

OVERSEAS GEOLOGICAL SURVEYS  
MINERAL RESOURCES DIVISION

STATISTICAL  
SUMMARY OF THE  
MINERAL INDUSTRY

WORLD PRODUCTION,  
EXPORTS AND IMPORTS

1959-1964



LONDON  
HER MAJESTY'S STATIONERY OFFICE

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This publication is prepared by the Statistical Section of the Mineral Resources Division of Overseas Geological Surveys. The statistical tables have been compiled from a large number of official and commercial sources. The information obtained from Mines Reports, Trade Returns and other published works, and the assistance given by government and private correspondents throughout the world, are gratefully acknowledged.

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## EXPLANATORY NOTES

**Coverage.** Although this Summary attempts to provide a comprehensive world coverage of mineral production and trade, it has not been possible to obtain complete information for every country. In the production tables, estimates for certain countries have been included where necessary in order to arrive at world totals. In the trade tables, however, such estimates have generally not been attempted and the coverage is limited to that available from the official trade returns. The absence of import or export figures for a particular country from a table does not necessarily signify no trade in the commodity concerned, but may mean only that the item has not been separately specified in that country's trade returns.

**Arrangement of Countries.** In each table, Commonwealth countries are grouped separately from other countries. Within their respective groups the countries are then listed alphabetically by continents in the following order: Europe, Africa, North and Central America, South America, Asia and Australasia.

For Swaziland and Bechuanaland, production statistics are recorded separately but the foreign trade is dealt with for Customs purposes as part of that of South Africa. The trade figures for South-West Africa are also generally included with those for South Africa.

From 1963 the trade statistics for Aden may include those of other states in the Federation of South Arabia.

For 1959 the trade statistics for Spain and Spanish Dependencies exclude the trade between these territories except in the cases of coal, coke, iron ore, manganese ore, petroleum and allied products, pyrites and salt. As from 1960 the statistics exclude all trade between these territories.

From 1959 to 1961 the trade statistics for Egypt and Syria exclude trade between these countries.

**Production of Ores and Metals.** In the sections on cobalt, copper, lead, tin and zinc tables are given showing both the production of ore, in terms of its metal content, and the actual production of metal. The metal content of the ore produced is either as calculated from average assay values or is the amount of metal estimated to be recoverable. The ore is, of course, not necessarily smelted in the country of origin and the metal production in a particular country may be derived from both domestic and imported ores. Secondary metal is excluded, as far as possible, from the metal production tables but where important is given in footnotes to the producing countries.

**Imports and Exports.** Except in the cases of gold and silver, the figures shown in the tables are intended to represent exports of domestic produce and imports retained, i.e. total imports less re-exports. In certain cases, notably Aden, Hong Kong and Malaya, it has not been possible to allow for re-exports and figures relate to total exports and total imports. Shipments of coal and oil as bunker fuel, which constitute an important part of the trade of some countries, are shown separately in the export tables; where these shipments consist of, or include, foreign produce a footnote is given to that effect. The imports of Pakistan for the years 1961 onwards shown in the tables are not strictly comparable with those for preceding years since they include for the first time estimated quantities of imports entered in the official trade returns by value only.

**Units.** The units of weight employed in the tables are: the metric carat, the troy ounce, the lb. (avdp.) and the long ton. Their equivalents in certain other units are as follows:

1 metric carat	= 0.2 gramme	1 lb. (avdp.)	= 7,000 grains
	= 3.08648 grains		= 14.5833 troy ounces
			= 0.453592 kilogrammes
1 troy ounce	= 480 grains	1 long ton	= 2,240 lb. (avdp.)
	= 31.1035 grammes		= 1.12 short tons
	= 155.5175 metric carats		= 1.016047 metric tons

The factors used for converting volumes of liquids into long tons are given in footnotes to the tables relating to Coal By-Products (p.88) and Petroleum and Allied Products (pp. 246, 260).

**Symbols.** The following symbols are used in this Summary:

— = Nil, or negligible. *r* = Revised figure. *n.a.* = Information not available.

# ABRASIVES\*

## PRODUCTION OF NATURAL ABRASIVES

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Pumice (b) .. ..	2,246	2,420	696	1,110	280	1,415
Rhodesia—						
Corundum .. ..	2,499	3,432	2,493	2,989	5,304	2,563
Tripoli .. ..	—	147	365	378	269	310
Tanzania—						
Corundum .. .. (a)	9	—	(a) 4	—	—	—
Garnet .. ..	181	133	—	—	—	<i>n.a.</i>
Canada—						
Garnet .. ..	—	29	71	45	<i>n.a.</i>	<i>n.a.</i>
Grindstones .. ..	54	9	9	9	9	9
India—						
Corundum .. ..	211	246	324	296	648	531
Garnet .. .. (e)	361	(e) 462	(e) 237	(e) 408	395	279
Australia—						
Garnet .. ..	65	97	63	53	91	565
New Zealand—						
Pumice (b) .. ..	28,395	43,932	32,712	32,522	16,606	20,518
<b>OTHER COUNTRIES</b>						
Belgium—						
Grindstones .. ..	47	49	57	56	59	48
France—						
Pumice (b) .. ..	1,842	889	1,299	1,675	758	902
Millstones .. ..	797	1,230	1,300	1,210	1,208	1,100
Sharpening stones .. ..	467	523	139	126	39	11
Germany (Federal)—						
Pumice (d) .. ..	3,607,000	4,234,000	5,266,000	5,617,000	6,289,000	5,729,000
Tripoli .. ..	30	25	6	25	25	25
Greece—						
Emery .. ..	7,000	7,000	7,100	7,500	<i>n.a.</i>	<i>n.a.</i>
Pumice .. ..	64,000	80,000	70,000	78,516	(c) 79,000	(c) 79,000
Pumicite .. ..	84,000	180,000	190,000	185,065	(c) 200,000	(c) 200,000
Iceland—						
Pumice (b) .. .. (c)	9,000	(c) 8,000	(c) 8,000	(c) 6,500	12,303	9,842
Italy—						
Pumice .. ..	361,600	419,700	r 421,800	455,800	921,000	<i>n.a.</i>
Sharpening stones .. ..	1,760	320	213	157	157	<i>n.a.</i>
Whetstones .. ..	630	472	399	455	102	<i>n.a.</i>
Spain—						
Tripoli .. ..	10,322	12,357	17,273	11,922	10,026	<i>n.a.</i>
Garnet .. ..	216	180	185	164	70	<i>n.a.</i>
Sweden—						
Grindstones and whetstones .. ..	794	672	615	623	737	<i>n.a.</i>
Canary Islands—						
Pumice (b) .. ..	1,640	1,441	1,415	1,713	1,505	<i>n.a.</i>
Egypt—						
Pumice .. ..	2,461	2,953	3,871	2,032	8,584	21,231
Malagasy Republic—						
Garnet .. ..	—	—	49	98	2	(a) 52

\*See also Aluminium, Diamonds and Diatomaceous earth.

(a) Exports.

(b) May include pumice for use other than as an abrasive.

(c) United States Bureau of Mines' estimate.

(d) Marketable. Including pumice and pumicite for constructional purposes.

(e) Including small quantities of gem variety.

PRODUCTION OF NATURAL ABRASIVES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
South Africa—						
Corundum .. .. .	555	110	142	312	71	53
United States (c)—						
Emery .. .. .	7,638	7,294	5,518	3,854	6,011	<i>n.a.</i>
Garnet .. .. .	13,007	9,395	10,765	12,648	13,059	14,400
Pumice and pumicite						
(a) (b) .. .. .	2,032,250	1,973,540	2,198,737	2,028,000	2,337,503	2,478,993
Tripoli .. .. .	47,293	51,529	48,787	55,118	59,496	<i>n.a.</i>
Grindstones .. .. .	965	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Grinding pebbles .. .. .	1,513	1,011	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Emery .. .. .	4,753	6,706	8,195	3,354	7,372	12,201

Abrasives are also produced in other countries, statistics for which are not available.

The following crude artificial abrasives were produced in Canada (long tons):

	1959	1960	1961	1962	1963	1964
Silicon carbide .. .. .	77,007	75,546	70,704	58,798	69,974	76,279
Fused alumina .. .. .	135,999	167,058	r 111,876	144,508	132,247	132,446

The United States Bureau of Mines reports the following artificial abrasives sold, shipped or used from plants in the United States and Canada (long tons):

	1959	1960	1961	1962	1963	1964
Silicon carbide .. .. .	118,266	118,946	112,255	103,318	97,635	<i>n.a.</i>
Aluminium oxide .. .. .	141,421	174,916	122,278	162,432	142,914	<i>n.a.</i>
Metallic abrasives .. .. .	113,142	100,342	97,781	112,296	119,114	<i>n.a.</i>

(United States plants only)

The figures given above include material used for refractories and other non-abrasive purposes.

(a) Including pumice for use other than as an abrasive.

(b) Including volcanic cinders used principally for ballast which amounted to 1,332,363 tons in 1959, 1,436,652 tons in 1960, 1,363,000 tons in 1961, 1,552,000 tons in 1962, 1,399,844 tons in 1963 and 1,438,476 tons in 1964.

(c) Sold or used by producers.



EXPORTS OF ABRASIVES\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Abrasives, natural ..	2,339	2,829	2,195	2,045	3,975	3,814
do. artificial ..	3,744	4,435	3,991	5,320	2,687	4,260
Grinding wheels, etc. ..	4,968	5,752	6,777	5,835	} 6,902	} 7,233
Other manufactured abrasives ..	357	342	301	559		
Rhodesia (d)—						
Corundum ..	2,940	3,342	2,620	2,926	4,660	2,972
Tanzania—						
Corundum ..	9	—	4	—	—	—
Canada—						
Natural abrasives, including diatomaceous earth ..	59	15	5	—	110	172
Artificial abrasives, crude ..	216,869	244,946	194,328	203,246	201,219	211,379
Artificial abrasive wheels, etc. ..	(£78,204)	(£26,121)	} (£46,821)	} (£93,721)	} (£48,105)	} (£104,770)
Grindstones ..	(£24,117)	(£17,028)				
Hong Kong—						
Natural abrasives ..	590	489	7	3	10	2
Grinding and polishing wheels, etc. ..	170	175	86	98	65	203
India—						
Grindstones, etc. ..	1,198	(c) 2,550	(c) 6,022	(c) 1,792	(c) 2,089	(c) 3,205
Malaya—						
Grinding and polishing wheels, etc. ..	87	101	59	59	18	17
New Zealand—						
Pumice (a) ..	1,128	995	1,155	456	667	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Natural abrasives ..	41	15	1	3	47	8
Millstones and grindstones ..	6	5	9	13	5	9
Corundum, artificial ..	2,235	4,382	5,706	9,380	12,693	10,772
Belgium-Luxemburg E.U.—						
Natural abrasives ..	101	120	112	165	272	8
Corundum, artificial ..	53	80	187	28	82	27
Millstones, grindstones, etc. ..	64	(b) 517	(b) 779	(b) 983	(b) 1,044	(b) 1,150
Denmark—						
Emery ..	2	—	—	2	—	2
Millstones and grindstones ..	37	2	6	7	9	54
Finland—						
Grindstones, etc. (b) ..	261	n.a.	n.a.	n.a.	105	99
France—						
Corundum and emery ..	724	260	100	84	58	103
Pumice ..	56	30	37	33	31	52
Other natural abrasives ..	257	107	314	541	459	630
Millstones and grindstones ..	804	701	817	617	} 1,622	} 1,977
Whetstones ..	41	46	76	15		
Carborundum ..	2,720	2,660	2,059	2,066		
Corundum, artificial ..	6,775	9,978	14,487	12,204	12,172	9,784

\*See also Aluminium, Diamonds and Diatomaceous earth. (c) Years ended March 31 following that stated.

(a) May include pumice for use other than as an abrasive. (d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

(b) Including artificial.

## EXPORTS OF ABRASIVES (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Emery and corundum	321	394	533	453	189	161
Pumice (a) .. .. .	495,421	649,977	680,570	622,932	694,496	628,613
Other natural abrasives	40	9	4	9	3	2
Millstones, grindstones, etc. (b) .. .. .	2,447	1,898	1,871	1,910	1,751	2,113
Carborundum .. .. .	3,358	5,384	6,160	7,712	6,614	6,083
Corundum, artificial ..	16,287	20,907	17,235	18,207	17,030	19,021
Greece—						
Emery .. .. .	3,316	6,090	5,218	6,772	5,423	4,649
Pumice .. .. .	20,799	31,525	11,951	68,067	43,142	121,092
Italy—						
Pumice .. .. .	90,948	104,209	98,860	133,306	338,395	316,656
Emery and corundum	46	319	571	24	66	20
Other natural abrasives	38	48	88	139	487	120
Millstones .. .. .	386	431	353	9	1,237	1,589
Grindstones .. .. .						
Whetstones .. .. .	85	73	78	71		
Carborundum .. .. .	882	3,928	5,929	6,985	7,656	8,220
Corundum, artificial ..	316	1,480	1,544	743	441	629
Netherlands—						
Natural abrasives ..	3,007	3,876	4,088	4,205	4,248	9,394
Millstones, grindstones, etc. .. .. .	178	274	258	338	363	381
Corundum, artificial ..	99	64	36	35	36	13
Norway—						
Natural abrasives ..	—	—	2	15	—	76
Carborundum .. .. .	13,463	16,720	16,503	18,114	15,411	22,453
Sweden—						
Emery .. .. .	1	2	—	5	1	11
Other natural abrasives	15	11	43	36	42	41
Carborundum .. .. .	765	710	555	732	446	216
Corundum, artificial ..	852	1,227	1,360	829	677	704
Millstones, grindstones, etc. .. .. .	132	126	158	79	486	1,448
Switzerland—						
Carborundum, emery, etc., crude .. .. .	22	2,169	1,958	1,924	2,842	3,168
do. do. ground .. .. .	2,017					
Yugoslavia—						
Natural abrasives ..	—	723	1,838	2,949	2,009	2,534
Millstones, grindstones, etc. .. .. .	3	22	—	73	116	190
Carborundum .. .. .	n.a.	n.a.	n.a.	8	101	49
Malagasy Republic—						
Garnet .. .. .	1	49	99	76	1	52
South Africa—						
Corundum .. .. .	1,048	108	143	517	71	53
Mexico—						
Pumice, etc. .. .. .	232	735	231	1,581	6,378	7,051
United States—						
Corundum .. .. .	81	49	86	98	67	138
Emery powder .. .. .	1,216	1,002	1,035	731	559	607
Grindstones .. .. .	358	285	110	114	37	160
Whetstones, etc. ..	152	166	89	77	62	332
Other natural abrasives	9,398	9,245	10,140	9,563	11,362	12,492
Aluminium oxide, fused	8,155	9,792	10,525	12,078	11,729	16,706
Carborundum .. .. .	7,347	7,316	10,921	9,130	8,762	10,013
Unfused alumina .. ..	59	97	77	133	168	403
Other crude artificial abrasives .. .. .	93	99	130	160	93	155

(a) Including pumice and pumicite for construction purposes.

(b) Including artificial.

EXPORTS OF ABRASIVES (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Emery .. .. .	172	126	155	237	284	361
Other natural abrasives	61	118	127	231	58	96
Grindstones, etc. ..	173	215	159	189	363	788
Artificial abrasives ..	359	345	445	1,214	1,063	817
Turkey—						
Emery .. .. .	7,096	6,975	9,649	8,570	8,220	9,071

## IMPORTS OF ABRASIVES\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Emery .. .. .						
Garnet concentrates—						
Unground .. .. .	3,024	2,850	4,416	2,650	11,998	14,153
Ground .. .. .						
Other natural abrasives	8,019	10,224	9,322	8,308		
Corundum, artificial ..	14,226	24,570	14,238	12,428	14,031	15,151
Carborundum .. .. .	9,161	14,030	12,510	13,744	11,508	13,763
Grinding wheels of hard abrasives .. .. .						
Grindstones and whetstones etc. .. .. .	319	370	540	691	531	917
Malta—						
Pumice .. .. .	139	72	100	—	431	7
Grinding and polishing wheels .. .. .	(£909)	(£4,647)	n.a.	(£2,662)	(£3,442)	(£5,924)
Ghana—						
Grinding and polishing wheels .. .. .	(£28,504)	(£31,365)	68	132	60	57
Kenya and Uganda—						
Grindstones, etc. .. ..	62	59	60	45	50	69
Mauritius—						
Grindstones, etc. .. ..	60	58	54	42	43	30
Rhodesia (b)—						
Grinding and polishing wheels and stones .. .. .	135	166	229	184	201	187
Tanzania—						
Grindstones, etc. .. ..	21	8	12	12	13	12
Zambia—						
Grinding and polishing wheels and stones .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	63
Canada—						
Pumice, etc. .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	9,711
	(£74,625)	(£71,816)	(£59,073)	(£79,545)	(£64,685)	(£53,010)
Emery, etc. .. .. .	(£89,533)	(£74,322)	(£66,716)	(£68,553)	(£89,933)	n.a.
Artificial abrasives, ground .. .. .	(£877,375)	(£752,561)	(£833,720)	(£963,746)	(£982,982)	
Artificial abrasive manufactures .. .. .	(£234,754)	(£208,550)	(£194,207)	(£190,086)	(£198,462)	(£1,373,256)
Grindstones and wheels	(£940,982)	(£860,635)	(£831,574)	(£903,191)	(£896,632)	(£996,534)
Jamaica—						
Natural abrasives .. ..	5	2	6	9	5	12
Grindstones .. .. .	12	12	11	10	8	11
Trinidad and Tobago—						
Grindstones and wheels	25	22	19	15	19	n.a.
Ceylon—						
Natural abrasives .. ..	29	4	112	27	308	21
Grinding and polishing wheels, etc. .. .. .	(£11,848)	(£13,909)	(£12,581)	(£12,016)	(£8,369)	(£9,435)
Cyprus—						
Grindstones and millstones .. .. .	(£6,751)	(£8,417)	(£7,757)	(£8,964)	(£11,170)	(£6,538)
Hong Kong—						
Natural abrasives .. ..	629	568	74	168	261	203
Grinding and polishing wheels, etc. .. .. .	257	324	218	330	858	1,867
India—						
Natural abrasives .. ..	1,973	(a) 3,679	(a) 3,673	(a) 2,590	(a) 3,196	(a) 3,455
Carborundum .. .. .	116	(a) 223	(a) 202	(a) 169	(a) 390	(a) 107
Grinding stones, etc. ..	261	(a) 153	(a) 219	(a) 201	(a) 187	(a) 262
Malaya—						
Grinding and polishing wheels, etc. .. .. .	462	476	407	462	313	434

\*See also Aluminium, Diamonds and Diatomaceous earth. (b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.



NZ 196x Groundstones  
amend to "r.a."

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Sarawak—						
Grinding and polishing wheels, etc. . . . .	41	38	38	44	32	n.a.
Australia (b)—						
Emery . . . . .	93	108	—	—	—	—
Corundum . . . . .	13	35	—	—	—	—
Pumice . . . . .	1,174	1,215	1,046	1,134	1,128	920
Grindstones, etc. . . . .	99	183	228	150	254	293
Garnet grains . . . . .	53	41	50	43	44	105
Tripoli . . . . .	454	303	465	338	453	729
Other natural abrasives	81	472	457	523	590	1,129
Artificial abrasives . . . . .	3,132	2,813	4,202	2,648	4,586	4,547
New Zealand—						
Pumice . . . . .	1	—	—	—	(b) 47	n.a.
Corundum, emery, etc.	12	19	20	8	(b) 3	n.a.
Other natural abrasives (£N.Z.)	(£1,968)	(£3,808)	(£4,169)	(£2,587)	(b) £11,644	n.a.
Carborundum, etc. . . . .	69	44	74	74	(b) —	n.a.
Grindstones, etc. (£N.Z.)	(£12,896)	(£15,856)	(£16,481)	n.a.	n.a.	n.a.
Irish Republic—						
Grindstones, oilstones, etc. . . . .	111	136	171	178	178	219
<b>OTHER COUNTRIES</b>						
Austria—						
Pumice . . . . .	410	659	835	400	350	698
Other natural abrasives	173	160	107	135	114	136
Carborundum . . . . .	765	1,039	1,191	1,096	1,466	1,589
Corundum, artificial . . . . .	1,504	2,298	2,400	2,392	2,565	3,390
Grindstones . . . . .	147	221	146	141	93	95
Millstones . . . . .						
Belgium-Luxemburg						
E.U.—						
Pumice . . . . .	n.a.	n.a.	205,028	173,635	206,435	187,555
Other natural abrasives	1,117	1,063	1,491	825	855	889
Corundum, artificial . . . . .	1,130	1,524	1,604	1,824	2,050	2,632
Millstones, grindstones, etc. . . . .	166	(a) 1,014	(a) 1,170	(a) 1,186	(a) 1,191	(a) 1,447
Carborundum . . . . .	1,204	1,463	1,918	1,943	1,729	2,929
Denmark—						
Emery, etc. . . . .	1,641	616	416	505	520	673
Pumice . . . . .	2,008	1,986	2,655	2,927	2,177	3,459
Carborundum . . . . .	317	429	286	293	289	391
Corundum, artificial . . . . .	257	444	431	383	407	439
Millstones and grindstones . . . . .	134	134	83	127	45	73
Finland—						
Emery, pumice, etc. . . . .	591	531	434	381	342	377
Carborundum . . . . .	351	290	493	729	599	207
Millstones, grindstones, etc. (a) . . . . .	984	1,289	1,463	1,416	1,146	1,397
France—						
Emery and corundum	399	1,811	1,854	1,581	2,522	1,372
Pumice . . . . .	42,734	37,979	23,726	30,387	28,384	36,897
Other natural abrasives	164	151	303	256	3,534	3,646
Millstones and grindstones . . . . .	271	178	233	386	2,569	2,998
Whetstones . . . . .	193	142	60	44		
Carborundum . . . . .	1,124	2,012	4,065	4,292	3,046	3,876
Corundum, artificial . . . . .	494	899	1,110	1,664	2,170	1,391
Germany (Federal)—						
Emery and corundum . . . . .	537	1,457	866	1,099	762	1,182

(a) Including artificial.

(b) Years ended June 30 of that stated.

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Fed.) (cont.)—						
Pumice, etc. . . . .	6,182	9,576	8,310	6,582	186,688	203,795
Other natural abrasives	436	1,211	1,415	1,771	1,475	1,737
Millstones, grindstones, etc. (a) . . . . .	300	281	582	341	300	391
Carborundum . . . . .	2,375	3,450	4,868	4,033	4,424	5,144
Corundum, artificial . . . . .	530	2,539	2,117	2,587	3,290	3,707
Greece—						
Millstones, grindstones, etc. . . . .	102	90	138	142	194	129
Other abrasives . . . . .	n.a.	134	155	135	180	170
Iceland—						
Millstones, etc. . . . .	24	12	14	16	10	11
Italy—						
Emery and corundum . . . . .	1,376	2,277	2,651	2,003	1,898	1,556
Other natural abrasives	536	938	1,244	1,143	1,358	1,397
Millstones . . . . .	326	340	455	34	2,996	2,518
Grindstones . . . . .						
Whetstones . . . . .	20	28	51	31		
Corundum, artificial . . . . .	2,822	4,996	4,811	5,120	5,806	5,577
Carborundum . . . . .	1,304	2,028	2,667	4,144	3,081	1,872
Netherlands—						
Emery . . . . .	3,362	4,616	4,193	5,593	4,993	4,803
Pumice and tripoli . . . . .	298,144	64,996	468,332	433,504	465,654	435,652
Other natural abrasives	2,117	1,670	614	463	482	404
Millstones and grindstones . . . . .	170	(a) 1,247	(a) 1,311	(a) 1,318	(a) 1,216	(a) 1,417
Corundum, artificial . . . . .	1,820	2,236	2,246	2,025	2,057	2,714
Carborundum . . . . .	739	861	523	610	544	695
Norway—						
Natural abrasives . . . . .	362	429	436	388	381	344
Whetstones . . . . .	2	3	2	8	8	4
Carborundum . . . . .	22	45	31	14	966	16
Corundum, artificial . . . . .	378	557	626	525	513	698
Portugal—						
Emery, etc. . . . .	579	191	351	186	331	280
Pumice . . . . .	219	115	176	255	211	360
Millstones etc. . . . .	75	20	64	44	170	192
Spain—						
Emery powder . . . . .	112	n.a.	n.a.	n.a.	n.a.	138
Carborundum . . . . .	553	381	572	788	904	871
Sweden—						
Emery . . . . .	487	728	635	405	589	546
Pumice . . . . .	584	416	361	700	716	643
Other natural abrasives						
Carborundum, etc. . . . .	2,582	3,819	2,947	3,891	3,492	3,868
Corundum, artificial . . . . .	3,281	7,585	5,390	4,329	3,623	4,453
Grindstones, etc. . . . .	176	94	121	99	73	63
Millstones . . . . .						
Switzerland—						
Emery, crude . . . . .	304	625	1,353	1,503	737	677
Carborundum, emery, etc., ground . . . . .						
Pumice (b) . . . . .	n.a.	23,596	20,467	18,194	14,794	7,544
Millstones . . . . .	57	148	107	82	72	98
Grindstones . . . . .						
Whetstones . . . . .	16	26	19	21	22	11
Corundum, artificial . . . . .	n.a.	3,532	3,751	4,250	3,413	4,004
Yugoslavia—						
Natural abrasives . . . . .	1,179	570	1,091	884	766	422
Millstones, grindstones, etc. . . . .	539	834	348	245	328	350
Carborundum . . . . .	323	289	670	613	596	1,024

(a) Including artificial.

(b) May include pumice for use other than as an abrasive.



## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Emery, corundum, etc.	241	102	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Pumice (b) .. .. .	43,671	45,947	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Millstones and grindstones .. .. .	136	113	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic—						
Natural abrasives .. .. .	12	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Corundum, artificial .. .. .	129	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Natural abrasives .. .. .	2,555	2,034	1,726	1,647	<i>n.a.</i>	<i>n.a.</i>
Millstones .. .. .	16	1	2	} 66	<i>n.a.</i>	<i>n.a.</i>
Grindstones .. .. .	6	16	2		<i>n.a.</i>	<i>n.a.</i>
Whetstones .. .. .	3	1	4		93	<i>n.a.</i>
Malagasy Republic—						
Natural abrasives .. .. .	22	15	15	17	18	14
Morocco—						
Millstones and grindstones .. .. .	46	56	50	65	144	148
Natural abrasives .. .. .	35	30	96	8	27	23
South Africa—						
Emery .. .. .	123	105	37	87	164	<i>n.a.</i>
Pumice .. .. .	60	63	71	105	126	<i>n.a.</i>
Other abrasives .. .. .	(£171,616)	(£186,319)	(£192,400)	(£270,138)	(£271,772)	<i>n.a.</i>
Abrasive wheels and discs .. .. .	(£70,455)	(£124,859)	(£130,512)	(£154,988)	(£102,890)	<i>n.a.</i>
Grindstones, millstones, etc. .. .. .	(£5,349)	(£3,084)	(£4,708)	(£4,400)	(£7,760)	<i>n.a.</i>
Sudan—						
Natural abrasives .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	167	152
Grindstones .. .. .	104	108	64	72	221	172
Tunisia—						
Pumice .. .. .	25	11	252	42	11	46
Millstones and grindstones (a) .. .. .	77	440	79	33	31	71
Costa Rica—						
Pumice, emery and corundum .. .. .	6	15	3	9	45	6
Cuba—						
Grindstones .. .. .	246	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Guatemala—						
Natural abrasives .. .. .	9	5	3	3	11	6
Mexico—						
Emery and carborundum	741	746	1,125	1,018	990	1,626
Pumice .. .. .	15	27	9	67	9	156
Millstones and grindstones .. .. .	680	828	887	428	121	306
United States—						
Corundum, crude .. .. .	2,978	2,370	2,139	2,170	1,817	1,758
Emery, crude .. .. .	1,000	—	1,000	2,000	500	<i>n.a.</i>
Corundum and emery, ground .. .. .	8	3	15	780	<i>n.a.</i>	<i>n.a.</i>
Pumice, crude .. .. .	19,393	5,853	6,168	6,371	2,171	4,910
do. manufactured .. .. .	3,561	3,496	3,628	2,843	2,019	2,761
Tripoli, etc. .. .. .	15	34	—	<i>n.a.</i>	20	<i>n.a.</i>
Crude artificial abrasives	201,357	223,352	176,784	185,657	182,353	198,260
Argentina—						
Emery .. .. .	1,919	1,540	2,359	1,447	1,098	2,389
Grindstones .. .. .	—	5	18	15	14	45

(a) Including artificial.

(b) May include pumice for use other than as an abrasive.

## IMPORTS OF ABRASIVES (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Brazil—						
Emery, pumice, etc. . .	51	99	101	71	31	52
Carborundum . . . . .	452	462	470	176	155	149
Millstones, grindstones, etc. . . . .	144	166	158	98	77	85
Chile—						
Emery . . . . .	51	62	121	17	<i>n.a.</i>	<i>n.a.</i>
Carborundum . . . . .	2	5	—	—	<i>n.a.</i>	<i>n.a.</i>
Millstones, grindstones, etc. . . . .	228	397	318	220	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Emery and pumice . . .	52	65	35	69	102	75
Tripoli and other natural abrasives . . .	32	39	49	30	46	31
Millstones and grind- stones (a) . . . . .	136	176	196	224	239	253
Corundum, artificial . .	7	18	31	68	99	255
Peru—						
Emery and pumice . . .	55	34	38	47	53	53
Millstones, grindstones, etc. (a) . . . . .	86	99	109	160	112	125
Venezuela—						
Natural abrasives . . .	88	102	99	77	35	138
Carborundum . . . . .	77	38	41	22	16	9
Burma—						
Natural abrasives . . .	471	453	55	194	<i>n.a.</i>	—
Indonesia—						
Emery . . . . .	47	106	66	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other natural abrasives	37	39	186	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (b)—						
Emery, etc. . . . .	21	29	10	4	<i>n.a.</i>	16
Iraq—						
Emery, pumice, etc. . .	4	28	164	5	1	<i>n.a.</i>
Grindstones, whet- stones, etc. . . . .	149	256	178	123	209	<i>n.a.</i>
Israel—						
Natural abrasives . . .	<i>n.a.</i>	<i>n.a.</i>	54	193	105	112
Japan—						
Emery . . . . .	106	157	194	126	89	60
Other natural abrasives	472	517	594	893	1,099	1,445
Grindstones, etc. . . .	6	10	10	12	18	12
Artificial abrasives . .	479	834	1,772	1,363	743	1,283
Lebanon—						
Emery . . . . .	6	5	1	2	10	<i>n.a.</i>
Pumice, etc. . . . .	10	673	635	426	767	<i>n.a.</i>
Millstones . . . . .	35	(a) 130	106	126	155	<i>n.a.</i>
Philippine Republic—						
Emery . . . . .	122	211	313	159	178	<i>n.a.</i>
Pumice . . . . .	31	—	4	8	24	<i>n.a.</i>
Other natural abrasives	45	39	70	19	30	<i>n.a.</i>
Syria—						
Emery . . . . .	30	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Pumice, etc. . . . .	867	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Natural abrasives . . .	538	485	607	647	624	549
Turkey—						
Natural abrasives . . .	1	—	—	—	—	<i>n.a.</i>
Carborundum . . . . .	12	3	98	122	135	<i>n.a.</i>
Millstones and grind- stones (a) . . . . .	127	561	648	511	443	<i>n.a.</i>

(a) Including artificial.

(b) Years ended March 20 following that stated.

**ALUMINIUM**  
(Including Bauxite and Cryolite)  
PRODUCTION OF BAUXITE

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Ghana .. .. .	195,300	190,700	200,700	239,500	309,400	246,400
Sierra Leone .. .. .	—	4	—	—	(a) 19,635	128,418
Rhodesia .. .. .	—	—	—	500	1,812	2,438
Jamaica (b) .. .. .	5,125,603	5,744,791	6,663,120	7,495,122	6,903,115	7,811,188
British Guiana (c) .. .. .	1,674,416	2,471,190	2,373,615	2,718,997	2,129,046	2,477,628
India .. .. .	214,548	381,262	468,389	567,963	559,643	582,108
Malaya .. .. .	381,747	451,958	409,881	349,419	444,047	463,829
Pakistan (f) .. .. .	2,139	574	1,411	—	—	—
Sarawak .. .. .	206,848	284,830	253,389	225,459	155,243	158,090
Australia .. .. .	14,985	69,435	15,976	29,547	354,206	888,349
<b>TOTAL .. .. .</b>	<b>7,815,600</b>	<b>9,594,700</b>	<b>10,386,500</b>	<b>11,626,500</b>	<b>10,876,100</b>	<b>12,758,400</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	23,602	25,595	17,729	16,693	17,548	3,649
France .. .. .	1,729,283	2,034,654	2,189,765	2,159,681	1,996,873	2,395,000
Germany (Federal) .. .. .	4,400	3,752	4,165	4,583	4,263	4,090
Greece .. .. .	903,970	869,741	1,102,000	r 1,266,499	1,260,834	1,279,000
Hungary .. .. .	923,001	1,171,120	1,344,478	1,444,695	1,340,000	1,464,000
Italy .. .. .	289,596	308,088	322,012	r 304,547	265,400	232,348
Roumania .. .. .	70,000	87,000	68,000	30,000	10,000	7,000
Spain .. .. .	7,538	2,532	5,506	5,951	11,632	(d) 12,000
U.S.S.R. (e) .. .. .	3,000,000	3,500,000	4,000,000	4,200,000	4,300,000	4,300,000
Yugoslavia .. .. .	802,000	1,009,000	1,213,000	1,311,000	1,265,000	1,273,000
Guinea .. .. .	296,220	1,356,052	1,738,775	1,427,000	1,638,000	1,652,000
Mozambique .. .. .	4,216	4,764	4,597	6,118	6,493	6,179
Dominican Republic (b) .. .. .	759,000	678,000	738,661	664,778	712,050	800,662
Haiti (b) .. .. .	255,000	268,000	263,000	370,000	327,000	373,000
United States (b) .. .. .	1,700,000	1,998,000	1,228,000	1,369,000	1,525,000	1,601,000
Brazil .. .. .	95,466	118,856	109,635	187,696	166,957	129,571
Surinam .. .. .	3,376,000	3,400,000	3,351,000	3,202,000	3,453,000	3,926,000
Indonesia .. .. .	381,137	389,429	413,225	484,000	485,000	(e) 623,000
Turkey .. .. .	—	—	—	—	—	4,398
<b>TOTAL (d) .. .. .</b>	<b>14,600,000</b>	<b>17,200,000</b>	<b>18,100,000</b>	<b>18,500,000</b>	<b>18,800,000</b>	<b>20,100,000</b>
<b>WORLD'S TOTAL (d) .. .. .</b>	<b>22,400,000</b>	<b>26,800,000</b>	<b>28,500,000</b>	<b>30,100,000</b>	<b>29,700,000</b>	<b>32,800,000</b>

Bauxite is known to have been produced in China.

(a) Exports.

(b) Dried bauxite equivalent.

(c) Dried bauxite equivalent. Shipments of dried and calcined ore were as follows (long tons):

	1959	1960	1961	1962	1963	1964
Metallurgical .. .. .	1,154,713	1,645,457	1,089,071	1,341,846	897,922	740,244
Chemical .. .. .	92,916	143,926	142,387	129,256	76,248	100,321
Refractory .. .. .	146,374	160,966	203,442	219,410	236,065	326,180
Abrasive .. .. .	123,425	148,033	168,923	146,975	124,032	142,432

Exports of calcined ore are shown on page 13.

(d) Estimated.

(e) United States Bureau of Mines' estimate.

(f) West Pakistan.

**PRODUCTION (EXPORTS) OF CRYOLITE IN GREENLAND**

Year	Long tons
1959 .. .. .	41,377
1960 .. .. .	41,785
1961 .. .. .	41,115
1962 .. .. .	40,296
1963 .. .. .	66,076
1964 .. .. .	50,078

PRODUCTION OF ALUMINIUM

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	24,519	28,921	32,294	34,030	30,574	31,711
Canada .. .. .	530,027	680,368	592,119	616,337	642,312	752,680
India .. .. .	17,081	17,967	18,092	34,653	54,358	54,312
Australia .. ..	11,370	11,655	13,204	16,152	41,263	79,024
<b>TOTAL .. .. .</b>	<b>582,997</b>	<b>738,911</b>	<b>655,709</b>	<b>701,172</b>	<b>768,507</b>	<b>917,727</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	64,528	66,897	66,585	72,665	75,256	76,470
Czechoslovakia ..	25,600	39,400	49,200	(b) 60,000	(b) 60,000	(b) 60,000
France .. .. .	170,279	234,723	275,042	290,436	293,653	310,999
Germany—						
Federal .. .. .	148,778	166,269	169,833	175,016	205,485	216,445
East (a) .. .. .	35,000	40,000	40,000	37,000	40,000	40,000
Hungary .. .. .	44,947	48,752	50,256	51,899	54,621	55,976
Italy .. .. .	73,741	82,325	82,037	r 81,599	89,984	113,694
Norway .. .. .	143,644	162,198	168,847	202,626	212,687	257,323
Poland .. .. .	22,400	25,600	46,800	47,300	45,900	47,000
Spain .. .. .	22,284	23,597	37,053	41,030	44,770	60,796
Sweden .. .. .	15,277	15,732	15,592	15,696	16,800	31,400
Switzerland .. ..	33,827	39,103	41,543	48,787	59,161	63,220
U.S.S.R. (b) .. ..	620,000	r 630,000	880,000	890,000	950,000	1,000,000
Yugoslavia .. .. .	18,941	24,674	26,974	27,538	35,328	34,214
Cameroun .. .. .	41,647	43,246	43,010	51,423	52,077	50,472
Mexico .. .. .	—	—	—	—	5,400	(b) 14,500
United States .. ..	1,744,743	1,798,659	1,699,742	1,891,029	2,064,757	2,279,238
Brazil .. .. .	17,812	17,888	19,713	19,823	17,332	(b) 25,000
China (b) .. .. .	69,300	78,700	100,000	100,000	100,000	100,000
Formosa .. .. .	7,367	8,131	8,874	10,835	11,740	19,066
Japan .. .. .	98,558	131,119	151,272	168,742	220,405	261,563
<b>TOTAL .. .. .</b>	<b>3,400,000</b>	<b>3,700,000</b>	<b>4,000,000</b>	<b>4,300,000</b>	<b>4,700,000</b>	<b>5,100,000</b>
<b>WORLD'S TOTAL</b>	<b>4,000,000</b>	<b>4,500,000</b>	<b>4,600,000</b>	<b>5,000,000</b>	<b>5,400,000</b>	<b>6,000,000</b>

In addition secondary metal recovered in certain countries was as follows (long tons):

	1959	1960	1961	1962	1963	1964
United Kingdom ..	121,373	129,812	131,024	141,180	161,077	183,113
France .. .. .	44,000	43,000	43,000	46,000	49,000	50,000
Germany (Federal) ..	111,276	131,580	133,311	140,486	153,929	185,583
Italy .. .. .	23,903	r 22,325	r 14,554	r 17,653	20,511	n.a.
United States .. ..	321,363	294,152	303,791	412,282	451,421	492,581
Japan .. .. .	36,000	48,700	68,400	70,400	89,400	102,800

(a) Estimated.

(b) United States Bureau of Mines' estimate.



HK. Also 1964  
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## EXPORTS OF ALUMINIUM, ETC.\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Alumina and hydrate ..	33,424	26,349	23,829	15,825	19,458	17,138
Unwrought (a) ..	3,664	3,925	5,408	5,379	7,444	6,738
Scrap (a) ..	134	94	2,800	4,232	2,305	1,561
Semi-manufactures (a)	49,507	49,267	53,165	59,178	54,999	47,031
of which—Foil ..	7,418	7,157	6,096	6,473	6,617	7,273
Powder ..	954	983	510	466	289	427
Aluminium sulphates ..	30,263	38,457	33,486	27,807	24,352	36,651
Ghana—						
Bauxite ..	147,833	224,472	196,072	286,798	207,423	264,458
Sierra Leone—						
Bauxite ..	—	4	—	—	19,635	126,553
Canada—						
Alumina ..	<i>n.a.</i>	<i>n.a.</i>	16,853	3,458	2,361	4,501
Unwrought (a) ..	451,198	492,995	434,857	514,470	567,131	560,707
Scrap ..	14,444	24,616	26,285	27,005	38,880	29,292
Semi-manufactures (a)	22,594	27,012	20,639	20,630	24,187	16,458
of which—Foil ..	132	117	131	413	1,080	338
Jamaica—						
Bauxite (b) ..	4,196,793	4,147,555	4,974,802	5,986,678	5,161,568	5,967,210
Alumina ..	399,210	665,361	703,483	627,645	725,548	768,324
British Guiana—						
Bauxite, dried ..	1,242,381	1,787,963	1,235,556	(d)1,471,102	(d) 974,170	(d) 840,565
do. calcined ..	272,305	306,958	370,761	366,277	(d) 358,366	(d) 462,570
Alumina ..	—	—	120,161	214,639	(d) 221,993	(d) 291,575
Hong Kong—						
Unwrought (a) ..	5,054	10,380	4,722	1,571	681	1,117
Scrap ..	334	542	797	638	790	999
Semi-manufactures (a)	1,105	1,231	2,048	1,955	1,924	2,798
of which—Foil ..	184	88	62	112	101	136
Aluminium sulphate ..	3	4	—	10	18	161
India—						
Bauxite ..	23,189	74,446	97,725	245,186	133,035	92,932
Unwrought (a) ..	—	—	—	—	(c) 7,204	(c) 582
Semi-manufactures (a)	11	(c) 19	(c) 19	(c) 15	(c) 76	(c) 300
Aluminium sulphate ..	135	(c) 449	(c) 62	(c) 1,649	(c) 5,819	(c) 13,418
Malaya—						
Bauxite ..	363,809	447,996	284,357	314,858	450,463	547,945
Unwrought (a) ..	16	4	17	—	25	2
Semi-manufactures (a)	286	275	241	457	343	278
of which—Foil ..	80	34	35	276	143	44
Aluminium sulphates ..	341	347	126	129	70	56
Sarawak—						
Bauxite ..	202,925	260,120	256,442	198,698	172,181	165,231
Australia—						
Bauxite ..	—	29,778	30,489	6,470	143,339	405,825
Unwrought (a) ..	78	20	7	40	5,323	15,128
Scrap (a) ..	587	659	564	355	250	405
Semi-manufactures (a)	162	282	345	248	253	563

\*In these tables the description "unwrought" aluminium corresponds to item 684.1 of the Standard International Trade Classification (revised) and comprises ingots, blocks, unwrought bars, etc. "Semi-manufactures" corresponds to S.I.T.C. (revised) 684.2 and includes foil and powder as well as wrought bars, rods, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(c) Years ended March 31 following that stated.

(b) Estimated dry equivalent; shipments contain 8–14% free moisture.

(d) Provisional.

## EXPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Bauxite .. .. .	6,498	5,584	7,671	4,969	6,747	2,350
Unwrought (a) ..	37,642	21,399	27,858	41,144	34,829	33,327
Scrap .. .. .	4,027	4,011	3,537	4,299	4,137	4,210
Semi-manufactures (a)	11,712	9,383	14,323	15,734	19,204	21,725
of which—Foil.. ..	2,339	3,825	2,488	2,768	2,831	2,958
Powder .. .. .	573	584	828	962	868	1,126
<b>Belgium-Luxemburg—</b>						
Alumina and hydrate ..	15	109	8	2	1	3
Unwrought .. .. .	590	252	105	158	113	334
do. alloys .. .. .	325	674	496	637	700	723
Scrap .. .. .	1,489	1,788	1,998	2,700	5,040	6,501
Semi-manufactures (a)	33,740	43,081	51,317	57,674	69,050	83,025
Aluminium sulphates ..	16,583	17,504	12,329	12,509	13,962	14,511
<b>Denmark—</b>						
Refined cryolite .. ..	21,320	23,197	24,578	25,008	24,861	23,988
Unwrought .. .. .	68	30	10	5	130	1
do. alloys .. .. .	1,027	1,355	1,398	1,427	1,884	1,880
Scrap .. .. .	613	703	851	697	454	329
Semi-manufactures (a)	860	1,327	790	705	729	683
of which—Foil.. ..	280	233	193	205	178	192
<b>Finland—</b>						
Unwrought .. .. .	801	478	75	101	76	788
Semi-manufactures ..	<i>n.a.</i>	241	571	593	1,041	1,182
of which—Foil.. ..	<i>n.a.</i>	237	456	555	982	1,037
<b>France—</b>						
Bauxite .. .. .	271,288	312,097	252,264	262,418	202,649	196,481
Cryolite .. .. .	118	79	2	117	87	39
Alumina .. .. .	184,685	139,413	136,148	165,097	168,100	139,557
do. hydrate .. .. .	17,388	12,579	15,802	13,243	12,905	14,555
Unwrought .. .. .	32,758	56,428	104,775	84,254	82,513	85,409
do. alloys .. .. .	18,037	14,208	17,076	19,274	40,209	37,778
Scrap (a) .. .. .	2,328	1,513	2,262	7,202	12,174	11,246
Semi-manufactures (a)	16,911	25,858	26,296	28,715	32,713	51,624
of which—Foil.. ..	3,951	6,858	5,439	7,179	8,106	7,876
Powder .. .. .	300	495	183	90	166	256
Aluminium sulphates ..	6,905	9,436	6,828	7,824	10,992	10,956
<b>Germany (Federal)—</b>						
Bauxite and cryolite ..	668	406	458	622	732	833
Alumina .. .. .	90,357	66,398	72,706	65,059	70,378	74,200
do. hydrate .. .. .	25,109	24,776	26,897	28,146	28,834	34,869
Unwrought .. .. .	1,093	1,713	2,407	2,015	9,523	4,487
do. alloys .. .. .	659	982	1,359	3,914	4,437	5,194
Scrap (a) .. .. .	196	215	512	1,451	1,428	1,126
Semi-manufactures (a)	31,486	37,336	41,094	46,332	52,259	56,656
of which—Foil.. ..	12,959	15,946	15,857	16,773	19,853	22,503
Powder .. .. .	1,311	1,579	1,445	1,397	1,391	1,686
<b>Greece—</b>						
Bauxite .. .. .	841,198	891,359	1,033,511	886,665	1,100,000	1,046,324
<b>Hungary—</b>						
Bauxite .. .. .	458,915	490,959	689,509	707,661	656,409	749,069
Alumina .. .. .	112,201	119,241	142,666	124,401	132,300	154,149
Unwrought .. .. .	8,272	9,693	8,582	6,427	10,373	11,998
Semi-manufactures ..	4,719	4,217	5,289	5,449	5,007	4,839
<b>Italy—</b>						
Bauxite .. .. .	—	—	—	<i>n.a.</i>	915	2,151
Alumina .. .. .	41,973	42,844	29,028	27,982	20,165	5,305
do. hydrate .. .. .	89	90	46	2,715	2,647	2,975
Unwrought .. .. .	9,284	894	17	131	248	18,868
do. alloys .. .. .	379	323	70			
Semi-manufactures (a)	6,234	5,407	6,633	7,152	8,224	17,206
of which—Foil.. ..	537	979	849	739	902	1,200
Aluminium sulphates ..	2,219	8,733	10,530	10,388	8,869	126

(a) Including alloys.



## EXPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
<b>Netherlands—</b>						
Bauxite .. .. .	289	45	224	635	830	147
Unwrought (a) .. .	1,726	647	2,393	772	267	741
Scrap (a) .. .. .	1,611	1,847	2,167	4,777	7,279	8,843
Semi-manufactures (a)	7,961	9,018	10,074	10,605	11,723	13,499
of which—Foil .. .	2,462	3,186	3,232	2,992	3,430	3,695
Powder .. .	300	147	81	2	3	2
Aluminium sulphates .. .	4	16	24	9	6	10
<b>Norway—</b>						
Alumina .. .. .	1	2	2	24	—	—
Unwrought .. .. .	125,786	125,853	138,658	160,002	195,514	248,852
do. alloys .. .. .	4,234	10,105	5,327	8,976	8,722	11,768
Scrap .. .. .	158	420	291	423	636	251
Semi-manufactures (a)	4,412	5,103	4,354	4,446	4,044	4,595
of which—Foil .. .	83	95	45	151	147	189
Powder .. .	13	7	27	37	129	95
<b>Roumania—</b>						
Bauxite .. .. .	80,700	86,700	32,500	14,800	7,874	—
<b>Spain—</b>						
Unwrought .. .. .	180	10,887	3,934	10,439	10,130	8,105
Semi-manufactures (a)	327	2,229	4,202	13,943	5,308	2,603
<b>Sweden—</b>						
Unwrought (a) .. .	1,815	76	82	241	501	2,114
Scrap .. .. .	1,685	904	686	822	802	887
Semi-manufactures (a)	5,778	6,401	5,919	7,382	9,959	11,380
of which—Powder .. .	166	378	228	344	404	365
Aluminium sulphates .. .	9,794	9,617	9,181	9,499	11,463	8,374
<b>Switzerland—</b>						
Alumina and hydrate	n.a.	38	32	58	60	118
Unwrought and scrap .. .	10,924	7,342	5,983	8,428	17,891	18,864
do. alloys .. .. .	3,760					
Semi-manufactures (a)	4,812	16,840	14,872	15,040	16,842	19,909
<b>U.S.S.R.—</b>						
Cryolite .. .. .	100	3,100	3,100	2,800	3,000	3,400
Unwrought .. .. .	76,200	67,000	84,600	113,900	120,200	172,400
Semi-manufactures .. .	10,629	13,287	8,956	21,062	25,294	33,561
<b>Yugoslavia—</b>						
Bauxite .. .. .	592,019	790,398	915,107	899,523	981,512	1,062,639
Alumina and hydrate .. .	23,450	19,317	14,000	13,959	13,058	13,700
Unwrought .. .. .	—	—	—	—	930	1,141
Scrap .. .. .	1,191	59	1,176	1,887	2,209	1,637
Semi-manufactures .. .	9,862	14,229	11,745	12,456	13,966	18,201
<b>Algeria—</b>						
Scrap (a) .. .. .	867	1,053	n.a.	n.a.	n.a.	n.a.
<b>Cameroun—</b>						
Unwrought .. .. .	38,586	41,408	45,416	50,125	51,459	47,956
<b>Guinea—</b>						
Bauxite .. .. .	275,693	693,703	346,024	n.a.	n.a.	n.a.
Alumina .. .. .	—	168,669	384,663	450,425	479,000	n.a.
<b>Morocco—</b>						
Scrap (a) .. .. .	1,363	971	1,038	670	469	261
<b>Mozambique—</b>						
Bauxite .. .. .	6,138	4,389	4,082	r 5,424	5,760	7,249
<b>Tunisia—</b>						
Unwrought and scrap	n.a.	218	233	309	256	187
<b>Dominican Republic—</b>						
Bauxite .. .. .	481,266	774,716	855,561	(b) 873,600	(b) 885,800	(b) 777,235

(a) Including alloys.

(b) United States imports.

## EXPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Greenland—						
Cryolite .. ..	41,377	41,785	41,115	40,296	66,076	50,078
Haiti—						
Bauxite (c) .. ..	338,151	395,000	335,000	(d) 505,800	(d) 958,300	(d) 458,287
United States—						
Alumina, etc. .. ..	17,403	29,317	150,683	258,561	203,196	293,542
Cryolite (b) .. ..	157	202	149	990	3,320	3,022
Unwrought (a) .. ..	108,308	254,446	115,054	134,997	147,625	186,702
Scrap (a) .. ..	28,718	70,994	73,219	58,513	63,429	61,263
Semi-manufactures ..	14,858	21,192	31,126	49,993	62,354	66,415
of which—Foil ..	506	1,177	1,515	2,220	1,636	1,487
Powder (Al content)	371	302	266	427	438	495
Aluminium sulphates ..	12,935	10,970	12,691	15,871	15,693	14,742
Argentina—						
Unwrought .. ..	n.a.	n.a.	n.a.	n.a.	1,729	1,295
Aluminium sulphates ..	n.a.	n.a.	n.a.	n.a.	13	50
Brazil—						
Bauxite .. ..	2,803	2,018	1,673	1,968	2,264	3,494
Surinam—						
Bauxite .. ..	3,338,000	3,577,000	3,350,000	3,202,900	3,427,146	3,921,312
Formosa—						
Unwrought (a) .. ..	2,045	60	2,403	2,585	3,377	7,093
Semi-manufactures (a)	608	921	1,251	1,483	2,326	3,225
Indonesia—						
Bauxite .. ..	243,087	342,454	414,083	389,111	n.a.	n.a.
Israel—						
Scrap .. ..	n.a.	—	35	258	699	855
Japan—						
Cryolite .. ..	22	—	—	2	—	—
Alumina .. ..	94,529	77,854	102,222	94,900	99,856	102,100
do. hydrate .. ..	281	1,443	2,318	5,998	4,209	6,155
Unwrought .. ..	169	6	14	5,406	13,889	18,870
Semi-manufactures (a)	7,801	9,000	10,457	12,419	17,929	16,916
of which—Foil ..	1,077	1,663	2,265	3,365	2,495	2,809
Aluminium sulphates ..	14,117	9,567	12,640	12,340	17,749	14,582

(a) Including alloys.

(b) Including artificial.

(c) Including shipments from stockpile built up during development period.

(d) United States imports.

