining -							
Gold	..	..	4,753	4,525	4,447	4,074	3,602
Silver-lead-zinc	..	..	7,811	7,269	8,681	9,703	9,490
Copper-gold	..	..	2,341	2,312	2,554	2,712	3,016
Tin	..	..	1,191	1,402	1,550	1,748	1,544
Mineral sands	..	..	1,734	2,000	2,434	2,543	2,694
Iron	..	..	}	2,251	{	1,323	1,609
Other metal						972	1,299
			1,348			1,299	1,670
<u>Total metal mining</u>	..		19,178	19,759	21,961	23,688	24,015
Fuel mining -							
Black coal (a)	..	..	15,364	15,391	15,169	15,448	16,308
Brown coal	..	..	1,673	1,710	1,760	1,677	1,487
<u>Total fuel mining</u>	..		17,037	17,101	16,929	17,125	17,795
Non-metal (excluding fuel) mining -							
Clays	..	..	710	660	645	700	771
Gypsum	..	..	164	147	133	147	123
Limestone	..	..	904	918	909	930	952
Salt	..	..	162	144	169	193	371
Other non-metal	..	..	843	926	1,074	833	1,216
<u>Total non-metal mining</u>	..		2,783	2,795	2,930	2,803	3,433
<u>Total all mining</u>	..	..	38,998	39,655	41,820	43,616	45,243
Construction material quarrying	..		6,758	7,100	6,769	6,692	6,531
<u>TOTAL ALL MINING AND QUARRYING</u>	..		45,756	46,755	48,589	50,308	51,774

(a) Includes other fuel mining.

TABLE 12. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR, 1968

(Larger mines and quarries only)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	..	95	(a)	..	2,998	..	(a)	..	3,316
Silver-lead-zinc ..	4,281	..	..	(a)	15	(a)	74	..	9,475
Copper-gold ..	378	5	5,380	..	(a)	(a)	(a)	..	2,863
Tin ..	196	27	257	..	117	727	20	..	1,344
Mineral sands ..	1,552	..	780	..	(a)	(a)	..	..	2,694
Iron ..	..	..	..	(a)	(a)	(a)	118	..	1,999
Other metal..	22	..	(a)	(a)	(a)	(a)	211	..	1,637
<u>Total metal mining</u> ..	6,429	127	6,838	443	5,569	2,887	1,035	..	23,328
Fuel mining -									
Black coal -									
Underground ..	12,449	(b) 112	(b) 1,644	..	(b) 677	57	..	..	(b) 14,939
Opencut ..	265	..	656	253	181	..	..	..	1,355
<u>Total black coal mining</u> ..	12,714	(b) 112	(b) 2,300	253	(b) 858	57	..	..	(b) 16,294
Brown coal ..	..	1,487	..	..	..	..	..	..	1,487
<u>Total fuel mining</u> ..	12,714	1,599	2,300	253	858	57	..	..	17,781
Non-metal (excluding fuel) mining -									
Clays ..	211	94	..	22	34	..	..	..	361
Gypsum ..	13	(a)	..	(a)	(a)	..	..	..	88
Limestone ..	297	(a)	217	123	(a)	76	..	..	890
Salt ..	..	(a)	(a)	(a)	153	..	..	..	360
Other non-metal ..	181	..	(a)	71	(a)	..	..	..	313
<u>Total non-metal mining</u> ..	702	292	293	436	213	76	..	..	2,012
<u>Total all mining</u> ..	19,845	2,018	9,431	1,132	6,640	3,020	1,035	..	43,121
Construction material quarrying	2,299	1,480	450	545	341	153	40	74	5,382
<u>TOTAL ALL MINING AND QUARRYING</u>	22,144	3,498	9,881	1,677	6,981	3,173	1,075	74	48,503

(a) Not available for publication. (b) Includes other fuel mining.

TABLE 13. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING WHOLE YEAR : AUSTRALIA

(Larger mines and quarries only)

Industry			1964	1965	1966	1967	1968
Metal mining -							
Gold	..	..	4,264	4,070	3,921	3,771	3,316
Silver-lead-zinc	..	..	7,807	7,239	8,650	9,682	9,475
Copper-gold	..	..	2,257	2,235	2,436	2,569	2,863
Tin	..	..	932	1,063	1,235	1,387	1,344
Mineral sands	..	..	1,734	2,000	2,434	2,543	2,694
Iron	..	..	1,307	2,215	1,323	1,609	1,999
Other metal	..	..			933	1,252	1,637
<u>Total metal mining</u>	..	..	18,301	18,822	20,932	22,813	23,328
Fuel mining -							
Black coal (a)	..	..	15,353	15,377	15,165	15,447	16,294
Brown coal	..	..	1,672	1,710	1,760	1,677	1,487
<u>Total fuel mining</u>	..	..	17,025	17,087	16,925	17,124	17,781
Non-metal (excluding fuel) mining -							
Clays	..	..	361	335	314	281	361
Gypsum	..	..	114	104	102	96	88
Limestone	..	..	849	870	847	876	890
Salt	..	..	148	131	158	183	360
Other non-metal	..	..	645	607	596	239	313
<u>Total non-metal mining</u>	..	..	2,117	2,047	2,017	1,675	2,012
<u>Total all mining</u>	..	..	37,443	37,956	39,874	41,612	43,121
Construction material quarrying	..	..	5,840	6,000	5,602	5,549	5,382
<u>TOTAL ALL MINING AND QUARRYING</u>	..	..	43,283	43,956	45,476	47,161	48,503

(a) Includes other fuel mining.

TABLE 14. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING PERIOD WORKED, 1968

(All mines and quarries)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	38	110	(a)	2	3,276	..	(a)	..	3,687
Silver-lead-zinc ..	4,900	..	5,699	(a)	21	(a)	76	..	10,115
Copper-gold ..	394	6		13	(a)	(a)	(a)	..	3,263
Tin ..	268	31		..	156	809	31	..	1,924
Mineral sands ..	1,552	..	780	..	(a)	(a)	..	..	2,699
Iron ..	..	..	..	(a)	(a)	(a)	121	..	2,002
Other metal ..	54	3	(a)	(a)	(a)	(a)	223	..	1,787
<u>Total metal mining</u> ..	7,206	150	7,591	466	5,969	3,019	1,076	..	25,477
Fuel mining -									
Black coal -									
Underground ..	12,452	(b) 123	(b) 1,646	..	(b) 677	65	..	..	(b) 14,963
Opencut ..	272	..	686	253	181	..	..	..	1,392
<u>Total black coal mining</u>	12,724	(b) 123	(b) 2,332	253	(b) 858	65	..	..	(b) 16,355
Brown coal ..	..	1,487	..	..	..	..	..	..	1,487
<u>Total fuel mining</u> ..	12,724	1,610	2,332	253	858	65	..	..	17,842
Non-metal (excluding fuel) mining -									
Clays ..	469	170	84	86	63	19	..	..	891
Gypsum ..	20	(a)	..	(a)	(a)	..	..	..	164
Limestone ..	313	(a)	253	139	25	89	..	..	1,012
Salt ..	..	(a)	(a)	(a)	168	..	..	..	466
Other non-metal ..	1,193	(a)	(a)	(c) 121	(a)	5	..	..	1,566
<u>Total non-metal mining</u> ..	1,995	488	564	614	325	113	..	..	4,099
<u>Total all mining</u> ..	21,925	2,248	10,487	1,333	7,152	3,197	1,076	..	47,418
Construction material quarrying	2,819	1,964	573	911	576	312	73	84	7,312
<u>TOTAL ALL MINING AND QUARRYING</u>	24,744	4,212	11,060	2,244	7,728	3,509	1,149	84	54,730

(a) Not available for publication. (b) Includes other fuel mining. (c) Excludes approximately 1,000 opal prospectors.

TABLE 15. - AVERAGE NUMBER OF PERSONS EMPLOYED DURING PERIOD WORKED, AUSTRALIA

(All mines and quarries)

Industry				1964	1965	1966	1967	1968
<u>Metal mining -</u>								
Gold	..	..	..	4,855	4,605	4,501	4,121	3,687
Silver-lead-zinc	..	..	..	7,927	8,126	8,870	9,878	10,115
Copper-gold	..	..	..	2,455	2,387	2,688	2,837	3,263
Tin	..	..	..	1,494	1,689	1,839	2,042	1,924
Mineral sands	..	..	..	1,745	2,033	2,485	2,600	2,699
Iron	..	..	..	1,401	2,461	1,346	1,636	2,002
Other metal	..	..	..			1,041	1,374	1,787
<u>Total metal mining</u>	..	..	..	19,877	21,301	22,770	24,488	25,477
<u>Fuel mining -</u>								
Black coal -								
Underground (a)	..	..	..	14,733	14,777	14,809	14,858	14,963
Opencut	..	..	..	736	850	1,005	1,080	1,392
<u>Total black coal mining (a)</u>	..	..	..	15,469	15,627	15,814	15,938	16,355
Brown coal	..	..	..	1,674	1,711	1,761	1,678	1,487
<u>Total fuel mining</u>	..	..	..	17,143	17,338	17,575	17,616	17,842
<u>Non-metal (excluding fuel) mining -</u>								
Clays	..	..	..	837	775	758	820	891
Gypsum	..	..	..	176	164	149	197	164
Limestone	..	..	..	981	988	992	1,005	1,012
Salt	..	..	..	303	286	274	299	466
Other non-metal	..	..	..	991	1,162	1,572	1,324	1,566
<u>Total non-metal mining</u>	..	..	..	3,288	3,375	3,745	3,645	4,099
<u>Total all mining</u>	..	..	..	40,308	42,014	44,090	45,749	47,418
Construction material quarrying	..	..	..	7,594	8,031	7,700	7,563	7,312
<u>TOTAL ALL MINING AND QUARRYING</u>	..	..	..	47,902	50,045	51,790	53,312	54,730

(a) Includes other fuel mining.