## IMPORTS OF ALUMINIUM, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bauxite .. ..	327,188	375,316	395,014	425,667	331,195	373,550
Cryolite .. ..	3,458	3,578	3,855	1,930	3,110	3,398
Alumina .. ..	6,080	7,048	4,672	5,001	4,884	8,603
Unwrought .. ..	227,864	257,801	195,549	197,670	203,978	255,164
do. alloys .. ..	22,282	52,733	40,336	52,885	62,814	70,203
Scrap (a) .. ..	6,698	15,695	5,712	8,437	8,992	12,010
Semi-manufactures (a) .. ..	6,451	13,504	21,084	21,744	26,142	26,166
of which—Foil .. ..	1,578	1,848	1,777	2,263	2,341	3,177
Malta—						
Semi-manufactures .. ..	(£12,469)	(£21,140)	n.a.	(£23,325)	(£49,060)	(£114,924)
Ghana—						
Unwrought (a) .. ..	2,510	1,849	2,604	924	191	78
Semi-manufactures (a) .. ..			2,081	3,303	7,207	1,122
Kenya—						
Unwrought (a) .. ..	832	1,634	1,209	1,235	1,743	761
Semi-manufactures (a) .. ..	1,009	1,267	773	621	864	630
of which—Foil .. ..	174	211	183	194	174	176
Mauritius—						
Semi-manufactures (a) .. ..	196	201	136	227	285	345
Nigeria—						
Unwrought and semi-manufactures (a) .. ..	2,681	3,877	4,779	5,242	5,896	6,325
Rhodesia (b)—						
Semi-manufactures (a) .. ..	695	1,198	1,113	1,241	1,127	806
of which—Foil .. ..	90	137	213	296	216	115
Sierra Leone—						
Semi-manufactures (a) .. ..	42	56	316	89	123	29
Tanzania—						
Semi-manufactures (a) .. ..	388	290	170	163	190	932
Uganda—						
Semi-manufactures (a) .. ..	473	686	299	192	88	162
of which—Foil .. ..	44	77	87	94	55	113
Zambia—						
Semi-manufactures (a) .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	184
Barbados—						
Semi-manufactures (a) .. ..	61	12	33	74	48	63
Jamaica—						
Semi-manufactures (a) .. ..	983	1,145	1,384	1,111	1,212	70
Canada—						
Bauxite .. ..	2,015,623	2,663,274	2,135,100	1,994,356	1,967,842	1,563,668
Alumina .. ..						
Cryolite .. ..	5,369	7,446	3,601	4,562	4,336	(d) 2,163
Unwrought .. ..	761	447	567	3,441	1,731	3,568
Scrap .. ..	552	895	1,384	1,131	1,331	(a) 17,957
Semi-manufactures (a) .. ..						
(excluding Foil) .. ..	7,449	6,579	8,543	16,743	28,258	34,410
of which—Powder .. ..	146	134	60	109	147	250
Foil .. ..	(£335,584)	(£448,458)	(£441,451)	(£438,712)	(£474,136)	(£292,993)
Aluminium sulphates .. ..	7,484	8,877	4,318	2,934	3,072	2,484
Trinidad and Tobago—						
Semi-manufactures (a) .. ..	761	944	1,163	936	(c) 5,807	n.a.
Aluminium sulphates .. ..	336	298	487	997	672	n.a.
British Guiana—						
Semi-manufactures (a) .. ..	222	342	264	253	n.a.	405
Aluminium sulphates .. ..	480	510	337	380	n.a.	—
Aden—						
Semi-manufactures (a) .. ..	149	290	245	233	n.a.	n.a.

\* See footnote on p.13 concerning the descriptions "unwrought" aluminium and "semi-manufactures" used in these tables.

(a) Including alloys.

(c) Excess of re-exports.

(b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland. (d) Natural cryolite only.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES—(cont.)						
Ceylon—						
Semi-manufactures (a)	1,667	2,317	2,515	2,882	2,984	3,801
of which—Foil..	411	354	220	170	125	114
Cyprus—						
Semi-manufactures (a)	115	130	247	180	268	248
Hong Kong—						
Bauxite .. .. .	412	623	745	315	300	633
Unwrought (a)	10,081	16,420	9,941	6,175	6,325	11,454
Scrap .. .. .	70	39	14	11	42	28
Semi-manufactures (a)	1,393	2,529	2,020	2,406	3,314	4,205
of which—Foil..	406	643	478	836	824	872
Aluminium sulphate	675	270	603	762	1,094	1,641
India—						
Cryolite .. .. .	917	(b) 1,454	(b) 3,918	(b) 2,636	(b) 2,390	(b) 2,414
Alumina .. .. .	9,945	(b) 12,188	(b) 9,264	(b) 19,672	(b) 3,487	(b) 2,062
Unwrought .. .. .	6,743	(b) 10,283	(b) 7,941	(b) 14,936	(b) 3,875	(b) 3,473
do. alloys .. .. .	63	(b) 13	(b) 21	(b) 3	(b) —	(b) 9
Scrap .. .. .	—	(b) 20	(b) 64	(b) —	(b) —	(b) 10
Semi-manufactures (a)	12,205	(b) 14,709	(b) 17,194	(b) 22,555	(b) 20,412	(b) 19,094
of which—Foil..	1,625	(b) 2,638	(b) 2,004	(b) 957	(b) 426	(b) 185
Powder .. .. .	171	(b) 77	(b) 73	(b) 149	(b) 151	(b) 144
Aluminium sulphate	38	(b) 1	(b) 1	(b) 1	(b) 4	(b) 17
Malaya—						
Unwrought (a)	10	9	2	171	234	296
Semi-manufactures (a)	2,567	3,641	3,963	5,626	7,443	4,950
of which—Foil..	414	391	585	1,061	996	766
Aluminium sulphates	4,268	6,778	8,431	6,461	7,361	3,640
Pakistan—						
Unwrought (a)	12,416	4,625	5,853	n.a.	—	n.a.
Semi-manufactures (a)	840	926	5,446	n.a.	7,462	n.a.
Aluminium sulphates	1,205	1,430	3,762	1,041	67	n.a.
Sabah—						
Semi-manufactures (a)	53	77	63	75	n.a.	148
Sarawak—						
Semi-manufactures (a)	91	153	130	95	124	n.a.
Aluminium sulphates	82	149	192	195	131	n.a.
Australia—						
Bauxite .. .. .	66,746	96,200	51,799	69,904	14,113	577
Cryolite .. .. .	858	1,123	1,141	3,678	5,078	3,282
Alumina and hydrate (c)	356	384	692	259	49,237	65,427
Unwrought (a)	19,268	26,432	16,141	31,389	12,115	980
Scrap (a) .. .. .	24	231	282	1,074	3,108	872
Semi-manufactures (a)	6,247	10,932	4,714	5,427	3,313	2,788
of which—Foil..	2,788	3,909	2,002	2,101	1,212	1,063
Powder .. .. .	670	678	396	250	205	297
New Zealand—						
Unwrought .. .. .	801	666	2,086	5,024	(c) 5,148	n.a.
Semi-manufactures (a)	3,991	5,076	4,078	2,548	(c) 2,779	n.a.
of which—Foil..	535	573	798	344	(c) 3	n.a.
Irish Republic—						
Unwrought (a)	3,777	3,328	3,604	4,897	5,373	8,813
Semi-manufactures (a)	2,463	2,420	2,463	3,069	3,268	3,894
of which—Foil..	636	460	416	483	644	677
Aluminium sulphates	3,619	3,487	3,524	3,588	3,276	2,011
OTHER COUNTRIES						
Austria—						
Bauxite .. .. .	123	10,390	18,176	12,951	13,072	16,590
Cryolite .. .. .	266	328	344	334	483	434
Alumina .. .. .	131,001	115,281	155,118	135,829	149,223	139,606
do. hydrate .. .. .	3,314	3,779	3,862	4,393	4,565	5,603

(a) Including alloys.

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Austria—(cont.)</b>						
Unwrought (a) ..	389	274	138	804	655	2,011
Semi-manufactures (a)	1,261	1,537	1,467	1,886	2,722	4,378
Aluminium sulphates ..	1,583	1,614	1,652	1,658	1,868	1,793
<b>Belgium-Luxemburg—</b>						
Bauxite .. .. .	16,574	7,201	4,991	5,425	3,200	5,071
Alumina .. .. .	263	587	1,150	1,022	881	1,010
do. hydrate .. ..	9,302	9,012	7,899	8,377	9,344	11,022
Unwrought .. ..	43,313	57,265	56,511	52,470	67,242	81,764
do. alloys .. ..	5,296	6,106	12,030	14,754	20,408	29,091
Scrap .. .. .	1,294	1,355	1,972	1,775	2,315	2,636
Semi-manufactures (a)	7,827	9,699	12,843	16,071	16,355	18,047
of which—Foil .. ..	2,984	3,316	3,601	3,523	3,343	3,941
Powder .. .. .	489	452	332	572	266	192
Aluminium sulphates ..	974	644	1,333	544	137	133
<b>Denmark—</b>						
Bauxite .. .. .	205	400	600	500	500	400
Crude cryolite .. ..	28,977	33,372	32,769	32,188	49,473	37,732
Unwrought .. .. .	6,299	6,026	5,113	6,070	5,242	6,364
do. alloys .. .. .	93	1,259	979	481	469	758
Scrap .. .. .	802	421	713	377	1,215	921
Semi-manufactures (a)	7,068	8,569	8,196	9,992	11,395	14,735
of which—Foil .. ..	1,547	2,076	2,149	2,209	2,122	2,616
Powder .. .. .	85	123	120	150	176	152
Aluminium sulphates ..	4,082	5,034	4,118	4,721	4,773	4,813
<b>Finland—</b>						
Alumina .. .. .	73	1,577	74	86	36	89
do. hydrate .. .. }			7,699	10,232	8,433	11,368
Unwrought (a) .. ..	7,182	3,953	5,496	6,706	3,995	6,238
Semi-manufactures (a)	9,538	12,827	10,965	11,276	10,821	13,141
of which—Foil .. ..	548	416	750	558	588	848
Powder .. .. .	392	458	310	146	103	422
Aluminium sulphates ..	21,486	30,270	14,995	12,973	11,239	9,912
<b>France—</b>						
Bauxite .. .. .	44,251	59,687	118,821	100,230	140,248	143,542
Cryolite .. .. .	1,437	1,934	2,178	1,402	1,320	1,703
Alumina .. .. .	173	43,726	133,818	191,842	124,720	65,979
do. hydrate .. ..	35	28	33	81	71	30
Unwrought .. .. .	32,805	53,287	41,834	49,820	51,915	65,746
do. alloys .. .. .	n.a.	n.a.	177	932	3,074	5,548
Scrap (a) .. .. .	31	179	513	1,307	2,260	2,643
Semi-manufactures (a)	2,001	3,155	4,051	7,641	12,215	15,997
of which—Foil .. ..	839	1,653	2,028	3,780	5,336	6,493
Powder .. .. .	29	60	61	160	207	854
Aluminium sulphates ..	2	—	3	2	20	40
<b>Germany (Federal)—</b>						
Bauxite .. .. .	897,596	1,322,085	1,538,597	1,369,442	1,484,200	1,596,607
Cryolite .. .. .	1,378	2,155	2,265	3,315	2,935	3,187
Alumina .. .. .	92	340	27,303	34,071	48,880	52,717
do. hydrate .. ..	25	662	1,179	942	1,389	1,480
Unwrought .. .. .	74,097	163,191	124,725	105,058	104,211	134,041
do. alloys .. .. .	14,547	14,959	11,800	11,068	14,554	28,623
Scrap .. .. .	27,941	38,854	45,188	41,274	43,240	55,918
Semi-manufactures (a)	2,978	8,307	11,614	12,423	18,150	28,387
of which—Foil .. ..	351	438	732	1,918	3,049	2,785
Powder .. .. .	259	202	307	341	269	437
<b>Germany (East)—</b>						
Bauxite .. .. .	251,203	264,150	258,707	281,425	322,072	322,002
Alumina .. .. .	14,674	25,508	22,795	16,732	18,023	41,522
<b>Greece—</b>						
Unwrought .. .. .	2,497	4,335	5,380	5,868	5,639	8,422
Semi-manufactures (a)	553	679	644	978	1,099	1,291
of which—Foil .. ..	434	530	509	736	905	896
Aluminium sulphates ..	431	229	504	249	79	1

(a) Including alloys.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Hungary—						
Cryolite .. .. .	2,314	2,426	2,948	3,156	519	1,727
Unwrought .. ..	2,578	492	—	568	2,418	7,522
Iceland—						
Semi-manufactures ..	199	352	279	459	364	310
Italy—						
Bauxite .. .. .	232,518	275,678	251,382	289,082	344,083	372,805
Cryolite .. .. .	266	364	541	455	1,063	895
Alumina .. .. .	780	389	681	4,444	8,643	4,498
do. hydrate .. ..	137	343	405	447	377	364
Unwrought .. ..	13,649	29,384	21,382	43,326	53,257	32,174
do. alloys .. ..	2,130	4,143	3,919			
Scrap .. .. .	14,732	36,361	29,470	46,698	52,152	31,811
Semi-manufactures (a)	3,101	6,159	6,564	10,256	16,000	17,162
of which—Foil ..	2,344	2,893	2,856	3,098	4,577	3,640
Powder .. .. .	23	119	128	131	157	205
Aluminium sulphates ..	483	511	154	963	783	178
Netherlands—						
Bauxite .. .. .	7,701	3,493	4,839	1,674	10,204	4,262
Cryolite .. .. .	170	211	206	268	380	207
Alumina .. .. .	7,209	875	745	806	784	834
do. hydrate .. ..		6,366	6,849	7,035	6,902	8,077
Unwrought (a) .. ..	14,026	14,449	13,518	14,526	19,501	22,020
Scrap (a) .. .. .	1,322	2,265	2,795	2,044	2,146	2,925
Semi-manufactures (a)	13,660	17,632	17,545	17,475	17,218	29,262
of which—Foil ..	2,713	3,513	3,865	4,019	4,093	4,818
Powder .. .. .	138	122	179	127	98	126
Aluminium sulphates ..	11,269	9,691	9,113	8,664	10,684	11,438
Norway—						
Bauxite .. .. .	35,439	28,115	29,502	37,797	24,480	29,560
Cryolite .. .. .	3,310	4,041	2,763	1,862	3,239	2,613
Alumina .. .. .	305,289	322,889	297,377	405,297	437,524	515,664
Unwrought .. ..	32	354	1,952	782	1,236	10,829
do. alloys .. ..	156	187	418	572	221	822
Scrap .. .. .	565	635	402	507	158	56
Semi-manufactures (a)	3,691	6,138	6,238	7,760	8,707	9,952
of which—Foil ..	211	232	254	443	407	495
Powder .. .. .	209	225	185	229	192	174
Aluminium sulphates ..	10,155	10,519	12,103	10,868	11,633	9,989
Poland—						
Bauxite .. .. .	23,800	34,900	59,200	(b) 41,000	59,200	85,700
Alumina .. .. .	40,990	53,037	86,000	107,000	87,500	91,800
Unwrought .. ..	9,939	13,633	5,873	n.a.	n.a.	n.a.
Portugal—						
Cryolite .. .. .	28	27	17	22	39	30
Unwrought (a) .. ..	379	577	1,877	1,433	1,062	733
Semi-manufactures (a)	3,323	3,914	3,685	3,638	4,880	6,293
of which—Powder ..	80	96	88	74	76	78
Aluminium sulphates ..	2,588	3,046	2,880	2,752	2,771	4,177
Spain—						
Bauxite .. .. .	8,942	23,203	39,587	46,088	64,668	52,285
Alumina and hydrate ..	36,244	62,132	82,635	89,678	90,532	99,541
Unwrought and scrap ..	6,380	1,718	4,198	8,307	10,483	9,989
Semi-manufactures (a)	204	409	1,116	1,849	3,620	6,421
of which—Powder ..	11	6	14	21	24	27
Sweden—						
Bauxite .. .. .	12,939	5,476	25,281	23,850	13,572	30,856
Cryolite .. .. .	409	673	758	924	493	1,190
Alumina and hydrate ..	30,065	33,171	24,028	39,875	38,497	67,204
Unwrought .. ..	18,315	21,846	19,754	25,580	29,659	17,324
do. alloys .. .. .	2,864	5,824	3,889	4,752	6,620	7,550
Scrap .. .. .	44	85	176	309	318	112

(a) Including alloys.

(b) Exports to Poland from Hungary.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Sweden (cont.)—</b>						
Semi-manufactures (a)	11,085	15,245	13,127	13,893	14,632	19,831
<i>of which—Foil</i> ..	2,337	2,598	2,237	2,105	2,059	2,929
<i>Powder</i> ..	415	594	382	342	268	240
Aluminium sulphates ..	1,183	2,816	4,339	5,315	4,571	10,370
<b>Switzerland—</b>						
Bauxite .. .. .	<i>n.a.</i>	951	2,677	1,348	1,440	2,553
Cryolite .. .. .	<i>n.a.</i>	1,012	1,043	1,217	825	226
Alumina .. .. .	55,000	85,888	91,066	105,424	122,805	118,767
Unwrought and scrap (a)	16,399	16,142	10,336	10,937	4,489	5,871
Semi-manufactures (a)	3,483	4,955	6,946	7,622	8,708	8,029
Aluminium sulphates ..	<i>n.a.</i>	3,927	4,152	4,166	3,862	3,926
<b>U.S.S.R.—</b>						
Bauxite (b) .. ..	447,200	422,000	447,800	303,400	434,300	442,200
Semi-manufactures ..	2,953	4,133	4,133	3,740	6,299	5,512
<b>Yugoslavia—</b>						
Bauxite .. .. .	200	973	1,891	2,681	3,029	5,442
Cryolite .. .. .	758	420	344	749	30	358
Alumina and hydrate ..	4	4	8	349	582	2,638
Unwrought .. .. .	5,784	15,536	10,082	10,522	6,629	15,612
Semi-manufactures (a)	262	326	563	581	1,036	1,103
<i>of which—Foil</i> ..	47	113	181	369	778	393
<b>Algeria—</b>						
Bauxite .. .. .	2,315	2,165	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Unwrought (a) .. ..	303	520	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	2,001	2,464	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>of which—Foil</i> ..	974	1,366	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Powder</i> .. .. .	174	120	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Aluminium sulphates ..	745	887	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Angola—</b>						
Semi-manufactures ..	74	43	398	323	430	643
Aluminium sulphates ..	69	121	924	403	381	1,032
<b>Cameroun—</b>						
Alumina .. .. .	80,039	73,618	102,753	83,344	123,021	92,550
<b>Congo Republic—</b>						
Cryolite .. .. .	3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Alumina and hydrate ..	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures ..	1,633	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>of which—Foil</i> ..	60	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Aluminium sulphates ..	1,459	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Unwrought and scrap ..	1,463	439	1,216	2,106	3,849	4,717
Semi-manufactures ..	1,466	2,121	1,522	1,339	966	884
<i>of which—Foil</i> ..	637	726	467	602	681	415
Aluminium sulphates ..	12,506	<i>n.a.</i>	<i>n.a.</i>	21,591	<i>n.a.</i>	<i>n.a.</i>
<b>Malagasy Republic—</b>						
Aluminium sulphates	184	182	198	255	320	281
<b>Morocco—</b>						
Bauxite .. .. .	—	2,436	—	3,185	2,513	907
Semi-manufactures (a)	1,021	1,853	1,634	1,691	1,749	1,864
<i>of which—Foil</i> ..	234	440	312	280	456	320
<i>Powder</i> .. .. .	78	67	55	57	75	51
Aluminium sulphates ..	1,484	1,932	1,617	1,772	1,443	1,346
<b>Mozambique—</b>						
Semi-manufactures (a)	95	134	201	209	255	275
<b>South Africa—</b>						
Unwrought .. .. .	7,301	11,104	10,199	13,802	16,487	16,659
Semi-manufactures (a)	1,234	2,649	1,762	2,670	4,607	<i>n.a.</i>
<i>of which—Foil</i> ..	74	490	520	506	572	<i>n.a.</i>
<i>Powder</i> .. .. .	62	81	59	51	45	<i>n.a.</i>
Aluminium sulphates ..	3,496	3,163	3,618	2,990	3,535	<i>n.a.</i>

(a) Including alloys.

(b) Imports from Greece.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Sudan—						
Semi-manufactures (a)	208	483	185	460	653	888
Aluminium sulphates ..	n.a.	n.a.	n.a.	n.a.	970	1,134
Tunisia—						
Unwrought and scrap (a)	194	133	105	3	1	—
Semi-manufactures ..	n.a.	75	118	231	374	394
Aluminium sulphates ..	324	n.a.	n.a.	n.a.	n.a.	n.a.
Costa Rica—						
Semi-manufactures (a)	256	298	332	395	510	670
Cuba—						
Semi-manufactures (a)	1,887	n.a.	n.a.	n.a.	n.a.	n.a.
Aluminium sulphates ..	535	n.a.	n.a.	n.a.	n.a.	n.a.
Honduras—						
Semi-manufactures ..	n.a.	n.a.	89	107	150	230
Mexico—						
Bauxite, calcined ..	3,534	5,892	8,808	7,247	5,860	4,801
Alumina and hydrate ..	4,125	6,274	3,609	3,820	23,384	36,761
Unwrought ..	9,381	11,026	10,152	15,663	8,928	50
Semi-manufactures ..	639	601	574	1,999	14,414	6,883
Aluminium sulphates ..	705	695	706	579	1,077	831
United States—						
Bauxite, crude dried ..	8,149,000	8,739,000	9,206,000	10,575,000	9,170,000	11,291,644
do. calcined ..	108,657	118,653	70,360	120,150	87,951	188,970
Cryolite ..	19,734	15,598	12,334	11,136	24,031	21,664
Alumina and hydrate ..	115,506	79,048	168,948	157,670	170,128	227,961
Unwrought (a) ..	214,264	138,131	177,879	277,638	371,132	350,788
Scrap ..	9,749	4,502	5,359	5,800	8,309	7,279
Semi-manufactures ..	49,248	37,060	48,448	57,364	41,125	51,431
of which—Foil (b) ..	4,044	4,312	4,421	4,518	4,301	4,619
Aluminium sulphates ..	5,083	4,855	4,396	5,077	3,698	n.a.
Argentina—						
Bauxite ..	15,953	29,492	39,530	26,051	4,225	30,781
Ingots and bars ..	9,155	11,887	28,776	15,252	14,798	33,107
Brazil—						
Cryolite ..	685	1,053	1,018	590	555	962
Alumina ..	2,821	51	30	4,404	562	39
do. hydrate ..	604	862	714	808	497	460
Unwrought (a) ..	8,785	14,580	18,052	19,199	25,408	18,256
Semi-manufactures (a)	689	259	237	278	549	250
of which—Foil ..	10	25	29	76	92	98
Powder ..	19	42	24	27	32	16
Aluminium sulphates ..	1	—	50	2	1	—
Chile—						
Unwrought ..	881	1,762	1,386	1,253	n.a.	n.a.
Bars, sheets and alloys ..	133	166	290	435	n.a.	n.a.
Aluminium sulphates ..	74	8	—	—	n.a.	n.a.
Colombia—						
Bauxite ..	3,025	4,635	4,453	5,986	7,087	4,413
Alumina and hydrates ..	439	681	423	271	99	92
Unwrought (a) ..	2,952	2,965	3,318	5,575	2,371	6,163
Semi-manufactures (a)	1,255	1,543	1,214	1,109	918	1,182
Aluminium sulphates ..	398	170	514	1,214	310	1,368
Ecuador—						
Semi-manufactures ..	213	n.a.	n.a.	249	525	517
Aluminium sulphates ..	809	n.a.	371	1,185	827	1,041
Peru—						
Unwrought (a) ..	206	462	557	563	627	865
Semi-manufactures (a)	960	1,373	2,021	1,664	1,841	2,394
Aluminium sulphates ..	3,016	3,297	3,743	3,218	3,104	275

(a) Including alloys.

(b) Excluding leaves 5½ in. by 5½ in. recorded by number only.



## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Uruguay—						
Unwrought .. ..	1,425	2,065	n.a.	n.a.	n.a.	n.a.
Aluminium sulphates ..	3,202	3,258	n.a.	n.a.	n.a.	n.a.
Venezuela—						
Unwrought .. ..	615	730	726	1,019	855	1,970
Semi-manufactures ..	n.a.	7,813	9,885	7,586	6,768	6,136
Aluminium sulphates ..	4,993	4,041	10,202	7,134	7,096	8,683
Alumina and hydrate ..	18	111	153	186	231	268
Burma—						
Unwrought .. ..	173	241	377	456	376	3,284
Semi-manufactures (a)	1,462	1,321	2,278	2,611	2,719	
Formosa—						
Bauxite .. ..	32,051	24,416	56,273	56,282	52,176	88,446
Foil .. ..	2	7	9	7	13	27
Indonesia—						
Semi-manufactures (a)	3,519	2,734	5,908	4,150	n.a.	n.a.
Aluminium sulphates ..	5,271	8,065	8,686	n.a.	n.a.	n.a.
Iran (b)—						
Unwrought (a) .. ..	784	1,531	1,823	2,088	2,271	4,066
Semi-manufactures ..	957	948	997	1,484	1,104	1,767
Iraq—						
Unwrought (a) .. ..	853	534	491	583	207	n.a.
Semi-manufactures (a)	1,561	1,751	1,646	1,187	1,858	n.a.
Aluminium sulphates ..	913	3,168	2,837	4,817	3,543	n.a.
Israel—						
Unwrought and semi-manufactures ..	2,651	3,343	5,655	6,717	5,689	8,089
of which—Foil .. ..	10	17	22	50	50	54
Aluminium sulphates ..	571	3	n.a.	n.a.	n.a.	n.a.
Japan—						
Bauxite .. ..	816,669	1,077,343	1,138,283	1,081,336	1,398,974	1,596,316
Cryolite .. ..	1,578	3,076	5,202	3,736	6,310	7,428
Unwrought .. ..	14,589	22,604	31,877	17,128	16,434	18,239
do. alloys .. ..	708	193	191	361	6,438	15,612
Scrap .. ..	9,784	13,424	16,840	11,371	11,786	9,160
do. alloys .. ..	2,724	5,011	14,508	5,572	6,448	15,673
Semi-manufactures (a)	270	320	587	626	824	1,788
Jordan—						
Semi-manufactures ..	251	233	203	261	295	156
of which—Foil .. ..	26	53	35	61	68	87
Korea (South)—						
Unwrought and semi-manufactures ..	3,217	3,416	3,416	11,618	7,532	3,228
Aluminium sulphate ..	2,230	482	233	n.a.	n.a.	n.a.
Lebanon—						
Unwrought .. ..	220	385	850	818	2,029	n.a.
Semi-manufactures ..	234	572	588	759	508	n.a.
Philippine Republic—						
Unwrought .. ..	2,293	5,611	1,892	1,856	4,685	n.a.
Semi-manufactures (a)			1,307	704	688	n.a.
of which—Foil .. ..			157	292	315	n.a.
Aluminium sulphates ..	5,919	3,192	n.a.	n.a.	8,713	n.a.
Syria—						
Unwrought .. ..	79	n.a.	121	n.a.	398	n.a.
Thailand—						
Unwrought (a) .. ..	219	327	562	1,170	1,625	2,953
Semi-manufactures (a)	2,104	2,725	2,736	2,987	3,127	2,311
of which—Foil .. ..	145	502	421	666	567	740
Aluminium sulphates ..	1,073	1,118	1,080	685	550	351

(a) Including alloys.

(b) Years ending March 20 following that stated.

## IMPORTS OF ALUMINIUM, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Turkey—						
Unwrought (a) . . .	679	254	489	1,260	1,197	n.a.
Semi-manufactures (a)	1,199	1,417	2,483	2,865	2,600	n.a.
of which—Foil . . .	336	818	752	1,193	1,113	n.a.
Aluminium sulphates . .	2,484	2,197	2,330	3,207	4,930	n.a.

(a) Including alloys.

**ANTIMONY**  
**PRODUCTION OF ANTIMONY ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia	77	75	51	46	49	36
Canada (a) .. ..	—	—	—	—	—	—
Pakistan .. .. .	106	62	13	r 16	8	81
Sarawak .. .. .	—	—	—	—	—	70
Australia (b) .. ..	628	154	117	66	74	272
<b>OTHER COUNTRIES</b>						
Austria .. .. .	762	915	871	983	853	879
Czechoslovakia (h) ..	1,600	1,600	1,600	1,600	1,600	1,600
France .. .. .	—	—	—	r —	98	—
Italy .. .. .	206	213	r 246	r 330	237	529
Portugal .. .. .	6	—	—	—	6	12
Spain .. .. .	157	217	170	157	58	59
U.S.S.R. (h) .. .. .	6,000	6,000	6,000	6,000	7,000	7,000
Yugoslavia (c) .. ..	2,245	2,372	2,424	2,648	2,619	2,686
Algeria .. .. .	1,480	791	643	133	—	—
Morocco .. .. .	225	500	364	401	664	1,535
South Africa .. .. .	12,087	12,106	10,539	10,425	10,983	12,679
Guatemala .. .. .	(e) 87	(e) 106	30	39	(e) 28	—
Mexico .. .. .	3,234	4,164	3,552	4,694	4,750	4,712
United States (d) ..	605	567	615	563	576	564
Argentina .. .. .	4	—	—	—	—	—
Bolivia (j) .. .. .	5,415	5,243	6,634	7,078	7,443	9,488
Peru (i) .. .. .	708	804	777	513	602	604
Burma .. .. .	r 160	94	r 66	r 29	—	n.a.
China (f) .. .. .	15,000	15,000	15,000	15,000	15,000	15,000
Japan .. .. .	303	266	192	169	189	494
Thailand .. .. .	10	—	r 22	r 17	604	1,249
Turkey .. .. .	(g) 1,232	1,357	1,220	r 1,530	1,614	1,720
<b>TOTAL*</b> .. .. .	<b>52,000</b>	<b>52,000</b>	<b>51,000</b>	<b>52,000</b>	<b>55,000</b>	<b>61,000</b>

\*Excluding any antimony ore produced in Hungary, Afghanistan and Iran.

(a) The following figures represent the antimony content of antimonial lead and of flue dust and slags (long tons): 1959—740; 1960—737; 1961—594; 1962—862; 1963—715; 1964—767.

(b) In addition the antimony content of antimonial slag obtained as a by-product of lead refining was as follows (long tons): 1959—652; 1960—632; 1961—563; 1962—808; 1963—933; 1964—842.

(c) Metal.

(d) Secondary metal was recovered as follows (long tons): 1959—17,896; 1960—17,950; 1961—17,380; 1962—17,287; 1963—18,574; 1964—19,946.

(e) Imports into the United States.

(f) United States Bureau of Mines' estimate.

(g) Exports.

(h) Estimate. Source "Minerais et Métaux".

(i) Metal plus content of ore.

(j) Content of ore exported plus exports of metal.

## EXPORTS OF ANTIMONY, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Regulus and refined ..	719	1,600	1,171	827	1,454	1,079
Rhodesia (c)						
Ore .. .. .	257	272	222	179	213	162
Canada—						
Antimonial lead (Sb content)	499	501	534	706	n.a.	n.a.
Australia (a)—						
Regulus .. .. .	—	12	—	—	—	—
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. .. .	878	1,029	1,780	1,118	806	820
Sulphide .. .. .	100	288	110	244	317	312
Belgium-Luxemburg						
E.U.—						
Oxide .. .. .	707	687	966	1,251	1,137	1,765
France—						
Ore .. .. .	394	5	—	—	98	50
Crude and regulus ..	115	280	135	53	262	54
Germany (Federal)—						
Ore .. .. .	1	53	—	—	—	—
Regulus, scrap, etc. ..	229	400	402	1,014	769	226
Oxide .. .. .	368	289	91	136	87	438
Italy—						
Regulus and scrap ..	—	1	—	2	—	1
Netherlands—						
Regulus .. .. .	40	(b) 54	(b) 34	(b) 69	(b) 57	(b) 55
Oxide .. .. .	14	43	31	48	19	130
Sweden—						
Regulus .. .. .	5	22	7	10	39	34
U.S.S.R.—						
Regulus .. .. .	2,300	2,500	3,400	3,800	3,200	4,200
Yugoslavia—						
Regulus .. .. .	1,896	1,970	2,039	2,245	2,324	1,921
Algeria—						
Ore .. .. .	5,272	3,552	2,360	559	—	—
Morocco—						
Ore .. .. .	734	546	1,129	998	1,327	1,838
South Africa—						
Ore .. .. .	19,447	20,451	16,292	18,059	19,485	21,398
Mexico—						
Ore and concentrates ..	6,441	9,098	9,343	11,226	11,720	11,871
Regulus and refined ..	586	538	128	270	316	290
United States—						
Ore .. .. .	147	756	6	8	129	346
Metal and alloys ..	8	53	30	31	14	375
Bolivia—						
Ore (Sb content) ..	5,412	5,238	6,602	7,035	7,443	9,488
Regulus .. .. .	3	5	32	43	—	—
Peru—						
Ore and metal (Sb content) ..	734	948	901	864	840	978
Burma—						
Ore .. .. .	10	—	151	71	21	—
Japan—						
Regulus .. .. .	2	—	3	n.a.	n.a.	n.a.
Sulphide .. .. .	18	6	14	n.a.	n.a.	n.a.
Thailand—						
Ore .. .. .	—	—	52	72	852	1,447
Turkey—						
Ore .. .. .	2,056	2,241	2,475	2,707	3,722	2,587

(a) Years ended June 30 of that stated.

(b) Including scrap.

(c) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF ANTIMONY, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates (b)	11,063	15,623	11,733	12,085	11,995	n.a.
Zambia (e)—						
Refined and regulus ..	47	50	183	60	110	61
Canada—						
Regulus .. ..	523	377	372	570	463	n.a.
Oxide .. .. .	228	195	160	280	290	317
India—						
Ore .. .. .	1,291	1,195	1,042	1,376	1,690	1,323
Metal .. .. .	81	23	1	—	15	59
Oxide .. .. .	73	(d) 90	(d) 96	(d) 54	(d) 39	(d) 41
Sulphide .. ..	10	(d) 4	(d) 1	(d) 2	(d) 2	(d) 4
Australia (c)—						
Concentrates .. ..	36	105	271	34	44	43
Regulus .. .. .	n.a.	n.a.	238	156	393	829
New Zealand—						
Refined and regulus ..	90	82	152	n.a.	n.a.	n.a.
Oxide .. .. .	28	14	21	n.a.	(c) 67	n.a.
OTHER COUNTRIES						
Austria—						
Regulus .. .. .	141	206	151	128	263	162
Belgium-Luxemburg						
E.U.—						
Regulus .. .. .	187	(a) 272	(a) 202	(a) 353	(a) 238	(a) 162
Oxide .. .. .	124	176	138	143	213	287
Denmark—						
Regulus .. .. .	400	228	313	379	313	106
France—						
Ore .. .. .	5,490	6,120	4,303	2,957	853	2,648
Crude and regulus (a) ..	156	465	896	2,141	2,743	2,623
Sulphide .. .. .	1	2	—	12	6	7
Germany (Federal)—						
Ore .. .. .	2,142	2,027	2,175	1,623	2,131	2,619
Regulus, scrap, etc. ..	2,976	4,262	3,535	3,545	4,707	3,298
Oxide .. .. .	218	211	211	246	402	815
Greece—						
Regulus .. .. .	64	124	39	53	53	18
Italy—						
Ore .. .. .	157	965	1,002	n.a.	n.a.	n.a.
Regulus and scrap .. ..	250	497	376	387	620	334
Oxide .. .. .	127	345	248	—	283	225
Sulphide .. .. .	14	11	n.a.	n.a.	n.a.	n.a.
Netherlands—						
Regulus .. .. .	393	(a) 417	(a) 437	(a) 336	(a) 380	(a) 289
Oxide .. .. .	592	777	501	564	560	590
Norway—						
Regulus .. .. .	72	64	109	115	90	93
Poland—						
Regulus .. .. .	1,256	1,280	2,414	n.a.	n.a.	n.a.
Portugal—						
Crude and alloys .. ..	57	n.a.	n.a.	n.a.	n.a.	n.a.
Oxide .. .. .	9	n.a.	n.a.	n.a.	n.a.	n.a.
Sulphide .. .. .	1	2	1	n.a.	—	1
Sweden—						
Regulus .. .. .	258	373	340	386	439	419

(a) Including scrap.

(b) Including crude.

(c) Years ended June 30 of that stated.

(d) Years ended March 31 following that stated.

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF ANTIMONY, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Regulus .. ..	132	<i>n.a.</i>	<i>n.a.</i>	537	311	349
Algeria—						
Regulus .. ..	12	12	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Regulus .. ..	15	25	22	30	19	10
South Africa—						
Refined and regulus ..	90	113	156	262	314	<i>n.a.</i>
Mexico—						
Oxide .. ..	10	25	24	21	20	18
United States—						
Ore ( <i>Sb content</i> ) ..	5,773	5,764	5,994	7,681	8,736	9,532
Crude .. ..	158	21	11	15	20	28
Regulus .. ..	3,948	4,885	4,386	4,214	5,086	2,935
Oxide .. ..	1,835	2,114	1,786	2,598	1,865	2,795
Argentina—						
Ore .. ..	652	296	611	553	370	497
Brazil—						
Ore .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	53	79	64
Regulus .. ..	227	45	108	631	580	157
Oxide .. ..	39	42	33	62	36	14
Sulphide .. ..	116	186	101	93	139	108
Chile—						
Regulus .. ..	44	99	38	8	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Metal .. ..	<i>n.a.</i>	<i>n.a.</i>	26	40	66	11
Peru—						
Sulphides .. ..	—	1	—	1	—	—
Uruguay—						
Regulus .. ..	32	21	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Regulus .. ..	35	16	8	6	17	13
Indonesia—						
Regulus .. ..	156	77	164	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Israel—						
Regulus .. ..	25	35	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ore and concentrates ..	4,934	5,283	6,369	4,947	6,098	6,398
Regulus .. ..	83	9	—	—	158	911
Sulphide .. ..	—	—	91	149	270	98

**ARSENIC**  
**PRODUCTION OF ARSENIC**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia—						
White arsenic .. ..	471	182	—	1,078	540	184
Canada—						
White arsenic (a) ..	705	770	187	72	84	134
<b>OTHER COUNTRIES</b>						
Belgium (b)—						
White arsenic .. ..	2,823	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France—						
White arsenic .. ..	7,894	8,400	9,300	6,676	11,900	11,217
Germany (Federal) (b)—						
White arsenic, etc. ..	161	98	137	67	55	37
Greece—						
White arsenic .. ..	10	(c) 10	(c) 3	—	—	—
Italy—						
Mispickel ( <i>As content</i> ) ..	411	515	583	265	—	—
White arsenic .. ..	1,119	584	874	125	—	—
Portugal—						
White arsenic (d) ..	599	723	295	566	555	366
Spain—						
White arsenic .. ..	286	388	306	209	143	112
Sweden—						
White arsenic .. ..	11,000	11,564	10,851	5,662	14,615	17,686
Mexico—						
Ores ( <i>As<sub>2</sub>O<sub>3</sub> content</i> ) ..	10,300	11,939	12,087	10,731	9,336	<i>n.a.</i>
United States—						
White arsenic .. ..	4,633	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
White arsenic .. ..	328	208	57	147	288	(c) 270
Peru—						
White arsenic .. ..	468	387	346	511	610	(c) 625
Japan—						
White arsenic .. ..	1,058	1,113	935	903	807	491

Arsenic has also been produced in the United Kingdom, Austria, Czechoslovakia, East Germany, Hungary, U.S.S.R., Argentina, Iran, China and Korea.

- (a) Refined white arsenic produced plus the content of crude arsenic exported but excluding arsenic contained in gold ores exported.
- (b) Exports.
- (c) United States Bureau of Mines' estimate.
- (d) Content of pyrites mined 1959. Actual production 1960 onwards.

## EXPORTS OF ARSENIC, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Arsenical compounds:						
inorganic .. .. .	2,546	5,996	6,774	8,166	(a)	(a)
	£184,585	£410,574	£444,901	£539,894	£440,827	£461,045
organic .. .. .	£116,280	£119,161	£146,394	£113,763	£59,739	£68,143
Canada—						
White arsenic, etc. (b)	505	471	109	—	2	n.a.
Malaya—						
Arsenite of soda ..	150	170	117	118	58	42
OTHER COUNTRIES						
Belgium-Luxemburg						
E. U.—						
Sulphide .. .. .	49	n.a.	n.a.	n.a.	n.a.	n.a.
White arsenic ..	2,823	n.a.	n.a.	n.a.	n.a.	n.a.
Arsenates and arsenites	33	225	312	313	291	121
France—						
White arsenic .. ..	8,444	7,778	10,799	9,690	9,411	9,316
Arsenates .. .. .	71	131	161	117	98	48
Germany (Federal)—						
White arsenic, etc. ..	161	98	137	67	55	37
Arsenates .. .. .	782	386	182	194	102	57
Italy—						
White arsenic .. ..	3	50	2	20	15	—
Arsenates and arsenites	27	17	12	3	25	104
Netherlands—						
White arsenic .. ..	1	—	—	21	13	38
Arsenates and arsenites	15	18	9	21	32	27
Poland—						
Metallic arsenic ..	19	51	38	n.a.	n.a.	n.a.
Portugal—						
White arsenic .. ..	383	34	77	1,075	702	491
Sweden—						
White arsenic .. ..	11,417	13,494	10,229	7,719	13,000	13,577
Metallic arsenic ..	92	244	182	226	298	344
Mexico—						
White arsenic, pure ..	5,346	6,454	6,072	6,376	8,515	11,023
do, crude .. .. .	6,338	2,955	7,060	1,962	125	86
United States—						
Arsenate of lead ..	625	843	415	635	358	836
Arsenate of lime ..	55	129	299	421	83	686
Japan—						
White arsenic .. ..	10	16	12	15	2	22
Turkey—						
Ore .. .. .	3	—	—	—	—	—

(a) Quantity not available; value shown relates to arsenites and arsenates only.

(b) Including arsenic contained in gold ores exported.



## IMPORTS OF ARSENIC, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
White arsenic .. ..	4,602	9,815	8,587	6,570	8,806	9,619
Arsenates and arsenites	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(£1,062)	(£571)
Canada—						
Arsenate of lead ..	38	29	26	19	28	<i>n.a.</i>
Arsenate of lime ..	39	30	80	84	59	<i>n.a.</i>
India—						
Arsenic and its oxides ..	297	(b) 406	(b) 602	(b) 384	(b) 239	(b) 524
Malaya—						
Arsenite of soda ..	7,477	10,579	8,587	10,002	6,987	5,727
Pakistan—						
Arsenic and its oxides ..	5	60	44	32	24	<i>n.a.</i>
Australia (a)—						
White arsenic .. ..	2,595	2,618	2,183	1,695	1,906	1,800
New Zealand—						
White arsenic, etc. ..	71	71	9	141	(a) 187	<i>n.a.</i>
Arsenate of lead ..	18	9	11	31	(a) 61	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
White arsenic, etc. ..	38	30	32	32	33	49
Belgium-Luxemburg						
E.U.—						
White arsenic .. ..	108	73	3	5	12	72
Denmark—						
White arsenic .. ..	28	28	29	15	30	21
Arsenates and arsenites	2	2	50	99	115	158
France—						
Sulphide .. ..	8	4	8	—	—	—
Metallic arsenic .. ..	9	9	21	15	17	33
White arsenic .. ..	8	30	30	79	62	79
Germany (Federal)—						
Metallic arsenic .. ..	<i>n.a.</i>	<i>n.a.</i>	23	27	28	34
White arsenic, etc. ..	3,358	4,248	2,789	2,194	1,796	950
Sulphide .. ..	10	9	8	1	—	1
Italy—						
White arsenic .. ..	211	418	449	1,134	1,600	1,580
Metallic arsenic (c)	6	8	16	10	19	21
Arsenates and arsenites	19	23	3	47	27	4
Netherlands—						
White arsenic .. ..	543	529	638	608	944	840
Arsenates and arsenites	23	85	32	15	26	55
Norway—						
White arsenic .. ..	50	63	51	47	63	88
Portugal—						
Metallic arsenic .. ..	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	—
White arsenic .. ..	12	9	8	5	1	—
Arsenate of soda .. ..	5	—	—	<i>n.a.</i>	1	1
Switzerland—						
White arsenic, etc. ..	<i>n.a.</i>	149	245	99	90	97
Yugoslavia—						
Metallic arsenic .. ..	3	5	3	—	—	—
Algeria—						
White arsenic .. ..	22	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphide .. ..	1	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Arsenates .. ..	17	17	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic—						
Arsenates and arsenites	139	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Arsenates .. ..	9	12	16	9	9	15

(a) Years ended June 30 of that stated.

(b) Years ended March 31 of year following that stated.

(c) May include some tellurium.

## IMPORTS OF ARSENIC, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Tunisia—						
Arsenates and arsenites	1	—	1	2	—	1
Mexico—						
White arsenic .. ..	95	6	100	1	—	17
United States—						
Metallic arsenic .. ..	38	65	59	102	151	137
White arsenic .. ..	17,309	11,450	17,396	14,069	12,999	16,237
Sulphide .. ..	19	14	25	30	31	25
Arsenates of lime and soda .. ..	(a) 68	96	(a) 94	(a) 114	(a) 122	(a) 143
Argentina—						
White arsenic .. ..	768	423	720	780	397	522
Brazil—						
Metallic arsenic .. ..	—	—	—	3	5	15
White arsenic .. ..	701	846	675	784	743	297
Arsenates .. ..	30	30	28	—	7	2
Chile—						
White arsenic .. ..	74	19	64	52	n.a.	n.a.
Arsenates .. ..	33	71	—	n.a.	n.a.	n.a.
Colombia—						
White arsenic .. ..	44	104	34	70	126	39
Uruguay—						
White arsenic .. ..	299	296	n.a.	n.a.	n.a.	n.a.
Arsenate of lead .. ..	9	66	n.a.	n.a.	n.a.	n.a.
Formosa—						
White arsenic .. ..	n.a.	87	88	n.a.	n.a.	n.a.
Japan—						
White arsenic .. ..	1,524	1,124	2,445	1,500	2,633	2,169
Sulphide .. ..	38	25	23	34	35	47
Turkey—						
Arsenic compounds .. ..	32	50	74	15	10	n.a.

(a) Arsenate of soda only.

**ASBESTOS**  
**PRODUCTION OF ASBESTOS**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Bechuanaland Protectorate .. ..	1,259	1,145	1,718	2,156	2,114	1,929
Kenya—						
Anthophyllite .. ..	39	104	135	189	70	182
Rhodesia .. ..	106,874	119,611	144,295	126,961	127,014	137,010
Swaziland .. ..	22,149	28,595	27,493	r 29,312	29,778	35,591
Canada (a)—						
Chrysotile .. ..	937,883	998,621	1,047,942	1,085,548	1,138,866	1,229,535
Crude .. ..	386	295	146	183	194	195
Fibre .. ..	360,731	431,413	489,491	488,792	517,040	578,004
Shorts and Waste .. ..	576,766	566,913	558,305	596,573	621,632	651,336
Cyprus .. ..	12,878	20,818	14,471	19,992	17,823	12,281
India .. ..	1,344	1,684	1,445	1,665	2,712	2,920
Australia—						
Chrysotile .. ..	1,279	1,019	865	826	847	1,547
Crocidolite .. ..	14,680	12,921	14,087	15,617	11,262	10,781
New Zealand .. ..	572	284	333	408	392	—
<b>Total .. ..</b>	<b>1,099,000</b>	<b>1,185,000</b>	<b>1,253,000</b>	<b>1,283,000</b>	<b>1,331,000</b>	<b>1,432,000</b>
<b>OTHER COUNTRIES</b>						
Austria .. ..	—	59	504	449	570	—
Bulgaria .. ..	1,000	1,100	1,100	(c) 1,000	(c) 1,000	(c) 1,000
Finland .. ..	8,553	9,405	9,231	9,704	9,025	10,367
France .. ..	20,857	25,178	27,451	25,029	23,298	22,000
Italy .. ..	46,670	50,313	55,760	r 54,339	56,264	67,475
Portugal .. ..	35	129	19	—	26	—
Spain .. ..	17	4	10	—	—	—
U.S.S.R. (c) .. ..	540,000	590,000	790,000	980,000	1,100,000	1,150,000
Yugoslavia .. ..	4,239	5,330	5,990	6,608	8,102	8,286
Egypt .. ..	448	443	227	541	171	1,553
Eritrea .. ..	(c) 27	n.a.	n.a.	n.a.	n.a.	n.a.
Mozambique .. ..	66	20	145	331	—	—
South Africa—						
Amosite .. ..	64,036	61,277	61,816	66,860	69,302	68,996
Blue .. ..	72,444	69,421	83,750	103,866	88,545	91,424
Chrysotile .. ..	26,184	26,313	28,327	26,779	25,829	32,072
Tremolite .. ..	198	12	66	86	25	—
United States (d) .. ..	40,588	40,378	47,155	47,491	59,282	90,261
Argentina .. ..	286	—	—	—	197	(c) 200
Bolivia (b) .. ..	149	167	103	n.a.	n.a.	n.a.
Brazil .. ..	11,004	13,027	n.a.	n.a.	n.a.	n.a.
Venezuela .. ..	4,547	3,870	581	—	—	—
China (c) .. ..	80,000	80,000	90,000	90,000	100,000	120,000
Formosa .. ..	134	433	39	468	539	469
Japan—						
Chrysotile .. ..	12,173	15,216	16,785	13,756	16,259	16,052
Korea (South) .. ..	79	621	304	1,190	1,893	1,252
Philippine Republic .. ..	50	32	74	926	376	524
Turkey .. ..	367	213	443	633	364	1,153
<b>Total* .. ..</b>	<b>900,000</b>	<b>1,000,000</b>	<b>1,200,000</b>	<b>1,400,000</b>	<b>1,600,000</b>	<b>1,700,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>2,000,000</b>	<b>2,200,000</b>	<b>2,500,000</b>	<b>2,700,000</b>	<b>2,900,000</b>	<b>3,100,000</b>

\*Excluding asbestos known to have been produced in Czechoslovakia, Roumania and North Korea.

(a) Sales and shipments.

(c) United States Bureau of Mines' estimate.

(b) Exports.

(d) Sold or used by producers.

EXPORTS OF ASBESTOS

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unmanufactured ..	6,178	7,749	7,014	7,060	8,126	5,703
Packing, etc. ..	11,522	12,654	11,741	10,608	10,468	10,423
Cement products ..	63,384	59,634	52,979	39,448	44,041	57,857
Yarn and cloth ..	2,564	3,131	3,369	3,062	3,544	3,843
Other manufactures ..	12,767	13,624	17,348	16,013	12,018	13,095
Kenya—						
Unmanufactured ..	9	29	31	18	—	—
Rhodesia (e)—						
Unmanufactured ..	92,199	114,221	119,211	129,834	109,926	158,769
Cement products ..	(£2,023)	(£1,599)	(£1,153)	(£1,568)	(£180)	(£491,982)
Canada—						
Crude .. ..	371	215	157	162	174	191
Fibre .. ..	358,556	408,976	470,825	475,018	495,910	562,960
Shorts and waste ..	546,360	544,821	526,232	564,704	581,081	627,453
Manufactured ..	(£263,977)	(£366,963)	(£345,378)	(£391,752)	(£492,693)	(£654,355)
Cyprus—						
Unmanufactured ..	14,403	15,328	15,805	13,879	13,460	11,317
India—						
Unmanufactured ..	32	26	34	12	6	8
Manufactured ..	159	(a) 599	(a) 614	(a) 766	(a) 119	(a) 51
Malaya—						
Cement products ..	5,831	5,933	7,116	2,918	4,490	11,154
Other manufactures ..	69	24	78	86	30	26
Hong Kong—						
Unmanufactured ..	—	—	—	—	—	10
Manufactured ..	60	95	57	30	16	(£6,746)
Cement products ..	341	310	331	254	341	46
Australia—						
Unmanufactured ..	11,584	7,410	7,196	8,695	2,347	6,500
Packing (b) ..	(£111,546)	(£30,690)	(£13,538)	(£43,083)	(£35,015)	(£74,305)
New Zealand—						
Cement products (N.Z.)	(£4,314)	(£5,690)	(£6,999)	(£2,959)	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured ..	28	62	337	229	157	15
Manufactured (c) ..	1,187	1,567	1,717	1,455	1,641	1,973
Cement products (d) ..	4,735	5,541	6,082	7,693	11,203	10,519
Belgium-Luxemburg E.U.—						
Unmanufactured ..	617	292	604	119	391	128
Manufactured ..	612	(c) 995	(c) 2,821	(c) 2,849	(c) 454	(c) 478
Cement products ..	161,556	(d) 220,922	(d) 218,089	(d) 214,822	(d) 212,442	(d) 213,063
Denmark—						
Unmanufactured ..	62	26	30	93	34	67
Manufactured (c) ..	387	510	520	759	785	513
Cement products (d) ..	4,387	5,019	6,329	7,229	9,890	7,102
Finland—						
Unmanufactured ..	5,273	5,463	5,580	5,635	5,991	7,435
Manufactured ..	443	577	647	719	620	725
France—						
Unmanufactured ..	6,169	10,619	11,210	9,905	6,076	8,786
Manufactured (c) ..	2,481	4,638	4,971	3,970	4,543	4,408
Cement products (d) ..	42,735	64,625	47,221	52,822	38,570	38,107

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

(c) Including brake and clutch linings of material other than asbestos.

(d) Including manufactures of other fibro-cements.

(e) Figures for years 1959 to 1963 exclude exports to Malawi and Zambia.

## EXPORTS OF ASBESTOS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Germany (Federal)—						
Unmanufactured ..	218	222	913	364	294	249
Manufactured (a) ..	3,132	3,576	3,943	3,683	3,681	4,301
Cement products (b) ..	15,372	22,571	22,365	22,261	49,445	57,804
Italy—						
Unmanufactured ..	9,436	7,062	9,061	7,765	6,310	8,875
Manufactured (a) ..	659	915	1,061	907	4,008	2,376
Cement products (b) ..	33,261	50,253	52,706	60,586	31,970	49,808
Netherlands—						
Unmanufactured ..	34	35	259	57	120	17
Manufactured ..	1,535	(a) 1,824	(a) 8,386	(a) 2,300	(a) 2,151	(a) 2,462
Cement products ..	4,695	(b) 20,567	(b) 10,089	(b) 6,644	(b) 8,069	(b) 7,906
Portugal—						
Unmanufactured ..	56	34	31	92	44	2
Manufactured ..	n.a.	851	839	748	447	552
Spain—						
Manufactured ..	116	(a)(b) 158	(a) 50	(a) 38	(a) 22	(a) 141
Cement Products ..	n.a.	n.a.	(b) 406	(b) 355	(b) 288	(b) 277
Sweden—						
Unmanufactured ..	2	28	51	12	53	134
Manufactured (a) ..	61	122	103	113	93	111
Cement products ..	6,723	13,507	18,081	15,346	17,279	22,517
Switzerland—						
Manufactured (a) ..	n.a.	430	452	520	160	233
Cement products (b) ..	n.a.	6,652	2,351	2,319	2,939	3,523
U.S.S.R.—						
Unmanufactured ..	126,600	143,800	156,100	166,400	177,300	208,800
Yugoslavia—						
Unmanufactured ..	6,030	5,134	4,226	5,296	5,376	4,264
Manufactured ..	n.a.	n.a.	39	131	255	1,726
Cement products ..	342	5	—	107	503	500
Algeria—						
Cement products (b) ..	2,705	1,410	n.a.	n.a.	n.a.	n.a.
Egypt—						
Unmanufactured ..	4	—	30	n.a.	n.a.	n.a.
Morocco—						
Cement products ..	5,888	7,348	10,389	11,261	9,095	10,561
Mozambique—						
Unmanufactured ..	66	79	157	39	—	—
South Africa—						
Unmanufactured (c) ..	150,456	190,627	167,192	182,715	184,244	194,805
Cement products ..	(£128,006)	(£296,577)	(£207,215)	(£286,208)	(£275,902)	n.a.
Other manufactures ..	(£10,198)	(£37,531)	(£26,050)	(£12,340)	(£24,173)	n.a.
United States—						
Unmanufactured ..	3,855	4,876	3,189	2,521	8,909	24,000
Spun, woven and packing ..	1,039	1,181	1,149	1,298	1,336	1,357
Brake linings ..	(£1,663,341)	(£1,597,200)	(£1,497,467)	(£1,653,325)	(£1,745,765)	(£1,721,809)
Clutch facings ..	(£405,393)	(£409,169)	(£410,464)	(£555,751)	(£628,845)	(£659,061)
Pipe covering and cement ..	2,156	3,115	2,345	2,580	3,661	n.a.
Other manufactures ..	9,849	8,894	10,090	8,093	12,026	11,596
Bolivia—						
Unmanufactured ..	149	167	103	n.a.	n.a.	n.a.
Colombia—						
Cement products ..	168	256	363	553	2,291	4,358
Peru—						
Manufactured ..	144	48	11	116	—	31
Venezuela—						
Unmanufactured ..	4,272	3,603	375	—	—	7

(a) Including brake and clutch linings of material other than asbestos.

(b) Including manufactures of other fibro-cements.

(c) Including, if any, produce of Bechuanaland Protectorate and Swaziland.

EXPORTS OF ASBESTOS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Unmanufactured ..	53	36	15	24	106	53
Manufactured ..	898	1,076	1,663	2,160	3,633	4,134
Cement products ..	896	1,155	462	371	21,812	15,942
Lebanon—						
Cement products ..	9,997	10,364	10,432	17,800	14,485	<i>n.a.</i>
Thailand—						
Cement products ..	815	1,423	1,197	1,013	3,461	<i>n.a.</i>
Turkey—						
Unmanufactured ..	—	5	—	—	—	—

## IMPORTS OF ASBESTOS

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unmanufactured—						
Crude and fibre ..	121,531	158,315	154,942	133,656	144,074	160,626
Waste .. .. .	11,887	9,870	11,582	11,261	13,362	22,759
Cement products ..	9,545	14,722	16,651	17,010	18,058	22,564
Other manufactures ..	932	2,541	4,780	3,970	5,914	6,714
Channel Islands—						
Manufactured .. ..	953	1,200	2,074	1,593	1,738	2,696
Malta—						
Manufactured .. ..	(£6,966)	(£20,612)	(£30,034)	(£29,433)	(£8,262)	(£13,837)
Gambia—						
Cement sheets and pipes	321	11	28	294	550	383
Ghana—						
Cement sheets, pipes etc.	18,814	20,804	21,675	15,354	22,663	20,144
Kenya—						
Manufactured .. ..	4,461	5,260	2,187	1,376	2,119	902
Mauritius—						
Manufactured .. ..	1,270	625	642	1,856	346	877
Nigeria—						
Cement sheets and pipes	25,076	28,866	30,290	18,836	8,218	7,558
Sierra Leone—						
Cement sheets and pipes	426	1,154	1,199	621	870	288
Tanzania—						
Manufactured .. ..	955	1,707	1,622	1,112	618	918
Uganda—						
Unmanufactured ..	397	817	733	652	376	736
Manufactured .. ..	1,346	506	441	407	715	619
Zambia (a)—						
Unmanufactured ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,175
Cement products ..	(£83,487)	(£66,013)	(£51,793)	(£89,005)	(£33,430)	(£442,007)
Canada—						
Packing .. .. .	172	201	291	194	238	325
Other manufactures ..	(£1,397,962)	(£1,499,746)	(£1,494,336)	(£1,389,038)	(£1,582,563)	(£1,811,982)
Barbados—						
Manufactured .. ..	11	21	12	27	20	31
Bermuda—						
Sheets, etc. .. ..	(£14,757)	(£6,345)	(£17,561)	(£14,542)	(£12,261)	(£10,101)
Grenada—						
Manufactured .. ..	(£85)	(£86)	7	2	7	2
Jamaica—						
Unmanufactured ..	38	34	28	21	114	171
Manufactured .. ..	424	854	93	174	348	546
Cement products ..	548	334	2,405	2,467	1,131	446
St. Vincent—						
Cement products ..	12	33	42	18	<i>n.a.</i>	<i>n.a.</i>
Trinidad and Tobago—						
Cement products ..	607	469	394	230	891	<i>n.a.</i>
Other manufactures ..	1,084	305	619	602	599	<i>n.a.</i>
British Guiana—						
Cement products ..	2,409	2,671	860	3,133	<i>n.a.</i>	900
Other manufactures ..	73	199	907	100	<i>n.a.</i>	177
Ceylon—						
Unmanufactured ..	789	—	318	—	—	463
Cement sheets, etc. ..	6,605	6,036	72	2,223	3,757	158
Other manufactures ..	33	377	410	30	28	777
Cyprus—						
Sheets and pipes ..	2,044	1,805	3,207	4,009	4,585	2,689
Other manufactures ..	(£28,769)	(£29,168)	(£37,075)	(£29,204)	(£34,516)	(£33,539)
Hong Kong—						
Unmanufactured ..	5	22	28	16	9	9
Manufactured .. ..	234	373	465	305	311	(£110,378)
Cement products ..	24,656	29,457	34,697	27,419	34,806	37,825

(a) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF ASBESTOS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India—						
Unmanufactured ..	22,387	21,619	19,178	22,023	36,374	35,222
Manufactured ..	2,874	(b) 1,288	(b) 2,276	(b) 921	(b) 1,661	(b) 1,768
Cement products ..	2,703	(b) 1,178	(b) 1,826	(b) 1,589	(b) 2,038	(b) 180
Malaya—						
Unmanufactured ..	2,240	2,823	5,321	5,711	7,396	12,381
Cement products ..	20,339	20,630	25,362	22,384	23,958	12,155
Other manufactures ..	366	483	664	736	638	762
Pakistan—						
Cement sheets ..	499	102	397	1,656	519	n.a.
Sabah—						
Manufactured ..	5	14	10	r 3	n.a.	10
Cement products ..	n.a.	n.a.	n.a.	n.a.	n.a.	3,587
Sarawak—						
Cement sheets ..	505	492	1,072	1,198	1,450	n.a.
Other manufactures ..	46	17	134	43	4	n.a.
Australia—						
Unmanufactured ..	34,223	36,609	32,947	34,915	32,704	38,299
Packing, etc. (a) ..	(£449,316)	(£447,615)	(£555,484)	(£412,965)	(£490,708)	(£594,958)
New Zealand—						
Unmanufactured ..	4,200	4,512	5,188	5,830	5,671	n.a.
Manufactured (£N.Z.)	(£192,237)	(£184,637)	(£256,376)	(£191,024)	} (£487,654)	n.a.
Cement products (£N.Z.)	(£62,139)	(£42,424)	(£104,153)	(£118,568)		
Irish Republic—						
Unmanufactured ..	2,024	2,843	1,983	3,344	2,754	3,218
Manufactured ..	2,694	2,475	4,007	2,232	3,280	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured ..	10,185	12,565	20,611	15,766	20,986	21,091
Manufactured (c) ..	246	331	266	249	345	504
Cement products (d) ..	105	907	3,140	3,919	5,766	7,537
Belgium-Luxemburg						
E.U.—						
Unmanufactured ..	45,593	53,135	55,305	54,627	48,972	55,026
Manufactured ..	3,450	(c) 4,301	(c) 2,924	(c) 2,950	(c) 2,414	(c) 2,884
Cement products ..	996	(d) 1,447	(d) 2,278	(d) 7,415	(d) 9,561	(d) 6,919
Czechoslovakia—						
Unmanufactured ..	23,613	26,560	31,935	27,860	22,307	24,130
Denmark—						
Unmanufactured ..	16,564	17,164	19,265	20,781	17,142	19,126
Manufactured (c) ..	1,434	1,529	1,882	1,908	1,860	1,702
Cement products (d) ..	7,595	11,639	20,927	6,856	1,055	7,338
Finland—						
Unmanufactured ..	2,556	4,376	6,175	6,758	5,991	6,648
Manufactured ..	376	446	711	740	620	795
France—						
Unmanufactured ..	60,579	67,505	76,785	95,881	73,353	107,811
Manufactured (c) ..	2,362	1,589	1,841	1,904	2,535	2,413
Cement products (d) ..	753	866	8,391	7,302	18,102	38,692
Germany (Federal)—						
Unmanufactured ..	100,630	130,532	121,332	126,123	141,169	140,556
Manufactured (c) ..	2,286	4,484	4,447	5,426	6,834	7,885
Cement products (d) ..	47,259	132,622	73,246	88,023	96,652	92,976
Greece—						
Unmanufactured ..	—	47	2,031	3,333	2,771	4,879
Manufactured ..	179	(c) 385	(c) 475	(c) 546	(c) 4,807	(c) 2,772

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Including brake and clutch linings of material other than asbestos.

(d) Including manufactures of other fibro-cements



## IMPORTS OF ASBESTOS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Hungary—						
Unmanufactured ..	6,825	9,649	10,509	10,852	14,320	14,744
Iceland—						
Unmanufactured ..	38	36	28	24	11	5
Manufactured ..	58	35	22	29	77	189
Italy—						
Unmanufactured ..	14,307	29,138	43,139	40,199	38,145	43,197
Manufactured (a) ..	2,474	4,041	3,294	3,700	1,745	3,552
Cement products (b) ..	300	588	3,149	11,407	14,452	14,554
Netherlands—						
Unmanufactured ..	17,433	21,381	19,413	16,700	16,381	22,908
Manufactured ..	2,453	(a) 3,358	(a) 3,718	(a) 2,979	(a) 2,986	(a) 4,579
Cement products ..	62,715	(b) 78,103	(b) 88,500	(b) 71,360	(b) 30,712	(b) 110,011
Norway—						
Unmanufactured ..	5,422	6,808	5,981	5,148	3,474	5,786
Manufactured (a) ..	2,630	3,547	2,998	1,722	1,350	1,828
Cement products (b) ..	5,929	7,932	9,041	9,481	13,534	13,346
Poland—						
Unmanufactured ..	11,434	15,003	19,609	n.a.	21,028	21,359
Portugal—						
Unmanufactured ..	1,743	2,309	2,561	2,676	1,817	2,472
Manufactured ..	62	(a) 272	(a) 425	(a) 391	(a) 367	(a) 363
Spain—						
Unmanufactured ..	16,367	14,224	22,935	27,412	39,309	50,696
Manufactured ..	102	(a)(b) 189	(a)(b) 540	(a)(b) 752	(a)(b) 1,593	(a)(b) 2,525
Sweden—						
Unmanufactured ..	16,179	16,836	16,749	18,555	15,377	19,446
Manufactured (a) ..	3,500	3,839	3,671	3,949	3,428	3,464
Cement products ..	14,333	16,786	16,100	17,902	16,676	13,513
Switzerland—						
Unmanufactured ..	n.a.	8,557	9,134	11,931	11,190	12,330
Manufactured (a) ..		1,703	2,134	2,488	2,277	3,147
Cement products (b) ..		289	1,308	7,691	3,537	5,690
Yugoslavia—						
Unmanufactured ..	4,407	8,589	7,601	9,181	7,975	15,329
Manufactured ..	647	659	731	691	563	595
Cement products ..	—	1	39	49	184	639
Algeria—						
Unmanufactured ..	3,757	6,091	n.a.	n.a.	n.a.	n.a.
Manufactured (a) ..	362	745	n.a.	n.a.	n.a.	n.a.
Cement products (b) ..	14,261	9,365	n.a.	n.a.	n.a.	n.a.
Angola—						
Unmanufactured ..	479	806	702	491	575	992
Manufactured ..	15	15	(a) 57	(a) 85	(a) 97	(a) 166
Congo Republic—						
Unmanufactured ..	1,028	n.a.	n.a.	n.a.	n.a.	n.a.
Manufactured (a) ..	112	n.a.	n.a.	n.a.	n.a.	n.a.
Cement products (b) ..	914	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt—						
Unmanufactured ..	3,527	6,479	4,805	9,402	7,736	3,360
Manufactured ..	999	963	791	1,807	699	518
Libya—						
Manufactured ..	1,652	613	1,337	838	220	22
Malagasy Republic—						
Manufactured (a) ..	125	110	88	99	74	85
Cement products ..	943	558	1,484	1,949	604	716
Morocco—						
Unmanufactured ..	1,016	2,634	2,077	2,178	2,316	1,964
Manufactured (a) ..	141	146	178	138	166	129
Cement products ..	203	234	109	83	163	80

(a) Including brake and clutch linings of material other than asbestos.

(b) Including manufactures of other fibro-cements.

## IMPORTS OF ASBESTOS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mozambique—						
Unmanufactured ..	446	709	865	605	495	450
Manufactured ..	17	33	44	23	25	49
South Africa—						
Packing ..	(£233,431)	(£243,499)	(£261,999)	(£260,893)	(£263,760)	<i>n.a.</i>
Cement products	(£7,770)	(£10,121)	(£8,997)	(£7,550)	(£15,582)	<i>n.a.</i>
Other manufactures ..	(£280,573)	(£135,058)	(£58,605)	(£29,075)	(£10,981)	<i>n.a.</i>
Sudan—						
Manufactured ..	2,357	6,199	6,296	5,801	<i>n.a.</i>	<i>n.a.</i>
Tunisia—						
Unmanufactured ..	<i>n.a.</i>	2	7	5	3	279
Manufactured (a) ..	45	62	70	72	67	179
Cement products (b) ..	3,457	6,870	5,830	8,395	8,314	12,917
Costa Rica—						
Manufactured ..	83	58	44	60	68	77
Guatemala—						
Unmanufactured ..	291	222	422	469	282	453
Manufactured ..	53	77	74	77	191	103
Honduras—						
Manufactured ..	23	46	29	35	35	82
Mexico—						
Unmanufactured ..	8,301	13,208	15,074	11,508	19,668	23,715
Manufactured ..	1,236	860	803	632	823	444
Netherlands Antilles—						
Manufactured ..	562	370	205	313	313	266
Cement sheets ..	2,839	1,947	2,557	2,976	3,028	2,104
Nicaragua—						
Manufactured ..	17	31	24	55	32	55
Panama Republic—						
Cement products ..	678	275	347	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Unmanufactured ..	460	223	587	406	827	813
Manufactured ..	101	79	115	4	104	84
United States—						
Unmanufactured—						
Crude ..	49,513	42,958	38,757	40,743	37,832	} 660,144
Mill fibre ..	135,427	133,231	128,161	13,266	12,784	
Other ..	451,709	421,575	383,574	549,587	545,687	
Manufactured ..	29,450	40,439	32,102	38,584	34,605	43,357
Argentina—						
Unmanufactured and manufactured ..	8,125	11,565	12,371	11,598	9,544	12,866
Brazil—						
Unmanufactured ..	10,823	13,453	15,264	11,040	19,887	13,123
Manufactured ..	675	817	605	546	508	611
Chile—						
Manufactured ..	4,740	4,048	8,000	4,898	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Unmanufactured ..	6,376	6,728	10,100	10,909	12,729	7,886
Manufactured ..	591	543	846	822	1,043	1,212
Cement products ..	—	361	1,106	14,882	—	383
Ecuador—						
Unmanufactured ..	147	<i>n.a.</i>	346	384	319	755
Manufactured ..	660	<i>n.a.</i>	224	217	202	376
Peru—						
Unmanufactured ..	1,711	1,784	2,374	2,377	2,570	2,861
Manufactured ..	245	297	523	1,049	445	588
Surinam—						
Manufactured ..	979	1,955	<i>n.a.</i>	744	<i>n.a.</i>	<i>n.a.</i>
Uruguay ..	1,888	1,823	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including brake and clutch linings of material other than asbestos.

(b) Including manufactures of other fibro-cements.

## IMPORTS OF ASBESTOS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Venezuela—						
Unmanufactured ..	2,492	2,241	3,872	3,398	2,584	4,643
Manufactured ..	710	1,945	1,409	568	684	829
Cement products ..	3,428	2,478	546	1,694	20,644	5,294
Burma—						
Unmanufactured ..	194	461	665	493	531	1,166
Cement products ..	446	516	12	4	560	6
Formosa—						
Unmanufactured ..	417	1,030	820	1,400	876	1,032
Manufactured ..	262	254	158	211	249	385
Indonesia—						
Unmanufactured ..	703	579	2,171	n.a.	n.a.	n.a.
Manufactured ..	186	447	459	n.a.	n.a.	n.a.
Cement products ..	2,626	1,541	2,296	n.a.	n.a.	n.a.
Iran (b)—						
Unmanufactured ..	456	1,226	792	759	1,200	2,258
Manufactured ..	87	243	993	377	123	136
Cement products ..	1,426	1,759	4,933	10,553	1,079	895
Iraq—						
Unmanufactured ..	269	443	1,014	1,456	817	n.a.
Manufactured ..	124	201	229	277	139	n.a.
Cement products ..	853	1,673	1,782	93	—	n.a.
Israel—						
Unmanufactured ..	(a) 3,152	6,510	8,533	8,031	9,156	7,438
Japan—						
Unmanufactured ..	52,836	75,838	113,002	95,147	113,668	141,695
Manufactured ..	223	149	336	622	1,092	1,099
Cement products ..	325	221	158	5	336	151
Jordan—						
Manufactured ..	528	397	305	354	n.a.	n.a.
Lebanon—						
Unmanufactured ..	1,357	2,222	2,097	4,027	2,569	n.a.
Manufactured ..	40	63	53	65	123	n.a.
Cement products ..	325	844	488	290	368	n.a.
Philippine Republic—						
Unmanufactured ..	945	1,216	830	931	1,332	n.a.
Manufactured ..	933	621	n.a.	57	124	n.a.
Cement products ..	—	350	817	325	298	n.a.
Syria—						
Cement sheets ..	1,774	2,151	512	4,824	4,508	n.a.
Other manufactures ..	51	51	79	73	22	n.a.
Thailand—						
Unmanufactured ..	2,215	6,331	3,531	5,311	7,895	7,742
Manufactured ..	568	211	281	360	997	554
Cement products ..	5,005	4,928	5,892	3,922	4,031	4,871
Turkey—						
Unmanufactured ..	890	463	734	1,492	1,234	n.a.
Manufactured ..	701	1,313	906	811	3,518	n.a.
Cement products ..	104	250	192	146	119	n.a.

(a) April to December only.

(b) Years ended March 20 following that stated.

## BARIUM MINERALS

### PRODUCTION OF BARIUM MINERALS\*

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Barytes and witherite,						
ground .. .. .	38,283	40,591	44,825	33,784	22,000	23,000
do. ground .. .. .	22,796	19,615	37,029	41,889	33,369	34,000
Canada .. .. .	213,363	137,761	170,896	202,321	154,913	153,942
Rhodesia .. .. .	213	r 1,100	r 645	r 859	1,744	1,394
Swaziland .. .. .	411	179	405	61	83	15
India .. .. .	13,338	13,371	15,469	32,146	37,279	45,495
Pakistan .. .. .	508	633	477	2,825	4,759	11,897
Australia .. .. .	6,214	11,417	19,217	12,534	8,220	12,350
Irish Republic .. .. .	6,014	10,450	4,160	—	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	3,632	4,312	2,425	1,064	2,139	1,241
France .. .. .	85,053	104,340	84,828	82,652	73,284	54,000
Germany (Federal) .. .. .	434,652	490,299	463,350	457,349	449,492	460,081
Greece .. .. .	127,691	100,181	73,815	r 70,278	84,000	67,000
Italy .. .. .	119,406	141,004	r 128,174	r 119,621	101,990	83,400
Poland .. .. .	(c) 11,000	(c) 11,000	36,751	44,501	(c) 45,000	<i>n.a.</i>
Portugal .. .. .	3,357	3,848	2,040	1,330	1,632	343
Spain .. .. .	25,166	25,532	r 33,436	r 38,324	47,600	<i>n.a.</i>
U.S.S.R. (c) .. .. .	120,000	125,000	150,000	180,000	200,000	200,000
Yugoslavia (a) .. .. .	113,010	101,794	81,734	86,570	74,944	71,725
Algeria .. .. .	21,463	54,968	30,253	(d) 30,000	<i>n.a.</i>	<i>n.a.</i>
Egypt .. .. .	1,801	r 2,677	1,548	r 1,210	4,058	—
Morocco .. .. .	36,227	82,986	80,885	88,375	93,061	88,425
South Africa .. .. .	2,103	1,677	1,752	1,672	2,414	2,531
Mexico .. .. .	(a) 177,303	266,481	244,780	313,113	252,540	320,868
United States .. .. .	774,287	688,677	653,019	791,932	717,059	729,202
Argentina .. .. .	17,716	24,096	28,104	12,338	13,891	<i>n.a.</i>
Brazil .. .. .	50,009	39,130	61,459	53,787	33,572	33,007
Chile .. .. .	(c) 790	r 1,778	1,385	r 1,032	1,003	1,149
Colombia .. .. .	10,000	7,200	10,064	8,000	10,500	10,000
Peru .. .. .	94,247	107,869	109,409	112,742	122,857	130,298
Uruguay .. .. .	34	—	100	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Burma .. .. .	1,000	1,600	2,007	3,984	—	—
China (c) .. .. .	50,000	60,000	80,000	80,000	90,000	100,000
Iran (b) .. .. .	1,700	13,000	18,700	15,000	(c) 15,000	(c) 15,000
Japan .. .. .	19,045	22,486	28,788	37,514	36,928	39,116
Korea (South) .. .. .	—	200	700	905	2,714	2,700
Korea (North)(c) .. .. .	14,500	40,000	55,000	60,000	65,000	65,000
Philippine Republic .. .. .	166	5,534	1,883	409	900	1,453
Turkey .. .. .	2,700	1,476	—	1,870	966	5,954
<b>TOTAL†</b> .. .. .	<b>2,600,000</b>	<b>2,800,000</b>	<b>2,800,000</b>	<b>3,000,000</b>	<b>2,800,000</b>	<b>2,900,000</b>

\*Barytes unless otherwise stated.

†Excluding barytes known to have been produced in Bulgaria, Czechoslovakia, Germany (East) and Norway.

(a) Exports.

(b) Years ended March 20 of year following that stated.

(c) United States Bureau of Mines' estimate.

(d) Estimated.

EXPORTS OF BARIUM MINERALS, ETC.\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Barium compounds, excluding blanc fixe ..	4,295	4,393	4,160	4,935	n.a.	n.a.
Canada— Barytes .. .. .	197,965	120,511	153,300	206,163	142,761	139,756
India— Unground barytes ..	13,008	24,412	7,219	5,419	9,048	7,747
Australia— Ground barytes ..	1,108	7,650	5,902	1,663	2,600	6,199
Irish Republic— Unground barytes ..	8,425	9,675	8,420	830	10,228	31,939
<b>OTHER COUNTRIES</b>						
Austria— Barytes .. .. .	—	25	30	—	20	6
Belgium-Luxemburg E.U.— Barytes and witherite ..	1	} 33	438	23	22	191
Barytes, ground ..	3					
Sulphate .. .. .	745					
Carbonate .. .. .	—					
Chloride .. .. .	4	6	36	20	26	—
France— Barytes .. .. .	18,857	21,788	21,875	18,063	10,704	15,907
Witherite .. .. .	—	—	—	—	2	3
Chloride .. .. .	5,613	5,783	6,345	6,666	7,639	6,922
Carbonate .. .. .	1,673	2,232	1,907	4,206	3,230	2,723
Sulphate .. .. .	150	410	739	645	651	1,023
Sulphide .. .. .	7	63	21	11	3	5
Germany (Federal)— Barytes and witherite ..	117,937	134,083	121,937	98,221	102,355	121,560
Carbonate .. .. .	11,722	14,782	14,360	12,139	12,533	15,097
Chloride .. .. .	4,797	3,627	4,128	3,050	3,590	4,401
Sulphate .. .. .	15,167	15,858	16,609	18,402	18,533	19,945
Greece— Barytes .. .. .	110,515	108,094	59,671	60,829	76,511	65,854
Italy— Barytes .. .. .	34,536	33,095	38,012	45,944	22,025	11,004
Witherite .. .. .	63	3	20	90	30	5
Carbonate .. .. .	41	816	1,965	1,697	735	694
Chloride .. .. .	487	1,014	1,464	1,422	1,243	885
Sulphate .. .. .	181	344	361	571	138	104
Sulphide .. .. .	69	103	n.a.	n.a.	n.a.	n.a.
Netherlands— Barytes .. .. .	102	87	19	8	10	278
Carbonate .. .. .	11	75	n.a.	41	483	622
Chloride .. .. .	30	53	n.a.	23	24	154
Sulphate .. .. .	1,920	2,141	2,199	1,489	2,394	2,559
Sulphide .. .. .	3,222	3,408	3,275	3,495	—	2,919
Portugal— Barytes .. .. .	n.a.	1,580	601	5	4	107
Spain— Barytes .. .. .	n.a.	n.a.	34,983	39,461	27,293	55,779
Sweden— Barytes and witherite ..	—	3	5	—	6	—
Yugoslavia— Unground barytes ..	100,358	89,127	70,489	70,861	59,735	54,601
Ground barytes ..	12,652	12,667	11,245	15,709	15,209	17,124

\*For Lithopone, see "Zinc".

## EXPORTS OF BARIUM MINERALS, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Barytes .. ..	3,167	3,101	814	974	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	98	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Barytes .. ..	24,355	55,401	73,522	66,010	80,813	71,695
Mexico—						
Barytes .. ..	177,303	156,083	124,655	216,270	144,371	174,259
Argentina—						
Barytes .. ..	1,545	866	827	626	25	54
Brazil—						
Barytes .. ..	46,308	47,047	41,723	50,196	26,684	57,958
Peru—						
Barytes .. ..	105,586	102,810	100,330	83,341	15,249	124,968
Japan—						
Barytes .. ..	—	—	325	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	1	5	—	9	16	135
Sulphate .. ..	62	41	77	49	74	77
Korea (South)—						
Barytes .. ..	1,008	366	936	294	1,661	2,560

## IMPORTS OF BARIUM MINERALS, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964	
<b>COMMONWEALTH COUNTRIES</b>							
United Kingdom—							
Unground barytes .. .. .	19,054	27,640	22,809	19,073	20,689	37,787	
Ground barytes .. .. .	17,769	18,071	15,232	8,369	7,330	8,817	
Canada—							
Barytes .. .. .	1,484	1,804	1,687	2,158	3,420	2,862	
Blanc fixe .. .. .	905	1,076	1,021	1,032	894	n.a.	
Trinidad and Tobago—							
Barytes .. .. .	33,647	27,218	30,380	42,230	40,403	n.a.	
India—							
Barytes .. .. .	18	(a) 5	(a) 7	(a) 8	(a) 3	(a) 4	
Carbonate .. .. .	488	(a) 646	(a) 160	(a) 1,064	(a) 1,254	(a) 611	
Chloride .. .. .	483	(a) 204	(a) 273	(a) 787	(a) 526	(a) 402	
Sulphate .. .. .	105	(a) 150	(a) 66	(a) 58	(a) 132	(a) 110	
Pakistan—							
Barytes .. .. .	1,748	3,744	392	82	9	n.a.	
Australia (b)—							
Barytes ground .. .. .	503	151	160	—	—	—	
Carbonate .. .. .	186	283	204	371	539	661	
Chloride .. .. .	171	160	162	220	248	286	
Sulphate incl. blanc fixe .. .. .	421	520	530	261	330	269	
Other compounds .. .. .	92	126	130	—	—	—	
New Zealand—							
Barytes .. .. .	1,199	3,990	5,233	1,116	(b) 621	n.a.	
<b>OTHER COUNTRIES</b>							
Austria—							
Barytes .. .. .	7,259	9,006	8,665	8,424	8,242	8,421	
Carbonate .. .. .	384	503	627	447	628	659	
Chloride .. .. .	89	252	315	291	281	327	
Sulphate .. .. .	334	395	287	273	225	376	
Belgium-Luxemburg							
E.U.—							
Barytes and witherite .. .. .	14,432	} 34,015	32,199	29,276	26,783	23,463	
Barytes, ground .. .. .	6,298						
Sulphate .. .. .	1,477		1,983	1,881	1,732	1,453	2,761
Carbonate .. .. .	1,955		2,099	573	1,446	837	977
Chloride .. .. .	1,887		2,019	2,275	1,471	1,541	2,041
Sulphide .. .. .	3,178	3,379	3,300	3,442	3,398	2,929	
Denmark—							
Barytes .. .. .	685	841	737	615	726	654	
Carbonate .. .. .	306	453	318	302	457	642	
Chloride .. .. .	172	157	231	140	169	186	
Sulphate .. .. .	539	435	306	298	381	362	
Finland—							
Barytes .. .. .	351	} 349	402	455	451	627	
Witherite .. .. .	—						
Chloride .. .. .	73		180	136	305	89	227
Carbonate .. .. .	110		96	141	186	463	579
Sulphate .. .. .	471		694	733	880	1,043	1,408
France—							
Barytes .. .. .	62,608	54,605	53,501	50,912	65,384	66,626	
Witherite .. .. .	—	89	154	3	5	1	
Chloride .. .. .	—	11	19	—	3	447	
Carbonate .. .. .	—	—	31	2	9	111	
Sulphate .. .. .	611	720	696	714	824	1,156	

\*For Lithopone, see "Zinc".

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

## IMPORTS OF BARIUM MINERALS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964	
OTHER COUNTRIES (cont.)							
Germany (Federal)—							
Barytes and witherite ..	7,945	14,644	9,804	1,094	5,761	44,972	
Carbonate .. ..	763	1,543	1,709	246	497	2,234	
Chloride .. ..	372	158	523	867	745	802	
Sulphate .. ..	351	531	331	78	153	190	
Greece—							
Sulphate .. ..	115	256	206	230	329	292	
Iceland—							
Sulphate .. ..	9	12	17	21	17	22	
Italy—							
Barytes .. ..	14	196	10,919	19,099	21,224	27,418	
Witherite .. ..	1,937	2,574	1	24	31	2	
Carbonate .. ..	159	262	29	79	167	118	
Chloride .. ..	52	56	—	—	13	24	
Sulphate .. ..	522	518	605	848	990	1,202	
Sulphide .. ..	1	—	n.a.	n.a.	—	n.a.	
Netherlands—							
Barytes and witherite ..	19,113	} 36,322	37,501	22,296	14,088	36,485	
Barytes, ground .. ..	4,083						
Carbonate .. ..	3,667		7,188	6,811	6,411	6,595	7,970
Chloride .. ..	314		354	236	216	335	407
Sulphate .. ..	854	1,326	961	1,032	1,079	1,036	
Norway—							
Barytes .. ..	537	593	580	354	616	532	
Carbonate .. ..	357	362	461	336	337	463	
Chloride .. ..	200	174	169	186	166	243	
Sulphate .. ..	241	185	196	122	158	97	
Poland—							
Barytes .. ..	6,174	6,635	9,307	n.a.	8,760	5,125	
Portugal—							
Barytes .. ..	174	59	100	87	65	181	
Chloride .. ..	26	95	28	96	5	1	
Sulphate .. ..	25	182	145	191	184	212	
Sweden—							
Barytes and witherite ..	1,989	2,861	2,038	1,643	1,274	1,644	
Carbonate .. ..	1,214	1,762	2,238	2,226	1,743	2,819	
Chloride .. ..	251	513	395	237	248	296	
Sulphate .. ..	1,919	2,520	1,505	1,822	2,234	2,351	
Switzerland—							
Barytes .. ..	n.a.	1,931	2,932	2,470	1,920	1,989	
Sulphate .. ..	n.a.	1,754	1,954	1,814	1,788	1,505	
U.S.S.R.—							
Barytes .. ..	32,300	59,500	70,000	79,500	104,500	96,100	
Algeria—							
Barytes .. ..	4,230	12,261	n.a.	n.a.	n.a.	n.a.	
Sulphate .. ..	1	18	n.a.	n.a.	n.a.	n.a.	
Carbonate .. ..	4	2	n.a.	n.a.	n.a.	n.a.	
Congo Republic—							
Barytes and witherite ..	45	n.a.	n.a.	n.a.	n.a.	n.a.	
Chloride .. ..	92	n.a.	n.a.	n.a.	n.a.	n.a.	
Sulphate .. ..	608	n.a.	n.a.	n.a.	n.a.	n.a.	
Malagasy Republic—							
Barytes and witherite ..	25	49	—	n.a.	—	2	
Morocco—							
Barytes .. ..	10	8	12	11	12	15	
South Africa—							
Barytes .. ..	540	798	1,200	2,076	1,989	2,376	
Barium compounds .. ..	297	381	400	342	303	n.a.	
Tunisia—							
Barytes .. ..	1,084	374	809	2,163	1,416	4,281	
Cuba—							
Sulphate .. ..	245	n.a.	n.a.	n.a.	n.a.	n.a.	



## IMPORTS OF BARIUM MINERALS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico—						
Barytes .. .. .	896	368	355	660	548	442
Carbonate .. .. .	331	445	426	286	483	674
Chloride .. .. .	323	310	298	451	420	500
United States—						
Unground barytes ..	571,070	572,930	543,000	657,793	516,159	535,669
Ground barytes ..	1,467	41	6,221	124	264	947
Witherite .. .. .	2,279	1,244	1,610	1,341	2,482	2,171
Carbonate .. .. .	1,692	1,256	1,063	1,340	748	929
Chloride .. .. .	1,348	897	909	1,027	1,029	1,012
Sulphate .. .. .	1,569	1,454	1,230	1,539	1,430	2,066
Argentina—						
Sulphate .. .. .	41	109	203	336	16	58
Barium compounds ..	176	255	290	106	150	139
Brazil—						
Barytes .. .. .	9	20	33	27	35	24
Carbonate .. .. .	665	1,026	528	1,385	866	939
Chloride .. .. .	364	363	896	602	982	383
Sulphate .. .. .	379	457	585	560	588	392
Chile—						
Barytes .. .. .	26	19	720	1,142	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	8	132	249	176	<i>n.a.</i>	<i>n.a.</i>
Chloride .. .. .	5	—	—	20	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. .. .	6	4	6	232	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Barytes .. .. .	1,620	440	—	—	—	—
Witherite .. .. .	—	—	1	1	—	—
Carbonate .. .. .	55	227	358	219	106	91
Chloride .. .. .	15	57	4	67	55	84
Sulphate .. .. .	2,685	451	7	9	17	20
Ecuador—						
Sulphate .. .. .	359	<i>n.a.</i>	662	10	305	579
Peru—						
Carbonate .. .. .	71	223	200	200	131	107
Chloride .. .. .	83	105	67	96	90	127
Sulphate .. .. .	38	334	70	15	44	44
Uruguay—						
Sulphate .. .. .	139	189	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Barytes .. .. .	56,941	17,910	3,596	3,500	53	17,058
Carbonate .. .. .	56	45	48	33	25	40
Chloride .. .. .	505	361	618	229	453	218
Sulphate .. .. .	50	34	46	56	87	121
Formosa—						
Carbonate .. .. .	<i>n.a.</i>	24	30	49	54	136
Chloride .. .. .	<i>n.a.</i>	25	26	37	42	35
Iraq—						
Barytes .. .. .	22,207	5,410	342	218	32	<i>n.a.</i>
Israel—						
Barytes .. .. .	<i>n.a.</i>	<i>n.a.</i>	120	200	476	455
Japan—						
Barytes .. .. .	10,714	18,212	8,863	5,797	5,811	11,164
Lebanon—						
Barytes and witherite ..	<i>n.a.</i>	103	3	52	227	<i>n.a.</i>
Turkey—						
Barytes .. .. .	319	971	63	6	10	<i>n.a.</i>
Carbonate .. .. .	27	43	102	98	61	<i>n.a.</i>
Chloride .. .. .	126	102	8	160	1	<i>n.a.</i>
Sulphate .. .. .	76	19	342	973	741	<i>n.a.</i>

**BENTONITE**  
(see also Fuller's Earth)  
**PRODUCTION OF BENTONITE**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Cyprus (a) .. ..	1,009	219	—	—	536	1,528
India .. .. .	<i>n.a.</i>	<i>n.a.</i>	(b) 11,000	(b) 14,000	25,120	<i>n.a.</i>
Pakistan .. .. .	<i>n.a.</i>	579	967	393	<i>n.a.</i>	<i>n.a.</i>
Australia—						
Bentonite .. ..	133	382	587	485	1,392	676
Bentonitic clay ..	152	190	307	299	136	999
New Zealand .. ..	2,149	2,165	1,661	1,488	1,660	1,806
<b>OTHER COUNTRIES</b>						
Austria .. .. .	3,090	3,227	3,528	3,178	2,744	3,072
Greece .. .. .	20,000	24,000	25,000	r 20,352	<i>n.a.</i>	<i>n.a.</i>
Hungary .. .. .	51,016	69,826	73,602	82,780	110,917	<i>n.a.</i>
Italy .. .. .	94,395	156,461	154,864	r 125,465	157,586	153,215
Spain .. .. .	6,481	4,761	7,222	11,975	13,945	<i>n.a.</i>
Yugoslavia .. ..	7,675	<i>n.a.</i>	17,711	(b) 20,000	<i>n.a.</i>	<i>n.a.</i>
Morocco .. .. .	22,025	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mozambique .. ..	—	36	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	903
South Africa .. ..	2,609	3,421	4,042	5,555	7,691	(d) 9,167
United States (c) ..	1,225,255	1,132,857	1,167,135	1,289,406	1,414,746	1,544,199
Peru .. .. .	<i>n.a.</i>	236	395	261	<i>n.a.</i>	654
Turkey .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(b) 2,000	(b) 2,000

Bentonite is also produced in Canada, France, Germany, Algeria and Japan.

(a) Exports of bentonitic clay.

(c) Sold or used by producers.

(b) Estimated.

(d) Sales.

## EXPORTS OF BENTONITE

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Cyprus (a) .. ..	1,009	219	—	—	536	1,528
India .. ..	455	56	289	214	22	66
<b>OTHER COUNTRIES</b>						
Austria .. ..	2	74	32	86	36	3
France .. ..	3,673	3,790	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) ..	891	189	1,127	702	206	232
Greece .. ..	15,531	22,568	13,210	15,553	<i>n.a.</i>	<i>n.a.</i>
Italy .. ..	11,548	10,560	19,053	27,788	29,586	22,105
Yugoslavia .. ..	6,878	11,595	9,405	8,570	12,846	17,358
Algeria .. ..	26,014	27,650	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco .. ..	12,263	11,898	7,948	7,095	6,253	8,401
United States .. ..	42,192	51,867	39,119	53,853	<i>n.a.</i>	<i>n.a.</i>
Argentina .. ..	2,735	2,153	4,595	6,779	5,214	5,548

(a) Bentonitic clay.

## IMPORTS OF BENTONITE

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	102,184
India .. ..	45	147	75	141	159	904
Australia (a) .. ..	6,330	7,270	6,895	9,205	10,727	14,010
<b>OTHER COUNTRIES</b>						
Austria .. ..	2,837	3,407	4,669	5,971	9,976	13,604
France .. ..	31,407	22,694	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Germany (Federal) ..	1,934	3,053	3,828	3,550	3,859	4,550
Italy .. ..	6,196	4,784	3,919	4,275	3,955	4,642
Poland .. ..	4,353	5,675	6,536	<i>n.a.</i>	8,344	8,668
Portugal .. ..	652	<i>n.a.</i>	1,050	1,348	1,322	1,547
Sweden .. ..	7,190	9,640	9,649	2,053	2,127	5,804
Algeria .. ..	7,841	6,063	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco .. ..	100	13	37	45	12	20
United States .. ..	828	197	652	247	<i>n.a.</i>	160
Brazil .. ..	<i>n.a.</i>	<i>n.a.</i>	3,603	7,091	6,116	8,069
Colombia .. ..	1,254	2,803	2,301	2,337	2,599	2,194
Ecuador .. ..	213	<i>n.a.</i>	178	117	125	352
Venezuela .. ..	7,159	3,114	3,722	4,092	2,784	4,540

(a) Including bentonitic clay.

**BERYL**  
**PRODUCTION OF BERYL**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	2	1	1	—	—	1
Rhodesia .. .. .	393	481	354	498	222	162
Swaziland .. .. .	2	5	6	—	2	—
Uganda .. .. .	209	419	1,015	996	374	(c) 466
Zambia .. .. .	2	2	—	—	—	—
India (a) .. .. .	—	893	790	134	—	—
Australia .. .. .	317	190	306	223	110	80
<b>OTHER COUNTRIES</b>						
Norway (a) .. .. .	4	—	—	—	—	—
Portugal .. .. .	36	29	34	17	2	18
Sweden .. .. .	(a) 37	—	—	(a) —	(a) —	(a) 44
Congo Republic .. .. .	250	332	164	272	210	(a) 200
Malagasy Republic .. .. .	423	626	746	663	405	209
Mozambique .. .. .	1,392	1,425	943	560	548	399
Rwanda and Burundi .. .. .	166	277	468	351	252	281
South Africa .. .. .	181	291	171	321	379	135
South West Africa .. .. .	152	231	225	142	54	6
United States (b) .. .. .	379	454	1,002	873	671	n.a.
Argentina .. .. .	576	659	419	220	186	185
Brazil .. .. .	865	1,669	1,111	987	467	567
Afghanistan .. .. .	—	10	—	—	—	—
Korea (South) .. .. .	—	—	5	—	—	—
<b>TOTAL* .. .. .</b>	<b>5,400</b>	<b>8,000</b>	<b>7,800</b>	<b>6,300</b>	<b>3,900</b>	<b>3,000</b>

\*Excluding beryl known to have been produced in the U.S.S.R.

(a) Imports into the United States.

(b) Shipments from mine. Including lower grade beryllium ore as follows:  
1959—87 long tons; 1960—237 long tons; 1961—719 long tons; 1962—679 long tons;  
1963—670 long tons; 1964—nil.

(c) Exports.

EXPORTS OF BERYL

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia (b) .. ..	272	533	381	451	268	142
Uganda .. .. .	171	382	871	1,064	341	466
India (a) .. .. .	—	893	790	134	—	—
Australia .. .. .	—	148	167	218	129	93
<b>OTHER COUNTRIES</b>						
Italy .. .. .	67	179	37	—	—	—
Portugal .. .. .	79	29	—	—	n.a.	n.a.
Congo Republic .. ..	446	412	(a) 196	(a) 433	(a) 455	(a) 225
Malagasy Republic .. ..	232	607	827	713	223	235
Mozambique .. .. .	1,496	1,402	957	r 216	731	376
South Africa .. .. .	95	217	64	312	266	82
South West Africa .. ..	99	89	91	115	36	10
Argentina .. .. .	2,978	1,033	1,329	890	739	395
Brazil .. .. .	2,613	3,417	3,128	2,963	1,937	1,379

(a) Imports into the United States.

(b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

IMPORTS OF BERYL\*

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) .. ..	255	18	26	5	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
France .. .. .	545	861	776	601	120	375
Italy .. .. .	—	779	925	—	—	—
United States .. .. .	7,177	7,985	7,603	7,636	5,574	4,844

\*Imports of Beryl are not recorded separately in the trade returns of most countries.

(a) Not separately recorded in official trade returns. Figures represent exports to the United Kingdom from certain producing countries and are not necessarily complete.

**BISMUTH**  
**PRODUCTION OF BISMUTH ORE, ETC.\***

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964				
<b>COMMONWEALTH COUNTRIES</b>										
Uganda—										
Ore ( <i>Bi content</i> ) ..	7	2	1	—	—	—				
Canada—										
Metal plus content of bullion and concen- trates exported ..	149	189	213	190	160	173				
<b>OTHER COUNTRIES</b>										
France—										
Mispickel ( <i>Bi content</i> ) ..	45	50	52	62	67	68				
Spain—										
Ore ( <i>Bi content</i> ) ..	27	15	9	2	4	—				
Sweden—										
Metal ( <i>c</i> ) .. ..	29	35	35	69	69	69				
Yugoslavia—										
Metal .. ..	89	103	97	89	87	82				
Mozambique—										
Ore ( <i>Bi content</i> ) ..	10	14	22	8	14	9				
South Africa—										
Ore ( <i>Bi content</i> ) ..	—	—	—	—	1	—				
South West Africa—										
Ore .. ..	1	—	1	—	—	5				
Mexico—										
Ore ( <i>Bi content</i> ) ..	235	268	1,047	350	420	<i>n.a.</i>				
Argentina—										
Concentrates ( <i>Bi content</i> ) .. ( <i>c</i> )	18	( <i>c</i> ) 7	( <i>c</i> ) 4	3	3	( <i>c</i> ) 3				
Bolivia ( <i>b</i> )—										
Ore, etc. ( <i>Bi content</i> ) ..	218	180	208	291	276	270				
Peru—										
Concentrates ( <i>Bi content</i> ) .. ..	} ( <i>d</i> ) 107	{ ( <i>d</i> ) 4	( <i>d</i> ) 1	( <i>d</i> ) 3	( <i>d</i> ) 4	<i>n.a.</i>				
Lead bars ( <i>Bi content</i> ) .. ..							27	78	51	83
Metal .. ..							223	375	382	430
Japan—										
Ore ( <i>Bi content</i> ) ..	—	311	1,006	1,184	226	—				
Korea (South)—										
Ore ( <i>Bi content</i> ) ..	101	142	149	158	156	( <i>c</i> ) 200				

\*Bismuth ore has also been produced in Germany, Roumania, Burma and China and the metal recovered as a by-product in the United Kingdom, U.S.S.R., United States and Japan.

(a) Estimated.

(b) Exports.

(c) United States Bureau of Mines' estimate.

(d) Recoverable.

## EXPORTS OF BISMUTH, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bismuth.. ..	407	380	382	509	603	717
Bismuth salts .. ..	173	199	214	142	<i>n.a.</i>	55
Uganda—						
Ore ( <i>Bi content</i> ) .. ..	6	4	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Canada—						
Bismuth.. ..	134	128	174	171	178	<i>n.a.</i>
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bismuth.. ..	63	(a) 51	(a) 51	(a) 64	(a) 120	(a) 146
France—						
Bismuth (a) .. ..	58	54	64	44	46	60
Germany (Federal)—						
Bismuth.. ..	205	152	136	137	114	58
Netherlands—						
Bismuth (a) .. ..	<i>n.a.</i>	<i>n.a.</i>	148	149	178	155
Bismuth salts .. ..	21	16	21	67	79	47
Spain—						
Bismuth.. ..	25	—	—	—	—	—
Yugoslavia—						
Bismuth.. ..	67	78	70	64	57	38
South Africa—						
Ore .. ..	70	3	1	—	—	—
Mexico—						
Bismuth, refined .. ..	95	90	91	122	141	171
do. impure bars .. ..	198	198	1,323	295	263	393
United States—						
Matte, residues, etc. .. ..	89	—	67	104	2	6
Metal and alloys .. ..	80	70	75	53	14	21
Argentina—						
Ore .. ..	48	—	—	—	—	—
Bolivia—						
Ore, etc. ( <i>Bi content</i> ) .. ..	218	180	208	291	276	270
Peru—						
Bars, etc. ( <i>Bi content</i> ) .. ..	277	339	326	731	495	730
Japan—						
Bismuth.. ..	—	10	48	87	159	245
Korea (South)—						
Bismuth, unwrought .. ..	73	57	56	—	<i>n.a.</i>	<i>n.a.</i>

(a) Including scrap.

## IMPORTS OF BISMUTH, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Bismuth . . . . .	455	471	216	528	422	609
Unwrought alloys . . . . .	123	124	340	348	278	379
Canada—						
Bismuth . . . . .	6	3	8	25	3	<i>n.a.</i>
Bismuth salts . . . . .	5	4	6	5	3	<i>n.a.</i>
India—						
Bismuth and alloys . . . . .	49	(a) 38	(a) 60	(a) 44	(a) 41	(a) 56
Australia (b)—						
Bismuth . . . . .	17	16	17	12	16	17
Bismuth salts . . . . .	12	10	12	7	8	7
New Zealand—						
Bismuth and its salts . . . . .	4	2	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bismuth . . . . .	22	(c) 26	(c) 40	(c) 98	(c) 1,181	(c) 71
Bismuth salts . . . . .	62	77	66	74	81	84
France—						
Bismuth (c) . . . . .	445	515	508	556	654	773
Germany (Federal)—						
Bismuth (c) . . . . .	249	212	232	276	250	254
Italy—						
Bismuth . . . . .	27	38	35	44	43	39
Bismuth salts . . . . .	2	11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands—						
Bismuth salts . . . . .	67	84	60	86	119	104
Poland—						
Bismuth . . . . .	89	44	20	<i>n.a.</i>	71	97
Spain—						
Bismuth . . . . .	1	13	23	17	8	21
Bismuth salts . . . . .	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Bismuth salts . . . . .	7	14	15	13	10	8
Mexico—						
Bismuth salts . . . . .	5	8	8	5	8	10
United States—						
Bismuth . . . . .	193	515	341	358	502	551
Argentina—						
Bismuth and its salts . . . . .	1	2	5	1	3	9
Brazil—						
Bismuth . . . . .	2	3	5	7	11	2
Bismuth salts . . . . .	9	23	18	4	13	16
Chile—						
Bismuth . . . . .	1	1	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bismuth salts . . . . .	5	8	4	5	8	6
Peru—						
Bismuth salts . . . . .	1	—	1	1	1	1
Japan—						
Bismuth . . . . .	—	8	2	2	3	2
Turkey—						
Bismuth salts . . . . .	8	3	4	5	5	<i>n.a.</i>

(a) Years ended March 31 following that stated.

(c) Including scrap.

(b) Years ended June 30 of that stated.



**BORATES**  
**PRODUCTION OF CRUDE BORATES**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
Italy— Boric acid .. ..	2,450	2,615	1,745	r 1,356	506	314
United States (a)— Borates .. ..	553,523	571,956	538,047	577,333	625,163	693,106
Argentina— Borates .. ..	10,479	<i>n.a.</i>	6,728	14,271	<i>n.a.</i>	<i>n.a.</i>
Chile— Boron minerals ..	5,665	2,873	157	3,754	5,870	3,262
Turkey— Borates .. ..	78,985	68,736	63,999	112,141	86,697	126,228

Borates are known to have been produced in the U.S.S.R., Germany, Iran and Tibet.

(a) Sold or used by producers.

## EXPORTS OF BORATES

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Borax .. .. .	1,149	935	656	667	620	917
Other borates and perborates .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	6,289	9,835
Hong Kong—						
Borax, refined .. ..	95	21	28	2	13	17
India—						
Borax .. .. .	1	(a) —	(a) —	(a) —	(a) —	(a) —
<b>OTHER COUNTRIES</b>						
Austria—						
Boric acid .. ..	4	—	—	—	—	—
Perborates .. ..	2,587	<i>n.a.</i>	2,077	1,710	2,020	2,287
Belgium-Luxemburg						
E.U.—						
Borax .. .. .	14	33	102	5	28	22
Boric acid .. ..	4	8	10	7	—	1
Borates and perborates	666	1,370	2,881	4,062	3,375	5,626
France—						
Boron minerals .. ..	<i>n.a.</i>	99	64	122	348	667
Borax, refined .. ..	1,241	3,878	3,094	3,273	6,300	7,086
Boric acid .. ..	178	658	3,056	5,496	10,865	13,166
Borates and perborates	969	911	955	4,466	5,669	7,935
Germany (Federal)—						
Borax .. .. .	354	161	79	210	106	95
Boric acid .. ..	173	107	111	62	60	82
Borates and perborates	9,132	8,522	8,432	8,590	8,807	12,239
Italy—						
Boric acid crude .. ..	3	—	3,578	3,957	4,365	5,954
do. refined .. ..	677	1,731				
Borax, refined .. ..	2,080	1,150	905	1,537	2,489	2,056
Perborates .. ..	355	974	1,232	702	343	237
Netherlands—						
Boron minerals .. ..	<i>n.a.</i>	—	<i>n.a.</i>	—	20	84,194
Borax, refined .. ..	425	202	167	421	257	8,593
Boric acid .. ..	17	21	22	31	44	25
Perborates .. ..	<i>n.a.</i>	—	—	—	41	<i>n.a.</i>
Sweden—						
Perborate of sodium ..	157	47	16	71	30	42
Switzerland—						
Borates and perborates	<i>n.a.</i>	2,830	2,242	1,941	1,639	1,535
United States—						
Borax, borates and boric acid .. ..	226,494	268,398	240,421	260,950	302,600	342,054
Argentina—						
Borates of calcium and sodium .. ..	2,006	981	2,239	3,516	5,324	875
Japan—						
Borax .. .. .	2	5	4	(b) 14	19	83
Boric acid .. ..	53	21	5	8	10	31
Turkey—						
Borates .. .. .	60,525	60,552	63,305	87,081	90,094	116,538

(a) Years ended March 31 following that stated.

(b) Including other borates and perborates.