TABLE 16. - WORKING PROPRIETORS, SALARIED STAFF AND WAGE EARNERS ON LAST FULL WORKING DAY : AUSTRALIA,

(Larger mines and quarries only)

Industry		1967	Total persons employed	Working proprie- tors	1968						
					Salaried staff		Wage earners		Total persons employed		
					Above ground	Below ground	Above ground	Below ground	Males	Females	Total
Metal mining -											
Gold ..	..	3,727	6	330	152	1,172	1,526	3,131	55	3,186	
Silver-lead-zinc ..	..	9,806	3	1,611	499	3,798	4,407	9,887	431	10,318	
Copper-gold ..	..	2,723	11	459	54	1,822	606	2,852	100	2,952	
Tin ..	..	1,381	27	250	26	917	225	1,398	47	1,445	
Mineral sands ..	..	2,725	..	426	..	2,203	..	2,508	121	2,629	
Iron ..	..	1,990	..	275	..	2,025	4	2,237	67	2,304	
Other metal ..	..	1,422	8	246	26	1,175	294	1,659	90	1,749	
<u>Total metal mining</u>	..	23,774	55	3,597	757	13,112	7,062	23,672	911	24,583	
Fuel mining -											
Black coal (a) ..	..	15,919	20	877	188	5,018	10,459	16,413	149	16,562	
Brown coal ..	..	1,381	..	209	..	1,134	..	1,335	8	1,343	
<u>Total fuel mining</u>	..	17,300	20	1,086	188	6,152	10,459	17,748	157	17,905	
Non-metal (excluding fuel) mining -											
Clays ..	..	293	27	17	1	320	7	370	2	372	
Gypsum ..	..	98	1	6	..	81	..	87	1	88	
Limestone ..	..	907	16	83	..	833	3	925	10	935	
Salt ..	..	182	..	47	..	357	..	376	28	404	
Other non-metal ..	..	262	15	17	..	292	13	330	7	337	
<u>Total non-metal mining</u>	..	1,742	59	170	1	1,883	23	2,088	48	2,136	
<u>Total all mining</u>	..	42,816	134	4,853	946	21,147	17,544	43,508	1,116	44,624	
Construction material quarrying		5,772	117	351	..	4,193	..	4,591	70	(b) 5,480	
<u>TOTAL ALL MINING AND QUARRYING</u>		48,588	251	5,204	946	25,340	17,544	48,099	1,186	(b) 50,104	

(a) Includes other fuel mining. (b) Includes 819 persons employed in Local Government and Department of Main Roads quarries in New South Wales for whom distribution into the categories shown is not available.

TABLE 17. - CLASSIFICATION OF MINES AND QUARRIES BY AVERAGE NUMBER OF

PERSONS EMPLOYED DURING PERIOD WORKED, 1968

Industry group and State or Territory	Mines and quarries employing on the average during the period worked -									
	Less than 4 persons		From 4 to 20 persons		From 21 to 200 persons		More than 200 persons		Total	
	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons
Metal mining -										
New South Wales ..	66	133	23	195	10	965	8	5,913	107	7,206
Victoria ..	6	15	5	38	2	97	..	..	13	150
Queensland ..	441	731	15	124	9	611	5	6,125	470	7,591
South Australia ..	13	23	2	23	1	86	1	334	17	466
Western Australia (a) ..	109	319	24	189	17	1,815	7	3,646	157	5,969
Tasmania ..	24	38	6	33	5	535	5	2,413	40	3,019
Northern Territory ..	23	32	4	40	7	562	1	442	35	1,076
<u>Total metal mining</u> ..	682	1,291	79	642	51	4,671	27	18,873	839	25,477
Fuel mining -										
New South Wales ..	4	10	17	190	48	4,282	23	8,242	92	12,724
Victoria ..	..	..	3	23	4	1,587	..	..	7	1,610
Queensland ..	1	1	20	245	31	1,665	1	421	53	2,332
South Australia ..	..	..	..	..	..	..	1	253	1	253
Western Australia ..	..	..	..	..	2	223	2	635	4	858
Tasmania ..	1	3	1	7	1	55	..	..	3	65
<u>Total fuel mining</u> ..	6	14	41	465	86	7,812	27	9,551	160	17,842
Non-metal mining -										
New South Wales ..	629	1,279	62	365	8	351	..	..	699	1,995
Victoria ..	78	131	23	137	5	220	..	..	106	488
Queensland ..	127	240	21	191	2	133	..	..	150	564
South Australia ..	92	158	15	162	6	294	..	..	113	614
Western Australia ..	43	71	15	134	2	120	..	..	60	325
Tasmania ..	20	34	2	30	2	49	..	..	24	113
<u>Total non-metal mining</u> ..	989	1,913	138	1,019	25	1,167	..	..	1,152	4,099

(a) See definition of small and larger mines, page 19.

TABLE 17. - CLASSIFICATION OF MINES AND QUARRIES BY AVERAGE NUMBER OF
PERSONS EMPLOYED DURING PERIOD WORKED, 1968 - continued

Industry group and State or Territory	Mines and quarries employing on the average during the period worked -									
	Less than 4 persons		From 4 to 20 persons		From 21 to 200 persons		More than 200 persons		Total	
	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons
All mining -										
New South Wales	699	1,422	102	750	66	5,598	31	14,155	898	21,925
Victoria	84	146	31	198	11	1,904	..	..	125	2,248
Queensland	569	972	56	560	42	2,409	6	6,546	673	10,487
South Australia	105	181	17	185	7	380	2	587	131	1,333
Western Australia	152	390	39	323	21	2,158	9	4,281	221	7,152
Tasmania	45	75	9	70	8	639	5	2,413	67	3,197
Northern Territory	23	32	4	40	7	562	1	442	35	1,076
<u>Total all mining</u>	1,677	3,218	258	2,126	162	13,650	54	28,424	2,151	47,418
Construction material quarrying -										
New South Wales	361	520	104	710	18	770	..	..	(a)483	(a)2,000
Victoria	272	366	121	998	19	600	..	..	412	1,964
Queensland	19	36	48	449	3	88	..	..	70	573
South Australia	175	292	54	441	4	178	..	..	233	911
Western Australia	24	47	27	224	8	305	..	..	59	576
Tasmania	79	133	21	141	1	38	..	..	101	312
Northern Territory	20	32	2	19	1	22	..	..	23	73
Australian Capital Territory	7	8	6	51	1	25	..	..	14	84
<u>Total quarrying</u>	957	1,434	383	3,033	55	2,026	..	..	1,395	6,493
All mining and quarrying										
New South Wales	1,060	1,942	206	1,460	84	6,368	31	14,155	1,381	23,925
Victoria	356	512	152	1,196	30	2,504	..	..	538	4,212
Queensland	588	1,008	104	1,009	45	2,497	6	6,546	743	11,060
South Australia	280	473	71	626	11	558	2	587	364	2,244
Western Australia	176	437	66	547	29	2,463	9	4,281	280	7,728
Tasmania	124	208	30	211	9	677	5	2,413	168	3,509
Northern Territory	43	64	6	59	8	584	1	442	58	1,149
Australian Capital Territory	7	8	6	51	1	25	..	..	14	84
<u>TOTAL ALL MINING AND QUARRYING</u>	2,634	4,652	641	5,159	217	15,676	54	28,424	3,546	53,911

(a) Excludes Local Government and Department of Main Roads quarries, and the 819 persons employed at those quarries for whom distribution into the categories shown is not available.