## IMPORTS OF BORATES

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Boron minerals .. ..	21,967	23,712	21,438	21,591	25,870	<i>n.a.</i>
Borax .. ..	25,616	28,699	22,412	21,497	21,389	27,279
Boric acid .. ..	3,645	6,799	3,773	3,475	<i>n.a.</i>	3,255
Rhodesia (c)—						
Borax .. ..	117	134	117	139	113	<i>n.a.</i>
Boric acid .. ..	12	12	13	12	12	<i>n.a.</i>
Canada—						
Borax .. ..	8,999	8,942	10,465	11,631	13,023	9,390
Boric acid .. ..	2,017	2,082	2,018	2,378	1,352	1,463
Hong Kong—						
Borax, refined .. ..	3,753	3,147	3,191	3,780	3,369	3,740
Boric acid .. ..	89	97	160	97	122	123
India—						
Borax .. ..	5,731	5,898	6,217	4,807	5,995	8,683
Boric acid .. ..	717	(b) 1,042	(b) 1,046	(b) 638	(b) 1,041	(b) 2,421
Pakistan—						
Borax .. ..	651	644	404	287	340	<i>n.a.</i>
Australia (a)—						
Boron minerals .. ..	<i>n.a.</i>	783	1,093	1,833	1,912	975
Boron salts .. ..	3,495	3,940	4,311	3,417	3,988	4,462
Boric acid .. ..	1,080	1,427	1,046	1,009	1,168	1,304
New Zealand—						
Borax, crude .. ..	752	700	1,088	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. ..	247	301	388	477	(a) 422	<i>n.a.</i>
Irish Republic—						
Borax .. ..	779	914	1,001	1,109	1,305	1,035
<b>OTHER COUNTRIES</b>						
Austria—						
Boron minerals .. ..	4,259	3,047	4,103	4,112	3,634	5,447
Borates .. ..	3	2	1	3	24	27
Boric acid .. ..	2	1	6	2	5	22
Perborates .. ..	4	6	5	5	153	3
Belgium-Luxemburg						
E.U.—						
Borax .. ..	3,464	3,878	4,413	5,186	6,488	10,429
Boric acid .. ..	297	1,039	1,038	373	551	717
Borates and perborates	2,662	2,623	2,514	2,001	1,966	1,731
Denmark—						
Boron minerals .. ..	723	706	569	903	799	925
Borax .. ..	96	110	118	156	131	140
Boric acid .. ..	92	78	98	99	104	135
Borates and perborates	1,785	1,931	2,073	2,660	2,250	3,209
Finland—						
Boron minerals .. ..	<i>n.a.</i>	<i>n.a.</i>	1	1,024	784	1,496
Borax .. ..	1,243	1,026	779	753	918	557
Boric acid .. ..	81	172	137	192	118	172
Borates and perborates	<i>n.a.</i>	<i>n.a.</i>	1,340	1,483	1,649	2,288
France—						
Boron minerals .. ..	20,096	25,721	25,584	32,028	39,115	46,436
Borax refined .. ..	10,472	13,400	13,990	17,586	21,424	25,671
Boric acid .. ..	745	1,521	1,589	1,432	419	613
Borates and perborates	568	559	560	548	727	614
Germany (Federal)—						
Boron minerals .. ..	26,810	39,874	37,736	32,262	43,920	47,850
Boric acid .. ..	5,399	7,363	6,275	7,406	6,737	10,906
Borax .. ..	11,704	13,228	12,580	13,266	15,359	20,600
Borates and perborates	74	42	214	213	148	1,136

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF BORATES (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Greece—						
Boron minerals.. ..	<i>n.a.</i>	201	198	103	306	310
Borax .. ..	54	21	—	16	32	1
Boric acid .. ..	22	12	29	23	19	37
Italy—						
Boron minerals .. ..	18,961	28,291	36,631	57,289	49,383	53,667
Borax .. ..	2,650	3,603	3,430	4,138	6,123	6,588
Boric Acid .. ..	—	—	6	163	180	108
Borates .. ..	5	1	378	43	74	5,917
Perborates .. ..	99	—	168	301	1,221	
Netherlands—						
Boron minerals.. ..	2,756	3,259	2,078	3,770	3,445	90,726
Borax .. ..	8,897	8,065	10,674	10,166	11,164	20,691
Boric acid .. ..	1,160	934	1,572	1,431	1,974	2,333
Perborates .. ..	1,147	2,213	3,390	4,310	3,703	5,195
Norway—						
Borax .. ..	1,265	1,552	2,241	1,348	1,758	2,492
Boric acid .. ..	48	629	823	629	291	726
Perborate of sodium .. ..	1,425	1,285	1,573	2,053	1,709	2,018
Portugal—						
Boric acid .. ..	75	123	83	86	100	163
Borax .. ..	821	1,056	776	1,014	1,103	1,355
Spain—						
Boric acid .. ..	—	5	—	—	6	316
Borates .. ..	—	6	9	177	6,644	10,876
Sweden—						
Borax .. ..	2,696	2,134	2,879	3,731	3,367	4,166
Boric acid .. ..	344	281	349	258	427	418
Perborate of sodium .. ..	1,027	2,416	3,049	3,407	2,970	4,662
Switzerland—						
Borax .. ..	2,595	(a) 373	(a) 86	(a) 135	(a) 155	(a) 206
Boric acid .. ..	} <i>n.a.</i>	365	253	471	456	583
Borates .. ..		4,039	4,010	4,569	4,350	4,737
Perborates .. ..		118	298	478	468	4
U.S.S.R.—						
Borax .. ..	<i>n.a.</i>	<i>n.a.</i>	14,200	6,300	7,300	15,000
Yugoslavia—						
Boric acid .. ..	94	179	339	361	366	408
Algeria—						
Borax .. ..	83	96	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. ..	11	7	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Perborates .. ..	28	23	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Borax .. ..	23	17	38	11	39	24
Congo Republic—						
Boric acid .. ..	9	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Borax .. ..	30	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Perborates .. ..	131	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Borax .. ..	313	274	610	227	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. ..	140	169	213	1	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Borates .. ..	108	95	88	276	414	317
Perborates .. ..	12	27	26	10	35	16
Mozambique—						
Borax .. ..	8	7	7	4	6	8
Boric acid .. ..	—	3	1	1	2	1
South Africa—						
Borax .. ..	1,320	1,194	1,983	1,675	1,341	<i>n.a.</i>
Boric acid .. ..	172	293	181	343	193	<i>n.a.</i>
Tunisia—						
Borax etc. .. ..	29	43	42	36	20	19

(a) Crude borax only.

## IMPORTS OF BORATES (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Cuba—						
Borax .. .. .	316	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	127	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Borax .. .. .	4,209	4,638	4,141	4,134	5,937	2,390
Boric acid .. .. .	535	744	737	814	822	950
Brazil—						
Boron minerals .. .. .	1,110	694	1,077	1,082	—	—
Boric acid .. .. .	686	386	586	873	967	1,004
Borax .. .. .	3,848	3,440	4,479	6,212	7,944	7,895
Borates .. .. .	11	4	2	1	1	—
Colombia—						
Borax .. .. .	217	370	375	616	961	357
Boric acid .. .. .	148	189	225	210	322	189
Perborate of sodium .. .. .	82	108	63	99	104	109
Ecuador—						
Borax .. .. .	32	<i>n.a.</i>	25	4	18	34
Boric acid .. .. .	8	<i>n.a.</i>	13	9	10	16
Peru—						
Borax .. .. .	438	435	324	356	331	347
Boric acid .. .. .	110	113	104	51	123	88
Uruguay—						
Borates .. .. .	408	407	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Borax .. .. .	211	196	262	382	584	1,515
Boric acid .. .. .	105	74	207	102	87	142
Formosa—						
Borax .. .. .	<i>n.a.</i>	1,019	559	981	1,100	1,442
Boric acid .. .. .	34	66	76	92	69	110
Iran (a)—						
Borax .. .. .	163	—	180	227	316	230
Boric acid .. .. .	11	5	6	10	11	23
Israel—						
Borates .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	661	310	493
Perborate of sodium .. .. .	<i>n.a.</i>	148	73	88	295	271
Japan—						
Borax .. .. .	13,249	14,739	17,164	20,154	24,482	26,903
Boric acid .. .. .	4,715	4,943	5,032	5,775	6,028	7,351
Korea (South)—						
Borax .. .. .	189	367	296	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lebanon—						
Borates .. .. .	148	256	344	445	584	<i>n.a.</i>
Perborates .. .. .						
Philippine Republic—						
Boric acid .. .. .	93	49	36	34	105	<i>n.a.</i>
Syria—						
Borax .. .. .	50	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Boric acid .. .. .	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Borax .. .. .	445	300	565	863	460	467
Boric acid .. .. .	22	13	97	80	101	107
Turkey—						
Borax .. .. .	251	278	235	348	537	<i>n.a.</i>
Boric acid .. .. .	3	31	48	1	8	<i>n.a.</i>

(a) Years ended March 20 following that stated.

**BROMINE**  
**PRODUCTION OF BROMINE**

Lb. avdp.

Producing Country	1959	1960	1961	1962	1963	1964
France (a) .. ..	3,770,000	4,430,000	4,039,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Italy .. ..	1,574,308	2,036,250	2,153,560	2,207,535	2,562,428	<i>n.a.</i>
United States (a) (b) ..	195,483,000	175,010,000	180,798,000	190,747,000	203,333,000	223,000,000
Israel .. ..	4,000,000	5,292,000	(c)9,700,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan .. ..	3,474,000	4,301,000	6,120,000	6,360,000	6,120,000	6,360,000

Bromine is also produced in the United Kingdom (from sea water), Germany (Federal) and Spain.

(a) Sales.

(b) Including bromine content of compounds.

(c) Year ended 31st March, 1962.

**EXPORTS OF BROMINE, ETC.**

Lb. avdp.

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Bromides .. ..	481,000 (£58,170)	698,000 (£81,238)	647,700 (£79,347)	<i>n.a.</i> <i>n.a.</i>	(a) (£138,775)	(a) (£180,195)
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.—						
Bromine .. ..	—	—	—	—	—	33,069
Bromides, etc. .. ..	1,500	17,800	700	200	—	16,314
France—						
Bromine .. ..	901,000	1,303,200	901,200	842,000	1,682,127	2,153,916
Bromides .. ..	1,901,500	2,289,100	1,380,500	1,817,000	1,732,833	2,087,777
Germany (Federal)—						
Bromides .. ..	152,100	194,900	168,900	<i>n.a.</i>	130,955	177,472
Italy—						
Bromine .. ..	—	59,609	—	400	—	215,171
Bromides .. ..	3,748	452	2,400	13,000	15,873	35,053
Netherlands—						
Bromides, etc. .. ..	1,082,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,027,354	1,044,991
United States—						
Bromine and compounds (b) .. ..	9,171,539	10,241,178	11,120,085	8,800,351	10,839,960	17,036,442
Israel—						
Bromine .. ..	2,209,000	2,601,000	2,313,000	2,523,000	2,193,000	<i>n.a.</i>
Japan—						
Bromine .. ..	68	534	22,300	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Bromine compounds ..	33,281	31,268	27,818	208,052	277,725	390,172

(a) Quantity not available; value shown relates to all bromides and bromates.

(b) Including organic compounds.

## IMPORTS OF BROMINE, ETC.

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Canada—						
Bromine .. ..	66,434	70,301	62,007	35,415	39,389	n.a.
Bromide of soda .. ..	87,918	67,353	106,103	77,906	100,077	n.a.
India—						
Bromine .. ..	560	(b) 162,700	(b) 302,000	(b) 456,141	(b) 397,895	(b) 265,961
Bromide of potash .. ..	220	(b) 150	(b) 1,850	(b) 1,629	(b) 22,046	(b) 602
Bromide of soda .. ..	—	(b) 4	(b) 50	(b) —	(b) 22,046	(b) —
Australia (a)—						
Bromine .. ..	(£412)	—	—	—	—	—
Bromate of potash .. ..	10,710	24,842	25,877	38,276	44,406	42,096
Bromide of potash .. ..	58,968	140,356	98,664	51,913	65,364	78,978
Bromates and bromides of soda .. ..	35,211	91,219	83,009	69,335	69,064	94,734
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Bromine .. ..	30,200	18,300	15,400	32,600	27,558	36,817
Bromides, etc. .. ..	534,800	749,100	911,400	870,400	957,247	1,464,972
Denmark—						
Bromine .. ..	197,500	4,000	31,700	11,000	11,000	6,600
Bromide of potash .. ..	12,300	23,400	11,500	22,000	11,000	8,800
Bromide of soda .. ..	82,500	87,100	24,300	90,000	44,100	94,800
Other bromides .. ..	n.a.	n.a.	n.a.	n.a.	46,297	39,683
Finland—						
Bromine .. ..	n.a.	n.a.	6,032	2,015	2,646	1,733
France—						
Bromine .. ..	n.a.	—	—	—	6,614	253,532
Bromides .. ..	2,600	1,100	3,100	18,000	13,228	33,069
Germany (Federal)—						
Bromides .. ..	90,600	25,100	22,900	n.a.	238,761	399,257
Greece—						
Bromine .. ..	717	1,109	1,629	606	454	2,313
Italy—						
Bromine .. ..	311,407	698,788	1,023,600	477,962	111,995	117,506
Bromides .. ..	25,108	33,711	22,500	147,000	252,650	154,544
Netherlands—						
Bromine .. ..	—	—	—	—	1,157,427	910,509
Bromides, etc. .. ..	423,000	403,000	247,000	326,000	244,713	326,284
Norway—						
Bromine .. ..	1,768	2,000	2,000	2,000	—	—
Portugal—						
Bromine .. ..	589	n.a.	1,100	882	220	441
Bromide of soda .. ..	745	} 4,000	20,700	9,500	12,787	32,628
Bromide of potash .. ..	6,169					
Bromide of ammonium .. ..	646					
Spain—						
Bromides .. ..	2	n.a.	n.a.	n.a.	82,978	85,608
Sweden—						
Bromine .. ..	n.a.	7,000	22,000	9,000	17,637	2,205
Algeria—						
Bromine .. ..	200	—	n.a.	n.a.	n.a.	n.a.
Bromides .. ..	10,600	20,700	n.a.	n.a.	n.a.	n.a.
Congo Republic—						
Bromides .. ..	198	n.a.	n.a.	n.a.	n.a.	n.a.
Morocco—						
Bromides .. ..	6,934	4,672	11,691	7,072	5,344	6,241
South Africa—						
Bromine .. ..	1,407	6,461	14,457	1,826	9,956	n.a.

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF BROMINE, ETC. (cont.)

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico—						
Bromine .. .. .	85,085	151,841	49,423	130,723	84,433	100,650
Bromides of potash and soda .. .. .	31,006	59,298	72,087	64,415	22,368	40,730
United States—						
Bromine and compounds	26,200	347,163	293,582	461,108	374,012	<i>n.a.</i>
Argentina—						
Bromine and compounds	151,142	192,891	206,086	284,050	239,598	342,552
Brazil—						
Bromine .. .. .	6,508	2,469	1,512	2,473	344	743
Bromides .. .. .	311,418	779,923	672,000	668,627	573,332	332,298
Chile—						
Bromine .. .. .	817	362	562	1,497	<i>n.a.</i>	<i>n.a.</i>
Bromides .. .. .	2,515	1,016	1,285	944	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bromine .. .. .	60	—	—	—	1,181	2,571
Bromides, etc. .. .. .	21,160	17,701	14,125	16,795	17,331	25,153
Peru—						
Bromine .. .. .	478	604	522	269	926	324
Bromides .. .. .	11,584	3,413	5,593	6,620	7,311	6,660
Iran (a)—						
Bromides .. .. .	456	4,850	47,772	31,654	22,578	36,564
Japan—						
Bromine compounds .. .. .	201	—	7	6,700	26,440	40,431
Philippine Republic—						
Bromide of potash .. .. .	24,295	18,973	<i>n.a.</i>	<i>n.a.</i>	21,599	<i>n.a.</i>
Thailand—						
Bromide of potash .. .. .	20,386	17,245	25,513	12,946	19,207	19,619
Turkey—						
Bromine .. .. .	1,188	2,015	456	—	322	<i>n.a.</i>
Bromides .. .. .	8,093	3,497	3,622	6,285	7,209	<i>n.a.</i>

(a) Years ended March 20 following that stated.



**CADMIUM**  
**PRODUCTION OF CADMIUM**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	138	105	97	106	110	194
Zambia .. ..	—	26	19	17	15	14
Canada (b) .. ..	964	1,052	606	1,163	1,105	1,250
Australia .. ..	341	300	311	353	486	495
<b>OTHER COUNTRIES</b>						
Austria .. ..	20	15	19	22	19	19
Belgium .. ..	1,200	900	1,000	1,000	1,000	1,000
France .. ..	240	250	250	253	292	379
Germany (Federal) ..	413	403	425	250	219	314
Italy .. ..	246	262	341	r 243	277	273
Netherlands (e) ..	40	45	85	95	100	105
Norway .. ..	127	108	103	113	107	111
Poland (g) .. ..	380	380	390	390	410	410
Spain .. ..	6	12	25	34	59	60
U.S.S.R. (g) .. ..	1,480	r 1,400	r 1,500	r 1,600	(g) 1,700	(g) 1,800
Yugoslavia .. ..	32	38	(g) 39	(g) 39	(g) 39	(g) 40
Congo Republic ..	467	497	524	290	389	464
South West Africa (a) ..	578	773	780	544	472	315
Guatemala .. ..	n.a.	18	39	4	3	—
Honduras .. ..	—	4	5	15	33	(g) 34
Mexico (c) .. ..	565	1,162	764	598	713	(h) 953
United States—						
Metal (d) .. ..	3,888	4,663	4,672	4,972	4,460	4,669
Peru (f) .. ..	76	107	129	126	192	(g) 227
Japan .. ..	483	559	713	869	996	1,196
Philippine Republic ..	—	—	—	1	11	11
<b>TOTAL* .. ..</b>	<b>10,000</b>	<b>11,000</b>	<b>r 11,000</b>	<b>12,000</b>	<b>12,000</b>	<b>13,000</b>

\*In the case of South West Africa and Mexico the metal is wholly or mainly extracted in other countries and, to avoid duplication, is excluded from the total. A certain amount of duplication in the case of certain other countries, however, is unavoidable.

Cadmium is also reported to be produced in Bulgaria.

- (a) Estimated cadmium content of copper-lead-zinc concentrates produced and exported for treatment
- (b) Metal produced plus cadmium content of concentrates exported.
- (c) Including cadmium content of flue dust, etc., exported for treatment.
- (d) Including secondary.
- (e) Estimate. Source: "Metallgesellschaft".
- (f) Including cadmium content of concentrates.
- (g) Estimate. Source: United States Bureau of Mines.
- (h) Exports.

## EXPORTS OF CADMIUM, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Zambia (e) .. ..	6	5	5	35	19	13
Canada .. .. .	884	918	888	1,045	866	725
Australia .. ..	143	60	156	194	325	340
OTHER COUNTRIES						
Belgium-Luxemburg E.U. (a) .. .. .	679	707	888	828	867	829
France—						
Cadmium (a) .. ..	5	17	23	21	64	76
Cadmium sulphide ..	—	—	5	18	4	—
Germany (Federal)—						
Cadmium (a) .. ..	83	106	77	63	48	52
Cadmium oxide .. ..	21	32	24	32	18	9
Italy—						
Cadmium (a) .. ..	35	23	41	81	3	14
Cadmium salts .. ..	1	21	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	—
Netherlands (a) .. ..	<i>n.a.</i>	99	118	174	242	183
Norway .. .. .	133	90	92	86	85	72
Poland .. .. .	340	342	341	<i>n.a.</i>	285	292
U.S.S.R. .. .. .	314	899	1,040	1,100	984	689
Yugoslavia .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	50	2
Congo Republic .. ..	576	(d) 500	(d) 500	(d) 300	(d) 600	(d) 350
South West Africa (b) ..	578	773	780	544	472	315
Mexico (c) .. .. .	468	1,094	696	534	1,073	953
United States—						
Metal, alloys, dross, flue dust, etc. .. .. .	402	1,093	313	320	586	643
Peru .. .. .	71	71	93	117	147	205
Japan .. .. .	57	4	22	255	1,175	345

(a) Including scrap.

(b) Cadmium content of concentrates exported for treatment.

(c) Including cadmium content of flue dust, etc., exported for treatment.

(d) Estimated.

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF CADMIUM, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,127	1,389	1,149	1,157	1,380	1,549
India .. .. .	96	(a) 77	(a) 71	(a) 41	(a) 60	(a) 105
Australia (b)—						
Cadmium salts ..	2	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Austria .. .. .	22	17	23	12	15	12
Belgium-Luxemburg						
E.U. (c) .. .. .	76	112	122	158	481	222
Denmark .. .. .	43	43	42	36	29	21
France—						
Cadmium (c) .. ..	389	655	641	840	795	567
Cadmium sulphide ..	14	25	22	18	18	12
Germany (Federal)—						
Cadmium (c) .. ..	630	942	797	903	987	890
Cadmium oxide .. ..	18	20	31	54	62	73
Italy—						
Cadmium (c) .. ..	36	92	58	81	73	47
Cadmium oxide .. ..	5	14	16	23	15	15
Cadmium sulphide ..	5	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands—						
Cadmium (c) .. ..	<i>n.a.</i>	102	133	213	186	174
Cadmium salts .. ..	<i>n.a.</i>	<i>n.a.</i>	26	24	48	75
Sweden .. .. .	137	104	129	102	185	140
U.S.S.R. .. .. .	300	283	329	329	255	153
Yugoslavia .. .. .	2	1	1	—	—	12
Algeria .. .. .	1	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States—						
Cadmium .. .. .	731	420	482	499	342	493
Flue dust (cadmium content) .. .. .	689	831	107	701	333	568
Argentina—						
Cadmium and salts ..	2	1	5	2	1	1
Brazil—						
Cadmium .. .. .	30	16	38	34	46	28
Cadmium salts .. ..	—	—	—	1	—	—

(a) Years ended March 31 following that stated.

(c) Including scrap.

(b) Years ended June 30 of that stated.

**CEMENT**  
**PRODUCTION OF CEMENT**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	12,591,000	13,288,000	14,149,000	r 14,028,000	13,837,000	16,700,000
Kenya .. .. .	308,002	335,766	324,717	340,905	338,000	416,000
Malawi .. .. .	34,219	30,000	36,000	32,000	25,000	31,000
Nigeria .. .. .	120,700	155,000	357,000	r 475,000	519,000	648,000
Rhodesia .. .. .	417,000	n.a.	275,000	n.a.	n.a.	n.a.
Uganda .. .. .	80,332	71,056	64,884	55,051	54,282	71,600
Zambia .. .. .	134,000	125,000	120,000	117,000	114,000	167,000
Canada (a) .. .. .	5,611,148	5,167,165	5,541,025	6,141,722	6,262,198	6,914,746
Jamaica .. .. .	193,600	209,069	212,303	196,520	197,550	277,465
Trinidad .. .. .	177,300	174,400	96,500	162,700	159,700	173,400
Ceylon .. .. .	93,463	83,623	80,473	83,442	74,049	73,436
Cyprus .. .. .	81,760	83,722	93,098	93,695	83,457	77,792
Hong Kong .. .. .	139,820	147,620	181,341	208,591	213,198	211,636
India .. .. .	6,825,000	7,720,000	8,114,000	8,450,000	9,207,000	9,537,000
Malaya .. .. .	189,500	281,900	r 326,000	320,000	355,000	458,000
Pakistan .. .. .	986,000	1,120,000	1,223,000	1,373,000	1,474,000	1,522,000
Australia .. .. .	2,574,600	2,747,400	2,813,000	2,887,000	3,070,000	3,570,000
Fiji .. .. .	—	—	—	—	—	31,000
New Zealand .. .. .	553,000	607,000	641,000	621,000	711,000	775,000
<b>TOTAL .. .. .</b>	<b>31,000,000</b>	<b>33,000,000</b>	<b>35,000,000</b>	<b>36,000,000</b>	<b>37,000,000</b>	<b>42,000,000</b>
<b>Irish Republic .. .. .</b>	<b>618,462</b>	<b>733,602</b>	<b>732,528</b>	<b>873,459</b>	<b>869,482</b>	<b>1,062,917</b>
<b>OTHER COUNTRIES</b>						
Albania .. .. .	73,000	72,000	118,000	117,000	128,000	123,000
Austria .. .. .	2,378,330	2,785,040	3,035,450	3,008,830	3,259,960	3,709,200
Belgium (b) .. .. .	4,368,480	4,318,620	4,678,792	r 4,712,580	4,635,020	5,753,730
Bulgaria .. .. .	1,410,000	1,560,000	1,721,000	1,863,000	2,170,000	2,545,000
Czechoslovakia .. .. .	4,669,000	4,971,000	5,259,000	5,620,000	5,096,000	5,406,000
Denmark—						
Portland cement .. .. .	1,214,073	1,248,173	1,352,952	1,401,604	1,267,106	1,676,665
Special cements .. .. .	153,983	170,866	206,288	204,546	229,851	191,322
Finland .. .. .	1,151,400	1,232,915	1,319,900	1,335,900	1,396,490	1,547,099
France—						
Portland cement .. .. .	8,847,996	9,134,976	9,455,689	11,571,177	12,447,198	} 20,964,000
Portland blast furnace cements .. .. .	3,095,017	3,163,445	3,126,525	2,773,763	3,827,851	
Slag cements .. .. .	156,710	30,998	63,140	10,449	43,472	
Masonry cements .. .. .	358,004	375,118	488,174	417,825	521,148	
Natural cements .. .. .	172,606	119,177	173,931	390,596	270,958	
Special cements .. .. .	1,147,519	1,111,728	1,831,010	1,451,948	737,134	
Germany (Federal)—						
Portland cement .. .. .	16,339,000	17,778,000	19,192,000	20,411,000	21,179,000	24,397,000
Portland blast furnace cements .. .. .	5,130,000	5,849,000	6,515,000	6,701,000	6,723,000	* 7,756,000
Special cements .. .. .	1,022,000	886,000	1,007,000	1,029,000	854,000	947,000
Germany (East) .. .. .	4,139,000	4,953,000	5,192,000	5,346,000	5,372,000	5,676,000
Greece .. .. .	1,421,000	1,558,661	1,741,292	1,891,000	2,240,000	2,629,688
Hungary .. .. .	1,409,589	1,546,278	1,576,156	1,705,941	1,769,200	2,221,042
Iceland .. .. .	77,000	72,000	74,000	96,000	97,000	106,000
Italy .. .. .	14,105,441	15,683,552	17,698,986	19,838,415	21,700,000	22,500,000
Luxemburg .. .. .	188,977	206,395	227,520	226,367	198,467	202,000
Netherlands .. .. .	1,574,400	1,769,100	1,872,612	1,983,000	2,048,000	2,827,300
Norway .. .. .	1,112,784	1,132,962	1,254,266	1,389,587	1,414,998	1,487,634
Poland .. .. .	5,233,000	6,495,000	7,248,000	7,425,000	7,553,000	8,623,000

(a) Sold or used by producers. Excluding Portland cement made from imported clinker.

(b) Excluding natural cement.

PRODUCTION OF CEMENT (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Portugal .. .. .	1,014,731	1,182,826	1,224,717	1,378,759	1,410,159	1,595,985
Roumania .. .. .	2,805,501	3,006,200	3,255,538	3,434,129	4,300,000	4,677,000
Saar .. .. .	307,000	(c)	(c)	(c)	(c)	(c)
Spain—						
Portland cement .. .. .	4,565,928	4,693,092	5,603,290	6,187,313	6,665,709	} 8,090,000
Natural cement .. .. .	500,475	490,495	518,953	546,907	585,565	
Other cements .. .. .	523,108	390,417	285,762	324,655	274,855	
Sweden—						
Portland cement .. .. .	2,714,338	2,745,842	2,878,760	2,919,957	3,100,488	} 3,511,000
Other cements .. .. .	102,677	127,277	151,736	139,169	152,938	
Switzerland .. .. .	2,640,792	2,988,196	3,544,292	3,667,018	3,524,768	4,254,047
U.S.S.R. .. .. .	38,171,000	44,801,000	r 50,061,000	r 56,423,000	60,054,000	63,900,000
Yugoslavia .. .. .	2,185,000	2,360,000	2,299,000	2,478,000	2,803,000	2,991,000
Algeria .. .. .	941,500	1,045,000	1,054,800	631,600	869,900	718,400
Angola .. .. .	152,349	158,603	154,051	166,721	190,962	210,440
Cameroun .. .. .	(e) 11,000	—	—	—	—	—
Canary Islands .. .. .	49,389	68,239	115,284	120,058	99,296	(h)
Cape Verde Islands .. .. .	9,000	4,000	7,000	(e) 7,000	(e) 7,000	(e) 7,000
Congo Republic .. .. .	339,925	(f) 200,000	140,000	194,000	242,308	228,663
Egypt .. .. .	1,756,000	2,015,000	2,026,000	r 2,276,000	2,487,000	2,480,000
Ethiopia (d) .. .. .	24,829	31,304	32,647	r 43,000	32,000	(e) 43,000
Morocco .. .. .	493,300	570,700	620,400	687,200	747,300	911,800
Mozambique .. .. .	209,996	219,000	208,828	176,335	164,849	178,675
Senegal .. .. .	168,000	165,100	179,100	180,300	186,600	201,700
Sudan .. .. .	98,000	119,000	82,000	84,000	(e) 98,000	(e) 98,000
Tunisia .. .. .	434,900	398,600	r 324,000	356,819	355,000	448,000
South Africa .. .. .	2,605,000	2,662,000	2,557,420	2,616,870	2,838,820	3,401,610
Costa Rica .. .. .	—	—	—	—	—	29,839
Cuba .. .. .	653,000	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Republic .. .. .	186,520	166,984	233,023	238,912	224,566	292,817
Guatemala (f) .. .. .	93,000	96,000	104,000	98,000	n.a.	n.a.
Haiti .. .. .	38,067	52,130	49,104	55,712	49,687	50,587
Honduras .. .. .	10,000	31,000	36,300	54,060	59,000	72,000
Mexico .. .. .	2,666,064	3,040,339	2,987,149	3,299,000	3,615,732	4,270,000
Nicaragua .. .. .	36,919	31,787	38,402	45,181	52,962	60,088
Panama Republic .. .. .	96,000	107,000	112,000	r 120,000	140,000	123,000
Salvador .. .. .	81,763	84,970	73,568	64,082	77,030	91,935
United States (a)—						
Portland cement .. .. .	56,918,800	53,547,900	54,404,800	56,481,900	59,176,900	61,877,700
Prepared masonry cement (b) .. .. .	2,720,100	2,442,800	2,398,500	2,518,500	2,602,800	2,765,900
Natural, slag and hydraulic lime cements	73,500	95,300	37,800	73,900	59,900	46,200
Argentina .. .. .	2,330,000	2,597,191	2,860,355	2,901,866	2,479,318	2,858,469
Bolivia .. .. .	28,990	12,166	43,809	48,646	63,382	62,514
Brazil .. .. .	3,780,115	4,403,623	4,636,341	r 4,913,398	4,803,940	5,123,520
Chile .. .. .	819,788	822,223	869,325	1,058,558	1,150,752	1,247,077
Colombia .. .. .	1,326,335	1,363,048	1,567,000	1,718,393	1,806,000	1,941,000
Ecuador .. .. .	154,449	197,640	215,704	191,005	254,313	284,000
Paraguay .. .. .	7,100	14,000	16,000	r 16,000	18,000	23,000
Peru .. .. .	572,835	590,219	590,218	689,503	742,000	815,000
Uruguay .. .. .	415,000	408,000	383,000	368,000	335,000	406,000
Venezuela .. .. .	1,842,116	1,463,523	1,489,526	1,485,053	1,555,255	1,820,384
Afghanistan (g) .. .. .	33,000	36,000	40,000	59,000	101,000	(e) 123,000
Burma .. .. .	35,630	44,194	38,945	52,440	122,000	129,000
China .. .. .	12,080,000	12,500,000	7,900,000	7,900,000	9,842,000	(e) 10,334,000
Formosa .. .. .	1,055,435	1,160,000	1,480,000	1,840,000	2,210,000	2,320,000
Indonesia .. .. .	339,000	381,000	438,000	r 497,000	325,000	n.a.

(a) Including Puerto Rico.

(b) Excluding masonry cement produced by companies purchasing Portland cement for reprocessing.

(c) Included with Germany (Federal).

(d) Years ended September 10 of that stated.

(e) United States Bureau of Mines' estimate.

(f) Estimated.

(g) Years ended March 20 of year following that stated.

(h) Included with Spain.

## PRODUCTION OF CEMENT (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Iran (c) .. .. .	569,668	784,666	733,000	(a) 730,000	(a) 730,000	(a) 730,000
Iraq .. .. .	(a) 600,000	786,836	906,160	878,247	909,450	1,006,660
Israel .. .. .	768,644	792,785	832,918	938,540	1,010,000	1,080,000
Japan .. .. .	16,996,000	22,183,000	24,243,000	28,332,000	29,475,000	32,431,000
Jordan .. .. .	108,529	162,206	219,602	231,561	280,772	302,933
Korea (South) .. .. .	352,204	424,052	514,575	777,270	766,006	1,222,496
Korea (North) .. .. .	1,896,000	2,249,000	2,226,000	2,338,000	2,490,000	2,569,000
Lebanon .. .. .	731,698	840,254	860,639	609,644	882,457	867,244
Philippine Republic .. .. .	715,677	782,461	1,002,951	945,605	936,295	1,182,148
Saudi Arabia .. .. .	(b) 74,000	(b) 89,000	103,000	150,000	183,000	236,000
Syria .. .. .	441,000	481,000	531,000	597,000	674,000	<i>n.a.</i>
Thailand .. .. .	502,000	518,000	797,000	950,000	980,000	1,053,635
Turkey .. .. .	1,706,659	2,005,611	1,995,971	r 2,286,000	2,655,186	2,893,445
Vietnam (South) .. .. .	—	—	—	—	—	74,000
Vietnam (North) .. .. .	375,200	399,300	(b) 450,000	(b) 455,000	(b) 490,000	(b) 640,000
TOTAL (a) .. .. .	259,000,000	278,000,000	294,000,000	316,000,000	334,000,000	365,000,000
WORLD'S TOTAL (a)	290,000,000	311,000,000	329,000,000	352,000,000	371,000,000	407,000,000

(a) Estimated.

(b) United States Bureau of Mines' estimate.

(c) Years ended March 20 of year following that stated.

**CHINA CLAY**  
**PRODUCTION OF CHINA CLAY**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,312,353	1,638,282	1,717,669	1,696,569	1,898,000	2,032,000
Kenya .. .. .	1,143	1,036	729	1,155	6,558	1,268
Nigeria .. .. .	5	4	—	5	15	3
Rhodesia .. .. .	—	5,905	18,202	—	10,929	18,750
Swaziland .. .. .	—	—	52	r 2,449	1,975	307
Tanzania .. .. .	77	219	155	156	179	109
Ceylon .. .. .	—	—	—	—	—	1,502
Hong Kong .. .. .	7,256	6,663	8,430	6,374	5,019	5,043
India .. .. .	272,729	357,178	365,429	383,559	418,179	422,078
Malaya .. .. .	1,282	1,223	1,571	3,459	1,176	1,420
Pakistan .. .. .	n.a.	73	706	—	—	968
Australia .. .. .	36,974	48,195	51,088	36,070	44,544	40,808
<b>OTHER COUNTRIES</b>						
Austria (crude) .. ..	292,883	317,991	338,461	331,080	343,829	362,305
Belgium .. .. .	n.a.	39,711	n.a.	r 50,887	n.a.	n.a.
Czechoslovakia .. ..	257,000	269,000	295,000	314,000	316,000	308,056
Denmark (c)—						
Crude .. .. .	6,113	6,205	7,649	7,278	11,871	8,594
Washed and pressed .. ..	4,331	4,826	4,169	3,254	n.a.	—
Washed waste .. .. .	5,964	5,774	7,562	9,977	5,069	10,193
France .. .. .	142,000	134,000	143,000	133,000	130,000	123,000
Germany (Federal) .. ..	334,445	338,767	367,579	377,020	381,620	403,010
Greece .. .. .	2,500	26,000	24,800	34,406	n.a.	n.a.
Hungary .. .. .	32,779	42,803	41,694	40,173	43,535	n.a.
Italy—						
Crude .. .. .	57,120	63,024	r 86,008	95,449	97,436	n.a.
Kaolinic earth .. .. .	39,901	45,312	r 71,138	110,130	99,981	n.a.
Portugal—						
Crude .. .. .	16,759	46,126	48,894	42,803	37,385	37,688
Washed .. .. .	26,870					
Spain (crude) .. .. .	114,133	110,589	124,889	165,143	204,330	n.a.
Sweden (b) .. .. .	19,375	26,307	r 26,621	r 25,814	31,222	43,300
Yugoslavia .. .. .	16,000	n.a.	n.a.	4,500	4,000	5,000
Angola .. .. .	—	—	—	30	150	n.a.
Egypt .. .. .	11,041	20,000	26,751	r 14,370	20,677	61,804
Eritrea .. .. .	5,000	1,500	3,500	600	n.a.	n.a.
Mozambique .. .. .	118	113	118	177	5	10
South Africa .. .. .	17,887	26,073	23,637	28,005	33,404	(b) 39,364
Mexico .. .. .	60,192	72,808	59,700	n.a.	45,826	63,211
United States (a) .. ..	2,263,816	2,437,903	2,446,264	2,676,926	2,824,619	2,974,412
Argentina .. .. .	28,000	40,383	35,840	46,809	30,611	40,727
Chile .. .. .	n.a.	8,000	14,000	29,983	36,316	45,214
Colombia .. .. .	15,000	20,000	50,000	70,000	75,000	79,416
Ecuador .. .. .	709	311	536	371	346	204
Peru .. .. .	121	592	459	344	289	325
Formosa .. .. .	5,000	n.a.	n.a.	n.a.	n.a.	n.a.
Iran (d) .. .. .	2,160	4,200	3,000	n.a.	n.a.	n.a.
Japan .. .. .	20,537	20,943	r 26,514	70,725	97,662	105,659
Korea (South) .. .. .	42,137	50,422	50,369	37,590	51,437	59,580
Vietnam (South) .. ..	1,000	2,000	n.a.	4,000	4,400	n.a.

China clay is known to have been produced in Bulgaria, East Germany, Roumania, U.S.S.R., Brazil, China, Israel, Indonesia and Thailand.

(a) Sold or used by producers.

(c) Production in major establishments only.

(b) Sales.

(d) Years ended March 20 of year following that stated.

## EXPORTS OF CHINA CLAY

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	834,903	1,003,923	1,117,440	1,100,672	1,251,387	1,360,813
Tanzania .. ..	42	70	74	90	51	10
Hong Kong .. ..	4,292	7,474	5,805	4,756	4,220	3,097
India .. .. .	302	(b) 217	(b) 744	(b) 474	(b) 208	(b) 698
Malaya .. .. .	83	97	79	70	74	23
<b>OTHER COUNTRIES</b>						
Austria .. .. .	27,190	31,712	35,091	38,465	38,538	34,401
Belgium-Luxemburg						
E.U. .. .. .	29	76	133	116	323	71
Czechoslovakia ..	131,000	142,000	148,000	150,000	160,000	163,000
Denmark .. .. .	1,370	1,294	1,249	1,068	204	73
France .. .. .	21,969	39,209	45,559	51,523	51,137	55,056
Germany (Federal) ..	20,372	26,595	33,300	37,793	51,476	55,866
Germany (East) .. .	<i>n.a.</i>	65,110	61,277	63,113	63,158	61,722
Greece .. .. .	1,772	1,842	3,407	7,967	<i>n.a.</i>	<i>n.a.</i>
Italy .. .. .	37	135	93	108	267	345
Netherlands .. ..	(a) 558	597	226	44	96	209
Portugal .. .. .	18,670	18,152	19,170	15,490	12,799	10,792
Spain .. .. .	3,731	6,837	13,717	9,119	3,312	9,380
Sweden .. .. .	—	18	159	10	11	62
U.S.S.R. .. .. .	91,630	<i>n.a.</i>	4,921	394	3,149	98
Morocco .. .. .	—	—	7	—	—	272
United States .. ..	66,727	71,397	88,201	106,152	99,747	135,469
Argentina .. .. .	198	—	—	—	59	49
Brazil .. .. .	10	108	332	98	197	710
Japan .. .. .	196	1,385	2,390	5,142	2,998	2,736
Korea (South) .. .	5,098	12,117	12,063	7,619	13,626	13,170

(a) Including pipe clay.

(b) Years ended March 31 following that stated.



## IMPORTS OF CHINA CLAY

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	121,194	119,273	129,879	139,688	155,141	151,557
Hong Kong .. .. .	77	1,019	167	349	—	—
India .. .. .	4,288	7,286	10,501	6,588	6,082	5,690
Malaya .. .. .	122	119	212	237	395	455
Pakistan .. .. .	2,424	3,737	5,631	9,065	1,416	n.a.
Australia .. .. .	14,654	9,093	14,890	12,389	22,119	20,908
New Zealand .. .. .	1,368	1,914	1,978	1,693	(d) 1,569	n.a.
<b>OTHER COUNTRIES</b>						
Austria .. .. .	6,159	6,745	7,173	8,546	9,312	12,773
Belgium-Luxemburg						
E.U. .. .. .	40,938	45,711	43,810	45,537	51,494	57,491
Denmark .. .. .	21,175	28,261	30,152	30,932	31,093	34,788
Finland .. .. .	57,007	91,471	101,276	105,865	111,736	132,614
France .. .. .	90,984	122,712	125,386	149,566	181,302	201,772
Germany (Federal)	229,858	267,868	287,664	294,688	333,271	358,831
Italy .. .. .	110,905	158,135	183,183	202,408	224,047	275,577
Netherlands .. .. .	(b) 98,291	111,578	108,386	100,105	110,399	128,128
Norway .. .. .	38,887	47,152	56,253	48,384	66,739	69,586
Poland .. .. .	62,800	70,000	72,600	n.a.	79,700	76,500
Portugal .. .. .	133	169	802	222	277	252
Spain .. .. .	571	3,231	3,463	7,242	3,308	6,050
Sweden .. .. .	94,403	116,392	121,770	128,948	136,444	159,821
Yugoslavia .. .. .	6,402	6,883	8,386	16,944	20,486	25,461
Algeria .. .. .	3,220	3,700	n.a.	n.a.	n.a.	n.a.
Angola .. .. .	—	17	40	37	97	63
Morocco .. .. .	2,023	2,395	1,885	1,446	4,247	1,807
Mozambique .. .. .	33	19	38	134	87	125
South Africa (a) ..	3,739	3,678	3,911	4,394	5,058	1,172
Costa Rica .. .. .	n.a.	1,822	381	855	1,203	101
Guatemala .. .. .	2,686	2,369	1,219	241	301	275
Mexico .. .. .	9,904	11,345	7,744	8,299	9,943	9,193
United States .. .. .	126,014	113,677	118,251	99,954	95,717	104,568
Argentina .. .. .	637	5,121	6,113	5,330	6,353	10,452
Brazil .. .. .	107	122	399	195	233	110
Chile .. .. .	146	63	113	113	n.a.	n.a.
Colombia .. .. .	678	762	2,205	3,078	3,368	3,180
Ecuador .. .. .	55	n.a.	35	29	56	5
Peru .. .. .	532	478	401	552	555	1,827
Uruguay .. .. .	1,969	2,276	n.a.	n.a.	n.a.	n.a.
Venezuela .. .. .	2,875	2,914	4,135	6,306	4,078	5,976
Indonesia .. .. .	909	1,640	2,722	n.a.	n.a.	n.a.
Iran (c) .. .. .	n.a.	186	229	281	191	519
Japan .. .. .	14,811	31,687	36,178	35,407	48,291	52,920
Philippine Republic	1,930	3,075	2,847	1,331	2,237	n.a.
Turkey .. .. .	838	15	4	1	66	n.a.

(a) Including Cornish or China stone.

(c) Years ended March 20 following that stated.

(b) Including pipe clay.

(d) Year ended June 30 of that stated.

**CHROME ORE AND CHROMIUM  
PRODUCTION OF CHROME ORE**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964	Estimated Cr <sub>2</sub> O <sub>3</sub> content				1964	
							1959	1960	1961	1962		1963
<b>COMMONWEALTH COUNTRIES</b>												
Rhodesia ..	484,918	596,791	527,581	453,294	368,209	440,510	233,000	286,000	253,000	218,000	177,000	211,000
Sierra Leone ..	17,834	5,378	r	11,269	2,738	—	7,000	2,000	—	5,000	1,000	—
Cyprus (a) ..	13,427	19,977	17,698	6,435	4,831	—	6,337	9,000	8,000	3,000	2,000	—
India ..	94,086	98,531	45,201	65,595	64,015	32,896	45,200	47,300	21,700	31,500	30,700	15,800
Pakistan (c) ..	16,023	18,094	25,103	r	14,306	13,290	8,000	9,000	12,000	10,000	7,000	6,000
Australia ..	—	529	—	369	160	—	60	265	—	185	80	—
<b>TOTAL</b>	<b>626,408</b>	<b>739,300</b>	<b>r 615,583</b>	<b>r 558,097</b>	<b>454,259</b>	<b>486,696</b>						
<b>OTHER COUNTRIES</b>												
Albania ..	243,100	281,500	230,000	250,000	289,000	(e)305,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Greece ..	64,262	44,969	76,624	r	n.a.	n.a.	30,000	20,000	35,000	26,000	n.a.	n.a.
U.S.S.R. (e) ..	840,000	902,000	906,000	1,130,000	1,210,000	1,300,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Yugoslavia ..	105,326	98,993	106,418	95,512	92,289	86,963	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt ..	246	295	1,366	—	—	—	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Malagasy Republic ..	—	—	10,300	19,000	11,000	11,584	—	—	—	—	—	—
South Africa ..	669,534	759,751	883,683	898,369	779,654	836,132	300,000	340,000	400,000	400,000	350,000	380,000
Sudan ..	—	—	17,000	8,000	17,000	(b)17,000	—	—	—	n.a.	n.a.	n.a.
Cuba ..	(h)39,046	(h)29,262	(e)24,600	(e)35,000	(e)49,800	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Guatemala ..	404	178	100	38	—	—	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United States (f) ..	(g)94,113	(g)95,282	(g)73,000	—	—	—	—	—	—	—	—	—
Brazil ..	6,126	5,577	15,212	24,447	43,344	25,384	36,000	37,000	28,000	n.a.	n.a.	n.a.
Colombia ..	—	—	182	138	108	394	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Iran (d) ..	65,292	67,000	72,600	108,000	96,000	(e)114,000	31,000	32,000	35,000	52,000	46,000	55,000
Japan ..	56,766	66,423	69,063	57,165	43,040	43,261	19,800	23,400	24,400	20,300	15,100	15,000
Philippine Republic ..	643,166	722,840	630,189	522,896	451,870	460,687	221,000	248,000	218,000	178,000	154,000	157,000
Turkey ..	381,539	472,045	(i)396,369	461,739	397,511	406,167	183,000	221,000	190,000	220,000	190,000	190,000
New Caledonia ..	43,271	38,542	36,083	15,211	—	—	22,000	20,000	19,000	8,000	—	—
<b>TOTAL</b>	<b>3,300,000</b>	<b>3,600,000</b>	<b>3,500,000</b>	<b>3,700,000</b>	<b>3,600,000</b>	<b>3,700,000</b>						
<b>World's TOTAL</b>	<b>3,900,000</b>	<b>4,300,000</b>	<b>4,100,000</b>	<b>4,300,000</b>	<b>4,000,000</b>	<b>4,200,000</b>						

Chrome ore is also produced in Bulgaria, Roumania and North Vietnam.

(a) Figures relate to saleable production.

(b) Estimated.

(c) West Pakistan.

(d) Years ended March 20 following that stated. Probably partial production only.

(e) United States Bureau of Mines' estimate.

(f) Shipments from mine.

(g) Produced for Federal Government only. Excludes quantity consumed by American Chrome Company.

(h) Imports into the United States.

(i) Including saleable production only of metallurgical chromite.

## EXPORTS OF CHROME ORE, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Chromium metal .. .. .	994	1,025	315	267	442	616
Rhodesia (c) .. .. .						
Ore .. .. .	492,304	482,715	424,993	385,430	275,217	448,477
Ferro-chrome .. .. .	9,651	9,221	8,920	7,839	9,838	22,332
Sierra Leone—						
Ore .. .. .	5,011	14,719	8,988	9,357	8,700	—
Canada—						
Ferro-chrome .. .. .	6,709	4,117	1,466	5,895	2,598	154
Cyprus—						
Ore and concentrates .. .. .	12,176	14,020	18,820	9,526	400	9,150
India—						
Ore .. .. .	80,362	(a) 29,861	(a) 41,034	(a) 17,241	(a) 11,469	(a) 30,468
Pakistan—						
Ore .. .. .	13,775	10,880	12,942	9,648	3,893	n.a.
<b>OTHER COUNTRIES</b>						
Albania—						
Ore .. .. .	196,054	244,575	230,107	264,850	244,083	n.a.
Austria—						
Ore .. .. .	158	246	623	632	407	635
France—						
Chromium metal .. .. .	580	527	409	189	273	182
Ferro-chrome .. .. .	21,000	18,526	16,218	15,070	17,605	17,717
Germany (Federal)—						
Ore .. .. .	574	521	7,190	778	1,445	1,497
Chromium metal .. .. .	260	143	174	47	54	52
Greece—						
Ore .. .. .	20,783	28,595	27,945	19,228	15,085	22,153
Italy—						
Ore .. .. .	—	2	—	—	1,476	2,038
Ferro-chrome .. .. .	8,743	7,488	10,797	2,276	1,942	4,119
Netherlands—						
Ore .. .. .	104	289	412	1,103	1,453	1,252
Norway—						
Ferro-chrome .. .. .	30,604	34,097	21,252	16,797	27,043	33,672
Ferro-silico-chrome .. .. .	2,256	6,950	3,158	2,631	4,692	8,106
Sweden—						
Ore .. .. .	—	3	—	—	n.a.	—
Ferro-chrome .. .. .	15,597	15,592	18,656	17,057	22,613	20,231
U.S.S.R.—						
Ore .. .. .	267,700	420,300	431,000	464,500	558,000	652,500
Ferro-chrome .. .. .	18,400	21,800	21,400	15,700	3,100	15,200
Yugoslavia—						
Ore and concentrates .. .. .	24,507	19,675	5,538	29,668	23,142	23,508
Ferro-chrome .. .. .	7,871	8,822	7,303	5,763	7,184	6,906
Egypt—						
Ore .. .. .	5	n.a.	n.a.	n.a.	n.a.	n.a.
Malagasy Republic—						
Ore .. .. .	—	—	4,925	18,706	12,795	6,892
South Africa—						
Ore .. .. .	599,513	743,827	846,685	779,084	595,090	619,447
Cuba—						
Ore .. .. .	25,530	24,400	29,298	n.a.	n.a.	n.a.
Guatemala—						
Ore .. .. .	445	n.a.	n.a.	n.a.	n.a.	n.a.
United States—						
Ore .. .. .	9,893	4,629	9,343	2,398	8,684	5,684
Chromium metal .. .. .	10	56	13	16	10	41
Ferro-chrome .. .. .	5,470	13,918	7,004	2,745	2,354	8,957
Iran (b)—						
Ore .. .. .	44,395	36,789	66,601	72,593	89,804	122,512

(a) Years ended March 31 following that stated.

(b) Years ended March 20 following that stated.

(c) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF CHROME ORE, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Japan—						
Ferro-chrome .. ..	17,273	14,533	15,911	12,288	7,838	3,800
Philippine Republic—						
Ore and concentrates ..	735,250	783,346	621,466	435,306	476,158	578,000
Turkey—						
Ore .. ..	301,050	380,130	382,541	344,054	209,305	345,735
New Caledonia—						
Ore .. ..	44,041	44,154	21,750	14,773	17,672	5,899

## IMPORTS OF CHROME ORE, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	165,092	292,169	256,918	116,341	158,971	222,235
Ferro-chrome .. .. .	31,901	46,606	42,358	24,510	34,458	47,254
Ferro-silicon-chrome .. .. .	1,623	3,595	2,984	3,043	3,848	4,473
Zambia—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	395
Canada—						
Ore .. .. .	43,462	52,699	63,632	64,258	44,334	<i>n.a.</i>
( <i>Cr content</i> ) .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	18,566
Ferro-chrome .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	9,359
India—						
Ore .. .. .	—	4,804	2,806	1,500	—	—
Ferro-chrome .. .. .	271	(a) 410	(a) 803	(a) 656	(a) 477	(a) 1,280
Australia—						
Ore .. .. .	6,381	21,259	17,049	8,538	16,128	32,212
Ferro-chrome .. .. .	2,824	5,714	4,133	1,974	2,713	3,023
OTHER COUNTRIES						
Austria—						
Ore .. .. .	52,290	58,899	82,060	61,551	46,413	49,480
Ferro-chrome .. .. .	11,254	14,009	11,660	9,523	12,073	15,037
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	491	697	1,107	449	1,015	1,412
Chromium metal .. .. .	6	14	9	14	71	28
Ferro-chrome and silico- chrome .. .. .	2,759	4,258	4,161	4,672	4,469	6,950
Denmark—						
Ferro-chrome .. .. .	321	450	437	413	308	347
Finland—						
Ferro-chrome .. .. .	1,109	1,402	1,649	1,153	995	457
France—						
Ore .. .. .	151,202	185,677	194,624	158,279	151,235	190,339
Ferro-chrome .. .. .	12	285	361	942	889	2,252
Germany (Federal)—						
Ore .. .. .	263,392	355,881	319,040	224,520	171,740	232,954
Chromium metal .. .. .	8	40	48	38	74	67
Germany (East)—						
Ore (b) .. .. .	21,441	25,630	25,740	34,310	16,250	29,791
Hungary—						
Ore .. .. .	21,470	25,328	28,899	26,323	35,373	29,213
Ferro-chrome .. .. .	2,130	2,260	3,419	4,035	5,632	4,215
Italy—						
Ore .. .. .	53,348	69,885	74,341	55,611	44,031	78,269
Chromium metal .. .. .	5	19	19	18	29	21
Ferro-chrome .. .. .	8,359	15,091	14,157	10,217	14,753	16,710
Netherlands—						
Ore .. .. .	708	1,235	844	2,302	2,657	2,728
Chromium metal .. .. .	<i>n.a.</i>	5	10	14	16	17
Ferro-chrome .. .. .	290	499	302	438	376	820
Norway—						
Ore .. .. .	72,432	92,332	99,934	49,946	31,755	107,660
Poland—						
Ore .. .. .	60,900	99,100	123,000	<i>n.a.</i>	84,000	115,500
Spain—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	16,280	19,348	14,889	18,001
Ferro-chrome .. .. .	950	581	1,314	1,656	1,873	2,143
Sweden—						
Ore .. .. .	108,768	138,723	105,184	104,136	113,336	149,654
Chromium metal .. .. .	50	115	75	32	105	162
Ferro-chrome .. .. .	6,318	13,164	7,288	3,060	4,075	7,516

(a) Years ended March 31 following that stated.

 (b)  $Cr_2O_3$  content.