TABLE 18. - CLASSIFICATION OF MINES AND QUARRIES BY AVERAGE NUMBER OF

PERSONS EMPLOYED DURING PERIOD WORKED : AUSTRALIA. 55

Industry	Mines and quarries employing on the average during the period worked -									
	Less than 4 persons		From 4 to 20 persons		From 21 to 200 persons		More than 200 persons		Total	
	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons	Mines, etc.	Persons
Metal mining -										
Gold (a) ..	135	363	15	113	5	490	5	2,721	160	3,687
Silver-lead-zinc ..	15	29	8	63		74	6	9,949	30	10,115
Copper-gold ..	193	350	16	117		116	4	2,680	214	3,263
Tin ..	299	477	27	220	13	737	2	490	341	1,924
Mineral sands ..	..	..	4	45	14	1,468	5	1,186	23	2,699
Iron ..	..	..	1	10	8	961	3	1,031	12	2,002
Other metal ..	40	72	8	74	9	825	2	816	59	1,787
Total metal mining ..	682	1,291	79	642	51	4,671	27	18,873	839	25,477
Fuel mining -										
Black coal (b) ..	6	14	39	455	83	6,335	27	9,551	155	16,355
Brown coal ..	..	..	2	10	3	1,477	..	..	5	1,487
Total fuel mining ..	6	14	41	465	86	7,812	27	9,551	160	17,842
Non-metal (excluding fuel) mining-										
Clays ..	278	513	62	357	1	21	..	..	341	891
Gypsum ..	44	63	5	50	1	51	..	..	50	164
Limestone ..	53	96	29	247	14	669	..	..	96	1,012
Salt ..	18	28	13	120	5	318	..	..	36	466
Other non-metal ..	596	1,213	29	245	4	108	..	..	629	1,566
Total non-metal mining	989	1,913	138	1,019	25	1,167	..	..	1,152	4,099
Total all mining ..	1,677	3,218	258	2,126	162	13,650	54	28,424	2,151	47,418
Construction material quarrying	957	1,434	383	3,033	55	2,026	..	..	(c) 1,395 (c)	6,493
TOTAL ALL MINING AND QUARRYING	2,634	4,652	641	5,159	217	15,676	54	28,424	3,546	53,911

(a) See definition of small and larger mines, page 19. (b) Includes other fuel mining. (c) Excludes Local Government and Department of Main Roads quarries in N.S.W., and the 819 persons employed at those quarries for whom distribution into the categories shown is not available.

13. Salaries and wages paid, by industry

Definitions of terms used.

Salaries and wages paid. These relate to amounts paid to employees (excluding drawings by working proprietors), including amounts capitalised as well as those charged to working expenses. The amounts are gross (including bonuses and holiday and sick pay) before any deductions are made for income tax, pensions, etc. The value of explosives sold to employees has, however, been deducted.

Larger mines and quarries. Those employing four or more persons.

TABLE 19. - SALARIES AND WAGES PAID, 1968

(Larger mines and quarries only)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	..	327	(a)	..	10,112	..	(a)	..	11,465
Silver-lead-zinc ..	22,030	..	25,897	(a)	37	(a)	414	..	49,225
Copper-gold ..	2,043	19	..	..	(a)	(a)	(a)	..	10,780
Tin ..	767	141	800	..	554	2,735	59	..	5,056
Mineral sands ..	5,811	..	2,880	..	(a)	(a)	..	..	10,015
Iron ..	..	..	..	(a)	6,630	(a)	727	..	9,631
Other metal ..	55	..	(a)	(a)	3,210	(a)	992	..	7,372
<u>Total metal mining</u> ..	30,706	487	31,493	1,491	22,324	11,617	5,428	..	103,544
Fuel mining -									
Black coal ..	59,800	(b) 728	10,478	1,007	(b) 3,372	220	..	..	(b) 75,607
Brown coal ..	..	5,729	..	..	..	..	..	..	5,729
<u>Total fuel mining</u> ..	59,800	6,457	10,478	1,007	3,372	220	..	..	81,335
Non-metal (excluding fuel) mining -									
Clays ..	580	312	..	67	123	..	..	..	1,081
Gypsum ..	41	18	..	(a)	(a)	..	..	..	271
Limestone ..	1,108	(a)	882	406	(a)	227	..	..	3,265
Salt ..	..	(a)	(a)	(a)	594	..	..	..	1,251
Other non-metal ..	415	..	(a)	225	(a)	..	..	..	885
<u>Total non-metal mining</u> ..	2,144	997	1,136	1,414	834	227	..	..	6,753
<u>Total all mining</u> ..	92,650	7,942	43,107	3,912	26,530	12,064	5,428	..	191,632
Construction material quarrying ..	n.a.	5,573	1,392	1,651	1,582	510	279	302	11,290
<u>TOTAL ALL MINING AND QUARRYING</u>	92,650	13,514	44,499	5,563	28,112	12,574	5,707	302	202,922

(a) Not available for publication. (b) Includes other fuel mining.

TABLE 20. - SALARIES AND WAGES PAID, AUSTRALIA

(Larger mines and quarries only)
(\$'000)

Industry			1964	1965	1966	1967	1968
Metal mining -							
Gold	..	..	11,812	11,974	12,409	12,591	11,465
Silver-lead-zinc	..	..	29,948	34,397	44,651	46,711	49,225
Copper-gold	..	..	6,834	7,415	8,205	9,235	10,780
Tin	..	..	2,648	3,313	4,156	5,035	5,056
Mineral sands	..	..	4,706	5,837	7,673	8,603	10,015
Iron	..	..	4,038	7,241	4,917	7,529	9,631
Other metal	..	..			3,683	5,790	7,372
<u>Total metal mining</u>	..	..	59,986	70,177	85,696	95,495	103,544
Fuel mining -							
Black coal (a)	..	..	52,204	55,942	60,191	65,549	75,607
Brown coal	..	..	5,144	5,503	5,672	5,662	5,729
<u>Total fuel mining</u>	..	..	57,348	61,445	65,863	71,210	81,335
Non-metal (excluding fuel) mining -							
Clays	..	..	904	893	753	818	1,081
Gypsum	..	..	250	251	306	296	271
Limestone	..	..	2,688	2,797	2,946	3,164	3,265
Salt	..	..	368	392	662	631	1,251
Other non-metal	..	..	2,036	2,054	2,155	661	885
<u>Total non-metal mining</u>	..	..	6,248	6,388	6,821	5,570	6,753
<u>Total all mining</u>	..	..	123,582	138,010	158,380	172,275	191,632
Construction material quarrying	..	..	9,364	10,751	11,256	11,136	11,290
<u>TOTAL ALL MINING AND QUARRYING</u>	..	..	132,946	148,761	169,636	183,411	202,922

(a) Includes other fuel mining.

TABLE 21. - AVERAGE SALARIES AND WAGES PAID PER EMPLOYEE (a) : AUSTRALIA

(Larger mines and quarries only)

(\$)

Industry	1964	1965	1966	1967	1968
Metal mining -					
Gold ..	2,770	2,942	3,165	3,339	3,457
Silver-lead-zinc ..	3,836	4,752	5,162	4,824	5,195
Copper-gold ..	3,042	3,318	3,368	3,595	3,765
Tin ..	2,842	3,117	3,365	3,630	3,762
Mineral sands ..	2,714	2,918	3,153	3,383	3,717
Iron ..	3,092	3,269	3,717	4,679	4,818
Other metal ..			3,948	4,625	4,504
<u>Total metal mining</u> ..	3,280	3,728	4,094	4,186	4,439
Fuel mining -					
Black coal (b) ..	3,400	3,638	3,969	4,244	4,640
Brown coal ..	3,076	3,218	3,224	3,376	3,852
<u>Total fuel mining</u> ..	3,368	3,596	3,891	4,159	4,574
Non-metal (excluding fuel) mining -					
Clays ..	2,498	2,667	2,398	2,920	2,996
Gypsum ..	2,194	2,413	2,997	2,084	3,076
Limestone ..	3,166	3,215	3,478	3,612	3,668
Salt ..	2,486	2,985	4,191	3,450	2,627
Other non-metal ..	3,156	3,383	3,615	2,765	2,826
<u>Total non-metal mining</u> ..	2,952	3,121	3,382	3,328	3,356
<u>Total all mining</u> ..	3,302	3,637	3,972	4,140	4,444
Construction material quarrying (c) ..	2,864	3,138	3,350	3,449	3,662
<u>TOTAL ALL MINING AND QUARRYING</u>	3,266	3,595	3,924	4,091	4,392

(a) Employment calculated on a whole year basis and includes a small number of working proprietors. (b) Includes other fuel mining. (c) Excludes particulars relating to average salaries and wages paid in New South Wales, as required information in respect of total salaries and wages paid is not available.

TABLE 22. - SALARIES AND WAGES PAID, 1968

(Larger mines and quarries only)
(\$'000)

Industry and item			1967	1968									
			Aust.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Metal mining -													
Salaries	..	..	21,254	7,864	69	7,800	170	3,570	2,372	913	..	22,756	
Wages	..	..	74,241	22,842	419	23,693	1,321	18,754	9,245	4,514	..	80,788	
<u>Total salaries and wages</u>			..	95,495	30,706	487	31,493	1,491	22,324	11,617	5,428	..	103,544
Fuel mining -													
Salaries	..	..	6,556	4,015	1,319	1,373	257	303	29	..	..	7,296	
Wages	..	..	64,655	55,786	5,138	9,105	750	3,069	191	..	..	74,039	
<u>Total salaries and wages</u>			..	71,210	59,800	6,457	10,478	1,007	3,372	220	..	..	81,335
Non-metal (excluding fuel) mining -													
Salaries	..	..	583	177	134	98	175	133	21	..	..	737	
Wages	..	..	4,988	1,967	863	1,038	1,239	702	207	..	..	6,016	
<u>Total salaries and wages</u>			..	5,570	2,144	997	1,136	1,414	834	227	..	..	6,753
Construction material quarrying -													
Salaries	..	..	1,150	n.a.	909	113	121	171	91	21	56	1,482	
Wages	..	..	9,986	n.a.	4,664	1,279	1,530	1,411	419	258	246	9,806	
<u>Total salaries and wages</u>			..	11,136	n.a.	5,573	1,392	1,651	1,582	510	279	302	11,290
Total all mining and quarrying -													
Salaries -													
Males	..	..	28,444	11,388	2,369	9,198	688	4,060	2,375	887	56	31,020	
Females	..	..	1,098	667	62	186	35	117	137	48	1	1,252	
<u>Total salaries</u>			..	29,542	12,055	2,430	9,384	723	4,176	2,512	934	56	32,272
Wages -													
Males	..	..	152,808	80,410	11,061	34,220	4,788	23,782	10,040	4,698	246	169,245	
Females	..	..	1,061	185	22	895	52	154	22	75	..	1,405	
<u>Total wages</u>			..	153,870	80,595	11,084	35,115	4,840	23,936	10,062	4,772	246	170,650
<u>TOTAL SALARIES AND WAGES</u>			..	183,411	92,650	13,514	44,499	5,563	28,112	12,574	5,707	302	202,922

14. Power, fuel, light, materials and stores, etc., used, by industry

Definitions of terms used.

Value of power, fuel and light used. This includes all fuels and purchased electricity. The amounts shown relate only to items charged to working expenses and exclude amounts capitalised or charged to mine development. Where electricity is generated at the mine, in general no value is shown for electricity but the fuels used in generation are included. In certain cases, however, where the mine powerhouse is relatively large, it has been classified for statistical purposes as a separate establishment and included in manufacturing. In these cases electricity is shown as "purchased", and fuels used in generation are excluded.

Value of materials and stores, etc., used. This includes timber and explosives (including the value of explosives sold to employees), raw materials (being output from other sectors) (see Note on value of output and value of production page 56, and other mining and ore-dressing materials and stores, materials used in repairs effected by own workmen (labour costs being included in wages), tools replaced and repairs done by persons not employed by the mine. The amounts refer to working expenses only and exclude amounts capitalised.

TABLE 23. - VALUE OF POWER, FUEL AND LIGHT USED, 1968

(Larger mines and quarries only)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	..	57	(a)	..	2,308	..	(a)	..	2,520
Silver-lead-zinc ..	..	2,693	..	(a)	(a)	(a)	40	..	4,633
Copper-gold ..	..	425	3	..	(a)	(a)	(a)	..	1,637
Tin ..	..	316	11	234	..	173	488	7	1,229
Mineral sands ..	..	1,761	..	923	..	471	..	..	3,155
Iron ..	..	..	..	(a)	1,143	(a)	(a)	..	2,088
Other metal ..	..	7	(a)	(a)	(a)	(a)	69	..	955
<u>Total metal mining</u> ..	..	5,202	71	3,626	326	4,710	1,655	627	16,217
Fuel mining -									
Black coal ..	..	6,350	39	(b)2,193	217	(b)239	22	..	(b)9,059
Brown coal ..	..	..	770	..	..	..	..	..	770
<u>Total fuel mining</u> ..	..	6,350	808	2,193	217	239	22	..	9,829
Non-metal (excluding fuel) mining -									
Clays ..	..	63	114	..	(a)	..	..	..	224
Gypsum ..	..	12	4	..	(a)	..	..	..	79
Limestone ..	..	128	(a)	141	63	(a)	23	..	528
Salt ..	..	..	(a)	(a)	(a)	..	..	..	218
Other non-metal ..	..	56	..	(a)	(a)	..	..	..	112
<u>Total non-metal mining</u> ..	..	260	286	174	227	192	23	..	1,162
<u>Total all mining</u> ..	..	11,812	1,165	5,993	770	5,140	1,700	627	27,208
Construction material quarrying	..	n.a.	1,648	238	375	287	114	99	2,814
<u>TOTAL ALL MINING AND QUARRYING</u>	..	11,812	2,814	6,231	1,145	5,427	1,815	725	30,022

(a) Not available for publication. (b) Includes other fuel mining.

TABLE 24. - VALUE OF POWER, FUEL AND LIGHT USED : AUSTRALIA

(Larger mines and quarries only)

(\$'000)

Industry		1964	1965	1966	1967	1968
Metal mining -						
Gold	..	2,688	2,535	2,525	2,569	2,520
Silver-lead-zinc	..	4,532	4,185	4,792	4,393	4,633
Copper-gold	..	1,056	948	1,282	1,420	1,637
Tin	..	602	570	931	1,119	1,229
Mineral sands	..	1,734	2,037	2,331	2,558	3,155
Iron	..	710	934	813	1,391	2,088
Other metal	..			529	711	955
<u>Total metal mining</u>	..	11,322	11,210	13,203	14,159	16,217
Fuel mining -						
Black coal (a)	..	5,956	6,268	6,553	7,125	9,059
Brown coal	..	678	734	818	784	770
<u>Total fuel mining</u>	..	6,634	7,002	7,371	7,909	9,829
Non-metal (excluding fuel) mining -						
Clays	..	168	122	115	190	224
Gypsum	..	68	63	80	70	79
Limestone	..	410	408	443	563	528
Salt	..	48	57	72	125	218
Other non-metal	..	466	482	412	72	112
<u>Total non-metal mining</u>	..	1,160	1,133	1,121	1,020	1,162
<u>Total all mining</u>	..	19,116	19,345	21,695	23,088	27,208
Construction material quarrying	..	2,178	2,515	2,622	2,895	2,814
<u>TOTAL ALL MINING AND QUARRYING</u>	..	21,294	21,860	24,318	25,983	30,022

(a) Includes other fuel mining.

TABLE 25. - VALUE OF MATERIALS AND STORES, ETC., USED. (a). 1968

(larger mines and quarries only)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Gold mining -									
Gold ..	..	100	(b)	..	4,315	..	(b)	..	4,751
Silver-lead-zinc ..	11,347	..	12,587	(b)	(b)	(b)	77	..	21,843
Copper-gold ..	2,425	10	..	..	(b)	(b)	(b)	..	12,751
Tin ..	390	11	470	..	306	1,803	19	..	2,999
Mineral sands ..	3,198	..	2,807	..	601	..	..	..	6,606
Iron ..	..	..	..	(b)	10,647	(b)	(b)	..	13,958
Other metal ..	6	..	(b)	(b)	(b)	(b)	591	..	3,941
<u>Total metal mining</u> ..	17,366	121	16,545	1,874	17,980	9,813	3,151	..	66,849
Fuel mining -									
Black coal ..	30,053	24	(c)8,450	369	(c)1,113	55	..	..	(c)40,063
Brown coal ..	..	1,217	..	..	..	..	..	..	1,217
<u>Total fuel mining</u> ..	30,053	1,241	8,450	369	1,113	55	..	..	41,281
Non-metal (excluding fuel) mining-									
Clays ..	253	120	..	125	(b)	..	..	..	489
Gypsum ..	31	6	..	..	(b)	..	..	..	151
Limestone ..	780	(b)	1,219	241	(b)	155	..	..	2,896
Salt ..	..	(b)	(b)	..	(b)	..	..	..	612
Other non-metal ..	142	..	(b)	509	(b)	..	..	..	326
<u>Total non-metal mining</u> ..	1,207	667	1,344	875	226	155	..	..	4,474
<u>Total all mining</u> ..	48,625	2,030	26,339	3,118	19,318	10,023	3,151	..	112,604
Construction material quarrying	n.a.	5,891	1,042	1,032	1,665	413	306	219	10,574
<u>TOTAL ALL MINING AND QUARRYING</u>	48,625	7,921	27,387	4,150	20,983	10,436	3,457	219	123,178

(a) Includes value of explosives sold to employees. (b) Not available for publication. (c) Includes other fuel mining.

TABLE 26. - VALUE OF MATERIALS AND STORES, ETC., USED : AUSTRALIA

(Larger mines and quarries only)

(\$'000)

Industry	1964	1965	1966	1967	1968
Metal mining -					
Gold ..	5,436	5,740	5,610	5,427	4,751
Silver-lead-zinc ..	18,154	16,820	17,460	20,504	21,843
Copper-gold ..	6,612	7,379	9,170	11,044	12,751
Tin ..	1,144	1,418	2,043	2,424	2,999
Mineral sands ..	3,762	4,101	5,238	5,262	6,606
Iron ..	2,438	3,413	3,111	10,172	13,958
Other metal ..			1,732	2,920	3,941
<u>Total metal mining</u> ..	37,548	38,873	44,363	57,755	66,849
Fuel mining -					
Black coal (a) ..	23,152	25,398	29,190	33,939	40,063
Brown coal ..	856	1,375	1,264	1,183	1,217
<u>Total fuel mining</u> ..	24,008	26,773	30,454	35,123	41,281
Non-metal (excluding fuel) mining -					
Clays ..	590	462	398	370	489
Gypsum ..	170	155	175	149	151
Limestone ..	1,990	2,334	2,440	2,532	2,896
Salt ..	192	227	313	381	612
Other non-metal ..	804	1,018	781	234	326
<u>Total non-metal mining</u> ..	3,746	4,196	4,108	3,665	4,474
<u>Total all mining</u> ..	65,304	69,842	78,925	96,542	112,604
Construction material quarrying ..	6,774	8,067	8,905	9,462	10,574
<u>TOTAL ALL MINING AND QUARRYING</u> ..	72,076	77,909	87,830	106,005	123,178

(a) Includes other fuel mining.