## IMPORTS OF CHROME ORE, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
<i>(cont.)</i>						
Yugoslavia—						
Ore .. .. .	4,923	22,715	15,638	36,282	58,040	59,031
Mexico—						
Ferro-chrome .. .. .	<i>n.a.</i>	222	674	630	853	573
United States—						
Ore .. .. .	1,387,094	1,238,055	1,186,724	1,290,692	1,242,068	1,274,796
<i>(Cr<sub>2</sub>O<sub>3</sub> content)</i> .. .. .	<i>594,163</i>	<i>509,881</i>	<i>505,233</i>	<i>547,832</i>	<i>540,490</i>	<i>576,512</i>
Ferro-chrome .. .. .	83,331	44,096	24,834	32,425	25,931	23,321
<i>(Cr content)</i> .. .. .	<i>57,202</i>	<i>30,523</i>	<i>16,694</i>	<i>22,144</i>	<i>17,808</i>	<i>15,800</i>
Metal and alloys .. .. .	2,558	811	618	578	860	654
Brazil—						
Ore .. .. .	14	8,102	1,719	4,148	—	—
Ferro-chrome .. .. .	269	585	881	895	985	472
Chile—						
Ferro-chrome .. .. .	5	25	97	60	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Ore .. .. .	256,852	274,723	319,367	250,856	222,938	390,166
Ferro-chrome .. .. .	—	2	1,006	530	2,008	5,581
Turkey—						
Ferro-chrome .. .. .	4	14	16	46	56	<i>n.a.</i>

# COAL, COKE AND BY-PRODUCTS

## PRODUCTION OF COAL

(Including Brown Coal and Lignite)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
<b>Mined—</b>						
Anthracite .. ..	2,949,700	2,875,200	2,779,800	3,136,200	3,327,000	3,468,200
Bituminous .. ..	192,323,400	183,176,300	179,157,500	186,192,300	186,329,700	183,349,300
<b>Opencast—</b>						
Anthracite .. ..	656,100	719,800	767,400	766,100	832,200	1,129,900
Bituminous .. ..	10,177,000	6,832,900	7,760,600	7,341,500	5,305,700	5,679,600
<b>Northern Ireland—</b>						
Bituminous .. ..	5,362	4,965	12,527	12,165	9,115	6,831
<b>Nigeria—</b>						
Sub-bituminous .. ..	741,757	561,995	597,365	623,948	586,130	663,816
<b>Rhodesia—</b>						
Bituminous .. ..	3,699,277	3,503,103	3,024,371	2,781,230	2,697,222	2,720,646
<b>Swaziland—</b>						
Anthracite .. ..	1,423	11,469	964	—	—	4,009
<b>Tanzania—</b>						
Bituminous .. ..	1,739	2,264	2,302	3,024	2,051	1,000
<b>Canada—</b>						
Bituminous .. ..	6,201,303	6,517,646	6,095,762	5,831,511	6,292,719	6,446,761
Sub-bituminous .. ..	1,548,110	1,375,515	1,215,804	1,336,760	1,477,047	1,879,386
Lignite .. ..	1,738,732	1,938,212	1,972,188	2,014,559	1,672,818	1,780,392
<b>India—</b>						
Bituminous .. ..	47,046,078	51,762,147	55,180,089	60,401,000	64,914,000	61,454,000
Lignite .. ..	32,639	46,204	62,758	207,420	983,449	1,544,392
<b>Pakistan—</b>						
Lignite .. ..	732,634	817,197	900,860	979,327	1,223,000	1,195,000
<b>Malaya—</b>						
Sub-bituminous .. ..	75,634	6,847	—	—	—	—
<b>Australia—</b>						
Semi-anthracite .. ..	54,066	50,095	58,579	69,301	61,000	73,000
Bituminous .. ..	18,576,508	20,640,884	21,991,221	22,006,032	22,268,000	24,444,000
Sub-bituminous .. ..	1,667,868	1,877,981	1,956,258	2,394,186	2,527,000	2,845,000
Brown coal .. ..	13,034,605	14,967,202	16,279,569	17,137,438	18,456,642	19,033,000
<b>New Zealand—</b>						
Anthracite .. ..	1,919	504	169	653	233	147
Bituminous .. ..	838,990	799,621	756,363	700,427	660,869	681,683
Sub-bituminous .. ..	1,798,352	2,051,703	2,011,546	1,700,856	1,919,892	2,038,253
Lignite .. ..	170,333	160,215	156,647	148,260	161,417	156,889
<b>TOTAL .. ..</b>	<b>304,073,500</b>	<b>300,700,000</b>	<b>302,740,600</b>	<b>315,784,000</b>	<b>321,707,000</b>	<b>320,595,000</b>
<b>Irish Republic—</b>						
Anthracite including dust .. ..	152,584	128,170	133,887	129,963	146,751	142,379
Semi-bituminous and other coal .. ..	77,773	76,166	70,377	74,739	82,517	84,568
<b>OTHER COUNTRIES</b>						
<b>Albania—</b>						
Brown coal and lignite .. ..	284,000	285,000	290,000	296,000	248,000	250,000
<b>Austria—</b>						
Bituminous .. ..	131,865	129,951	104,540	97,786	101,887	101,697
Brown coal .. ..	6,122,495	5,879,024	5,571,311	5,621,385	5,957,434	5,669,741
<b>Belgium—</b>						
Anthracite .. ..	6,302,530	5,800,930	5,433,390	5,638,991	} 21,079,661	20,968,033
Bituminous .. ..	16,094,820	16,313,510	15,762,410	15,229,826		

## PRODUCTION OF COAL (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bulgaria—</b>						
Anthracite and bituminous .. ..	490,000	560,000	580,000	620,000	646,000	589,000
Brown coal and lignite ..	14,600,000	16,310,000	17,760,000	19,890,000	20,918,000	23,346,000
<b>Czechoslovakia—</b>						
Bituminous .. ..	24,727,000	25,800,000	25,819,000	26,720,000	27,735,000	27,757,000
Brown coal .. ..	50,305,000	54,599,000	61,088,000	64,778,000	68,231,000	} 74,411,000
Lignite .. ..	2,550,000	2,882,000	3,184,000	3,609,000	3,914,000	
<b>Denmark—</b>						
Lignite .. ..	2,268,000	2,273,000	2,129,000	1,993,000	1,967,000	(g)1,900,000
<b>France—</b>						
Anthracite and bituminous .. ..	56,697,049	55,082,224	51,535,660	51,542,439	47,007,259	52,192,000
Lignite .. ..	2,140,170	2,242,583	2,860,683	2,836,391	2,432,290	2,206,000
<b>Germany—</b>						
Federal Republic (b)—						
Anthracite .. ..	7,002,177	6,680,378	7,135,369	7,942,384	8,822,263	9,342,760
Bituminous (a) ..	116,654,000	133,408,633	133,396,479	131,009,800	131,099,458	130,659,749
Pechkohle .. ..	1,751,484	1,754,782	1,735,060	1,732,211	1,812,180	1,839,293
Brown coal .. ..	92,190,421	94,620,781	95,660,108	99,581,347	104,975,646	109,190,748
East Germany—						
Bituminous .. ..	2,796,000	2,678,000	2,629,000	2,534,000	2,444,000	2,303,000
Brown coal .. ..	211,391,000	221,904,000	233,184,000	243,091,000	250,204,000	252,868,000
<b>Greece—</b>						
Lignite .. ..	1,495,600	2,453,000	2,464,000	r 2,651,955	3,265,000	3,495,000
<b>Hungary—</b>						
Bituminous .. ..	2,691,045	2,802,465	3,022,096	3,287,982	3,651,000	4,060,000
Brown coal .. ..	18,255,533	19,139,598	20,065,809	20,322,146	21,586,000	22,010,000
Lignite .. ..	4,009,631	4,162,810	4,642,055	4,588,627	4,760,000	4,980,000
<b>Italy—</b>						
Anthracite .. ..	30,743	19,228	23,620	r 16,300	13,800	9,212
Bituminous .. ..	696,251	706,059	706,264	r 665,328	563,005	454,863
Brown coal .. ..	1,202,832	781,887	1,501,370	r 1,747,896	1,343,658	1,181,669
<b>Netherlands—</b>						
Bituminous .. ..	11,789,011	12,301,091	12,421,637	11,390,000	11,327,000	11,299,000
Brown coal .. ..	195,625	3,908	—	—	—	—
<b>Poland—</b>						
Bituminous .. ..	97,500,000	102,800,000	104,900,000	107,900,000	111,400,000	115,000,000
Brown coal .. ..	9,112,000	9,180,000	10,175,000	10,916,000	15,102,000	20,000,000
<b>Portugal—</b>						
Anthracite .. ..	518,876	428,000	447,141	398,714	409,000	437,000
Brown coal .. ..	156,939	154,000	155,613	150,182	140,000	99,000
<b>Roumania—</b>						
Anthracite and bituminous ..	295,000	325,000	340,000	370,000	390,000	(e)
Lignite .. ..	3,228,000	3,095,000	3,196,000	3,625,000	3,990,000	4,588,000
Brown coal .. ..	4,328,000	4,614,000	5,030,000	5,443,000	5,725,000	(f)6,359,000
<b>Saar—</b>						
Bituminous .. ..	15,972,000	(c)	(c)	(c)	(c)	(c)
<b>Spain—</b>						
Anthracite .. ..	2,578,866	2,474,638	2,555,714	2,601,083	2,729,021	} 11,916,000
Bituminous .. ..	10,748,167	11,091,054	11,022,547	9,893,054	9,975,270	
Lignite .. ..	2,069,094	1,734,306	2,056,400	2,448,857	2,550,084	
<b>Spitzbergen—</b>						
Bituminous						
Norwegian mines ..	247,704	397,240	363,224	465,380	376,359	435,092
Russian mines (d) ..	450,694	472,808	391,642	361,007	364,484	n.a.

(a) Including Stockheim hard coal.

(b) Excluding production from "small mines", reported as follows (long tons):

Hard coal: 1959—798,157; 1960—903,590; 1961—814,620; 1962—705,739; 1963—608,898; 1964—448,281.

Brown coal: 1959—38,894; 1960—76,638; 1961—71,828; 1962—70,788; 1963—13; 1964—96.

(c) Included with Germany (Federal).

(d) Exports.

(e) Included with brown coal.

(f) Including anthracite and bituminous.

(g) Estimated.



## PRODUCTION OF COAL (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES (cont.)</b>						
Sweden—						
Bituminous .. ..	267,921	246,565	197,272	145,848	97,837	83,200
U.S.S.R.—						
Bituminous and anthracite .. ..	r359,452,000	r369,004,000	r371,065,000	380,329,000	388,888,000	403,529,000
Lignite .. ..	r139,153,000	r136,077,000	r131,407,000	128,907,000	134,433,000	142,000,000
Yugoslavia—						
Bituminous .. ..	1,276,000	1,263,000	1,292,000	1,169,000	1,267,000	1,290,000
Brown coal and lignite	19,498,000	20,092,000	22,401,000	23,133,000	25,672,000	27,805,000
Algeria (Sahara)—						
Bituminous and anthracite .. ..	119,784	116,283	76,319	52,000	39,000	39,000
Congo Republic—						
Bituminous .. ..	262,616	160,000	71,621	75,049	90,400	98,000
Malagasy Republic—						
Bituminous .. ..	—	—	—	—	2,000	3,800
Morocco—						
Anthracite .. ..	457,324	405,983	403,700	360,000	397,800	400,000
Mozambique—						
Bituminous .. ..	252,569	265,367	315,791	292,903	278,341	241,000
South Africa—						
Anthracite and bituminous .. ..	35,876,381	37,570,611	38,939,978	40,623,162	41,783,891	44,207,819
Greenland—						
Bituminous .. ..	27,000	28,000	31,000	26,000	39,000	24,000
Mexico—						
Bituminous .. ..	1,561,000	1,748,000	1,789,000	1,863,000	2,038,000	2,104,000
United States—						
Anthracite .. ..	18,436,862	16,801,287	15,577,178	15,083,612	16,310,164	15,343,081
Bituminous .. ..	365,535,685	r368,541,320	r357,106,502	r374,191,126	407,342,048	432,184,000
Lignite .. ..	2,346,012	2,451,846	2,694,213	2,727,914	2,415,251	2,634,000
Argentina—						
Lignite .. ..	295,800	266,900	330,000	281,200	246,400	415,700
Brazil—						
Bituminous and lignite	2,293,018	2,293,287	2,351,863	2,468,371	2,783,781	2,884,069
Chile—						
Bituminous .. ..	1,861,853	1,447,728	1,735,945	1,825,503	1,691,472	1,760,574
Columbia—						
Bituminous .. ..	2,500,000	2,600,000	2,800,000	3,000,000	3,100,000	3,000,000
Peru—						
Anthracite .. ..	58,218	30,707	20,592	22,114	21,000	30,000
Bituminous .. ..	112,204	128,960	143,877	138,162	108,000	113,000
Venezuela—						
Bituminous .. ..	33,452	34,730	30,134	27,002	41,679	36,011
Afghanistan—						
Bituminous .. ..	36,000	46,000	67,000	(a) 66,000	96,000	111,000
Burma .. ..	1,369	112	1,586	2,515	(c) 5,000	(c) 8,000
China .. ..	342,300,000	413,000,000	245,000,000	245,000,000	270,000,000	c290,000,000
Formosa—						
Bituminous .. ..	3,506,856	3,899,373	4,169,663	4,481,663	4,734,072	4,948,243
Indonesia—						
Bituminous .. ..	627,551	647,717	540,449	464,000	582,000	439,000
Iran (b)—						
Bituminous .. ..	232,799	230,000	249,000	200,000	190,000	(c) 200,000
Japan—						
Anthracite .. ..	1,590,000	1,774,000	1,863,000	1,843,000	1,770,000	1,682,000
Bituminous .. ..	44,921,000	48,487,000	51,759,000	51,695,000	49,459,000	48,443,000
Lignite .. ..	1,445,501	1,386,246	1,288,342	1,093,000	900,000	679,000

(a) Estimated.

(b) Years ended March 20 following that stated.

(c) United States Bureau of Mines' estimate.

PRODUCTION OF COAL (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Korea (South)—</b>						
Anthracite .. ..	4,071,083	5,265,500	5,791,400	7,326,400	8,718,200	9,469,600
<b>Korea (North) .. ..</b>	<b>8,714,000</b>	<b>10,452,000</b>	<b>11,604,000</b>	<b>12,991,000</b>	<b>13,818,000</b>	<b>15,255,000</b>
<b>Mongolia .. ..</b>	<b>593,000</b>	<b>609,000</b>	<b>736,800</b>	<b>847,000</b>	<b>832,000</b>	<b>613,000</b>
<b>Philippine Republic—</b>						
Bituminous .. ..	137,644	145,522	149,922	160,404	154,063	113,121
<b>Thailand—</b>						
Lignite .. ..	107,808	106,081	106,684	133,089	134,910	101,996
<b>Turkey—</b>						
Bituminous .. ..	6,420,846	6,207,446	6,286,388	6,389,093	6,692,866	7,027,000
Lignite .. ..	3,605,103	3,356,845	3,595,646	4,167,776	4,912,924	5,687,000
<b>Vietnam (North)—</b>						
Anthracite .. ..	2,167,000	r 2,554,000	r 2,767,000	3,413,000	3,294,000	(a)3,500,000
<b>Vietnam (South)—</b>						
Anthracite .. ..	20,000	27,000	56,000	70,000	102,000	147,000
<b>TOTAL .. ..</b>	<b>2,180,000,000</b>	<b>r2,290,000,000</b>	<b>r2,140,000,000</b>	<b>2,190,000,000</b>	<b>2,290,000,000</b>	<b>2,390,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,480,000,000</b>	<b>r2,590,000,000</b>	<b>2,440,000,000</b>	<b>2,510,000,000</b>	<b>2,610,000,000</b>	<b>2,710,000,000</b>

(a) Estimated.

PRODUCTION OF COKE

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
Gas-works—coke (a) ..	10,070,000	9,866,000	9,820,000	9,729,000	9,719,000	8,801,000
breeze (a) ..	2,470,000	2,474,000	2,343,000	2,377,000	2,358,000	2,169,000
Coke-ovens—coke ..	17,047,000	18,834,000	17,782,000	15,536,000	15,485,000	16,857,000
breeze ..	1,121,000	1,294,000	1,263,000	1,175,000	1,222,000	1,343,000
Rhodesia .. ..	291,879	226,796	(e) 172,691	(e) 107,062	(e) 104,784	(e) 132,771
<b>Canada—</b>						
Gas-works—coke ..	48,929	3,457,859	3,481,737	3,590,870	3,822,140	3,877,662
breeze ..						
Coke-ovens—coke ..						
breeze ..	3,602,708					
<b>Hong Kong—</b>						
Gas-works (c) .. ..	20,000	18,000	9,000	16,839	14,719	13,000
<b>India—</b>						
Gas-works .. ..	127,377	125,524	125,080	122,920	106,370	68,215
Hard .. ..	4,231,448	4,702,208	6,127,780	6,937,252	8,240,000	7,202,827
Soft .. ..	1,781,576	1,787,286	1,775,836	2,064,961	2,255,024	2,171,662
<b>Australia (d)—</b>						
Gas-works—coke ..	815,464	758,668	764,626	761,355	694,575	693,361
breeze ..	173,618	(f) 316,549	(f) 376,123	(f) 456,719	(f) 379,183	(f) 417,949
Coke-ovens—coke ..	2,196,650	2,376,097	2,738,505	2,716,894	2,759,060	2,915,005
breeze ..	170,190	(g)	(g)	(g)	(g)	(g)
<b>New Zealand (b)—</b>						
Gas-works .. ..	72,016	77,036	86,732	76,920	79,000	n.a.
<b>Irish Republic—</b>						
Gas works (c) .. ..	89,696	111,648	120,920	120,011	126,228	132,459
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Gas-works .. ..	265,928	258,288	249,906	310,203	337,662	307,792
Coke-ovens .. ..	1,524,766	1,808,218	1,753,878	1,628,056	1,608,145	1,582,661
<b>Belgium—</b>						
Gas-works .. ..	2,000	2,000	2,000	2,000	2,000	2,000
Coke-ovens .. ..	7,103,000	7,406,264	7,095,945	7,047,834	7,090,500	7,281,000
<b>Bulgaria .. ..</b>						
	8,878	20,037	19,686	7,671	126,000	n.a.
<b>Czechoslovakia—</b>						
Hard coke .. ..	7,754,000	8,324,000	8,402,000	8,789,000	9,152,000	9,272,000
Brown-coal coke ..	2,149,000	2,142,000	2,121,000	2,078,000	2,081,000	n.a.
<b>Denmark (gas-works) ..</b>						
	330,000	392,000	399,000	411,000	405,000	344,000
<b>Finland (gas-works) ..</b>						
	134,000	136,000	n.a.	n.a.	n.a.	n.a.
<b>France—</b>						
Gas-works (e) .. ..	1,004,000	684,300	422,700	243,000	136,000	60,000
Coke-ovens .. ..	12,930,134	13,419,321	13,266,892	13,305,091	13,251,173	13,786,000
Semi-coke .. ..	283,297	292,622	273,202	265,028	266,952	291,000
<b>Germany (Federal)—</b>						
Gas-works .. ..	4,935,000	5,138,000	4,870,000	4,882,000	4,746,000	4,834,000
Coke-ovens—hard coke ..	37,921,000	44,047,000	43,829,000	42,514,000	41,233,000	42,664,000
do. brown-coal coke ..	586,000	592,000	592,000	591,000	591,000	587,000
<b>Germany (East)—</b>						
Hard coke .. ..	3,085,000	3,155,000	3,035,000	3,073,000	3,210,000	3,344,000
Brown-coal coke .. ..	7,422,000	7,577,000	7,544,000	7,540,000	7,448,000	7,488,000
<b>Greece (gas-works) ..</b>						
	19,057	23,000	23,000	22,000	21,000	16,000
<b>Hungary—</b>						
Gas-works .. ..	425,000	441,000	429,000	458,000	432,000	420,000
Coke-ovens—hard coke ..	388,000	533,000	681,000	742,000	757,000	764,000
do. brown-coal coke ..	47,000	47,000	47,000	41,000	45,000	41,000

(a) Excluding coke used for heating retorts.

(b) Sales for years ended March 31 of the year following that stated.

(c) Including coke-breeze.

(d) Years ended June 30 of that stated.

(e) Sales.

(f) Including coke-ovens.

(g) Included with gas-works.

## PRODUCTION OF COKE (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Italy—						
Gas-works .. ..	787,308	803,192	769,788	763,270	713,377	533,067
Coke-ovens .. ..	3,006,769	3,656,403	3,835,075	4,259,293	4,522,230	4,608,932
Luxemburg—						
Gas-works .. ..	34,000	36,000	35,000	35,000	35,000	28,000
Netherlands—						
Gas-works .. ..	430,000	287,000	232,000	197,000	174,000	107,000
Coke-ovens .. ..	4,063,000	4,486,000	4,574,000	4,206,000	4,203,000	4,443,000
Norway (gas-works) ..	48,483	45,983	44,372	44,264	57,314	127,820
Poland—						
Gas-works .. ..	972,100	969,800	1,013,200	1,079,100	1,137,100	} 14,000,000
Coke-ovens .. ..	10,412,000	10,772,000	11,355,000	11,822,000	12,522,000	
Portugal (gas-works) ..	34,828	38,000	39,282	30,456	24,941	9,658
Roumania—						
Coke-ovens .. ..	599,784	806,755	924,681	1,100,858	1,123,000	1,128,000
Saar—						
Coke-ovens .. ..	} 4,367,000	(a)	(a)	(a)	(a)	(a)
Semi-coke .. ..						
Spain—						
Gas-works .. ..	268,114	243,951	248,530	228,171	196,341	166,000
Coke-ovens .. ..	2,369,221	2,532,905	2,568,001	2,695,066	2,709,014	2,519,000
Sweden (f) .. ..	722,760	720,792	851,136	r 907,634	885,871	n.a.
Switzerland—						
Gas-works .. ..	460,551	476,170	472,166	488,483	519,651	461,749
U.S.S.R. (f) .. ..	52,550,000	55,345,000	57,678,000	59,967,000	62,864,000	65,300,000
Yugoslavia—						
Gas-works .. ..	20,500	19,500	16,700	17,300	17,000	19,000
Coke-ovens .. ..	1,053,000	1,066,000	1,082,000	1,090,000	1,073,000	1,158,000
Algeria (gas-works) ..	87,277	91,177	61,370	n.a.	n.a.	n.a.
Libya—						
Gas-works (b) .. ..	5,000	5,000	5,000	5,000	5,000	5,000
South Africa—						
Gas-works .. ..	86,301	81,710	77,267	100,571	102,776	95,014
Coke-ovens .. ..	1,968,544	2,076,596	2,188,506	2,168,490	2,250,338	2,706,395
Mexico (coke-ovens) ..	671,000	822,000	768,817	767,807	753,067	n.a.
United States—						
Coke-ovens—						
Coke .. ..	48,918,996	50,195,632	45,384,294	45,623,589	47,596,079	54,382,492
Breeze and screenings	3,313,364	3,308,434	2,979,611	3,057,786	3,222,148	3,483,971
Beehive—						
Coke .. ..	959,193	901,437	786,409	724,886	866,695	1,103,828
Breeze and screenings	66,265	33,633	47,790	38,779	26,434	19,985
Other coke .. ..	n.a.	n.a.	n.a.	147,000	143,000	181,000
Brazil .. ..	(c) 513,074	693,000	688,000	709,000	660,000	704,000
Chile .. ..	321,398	n.a.	255,741	293,800	304,959	324,067
Colombia .. ..	244,160	244,300	197,000	n.a.	393,683	452,681
Peru .. ..	31,651	29,994	35,421	38,876	39,000	28,000
Uruguay (gas-works)—						
Coke .. ..	27,764	31,065	23,105	22,194	20,825	20,521
Breeze .. ..	4,036	4,485	3,774	3,823	2,842	3,642
China (d) .. ..	20,000,000	25,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Formosa .. ..	168,921	190,668	183,793	226,795	229,801	250,612
Iran (e) .. ..	22,000	25,000	n.a.	n.a.	n.a.	n.a.
Japan—						
Gas-works .. ..	3,172,889	3,660,982	3,736,845	3,399,336	3,320,990	3,662,204
Coke-ovens .. ..	5,188,015	6,380,352	8,366,879	8,751,877	9,108,116	10,826,373
Beehive, etc. .. ..	1,819,864	2,033,937	2,373,635	2,614,015	2,767,438	3,110,941
Korea (North) (d) ..	692,000	804,000	900,000	1,100,000	1,200,000	1,400,000
Korea (South) .. ..	—	—	—	35,000	—	—

(a) Included with Germany (Federal).

(d) United States Bureau of Mines' estimate.

(b) Estimated.

(e) Years ended March 20 of year following that stated.

(c) Volta Redonda only.

(f) Including coke-breeze.

PRODUCTION OF COKE (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Turkey—</b>						
Gas-works .. ..	(a) 115,000	(a) 100,000	119,000	150,000	166,000	170,000
Coke-ovens .. ..	521,102	520,938	518,000	505,000	810,000	845,000
Semi-coke .. ..	81,320	82,437	81,000	83,000	78,000	78,000

(a) Estimated.

## PRODUCTION OF BRIQUETTES

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Great Britain .. .. .	1,719,000	1,453,000	1,468,000	1,548,000	1,652,000	1,330,000
Canada .. .. .	136,727	72,484	60,113	48,296	65,000	n.a.
Australia (a)—						
Brown-coal briquettes ..	642,950	974,670	1,806,619	1,819,954	1,805,347	1,882,626
New Zealand .. .. .	15,755	15,082	14,287	11,829	12,645	14,690
Irish Republic .. .. .	483	n.a.	n.a.	n.a.	n.a.	n.a.
OTHER COUNTRIES						
Belgium .. .. .	985,959	1,062,400	1,152,000	1,576,008	2,263,032	1,410,383
Czechoslovakia—						
Coal briquettes .. .. .	372,000	322,000	149,000	—	—	—
Brown-coal briquettes ..	323,000	429,000	708,000	775,000	766,000	n.a.
Denmark (e)—						
Brown-coal briquettes ..	20,062	18,491	34,249	41,458	53,390	58,474
France .. .. .	6,459,303	5,976,028	5,995,109	6,839,514	7,887,216	6,519,000
Germany (Federal)—						
Coal briquettes .. .. .	4,636,000	5,136,354	4,791,975	5,573,939	6,268,739	5,326,113
Brown-coal briquettes ..	14,965,000	15,003,894	15,270,209	15,520,870	15,584,213	15,113,594
Germany (East)—						
Brown-coal briquettes ..	53,197,000	55,162,000	57,080,000	58,784,000	59,304,000	60,533,000
Hungary—						
Coal briquettes .. .. .	1,036,867	1,033,274	1,105,468	1,108,012	1,102,860	n.a.
Brown coal semi-coke briquettes .. .. .	28,396	12,125	14,190	62,549	103,818	n.a.
Netherlands—						
Coal briquettes .. .. .	1,043,550	1,162,400	1,168,932	1,346,000	1,536,000	1,334,000
Brown-coal briquettes ..	62,860	61,500	72,888	69,700	62,000	65,000
Poland—						
Coal briquettes .. .. .	672,000	707,000	664,000	644,000	629,000	615,000
Brown-coal briquettes ..	315,000	308,000	333,000	340,000	350,000	n.a.
Portugal .. .. .	59,039	52,668	54,915	44,304	44,050	40,517
Spain .. .. .	1,257,001	1,125,302	1,100,122	1,217,769	1,173,692	1,023,000
Switzerland (b) .. .. .	100,000	100,000	100,000	100,000	100,000	100,000
Algeria .. .. .	48,713	44,237	39,905	r 16,000	—	—
Morocco .. .. .	15,031	n.a.	n.a.	n.a.	n.a.	n.a.
United States (c) .. .. .	773,321	664,629	510,950	508,949	492,149	320,743
Korea (South) .. .. .	455,048	450,000	579,134	n.a.	n.a.	n.a.
Turkey (d) .. .. .	117,313	147,764	n.a.	n.a.	n.a.	n.a.

(a) Years ended June 30 of that stated.

(b) Estimated.

(c) In addition packaged fuel produced was as follows (long tons):

1959—30,103; 1960—22,059; 1961—17,125; 1962—15,571; 1963—12,692; 1964—8,323.

(d) Sales.

(e) Production in major establishments only.

PRODUCTION OF COAL BY-PRODUCTS\*

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>Great Britain—</b>						
Tar (crude) distilled ..	2,616,000	2,681,000	2,656,000	2,570,000	2,583,000	2,564,000
Tar (refined) .. ..	556,000	547,000	560,000	566,000	574,000	631,000
Pitch .. ..	464,000	412,000	418,000	354,000	418,000	480,000
Motor benzol .. ..	116,000	115,000	131,000	123,000	110,000	118,000
Other motor spirits, etc.	5,700	5,700	6,300	6,700	6,000	6,000
Other refined light oils ..	260,000	287,000	238,000	224,000	236,000	260,000
Creosote-pitch mixture	857,000	1,051,000	904,000	1,020,000	1,008,000	829,000
Creosote oil .. ..	380,000	410,000	400,000	430,000	400,000	470,000
Naphthalene (crude) ..	56,500	67,900	63,800	72,100	73,500	81,800
Naphthalene (refined)	6,100	6,300	7,300	6,300	6,200	5,200
Pyridine bases .. ..	1,500	1,400	1,300	2,000	3,200	4,000
Natural phenol .. ..	18,200	18,500	20,600	16,300	16,600	19,400
Refined cresylic acid ..	67,000	75,000	66,000	66,000	70,200	67,000
Anthracene 40-50% ..	3,700	4,000	4,200	4,000	3,900	4,200
<b>Rhodesia</b>						
Tar (crude) .. ..	(c) 6,081	(c) 3,446	4,842	(c) 6,575	<i>n.a.</i>	<i>n.a.</i>
Motor benzol .. ..	(c) 415	(c) 562	608	(c) 297	<i>n.a.</i>	<i>n.a.</i>
Ammonia liquor .. ..	(c) 1,041	(c) 1,040	1,068	(c) 872	<i>n.a.</i>	<i>n.a.</i>
<b>Canada—</b>						
Tar (crude) .. ..	211,187	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar (refined) .. ..	13,030	13,490	19,250	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Pitch .. ..	120,000	113,000	71,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Creosote oils .. ..	50,790	67,043	43,819	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	25,024	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Benzol .. ..	35,279	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Toluol, xylol and naphthalene .. ..	10,727	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>India (coke-ovens)—</b>						
Tar .. ..	163,554	203,307	255,972	311,624	288,555	260,939
Benzol .. ..	3,198	3,527	5,767	5,965	8,877	8,067
Benzene .. ..	4,268	4,277	7,260	8,898	19,363	16,894
Toluol .. ..	216	368	269	192	218	157
Toluene .. ..	685	955	1,043	2,009	2,139	1,998
Xylene .. ..	—	—	76	298	506	183
Solvent naphtha .. ..	513	492	514	735	122	909
Pitch .. ..	6,931	7,042	36,051	45,110	53,384	72,004
Naphthalene .. ..	28	7	1,206	3,985	3,324	2,838
Ammonium sulphate ..	34,471	39,125	52,525	62,492	72,902	73,867
Light oil .. ..	2,257	3,347	3,947	3,741	5,749	4,350
Middle oil .. ..	424	459	3,126	7,606	10,233	7,124
Heavy oil (230–270°C.)	623	589	3,303	6,885	5,338	2,442
Anthracene oil .. ..	536	467	3,753	13,574	16,574	13,608
<b>Australia—</b>						
Tar (crude) (a) .. ..	255,383	266,472	292,985	291,709	276,343	279,712
Tar (refined) (a) .. ..	147,161	152,041	152,168	152,191	197,512	213,882
Tar oils (crude) (a) ..	17,750	17,141	18,034	18,948	15,771	12,447
Benzol for blending ..	18,093	18,837	22,007	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>New Zealand (b)—</b>						
Tar (gas-works) .. ..	13,046	12,707	11,909	12,046	11,550	<i>n.a.</i>
<b>Irish Republic (gas-works)—</b>						
Tar .. ..	14,074	13,903	12,737	17,036	14,187	23,341

\*Some of the products are derived from the crude products shown. Duplication, therefore, is unavoidable in many cases.

See page 88 for conversion rates.

See Nitrogen Compounds (pages 233-235) for total production of ammonium sulphate.

(a) Years ended June 30 of the year stated.

(b) Sales for years ended March 31 of the year following that stated.

(c) Sales.

## PRODUCTION OF COAL BY-PRODUCTS (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<b>Belgium—</b>						
Tar (crude) .. ..	253,548	263,572	265,157	272,163	272,463	278,163
Benzol (crude) .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	70,700	62,839	64,603
Benzol (motor) .. ..	57,245	20,270	7,070	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do. industrial .. ..	8,941	26,104				
Benzene .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	40,800	40,600	<i>n.a.</i>
Toluol and xylol .. ..	2,090	6,058	11,610	14,362	14,964	<i>n.a.</i>
Solvent naphtha .. ..						
<b>France—</b>						
Tar (crude) .. ..	705,186	700,000	645,004	r 637,773	645,835	652,000
Ammonium sulphate .. ..	119,325	125,100	127,600	130,406	126,671	<i>n.a.</i>
Benzol (crude) .. ..	144,558	151,700	152,161	160,000	160,000	168,000
Pitch .. ..	209,175	218,246	199,179	194,970	203,624	229,000
Naphthalene (crude) .. ..	43,424	45,588	50,902	49,813	24,572	51,000
<b>Germany (Federal)—</b>						
Tar (crude) .. ..	1,713,000	2,042,000	2,017,000	1,965,000	1,925,000	(a)1,746,733
Pitch .. ..	862,390	979,854	972,262	964,507	974,942	967,136
Tar oils .. ..	589,034	660,684	698,283	740,873	720,055	744,142
Naphthalene .. ..	108,525	126,253	140,434	147,862	152,089	161,309
Benzol (crude) .. ..	487,000	592,660	581,631	563,355	542,754	570,713
Refined benzols .. ..	511,186	642,173	620,343	605,233	561,786	567,974
Phenol .. ..	15,100	15,701	14,709	18,935	17,886	17,641
Cresol and xylol .. ..	25,317	24,323	23,787	25,198	24,060	20,284
Anthracene .. ..	32,597	32,514	35,323	40,210	37,014	45,591
Pyridine and bases .. ..	782	940	918	991	954	1,393
<b>Hungary—</b>						
Brown coal tar .. ..	30,258	30,475	28,478	26,969	27,263	<i>n.a.</i>
Pitch .. ..	20,207	34,492	34,294	40,279	39,294	<i>n.a.</i>
Benzol .. ..	3,922	2,960	5,896	5,034	6,153	<i>n.a.</i>
Creosote .. ..	10,666	14,536	9,434	9,410	7,188	<i>n.a.</i>
<b>Italy—</b>						
Tar .. ..	163,179	180,299	197,655	215,422	217,063	202,033
Ammonium sulphate .. ..	35,295	37,929	41,203	42,325	<i>n.a.</i>	<i>n.a.</i>
Benzol (crude) .. ..	30,444	35,637	36,383	35,563	44,317	43,010
Naphthalene (crude) .. ..	6,109	8,848	8,874	9,010	10,146	10,492
Distillates .. ..	50,996	63,970	73,051	70,759	74,423	64,926
Benzol (refined) .. ..	23,548	27,659	30,365	29,147	24,450	23,366
Toluol and xylol .. ..	6,847	6,226	6,655	6,584	6,183	6,056
Pitch .. ..	59,045	76,574	82,896	80,121	92,231	80,990
Solvent naphtha .. ..	1,111	1,215	1,417	1,465	1,306	1,176
<b>Norway—</b>						
Tar (gas-works) .. ..	5,594	5,318	4,810	4,767	3,490	3,017
<b>Poland—</b>						
Tar (coke-ovens) .. ..	453,800	479,900	500,500	533,500	551,000	<i>n.a.</i>
Tar (gas-works) .. ..	71,200	71,100	74,300	81,100	82,400	<i>n.a.</i>
Ammonium sulphate (coke-ovens) .. ..	113,100	115,700	122,900	130,500	132,000	<i>n.a.</i>
Benzol (coke-ovens) .. ..	140,200	147,700	154,800	163,500	164,900	<i>n.a.</i>
<b>Portugal (gas-works)—</b>						
Creosote .. ..	<i>n.a.</i>	<i>n.a.</i>	1,363	1,144	1,189	449
Pitch .. ..	<i>n.a.</i>	<i>n.a.</i>	1,147	826	1,043	465
<b>Spain—</b>						
Tar .. ..	(b) 130,613	139,922	132,676	135,188	134,160	<i>n.a.</i>
Pitch .. ..	33,510	34,155	26,231	28,116	28,254	<i>n.a.</i>
Benzol .. ..	35,640	39,157	37,566	52,593	50,213	<i>n.a.</i>
Benzene .. ..	3,595	7,742	8,010	11,544	14,191	<i>n.a.</i>

(a) Coke-ovens only.

(b) Including some tar from oil-shale.



## PRODUCTION OF COAL BY-PRODUCTS (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Spain (cont.)—						
Toluol .. .. .	1,203	2,325	2,007	1,850	1,604	n.a.
Toluene .. .. .	1,150	798	812	468	1,043	n.a.
Xylene .. .. .	—	71	422	387	887	n.a.
Solvent naphtha .. .. .	244	201	230	122	199	n.a.
Anthracene .. .. .	10,114	13,142	7,943	6,692	6,266	n.a.
Naphthalene .. .. .	5,286	6,337	6,263	5,947	9,069	n.a.
Ammonium sulphate .. .. .	208,266	319,058	353,429	n.a.	n.a.	n.a.
Creosote .. .. .	9,484	10,924	10,064	n.a.	n.a.	n.a.
Sweden—						
Tar (crude) .. .. .	35,573	33,623	37,718	39,944	38,717	n.a.
Other tar .. .. .	32,850	n.a.	n.a.	n.a.	n.a.	n.a.
Pitch .. .. .	297	236	312	348	250	n.a.
Benzol, toluol, etc. .. .. .	11,336	10,560	11,502	12,269	12,319	n.a.
Distillates, etc. .. .. .						
Switzerland—						
Tar (crude) (gas-works) .. .. .	26,608	28,561	27,291	27,071	28,903	26,064
Yugoslavia—						
Benzol .. .. .	11,113	11,182	11,242	9,905	n.a.	n.a.
Algeria—						
Tar (gas-works) .. .. .	5,250	5,368	3,703	n.a.	n.a.	n.a.
United States—						
Coke-ovens—						
Tar (crude) .. .. .	2,793,710	2,938,289	2,706,743	2,778,255	2,871,263	3,260,331
Pitch .. .. .	640,808	929,046	1,049,227	991,437	921,985	970,099
Sulphate equivalent of ammonia produced (a) .. .. .	639,913	656,644	618,807	598,777	641,766	708,846
Benzol .. .. .	399,437	451,088	400,684	380,757	374,758	396,846
do. motor .. .. .	1,337	2,070	2,762	4,802	7,815	2,322
Toluol and xylol .. .. .	112,704	125,733	117,551	113,754	106,806	106,666
Solvent naphtha .. .. .	12,895	14,700	14,474	13,731	11,413	14,371
Other light products .. .. .	10,499	12,288	11,707	14,110	14,774	27,457
All sources (c)—						
Tar (crude) .. .. .	2,793,710	2,938,289	2,706,743	2,778,255	2,871,263	3,260,331
Water gas and oil gas tar .. .. .	65,342	93,162	70,513	82,419	n.a.	n.a.
Crude light oil .. .. .	710,120	781,670	713,343	705,627	727,220	828,897
Benzol (b) .. .. .	461,100	493,713	441,867	427,553	405,083	n.a.
Toluol .. .. .	100,110	109,910	103,070	98,732	94,765	n.a.
Xylol .. .. .	26,170	27,600	26,510	24,760	24,170	n.a.
Solvent naphtha .. .. .	25,110	29,010	29,320	34,365	29,130	n.a.
Other light oil derivatives .. .. .	21,230	23,260	25,280	29,750	38,147	n.a.
Naphthalene (crude) .. .. .	189,863	230,821	221,949	189,377	151,212	n.a.
Creosote oil .. .. .	358,880	368,390	348,250	360,460	389,330	n.a.
Tar, road .. .. .	282,510	267,370	244,490	265,650	248,040	n.a.
Tar for other uses (d) .. .. .	123,070	128,190	122,640	96,278	77,897	n.a.
Pitch of tar .. .. .	1,364,000	1,701,000	1,826,000	1,678,000	1,596,000	n.a.
Pitch of tar coke .. .. .	31,000	25,000	12,000	16,000		

(a) Actual ammonium sulphate produced was as follows (long tons):

59—547,087; 1960—563,967; 1961—529,980; 1962—522,661; 1963—553,286; 1964—607,935.

(b) Excluding motor benzol, included with "Other light oil derivatives".

(c) Including products obtained from coke-ovens except ammonium sulphate.

(d) Used for paints etc.

## PRODUCTION OF COAL BY-PRODUCTS (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Brazil (a)—						
Tar .. .. .	52,274	n.a.	n.a.	n.a.	n.a.	n.a.
Benzol .. .. .	3,112	n.a.	n.a.	n.a.	n.a.	n.a.
Toluol and xylol .. .. .	705	n.a.	n.a.	n.a.	n.a.	n.a.
Solvent naphtha .. .. .	59	n.a.	n.a.	n.a.	n.a.	n.a.
Naphthalene .. .. .	1,718	n.a.	n.a.	n.a.	n.a.	n.a.
Creosote oil .. .. .	2,345	n.a.	n.a.	n.a.	n.a.	n.a.
Ammonium sulphate .. .. .	4,971	n.a.	n.a.	n.a.	n.a.	n.a.
Carbolic acid .. .. .	415	n.a.	n.a.	n.a.	n.a.	n.a.
Uruguay (gas-works)—						
Tar .. .. .	2,798	2,933	2,396	2,045	2,007	1,944
Benzol .. .. .	152	139	163	165	151	196
Japan—						
Tar .. .. .	734,492	888,410	1,053,784	1,075,477	1,128,400	1,239,994
Benzol (crude) .. .. .	160,223	196,929	242,717	254,739	268,593	311,602
do. (other) .. .. .	93,326	122,873	161,407	194,298	247,372	302,922
Toluol and xylol .. .. .	20,293	31,739	134,556	41,603	n.a.	n.a.
Solvent naphtha .. .. .	8,846	10,996	10,786	8,906	n.a.	n.a.
Creosote oil .. .. .	179,195	199,484	230,967	249,116	267,390	279,234
Carbolic acid (crude) .. .. .	10,409	11,287	4,211	15,359	n.a.	n.a.
Naphthalene (crude) .. .. .	35,761	50,889	60,256	58,028	n.a.	n.a.
do. (refined) .. .. .	10,176	10,656	11,314	9,021	n.a.	n.a.
Anthracene .. .. .	7,904	11,621	13,322	12,568	n.a.	n.a.
Ammonium sulphate .. .. .	n.a.	n.a.	n.a.	217,603	n.a.	n.a.
Turkey—						
Road tar .. .. .	—	17,887	18,432	15,939	21,745	n.a.
Pitch .. .. .	14,960	10,800	1,760	3,450	11,300	n.a.
Benzol .. .. .	4,404	4,581	4,244	4,074	5,145	n.a.
Toluol and xylol .. .. .	386	436	473	446	657	n.a.
Solvent naphtha .. .. .	25	80	43	53	131	n.a.
Creosote .. .. .	4,452	4,716	2,312	2,705	6,905	n.a.
Anthracene .. .. .	45	169	6	39	94	n.a.
Ammonium sulphate .. .. .	2,948	4,549	4,200	4,030	6,595	n.a.
Naphthalene .. .. .	587	667	659	557	866	n.a.

\*The following rates have been used for conversion of Imperial gallons to long tons : Tar, 195; Benzol, 250; Creosote, 210; Motor fuel, 310; Toluol, 255; Solvent naphtha, 260; Phenol, 210; Cresylic acid, 214.

(a) Volta Redonda only.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Anthracite—						
smalls and graded ..	428,955	536,065	715,278	1,016,834	1,583,838	1,161,166
large .. .. .	99,549	86,856	73,583	111,494	180,938	133,088
other .. .. .	283,902	269,923	295,639	272,002	523,492	378,066
Bituminous—						
smalls and graded ..	1,842,330	3,148,244	3,535,062	2,509,121	4,733,358	3,597,859
unscreened .. .. .	178,211	221,573	171,316	203,095	305,432	179,279
large .. .. .	302,594	593,030	477,988	219,702	204,335	152,894
other .. .. .	339,303	286,850	328,188	379,933	344,606	268,018
Bunkers .. .. .	633,503	317,372	110,108	53,510	<i>n.a.</i>	<i>n.a.</i>
Coke, gas .. .. .	607,192	674,490	636,587	722,664	518,885	410,686
do. other .. .. .	758,742	876,837	842,582	1,004,325	1,500,718	1,056,819
Manufactured fuel ..	134,310	93,002	59,997	100,603	135,335	50,632
Tar .. .. .	55,146	69,678	68,281	74,742	59,546	84,619
Pitch .. .. .	166,840	184,338	168,717	210,065	291,688	195,179
Channel Islands (Jersey)						
Coke .. .. .	8,312	11,527	12,405	15,210	14,332	13,560
Tar .. .. .	3,147	3,762	2,885	3,709	3,821	3,171
Gibraltar—						
Coal (bunkers) (b) ..	6,000	6,812	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malta—						
Coal (bunkers on merchant ships) (b) ..	33	—	—	—	—	—
Kenya—						
Coal (bunkers) (b) ..	63	66	176	156	216	1,775
Nigeria—						
Coal .. .. .	74,561	26,780	51,041	32,199	8,031	7,894
Coke .. .. .	—	—	—	—	8,125	14,300
Patent fuel .. .. .	—	—	—	—	26,125	37,525
Rhodesia (e) .. .. .						
Coal .. .. .	157,192	175,026	243,787	192,966	245,175	1,320,887
Coke .. .. .	62,881	70,869	111,736	52,238	42,328	103,315
Canada—						
Coal .. .. .	422,896	761,521	838,693	798,142	941,399	1,141,177
do. (bunkers) (c) ..	19,320	17,737	14,895	17,312	13,559	<i>n.a.</i>
do. do. (a) .. .. .	238,257	257,114	222,549	218,679	236,357	<i>n.a.</i>
Lignite .. .. .	112	16	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	113,009	111,392	155,621	112,521	121,711	88,853
Tar and pitch .. .. .	42	8	22,568	26,876	77,004	45,659
Trinidad and Tobago—						
Coal (bunkers) (b) ..	35	73	38	18	12	<i>n.a.</i>
Aden—						
Coal (bunkers) (b) ..	425	—	—	—	—	—
Ceylon—						
Coal (bunkers) (b) ..	713	324	447	627	171	339
Cyprus—						
Coal (bunkers) (b) ..	—	—	1	—	—	1
Hong Kong—						
Coal .. .. .	539	9,583	6,264	3,910	5,416	5,618
Coke .. .. .	955	839	210	30	87	160
India—						
Coal .. .. .	1,374,660	(d)1,129,383	(d)919,409	(d)1,097,121	(d)1,486,736	(d)1,276,938
Coke .. .. .	35,310	(d) 41,516	(d) 340	(d) 31	(d) —	(d) 10,571
Tar and pitch .. .. .	832	(d) 3,186	(d) 6,721	(d) 1,065	(d) 1,525	(d) 1,212

\*For Ammonium sulphate, etc. see Nitrogen Compounds, pages 236-237.

(a) Foreign coal, "ex-warehoused for ships' stores". (See imports.)

(b) Foreign coal. (See imports.)

(c) Domestic produce. Shipments from mines to ships' bunkers.

(d) Years ended March 31 following that stated.

(e) Figures for years 1959 to 1963 exclude exports to Malawi and Zambia.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
Malaya—						
Coal .. .. .	5	1	—	3	26	5
do. (bunkers) (a) ..	1,361	82	54	852	15	10
Coke .. .. .	332	489	496	404	1,361	642
Tar .. .. .	69	28	18	753	239	167
Australia (c)—						
Coal .. .. .	645,249	1,087,844	1,888,415	3,469,552	2,676,522	3,805,747
do. (bunkers) ..	8,187	8,117	179	37	1,703	86
Coke .. .. .	8,823	75,502	81,075	78,359	30,986	79,432
New Zealand—						
Coal .. .. .	7,142	18,157	13,559	48	(c) 10	(c) 149
Coke .. .. .	2,761	5	33	19	(c) 15	(c) 221
Tar .. .. .	—	2	—	—	(c) 1	(c) 5
Irish Republic—						
Anthracite .. ..	1,086	10,329	17,000	11,968	14,635	} 6,570
Other coal .. ..	3,460	11,479	44,297	27,940	142	
Coal (bunkers) (a) ..	311	320	448	186	363	
<b>OTHER COUNTRIES</b>						
Austria—						
Coal .. .. .	35	26	63	28	36	27
Brown coal .. ..	37,093	37,119	31,825	19,643	19,780	16,280
Coke .. .. .	23	38	20	9,952	81	24
Tar .. .. .	28	1	—	—	407	400
Pitch .. .. .	2,772	2,932	3,854	1,054	2,387	400
Belgium-Luxemburg						
E.U.—						
Coal .. .. .	2,216,472	2,187,163	2,730,488	2,709,649	1,920,853	2,099,556
do. (bunkers) (b) ..	7,222	15,252	8,270	8,692	2,971	590
Coke .. .. .	625,642	736,973	624,729	416,655	477,277	397,437
Briquettes .. ..	150,948	176,007	140,306	285,990	692,851	434,587
Tar .. .. .	20,373	15,251	12,512	6,261	10,322	28,145
Pitch .. .. .	27,330	55,823	39,379	23,292	26,189	15,168
Czechoslovakia—						
Coal .. .. .	1,565,000	2,160,000	2,408,000	2,347,000	2,296,000	2,547,000
Brown coal .. ..	1,295,000	1,420,000	1,342,000	1,522,000	1,764,000	1,388,000
Coke .. .. .	1,190,000	1,296,000	1,348,000	1,545,000	1,730,000	1,858,000
Denmark—						
Coal .. .. .	408	—	3	234	2,217	—
Brown coal briquettes	1,939	8,964	28,862	26,345	48,996	43,567
Coke .. .. .	10,944	18,296	24,131	40,148	52,306	43,828
Tar and pitch ..	15,943	14,242	12,802	15,154	23,729	18,376
France—						
Anthracite .. ..	9,962	14,794	12,935	23,275	13,753	43,027
Bituminous .. ..	2,938,227	1,381,364	1,311,872	1,315,849	972,521	855,749
Brown coal .. ..	295	465	361	61	20	21,005
Coke .. .. .	117,084	103,966	72,584	55,983	50,108	35,813
Briquettes .. ..	16,802	26,207	23,768	30,838	13,883	29,248
Brown coal briquettes	175	168	106	243	597	224
Coal, coke and briquettes—						
Bunkers (domestic produce) .. .. .	21,993	(b) 1,350	n.a.	n.a.	n.a.	n.a.
do. (foreign produce)	7,315	n.a.	n.a.	n.a.	n.a.	n.a.
Tar and pitch ..	55,219	34,945	25,974	11,944	16,770	15,112

(a) Foreign coal (see imports).

(c) Years ended June 30 of that stated.

(b) Bunkers for foreign ships only.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Coal .. .. .	14,325,745	17,245,972	16,666,158	17,572,444	16,093,365	13,502,765
do. (bunkers) (a) ..	100,591	89,180				
Brown coal .. .. .	71,303	214,519	245,032	222,951	199,061	207,957
Coke .. .. .	8,842,565	10,719,700	10,771,878	10,151,115	11,881,974	10,752,600
Coal briquettes ..	322,589	355,006	357,468	395,102	447,634	379,560
Brown-coal briquettes	1,483,242	1,302,463	1,433,600	1,424,860	1,490,403	1,446,338
Tar and pitch .. ..	185,779	265,348	251,130	262,007	258,316	268,177
Germany (East)—						
Coal .. .. .	8,570	984	198	591	571	467
Coke .. .. .	86,000	104,000	117,000	113,000	112,000	120,000
Brown coal briquettes ..	6,249,000	6,239,000	6,107,000	6,498,000	6,871,000	6,692,000
Hungary—						
Coal .. .. .	<i>n.a.</i>	63,341	48,808	52,199	148,507	80,719
Italy—						
Coal (incl. bunkers) ..	3,281	3,054	5,149	4,418	23,762	4,153
Coke .. .. .	36,617	115,369	163,649	170,007	146,419	98,267
Tar .. .. .	2,437	1,776	576	3,775	3,115	587
Pitch .. .. .	21,435	22,806	20,583	29,542	43,592	29,434
Netherlands—						
Coal .. .. .	1,776,649	2,131,176	2,318,849	2,293,540	2,530,659	2,123,830
do. (bunkers) (a) ..	6,686	1,481	1,496	1,212	804	418
Brown coal .. .. .	10,342	—	22	9	20	39
Coke .. .. .	2,024,599	2,269,911	2,438,035	2,187,692	2,084,173	2,289,764
Briquettes .. .. .	392,221	498,463	533,082	610,660	756,901	763,330
Brown coal briquettes ..	24,227	27,277	37,557	38,855	33,698	39,685
Tar .. .. .	1,246	18,437	27,931	26,451	20,669	25,859
Pitch .. .. .	16,120	6,281	6,932	8,783	15,207	6,979
Norway—						
Coal .. .. .	97,184	170,668	159,948	177,146	172,473	82,968
Tar .. .. .	—	2,631	2,675	1,928	3,965	6,214
Pitch .. .. .	25	30	19	17	27	19
Poland—						
Coal .. .. .	15,753,500	17,220,700	16,783,700	17,032,600	16,624,900	18,963,600
Brown coal .. .. .	5,676,900	5,368,800	5,779,600	5,570,600	5,645,000	5,295,900
Coke .. .. .	2,035,800	2,053,000	2,104,800	2,111,000	2,314,500	2,213,500
Portugal—						
Coal .. .. .	110	67	2,563	102	124	167
do. (bunkers) (a) ..	1,710	367	473	1,523	802	30
Tar and pitch .. .. .	69	11	18	15	29	15
Spain—						
Anthracite .. .. .	—	—	15,244	—	5,925	9
Bituminous (incl. bunkers) ..	45,745	(c) 19,066	(c) 20,760	(c) 15,353	(c) 1,639	(c) 2,279
Other coal .. .. .	16,342		(c) 27,140	(c) —	(c) 14,678	(c) 53,224
Coke .. .. .	698	120	7	—	—	226
Tar and pitch .. .. .	2					
Spitzbergen—						
Coal (including bunkers)	656,213	784,151	705,043	826,000	642,422	<i>n.a.</i>
Sweden—						
Coal .. .. .	966	427	36,104	19,911	22,556	6,849
Coke .. .. .	16,654	10,639	6,575	6,235	7,147	11,983
Tar, pitch, etc. . . .	23	17	4,515	9,577	13,855	8,636
Switzerland—						
Coal .. .. .	1,105	1	3	1,729	296	787
Coke .. .. .	5,435	2,326	310	387	131	59
Briquettes .. .. .	178	42	2,497	182	838	93
Tar and pitch .. .. .	(b) 412	245	13	143	271	264
U.S.S.R.—						
Anthracite .. .. .	1,810,000	1,792,200	2,172,100	3,213,400	4,168,100	4,021,500
Other coal .. .. .	9,084,200	10,328,300	12,706,100	15,642,000	16,519,900	18,926,300
Coke .. .. .	2,427,100	2,604,200	2,968,400	3,269,500	3,736,000	3,935,800
Pitch .. .. .	162,300	190,600	145,200	127,800	142,200	123,500

(a) Bunkers for foreign ships only.

(b) Including pitch from petroleum.

(c) Excluding exports to Spanish Dependencies.