TABLE 27. - VALUE OF POWER, FUEL AND LIGHT USED, BY TYPE : AUSTRALIA, 1968

(Larger mines and quarries only)

(\$'000)

Industry	Coal	Coke	Wood	Fuel oil, petrol, etc.	Electricity purchased	Other (a)	Total
Metal mining -							
Gold ..	1	6	13	180	2,316	3	2,520
Silver-lead-zinc ..	..	2	..	178	4,005	447	4,633
Copper-gold ..	4	..	..	435	1,190	..	1,637
Tin ..	..	..	6	273	948	1	1,229
Mineral sands ..	5	..	17	634	2,498	1	3,155
Iron ..	..	..	..	755	1,333	..	2,088
Other metal ..	..	..	2	563	390	..	955
<u>Total metal mining</u> ..	10	9	37	3,019	12,690	452	16,217
Fuel mining -							
Black coal (b) ..	47	..	..	715	8,265	32	9,059
Brown coal ..	..	..	..	28	742	..	770
<u>Total fuel mining</u> ..	47	..	..	743	9,007	32	9,829
Non-metal (excluding fuel) mining -							
Clays ..	..	..	..	126	32	66	224
Gypsum ..	..	..	..	66	13	..	79
Limestone ..	2	..	..	300	227	..	528
Salt ..	..	..	..	56	162	..	218
Other non-metal ..	..	..	1	88	23	..	112
<u>Total non-metal mining</u> ..	2	..	1	636	456	67	1,162
<u>Total all mining</u> ..	59	9	39	4,398	22,152	550	27,208
Construction material quarrying	..	..	..	1,425	1,386	2	2,814
<u>TOTAL ALL MINING AND QUARRYING</u> ..	59	9	39	5,824	23,539	552	30,022

(a) Compressed air purchased, etc. (b) Includes other fuel mining.

TABLE 28. - VALUE OF MATERIALS AND STORES ETC., USED, BY TYPE : AUSTRALIA, 1968

(Larger mines and quarries only)

(\$'000)

Industry	Timber	Explosives		Other materials and stores (a)	Total
		Sold to employees	Other		
Metal mining -					
Gold ..	204	39	472	4,036	4,751
Silver-lead-zinc ..	2,162	487	1,134	18,062	21,843
Copper-gold ..	62	165	858	11,667	12,751
Tin ..	25	9	133	2,832	2,999
Mineral sands ..	..	..	..	6,605	6,606
Iron ..	..	..	3,045	10,913	13,958
Other metal ..	21	60	231	3,629	3,941
<u>Total metal mining</u> ..	2,473	759	5,873	57,743	66,849
Fuel mining -					
Black coal (b) ..	4,370	22	2,941	32,730	40,063
Brown coal ..	..	..	..	1,217	1,217
<u>Total fuel mining</u> ..	4,370	22	2,941	33,947	41,281
Non-metal (excluding fuel) mining -					
Clays ..	4	..	6	479	489
Gypsum ..	..	..	21	130	151
Limestone ..	1	..	338	2,557	2,896
Salt ..	..	..	..	612	612
Other non-metal ..	1	..	41	284	326
<u>Total non-metal mining</u> ..	6	..	407	4,062	4,474
<u>Total all mining</u> ..	6,849	781	9,221	95,752	112,604
Construction material quarrying ..	3	..	1,580	8,991	10,574
<u>TOTAL ALL MINING AND QUARRYING</u>	6,852	781	10,802	104,743	123,178

(a) Includes mining and ore dressing materials and stores, repairs, water, lubricating oil, etc. (b) Includes other fuel mining.

TABLE 29. - VALUE OF POWER, FUEL, LIGHT, MATERIALS AND STORES, ETC. USED, 1968

(Larger mines and quarries only)
(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold	..	157	(a)	..	6,624	..	(a)	..	7,271
Silver-lead-zinc	14,039	..	14,814	(a)	(a)	(a)	117	..	26,476
Copper-gold	2,850	13	..	..	(a)	(a)	(a)	..	14,389
Tin	706	22	704	..	479	2,291	26	..	4,227
Mineral sands	4,959	..	3,730	..	1,072	..	..	..	9,761
Iron	..	..	..	(a)	11,790	(a)	745	..	16,047
Other metal	13	..	(a)	(a)	(a)	(a)	660	..	4,895
<u>Total metal mining</u>	22,568	192	20,172	2,200	22,689	11,467	3,778	..	83,066
Fuel mining -									
Black coal	36,403	62	10,643	586	1,351	78	..	..	49,123
Brown coal	..	1,987	..	..	..	..	..	..	1,987
<u>Total fuel mining</u>	36,403	2,050	10,643	586	1,351	78	..	..	51,110
Non-metal (excluding fuel) mining -									
Clays	316	234	..	182	(a)	..	..	..	713
Gypsum	43	9	..	..	..	..	..	..	230
Limestone	908	(a)	1,360	304	(a)	178	..	..	3,425
Salt	..	(a)	(a)	616	(a)	..	..	..	830
Other non-metal	198	..	..	..	..	..	..	..	438
<u>Total non-metal mining</u>	1,466	953	1,518	1,102	418	178	..	..	5,636
<u>Total all mining</u>	60,437	3,195	32,332	3,888	24,458	11,723	3,778	..	139,812
Construction material quarrying	n.a.	7,539	1,286	1,407	1,951	527	405	272	13,387
<u>TOTAL ALL MINING AND QUARRYING</u>	60,437	10,735	33,618	5,295	26,410	12,251	4,183	272	153,199

(a) Not available for publication. (b) Includes other fuel mining.

TABLE 30. - VALUE OF POWER, FUEL, LIGHT, MATERIALS AND STORES ETC. USED : AUSTRALIA

(Larger mines and quarries only)

(\$'000)

Industry		1964	1965	1966	1967	1968
Metal mining -						
Gold	..	8,124	8,275	8,135	7,996	7,271
Silver-lead-zinc	..	22,688	21,005	22,252	24,897	26,476
Copper-gold	..	7,668	8,328	10,452	12,463	14,389
Tin	..	1,746	1,989	2,973	3,543	4,227
Mineral sands	..	5,496	6,138	7,569	7,820	9,761
Iron	..	3,150	4,348	3,923	11,564	16,047
Other metal	..			2,261	3,631	4,895
<u>Total metal mining</u>	..	48,870	50,082	57,566	71,914	83,066
Fuel mining -						
Black coal (a)	..	29,110	31,666	35,743	41,064	49,123
Brown coal	..	1,532	2,108	2,082	1,968	1,987
<u>Total fuel mining</u>	..	30,642	33,775	37,825	43,032	51,110
Non-metal (excluding fuel) mining -						
Clays	..	758	585	512	560	713
Gypsum	..	238	218	255	219	230
Limestone	..	2,400	2,742	2,883	3,095	3,425
Salt	..	240	284	385	506	830
Other non-metal	..	1,270	1,500	1,194	306	438
<u>Total non-metal mining</u>	..	4,908	5,329	5,229	4,685	5,636
<u>Total all mining</u>	..	84,420	89,186	100,620	119,631	139,812
Construction material quarrying	..	8,952	10,582	11,528	12,357	13,387
<u>TOTAL ALL MINING AND QUARRYING</u>	..	93,372	99,768	112,148	131,988	153,199

(a) Includes other fuel mining.

TABLE 31. - VALUE OF POWER, FUEL, LIGHT, MATERIALS AND STORES, ETC. USED, 1968

(All mines and quarries)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
Metal mining -									
Gold	4	160	(a)	..	6,740	..	(a)	..	7,397
Silver-lead-zinc	14,041	..	..	(a)	(a)	(a)	117	..	26,479
Copper-gold	2,868	13	14,892	1	(a)	(a)	(a)	..	14,501
Tin	713	23	751	..	509	2,312	27	..	4,336
Mineral sands	4,959	..	3,730	..	1,072	..	..	..	9,761
Iron	..	..	..	(a)	11,790	(a)	(a)	..	16,047
Other metal	24	1	(a)	(a)	(a)	(a)	662	..	4,914
Total metal mining	22,609	198	20,302	2,202	22,841	11,488	3,795	..	83,434
Fuel mining -									
Black coal	36,403	62	10,644	586	1,351	78	..	..	49,125
Brown coal	..	1,987	..	..	..	..	..	..	1,987
Total fuel mining	36,403	2,050	10,644	586	1,351	78	..	..	51,112
Non-metal (excluding fuel) mining -									
Clays	316	305	41	238	(a)	8	..	..	928
Gypsum	43	30	..	..	(a)	..	..	..	276
Limestone	916	(a)	1,388	306	(a)	183	..	..	3,519
Salt	..	(a)	(a)	781	(a)	..	..	..	883
Other non-metal	221	(a)	(a)	..	(a)	3	..	..	588
Total non-metal mining	1,498	1,079	1,594	1,326	503	194	..	..	6,193
Total all mining	60,509	3,326	32,541	4,114	24,695	11,761	3,795	..	140,739
Construction material quarrying	n.a.	7,826	1,310	1,666	2,028	579	416	281	14,106
TOTAL ALL MINING AND QUARRYING	60,509	11,152	33,851	5,779	26,723	12,340	4,210	281	154,846

(a) Not available for publication. (b) Includes other fuel mining.

TABLE 32. - VALUE OF POWER, FUEL, LIGHT, MATERIALS AND STORES, ETC. USED : AUSTRALIA

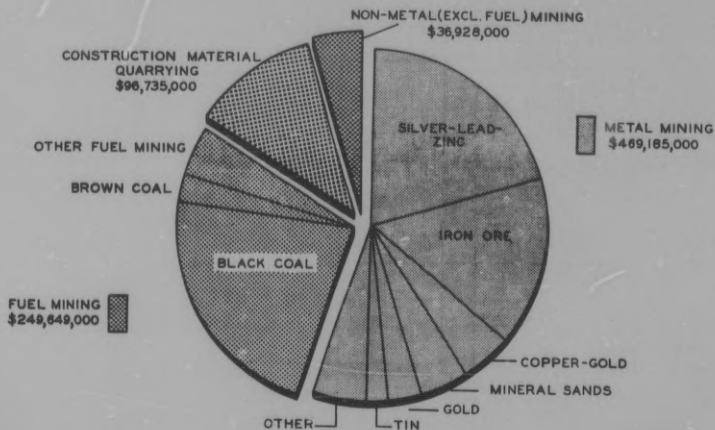
(All mines and quarries)

(\$'000)

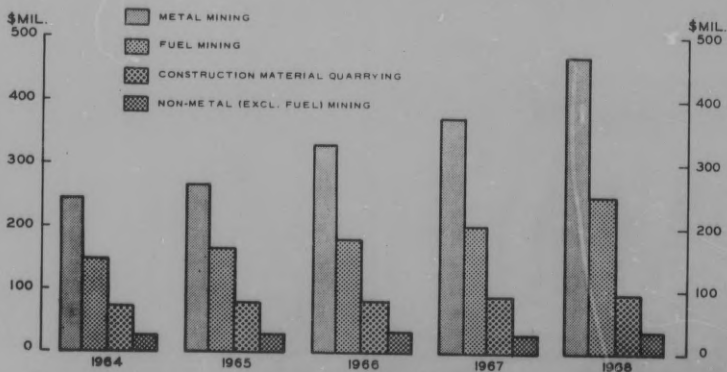
Industry			1964	1965	1966	1967	1968
Metal mining -							
Gold	..	..	8,334	8,433	8,207	8,147	7,397
Silver-lead-zinc	..	..	22,688	21,009	22,265	24,923	26,479
Copper-gold	..	..	7,698	8,365	10,537	12,544	12,501
Tin	..	..	1,854	2,115	3,095	3,676	4,336
Mineral sands	..	..	5,496	6,138	7,569	7,820	9,761
Iron	..	..	3,162	4,366	3,923	11,564	16,047
Other metal	..	..			2,285	3,656	4,914
<u>Total metal mining</u>	..	..	49,234	50,427	57,883	72,329	83,434
Fuel mining -							
Black coal (a)	..	..	29,114	31,718	35,746	41,069	49,125
Brown coal	..	..	1,532	2,108	2,082	1,968	1,987
<u>Total fuel mining</u>	..	..	30,648	33,827	37,828	43,036	51,112
Non-metal (excluding fuel) mining -							
Clays	..	..	906	732	683	823	928
Gypsum	..	..	288	271	301	248	276
Limestone	..	..	2,444	2,792	2,935	3,168	3,519
Salt	..	..	276	311	400	534	883
Other non-metal	..	..	1,426	1,614	1,322	436	588
<u>Total non-metal mining</u>	..	..	5,342	5,720	5,641	5,209	6,193
<u>Total all mining</u>	..	..	85,226	89,974	101,351	120,574	140,739
Construction material quarrying	..	..	9,728	11,067	12,072	13,115	14,106
<u>TOTAL ALL MINING AND QUARRYING</u>	..	..	94,952	101,041	113,423	133,689	154,846

(a) Includes other fuel mining.

MINING AND QUARRYING
VALUE OF OUTPUT, BY INDUSTRY-AUSTRALIA, 1968
TOTAL VALUE OF OUTPUT-\$852,497,000



VALUE OF OUTPUT BY INDUSTRY GROUP-AUSTRALIA
1964 TO 1968



15. Value of output and value of production, by industry

Definitions of terms used.

Value of output. The amounts shown under this heading represent selling value at the mine or quarry or associated ore crushing or dressing plant, (i.e. selling value at point of sale less transport costs from the mine or quarry to the point of sale) of ores, concentrates or other minerals produced during the year. Operators are instructed to value output on the basis of the minerals produced during the year (i.e. on the basis of production as distinct from sales or despatches), including the estimated value in respect of any portion of the year's production for which final realisations had not been made at the time of completing the return. Subsidy and bounty payments received have been included. The amounts represent the "selling value" of the minerals won after treatment such as crushing and ore-dressing done at or near the mine. Value added by the processes of reduction of ores, concentrates, etc. to a metal are excluded. "Producer-consumers" (e.g. of limestone in the case of a cement manufacturer) are asked to value output on the basis of production costs of mining and treatment done at the mine (e.g. crushing, but, in the case of a cement manufacturer as cited above, not cement manufacture), plus an allowance for business overhead and profit.

Value of production. The value of production of any industry has been defined by Australian Statisticians as "the value of consumable commodities produced during the year, deducting, as far as possible, the value of goods consumed in the process of production". The value of production for mining and quarrying shown in this bulletin has been calculated by deducting from value of output, the value (at the mine or quarry) of power, fuel, light, materials and stores, etc., used (including costs of repairs). Certain information on depreciation of plant, land and buildings and mine development was collected, but, because of its generally unsatisfactory nature, depreciation has not been deducted in arriving at value of production.

Many other costs and expenses, such as royalties, maintenance (other than repairs) of buildings and plant, workers' compensation and other insurance, taxation, etc. have also not been deducted in arriving at value of production. Consequently, when salaries and wages are deducted from value of production, only portion of the balance is available as interest and profits.

It should be noted that the value of production as here defined is an approximate measure only of the value added by an industry in that no deduction is made for the services provided by other industries (e.g. commercial and industrial services of all kinds not provided by the mining and quarrying establishment) or for certain indirect taxes (e.g. rates, pay-roll tax) included in the value of output. A dissection of the gross national product at factor cost by broad industry groups (the mining and quarrying industry is one group) is available in "Australian National Accounts, National Income and Expenditure". This gives a measure of the total of value added by activity in each industry and is comprehensive in its coverage of the economy. However (for elements other than wages) it is a summation of the value added by enterprises, rather than establishments, classified to industry according to the major activity of the enterprise as a whole. This means that if a firm has, for example, manufacturing establishments as well as mining establishments, the value added by its activity will be shown entirely as due to "manufacturing" if the firm is predominantly a manufacturer. On balance, if interest is focused on the activity of mining and quarrying establishments, the value of production figures in the present bulletin are the more appropriate indicator of value added.

Note on value of output and value of production

Value of output involves some duplication as it includes the value of the products of certain mining and quarrying industries which are consumed as raw materials in other sectors of these industries (e.g., coal consumed as a fuel in metal mining). Furthermore, many of the materials consumed by mining and quarrying industries are the products of secondary industry.

Duplication has been eliminated, however, in calculating value of production by deducting the value of both mining and quarrying and secondary products consumed by mining and quarrying industries. Therefore, value of production should be used when comparing or combining values of sectors of mining and quarrying industries with each other or with those for other industry groups.

Larger mines and quarries. Those employing four or more persons.

TABLE 33. - VALUE OF OUTPUT, 1968

(All mines and quarries)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	4	451	(a)	..	19,852	..	(a)	..	25,831
Silver-lead-zinc ..	72,083	..	99,876	41	(a)	(a)	601	..	173,337
Copper-gold ..	8,352	10		15	(a)	(a)	6,127	..	39,232
Tin ..	3,683	162	3,093	..	1,967	8,356	56	..	17,317
Mineral sands ..	23,127	..	10,398	..	4,854	..	..	..	38,379
Iron ..	..	..	..	13,048	110,942	(a)	(a)	..	131,518
Other metal ..	179	1	(a)	1,230	(a)	(a)	7,668	..	43,571
<u>Total metal mining</u> ..	107,428	624	133,011	14,334	148,845	41,114	23,828	..	469,185
Fuel mining -									
Black coal ..	144,899	209	35,436	3,053	4,817	371	..	..	188,786
Brown coal ..	..	21,555	..	..	..	..	..	..	21,555
Other fuel ..	..	..	8,225	..	31,083	..	..	..	39,308
<u>Total fuel mining</u> ..	144,899	21,765	43,661	3,053	35,900	371	..	..	249,649
Non-metal (excluding fuel) mining -									
Clays ..	3,761	3,373	317	721	557	106	..	..	8,835
Gypsum ..	151	161	..	(a)	(a)	..	..	..	2,165
Limestone ..	3,305	(a)	2,946	2,487	(a)	556	..	..	12,382
Salt ..	..	(a)	(a)	2,443	(a)	..	..	..	3,600
Other non-metal ..	3,421	(a)	(a)	(a)	(a)	27	..	..	9,946
<u>Total non-metal mining</u> ..	10,637	6,833	4,149	12,465	2,155	690	..	..	36,928
<u>Total all mining</u> ..	262,964	29,221	180,822	29,853	186,900	42,175	23,828	..	755,762
Construction material quarrying ..	37,041	29,805	5,080	12,211	7,591	2,793	1,018	1,195	96,735
<u>TOTAL ALL MINING AND QUARRYING</u>	300,005	59,026	185,902	42,064	194,491	44,968	24,846	1,195	852,497

(a) Not available for publication.