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Yugoslavia—</b>						
Bituminous .. ..	95,332	104,655	98,812	83,044	83,224	110,060
Brown coal .. ..	55,537	6,177	6,842	14,756	39,377	19,638
Lignite .. ..	670	1,276	5,606	11,685	25,100	31,208
Briquettes .. ..	36	49	39	2	—	39
Pitch .. ..	7,679	11,203	21,057	11,927	12,484	1,111
Tar .. ..	—	—	1,153	431	—	—
<b>Algeria—</b>						
Coal and briquettes ..	4,390	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do. (bunkers) ..	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do. do. (b) ..	2,703	1,103	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. ..	18	51	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar .. ..	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Canary Islands—</b>						
Coal .. ..	12	—	—	202	<i>n.a.</i>	<i>n.a.</i>
<b>Cape Verde Islands—</b>						
Coal (bunkers) (b) ..	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Ceuta—</b>						
Coal .. ..	76	—	—	—	<i>n.a.</i>	<i>n.a.</i>
do. (bunkers) (b) ..	1,250	601	390	203	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Coal (bunkers for foreign ships) (b) ..	26	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Malagasy Republic—</b>						
Coal (bunkers) ..	3	—	—	—	—	2
<b>Morocco—</b>						
Anthracite .. ..	206,566	185,091	194,130	155,530	172,935	133,517
Other coal .. ..	13,627	46	816	7	—	3
Briquettes .. ..	3,099	3,856	4,786	1,849	291	1,226
<b>Mozambique—</b>						
Coal (incl. bunkers) ..	43,189	58,599	59,832	51,115	64,197	34,113
<b>South Africa—</b>						
Coal .. ..	503,838	933,554	1,038,147	1,618,277	1,375,289	1,151,139
do. (bunkers) ..	1,852	1,808	1,383	1,146	<i>n.a.</i>	<i>n.a.</i>
Coke .. ..	1,630	12,656	8,981	13,593	3,388	<i>n.a.</i>
Tar and pitch .. ..	24,621	17,273	10,860	3,946	3,073	<i>n.a.</i>
<b>Mexico—</b>						
Coal and coke .. ..	20	334	—	—	—	—
<b>United States—</b>						
Anthracite .. ..	1,596,034	1,286,071	1,380,793	1,608,682	2,993,921	1,406,337
Bituminous .. ..	33,261,992	32,625,960	31,223,058	34,297,700	42,034,317	42,829,842
do. (bunkers) ..	326,612	274,832	245,551	190,322	199,234	225,701
Coke .. ..	410,912	315,193	397,529	325,029	402,894	467,585
Briquettes .. ..	29,873	18,862	11,367	16,604	72,260	15,944
Tar and pitch .. ..	27,628	107,106	65,096	52,978	<i>n.a.</i>	10,837
<b>Chile—</b>						
Coal (including bunkers)	61,168	31,849	725	1,101	<i>n.a.</i>	<i>n.a.</i>
Coke .. ..	—	—	—	—	<i>n.a.</i>	<i>n.a.</i>
<b>Peru—</b>						
Coal .. ..	52,235	26,998	1,968	10,457	6,889	9,639
<b>Venezuela—</b>						
Coal .. ..	237	—	—	—	—	—
<b>Formosa—</b>						
Coal (including bunkers)	89,432	186,073	236,966	126,341	89,302	94,833
<b>Indonesia—</b>						
Coal (including bunkers)	14,403	6,946	89	202	<i>n.a.</i>	<i>n.a.</i>
<b>Iran (a)—</b>						
Coal .. ..	306	367	264	608	249	113

(a) Years ended March 20 following that stated.

 (b) Foreign coal (*see imports*).

## EXPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Coal .. .. .	54,769	21,429	56,065	62,452	90,464	67,636
do. (bunkers) .. .. .	6,555	12,838	9,816	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	14,147	6,639	8,119	14,463	16,054	9,466
Tar and pitch .. .. .	7,909	18,907	14,569	30,368	31,608	37,509
Korea (South)—						
Anthracite .. .. .	66,848	120,854	237,475	296,725	258,801	247,560
Lebanon—						
Coal .. .. .	1,022	(a) 1,706	(a) 1,674	<i>n.a.</i>	(a) 2,142	<i>n.a.</i>
Coke .. .. .	620	416	542	<i>n.a.</i>	376	<i>n.a.</i>
Briquettes .. .. .	2,056	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey—						
Coal .. .. .	3,882	30,316	—	—	5,856	16,204
Vietnam (South)—						
Coal .. .. .	—	—	68	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including briquettes.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Coal .. .. .	117,964	13,223	39,900	21,829	32,123	351
Coke .. .. .	4,416	3,291	2,109	3,111	788	<i>n.a.</i>
Manufactured fuel .. .. .	4	6	56	173	222	647
<b>Channel Islands—</b>						
Anthracite .. .. .	102,827	116,473	84,356	79,556	84,204	62,971
Bituminous .. .. .	147,094	130,950	105,076	110,143	100,443	87,288
Coke .. .. .	237	4,167	5,042	7,316	8,006	4,831
<b>Gibraltar—</b>						
Coal (b) .. .. .	7,057	6,720	6,820	2,781	2,900	1,410
<b>Malta—</b>						
Coal (c) .. .. .	2,752	2,046	2,056	2,377	2,549	4,110
Coke .. .. .	604	582	1,020	1,225	267	387
<b>Gambia—</b>						
Coal, coke and patent fuel .. .. .	103	—	3	—	—	—
Tar .. .. .	38	22	7	1	3	4
<b>Ghana—</b>						
Coal .. .. .	79,058	36,870	49,284	28,451	41,033	44,581
Coke and patent fuel .. .. .			4,748	374	588	314
Tar .. .. .			836	338	940	140
<b>Kenya—</b>						
Coal (c) .. .. .	35,985	38,900	35,528	23,518	40,053	32,652
Coke .. .. .	354	2,384	1,437	1,562	1,572	1,567
Tar .. .. .	6	6	(a) 6	—	(a) 1	5
<b>Mauritius—</b>						
Coal .. .. .	13,597	2,384	5,756	3,014	2,085	1,966
Coke .. .. .	244	466	255	198	182	213
Tar .. .. .	13	23	21	86	134	21
<b>Nigeria—</b>						
Coal, coke and patent fuel .. .. .	711	901	2,446	1,394	1,399	4,285
Tar .. .. .	715	1,343	1,138	1,137	1,261	666
<b>Rhodesia (e) .. .. .</b>						
Coal .. .. .	48,588	56,765	65,020	62,421	59,129	12,285
Coke .. .. .	99	134	35	241	35	
Tar .. .. .	678	571	809	523	171	
<b>St. Helena—</b>						
Coal .. .. .	67	49	67	94	110	63
<b>Sierra Leone—</b>						
Coal, coke and briquettes .. .. .	15,670	11,199	10,649	15,321	4,452	80
Tar .. .. .	211	140	(d) 208	193	113	139
<b>Tanzania .. .. .</b>						
Coal .. .. .	329	349	231	407	383	144
Coke .. .. .	188	424	516	456	500	419
Tar .. .. .	23	24	14	5	10	7
<b>Uganda—</b>						
Coal .. .. .	32	40	44	80	72	114
Coke .. .. .	17	82	76	134	456	430
Tar .. .. .	18	13	16	20	4	10
<b>Zambia—</b>						
Coal .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	962,396
Coke briquettes .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	64,711
Tar .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	642

\*For ammonium sulphate, etc., see Nitrogen Compounds, pages 238-245.

(a) Excess of re-exports.

(b) Imported chiefly for bunkering purposes. (See exports.)

(c) Includes coal imported for bunkering purposes. (See exports.)

(d) Total imports.

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.



## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
Canada—						
Anthracite .. .. .	1,361,166	1,098,667	858,329	790,336	739,071	579,802
do. dust .. .. .	70,895	59,786	86,454	26,035	17,470	3,982
Bituminous .. .. .	11,030,876	10,681,129	9,811,048	10,214,035	10,936,295	} 12,798,206
do. (a) .. .. .	238,257	257,114	222,549	218,678	236,357	
Briquettes .. .. .	21,894	13,864	8,571	6,793	5,752	6,375
Coke .. .. .	341,681	265,810	257,829	219,945	209,473	281,931
Tar .. .. .	1,798	2,155	1,756	2,528	2,630	} 104,131
Pitch .. .. .	51,684	71,653	95,059	84,191	101,384	
Bahamas—						
Coal .. .. .	2	4	2	3	1	7
Barbados—						
Coal, coke, and patent fuel .. .. .	715	810	578	603	319	330
Bermuda—						
Bituminous (b) .. .. .	10	10	10	10	<i>n.a.</i>	<i>n.a.</i>
British Honduras—						
Coal and coke .. .. .	19	24	17	28	14	18
Grenada—						
Coal .. .. .	1	6	3	3	2	2
Coke .. .. .	2	10	—	—	—	—
Jamaica—						
Coal (b) .. .. .	235	255	210	206	154	90
Coke .. .. .	575	406	526	506	657	772
Tar .. .. .	62	28	22	20	33	42
St. Kitts—						
Coal, coke and patent fuel .. .. .	11	17	10	—	5	10
St. Lucia—						
Coal .. .. .	13	25	19	9	10	<i>n.a.</i>
Tar .. .. .	6	4	—	3	1	<i>n.a.</i>
St. Vincent—						
Coal .. .. .	4	2	3	3	—	<i>n.a.</i>
Trinidad and Tobago—						
Coal (b) .. .. .	1,160	1,289	(c) 572	1,007	399	<i>n.a.</i>
Coke .. .. .	304	89	161	113	94	<i>n.a.</i>
British Guiana—						
Coal .. .. .	152	224	264	136	<i>n.a.</i>	(c) 145
Coke .. .. .	42	42	102	84	<i>n.a.</i>	3
Patent fuel .. .. .	70	20	43	85	<i>n.a.</i>	103
Tar .. .. .	186	223	424	172	<i>n.a.</i>	138
Falkland Islands—						
Coal .. .. .	26	427	—	5	123	115
Coke .. .. .	75	243	129	—	200	—
Aden—						
Coal (b) .. .. .	1,319	1,452	1,635	—	1,246	<i>n.a.</i>
Ceylon—						
Coal (b) .. .. .	173,345	256,077	137,141	139,005	142,847	172,534
Coke .. .. .	1,238	240	2,246	530	598	1,925
Tar .. .. .	288	113	43	58	54	2
Cyprus—						
Coal (b) .. .. .	648	417	1	82	283	401
Coke .. .. .	—	165	186	196	232	215
Tar and pitch .. .. .	2	—	5	3	1	8
Hong Kong—						
Coal .. .. .	205,086	226,369	239,043	215,253	190,374	174,597
Coke .. .. .	5,226	6,076	4,112	4,017	4,040	6,321

(a) "Ex-warehoused for ships' stores." (See exports.) (c) Excess of re-exports.

 (b) Including imports for bunkering purposes.  
 (See exports.)

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India—						
Coal .. .. .	1,832	1,302	3,482	10,832	2,718	1,784
Coke .. .. .	20	—	533	3,027	100	422
Tar and pitch .. .. .	34	(b) 2,543	(b) 1,410	(b) 155	(b) 59	(b) 18
Goa—						
Coal .. .. .	12,209	8,052	n.a.	n.a.	(e)	(e)
Coke .. .. .	59	n.a.	n.a.	n.a.	(e)	(e)
Malaya—						
Anthracite .. .. .	27,623	23,931	26,964	18,957	27,099	23,832
Bituminous (c) .. .. .	1,100	9,669	14,244	19,781	6,013	4,656
Coke .. .. .	4,656	5,805	6,862	6,309	9,608	7,892
Tar .. .. .	492	150	507	1,836	2,577	1,532
Pakistan—						
Coal .. .. .	913,860	2,062,536	1,240,380	1,311,602	1,231,145	710,125
Coke .. .. .	42,119	28,297	—	—	—	488
Tar and pitch .. .. .	3,380	6,039	591	7,130	267	3,699
Australia (a)—						
Coal .. .. .	7,526	7,678	6,629	4,792	7,929	12,816
Coke .. .. .	6,845	8,802	9,768	44	29,052	37,284
Tar and pitch .. .. .	3,098	4,602	2,846	3,696	8,343	7,553
Fiji—						
Coal .. .. .	10,083	7,087	1,926	7,026	6,324	4,008
Coke .. .. .	183	211	211	165	224	336
Tar .. .. .	158	254	11	43	35	21
New Guinea (a)—						
Coal and coke .. .. .	35	26	19	18	8	n.a.
New Zealand—						
Coal .. .. .	82	132	9,784	7,535	(a) 2,906	n.a.
Coke .. .. .	57	55	357	100	(a) 88	n.a.
Tar .. .. .	6,764	5,499	5,688	5,383	(a) 219	n.a.
Pitch .. .. .	980	722	834	367	(a) 535	n.a.
Sabah—						
Coal and coke .. .. .	84	33	64	66	n.a.	63
Papua (a)—						
Coal and coke .. .. .	51	25	21	17	16	n.a.
Sarawak—						
Coal and coke .. .. .	27	171	(d) 23	(d) 19	20	n.a.
Tar .. .. .	197	144	127	92	95	n.a.
Western Samoa—						
Coal and coke .. .. .	126	155	5	30	n.a.	31
Irish Republic—						
Anthracite .. .. .	60,906	54,979	56,098	57,297	56,980	51,683
Bituminous (c) .. .. .	1,512,562	1,595,192	1,716,304	1,405,217	1,377,870	1,285,898
Coke .. .. .	6,801	7,248	6,986	15,613	12,058	12,384
Patent fuel .. .. .	4,044	2,524	2,777	2,692	3,779	—
Tar .. .. .	8,609	5,215	6,890	10,912	3,588	4,337
<b>OTHER COUNTRIES</b>						
Albania—						
Coke .. .. .	12,622	8,192	5,860	17,676	n.a.	n.a.
Austria—						
Coal .. .. .	3,223,949	3,661,335	3,455,803	3,593,228	3,888,509	3,748,377
Brown coal .. .. .	118,564	66,233	42,785	40,868	85,697	118,087
Coke .. .. .	714,939	887,590	758,057	793,662	900,602	859,910
Briquettes .. .. .	481,691	537,741	501,363	610,142	684,744	631,190
Tar, pitch, etc. .. .. .	11,511	6,339	8,516	8,247	19,336	17,830

(a) Years ended June 30 of that stated.

(e) With effect from April 1963, figures included with those of India.

(b) Years ending March 31 following that stated.

(c) Including imports for bunkering purposes. (See exports.)

(d) Coke only.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Belgium-Luxemburg						
E.U.—						
Coal .. .. .	5,027,969	4,061,418	4,169,341	4,858,653	7,223,635	6,904,132
do. coke .. .	3,641,645	4,071,186	4,083,023	3,917,714	3,830,069	4,243,848
do. briquettes ..	103,154	127,624	158,173	163,814	191,788	236,608
Brown coal .. .	304	—	—	26	—	—
do. do. coke .. .	34	36	169	239	93	n.a.
do. do. briquettes ..	213,410	221,524	225,871	233,338	246,536	223,453
Tar .. .. .	7,836	22,441	31,995	31,829	26,227	34,372
Pitch .. .. .	2,735	555	4,801	26,226	102,267	93,506
Czechoslovakia—						
Coal .. .. .	2,318,000	2,364,000	3,302,000	3,959,000	4,277,000	4,964,000
Denmark—						
Coal .. .. .	2,809,220	3,894,049	3,721,971	3,867,021	3,904,546	3,718,425
Coke .. .. .	1,125,538	1,320,859	1,169,024	1,339,783	1,394,703	1,127,848
Coal briquettes ..	9,241	8,359	5,041	7,485	8,031	2,590
Brown coal briquettes ..	129,258	168,444	180,908	215,611	189,954	156,788
Coke briquettes ..	39,436	24,154	6,332	14,407	3,433	20,937
Tar .. .. .	90	80	40	70	74	95
Pitch .. .. .	275	264	247	149	234	195
Faroe Islands—						
Coal .. .. .	1,257	971	1,745	1,218	3,584	2,275
Finland—						
Anthracite .. .	191,651	204,920	172,970	243,527	277,987	255,752
Other coal .. .	2,335,229	2,685,505	2,562,470	2,335,604	1,870,165	2,119,791
Briquettes .. .	n.a.	8,139	6,974	7,725	8,169	5,990
Coke .. .. .	280,355	225,849	256,517	350,939	346,291	873,339
Tar .. .. .	175	92	58	44	29	13
France—						
Anthracite .. .	1,925,654	1,842,949	2,168,081	2,505,764	3,794,565	4,008,663
Bituminous .. .	7,585,886	8,047,083	6,977,579	7,580,043	11,882,693	9,932,549
Lignite .. .. .	169	79	1,310	1,528	1,724	1,826
Coke .. .. .	4,014,797	4,972,098	5,481,533	4,602,265	5,442,467	4,860,499
Coal briquettes ..	418,416	418,812	432,283	515,140	797,734	762,762
Brown-coal briquettes ..	553,429	379,278	472,351	490,385	493,147	535,745
Tar and pitch .. .	375,098	419,092	366,350	357,211	431,329	473,642
Germany (Federal)—						
Coal .. .. .	8,248,236	6,583,296	6,678,059	7,180,036	7,639,393	6,946,361
Brown coal .. .	982,526	1,061,554	1,098,146	1,103,717	1,143,996	1,011,539
Coke .. .. .	434,502	530,961	388,257	431,969	426,052	358,683
Coal briquettes ..	131,505	214,434	212,436	371,132	643,118	366,969
Brown-coal briquettes ..	62,500	85,218	161,321	232,212	401,915	196,801
Tar and pitch .. .	78,371	53,899	54,023	66,060	97,737	112,208
Germany (East)—						
Coal .. .. .	7,956,000	7,901,000	7,811,000	8,741,000	8,709,000	10,247,000
Brown coal .. .	5,759,000	5,444,000	5,858,000	5,637,000	5,696,000	3,257,000
Coke .. .. .	2,559,000	2,487,000	2,790,000	2,919,000	3,179,000	5,363,000
Greece—						
Anthracite .. .	17,620	8,765	5,025	9,901	12,032	9,117
Other coal .. .	146,680	197,097	196,107	169,363	9,076	11,626
Coke .. .. .	24,684	25,297	31,037	30,816	108,879	167,066
Tar and pitch .. .	721	237	392	853	444	699
Hungary—						
Coal .. .. .	1,207,493	1,408,160	1,697,589	1,685,207	2,473,615	3,227,785
Coke .. .. .	1,045,519	1,025,560	930,947	950,013	1,058,855	1,137,482
Pitch .. .. .	2,993	3,406	613	313	363	98
Iceland—						
Coal .. .. .	27,644	21,136	17,118	15,881	10,555	12,494
Coke .. .. .	2,182	2,256	1,296	2,090	1,109	860
Tar .. .. .	111	16	41	6	19	35

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy—						
Anthracite .. .. .	949,203	8,267,162	} 9,548,672	10,266,480	10,500,222	9,876,732
Bituminous .. .. .	6,789,150	1,388,111				
Lignite .. .. .	13,890	18,833	23,062	24,002	39,037	31,382
Coke .. .. .	163,994	247,523	237,213	320,733	663,851	359,281
Briquettes .. .. .	236,429	322,037	363,202	371,889	386,161	468,570
Tar .. .. .	2,529	465	411	127	82	69
Pitch .. .. .	212	600	1,281	1,538	2,123	6,329
Netherlands—						
Coal .. .. .	6,404,506	6,986,864	7,045,810	8,782,016	9,791,606	9,152,089
Brown coal .. .. .	10,244	180,280	235,963	211,995	187,806	200,508
Coke .. .. .	405,990	365,316	306,425	354,820	515,303	305,220
Briquettes .. .. .	131,744	143,717	116,833	132,803	196,544	91,661
Brown-coal briquettes	261,490	246,445	234,560	237,193	260,484	157,358
Tar .. .. .	26,452	29,995	54,173	30,314	56,980	81,235
Pitch .. .. .	7,675	18,410	44,336	41,048	48,515	53,168
Norway—						
Coal (b) .. .. .	263,106	310,814	284,648	247,957	220,957	272,238
Coke .. .. .	598,680	735,568	690,157	664,110	813,909	754,848
Briquettes .. .. .	1,006	122	347	134	191	—
Tar and pitch .. .. .	32,971	43,832	42,682	45,002	52,300	54,235
Poland—						
Anthracite .. .. .	15,900	19,400	18,500	<i>n.a.</i>	18,700	19,400
Other coal .. .. .	881,200	763,600	895,300	1,025,500	1,245,000	1,259,100
Brown-coal briquettes	1,292,500	402,600	582,900	501,900	511,900	620,900
Portugal—						
Anthracite .. .. .	6,049	8,141	28,592	9,107	11,926	10,118
Other coal .. .. .	285,994	336,391	338,756	355,753	438,593	389,180
Coke .. .. .	33,718	40,950	187,288	173,477	205,693	241,806
Briquettes .. .. .	650	245	2,506	1,244	712	761
Tar and pitch .. .. .	4,150	3,206	2,130	2,978	2,036	2,468
Roumania—						
Coal .. .. .	188,800	409,700	433,700	738,100	686,900	706,500
Coke .. .. .	688,700	645,400	472,100	707,300	903,500	930,700
Spain—						
Anthracite .. .. .	7,818	31	22	211	<i>n.a.</i>	40,586
Bituminous .. .. .	815,139	302,858	210,859	1,510,191	1,656,395	1,779,888
Coke .. .. .	5,997	36,494	283,845	301,152	125,716	99,826
Tar and pitch .. .. .	48,249	37,770	26,018	93,896	71,645	53,163
Sweden—						
Anthracite .. .. .	31,535	50,466	51,697	51,716	69,614	79,443
Other coal .. .. .	1,700,469	1,847,585	1,776,101	1,833,285	1,679,055	1,882,835
Coke .. .. .	1,491,078	1,794,990	1,568,373	1,499,347	1,586,513	1,620,546
Briquettes .. .. .	23,991	14,381	11,468	14,872	16,012	5,575
Tar, pitch, etc. .. .. .	14,151	28,207	25,954	12,372	10,240	6,394
Switzerland—						
Coal .. .. .	1,648,646	1,921,852	1,640,619	1,663,745	1,969,973	1,356,028
Lignite .. .. .	610	544	472	260	338	319
Coke .. .. .	471,705	517,548	448,486	516,729	680,885	483,024
Briquettes .. .. .	234,507	227,343	247,809	223,010	266,082	217,696
Tar and pitch .. .. .	(a) 100,581	21,010	21,397	20,252	20,837	23,079
U.S.S.R.—						
Coal .. .. .	4,314,800	4,700,000	4,600,000	4,800,000	5,000,000	5,000,000
Coke .. .. .	620,100	647,600	637,800	597,400	643,700	650,600
Yugoslavia—						
Anthracite .. .. .	101,904	134,857	142,531	120,460	118,559	136,773
Other coal .. .. .	1,171,206	1,226,643	1,307,354	1,227,207	1,319,178	1,858,798
Coke .. .. .	237,727	298,911	193,003	240,130	225,451	188,584
Coke dust .. .. .	—	1,055	2,932	3,017	797	—
Tar and pitch .. .. .	5,515	4,063	3,821	1,082	673	76

(a) Including pitch from petroleum.

(b) Excluding coal imported from Spitzbergen.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES (cont.)</b>						
<b>Algeria—</b>						
Coal .. .. .	406,818	328,045	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	197	211	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Briquettes .. .. .	3,435	3,659	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar and pitch .. .. .	8,478	15,438	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Angola—</b>						
Coal .. .. .	17,082	44,566	23,234	15,362	4,120	21,202
Coke .. .. .	2,609	1,594	1,507	1,425	5,328	9,583
Tar and pitch .. .. .	<i>n.a.</i>	<i>n.a.</i>	2,905	465	262	160
<b>Cameroun—</b>						
Coal, coke, etc. . . . .	174	733	976	306	469	377
<b>Canary Islands—</b>						
Coal .. .. .	24,577	(c) 1,008	—	(c) 6,821	<i>n.a.</i>	<i>n.a.</i>
<b>Cape Verde Islands—</b>						
Coal (a) .. .. .	665	59	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Ceuta—</b>						
Coal (a) .. .. .	6,589	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Congo Republic—</b>						
Coal .. .. .	138,619	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	68,029	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Briquettes .. .. .	664	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Pitch .. .. .	191	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar .. .. .	1,173	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Coal .. .. .	42,870	44,673	45,259	56,836	28,724	296,594
Coke .. .. .	43,885	127,774	278,819	235,039	263,767	212,589
Briquettes .. .. .	—	104	—	—	<i>n.a.</i>	<i>n.a.</i>
Tar and pitch .. .. .	289	82	695	1,073	<i>n.a.</i>	<i>n.a.</i>
<b>Equatorial African Community—</b>						
Coal, coke, briquettes ..	230	229	110	122	<i>n.a.</i>	143
<b>Ethiopia (b)—</b>						
Coal .. .. .	5,571	8,681	9,585	<i>n.a.</i>	9,089	1,800
<b>French Somaliland—</b>						
Coal .. .. .	12	60	—	—	61	—
<b>Ivory Coast—</b>						
Coal and briquettes ..	120	59	63	30	55	52
Coke .. .. .	114	128	172	<i>n.a.</i>	25	236
<b>Libya—</b>						
Coal, coke, briquettes ..	30,154	32,781	37,763	6,082	8,426	2,271
<b>Malagasy Republic—</b>						
Coal and briquettes ..	12,591	17,362	4,593	5,332	14,295	13,113
Coke .. .. .	32	34	92	46	42	88
Tar and pitch .. .. .	93	56	59	38	72	55
<b>Melilla—</b>						
Coal .. .. .	6,988	<i>n.a.</i>	—	(c) 3,470	<i>n.a.</i>	<i>n.a.</i>
<b>Morocco—</b>						
Coal .. .. .	63,329	81,391	84,185	69,353	92,487	105,007
Coke .. .. .	9,470	8,508	7,230	6,629	8,862	14,187
Tar .. .. .	1	3	1	—	—	26
Pitch .. .. .	1,259	1,303	861	1,002	505	1,044
<b>Mozambique—</b>						
Coal .. .. .	276,323	288,210	299,597	r 321,041	287,191	316,592
Coke .. .. .	1,026	1,025	1,497	1,047	1,202	1,402
Tar, pitch and asphalt. .	6,052	4,716	5,268	6,061	4,303	8,014
<b>Reunion—</b>						
Coal and briquettes ..	84	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Senegal—</b>						
Coal and briquettes ..	2,131	112	78	27	182	685
Coke .. .. .	399	234	294	279	131	131

(a) Imported chiefly for bunkering purposes. (See exports).

(c) Excluding imports from Spain.

(b) Years ended September 10 of that stated.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>South Africa—</b>						
Coal .. .. .	26,899	1,818	2	57,981	48,728	<i>n.a.</i>
Coke .. .. .	4	3	4	11	5	<i>n.a.</i>
<b>Sudan—</b>						
Coal .. .. .	31,113	10,162	15,748	8,261	17,630	—
Coke .. .. .	295	1,577	417	1,477	591	295
Tar .. .. .	31	79	31	118	<i>n.a.</i>	<i>n.a.</i>
<b>Togo—</b>						
Coal and briquettes ..	—	—	566	32	73	104
<b>Tunisia—</b>						
Coal .. .. .	23,360	33,467	42,656	27,051	28,187	33,709
Coke .. .. .	5,366	10,012	9,143	8,666	8,752	<i>n.a.</i>
Tar and pitch .. .. .	7	9	3	75	21	15
<b>Costa Rica—</b>						
Coal .. .. .	49	53	27	38	36	45
Coke .. .. .	117	83	153	79	149	137
<b>Cuba—</b>						
Coal .. .. .	57,460	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	69,222	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tar and pitch .. .. .	139	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Dominican Republic—</b>						
Coal, coke, briquettes, etc. .. .. .	628	384	650	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Greenland—</b>						
Coal .. .. .	7,556	17,485	14,489	14,950	16,893	9,763
<b>Guatemala—</b>						
Coal .. .. .	152	123	56	149	63	32
Coke .. .. .	110	136	150	45	215	139
<b>Honduras—</b>						
Coal .. .. .	147	128	140	182	94	186
Coke .. .. .	4	—	10	5	3	10
<b>Mexico—</b>						
Coal .. .. .	56,632	47,137	49,375	46,048	44,055	48,890
Coke .. .. .	3,522	6,046	5,954	9,022	20,910	27,168
Tar .. .. .	209	1,253	296	548	2,615	3,536
<b>Nicaragua—</b>						
Coal .. .. .	15	16	9	12	14	14
Coke .. .. .	42	72	74	50	69	41
<b>Panama Republic—</b>						
Coal .. .. .	150	30	19	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Salvador—</b>						
Coal .. .. .	176	111	93	99	57	97
Coke .. .. .	130	119	153	205	204	259
Tar .. .. .	56	57	58	44	71	61
<b>St. Pierre and Miquelon—</b>						
Coal .. .. .	9,302	10,920	9,912	7,358	10,032	8,409
<b>United States—</b>						
Anthracite .. .. .	2,351	1,318	707	6,771	4,129	} 272,011
Bituminous .. .. .	134,532	123,093	146,660	206,759	236,896	
Lignite .. .. .	—	10	—	—	<i>n.a.</i>	
Slack and culm .. .. .	200,033	109,482	—	762	<i>n.a.</i>	
Coke .. .. .	110,049	112,808	112,962	126,681	136,246	
Briquettes .. .. .	165	4,937	6,552	7,496	4,125	<i>n.a.</i>
Tar and pitch .. .. .	25,337	21,088	18,412	33,551	<i>n.a.</i>	<i>n.a.</i>
<b>Argentina—</b>						
Coal .. .. .	1,300,305	1,379,851	1,196,334	609,998	756,796	680,345
Coke .. .. .	68,055	69,092	44,532	22,259	1,886	68,243
Tar and pitch .. .. .	526	391	658	412	68	293

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Bolivia—						
Coal and coke .. ..	572	2,821	1,786	1,105	1,265	1,229
Brazil—						
Coal .. .. .	624,458	1,018,764	844,645	877,873	852,622	1,330,639
Coke .. .. .	65,999	29,769	43,160	27,061	38,606	150,166
Chile—						
Coal .. .. .	23,522	262,640	364,594	871,900	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	632	781	628	628	<i>n.a.</i>	<i>n.a.</i>
Tar and pitch .. ..	8,776	24,669	21,900	20,104	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Coal .. .. .	204	1	18	—	14	263
Coke .. .. .	40	30	49	23	11	—
Peru—						
Coal .. .. .	10	—	—	—	1,065	51
Coke .. .. .	690	1,828	18,365	4,373	8,400	2,678
Tar .. .. .	49	10	131	128	44	37
Surinam—						
Coal .. .. .	88	32	<i>n.a.</i>	117	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Coal .. .. .	49,719	74,892	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	1,474	3,269	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Coal .. .. .	131	97	42	3,091	14,704	694
Coke .. .. .	733	578	12,958	122,964	124,895	179,064
Burma—						
Coal .. .. .	402,527	336,536	353,621	325,328	205,921	205,911
Coke .. .. .	11,917	10,790	7,493	11,413	5,531	1,080
Formosa—						
Coke .. .. .	4,884	—	—	—	7,095	5,622
Tar and pitch .. ..	2,432	300	276	—	<i>n.a.</i>	<i>n.a.</i>
Indonesia—						
Coal .. .. .	41,655	34,281	25,075	} 17,360	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	3,624	254	644			
Tar .. .. .	147	212	53			
Iraq—						
Coal .. .. .	2,637	521	384	681	500	<i>n.a.</i>
Coke .. .. .	993	1,696	383	762	876	<i>n.a.</i>
Tar and pitch .. ..	2,738	5,466	2,838	162	107	<i>n.a.</i>
Israel—						
Anthracite .. ..	13,990	34,174	} 17,609	20,122	12,730	18,269
Other coal .. ..	10,120	70				
Coke .. .. .	6,409	11,544	27,110	25,598	7,517	8,548
Japan—						
Anthracite .. ..	511,210	814,411	1,102,018	1,288,793	} 10,966,639	13,023,813
Other coal .. ..	4,380,232	7,346,876	9,881,599	10,452,607		
Coke .. .. .	1	2	180,054	116,427		
Tar and pitch .. ..	9,323	25,498	23,300	7,528		
Korea (South)—						
Coal .. .. .	370,207	35,146	277,236	177,175	128,152	158,549
Lebanon—						
Coal .. .. .	4,410	(a) 1,083	(a) 1,033	(a) 2,542	(a) 2,072	<i>n.a.</i>
Coke .. .. .	2,376	4,036	2,929	2,846	8,485	<i>n.a.</i>
Briquettes .. ..	2,740	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Philippine Republic—						
Coal .. .. .	49	23	2	78	231	<i>n.a.</i>
Coke .. .. .	8,114	8,849	7,523	12,191	14,373	<i>n.a.</i>
Tar .. .. .	193	156	725	588	837	<i>n.a.</i>
Syria—						
Coal .. .. .	1,533	274	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coke .. .. .	1,829	2,285	2,239	1,918	1,057	1,995
Briquettes .. ..	1,762	1,859	(b) 2,088	(b) 1,599	(b) 1,901	(b) 2,290

(a) Including briquettes.

(b) Including coal.

## IMPORTS OF COAL, COKE AND BY-PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Thailand—</b>						
Coal .. .. .	11,536	10,860	—	—	—	—
Coke .. .. .	1,399	2,618	2,389	2,259	3,177	1,996
Tar .. .. .	—	37	48	40	38	4
<b>Vietnam (South)—</b>						
Coal, coke and briquettes	15,333	10,553	5,184	15,800	9,000	23,000
<b>French Polynesia—</b>						
Coal .. .. .	—	—	25	12	16	16
<b>New Caledonia—</b>						
Coal .. .. .	144,570	136,941	66,328	46,759	79,676	182,726
Coke .. .. .	32,084	128,554	199,534	101,809	91,091	100,405



**COBALT**  
**PRODUCTION OF COBALT ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Uganda (b) .. ..	660	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Zambia (a) .. ..	2,027	1,862	1,721	846	959	1,394
Canada (c) .. ..	1,406	1,593	1,421	1,554	1,350	1,427
Australia (d) .. ..	14	14	17	15	17	17
<b>OTHER COUNTRIES</b>						
Finland (e) .. ..	1,908	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic (f) .. ..	8,298	8,092	8,195	9,530	7,260	7,555
Morocco .. ..	1,188	1,251	1,270	1,413	1,349	1,651
Cuba (g) .. ..	88	61	—	162	171	<i>n.a.</i>
United States .. ..	1,337	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
New Caledonia .. ..	180	—	—	—	—	—
<b>TOTAL .. ..</b>	<b>17,000</b>	<b>16,000</b>	<b>15,000</b>	<b>16,000</b>	<b>13,000</b>	<b>14,000</b>

Ores containing cobalt are also known to have been produced in Cyprus, Greece, Norway, Spain, Sweden, the U.S.S.R., China and Korea.

- (a) Refined metal plus estimated cobalt content of cobalt alloy and other cobalt.
- (b) Cobalt content of concentrates stockpiled.
- (c) Metal recovered from smelter products plus cobalt contained in cobalt ores and residues exported.
- (d) Estimated cobalt content of cobalt oxide.
- (e) Cobalt content of pyrites.
- (f) Electrolytic cobalt plus recoverable cobalt in cobalt alloy.
- (g) Recoverable cobalt in sulphide. United States Bureau of Mines' estimate.

**METAL PRODUCTION OF COBALT**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Zambia .. ..	1,141	930	678	715	671	1,341
<b>OTHER COUNTRIES</b>						
France .. ..	301	525	540	621	740	737
Germany (Federal) (a) .. ..	1,380	1,501	1,591	1,620	1,484	1,422
Norway (c) .. ..	384	470	546	592	615	698
Congo Republic .. ..	5,926	5,530	6,384	8,929	6,715	7,057
United States (b) .. ..	1,099	688	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

Cobalt and its compounds are also known to have been produced in the United Kingdom, Canada, Belgium and the U.S.S.R.

- (a) Obtained chiefly from pyrite sinter imported from Cyprus, Finland, Norway, Spain, Sweden and other countries. Including secondary metal.
- (b) In addition, the following amounts of cobalt oxide, hydrate, salts and driers were produced (in terms of cobalt content):

Year	Long tons	Year	Long tons
1959 ..	605	1962 ..	645
1960 ..	699	1963 ..	696
1961 ..	601	1964 ..	772

- (c) Obtained from copper-nickel matte imported from Canada.

## EXPORTS OF COBALT, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Cobalt (a) .. ..	52	42	44	42	110	90
Cobalt oxide .. ..	316	244	274	332	359	462
Other compounds .. ..	684	648	684	601	<i>n.a.</i>	<i>n.a.</i>
Zambia (e) .. ..						
Cobalt .. ..	1,329	1,176	540	880	529	1,443
Cobalt alloy .. ..	27	131	5	—	—	31
Canada—						
Cobalt .. ..	304	377	270	242	330	265
Cobalt alloys .. ..	1	1	—	—	—	—
Cobalt oxides and salts ..	491	525	679	728	490	739
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Cobalt (b) .. ..	2,325	2,449	1,046	2,352	671	951
France—						
Ingots and scrap .. ..	62	87	(a) 228	(a) 429	(a) 451	(a) 564
Cobalt salts .. ..	6	18	6	11	11	10
Germany (Federal)—						
Cobalt (c) .. ..	796	788	820	1,002	872	776
Cobalt oxide .. ..	65	50	16	19	30	24
Norway—						
Cobalt .. ..	314	382	626	635	629	559
Sweden—						
Cobalt .. ..	3	17	15	13	4	9
U.S.S.R.—						
Cobalt .. ..	196	214	261	200	197	197
Congo Republic—						
Cobalt .. ..	6,311	(d) 6,000	(d) 6,400	(d) 8,900	(d) 6,700	(d) 7,000
Cobalt-copper ingots ..	5,162	(d) 5,600	(d) 4,400	(d) 1,500	(d) 1,300	(d) 1,200
Morocco—						
Ore .. ..	10,845	12,027	5,243	2,390	6,988	28,647
United States—						
Ore and metal (c) ..	310	816	926	865	958	573

(a) Including alloys.

(b) Exports of cobalt metal are not separately recorded. Figures relate to imports into the United States and Japan from Belgium.

(c) Including alloys and scrap.

(d) Estimated.

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF COBALT, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Cobalt .. .. .	927	1,653	1,417	1,238	} 378	1,528
Cobalt alloys .. .. .	28	18	12	3		
Cobalt oxide .. .. .	561	808	932	1,048		
Canada—						
Cobalt oxide .. .. .	11	9	13	18	13	<i>n.a.</i>
Hong Kong—						
Cobalt oxide .. .. .	37	43	20	36	45	37
India—						
Cobalt oxide .. .. .	24	28	45	38	29	39
Australia (a)—						
Cobalt ingots, etc. .. .. .	58	83	46	37	68	62
Cobalt oxide .. .. .	15	9	17	12	10	23
Cobalt salts .. .. .	76	69	59	3	2	11
New Zealand—						
Cobalt salts .. .. .	341	330	372	172	(a) 1	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Denmark—						
Cobalt .. .. .	20	40	7	12	10	26
France—						
Ore .. .. .	6,920	6,678	(c) 9,162	(c) 9,542	(c) 10,356	(c) 10,228
Ingots and scrap .. .. .	49	172	157	168	266	227
Cobalt oxide .. .. .	85	115	68	79	80	88
Germany (Federal)—						
Cobalt (b) .. .. .	338	857	758	570	459	667
Cobalt oxide .. .. .	176	236	209	211	212	257
Italy—						
Cobalt (b) .. .. .	182	453	417	220	371	313
Cobalt oxide .. .. .	92	126	132	147	276	243
Netherlands—						
Cobalt .. .. .	<i>n.a.</i>	172	213	140	120	161
Portugal—						
Cobalt oxide .. .. .	5	2	1	5	4	3
Sweden—						
Cobalt .. .. .	158	321	308	150	130	233
Yugoslavia—						
Cobalt .. .. .	29	43	21	36	43	50
Mexico—						
Cobalt oxide .. .. .	30	36	29	26	32	45
United States—						
Ore .. .. .	345	2,885	—	—	13	<i>n.a.</i>
<i>Co content</i> .. .. .	16	140	—	—	12	<i>n.a.</i>
Cobalt metal .. .. .	8,968	4,822	4,480	5,257	4,608	5,077
Cobalt oxide .. .. .	695	651	304	436	209	676
Cobalt salts .. .. .	124	103	71	54	42	42
Argentina—						
Cobalt metal .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14	22	46
Cobalt salts .. .. .	46	36	36	7	12	23
Brazil—						
Cobalt oxide .. .. .	24	45	30	43	36	31
Japan—						
Ore .. .. .	—	1	—	<i>n.a.</i>	—	—
Ingots, slabs and grains .. .. .	913	1,130	1,546	1,093	853	1,603
Cobalt oxide .. .. .	197	230	282	240	247	314

(a) Years ended June 30 of that stated.

(b) Including alloys and scrap.

(c) Including alloys.

**COPPER**  
**PRODUCTION OF COPPER ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	11	16	14	6	<i>n.a.</i>	<i>n.a.</i>
Kenya ( <i>f</i> ) .. .. .	1,400	1,200	1,800	1,500	1,500	1,400
Rhodesia .. .. .	10,729	13,506	13,610	13,524	16,508	16,376
Tanzania .. .. .	1,081	1,254	99	—	—	—
Uganda ( <i>h</i> ) .. .. .	11,943	14,515	13,163	15,331	15,960	17,971
Zambia .. .. .	534,673	567,255	565,656	553,442	578,784	622,362
Canada ( <i>g</i> ) .. .. .	352,919	392,198	387,579	408,380	404,070	441,669
Cyprus ( <i>e</i> ) .. .. .	35,695	34,907	28,201	24,763	25,893	16,530
India .. .. .	8,368	8,988	8,910	9,745	10,000	10,000
Australia .. .. .	94,950	109,435	95,626	106,972	112,976	105,043
New Zealand .. .. .	—	—	—	10	20	70
<b>TOTAL</b> .. .. .	<b>1,052,000</b>	<b>1,143,000</b>	<b>1,115,000</b>	<b>1,134,000</b>	<b>1,166,000</b>	<b>1,231,000</b>
Irish Republic .. .. .	4,229	6,145	5,834	2,350	—	—
<b>OTHER COUNTRIES</b>						
Albania ( <i>c</i> ) .. .. .	2,000	2,100	2,300	2,500	2,500	2,500
Austria .. .. .	2,474	1,993	1,926	2,003	1,902	1,588
Bulgaria .. .. .	10,800	13,900	16,000	18,000	( <i>b</i> ) 18,000	( <i>b</i> ) 18,000
Finland .. .. .	28,900	28,000	33,500	34,600	33,400	31,800
France ( <i>d</i> ) .. .. .	529	553	359	221	270	263
Germany—						
Federal Republic .. .. .	1,753	1,750	1,632	1,815	2,246	1,557
East ( <i>b</i> ) .. .. .	20,000	20,000	20,000	20,000	20,000	20,000
Italy .. .. .	3,518	2,948	2,373	2,655	<i>n.a.</i>	<i>n.a.</i>
Norway .. .. .	14,132	15,148	13,732	15,290	14,040	14,737
Poland .. .. .	8,800	10,500	11,900	13,500	13,000	14,200
Portugal .. .. .	708	517	556	513	( <i>c</i> ) 550	( <i>c</i> ) 390
Spain ( <i>i</i> ) .. .. .	8,763	8,047	9,433	7,769	6,727	7,656
Sweden .. .. .	17,035	17,201	17,899	18,789	16,990	15,966
U.S.S.R. ( <i>b</i> ) .. .. .	430,000	<i>r</i> 500,000	<i>r</i> 550,000	<i>r</i> 550,000	600,000	600,000
Yugoslavia .. .. .	34,054	32,751	37,310	50,900	61,112	62,168
Algeria .. .. .	59	117	599	767	( <i>b</i> ) 1,000	( <i>b</i> ) 1,000
Angola .. .. .	1,726	1,882	912	1,754	128	—
Congo Republic ( <i>h</i> ) .. .. .	277,861	297,523	290,574	292,296	266,692	272,623
Congo, Republic of .. .. .	—	—	158	827	286	—
Mauritania .. .. .	41	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco .. .. .	1,166	1,240	1,710	2,458	1,777	1,720
South Africa .. .. .	49,729	45,399	51,743	45,638	54,279	58,552
South West Africa .. .. .	31,000	20,000	25,000	23,000	32,000	34,000
Cuba .. .. .	8,877	11,659	( <i>b</i> ) <i>r</i> 5,000	( <i>b</i> ) <i>r</i> 5,500	( <i>b</i> ) 6,000	( <i>b</i> ) 6,000
Haiti .. .. .	—	900	3,421	6,016	5,851	5,544
Mexico ( <i>d</i> ) .. .. .	56,369	59,377	48,535	46,381	54,979	51,676
Nicaragua .. .. .	894	4,820	6,178	7,157	7,168	9,094
United States ( <i>d</i> ) .. .. .	736,470	964,437	1,040,317	1,096,804	1,083,184	1,113,196
Argentina .. .. .	179	508	542	398	114	338
Bolivia ( <i>a</i> ) .. .. .	2,197	2,235	2,048	2,325	2,946	4,607

(a) Exports of ore (metal content) and metal.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

(d) Amount estimated as recoverable.

(e) Estimated copper content of concentrates, cement copper and cupreous pyrites exported. The copper content of copper concentrates and cement copper produced was as follows (long tons): 1959—25,200; 1960—24,000; 1961—21,600; 1962—20,400; 1963—22,000; 1964—11,300.

(f) Copper content of cement copper.

(g) Blister copper plus recoverable copper in ores and matte exported.

(h) Smelter.

(i) Excluding copper contained in iron pyrites, estimated at about 10,000 tons per annum in recent years. This may or may not be recovered.

## PRODUCTION OF COPPER ORE (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Brazil (c) .. ..	1,100	1,100	1,700	1,600	1,500	1,500
Chile (d) .. ..	537,401	527,787	529,767	577,000	591,000	612,000
Ecuador .. ..	132	99	99	155	279	181
Peru .. ..	(d) 49,030	(d) 178,851	(d) 194,924	(d) 164,156	174,650	171,721
Burma (b) .. ..	150	140	110	150	170	120
China (a) (b) .. ..	40,000	40,000	60,000	75,000	75,000	75,000
Formosa .. ..	1,601	2,067	2,197	2,074	1,593	1,711
Israel .. ..	4,409	5,492	6,154	5,816	7,598	7,873
Japan .. ..	83,902	87,774	94,886	101,964	105,524	104,307
Korea (South) .. ..	250	300	250	550	600	600
Korea (North) .. ..	5,300	(c) 5,900	(c) 5,900	(c) 7,900	(c) 7,900	(c) 10,000
Philippine Republic .. ..	48,739	43,315	51,056	53,864	62,680	59,503
Turkey (a) .. ..	23,468	25,602	19,678	25,368	24,398	25,571
<b>TOTAL .. ..</b>	<b>2,600,000</b>	<b>2,900,000</b>	<b>r 3,200,000</b>	<b>r 3,300,000</b>	<b>3,400,000</b>	<b>3,400,000</b>
<b>WORLD'S TOTAL .. ..</b>	<b>3,600,000</b>	<b>4,100,000</b>	<b>r 4,300,000</b>	<b>r 4,400,000</b>	<b>4,500,000</b>	<b>4,600,000</b>

Ores containing copper are also known to have been produced in Fiji, Czechoslovakia, Hungary, Malaya and Iran.

(a) Smelter.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

(d) Amount estimated as recoverable.

## METAL PRODUCTION OF COPPER

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia .. .. .	—	<i>n.a.</i>	11,531	12,142	14,453	14,998
Uganda .. .. .	11,943	14,515	13,163	15,331	15,960	17,971
Zambia .. .. .	531,334	558,882	559,949	r 537,769	567,741	633,226
Canada (a) .. .. .	326,839	355,319	354,345	r 331,181	322,754	351,000
India .. .. .	7,553	8,769	8,204	9,626	9,431	9,325
Australia .. .. .	68,494	71,037	62,497	87,337	88,492	79,524
<b>TOTAL .. .. .</b>	<b>946,163</b>	<b>1,009,000</b>	<b>1,009,689</b>	<b>r 993,386</b>	<b>1,018,831</b>	<b>1,106,000</b>
<b>OTHER COUNTRIES</b>						
Albania .. .. .	990	929	1,269	1,830	(g) 1,800	(g) 1,900
Austria (b) .. .. .	10,358	11,575	11,646	12,666	12,844	14,411
Bulgaria .. .. .	10,925	15,846	18,602	19,094	20,198	20,767
Finland .. .. .	32,090	30,481	33,800	33,394	37,200	32,653
Germany—						
Federal Republic .. .. .	63,100	61,400	63,200	67,700	65,800	67,200
East (e) .. .. .	20,000	20,000	20,000	20,000	20,000	20,000
Italy .. .. .	361	31	276	450	363	<i>n.a.</i>
Norway .. .. .	18,945	21,273	21,623	18,851	17,910	16,962
Poland .. .. .	17,200	21,400	21,800	23,700	29,100	36,000
Spain .. .. .	10,836	8,072	17,883	19,928	23,142	23,898
Sweden .. .. .	24,930	21,363	20,377	22,410	28,616	28,200
U.S.S.R. (e) .. .. .	430,000	r 500,000	r 550,000	r 550,000	600,000	600,000
Yugoslavia .. .. .	34,694	35,165	30,381	45,019	48,257	51,121
Angola .. .. .	1,396	1,400	800	700	100	—
Congo Republic .. .. .	277,861	297,523	290,574	292,296	266,692	272,623
South Africa .. .. .	48,074	45,399	51,395	45,451	53,647	53,652
South-West Africa .. .. .	—	—	—	1,195	20,485	28,061
Mexico .. .. .	54,558	57,912	46,873	44,801	53,576	50,209
United States (d) .. .. .	751,603	1,101,454	1,077,995	1,180,905	1,157,768	1,195,029
Bolivia (c) .. .. .	117	175	117	—	—	—
Chile .. .. .	503,898	494,147	494,102	548,423	548,563	577,802
Peru .. .. .	32,292	160,908	177,659	145,498	154,900	149,664
China (e) .. .. .	40,000	40,000	60,000	75,000	75,000	75,000
Formosa .. .. .	1,774	1,752	2,215	2,451	1,458	1,580
Japan (f) .. .. .	152,396	184,371	199,625	208,778	248,076	278,000
Korea (South) .. .. .	736	994	1,300	2,175	2,341	2,766
Korea (North) .. .. .	4,893	(g) 8,000	(g) 7,900	(g) 10,000	(g) 10,000	(g) 10,000
Turkey .. .. .	23,468	25,602	19,678	25,368	24,398	25,571
<b>TOTAL .. .. .</b>	<b>2,600,000</b>	<b>r 3,200,000</b>	<b>3,200,000</b>	<b>3,400,000</b>	<b>3,500,000</b>	<b>3,600,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>3,500,000</b>	<b>r 4,200,000</b>	<b>4,200,000</b>	<b>4,400,000</b>	<b>4,500,000</b>	<b>4,700,000</b>

(a) Copper content of blister and anode copper.

(b) Including secondary metal.

(c) Exports.

(d) In addition, secondary metal was recovered as follows (long tons):

1959—830,866; 1960—778,025; 1961—757,981; 1962—823,061; 1963—870,023; 1964—975,912.

(e) Estimated.

(f) In addition, secondary metal was recovered as follows (long tons):

1959—38,512; 1960—59,818; 1961—73,005; 1962—57,381; 1963—42,463; 1964—*n.a.*

(g) United States Bureau of Mines' estimate.

## EXPORTS OF COPPER, ETC.\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought—Refined ..	77,403	49,090	71,510	108,906	45,836	37,814
Alloys ..	30,755	29,393	37,576	46,518	39,652	35,385
Scrap (a) ..	707	444	1,435	8,010	6,276	3,227
Semi-manufactures ..	56,322	64,304	38,035	35,426	29,971	35,260
do. alloys ..	26,314	27,731	34,716	27,213	25,994	24,972
Sulphate ..	31,086	25,366	19,463	18,382	17,805	18,122
Kenya—						
Unwrought (a) ..	3,167	3,053	3,667	4,006	3,041	3,358
Rhodesia (e) ..						
Ore and concentrates ..	22,611	30,880	11,802	5,593	13,854	7,022
Unwrought. Refined ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	15,160
Bar and rod ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,699
Tanzania—						
Lead concentrates (Cu content) ..	1,068	1,247	94	—	—	—
Uganda—						
Unwrought (a) ..	11,797	14,713	12,930	15,539	15,320	18,214
Zambia (e)—						
Matte ..	8,932	8,461	12,996	2,578	806	1,437
Unwrought—						
Blister ..	160,178	151,070	146,802	118,941	132,612	151,175
Electrolytic ..	354,206	396,821	390,030	404,547	432,929	519,778
Other ..	2,091	37	8,195	12,808	12,561	<i>n.a.</i>
Semi-manufactures	202	172	90	985	946	<i>n.a.</i>
Canada—						
Ore, matte, etc. (Cu content) ..	28,634	42,529	38,298	85,307	82,973	93,348
Unwrought ..	198,604	248,273	237,720	199,146	191,952	200,244
Scrap, slag, etc. ..	5,568	10,291	(d) 6,959	(d) 7,264	(d) 9,450	(d) 11,739
Scrap alloys ..	6,603	11,014	8,448	6,803	7,798	7,873
Semi-manufactures ..	15,080	18,977	25,108	25,099	30,590	39,954
do. alloys (c) ..	2,488	2,305	3,576	3,458	4,044	5,700
Cyprus—						
Ore and concentrates ..	123,519	115,784	101,585	92,889	108,456	61,139
Cupreous pyrites ..	307,026	248,931	138,477	105,622	103,848	86,128
Copper cement ..	3,693	2,212	1,759	1,667	3,096	3,873
Hong Kong—						
Unwrought (a) ..	20	31	23	58	6	16
Scrap (a) ..	6,896	6,712	7,822	6,648	6,340	5,720
Semi-manufactures (a) ..	191	401	214	68	78	136
India—						
Semi-manufactures (a) ..	184	(b) 326	(b) 248	(b) 274	(b) 641	(b) 850
Malaya—						
Ore ..	2,163	1,239	1,511	1,250	1,500	1,320
Semi-manufactures (a) ..	116	129	222	452	120	113
Sulphate ..	6	9	12	2	10	2
Australia—						
Ores, concentrates and dross (Cu content) ..	20,095	36,210	28,012	21,828	11,881	18,982
Unwrought—						
Blister ..	16,225	502	1,022	—	464	40
Refined ..	2,749	13,577	23,073	16,497	24,485	13,817
Alloys ..	100	45	77	208	83	149
Scrap (a) ..	5,483	5,195	12,900	6,833	7,504	7,172
Semi-manufactures (a) ..	1,845	3,334	4,706	5,787	7,986	7,961

\*In these tables the description "unwrought" copper corresponds to item 682.1 of the Standard International Trade Classification and includes both blister and refined copper. "Semi-manufactures" corresponds to S.I.T.C. 682.2 and includes foil and powder as well as rods, wire, sheets, strip, tubes, pipes, etc.

(a) Including alloys.

(b) Years ended March 31 following that stated.

(c) Including refinery shapes.

(d) Scrap only.