TABLE 34. - VALUE OF OUTPUT, AUSTRALIA

(All mines and quarries)

(\$'000)

Industry			1964	1965	1966	1967	1968
Metal mining -							
Gold	..	..	27,406	26,010	26,551	24,688	25,831
Silver-lead-zinc	..	..	149,328	156,425	160,079	138,951	173,337
Copper-gold	..	..	18,290	19,310	37,320	36,883	39,232
Tin	..	..	10,078	12,340	14,566	15,388	17,317
Mineral sands	..	..	18,538	25,983	31,216	37,251	38,379
Iron	..	..	20,614	25,401	41,755	83,018	131,518
Other metal	..	..			17,531	36,625	43,571
<u>Total metal mining</u>	..	..	244,254	265,470	329,018	372,803	469,185
Fuel mining -							
Black coal	..	..	128,040	143,704	151,383	160,099	188,786
Brown coal	..	..	17,304	18,435	20,064	20,686	21,555
Other fuel	..	..	2,164	5,345	9,230	21,286	39,308
<u>Total fuel mining</u>	..	..	147,508	167,484	180,676	202,071	249,649
Non-metal (excluding fuel) mining -							
Clays	..	..	7,196	7,222	7,603	7,869	8,835
Gypsum	..	..	2,014	2,014	2,005	2,126	2,165
Limestone	..	..	9,236	9,711	10,601	12,047	12,382
Salt	..	..	2,124	2,556	2,627	2,769	3,600
Other non-metal	..	..	7,234	7,808	9,276	7,129	9,946
<u>Total non-metal mining</u>	..	..	27,802	29,311	32,113	31,940	36,928
<u>Total all mining</u>	..	..	419,562	462,266	541,807	606,814	755,762
Construction material quarrying	..	..	73,236	80,104	83,344	91,822	96,735
<u>TOTAL ALL MINING AND QUARRYING</u>	..	..	492,800	542,370	625,152	698,636	852,497

TABLE 35. - VALUE OF PRODUCTION, 1968

(All mines and quarries)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold	..	290	(a)	..	13,112	..	(a)	..	18,434
Silver-lead-zinc ..	58,042	..	(a)	(a)	(a)	(a)	484	..	146,858
Copper-gold ..	5,484	(b)-2	84,984	14	(a)	(a)	(a)	..	24,731
Tin	2,970	139	2,342	..	1,458	6,044	29	..	12,982
Mineral sands ..	18,168	..	6,668	..	3,782	..	..	..	28,618
Iron	..	..	..	(a)	99,151	(a)	3,657	..	115,471
Other metal ..	155	..	(a)	(a)	(a)	(a)	7,005	..	38,658
Total metal mining ..	84,819	426	112,709	12,132	126,004	29,626	20,034	..	385,751
Fuel mining -									
Black coal	108,496	147	(a)33,017	2,467	(a)34,548	293	..	..	(c)78,969
Brown coal	..	19,568	..	..	..	..	..	..	19,568
Total fuel mining ..	108,496	19,715	33,017	2,467	34,548	293	..	..	198,537
Non-metal (excluding fuel) mining -									
Clays	3,444	3,069	276	2,042	(a)	98	..	..	7,907
Gypsum	107	131	..	..	(a)	..	..	..	1,889
Limestone	2,388	(a)	1,557	2,181	(a)	373	..	..	8,863
Salt	..	(a)	(a)	6,916	(a)	..	..	..	2,117
Other non-metal ..	3,200	(a)	(a)	..	(a)	25	..	..	9,358
Total non-metal mining ..	9,139	5,754	2,555	11,139	1,652	495	..	..	30,735
Total all mining ..	202,455	25,895	148,281	25,739	162,205	30,414	20,034	..	615,023
Construction material quarrying ..	37,041	21,979	3,769	10,546	5,563	2,214	602	914	82,629
TOTAL ALL MINING AND QUARRYING	239,496	47,875	152,050	36,285	167,768	32,628	20,635	914	697,652

(a) Not available for publication. (b) Cost of materials used, etc., exceeds value of output. (c) Includes other fuel mining.

TABLE 36. - VALUE OF PRODUCTION : AUSTRALIA

(All mines and quarries)

(\$'000)

Industry	1964	1965	1966	1967	1968
Metal mining -					
Gold ..	19,074	17,577	18,344	16,541	18,434
Silver-lead-zinc ..	126,640	135,416	137,814	114,028	146,858
Copper-gold ..	10,592	10,946	26,783	24,340	24,731
Tin ..	8,632	10,225	11,471	11,711	12,982
Mineral sands ..	13,042	19,845	23,647	29,431	28,618
Iron ..	17,040	21,036	37,832	71,454	115,471
Other metal ..			15,245	32,969	38,658
<u>Total metal mining</u> ..	195,018	215,043	271,136	300,474	385,751
Fuel mining -					
Black coal (a) ..	101,088	117,331	124,866	140,317	178,969
Brown coal ..	15,772	16,327	17,983	18,718	19,568
<u>Total fuel mining</u> ..	116,860	133,658	142,849	159,035	198,537
Non-metal (excluding fuel) mining -					
Clays ..	6,288	6,490	6,920	7,046	7,907
Gypsum ..	1,725	1,743	1,704	1,878	1,889
Limestone ..	6,792	6,919	7,666	8,279	8,863
Salt ..	1,847	2,245	2,227	2,235	2,717
Other non-metal ..	5,806	6,194	7,954	6,693	9,358
<u>Total non-metal mining</u> ..	22,460	23,591	26,472	26,730	30,735
<u>Total all mining</u> ..	334,338	372,292	440,456	486,240	615,023
Construction material quarrying ..	63,508	69,037	71,272	78,708	82,629
<u>TOTAL ALL MINING AND QUARRYING</u> ..	397,846	441,330	511,728	564,947	697,652

(a) Includes other fuel mining.

TABLE 37. - VALUE OF OUTPUT IN SMALL AND LARGER MINES AND QUARRIES : AUSTRALIA

(\$'000)

Industry		1964	1965	1966	1967	1968
Larger mines and quarries -						
Metal mining ..	..	241,966	263,138	326,776	370,022	466,913
Fuel mining ..	..	147,414	167,376	180,587	201,878	249,232
Non-metal (excluding fuel) mining ..	..	19,208	19,393	20,404	20,080	24,020
<u>Total mining</u> ..	..	408,588	449,907	527,767	591,980	740,165
Construction material quarrying ..	..	67,430	72,985	73,856	79,787	84,117
<u>Total mining and quarrying</u> ..	..	476,018	522,892	601,624	671,767	824,282
Small mines and quarries -						
Metal mining ..	..	2,288	2,332	2,242	2,781	2,272
Fuel mining ..	..	92	108	90	193	417
Non-metal (excluding fuel) mining ..	..	8,594	9,918	11,708	11,859	12,908
<u>Total mining</u> ..	..	10,974	12,359	14,040	14,834	15,598
Construction material quarrying ..	..	5,806	7,119	9,488	12,036	12,617
<u>Total mining and quarrying</u> ..	..	16,780	19,478	23,528	26,870	28,215
<u>Total all mining</u> ..	..	419,562	462,266	541,807	606,814	755,762
<u>Total construction material quarrying</u> ..	..	73,236	80,104	83,344	91,822	96,735
<u>TOTAL ALL MINING AND QUARRYING</u> ..	..	492,800	542,370	625,152	698,636	852,497

TABLE 38. - VALUE OF PRODUCTION IN SMALL AND LARGER MINES AND QUARRIES : AUSTRALIA

(\$'000)

Industry		1964	1965	1966	1967	1968
Larger mines and quarries -						
Metal mining ..	..	193,096	213,056	269,210	298,108	383,847
Fuel mining ..	..	116,772	133,601	142,762	158,847	198,122
Non-metal (excluding fuel) mining ..	..	14,300	14,064	15,175	15,395	18,385
<u>Total mining</u> ..	..	324,168	360,721	427,147	472,350	600,353
Construction material quarrying ..	..	58,480	62,404	62,329	67,429	70,730
<u>Total mining and quarrying</u> ..	..	382,648	423,124	489,476	539,779	671,083
Small mines and quarries -						
Metal mining ..	..	1,922	1,988	1,925	2,366	1,905
Fuel mining ..	..	88	56	87	189	415
Non-metal (excluding fuel) mining ..	..	8,158	9,527	11,297	11,335	12,350
<u>Total mining</u> ..	..	10,168	11,572	13,309	13,890	14,670
Construction material quarrying ..	..	5,030	6,634	8,943	11,279	11,899
<u>Total mining and quarrying</u> ..	..	15,198	18,206	22,252	25,169	26,569
<u>Total all mining</u> ..	..	334,338	372,292	440,456	486,240	615,023
<u>Total construction material quarrying</u> ..	..	63,508	69,037	71,272	78,708	82,629
<u>TOTAL ALL MINING AND QUARRYING</u> ..	..	397,846	441,330	511,728	564,947	697,652

16. Additions and replacements to fixed assets, by industry

Value of additions and replacements to fixed assets. This includes all expenditure on new structures and additions (including major alterations, capitalised repairs and improvements) whether done by contractors or by the company's own workmen, and all plant, machinery and vehicles acquired for use in connection with actual mineral production. Vehicles acquired for purposes other than actual mineral production, such as the external delivery of products, are excluded. Expenditure on mine development is included.