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF COPPER, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Fiji—						
Ore .. .. .	97	47	—	—	20	—
New Zealand—						
Unwrought alloys ..	161	33	170	8	n.a.	(c) —
Scrap (a) .. .. .	268	1,824	1,439	609	(c) 616	(c) 1,451
Semi-manufactures, alloys .. .. .	686	892	189	654	(c) 1,529	(c) 1,826
Irish Republic—						
Ore and concentrates ..	26,893	30,255	28,024	14,950	—	n.a.
Scrap (a) .. .. .	2,123	1,826	2,120	2,045	2,918	n.a.
OTHER COUNTRIES						
Austria—						
Unwrought .. .. .	1,301	1,229	1,312	1,828	1,369	2,708
do. alloys .. .. .	117	109	106	598	1,155	938
Scrap (a) .. .. .	129	126	97	709	595	306
Semi-manufactures (a)	1,605	3,121	4,825	4,354	6,789	8,017
Sulphate .. .. .	59	233	1,262	1,338	373	517
Belgium-Luxemburg E.U.—						
Unwrought (a) (b) ..	163,387	169,387	195,223	206,804	244,379	245,872
Scrap .. .. .	3,387	2,836	5,819	8,745	9,739	12,499
Semi-manufactures (a)	41,893	59,254	60,810	56,322	59,419	81,077
Sulphate .. .. .	21,670	20,663	15,941	12,585	11,624	5,517
Denmark—						
Unwrought .. .. .	173	272	5	27	—	477
do. alloys .. .. .	335	224	142	227	416	215
Scrap (a) .. .. .	2,540	2,766	2,969	5,342	5,116	3,304
Semi-manufactures (a)	239	357	699	712	784	1,561
Finland—						
Unwrought (a) .. ..	8,758	4,767	5,501	7,196	8,776	6,740
Semi-manufactures (a)	1,581	2,030	2,991	3,158	5,640	1,927
France—						
Ore .. .. .	—	984	675	—	—	—
Matte .. .. .	44	4,373	2,658	421	880	795
Unwrought—						
Unrefined .. .. .	3,043	8,753	5,956	9,472	9,791	11,663
Refined .. .. .	1,520	1,822	1,554	2,436	2,619	3,330
Alloys .. .. .	6,272	12,915	6,719	5,773	4,674	4,655
Scrap .. .. .	119	3,345	3,203	5,040	5,583	8,011
do. alloys .. .. .	4,876	10,737	15,188	17,294	27,475	34,963
Semi-manufactures (a)	23,532	24,051	22,309	17,424	18,399	20,467
Sulphate .. .. .	5,013	9,670	8,237	7,320	4,155	3,234
Germany (Federal)—						
Ore .. .. .	—	—	418	472	—	—
Unwrought—						
Unrefined .. .. .	1,104	548	45	89	251	367
Refined .. .. .	87,433	79,528	78,997	114,215	71,903	75,501
Alloys .. .. .	372	510	1,046	1,843	1,012	1,147
Scrap (a) .. .. .	6,257	6,519	11,230	14,504	20,338	18,312
Semi-manufactures (a)	105,839	68,741	57,414	63,532	71,641	76,820
Sulphate .. .. .	4,534	4,780	5,491	4,319	5,058	3,871
Italy—						
Ore .. .. .	3,272	2,015	2,246	3,327	2,158	2,462
Unwrought (a) .. ..	121	33	169	36	21	10,693
Scrap (a) .. .. .	772	60	121	190	245	2,847

(a) Including alloys.

(b) Including matte.

(c) Year ended June 30 of that stated.



## EXPORTS OF COPPER, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
Italy (cont.)						
OTHER COUNTRIES						
(cont.)						
Semi-manufactures (a)	12,909	11,310	13,234	9,963	9,695	27,168
Sulphate .. ..	1,772	6,316	4,369	7,250	4,681	1,491
Netherlands—						
Ore .. ..	722	4,133	6,804	263	—	—
Unwrought .. ..	1,480	849	264	122	601	1,402
do. alloys .. ..	6,414	6,468	6,009	5,434	4,852	6,050
Scrap (a) .. ..	14,396	13,190	14,374	17,338	19,684	24,087
Semi-manufactures (a)	8,719	6,523	6,555	7,992	9,314	13,484
Sulphate .. ..	18	27	50	36	26	61
Norway—						
Ore .. ..	10,316	9,618	10,438	11,205	9,889	14,091
Matte .. ..	17,552	16,811	19,568	15,510	1,107	—
Unwrought—						
Unrefined .. ..	4,003	4,114	3,987	4,161	4,488	4,821
Refined .. ..	13,391	13,915	14,769	13,512	10,667	9,361
Alloys .. ..	2,283	2,327	1,846	1,197	1,468	1,714
Scrap (a) .. ..	1,304	1,492	1,507	1,572	2,022	2,269
Semi-manufactures (a) ..	2,707	3,533	2,436	2,198	2,625	1,968
Portugal—						
Ore .. ..	n.a.	1,967	2,241	2,102	2,153	1,796
Unwrought .. ..		351	556	471	256	1,091
Semi-manufactures (a) }	275	90	69	62	68	71
Sulphate .. ..	248	194	59	201	183	211
Spain—						
Unwrought (a) .. ..	1,180	2,801	209	70	388	6,384
Semi-manufactures (a)	53	593	63	26	185	13
Sweden—						
Unwrought .. ..	14,782	14,947	15,953	15,884	15,128	10,387
do. alloys .. ..	2,828	1,511	1,745	1,890	2,568	1,454
Scrap (a) .. ..	583	703	719	545	656	977
Semi-manufactures (a)	31,679	32,344	30,226	28,691	31,523	45,507
Sulphate .. ..	2	3	2	8	3	69
Switzerland—						
Unwrought (a) .. ..	3,310	2,599	1,706	2,052	2,050	2,808
Scrap (a) .. ..	2,961	403	527	1,802	6,901	9,897
Semi-manufactures (a)	12,213	9,435	8,543	7,705	8,482	10,198
U.S.S.R.—						
Unwrought (c) .. ..	57,900	63,400	59,400	70,200	70,900	88,100
Semi-manufactures .. ..	2,756	7,382	3,445	5,413	5,413	4,921
Sulphate .. ..	8,300	9,300	9,700	9,300	10,300	11,800
Yugoslavia—						
Matte .. ..	n.a.	n.a.	n.a.	n.a.	1,229	1,033
Unwrought (a) .. ..	—	—	100	843	—	—
Semi-manufactures (a)	10,859	12,635	13,163	13,895	17,523	21,845
Sulphate .. ..	776	6,707	984	2,953	2,180	9,241
Algeria—						
Ore .. ..	797	410	1,544	3,516	3,291	4,018
Scrap (a) .. ..	2,095	2,794	n.a.	n.a.	n.a.	n.a.
Semi-manufactures (a)	1,411	1,797	n.a.	n.a.	n.a.	n.a.
Angola—						
Ore .. ..	—	—	—	90	—	—
Unwrought .. ..	1,584	1,949	871	764	190	9
Congo Republic—						
Unwrought—						
Blister .. ..	121,615					
Refined .. ..	155,801	b 280,000	(b) 300,000	(b) 280,000	(b) 260,000	(b) 300,000
Copper-cobalt ingots	5,162					
Morocco—						
Ore .. ..	4,619	4,738	4,357	5,372	6,516	4,507
Scrap (a) .. ..	1,330	1,407	1,266	864	743	928

(a) Including alloys.

(c) Including wire.

(b) Estimated.

## EXPORTS OF COPPER, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>South Africa—</b>						
Concentrates ( <i>Cu content</i> )	(d) 441	—	(d) 238	(d) 42	(d) 583	(d) 3,287
Unwrought .. ..	42,853	44,573	51,586	43,447	68,495	52,461
<b>South West Africa—</b>						
Ore ( <i>Cu content</i> ) .. ..	2,195	2,153	4,537	1,440	—	312
Lead concentrates ( <i>Cu content</i> ) .. ..	30,154	19,179	23,587	21,938	11,492	5,834
<b>Tunisia—</b>						
Unwrought and scrap ..	734	955	717	850	520	459
<b>Cuba—</b>						
Ore .. .. .	(c) 63,360	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Scrap .. .. .	2,189	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Mexico—</b>						
Ore, concentrates, etc. . .	3,547	20,655	3,497	6,912	2,085	7,178
Unwrought—						
Unrefined .. .. .	28,497	28,115	20,746	24,049	22,061	15,686
Refined .. .. .	12,969	6,161	3,329	4,930	2,735	620
Semi-manufactures (a) ..	444	264	543	1,213	1,985	1,606
<b>United States—</b>						
Ores, matte, blister, etc. ( <i>Cu content</i> ) .. ..	2,662	9,920	3,998	1,710	1,080	4,817
Unwrought .. .. .	141,909	387,288	385,940	300,468	278,107	282,349
do. alloys .. .. .	342	624	419	306	529	1,774
Scrap .. .. .	9,572	52,554	31,479	11,257	12,223	39,062
do. alloys .. .. .	26,255	109,085	104,155	32,330	30,997	61,313
Semi-manufactures .. ..	7,895	8,647	9,519	9,692	9,337	5,626
do. alloys .. .. .	4,453	4,101	4,641	6,265	5,771	5,917
Sulphate .. .. .	2,386	13,251	6,764	1,711	759	971
<b>Argentina—</b>						
Ores .. .. .	2,983	1,383	1,590	1,681	2,121	1,292
Matte .. .. .	224	241	209	206	17	349
<b>Bolivia—</b>						
Ore, etc. ( <i>Cu content</i> ) ..	2,080	2,060	1,931	2,325	2,946	4,607
Unwrought .. .. .	117	175	117	—	—	—
<b>Chile—</b>						
Ores and concentrates ..	34,172	37,011	32,468	33,231	32,000	23,419
Precipitate .. .. .	3,300	3,915	3,688	7,347	11,820	11,431
Copper cement .. .. .	4,335	3,759	4,180	3,070	<i>n.a.</i>	<i>n.a.</i>
Unwrought—						
Blister .. .. .	253,499	268,726	299,069	289,775	290,639	304,787
Refined .. .. .	69,422	74,461	73,699	73,006	75,436	70,886
Electrolytic .. .. .	146,793	138,770	143,417	166,381	166,166	139,124
<i>Cu content</i> (b) .. .. .	501,262	514,130	534,825	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures .. ..	32,497	4,839	3,314	3,776	3,334	<i>n.a.</i>
<b>Peru—</b>						
Ore ( <i>Cu content</i> ) .. .. .	12,918	18,578	15,313	14,579	15,648	22,022
Matte, etc. ( <i>do.</i> ) .. .. .	1,093	1,092	1,289	2,889	2,156	551
Precipitate ( <i>do.</i> ) .. .. .	955	812	808	1,476	1,057	914
Unwrought ( <i>do.</i> ) .. .. .	33,198	144,855	178,215	152,495	144,205	152,979
<b>Burma—</b>						
Matte .. .. .	396	364	504	398	235	450
<b>Formosa—</b>						
Ore .. .. .	12,992	6,496	8,661	12,598	9,252	14,256
Unwrought .. .. .	<i>n.a.</i>	<i>n.a.</i>	4,360	—	—	3
<b>Japan—</b>						
Unwrought .. .. .	1,451	1,585	1,336	2,050	1,458	1,541
Semi-manufactures (a) ..	10,901	11,271	12,249	15,897	18,018	26,232
Sulphate .. .. .	27	8	160	211	23	33

(a) Including alloys.

 (b) Total metal content of above items (*not* additional) and of complex ores not shown.

(c) Including cupreus pyrites.

(d) Including matte.

## EXPORTS OF COPPER, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Korea (South)—						
Unwrought .. ..	70	284	721	39	—	<i>n.a.</i>
Philippine Republic—						
Ore and concentrates .. ..	156,279	171,694	243,420	180,647	278,714	243,524
Copper-gold-silver concentrates .. ..	7,398	19,010	22,797	35,173	1,462	<i>n.a.</i>
Scrap .. ..	581	497	2,858	1,706	878	<i>n.a.</i>
Turkey—						
Ore .. ..	15,887	747	—	35	—	8,297
Unwrought .. ..	10,874	17,765	8,051	14,200	9,885	12,779

## IMPORTS OF COPPER, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unwrought—						
Electrolytic .. ..	269,386	375,683	345,580	380,543	345,098	376,638
Other refined .. ..	49,324	53,504	34,790	30,109	36,616	42,639
Blister .. ..	95,233	111,961	140,445	103,984	99,163	98,901
Alloys .. ..	158	296	159	78	608	308
Scrap .. ..	575	2,043	371	514	496	768
do. alloys .. ..	1,105	4,261	1,591	1,811	1,643	2,619
Semi-manufactures (a)	3,366	6,323	4,340	3,917	4,435	10,090
Malta—						
Semi-manufactures ..	£3,732	£12,642	n.a.	£18,575	£25,387	£40,665
Ghana—						
Semi-manufactures (a)	387	738	653	715	760	471
Kenya—						
Unwrought (a) .. ..	1	1	—	32	62	31
Semi-manufactures (a)	127	158	205	164	202	147
Sulphate .. ..	54	68	49	25	38	63
Mauritius—						
Semi-manufactures (a)	108	204	106	46	88	107
Nigeria—						
Unwrought and semi-manufactures (a) ..	605	627	858	1,776	2,215	1,864
Rhodesia (c)—						
Semi-manufactures (a)	1,380	996	829	1,011	690	6,282
Sierra Leone—						
Semi-manufactures (a)	83	55	97	142	49	70
Tanzania .. ..						
Unwrought (a) .. ..	—	5	3	—	2	1
Semi-manufactures (a)	131	116	82	78	140	64
Sulphate .. ..	18	6	—	1	4	1
Uganda—						
Semi-manufactures (a)	37	75	84	67	65	80
Zambia—						
Unwrought (a) .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	39
Semi-manufactures (a)	n.a.	n.a.	n.a.	n.a.	n.a.	349
Sulphate .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	35
Canada—						
Unwrought .. ..	93	22	3	124	5,846	(d) 6,045
Scrap (a) .. ..	3,424	2,781	3,654	489	2,995	n.a.
Semi-manufactures ..	3,014	2,972	3,771	1,234	1,511	(d) 1,551
do. alloys .. ..	3,100	1,582	1,897	2,745	3,459	(d) 3,294
Sulphate .. ..	1,168	998	345	390	327	194
Barbados—						
Semi-manufactures (a)	107	81	112	75	77	207
Jamaica—						
Semi-manufactures (a)	400	255	246	135	116	160
Sulphate .. ..	1,479	1,647	762	2	(b) 50	2
Trinidad and Tobago—						
Semi-manufactures (a)	201	251	511	184	157	n.a.
Sulphate .. ..	31	25	28	16	37	n.a.
British Guiana—						
Semi-manufactures (a)	27	78	41	206	n.a.	36
Ceylon—						
Unwrought (a) .. ..	24	28	16	26	32	29
Semi-manufactures (a)	548	551	583	395	471	753
Cyprus—						
Semi-manufactures (a)	90	142	121	87	68	57

\*See footnote on p.109 concerning the descriptions "unwrought" copper and "semi-manufactures" used in these tables.

(a) Including alloys.

(c) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

(b) Excess of re-exports.

(d) Owing to reclassification not strictly comparable with earlier years.

## IMPORTS OF COPPER, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
Hong Kong—						
Unwrought (a) .. ..	90	103	281	154	210	524
Scrap (a) .. ..	1,852	1,223	2,233	2,344	793	377
Semi-manufactures (a) ..	4,679	6,412	8,099	7,387	8,433	11,983
India—						
Unwrought .. ..	45,750	(e) 55,892	(e) 36,203	(e) 68,489	(e) 68,312	(e) 51,824
do. alloys .. ..	4	(e) 66	(e) 64	(e) 152	(e) 10	(e) 58
Scrap (a) .. ..	3,031	(e) 6,623	(e) 4,338	(e) 1,478	(e) 1,457	(e) 1,954
Semi-manufactures (a) ..	3,461	(e) 5,747	(e) 6,069	(e) 5,407	(e) 4,958	(e) 5,580
Sulphate .. ..	30	(e) 3	(e) 1	(e) —	(e) —	(e) —
Malaya—						
Unwrought (a) .. ..	23	64	63	51	73	108
Semi-manufactures (a) ..	1,032	1,920	2,288	2,736	2,574	2,731
Sulphate .. ..	140	164	240	162	221	150
Pakistan—						
Unwrought .. ..	712	157	2,112	2,472	2,473	322
Scrap .. ..	—	19	262	146	124	n.a.
Semi-manufactures .. ..	1,428	1,792	3,309	n.a.	5,144	702
Sulphate .. ..	18	42	87	183	285	n.a.
Sabah—						
Semi-manufactures (a) ..	96	77	96	66	n.a.	95
Sarawak—						
Semi-manufactures (a) ..	59	57	205	94	86	n.a.
Australia (c)—						
Unwrought .. ..	2,342	1,965	6,746	5,386	1,238	5,038
do. alloys .. ..	10	48	26	(b) 4	289	1,090
Scrap (a) .. ..	55	73	351	118	205	535
Semi-manufactures (a) ..	2,577	3,301	3,039	5,560	2,638	1,818
Sulphate .. ..	175	338	623	1,131	2,077	1,223
Fiji—						
Semi-manufactures (a) ..	14	35	89	110	64	61
New Zealand—						
Unwrought (a) .. ..	33	62	95	148	(c) 133	n.a.
Semi-manufactures (a) ..	8,488	10,448	11,237	11,126	(c) 12,130	n.a.
Sulphate .. ..	211	221	42	n.a.	n.a.	n.a.
Irish Republic—						
Unwrought (a) .. ..	200	111	230	196	126	98
Semi-manufactures (a) ..	3,087	3,913	4,316	4,339	5,346	5,002
Sulphate .. ..	2,426	2,301	2,569	1,578	1,913	1,481
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. ..	137	436	542	498	298	271
Unwrought—						
Unrefined .. ..	3,260	2,938	5,240	4,817	5,011	5,945
Refined .. ..	13,697	19,817	20,258	17,073	15,844	18,053
Alloys .. ..	162	515	104	129	334	425
Scrap .. ..	158	813	1,532	691	3,248	1,736
do. alloys .. ..	1,049	1,152	1,118	1,907	1,227	2,784
Semi-manufactures (a) ..	3,225	2,995	4,011	3,813	3,469	4,113
Belgium-Luxemburg						
E.U.—						
Ore .. ..	5,561	9,133	5,750	5,875	3,960	2,141
Unwrought (a) (d) .. ..	194,949	270,204	272,778	301,776	275,956	316,844
Scrap .. ..	15,809	18,909	19,540	31,559	35,926	48,172
Semi-manufactures (a) ..	2,909	4,244	5,886	6,636	6,936	8,300
Sulphate .. ..	82	74	78	121	126	344

(a) Including alloys.  
(d) Including matte.

(b) Excess of re-exports.

(c) Years ended June 30 of that stated.

(e) Years ended March 31 following that stated.

## IMPORTS OF COPPER, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Denmark—</b>						
Unwrought .. ..	4,647	4,928	3,546	4,566	3,786	4,372
do. alloys .. ..	141	323	183	228	113	103
Scrap (a) .. ..	224	72	279	105	17	80
Semi-manufactures (a)	17,998	19,189	22,011	24,832	21,356	23,711
Sulphate .. ..	2,669	2,248	3,026	2,286	2,599	3,767
<b>Finland—</b>						
Unwrought (a) .. ..	1,045	5,472	6,257	6,229	2,696	5,643
Semi-manufactures (a)	983	2,287	3,498	2,022	2,079	1,995
Sulphate .. ..	49	85	403	708	710	794
<b>France—</b>						
<b>Unwrought—</b>						
Unrefined .. ..	4,969	5,672	10,413	4,839	6,109	9,648
Refined .. ..	158,522	203,327	219,233	223,100	208,907	244,863
Alloys .. ..	765	1,656	907	2,096	1,925	963
Scrap .. ..	1,171	1,517	2,876	2,678	1,789	2,075
do. alloys .. ..	1,908	2,777	3,649	6,215	6,750	4,988
Semi-manufactures (a)	2,927	3,548	4,729	6,086	10,564	14,854
Sulphate .. ..	—	1,453	4,466	3,247	1,906	1,320
<b>Germany (Federal)—</b>						
Ore .. ..	134,865	137,301	127,968	131,513	156,041	146,971
Burnt cupreous pyrites	1,198,628	1,345,843	1,209,333	1,095,231	979,785	1,112,599
Matte .. ..	9,562	8,374	7,979	7,335	2,320	2,259
<b>Unwrought—</b>						
Unrefined .. ..	95,457	118,396	120,142	99,424	120,171	133,717
Refined .. ..	242,835	305,103	341,324	296,063	251,181	304,991
Alloys .. ..	39,269	36,711	30,555	36,090	38,831	42,089
Scrap (a) .. ..	34,987	61,385	33,594	26,605	36,278	78,178
Semi-manufactures (a)	33,880	21,906	27,204	19,788	26,078	42,227
Sulphate .. ..	676	425	592	542	541	929
<b>Greece—</b>						
<b>Unwrought—</b>						
Unrefined .. ..	2,726	3,173	2,082	4,891	1,080	1,584
Refined .. ..			1,872	2,344	5,542	4,376
Scrap .. ..	<i>n.a.</i>	1,352	777	868	406	31
Sulphate .. ..	6,018	7,601	5,865	6,127	3,994	4,608
<b>Hungary—</b>						
Unwrought .. ..	16,172	18,089	18,616	18,534	17,279	22,363
Sulphate .. ..	10,679	4,682	6,216	7,224	3,809	4,368
<b>Iceland—</b>						
Semi-manufactures (a)	302	239	253	283	210	187
<b>Italy—</b>						
<b>Unwrought—</b>						
Unrefined .. ..	2,792	15,736	12,066	12,464	9,837	764
Refined (a) .. ..	108,035	174,462	183,021	223,834	210,798	191,690
Scrap (a) .. ..	5,232	16,480	22,987	23,070	21,524	13,682
Semi-manufactures (a)	3,189	5,659	5,668	3,668	12,207	8,947
Sulphate .. ..	4,099	2,165	2,073	1,390	1,246	5,855
<b>Netherlands—</b>						
Ore .. ..	746	4,580	8,287	—	—	—
Unwrought .. ..	25,992	31,561	29,547	21,349	25,798	34,034
do. alloys .. ..	1,357	1,615	1,278	1,725	1,508	1,979
Scrap (a) .. ..	4,275	4,608	4,858	4,846	8,231	8,566
Semi-manufactures (a)	23,156	41,607	45,772	40,170	40,207	57,690
Sulphate .. ..	2,464	2,119	2,073	2,172	2,413	2,628
<b>Norway—</b>						
Copper-nickel matte ..	54,159	60,695	63,328	59,896	55,559	50,009
Unwrought .. ..	3,428	4,430	4,247	5,110	4,587	4,970
do. alloys .. ..	411	778	250	429	280	228
Scrap (a) .. ..	168	330	318	95	—	66
Semi-manufactures (a)	13,852	15,717	17,727	18,538	18,288	19,975
Sulphate .. ..	291	424	343	398	269	566

(a) Including alloys.

## IMPORTS OF COPPER, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Poland—</b>						
Concentrates .. ..	<i>n.a.</i>	5,269	10,683	9,060	12,137	18,798
Unwrought .. ..	25,569	20,533	32,331	35,923	34,592	27,485
Sulphate .. ..	605	2,716	1,921	5,305	1,754	1,566
<b>Portugal—</b>						
Ore and concentrates ..	3,780	3,250	4,132	9,060	10	—
Matte .. ..	717	175	59	118	22	—
Unwrought (a) .. ..	5,078	7,786	9,929	6,476	5,294	5,294
Scrap .. ..	1,143	319	78	230	235	353
Semi-manufactures (a)	3,481	3,328	4,327	3,446	4,578	5,137
Sulphate .. ..	5,962	6,906	8,842	5,305	4,210	4,542
<b>Spain—</b>						
Ore .. ..	2,020	21,459	49,614	22,547	17,602	19,569
Unwrought (a) .. ..	17,937	8,404	12,436	26,538	28,475	41,372
Scrap (a) .. ..	4,590	4,349	10,219	15,470	10,217	10,040
Semi-manufactures (a)	507	420	465	3,831	9,679	9,919
Sulphate .. ..	1,519	104	90	30	51	70
<b>Sweden—</b>						
Ore .. ..	31,718	25,763	18,401	21,293	77,555	65,908
Matte .. ..	9,344	7,641	8,163	9,255	7,231	10,653
<b>Unwrought—</b>						
Unrefined .. ..	390	3,156	5,267	1,876	1,973	1,465
Refined .. ..	53,855	71,123	65,964	69,143	63,131	56,278
Alloys .. ..	3,113	4,052	4,459	3,005	2,312	3,614
Scrap (a) .. ..	1,030	4,548	1,479	1,498	3,297	4,617
Semi-manufactures (a)	7,131	10,151	9,953	9,346	12,357	17,764
Sulphate .. ..	913	696	441	211	214	96
<b>Switzerland—</b>						
Unwrought .. ..	30,104	36,888	51,943	39,635	37,291	37,220
do. alloys .. ..			524	2,117	1,010	637
Scrap (a) .. ..	724	1,371	493	425	222	296
Semi-manufactures (a)	10,025	12,614	21,060	21,123	16,394	20,444
<b>U.S.S.R.—</b>						
Unwrought .. ..	113,900	104,300	80,900	104,700	86,600	9,400
Sulphate .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	5,905	8,661	8,858
<b>Yugoslavia—</b>						
Unwrought .. ..	2,193	9,562	10,284	6,999	5,911	9,347
Semi-manufactures (a)	199	479	620	549	591	2,551
Scrap .. ..	<i>n.a.</i>	3,012	3,929	4,141	4,434	3,091
<b>Algeria—</b>						
Unwrought .. ..	4,272	4,572	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	1,564	1,552	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	3,787	2,744	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Angola—</b>						
Semi-manufactures (a)	153	101	265	393	298	396
Sulphate .. ..	62	17	7	3	26	163
<b>Congo Republic—</b>						
Bars, sheets, wire, etc...	93	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Unwrought and scrap ..	2,426	2,695	5,056	6,481	10,131	5,222
Semi-manufactures (a)	994	1,050	982	619	<i>n.a.</i>	379
Sulphate .. ..	73	1,327	95	—	<i>n.a.</i>	<i>n.a.</i>
<b>Malagasy Republic—</b>						
Semi-manufactures (a)	125	128	148	170	114	179
<b>Morocco—</b>						
Semi-manufactures (a)	1,028	2,201	1,863	2,122	3,006	2,571
Sulphate .. ..	83	29	35	—	10	1
<b>Mozambique—</b>						
Semi-manufactures (a)	341	437	481	431	681	408
<b>South Africa—</b>						
Unwrought .. ..	14,093	22,423	22,948	24,571	25,614	30,787
do. alloys .. ..	91	106	70	39	66	
Semi-manufactures (a)	3,108	1,359	1,210	2,121	1,344	4,318

(a) Including alloys.

## IMPORTS OF COPPER, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Sudan—						
Unwrought .. ..	55	—	1	—	125	3
Semi-manufactures .. ..	91	152	223	589	271	242
Sulphate .. ..	642	600	447	255	1	2
Tunisia—						
Semi-manufactures (a)	381	359	507	337	399	640
Sulphate .. ..	699	684	620	91	346	131
Costa Rica—						
Semi-manufactures (a)	109	103	131	212	241	163
Sulphate .. ..	1,393	6,430	9,811	157	11	26
Cuba—						
Semi-manufactures (a)	3,816	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Republic—						
Sulphate .. ..	278	n.a.	n.a.	n.a.	n.a.	n.a.
Guatemala—						
Semi-manufactures (a)	136	137	81	106	85	183
Sulphate .. ..	5	1,137	408	19	12	16
Honduras—						
Sulphate .. ..	17	3,755	296	45	34	33
Mexico—						
Unwrought (a) .. ..	37	81	15	28	21	19
Semi-manufactures (a)	302	232	276	214	735	451
Sulphate .. ..	1	1	2	5	—	1
Panama Republic—						
Sulphate .. ..	1,382	2,443	2,504	n.a.	n.a.	n.a.
United States (b)—						
Cu content of—						
Ore and concentrates	8,356	21,819	21,875	2,074	10,266	38,616
Matte, precipitate, etc.	6,351	165	85	19	2,500	96
Unwrought—						
Blister .. ..	182	434	5,294	999	106,456	360,605
Refined .. ..	211,879	152,698	77,863	116,540	109,954	100,620
Scrap .. ..	2,664	1,639	1,467	3,434	1,960	4,638
do. alloys .. ..	1,122	276	348	1,151	844	883
Semi-manufactures .. ..	48,382	41,490	19,160	17,251	n.a.	n.a.
do. alloys .. ..	28,267	24,549	21,061	23,389	n.a.	n.a.
Sulphate .. ..	515	983	285	74	n.a.	n.a.
Argentina—						
Unwrought .. ..	19,631	21,338	29,316	17,177	15,647	20,861
Brazil—						
Ore .. ..	—	168	—	—	—	—
Unwrought (a) .. ..	19,902	28,774	35,598	41,447	47,448	27,371
Semi-manufactures (a)	291	608	307	374	231	337
Sulphate .. ..	2,553	4,328	3,142	4,653	4,081	3,335
Colombia—						
Unwrought .. ..	n.a.	n.a.	63	162	365	633
Semi-manufactures (a)	2,546	3,022	4,378	4,148	4,403	5,833
Sulphate .. ..	11	683	104	3	50	7
Peru—						
Semi-manufactures (a)	610	665	894	1,136	773	609
Sulphate .. ..	125	265	312	188	225	554
Uruguay—						
Semi-manufactures (a)	514	501	n.a.	n.a.	n.a.	n.a.

(a) Including alloys.

(b) The figures shown are imports for consumption. According to the U.S. Bureau of Mines, general imports, which also include material entering the country under bond, were as follows (long tons Cu content):

	1959	1960	1961	1962	1963	1964
Ore and concentrates	64,858	67,427	40,882	38,319	43,427	45,924
Matte .. ..	7,990	4,508	1,434	566	666	537
Unwrought—						
Blister .. ..	240,221	266,404	302,847	296,148	329,519	347,838
Refined .. ..	191,123	127,419	59,692	88,232	106,397	123,213
Scrap .. ..	5,531	2,406	3,778	4,279	2,610	3,994



## IMPORTS OF COPPER, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Venezuela—						
Semi-manufactures (a)	7,300	7,136	5,892	5,094	5,857	6,376
Sulphate .. ..	122	102	106	303	223	55
Burma—						
Semi-manufactures (a)	618	423	306	—	374	134
Formosa—						
Unwrought (a) ..	311	1,727	1,243	2,405	2,250	1,996
Semi-manufactures (a)	975	1,685	1,829	1,102	917	2,766
Indonesia—						
Semi-manufactures (a)	818	1,721	2,996	2,087	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	253	312	1,332	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (b)—						
Unwrought (a) ..	902	276	357	402	1,201	499
Scrap .. ..	824	870	873	1,106	1,233	784
Semi-manufactures (a)	3,250	2,515	2,805	3,709	2,451	3,179
Iraq—						
Semi-manufactures (a)	1,066	1,083	881	1,745	1,086	<i>n.a.</i>
Japan—						
Ore and concentrates ..	330,574	62,305	427,423	514,230	556,140	586,470
Matte .. ..	6	1,571	5,392	35,435	34,542	24,113
Unwrought .. ..	14,183	58,420	102,634	36,158	55,321	117,853
do. alloys .. ..	121	167	65	206	165	2,631
Scrap .. ..	1,444	7,755	10,336	7,812	17,079	28,829
do. alloys .. ..	61,294	108,400	134,198	74,953	64,463	77,373
Semi-manufactures (a)	2,342	2,471	983	1,428	1,255	5,884
Sulphate .. ..	—	—	304	1,142	—	—
Jordan—						
Semi-manufactures (a)	<i>n.a.</i>	87	114	158	188	216
Lebanon—						
Semi-manufactures (a)	594	425	750	524	501	<i>n.a.</i>
Philippine Republic—						
Semi-manufactures (a)	3,307	3,771	3,976	4,622	3,427	<i>n.a.</i>
Sulphate .. ..	80	139	<i>n.a.</i>	<i>n.a.</i>	109	<i>n.a.</i>
Thailand—						
Unwrought (a) ..	58	210	7	215	155	336
Semi-manufactures (a)	1,062	1,193	1,198	1,802	2,134	2,914
Turkey—						
Semi-manufactures (a)	609	483	423	104	418	<i>n.a.</i>
Sulphate .. ..	2,097	330	857	1,540	34	<i>n.a.</i>

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

**DIAMONDS**  
PRODUCTION OF DIAMONDS†

Metric carats

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Basutoland .. ..	8,713	95	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ghana ( <i>b</i> ) .. ..	3,076,072	3,273,000	3,214,000	3,210,060	2,677,800	2,667,900
Sierra Leone .. ..	1,290,964	1,909,180	2,295,279	1,637,402	<i>a</i> ) 1,738,547	<i>a</i> ) 1,649,847
Tanzania .. ..	643,277	548,376	691,668	660,029	590,949	<i>a</i> ) 664,031
British Guiana .. ..	62,328	101,004	112,679	100,145	99,748	109,682
India .. ..	682	1,159	1,313	1,131	1,432	2,260
Australia .. ..	37	6	—	—	—	—
<b>TOTAL .. ..</b>	<b>5,082,073</b>	<b>5,833,000</b>	<b>6,315,000</b>	<b>5,609,000</b>	<b>5,108,000</b>	<b>5,094,000</b>
<b>OTHER COUNTRIES</b>						
Angola—						
Gem .. ..	610,733	642,551	750,769	762,395	788,406	874,096
Industrial .. ..	404,955	414,276	396,669	318,709	295,165	274,972
Congo Republic—						
Gem .. ..	658,909	407,000	132,000	—	} 14,763,863	14,751,796
Industrial .. ..	14,196,261	13,046,563	18,011,000	14,656,373		
Central African Republic	86,571	69,641	111,484	265,417	402,186	442,281
Ivory Coast .. ..	187,950	199,120	549,330	283,911	179,660	200,270
Guinea .. ..	<i>a</i> ) 657,000	<i>a</i> ) 1,116,000	<i>c</i> ) 1,200,000	<i>c</i> ) 350,000	54,000	<i>c</i> ) 50,000
South Africa .. ..	2,838,332	3,141,463	3,787,862	3,917,891	4,375,572	4,449,978
South West Africa .. ..	930,659	935,382	905,815	1,027,233	1,194,630	1,541,373
Venezuela .. ..	94,986	70,867	134,176	176,493	69,674	115,604
<b>TOTAL* .. ..</b>	<b>20,900,000</b>	<b>20,300,000</b>	<b>26,000,000</b>	<b>22,000,000</b>	<b>22,000,000</b>	<b>23,000,000</b>
<b>WORLD'S TOTAL* .. ..</b>	<b>26,000,000</b>	<b>26,100,000</b>	<b>32,000,000</b>	<b>28,000,000</b>	<b>28,000,000</b>	<b>28,000,000</b>

†For values see next page.

\*Including an estimate for diamonds produced in Brazil but excluding diamonds produced in the U.S.S.R., Liberia and Indonesia. Production in the U.S.S.R. is reported to have been as follows (metric carats): 1959—800,000; 1960—950,000; 1961—1,000,000; 1962—2,500,000; 1963—2,750,000; 1964—*n.a.*

*Note*—Estimated production of synthetic diamond in the United States was as follows (metric carats): 1959—1,500,000; 1960—2,000,000; 1961—2,500,000; 1962—3,000,000; 1963—5,000,000; 1964—5,200,000

(*a*) Exports.

(*b*) Production was shared by Companies and African diggers as follows:

	<i>Companies</i>	<i>African diggers</i>
1959 ..	1,335,614	1,740,458
1960 ..	1,853,000	1,419,843
1961 ..	1,966,000	1,247,667
1962 ..	2,266,185	943,875
1963 ..	2,119,400	558,400
1964 ..	2,290,000	378,000

(*c*) Estimated.

PRODUCTION OF DIAMONDS†

£ sterling

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Basutoland (c) .. ..	63,000	1,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ghana (b) .. ..	8,446,000	9,782,000	8,050,000	7,162,000	5,886,000	6,355,000
Sierra Leone .. ..	<i>b</i> 7,292,000	<i>b</i> 15,306,000	<i>b</i> 17,922,000	11,634,018	<i>a</i> 16,163,671	<i>a</i> 19,911,496
Tanzania (b) .. ..	5,275,000	4,773,000	5,836,000	5,508,000	5,040,000	( <i>a</i> ) 6,781,154
British Guiana .. ..	644,445	1,083,899	967,170	( <i>b</i> ) 800,000	( <i>c</i> ) 800,000	( <i>b</i> ) 966,000
India .. ..	17,000	39,700	64,000	28,100	38,900	91,350
Australia .. ..	118	20	—	—	—	—
<b>TOTAL .. ..</b>	<b>20,738,000</b>	<b>30,986,000</b>	<b>32,840,000</b>	<i>r</i> <b>25,000,000</b>	<b>28,000,000</b>	<b>34,110,000</b>
<b>OTHER COUNTRIES</b>						
Angola .. ..	7,382,000	6,624,000	<i>b</i> 7,420,000	<i>b</i> 7,602,000	<i>b</i> 8,020,000	( <i>b</i> ) 9,786,000
Congo Republic—						
Gem ( <i>b</i> ) .. ..	1,751,000	806,000	<i>n.a.</i>	—	<i>n.a.</i>	<i>n.a.</i>
Industrial ( <i>b</i> ) .. ..	11,249,000	9,282,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Central African Republic	( <i>b</i> ) 458,000	( <i>b</i> ) 509,000	612,000	<i>br</i> 1,574,000	3,600,000	( <i>b</i> ) 4,700,000
Ivory Coast ( <i>b</i> ) .. ..	442,000	500,000	1,207,000	551,000	477,000	564,000
Guinea ( <i>b</i> ) .. ..	<i>a</i> 1,858,000	<i>a</i> 3,600,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa ( <i>c</i> ) .. ..	14,974,000	16,903,000	18,968,000	17,942,000	18,636,000	22,149,000
South West Africa ( <i>c</i> ) ..	16,342,000	15,573,000	17,435,000	18,635,000	18,417,000	29,191,000
Venezuela ( <i>b</i> ) .. ..	715,000	558,000	1,200,000	1,965,000	953,000	1,581,000
<b>TOTAL* .. ..</b>	<b>58,000,000</b>	<b>57,000,000</b>	<b>66,000,000</b>	<b>62,000,000</b>	<b>63,000,000</b>	<b>81,000,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>80,000,000</b>	<b>88,000,000</b>	<b>99,000,000</b>	<i>r</i> <b>87,000,000</b>	<b>91,000,000</b>	<b>115,000,000</b>

†For quantities in metric carats see previous page.

\*Including an estimate for diamonds produced in Brazil.

(a) Exports.

(b) Estimated on export value (f.o.b.).

(c) Estimated.

SALES OF DIAMONDS

Sales effected through the Central Selling Organisation of the Diamond Corporation Ltd. were as follows:

			(£ sterling)		Total
			Gem	Industrial	
1959	..	..	63,033,187	28,102,756	91,135,943
1960	..	..	63,450,929	26,249,454	89,700,383
1961	..	..	79,349,763	16,308,370	95,658,133
1962	..	..	<i>n.a.</i>	<i>n.a.</i>	96,271,340
1963	..	..	<i>n.a.</i>	<i>n.a.</i>	115,978,441
1964	..	..	<i>n.a.</i>	<i>n.a.</i>	133,186,049
1965	..	..	<i>n.a.</i>	<i>n.a.</i>	148,316,941

EXPORTS OF DIAMONDS

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Industrial diamonds £	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	28,386	4,920
Ghana—						
Industrial diamonds Ct.	3,116,571	3,291,976	2,854,134	3,327,506	1,513,740	2,569,376
£	8,659,162	9,838,547	7,148,511	7,424,285	3,327,307	6,120,369
Sierra Leone .. Ct.	1,205,302	2,054,735	2,045,150	1,157,520	1,738,547	1,649,847
£	6,808,568	c16,473,273	c15,969,057	c 7,108,862	c16,163,671	c19,911,496
Tanzania .. Ct.	250,176	258,370	339,982	323,978	275,958	664,031
£	3,506,623	3,644,877	4,803,374	4,510,045	4,173,247	
Industrial diamonds Ct.	304,494	278,203	344,873	323,200	312,753	6,781,154
£	1,041,114	977,065	976,704	891,912	848,698	
British Guiana .. Ct.	62,644	94,782	124,622	93,880	<i>n.a.</i>	106,607
£	630,575	990,772	1,069,634	772,233	<i>n.a.</i>	938,842
Hong Kong—						
Cut and polished Ct.	34,531	56,578	53,838	65,056	93,278	57,185
£	1,760,903	2,613,485	3,128,138	4,053,603	5,924,469	5,301,594
Industrial .. £	5,889	—	57	3,500	3,211	—
India—						
Gem diamonds £	4,909	(b) 263	(b) 6,028	(b) 519	(b) 613	<i>n.a.</i>
Malaya—						
Cut and polished £	52,035	51,190	81,330	93,633	123,006	163,896
Australia (a)—						
Gem diamonds Ct.	—	480	422	4	7	80
£	—	3,286	1,122	146	2,764	4,826
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Cut and polished Ct.	949,921	1,082,159	1,087,704	1,183,562	1,347,032	1,520,733
£	35,893,793	41,343,531	44,540,637	48,942,384	56,868,240	69,582,566
Industrial, rough and bort .. Ct.	4,930,275	4,577,608	6,640,444	6,764,984	9,018,333	8,943,065
£	19,563,436	17,244,881	22,746,722	20,487,001	24,042,133	29,477,700
France—						
Uncut .. £	287,468	350,755	433,261	548,619	514,358	618,313
Cut .. .. £	1,185,461	1,455,000	1,388,633	1,003,052	1,083,090	1,605,013
Industrial diamonds £	46,447	59,508	16,201	41,497	35,277	32,885
Dust .. .. £	8,500	18,707	16,086	44,767	41,108	40,851
Netherlands .. Ct.	1,529,897	1,541,182	1,874,833	958,519	1,463,794	1,078,097
£	13,771,000	16,012,000	16,293,000	7,954,000	9,233,929	10,412,728
Dust .. .. Ct.	<i>n.a.</i>	516,418	721,431	655,214	671,432	695,156
£	<i>n.a.</i>	528,000	729,000	665,000	668,948	671,168
Sweden—						
Industrial diamonds £	73,090	67,409	54,400	57,500	64,938	68,136
Angola .. .. Ct.	1,025,796	933,646	1,276,573	985,776	1,293,243	1,094,541
£	7,436,467	6,182,777	8,254,996	6,931,325	9,571,554	9,321,830
Congo Republic—						
Gem diamonds .. Ct.	660,594	451,679	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
£	1,427,626	894,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Industrial diamonds Ct.	15,292,924	9,904,766	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
£	10,862,308	7,047,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Central African Republic—						
Ct.	89,758	83,642	98,361	175,267	395,542	421,040
£	475,000	611,000	543,738	1,039,244	3,827,354	4,474,569
Guinea .. .. Ct.	657,000	1,116,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
£	1,853,000	3,600,000	2,800,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ivory Coast .. Ct.	230,930	197,805	531,390	415,910	213,515	235,975
£	543,000	497,000	1,168,000	807,000	567,055	664,398
Liberia .. .. Ct.	638,440	976,437	1,095,632	905,000	748,000	<i>n.a.</i>
£	754,500	818,000	794,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Method of valuation revised and figures not, therefore, strictly comparable with those for previous years.

EXPORTS OF DIAMONDS (cont.)

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
South Africa (a)—						
Uncut .. .. Ct.	1,677,633	1,596,982	1,818,244	1,743,794	2,043,307	n.a.
£	26,272,792	23,858,284	29,623,940	25,198,054	32,816,417	n.a.
Cut and polished Ct.	136,243	129,545	138,718	132,968	124,118	n.a.
£	11,745,220	11,115,174	12,280,549	11,395,195	10,207,231	n.a.
United States—						
Uncut .. .. Ct.	23,058	21,967	31,315	22,543	28,663	39,335
£	216,015	295,273	547,587	563,552	791,556	927,795
Cut .. .. Ct.	18,497	12,228	33,337	30,005	68,939	112,975
£	1,227,409	1,883,566	4,003,891	4,940,386	11,791,063	13,907,174
Industrial diamonds Ct.	178,595	306,331	475,211	715,042	1,068,239	1,324,195
£	300,302	461,600	650,851	807,423	1,179,434	1,686,715
Dust .. .. Ct.	172,787	321,373	490,327	828,611	1,095,737	1,892,097
£	156,562	300,584	484,491	791,906	1,065,309	1,467,212
Brazil .. .. Ct.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela .. Ct.	82,936	58,287	57,277	82,189	49,583	88,960
£	624,000	459,000	521,000	915,000	678,000	n.a.
Israel—						
Polished .. Ct.	477,617	627,163	738,975	975,576	1,152,787	1,240,737
£	16,701,758	21,735,184	25,106,727	31,804,487	41,421,821	49,161,000
Industrial .. Ct.	74,112	66,984	75,434	96,284	n.a.	n.a.
£	181,723	214,907	247,997	279,167	n.a.	n.a.
Dust .. .. Ct.	17,701	2,020	6,963	5,291	n.a.	n.a.
£	6,942	472	7,566	4,879	n.a.	n.a.

(a) In addition synthetic diamonds were exported as follows:

	1959	1960	1961	1962	1963	1964
Ct. .. ..	—	—	n.a.	998,519	1,475,231	n.a.
£ .. ..	—	—	n.a.	550,494	1,156,355	n.a.

IMPORTS OF DIAMONDS

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom Ct.	22,245,187	17,654,895	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
(b) .. .. . £	62,473,773	64,976,439	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malta—						
Rough diamonds £	—	—	<i>n.a.</i>	31,346	69,968	2,901
Cut and polished £	1,219	487	236	1,515	2,283	3,804
Zambia—						
Industrial diamonds Ct.	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	144,323
£	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	227,974
Canada—						
Unset .. .. Ct.	57,009	55,803	52,992	55,865	57,166	(e) 65,208
£	3,879,443	2,839,772	2,775,652	2,690,080	2,642,916	3,552,982
Dust, bort, etc... Ct.	490,724	125,083	324,388	997,396	999,454	1,318,785
£	926,074	176,906	566,808	1,764,130	1,704,873	2,214,178
Bermuda .. .. £	(a) 11,818	41,887	(a) 148,071	(a) 31,582	<i>n.a.</i>	<i>n.a.</i>
Ceylon—						
Cut and polished Ct.	460	26,582	363	—	—	—
£	1,362	165,644	21,302	—	—	—
Hong Kong—						
Gem diamonds .. Ct.	234,349	286,113	321,087	371,846	426,203	193,469
£	9,028,340	11,570,752	14,254,352	16,919,835	18,602,678	10,092,144
Industrial diamonds £	8,445	2,088	7,300	1,057	1,516	4,772
India—						
Gem diamonds .. £	48,470	(c) 49,796	(c) 56,620	(c) 89,321	(c) 116,315	(c) 8,696
Industrial and bort £	17,100	(c) 68,777	(c) 103,568	(c) 32,279	(c) 39,516	(c) 192,683
Malaya—						
Gem diamonds £	376,134	372,127	265,043	219,599	496,503	494,538
Australia (d)—						
Industrial diamonds Ct.	185,720	313,175	283,895	217,759	260,400	470,928
£	382,810	431,983	365,770	326,921	375,285	593,615
Other diamonds Ct.	14,224	17,708	17,506	10,760	20,370	28,506
£	674,198	893,442	779,469	784,045	903,575	1,046,208
New Zealand—						
Industrial diamonds £(N.Z.)	2,788	9,837	5,370	11,458	(d) 11,644	<i>n.a.</i>
Other diamonds £(N.Z.)	151,106	220,899	205,771	179,432	(d) 217,332	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Rough diamonds Ct.	4,491,677	4,334,642	3,615,331	3,880,889	4,652,817	5,080,413
£	36,849,213	36,941,788	35,678,869	36,237,817	40,490,058	50,393,320
Cut diamonds .. Ct.	161,523	301,490	256,641	245,103	404,554	428,975
£	9,142,770	15,099,970	14,143,737	14,689,707	23,868,326	27,962,424
Industrial, rough and bort .. .. Ct.	5,699,477	6,273,589	8,597,046	8,038,843	8,706,554	9,440,154
£	12,886,902	12,726,377	17,740,487	13,824,796	14,763,283	16,659,322
France—						
Uncut .. .. . £	2,399,472	2,755,656	2,131,579	2,604,433	2,273,907	2,346,682
Cut and polished £	2,130,968	2,493,600	2,688,875	3,121,584	4,115,598	5,337,109
Industrial diamonds £	6,186	7,917	13,573	6,977	3,790	5,408
Dust .. .. . £	428,092	725,792	624,421	744,041	904,300	950,599

(a) Excess of re-exports.

(b) Declared imports represent a very small proportion of actual imports. These figures, therefore, represent exports of rough diamonds from Ghana, Sierra Leone, Tanganyika, British Guiana, Angola, Congo Republic, South Africa and South West Africa to the United Kingdom as recorded by those countries. In the case of South Africa, figures represent diamonds of known South African origin only and exclude re-exports of imported diamonds. No figures are available as to the quantities re-exported from the United Kingdom.

(c) Years ended March 31 following that stated.

(d) Years ended June 30 of that stated.

(e) Excluding uncut.

**IMPORTS OF DIAMONDS (cont.)**

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Netherlands .. Ct.	1,841,155	63,179	<i>n.a.</i>	1,304,671	1,826,812	1,438,384
£	12,356,000	1,004,000	<i>n.a.</i>	7,934,000	8,398,214	10,275,512
Dust .. Ct.	<i>n.a.</i>	45,393	—	506,539	539,315	597,020
£	<i>n.a.</i>	48,000	—	476,000	485,913	541,998
Norway .. Ct.	700	<i>n.a.</i>	2,000	12,765	4,980	5,000
£	3,872	2,446	750	2,216	1,085	1,952
Sweden—						
Industrial diamonds £	314,384	486,079	319,600	293,900	389,982	284,224
South Africa—						
Rough diamonds ..	(a)	(a)	(a)	(a)	(a)	(a)
Cut and polished Ct.	650	803	971	446	1,163	<i>n.a.</i>
£	18,664	29,749	30,916	18,453	31,881	<i>n.a.</i>
Mexico—						
Uncut .. Ct.	16,230	25,475	4,975	5,460	3,040	2,125
£	101,418	76,172	56,856	54,813	51,311	29,410
Industrial diamonds Ct.	152,075	133,785	189,400	114,555	102,585	131,225
£	26,051	97,862	75,593	87,402	116,147	92,918
United States—						
Uncut .. Ct.	1,578,170	1,365,529	2,274,923	1,420,443	1,749,641	1,547,955
£	33,552,700	31,145,300	40,953,502	36,457,710	46,382,143	53,474,506
Cut and polished Ct.	916,824	801,945	839,150	982,278	1,017,620	1,096,795
£	30,735,249	27,771,132	28,073,222	31,739,585	33,563,214	38,858,883
Industrial diamonds Ct.	12,605,782	12,024,853	13,462,739	7,725,194	9,551,542	6,529,209
£	21,699,108	17,358,490	23,696,181	13,868,802	15,646,013	13,775,968
Dust .. Ct.	489,436	1,121,241	746,707	4,555,949	2,295,486	2,752,382
£	587,592	1,088,732	784,214	4,295,036	2,164,991	2,371,582
Bort, manufactured Ct.	2,504	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,901,982
£	61,805	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,492,697
Argentina—						
Industrial diamonds Ct.	25,000	315,000	3,171,000	17,895,000	1,430,000	905,000
£	900	3,700	16,400	22,400	14,400	<i>n.a.</i>
Dust .. Ct.	15,000	10,000	5,000	10,000	2,775	12,060
£	900	500	500	400	700	1,200
Israel—						
Rough diamonds Ct.	1,322,523	1,510,388	1,644,905	2,154,656	2,962,000	2,972,000
£	14,528,233	17,609,079	18,360,248	25,795,620	35,782,000	41,875,000
Industrial diamonds Ct.	31,222	23,885	215	<i>n.a.</i>	213,000	442,000
£	54,098	75,615	1,154	<i>n.a.</i>	620,000	1,231,000
Bort .. Ct.	17,622	27,487	11,504	<i>n.a.</i>	440,000	542,000
£	17,738	25,399	10,268	<i>n.a.</i>	376,000	426,000
Dust .. Ct.	7,790	3,383	24,836	17,030	<i>n.a.</i>	<i>n.a.</i>
£	7,092	2,036	3,932	8,400	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Industrial diamonds Ct.	190,880	358,870	254,010	266,420	341,720	382,825
£	780,000	1,081,000	1,013,000	1,031,601	1,407,000	1,819,000

(a) Total imports and re-exports were as follows :

	Total imports		Re-exports	
	Carats	£	Carats	£
1959	14,983,836	11,595,714	16,384,742	24,323,797
1960	15,591,198	12,843,624	17,335,315	25,469,252
1961	17,121,816	12,836,498	19,226,908	34,674,533
1962	16,046,826	12,535,491	16,644,518	28,578,832
1963	17,042,298	13,245,064	15,731,598	29,360,073
1964	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

**DIATOMACEOUS EARTH**  
**PRODUCTION OF DIATOMACEOUS EARTH**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	(b) 17,000	14,780	22,250	20,011	14,237	13,717
Kenya .. ..	3,608	3,385	3,158	2,863	3,283	3,007
Rhodesia (f) ..	132	146	365	378	269	310
Canada (a) .. ..	4	39	191	188	712	521
Australia .. ..	5,089	4,659	5,417	7,312	5,133	2,948
New Zealand .. ..	7,278	6,243	3,536	1,874	1,603	1,679
<b>OTHER COUNTRIES</b>						
Austria .. ..	4,011	3,957	5,351	4,119	3,874	3,771
Denmark—						
Diatomaceous earth (b)	9,700	9,400	12,000	11,000	6,000	5,000
Moler (b) .. ..	120,000	140,000	150,000	160,000	150,000	150,000
Finland .. ..	1,357	1,800	700	1,181	2,300	(e) 2,300
France (f) .. ..	100,734	125,418	105,740	125,083	130,629	130,981
Germany (Federal) ..	49,800	45,700	64,500	60,490	42,250	47,086
Iceland .. ..	(e) 790	n.a.	n.a.	n.a.	n.a.	n.a.
Italy .. ..	50,981	46,329	56,295	55,695	58,490	n.a.
Portugal (f) .. ..	1,852	1,046	756	1,427	1,845	1,970
Sweden .. ..	682	421	654	225	357	200
Yugoslavia (e) .. ..	4,000	4,000	4,000	4,000	10,000	10,000
Algeria .. ..	25,903	21,957	31,440	26,995	17,369	19,788
Egypt .. ..	394	719	296	50	(e) 50	(e) 50
Mozambique .. ..	—	94	354	r 344	—	—
South Africa .. ..	354	309	122	578	196	487
Costa Rica .. ..	2,165	2,165	640	738	(e) 1,900	(e) 1,900
Nicaragua .. ..	1,685	2,008	2,657	1,262	(e) 1,600	(e) 1,600
United States .. ..	(c) 401,589	(d) 430,537	(d) 430,537	(d) 430,537	(b) 504,000	(b) 504,000
Argentina .. ..	4,312	104	1,148	161	3,391	(e) 3,500
Colombia .. ..	295	393	295	150	2,200	227
Peru .. ..	227	1,006	1,829	1,450	2,162	(e) 2,200
Korea (South) .. ..	1,665	2,400	1,776	677	1,667	36,635

Diatomaceous earth is known to have been produced in Hungary, Norway, Roumania, Spain, U.S.S.R., Brazil and Japan.