Larger mines and quarries. Those employing four or more persons.

TABLE 39. - VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS, 1968

(Larger mines and quarries only)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining -									
Gold ..	..	28	(a)	..	756	..	(a)	..	2,516
Silver-lead-zinc ..	..	2,723	..	(a)	(a)	(a)	..	..	8,350
Copper-gold ..	..	1,487	13	4,799	(a)	(a)	(a)	..	7,234
Tin ..	..	878	259	744	(a)	(a)	33	..	3,651
Mineral sands ..	..	5,044	..	(a)	1,244	(a)	..	..	11,470
Iron ..	..	..	..	(a)	14,889	(a)	2,305	..	18,829
Other metal ..	..	20	(a)	(a)	(a)	(a)	1,412	..	14,373
<u>Total metal mining</u> ..	10,151	300	14,038	1,109	25,679	7,826	7,320	..	66,423
Fuel mining -									
Black coal ..	..	26,906	(a)(b)	(b)6,358	248	(a)(b)	(a)	..	(b)109,281
Brown coal ..	..	..	7,668	..	..	..	..	..	7,668
<u>Total fuel mining</u> ..	26,906	(a)	6,358	248	(a)	(a)	..	..	116,949
Non-metal (excluding fuel) mining -									
Clays ..	..	9	..	188	(a)	..	..	..	84
Gypsum ..	..	3	(a)	..	(a)	(a)	..	..	185
Limestone ..	..	153	218	1,765	(a)	(a)	..	..	1,013
Salt ..	..	..	(a)	..	(a)	..	..	..	7,596
Other non-metal ..	..	184	(a)	76	(a)	..	..	..	1,049
<u>Total non-metal mining</u> ..	340	(a)	841	2,029	(a)	(a)	..	..	9,927
<u>Total all mining</u> ..	37,397	78,511	21,237	3,386	37,414	8,034	7,320	..	193,299
Construction material quarrying ..	n.a.	2,423	1,068	744	1,705	260	436	107	6,744
<u>TOTAL ALL MINING AND QUARRYING</u> ..	37,397	80,935	22,305	4,130	39,119	8,294	7,756	107	200,043

(a) Not available for publication. (b) Includes other fuel mining.

TABLE 40. - VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS : AUSTRALIA

(Larger mines and quarries only)

(\$'000)

Industry	1964	1965	1966	1967	1968
Metal mining -					
Gold ..	1,365	1,094	1,195	1,558	2,516
Silver-lead-zinc ..	20,071	10,939	12,535	14,595	8,350
Copper-gold ..	7,419	5,333	6,085	5,813	7,234
Tin ..	4,459	6,583	9,798	10,361	3,651
Mineral sands ..	3,592	6,729	11,103	9,674	11,470
Iron ..	5,556	32,228	36,436	20,112	18,829
Other metal ..			13,051	12,827	14,373
<u>Total metal mining</u> ..	42,462	62,906	90,203	74,939	66,423
Fuel mining -					
Black coal (a) ..	19,952	28,695	45,442	71,506	109,281
Brown coal ..	5,416	6,115	5,107	5,277	7,668
<u>Total fuel mining</u> ..	25,368	34,810	50,548	76,783	116,949
Non-metal (excluding fuel) mining -					
Clays ..	168	217	36	66	84
Gypsum ..	190	42	48	85	185
Limestone ..	708	611	1,180	2,395	1,013
Salt ..	1,868	688	1,625	5,441	7,596
Other non-metal ..	562	551	748	314	1,049
<u>Total non-metal mining</u> ..	3,497	2,109	3,638	8,302	9,927
<u>Total all mining</u> ..	71,327	99,825	144,387	160,024	193,299
Construction material quarrying ..	5,867	7,303	5,273	7,640	6,744
<u>TOTAL ALL MINING AND QUARRYING</u>	77,194	107,128	149,661	167,664	200,043

(a) Includes other fuel mining.

TABLE 41. - VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS, BY TYPE OF ASSET, 1968

(Larger mines and quarries only)

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
ADDITIONS AND REPLACEMENTS TO LAND AND BUILDINGS									
Metal mining	796	17	1,203	151	6,426	829	2,276	..	11,697
Fuel mining	2,056	(a)	780	..	(a)	(a)	..	..	63,637
Non-metal (excluding fuel) mining	4	(a)	143	1,201	(a)	(a)	..	..	1,982
Construction material quarrying ..	n.a.	450	123	207	1	2	..	..	784
<u>TOTAL ALL MINING AND QUARRYING</u>	2,857	61,271	2,249	1,559	7,055	834	2,276	..	78,099
ADDITIONS AND REPLACEMENTS TO PLANT AND MACHINERY									
Metal mining	7,586	279	11,592	789	16,675	4,390	4,574	..	45,885
Fuel mining	22,427	(a)	4,349	248	(a)	(a)	..	..	39,944
Non-metal (excluding fuel) mining	332	(a)	661	771	(a)	(a)	..	..	5,450
Construction material quarrying ..	n.a.	1,837	945	535	1,683	251	436	107	5,794
<u>TOTAL ALL MINING AND QUARRYING</u> ..	30,345	13,589	17,546	2,342	23,289	4,843	5,010	107	97,072
ADDITIONS AND REPLACEMENTS TO MINE DEVELOPMENT									
Metal mining	1,769	4	1,244	169	2,578	2,607	470	..	8,842
Fuel mining	2,422	(a)	1,230	..	(a)	(a)	..	..	13,368
Non-metal (excluding fuel) mining	4	(a)	36	57	(a)	(a)	..	..	2,496
Construction material quarrying ..	n.a.	136	..	2	21	7	..	..	166
<u>TOTAL ALL MINING AND QUARRYING</u> ..	4,195	6,075	2,510	228	8,776	2,617	470	..	24,871
TOTAL ADDITIONS AND REPLACEMENTS TO FIXED ASSETS									
Metal mining	10,151	300	14,038	1,109	25,679	7,826	7,320	..	66,423
Fuel mining	26,906	(a)	6,358	248	(a)	(a)	..	..	116,949
Non-metal (excluding fuel) mining	340	(a)	841	2,029	(a)	(a)	..	..	9,927
Construction material quarrying ..	n.a.	2,423	1,068	744	1,705	260	436	107	6,744
<u>TOTAL ALL MINING AND QUARRYING</u> ..	37,397	80,935	22,305	4,130	39,119	8,294	7,756	107	200,043

(a) Not available for publication.

TABLE 42. - VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS : AUSTRALIA

(larger mines and quarries only)

(\$'000)

Industry		1964	1965	1966	1967	1968
ADDITIONS AND REPLACEMENTS TO LAND AND BUILDINGS						
Metal mining	..	5,374	5,691	8,315	12,496	11,697
Fuel mining	..	2,070	1,940	8,330	19,921	63,637
Non-metal (excluding fuel) mining	..	246	113	100	2,061	1,982
Construction material quarrying	..	426	783	213	679	784
<u>TOTAL ALL MINING AND QUARRYING</u>	..	8,116	8,526	16,958	35,157	78,099
ADDITIONS AND REPLACEMENTS TO PLANT AND MACHINERY						
Metal mining	..	31,968	50,111	58,648	50,390	45,885
Fuel mining	..	19,518	29,321	33,854	43,965	39,944
Non-metal (excluding fuel) mining	..	1,786	1,355	1,874	3,188	5,450
Construction material quarrying	..	5,318	6,469	5,031	6,956	5,794
<u>TOTAL ALL MINING AND QUARRYING</u>	..	58,590	87,256	99,408	104,499	97,072
ADDITIONS AND REPLACEMENTS TO MINE DEVELOPMENT						
Metal mining	..	5,120	7,105	23,239	12,052	8,842
Fuel mining	..	3,780	3,549	8,364	12,897	13,368
Non-metal (excluding fuel) mining	..	1,464	641	1,663	3,053	2,496
Construction material quarrying	..	124	51	29	5	166
<u>TOTAL ALL MINING AND QUARRYING</u>	..	10,488	11,346	33,294	28,008	24,871
TOTAL ADDITIONS AND REPLACEMENTS TO FIXED ASSETS						
Metal mining	..	42,462	62,906	90,203	74,939	66,423
Fuel mining	..	25,368	34,810	50,548	76,783	116,949
Non-metal (excluding fuel) mining	..	3,497	2,109	3,638	8,302	9,927
Construction material quarrying	..	5,867	7,303	5,273	7,640	6,744
<u>TOTAL ALL MINING AND QUARRYING</u>	..	77,194	107,128	149,661	167,664	200,043

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, A.C.T. 2600

28 SEPTEMBER 1970

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NOTE. Inquiries concerning these statistics may be made in Canberra by telephoning 490211 Extension 391 or, in each State capital, by telephoning the office of the Bureau of Census and Statistics.