(a) Shipments.

(b) Estimated.

(c) Average annual production 1957—1959.

(d) Average annual production 1960—1962.

(e) United States Bureau of Mines' estimate.

(f) Including tripoli.



## EXPORTS OF DIATOMACEOUS EARTH

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	942	882	1,185	1,210	1,929	1,646
<b>OTHER COUNTRIES</b>						
Austria .. .. .	159	125	176	101	161	133
Belgium-Luxemburg E.U. .. .. .	470	899	792	354	797	951
Denmark—						
Diatomaceous earth ..	11,070	12,539	12,459	9,837	9,413	8,711
Moler .. .. .	78,396	86,091	91,602	92,388	81,648	80,950
Moler bricks .. .. .	21,308	28,111	29,885	32,467	33,740	35,944
Finland .. .. .	—	62	79	125	99	117
France .. .. .	2,842	8,184	2,977	14,434	12,001	14,360
Germany (Federal) ..	2,220	2,942	3,955	3,747	3,582	4,501
Italy .. .. .	1,963	3,146	4,472	2,902	1,311	788
Netherlands .. .. .	35	253	78	107	111	93
Norway .. .. .	—	1	3	2	1	—
Portugal .. .. .	133	112	305	283	275	532
Sweden .. .. .	62	45	70	26	32	90
Yugoslavia .. .. .	503	1,280	3,365	8,966	5,108	5,459
Algeria .. .. .	22,552	23,557	15,000	16,076	12,951	14,088
United States .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	114,287
Chile .. .. .	—	12	5	5	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	77	155	139	221	153	449
Korea (South) .. .. .	10	—	—	<i>n.a.</i>	—	<i>n.a.</i>

## IMPORTS OF DIATOMACEOUS EARTH

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
In bulk (a) .. .. .	36,506	35,359	40,963	39,888	} 53,620	56,238
Other .. .. .	26,168	22,872	21,670	23,720		
Canada .. .. .	24,339	25,884	25,781	23,302	23,761	22,401
India .. .. .	1,266	(d) 695	(d) 1,241	(d) 1,291	(d) 1,067	(d) 1,528
Australia (b) .. .. .	4,116	3,914	4,543	4,317	4,259	4,579
New Zealand .. .. .	1,235	r 1,542	1,499	1,593	(b) 1,777	n.a.
OTHER COUNTRIES						
Austria .. .. .	2,110	1,449	1,250	1,398	1,422	1,642
Belgium-Luxemburg						
E.U. .. .. .	3,457	4,098	3,450	4,414	6,353	7,589
Denmark .. .. .	773	959	1,454	1,091	1,321	1,732
Finland .. .. .	328	351	1,162	2,130	1,245	1,010
France .. .. .	13,555	13,278	12,351	10,500	8,822	13,793
Germany (Federal) .. .. .	48,685	59,292	61,541	74,089	61,656	61,732
Iceland .. .. .	4	503	495	3	828	604
Italy .. .. .	1,096	3,089	8,721	2,468	1,637	6,975
Netherlands .. .. .	7,669	7,624	5,830	7,456	6,544	8,051
Norway .. .. .	2,882	3,264	5,154	5,834	3,789	3,983
Portugal .. .. .	720	932	1,357	641	848	1,197
Spain .. .. .	n.a.	n.a.	407	1,512	1,649	1,696
Sweden .. .. .	4,197	4,671	5,371	5,081	7,291	8,369
Switzerland .. .. .	n.a.	3,356	2,791	3,077	2,340	1,903
Yugoslavia .. .. .	12	20	104	49	147	247
Algeria .. .. .	196	147	n.a.	n.a.	n.a.	n.a.
Angola .. .. .	n.a.	n.a.	27	70	87	82
Egypt .. .. .	3,266	1,910	1,791	1,839	2,275	397
Morocco .. .. .	685	643	456	457	730	751
South Africa .. .. .	637	1,054	2,501	2,382	2,618	4,107
Costa Rica .. .. .	37	39	77	14	379	1,275
Cuba .. .. .	1,364	n.a.	n.a.	n.a.	n.a.	n.a.
Guatemala .. .. .	89	78	88	115	141	186
Honduras .. .. .	79	68	81	95	75	85
Mexico (c) .. .. .	1,218	1,068	1,165	3,025	1,208	1,108
Salvador .. .. .	47	180	116	235	332	430
Brazil .. .. .	743	1,029	1,719	1,103	1,653	1,187
Chile (c) .. .. .	165	75	n.a.	n.a.	n.a.	n.a.
Colombia .. .. .	986	1,193	1,035	1,417	856	1,166
Peru (c) .. .. .	1,255	819	846	906	908	1,675
Venezuela .. .. .	2,079	1,759	2,313	2,731	1,931	2,602
Israel .. .. .	n.a.	176	410	827	527	190
Japan .. .. .	3,377	5,174	6,147	820	637	839
Lebanon .. .. .	249	62	41	162	746	n.a.
Philippine Republic .. .. .	n.a.	n.a.	2,119	1,862	877	n.a.
Thailand .. .. .	—	191	25	—	5	7
Turkey .. .. .	9	4	7	11	28	n.a.

(a) Chiefly moler from Denmark :

(b) Years ended June 30 of that stated.

(c) Including tripoli, etc.

(d) Years ended March 31 following that stated.

**FELDSPAR**  
(see also Nepheline Syenite)  
**PRODUCTION OF FELDSPAR**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
China stone .. .. .	45,821	47,186	49,432	51,661	50,000	57,000
Kenya .. .. .	—	—	1	—	—	—
Canada .. .. .	16,029	12,377	9,381	8,923	7,686	7,692
Ceylon .. .. .	<i>n.a.</i>	32	106	56	109	4
Hong Kong .. .. .	1,716	2,511	1,206	937	1,680	1,556
India .. .. .	9,740	10,395	8,930	18,917	20,901	19,781
Pakistan .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	55	1,220	48
Australia (a) .. .. .	6,750	8,414	8,209	8,513	8,842	8,129
<b>OTHER COUNTRIES</b>						
Austria .. .. .	3,445	4,573	3,907	4,976	2,077	1,603
Finland .. .. .	9,114	9,158	15,000	r 14,920	12,620	10,560
France .. .. .	79,200	74,000	92,000	119,000	180,000	<i>n.a.</i>
Germany (Federal) (b) ..	175,352	264,203	265,449	269,769	273,664	299,989
Italy .. .. .	59,989	85,076	r 93,228	r 98,367	100,486	106,904
Norway—						
Unground .. .. .	60,000	65,000	(e) 64,000	(e) 54,000	55,599	<i>n.a.</i>
Ground .. .. .	17,331	20,000	(e) 22,000	(e) 20,000	20,506	<i>n.a.</i>
Poland .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	26,300	<i>n.a.</i>
Portugal .. .. .	837	1,699	2,892	3,674	396	10,895
Spain .. .. .	10,722	11,924	8,194	8,267	12,477	<i>n.a.</i>
Sweden (d)—						
Unground .. .. .	25,984	29,985	30,523	28,454	17,409	21,500
Ground .. .. .	20,177	24,532	25,344	24,894	27,512	29,300
U.S.S.R. (c) .. .. .	185,000	195,000	r 195,000	r 195,000	195,000	195,000
Yugoslavia .. .. .	19,309	13,780	20,215	31,578	29,413	30,068
Angola .. .. .	—	—	—	—	796	<i>n.a.</i>
Egypt .. .. .	492	354	—	—	—	4,653
Eritrea .. .. .	1,476	984	2,953	425	(c) 490	<i>n.a.</i>
Malagasy Republic .. .. .	—	—	13	—	—	—
Mozambique .. .. .	89	—	—	—	—	—
South Africa .. .. .	10,447	15,600	23,390	28,210	41,372	35,525
South West Africa .. .. .	—	—	88	464	2,196	1,893
Mexico .. .. .	10,648	8,983	14,155	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States (d) .. .. .	548,390	502,380	496,808	492,476	548,954	629,894
Argentina .. .. .	4,922	8,418	11,474	4,853	2,950	<i>n.a.</i>
Chile .. .. .	1,476	1,095	2,280	1,138	417	568
Colombia .. .. .	14,763	15,000	15,000	15,000	12,500	11,426
Peru .. .. .	—	236	992	287	309	835
Uruguay .. .. .	352	713	877	692	282	883
Japan .. .. .	60,196	91,453	50,986	46,991	53,339	61,445
Korea (South) .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,651	11,392	<i>n.a.</i>
Philippine Republic .. .. .	1,684	3,895	14,526	15,325	6,564	7,924
Turkey .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,000
<b>TOTAL*</b> .. .. .	<b>1,400,000</b>	<b>1,500,000</b>	<b>1,500,000</b>	<b>1,600,000</b>	<b>1,700,000</b>	<b>1,900,000</b>

\*Excluding feldspar known to have been produced in Czechoslovakia, Roumania, Brazil, China and Vietnam.

(a) Including china stone.

(b) Including feldspathic sand obtained as a by-product of china clay washing.

(c) United States Bureau of Mines' estimate.

(d) Sold or used by producers.

(e) Estimated.

EXPORTS OF FELDSPAR

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	6,743	2,842	2,345	3,302	2,930	3,023
India .. .. .	420	(c) 1,619	(c) 1,492	(c) 710	(c) 2,076	(c) 5,322
Australia (b) .. .. .	10	—	—	—	—	—
<b>OTHER COUNTRIES</b>						
Austria (a) .. .. .	249	274	344	2,245	553	645
Belgium-Luxemburg						
E.U. .. .. .	—	—	—	—	222	84
Finland .. .. .	4,982	7,164	8,208	10,999	7,821	5,443
France (a) .. .. .	13,321	10,147	10,487	13,451	19,172	26,476
Germany (Federal) (a) .. .. .	8,706	11,557	13,393	11,144	11,759	11,926
Italy .. .. .	13,614	17,305	16,391	16,737	19,126	21,420
Netherlands .. .. .	6,045	(a) 7,110	(a) 2,251	(a) 2,290	(a) 4,201	(a) 5,033
Norway—						
Crude .. .. .	33,892	42,950	44,688	35,972	35,282	43,158
Ground .. .. .	15,205	19,229	16,308	14,140	15,345	22,077
Sweden (a) .. .. .	35,774	37,587	38,449	30,580	25,816	26,807
Yugoslavia .. .. .	8,743	8,851	10,593	18,451	16,336	20,901
South Africa .. .. .	756	2,389	4,774	7,682	10,298	6,255
South-West Africa .. .. .	—	—	88	470	874	2,476
Japan .. .. .	955	1,291	1,653	1,765	1,729	1,711

(a) May include some leucite and nephelite.

(c) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

IMPORTS OF FELDSPAR

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	29,964	37,118	38,023	36,586	36,298	58,101
Canada .. .. .	1,037	1,195	1,537	1,697	2,322	n.a.
New Zealand .. .. .	1,050	766	443	(a) 1,486	(a)(c) 2,854	n.a.
<b>OTHER COUNTRIES</b>						
Austria (b) .. .. .	2,197	2,696	4,390	4,311	5,952	7,285
Belgium-Luxemburg						
E.U. (b) .. .. .	n.a.	27,226	31,067	31,701	25,406	30,422
Denmark (b) .. .. .	4,006	5,009	4,576	5,483	6,193	4,192
Finland .. .. .	780	(b) 231	(b) 395	(b) 648	(b) 1,064	(b) 727
France (b) .. .. .	3,506	6,482	7,347	9,865	9,237	10,968
Germany (Federal) (b) .. .. .	24,574	30,277	28,164	32,337	37,265	43,057
Italy .. .. .	4,879	7,857	8,218	9,525	11,260	10,808
Netherlands .. .. .	24,673	(b) 25,365	(b) 20,814	(b) 19,618	(b) 28,456	(b) 28,489
Poland .. .. .	3,735	4,203	8,961	n.a.	7,366	11,654
Sweden (b) .. .. .	111	151	240	873	313	307
Algeria (b) .. .. .	415	738	n.a.	n.a.	n.a.	n.a.
Congo Republic (a) .. .. .	193	n.a.	n.a.	n.a.	n.a.	n.a.
Morocco (b) .. .. .	278	360	251	217	69	—
Mexico .. .. .	4,156	3,662	1,911	1,270	1,346	1,413
United States .. .. .	5,205	7,024	2,553	3,330	3,074	3,180
Colombia (a) .. .. .	147	424	243	297	509	202
Venezuela .. .. .	3,378	3,102	4,798	6,492	4,927	7,864
Israel .. .. .	1,438	1,042	2,044	1,909	1,639	2,048
Japan .. .. .	—	1,390	1,108	2,543	2,666	5,880
Vietnam (South) .. .. .	20	156	126	88	105	n.a.

(a) Including fluorspar.

(c) Year ended June 30 of that stated.

(b) May include some leucite and nephelite.

**FLUORSPAR**  
**PRODUCTION OF FLUORSPAR**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	83,105	97,543	85,396	71,744	87,099	107,765
Rhodesia .. .. .	9	17	—	18	306	69
Canada .. .. .	£686,947	£705,903	£701,046	£623,083	£654,285	£760,579
India .. .. .	—	—	—	647	697	383
Australia .. .. .	471	7	—	—	15	—
<b>OTHER COUNTRIES</b>						
France .. .. .	98,594	133,344	191,907	r 223,000	211,000	197,000
Germany—						
Federal Republic ..	121,389	128,102	119,210	104,100	102,921	88,357
East (b) .. .. .	60,000	70,000	70,000	70,000	70,000	70,000
Italy .. .. .	155,439	159,783	154,091	r 157,776	132,507	122,075
Spain .. .. .	87,784	109,266	144,602	147,640	150,977	143,870
Sweden (c) .. .. .	2,674	2,868	3,162	3,442	2,904	n.a.
U.S.S.R. (b) .. .. .	170,000	190,000	210,000	r 235,000	270,000	290,000
Morocco .. .. .	—	—	776	487	6,250	6,466
South Africa .. .. .	62,783	101,384	85,591	99,717	51,572	59,313
South West Africa ..	126	—	—	214	429	—
Mexico .. .. .	(e) 304,631	361,150	392,220	494,325	474,012	614,213
United States (d) ..	165,260	205,162	176,209	183,952	178,525	193,872
Argentina .. .. .	16,062	12,275	9,915	8,907	8,671	6,121
China (b) .. .. .	200,000	245,000	200,000	200,000	200,000	200,000
Japan .. .. .	5,075	9,025	14,577	15,286	20,569	18,820
Korea (South) .. ..	6,025	18,602	27,491	32,449	39,157	55,506
Mongolia .. .. .	(b) 33,000	39,700	37,400	37,300	(b) 49,000	(b) 56,100
Thailand .. .. .	—	3,405	4,680	10,541	28,768	62,535
Turkey .. .. .	66	321	37	572	642	1,282
<b>TOTAL .. .. .</b>	<b>1,600,000</b>	<b>1,900,000</b>	<b>2,000,000</b>	<b>2,100,000</b>	<b>2,100,000</b>	<b>2,400,000</b>

Fluorspar is also known to have been produced in Belgium, Bulgaria, Burma and North Korea.

(a) Including fluorspar recovered from old lead and zinc mine dumps.

(b) United States Bureau of Mines' estimate.

(c) Sales.

(d) Shipments from mine.

(e) Exports.

EXPORTS OF FLUORSPAR

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	3,370	9,207	1,829	4	2,688	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
France .. .. .	13,136	18,104	37,705	43,471	45,836	57,699
Germany (Federal) .. .. .	15,658	17,650	20,959	14,109	11,415	12,146
Italy .. .. .	119,197	71,604	66,010	48,341	37,664	45,921
Norway .. .. .	32	—	—	—	—	—
Spain .. .. .	62,157	100,060	99,900	86,611	85,238	135,149
Sweden .. .. .	311	280	343	474	148	58
Morocco .. .. .	127	59	229	<i>n.a.</i>	1,499	8,905
South Africa .. .. .	43,916	99,543	76,469	69,810	52,602	50,503
South-West Africa .. .. .	—	—	—	91	—	—
Mexico .. .. .	304,631	344,446	407,903	460,908	492,368	618,761
United States .. .. .	1,022	409	301	1,168	1,073	3,305
Argentina .. .. .	854	271	826	569	549	667
Bolivia .. .. .	—	—	—	<i>n.a.</i>	<i>n.a.</i>	9
Korea (South) .. .. .	18,065	28,115	32,856	23,238	31,392	31,760
Thailand .. .. .	—	907	5,050	6,852	15,624	38,055

IMPORTS OF FLUORSPAR

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	21,239	53,279	29,177	60,578	59,625	62,487
India .. .. .	12,298	(c) 3,760	(c) 8,001	(c) 7,157	(c) 10,377	(c) 4,226
Australia (a) .. .. .	1,347	3,701	2,137	2,692	7,585	5,915
<b>OTHER COUNTRIES</b>						
Austria .. .. .	11,070	14,763	12,444	8,010	8,307	14,362
Belgium-Luxemburg E.U. .. .. .	<i>n.a.</i>	8,157	6,819	6,339	6,328	8,005
Denmark .. .. .	637	917	642	569	456	472
Finland .. .. .	<i>n.a.</i>	<i>n.a.</i>	5,867	4,802	2,905	3,162
France .. .. .	707	2,659	502	224	76	—
Germany (Federal) .. .. .	3,733	14,606	69,245	64,581	46,642	59,773
Italy .. .. .	59	210	7,370	7,998	9,778	14,559
Netherlands .. .. .	5,734	9,755	7,148	10,937	8,702	14,243
Norway .. .. .	1,828	1,837	2,724	1,512	1,534	1,859
Poland .. .. .	21,100	21,800	26,100	<i>n.a.</i>	22,000	26,400
Portugal .. .. .	198	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sweden .. .. .	8,370	12,270	13,196	14,097	10,698	11,020
U.S.S.R. .. .. .	108,100	74,100	74,800	78,900	89,500	130,400
Yugoslavia .. .. .	1,230	2,373	3,057	3,418	3,026	3,972
Algeria .. .. .	156	96	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic (b) .. .. .	193	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico .. .. .	4	2	—	—	50	11
United States .. .. .	496,206	476,804	451,571	532,044	495,646	614,226
Brazil .. .. .	831	310	639	543	443	—
Colombia (b) .. .. .	147	424	243	297	509	202
Venezuela .. .. .	149	103	166	542	382	475
Israel .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	361	756	513
Japan .. .. .	70,625	99,019	123,857	100,629	126,856	203,573

(a) Years ended June 30 of that stated. (c) Years ended March 31 following that stated.  
 (b) Including felspar.

**FULLER'S EARTH**  
(see also Bentonite)  
**PRODUCTION OF FULLER'S EARTH**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
India .. .. .	(b) 14,000	11,211	(b) 7,000	(b) 16,000	(b) 39,000	n.a.
Pakistan .. .. .	n.a.	98	10,793	8,882	n.a.	n.a.
Australia .. .. .	136	90	192	392	70	159
<b>OTHER COUNTRIES</b>						
Algeria .. .. .	117,386	100,419	114,554	37,820	80,319	52,087
Morocco .. .. .	22,031	37,077	37,993	32,124	36,777	31,779
South Africa .. .. .	312	(c) 511	707	934	879	(c) 821
United States (a) .. .. .	365,734	364,576	376,947	366,062	430,194	492,755
Iran (d) .. .. .	1,506	1,800	n.a.	n.a.	n.a.	n.a.

Fuller's earth is also produced in the United Kingdom, France, Japan and Turkey.

(a) Sold or used by producers.

(c) Sales.

(b) Estimated.

(d) Years ended March 20 of year following that stated.

**EXPORTS OF FULLER'S EARTH\***

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
Morocco .. .. .	6,589	25,412	27,148	25,897	28,867	22,833
United States (a) .. .. .	8,871	10,746	280	240	n.a.	229
Iran (b) .. .. .	n.a.	n.a.	26	27	16	74

\*Statistics of exports of Fuller's earth are not generally separately recorded in official trade returns.

(a) As recorded by producers.

(b) Years ended March 20 of year following that stated.

**IMPORTS OF FULLER'S EARTH**

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	(£59,009)	(£69,069)	(£55,302)	(£57,827)	(£46,660)	(£61,410)
Ceylon .. .. .	136	94	123	147	211	354
India .. .. .	628	(b) 331	(b) 403	(b) 120	(b) 129	(b) 254
Australia (a) .. .. .	177	318	—	—	—	—
New Zealand .. .. .	127	274	r 270	n.a.	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
South Africa .. .. .	1,063	1,244	745	977	1,137	n.a.
Chile .. .. .	796	252	1,292	942	n.a.	n.a.
Peru .. .. .	450	963	1,782	1,964	2,186	1,487
Venezuela .. .. .	380	279	596	501	439	549
Burma .. .. .	959	855	928	978	48	139
Israel .. .. .	n.a.	1,161	1,334	2,376	3,666	4,526

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

**GOLD**  
**PRODUCTION OF GOLD**  
(Metal content)

Fine troy ounces

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Bechuanaland Protectorate .. .. .	198	203	261	288	142	10
Ghana .. .. .	913,141	878,800	833,800	888,700	920,895	864,917
Kenya .. .. .	9,145	8,646	12,299	9,327	10,193	12,480
Nigeria .. .. .	848	779	543	329	252	195
Rhodesia .. .. .	566,883	562,702	570,095	544,647	566,278	575,386
Sierra Leone .. .. .	—	—	19	26	<i>n.a.</i>	<i>n.a.</i>
Swaziland .. .. .	—	806	1,325	2,214	2,092	2,078
Tanzania .. .. .	(a) 96,802	(a)106,711	(a)100,425	104,383	100,399	(b) 93,040
Uganda (b) .. .. .	334	650	383	236	47	—
Zambia .. .. .	4,685	6,300	4,192	r 5,326	4,960	5,130
Canada .. .. .	4,483,416	4,628,911	4,473,699	4,178,396	3,970,269	3,810,738
British Guiana .. .. .	3,164	2,170	1,562	1,747	2,613	1,936
India .. .. .	165,400	160,600	156,500	163,300	138,400	148,000
Malaya (c) .. .. .	25,400	19,700	11,900	6,600	8,700	6,900
Sarawak .. .. .	2,450	3,326	4,132	2,885	2,773	3,115
Australia .. .. .	1,085,104	1,086,709	1,076,292	1,068,837	1,023,970	965,721
Fiji .. .. .	72,565	72,203	83,417	87,354	107,262	100,493
New Guinea and Papua .. .. .	46,820	45,150	41,820	39,052	43,599	38,978
New Zealand .. .. .	36,758	33,326	28,294	21,742	14,206	8,948
<b>TOTAL .. .. .</b>	<b>7,513,000</b>	<b>7,618,000</b>	<b>7,401,000</b>	<b>r 7,125,000</b>	<b>6,917,000</b>	<b>6,638,000</b>
<b>OTHER COUNTRIES</b>						
Finland .. .. .	23,374	20,351	20,609	15,239	20,416	22,055
France .. .. .	42,150	46,040	48,680	51,090	53,630	54,140
Germany (Federal) .. .. .	1,929	1,283	2,186	1,704	(d) 2,000	(d) 2,000
Greece .. .. .	4,730	2,900	—	—	—	—
Italy .. .. .	3,261	3,310	600	—	—	—
Portugal .. .. .	20,800	21,900	22,400	21,900	21,900	21,300
Spain .. .. .	15,200	14,000	8,200	6,700	16,000	24,000
Sweden .. .. .	103,000	94,070	86,870	128,600	121,700	117,500
Yugoslavia .. .. .	59,640	63,980	67,195	70,507	83,656	93,687
Angola .. .. .	42	42	48	77	37	4
Cameroun .. .. .	1,045	416	537	580	1,400	870
Central African Republic .. .. .	495	300	80	100	100	75
Congo (Republic of) .. .. .	4,630	3,670	3,389	3,790	3,000	3,570
Congo Republic .. .. .	347,970	314,100	r 232,600	r 205,000	214,100	126,000
Egypt .. .. .	2,486	1,214	931	—	—	—
Eritrea .. .. .	16,718	5,144	5,529	2,315	(d) 2,300	(d) 2,300
Ethiopia .. .. .	41,439	40,915	41,500	25,700	(d) 25,000	(d) 25,000
Gabon .. .. .	16,200	17,700	15,300	16,200	35,700	42,800
Liberia (d) .. .. .	1,401	1,119	2,088	2,184	1,960	1,824
Malagasy Republic .. .. .	200	300	350	325	900	440
Morocco .. .. .	—	104	136	—	—	—
Mozambique .. .. .	295	225	105	91	29	40
Rwanda and Burundi .. .. .	3,100	1,566	817	30	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	20,065,515	21,383,019	22,941,561	25,491,993	27,431,956	29,111,524
South-West Africa .. .. .	—	—	—	183	3	32
Sudan .. .. .	1,419	2,116	1,266	932	877	<i>n.a.</i>

(a) Including gold in lead concentrates exported amounting to 10,391 ounces in 1959, 8,963 ounces in 1960 and 521 ounces in 1961.

(b) Exports.

(c) Estimated

(d) United States Bureau of Mines' estimate.



PRODUCTION OF GOLD (cont.)

Fine troy ounces

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Upper Volta .. ..	3,400	930	(b) 16,000	39,770	44,790	(c) 33,200
Costa Rica (c) .. ..	3,000	3,000	3,000	3,000	3,000	3,000
Cuba (e) .. ..	615	348	—	—	61	—
Dominican Republic .. ..	513	(e) 308	—	—	—	—
Guatemala .. ..	—	—	—	(e) 8	—	—
Haiti .. ..	—	(c) 1,400	4,341	7,149	6,778	(c) 5,900
Honduras (e) .. ..	2,798	2,172	1,685	2,132	2,474	3,319
Mexico .. ..	313,662	300,300	268,678	236,800	237,900	210,000
Nicaragua .. ..	217,849	210,200	226,250	221,984	204,769	211,900
Salvador .. ..	2,393	1,100	—	—	—	—
United States .. ..	1,602,931	1,666,772	1,548,270	1,542,511	1,454,010	1,456,308
Argentina .. ..	1,231	3,504	2,270	960	480	300
Bolivia (d) .. ..	35,246	45,457	81,216	35,052	153,033	50,042
Brazil (a) .. ..	112,300	118,900	r 118,600	r 127,200	132,000	134,300
Chile .. ..	78,640	57,320	52,500	65,000	77,300	65,500
Colombia .. ..	397,929	433,947	401,060	396,827	324,518	364,748
Ecuador .. ..	18,568	15,209	15,210	20,591	21,041	16,905
French Guiana .. ..	15,000	18,900	7,900	5,300	7,000	—
Peru .. ..	150,299	141,001	137,418	122,985	101,019	85,809
Surinam .. ..	5,826	4,932	4,010	2,604	3,537	8,231
Venezuela .. ..	53,740	46,868	30,071	28,774	26,947	33,536
Burma .. ..	212	304	194	(c) 200	(c) 200	(c) 200
Cambodia .. ..	4,823	4,180	4,180	965	6,687	(c) 6,000
Formosa .. ..	13,500	15,700	17,600	24,000	31,700	17,700
Indonesia .. ..	n.a.	(c) 5,000	5,337	4,469	4,437	(c) 5,300
Japan .. ..	261,547	261,496	294,534	287,000	262,000	252,000
Korea (South) .. ..	65,680	65,810	84,110	106,500	90,090	75,780
Philippine Republic .. ..	402,615	410,618	423,983	423,394	376,006	425,770
<b>TOTAL*</b> .. ..	<b>24,500,000</b>	<b>25,900,000</b>	<b>27,200,000</b>	<b>29,700,000</b>	<b>31,600,000</b>	<b>33,100,000</b>
<b>WORLD'S TOTAL*</b> (excl. U.S.S.R.) .. ..	<b>32,000,000</b>	<b>33,500,000</b>	<b>34,600,000</b>	<b>36,800,000</b>	<b>38,500,000</b>	<b>39,700,000</b>

\*In view of the wide divergences in estimates of the production of gold in the U.S.S.R. (ranging from 2-18 million ounces) figures for that country have been omitted. The United States Bureau of Mines' revised estimate of annual production in recent years is 4-6 million ounces.

(a) Mined gold only.

(d) Exports.

(b) Estimated.

(e) Imports into the United States.

(c) United States Bureau of Mines' estimate.

**TOTAL EXPORTS OF GOLD\***

(Metal content)

Fine troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bullion, refined .. .. .	21,691,400	21,462,066	24,604,143	28,965,803	18,985,458	17,593,435
Coin .. .. .	345,207	350,165	868,860	694,102	865,340	2,408,318
Ghana—						
Bullion .. .. .	902,595	893,113	852,619	945,829	910,367	830,839
Kenya—						
Bullion .. .. .	9,054	8,645	12,100	8,917	8,868	12,162
Rhodesia (d)—						
Concentrates, etc.* .. .	2,200	1,900	1,500	1,400	1,200	1,000
Bullion .. .. .	557,422	556,178	565,169	548,999	557,271	565,110
Tanzania—						
Concentrates .. .. .	10,391	8,963	521	—	—	—
Bullion, refined .. .. .	85,403	98,024	99,574	101,597	102,519	93,040
Uganda—						
Bullion .. .. .	334	650	383	236*	47*	—
Canada—						
Bullion—						
Unrefined .. .. .	<i>n.a.</i>	96,986	75,796	60,812	76,131	87,797
Refined .. .. .	<i>n.a.</i>	6,125,624	3,658,605	2,769,243	2,305,337	3,161,509
Coin* .. .. .	<i>n.a.</i>	<i>n.a.</i>	60	39,200	47,700	71,800
British Guiana—						
Bullion .. .. .	654	—	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
India—						
Bullion .. .. .	298	(b) —	(b) 1	—	<i>n.a.</i>	<i>n.a.</i>
Malaya—						
Bullion .. .. .	18,256	4,559	278	2,211	—	3
Hong Kong—						
Bullion .. .. .	1,444,000	1,366,000	980,000	987,000	1,176,000	766,000
Sarawak—						
Bullion .. .. .	23	—	—	—	—	—
Australia (a)—						
Ores, etc. .. .. .	16,025	25,085	28,930	42,195	47,305	55,568
Bullion, refined .. .. .	203,096	653,097	2,552,869	573,106	394,950	449,003
do. unrefined .. .. .	—	—	—	7	16,018	562
Fiji—						
Bullion .. .. .	70,719	71,677	95,349	84,926	111,260	(c) 100,193
New Guinea (a)—						
Bullion .. .. .	47,153	40,321	43,363	45,910	42,576	42,003
New Zealand*—						
Auriferous quartz, etc.	—	6	—	—	<i>n.a.</i>	<i>n.a.</i>
Beaten, rolled or drawn	29,000	25,000	22,000	16,000	18,000	8,000
Papua (a)—						
Bullion .. .. .	410	128	75	19	48	28
Solomon Islands—						
Bullion .. .. .	108	14	59	457	240	101
Irish Republic*—						
Bullion .. .. .	1,300	600	1,500	5,200	5,300	<i>n.a.</i>

\*Some countries record trade in gold by value or by the gross weight of bullion only. In such cases the weight has been obtained by dividing the value by the official annual average price of gold per fine ounce but in no case has any account been taken of the premium. Countries or items for which this conversion has been effected are marked with an asterisk.

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Owing to revised method of calculation not strictly comparable with earlier years.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF GOLD (cont.)

Fine troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Bullion and scrap ..	216,000*	215,000	40,000*	79,000*	51,000	48,000
Coin .. .. .	270,000	170,000	186,000	235,000	289,000	113,000
<b>France—</b>						
Bullion and scrap ..	709,000	644,000	1,011,000	632,000*	691,000	<i>n.a.</i>
Coin .. .. .	42,000	57,000	18,000	—	57,000	<i>n.a.</i>
Beaten, rolled or drawn	102,000*	42,000*	49,000*	30,000*	32,000	28,000
<b>Germany (Federal)—</b>						
Bullion .. .. .	101,000	112,000	127,000	157,000	204,000	241,000
<b>Netherlands—</b>						
Bullion, etc. .. .. .	27,000*	51,000*	77,000*	76,000	13,000*	17,000*
Coin .. .. .	48,000	4,000	5,000	400	—	1,100
<b>Sweden*—</b>						
Bullion .. .. .	37,000	49,000	49,000	52,000	54,000	57,000
<b>Switzerland—</b>						
Bullion .. .. .	267,000	294,000	244,000	272,000	377,000	497,000
<b>Cameroun—</b>						
Bullion .. .. .	700	300	600	700*	1,600	800
<b>Congo Republic—</b>						
Bullion .. .. .	317,000*	(a) 300,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Equatorial African Community—</b>						
Bullion .. .. .	17,000*	20,000	16,000*	14,000*	33,000	35,000*
<b>Mozambique—</b>						
Bullion .. .. .	184,000	—	376,000	r 228,000*	397,000*	393,000*
<b>South Africa—</b>						
Ore and concentrates* ..	7,200	800	640	1,393	<i>n.a.</i>	<i>n.a.</i>
Bullion .. .. .	19,387,000	22,836,000	19,505,000	19,390,000	<i>n.a.</i>	<i>n.a.</i>
<b>Sudan*—</b>						
Bullion .. .. .	1,300	2,000	400	600	—	200
<b>Upper Volta—</b>						
Bullion .. .. .	—	1,000	7,000	28,000	45,000	33,000
<b>Honduras—</b>						
Ore and base bullion ..	3,061	2,286	2,310	10,819	3,044	2,200*
<b>Mexico—</b>						
Bullion .. .. .	44,500	625,000	614,000	36,000	30,000	22,000
<b>Nicaragua—</b>						
Bullion .. .. .	208,805	198,189	210,748	221,325	203,386	200,749
<b>Salvador—</b>						
Bullion, etc. .. .. .	2,000	1,000	—	—	—	—
<b>United States—</b>						
Ore and base bullion ..	20,498	9,196	13,717	22,724	30,107	21,566
Refined bullion .. .. .	29,104	37,676	22,132,692	10,861,510	5,789,826	12,056,841
<b>Argentina—</b>						
Bullion and coin .. .. .	4,500	9,000	—	—	—	—
<b>Bolivia—</b>						
Ore .. .. .	31,986	24,388	258	430	336	488
Bullion .. .. .	3,260	21,069	80,958	34,622	152,697	49,554
<b>Chile—</b>						
Ores and concentrates	55,585	49,014	48,043	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Ecuador—</b>						
Concentrates* .. .. .	22,000	18,000	15,000	20,000	<i>n.a.</i>	<i>n.a.</i>
<b>French Guiana—</b>						
Bullion .. .. .	16,000*	18,000*	8,000*	5,500*	<i>n.a.</i>	<i>n.a.</i>
<b>Peru—</b>						
Ores, concentrates, etc.	92,620	57,325	54,416	58,902	40,197	36,847
Bullion .. .. .	21,300	35,295	18,946	12,497	3,658	2,487
<b>Venezuela—</b>						
Bullion* .. .. .	—	3,007,000	—	—	—	—

(a) Estimated.

EXPORTS OF GOLD (cont.)

Fine troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Philippine Republic— Ore and base bullion (a)	33,793	67,553	80,507	47,673	56,138	n.a.
Refined bullion (a) ..	223,762	286,298	466,782	298,229	291,045	n.a.
Lebanon— Coin .. .. .	56,000	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Imports into the United States.

**TOTAL IMPORTS OF GOLD\***  
(Metal content)

Fine troy ounces

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore, etc.* .. .. .	31,500	49,800	49,700	59,300	70	300
Bullion—						
Unrefined .. .. .	1,594,956	1,559,520	1,521,129	1,539,964	1,675,865	1,550,421
Refined .. .. .	26,005,116	24,956,264	49,265,267	32,542,211	32,622,702	39,299,321
Coin .. .. .	211,629	4,361	9,980	500,348	382,260	451,450
Malta*—						
Bullion and coin .. .. .	7,600	8,600	8,300	6,300	7,000	9,200
Ghana—						
Bullion .. .. .	}	1,412	160,190	1,425	7,034	4,942
Partly worked .. .. .						
Coin .. .. .						
Kenya—						
Bullion .. .. .	110	123	294	398	634	5,285
Nigeria—						
Bullion and coin .. .. .	—	20	—	—	—	—
Rhodesia* (d)—						
Concentrates .. .. .	900	1,700	2,400	3,900	2,800	2,200
Tanzania—						
Bullion .. .. .	—	—	—	—	1,269	1,434
Uganda—						
Bullion .. .. .	444	563	240	—	1,152	2,599
Canada—						
Bullion .. .. .	<i>n.a.</i>	147,166	122,222	80,436	119,803	141,318
Coin* .. .. .	<i>n.a.</i>	38,000	213,000	50,000	520,000	75,000
Jamaica*—						
Bullion and coin .. .. .	100	25	—	200	<i>n.a.</i>	200
Trinidad and Tobago—						
Bullion .. .. .	6,981	6,000	6,600	7,349	8,718	<i>n.a.</i>
Ceylon*—						
Bullion .. .. .	11,250	11,000	11,000	11,000	40	100
Partly worked .. .. .	—	23	—	—	11,200	13,500
Cyprus—						
Bullion .. .. .	5,060	4,223	5,918	7,182	10,219	7,581
Hong Kong—						
Bullion .. .. .	1,450,000	1,403,000	986,000	969,000	1,179,000	753,000
India—						
Bullion .. .. .	20,606	(c) 26,231	(c) 43,973	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Coin .. .. .	142	(c) 978	(c) 467	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malaya—						
Bullion .. .. .	145	1,974	503	376	57,377	75,436
Sarawak—						
Bullion (b) .. .. .	14,700	188,000	230,000	29,000	24,000	<i>n.a.</i>
Australia(a)—						
Bullion .. .. .	139,305	161,222	141,138	135,715	155,595	149,109
Fiji—						
Bullion .. .. .	212	232*	589*	287*	175*	422*
New Zealand—						
Bullion .. .. .	3,485	5,915	4,816	3,598	<i>n.a.</i>	<i>n.a.</i>
Beaten, rolled or drawn	189	148	181	6,662	<i>n.a.</i>	<i>n.a.</i>
Irish Republic*—						
Bullion .. .. .	720	1,330	4,380	1,300	4,800	<i>n.a.</i>

\*See note on page 136.

(a) Years ended June 30 of that stated.

(b) Including coin and partly worked.

(c) Years ended March 31 following that stated.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF GOLD (cont.)

Fine troy ounces

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
Austria—						
Bullion .. .. .	61,000	536,000	743,000*	963,000*	211,000	683,000*
Belgium-Luxemburg						
E.U.—						
Bullion, scrap, etc. ..	665,000*	613,000*	558,000*	284,000*	293,000	418,000
Coin .. .. .	154,000	312,000	240,000	260,000	309,000	270,000
Finland—						
Bullion and scrap ..	300	—	n.a.	n.a.	800	n.a.
France—						
Bullion and scrap ..	1,740,000	3,800,000	6,428,000	2,569,000*	10,011,000	n.a.
Coin .. .. .	5,000	13,000	24,000	6,000	9,000	n.a.
Beaten, rolled or drawn	3,000	6,000	6,000*	8,000	12,000	15,000
Germany (Federal)—						
Bullion .. .. .	1,432,000	1,945,000	2,408,000	2,898,000	2,174,000	2,694,000
Coin .. .. .	34,000	80,000	171,000	253,000	83,000	99,000
Italy—						
Bullion and scrap ..	10,492,000	10,049,000	1,476,000*	3,782,000	2,472,000	974,000
Netherlands—						
Bullion .. .. .	94,000	159,000	186,000	188,000	146,000*	197,000
Coin .. .. .	400	100*	300	—	—	100
Norway—						
Bullion .. .. .	10,000	11,000	17,000	18,000	16,000	24,000
Sheets and rolled	2,000*	1,000*	1,500*	1,500*	3,000*	5,000
Sweden—						
Bullion* .. .. .	4,000	9,000	52,000	354,000	158,000	176,000
Switzerland—						
Bullion .. .. .	34,000	43,000	58,000	46,000	64,000	162,900
Algeria—						
Beaten, rolled or drawn	17,000*	17,000*	n.a.	n.a.	n.a.	n.a.
Egypt—						
Bullion .. .. .	700	1,000	1,000	—	n.a.	n.a.
Mozambique—						
Bullion .. .. .	111,000	—	110,000	110,000	112,000*	102,000*
Sudan—						
Bullion .. .. .	1,086	1,617	666	—	—	64
Mexico—						
Bullion .. .. .	859,000	573,000	1,000	n.a.	n.a.	n.a.
United States—						
Ore and base bullion ..	444,416	460,579	456,139	382,468	313,280	314,674
Refined bullion ..	8,040,528	8,861,716	1,159,320	3,929,718	967,339	854,211
Brazil—						
Bullion .. .. .	200	500	200	400	600	1,300
Formosa—						
Bullion .. .. .	42,000	11,000	69,000	71,000*	n.a.	n.a.
Lebanon—						
Bullion and scrap ..	1,052,000	1,139,000	1,924,000	2,450,000	1,418,000	n.a.
Coin .. .. .	130,000	n.a.	n.a.	n.a.	n.a.	n.a.
Philippine Republic—						
Bullion .. .. .	24,953	2,876	—	n.a.	n.a.	n.a.
Syria—						
Bullion and scrap (a) ..	56,000	18,000	643	n.a.	n.a.	n.a.

(a) Gross weight.

# GRAPHITE

## PRODUCTION OF GRAPHITE

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. ..	567	994	—	—	—	—
Tanzania (a) .. ..	25	24	—	—	—	—
Canada .. ..	—	—	1	—	—	12
Ceylon (c) .. ..	7,872	9,024	8,942	8,630	8,286	10,676
Hong Kong—						
80% fixed carbon .. ..	1,925	2,624	1,208	351	537	617
50% fixed carbon .. ..	1,358	1,175	458	454	259	93
<b>OTHER COUNTRIES</b>						
Austria (a) .. ..	61,110	86,646	79,692	87,872	98,016	100,622
Germany (Federal) .. ..	11,051	11,393	11,694	11,727	12,609	13,211
Italy .. ..	3,086	3,659	4,005	2,970	1,833	1,288
Norway .. ..	4,818	5,883	5,625	6,449	7,508	7,455
Spain .. ..	408	257	271	—	—	—
U.S.S.R. (b) .. ..	45,000	45,000	50,000	55,000	55,000	55,000
Malagasy Republic—						
Flake .. ..	5,164	6,950	7,645	} 16,203	{ 8,986	6,953
Powder .. ..	6,096	7,266	7,063		{ 9,954	6,011
Morocco .. ..	122	—	—	—	—	—
South Africa .. ..	551	798	860	1,168	599	930
South-West Africa .. ..	—	—	—	—	—	246
Mexico .. ..	27,397	33,774	17,720	28,565	29,522	(b) 30,000
Argentina .. ..	495	480	776	467	205	218
Brazil .. ..	1,191	1,279	1,428	1,486	5,929	4,598
China (b) .. ..	40,000	40,000	40,000	40,000	40,000	40,000
Formosa .. ..	554	490	787	(b) 800	(b) 800	n.a.
Japan—						
Flake .. ..	3,171	3,425	2,952	2,982	2,501	2,024
Amorphous .. ..	805	1,021	473	421	450	388
Korea (South)—						
Flake .. ..	149	689	1,205	1,197	1,664	2,043
Amorphous .. ..	81,142	90,184	87,091	180,975	332,651	258,238
Korea (North) (b) .. ..	50,000	60,000	64,000	64,000	69,000	69,000
<b>TOTAL*</b> .. ..	<b>360,000</b>	<b>420,000</b>	<b>400,000</b>	<b>530,000</b>	<b>700,000</b>	<b>625,000</b>

\*An allowance has been made for graphite produced in India, Czechoslovakia and the United States.

(a) Crude.

(b) United States Bureau of Mines' estimate.

(c) Exports.

## EXPORTS OF GRAPHITE

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crucibles .. .. .	2,525	2,815	3,272	2,964	2,644	3,527
Kenya .. .. .	584	601	131	81	—	—
Tanzania (crude) .. .. .	25	25	—	—	—	—
Ceylon .. .. .	7,872	9,024	8,942	8,630	8,286	10,676
Hong Kong .. .. .	3,705	7,856	2,704	1,626	172	848
India .. .. .	5	(c) 18	(c) 16	(c) 19	(c) 14	(c) 14
Australia (a) .. .. .	4	16	7	3	10	3
<b>OTHER COUNTRIES</b>						
Austria .. .. .	16,153	18,120	19,701	17,938	19,212	18,850
Belgium-Luxemburg						
E.U. .. .. .	26	25	96	41	13	44
Denmark .. .. .	—	2	8	4	3	10
France .. .. .	630	1,138	1,146	1,166	1,738	2,250
Germany (Federal) .. .. .	5,574	5,872	5,345	6,531	6,454	6,589
Italy .. .. .	1,238	1,565	1,668	1,588	1,492	1,272
Netherlands .. .. .	(b) 1,806	498	86	153	3	81
Norway .. .. .	4,395	5,329	6,080	6,550	6,996	7,389
Sweden .. .. .	26	—	49	26	35	8
U.S.S.R. .. .. .	4,700	3,700	4,400	5,100	6,300	7,400
Algeria .. .. .	259	104	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic .. .. .	10,843	15,574	14,654	16,203	15,547	13,833
Morocco .. .. .	—	30	19	—	—	—
South Africa .. .. .	73	25	37	18	—	41
Mexico .. .. .	23,179	34,385	17,359	29,741	29,418	31,194
United States .. .. .	1,222	1,657	1,391	1,035	803	1,753
Japan .. .. .	787	616	619	3,248	414	345
Korea (South) .. .. .	43,943	54,558	56,543	46,631	46,667	42,045

(a) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

(b) Including artificial graphite.



IMPORTS OF GRAPHITE

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Natural .. .. .	6,129	9,509	9,380	8,732	7,963	9,137
Artificial .. .. .	1,077	280	382	262	205	531
Mauritius—						
Crucibles .. .. .	1	2	1	—	—	—
Rhodesia (d) .. .. .	54	26	52	47	40	n.a.
Canada—						
Unground .. .. .	(£23,797)	(£27,836)	(£16,714)	(£19,525)	(£28,805)	n.a.
Ground, including manufactures .. .. .	(£362,918)	(£332,999)	(£332,955)	(£455,912)	(£779,409)	n.a.
Crucibles .. .. .	(£83,347)	(£86,819)	(£76,008)	(£85,142)	(£94,108)	(£81,196)
Hong Kong .. .. .	1,286	5,747	3,073	211	182	805
India—						
Graphite .. .. .	1,060	(a) 1,777	(a) 1,415	(a) 2,285	(a) 1,051	(a) 2,183
Crucibles .. .. .	(£149,358)	a(£212,812)	a(£235,554)	a(£185,635)	a(£171,540)	a(£221,320)
Malaya .. .. .	93	129	150	198	212	260
Pakistan—						
Graphite .. .. .	249	771	300	391	441	474
Crucibles .. .. .	65	63	n.a.	n.a.	n.a.	n.a.
Australia (b) .. .. .	944	987	1,039	836	1,223	1,268
New Zealand .. .. .	44	54	108	34	(b) 41	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Graphite .. .. .	131	212	164	216	141	219
Crucibles, etc. .. .. .	194	193	195	167	160	174
Belgium-Luxemburg						
E.U. .. .. .	2,606	1,338	1,236	906	870	997
Denmark .. .. .	475	502	401	574	364	405
Finland .. .. .	472	474	220	322	326	242
France .. .. .	3,874	5,065	5,137	4,778	5,014	4,375
Germany (Federal) .. .. .	11,528	16,950	16,340	14,227	13,109	15,955
Germany (East) .. .. .	n.a.	2,878	4,885	4,511	5,399	5,482
Greece .. .. .	156	249	163	240	257	270
Iceland .. .. .	20	10	15	11	1	—
Italy .. .. .	5,688	7,082	8,923	8,768	10,203	9,181
Netherlands .. .. .	(c) 814	854	399	390	386	358
Norway .. .. .	83	300	602	413	245	244
Poland .. .. .	6,589	7,044	8,025	n.a.	9,781	10,352
Portugal .. .. .	124	91	118	112	104	109
Sweden .. .. .	736	844	854	819	909	897
Switzerland .. .. .	n.a.	672	684	646	658	552
Yugoslavia .. .. .	800	1,170	1,154	1,208	1,102	1,043
Algeria .. .. .	9	22	n.a.	n.a.	n.a.	n.a.
Congo Republic .. .. .	2	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt .. .. .	614	315	112	328	n.a.	n.a.
Morocco .. .. .	15	29	20	19	21	14
Mozambique .. .. .	1	3	1	4	3	33
South Africa .. .. .	162	346	281	554	771	676
Sudan .. .. .	—	3	3	—	10	—
Tunisia .. .. .	1	2	4	—	—	—
Mexico—						
Graphite .. .. .	155	247	146	82	60	65
Crucibles .. .. .	174	304	264	215	229	299

(a) Years ended March 31 following that stated.

(c) Including artificial graphite.

(b) Years ended June 30 of that stated.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF GRAPHITE (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (a) ..	33,074	42,981	26,398	31,151	46,263	42,093
Argentina .. ..	310	71	124	119	207	149
Brazil—						
Graphite .. ..	154	261	197	189	3	133
Crucibles .. ..	271	343	323	372	456	401
Chile .. ..	66	67	128	59	<i>n.a.</i>	<i>n.a.</i>
Colombia (b) .. ..	77	192	76	39	45	39
Peru (b) .. ..	57	64	59	50	37	87
Uruguay .. ..	13	22	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. ..	212	98	58	143	88	184
Burma .. ..	47	452	54	75	<i>n.a.</i>	96
Formosa .. ..	841	1,021	980	1,545	1,823	1,522
Indonesia (b) .. ..	265	279	505	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Israel—						
Crucibles .. ..	39	24	<i>n.a.</i>	25	<i>n.a.</i>	<i>n.a.</i>
Lebanon (b) .. ..	29	35	31	19	37	<i>n.a.</i>
Japan .. ..	47,854	61,974	67,302	65,256	60,330	55,773
Philippine Republic .. ..	66	121	140	270	74	<i>n.a.</i>
Syria (b) .. ..	27	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand .. ..	780	790	611	452	490	482
Turkey—						
Graphite .. ..	63	109	79	78	105	<i>n.a.</i>
Crucibles, etc. .. ..	208	103	44	106	140	<i>n.a.</i>

(a) In addition the following amounts of artificial graphite were imported:

Year	Long tons
1959 .. ..	5
1960 .. ..	166
1961 .. ..	163
1962 .. ..	4,142
1963 .. ..	329
1964 .. ..	50

(b) Including artificial graphite.

**GYPSUM**  
**PRODUCTION OF GYPSUM**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Gypsum.. ..	1,586,400	1,732,800	1,888,700	1,966,600	1,990,800	2,467,100
Anhydrite .. ..	1,801,400	1,862,200	1,842,200	2,032,300	2,087,000	2,045,000
Kenya .. ..	13,117	16,863	19,768	26,420	20,401	27,552
Tanzania .. ..	6,745	4,564	1,306	1,965	1,847	2,910
Canada (a) .. ..	5,342,272	4,547,466	4,517,641	4,602,744	f 5,317,202	f 5,690,862
Jamaica .. ..	468,154	245,832	223,045	225,307	228,303	192,128
Trinidad .. ..	4,850	6,467	2,804	3,587	2,958	2,260
Ceylon .. ..	6	n.a.	—	—	—	—
Cyprus (b) .. ..	280,000	200,000	130,000	140,000	120,000	70,000
India .. ..	846,139	981,690	851,911	1,102,907	1,172,103	866,271
Pakistan (g) .. ..	84,952	89,541	100,478	179,305	194,578	192,283
Australia .. ..	516,791	580,878	609,907	630,910	725,444	780,795
Irish Republic .. ..	135,312	178,200	164,426	173,593	200,757	224,299
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Gypsum.. ..	414,880	440,656	468,989	483,704	421,546	376,441
Anhydrite .. ..	139,775	211,455	200,372	189,631	153,845	182,657
Bulgaria .. ..	110,000	120,000	133,000	115,000	100,000	(e) 110,000
Czechoslovakia .. ..	285,000	325,000	350,000	367,000	297,000	345,000
France (a) .. ..	3,684,162	3,716,979	3,774,506	3,933,861	4,141,636	4,829,719
<b>Germany (Federal)—</b>						
Gypsum (c) .. ..	995,503	1,029,277	1,173,689	1,095,387	1,120,340	1,258,200
Anhydrite .. ..	4,118	18,292	15,218	96,215	57,414	99,819
Germany (East) (d) .. ..	249,000	253,000	250,000	266,000	250,000	261,000
Greece .. ..	r 79,000	83,851	88,270	92,795	(e) 95,000	(e) 95,000
Italy (including alabaster) .. ..	1,952,719	1,874,671	r 2,050,721	2,123,018	2,360,766	n.a.
Luxemburg .. ..	9,621	8,320	9,278	8,030	6,639	7,045
Poland .. ..	(e) 462,000	(e) 512,000	461,000	540,000	576,000	n.a.
Portugal .. ..	53,400	60,664	70,813	71,118	59,141	63,953
<b>Spain—</b>						
Gypsum (b) .. ..	2,477,000	2,413,000	2,966,000	3,455,000	4,475,000	n.a.
Anhydrite (b) .. ..	156,000	35,000	38,000	46,000	50,000	n.a.
Switzerland (e) .. ..	100,000	100,000	100,000	100,000	100,000	100,000
U.S.S.R. .. ..	(e) 6,496,000	4,549,000	4,386,000	4,307,000	4,172,000	(e) 4,200,000
Yugoslavia .. ..	91,000	122,000	96,000	(e) 98,000	139,418	152,168
Algeria .. ..	169,100	173,774	n.a.	n.a.	n.a.	n.a.
Angola .. ..	13,000	(e) 12,000	11,298	16,047	13,983	n.a.
Egypt .. ..	515,000	394,000	455,048	460,185	446,552	332,120
Libya .. ..	—	—	—	—	—	400
South Africa .. ..	199,751	192,692	170,624	188,970	184,504	236,292
Sudan .. ..	—	—	1,561	7,384	4,450	n.a.
Tunisia .. ..	6,000	13,570	16,000	16,000	18,000	n.a.
Dominican Republic .. ..	155,999	319,572	r 402,309	432,466	34,760	(e) 30,000
Guatemala .. ..	18,000	14,000	12,000	(e) 10,000	14,560	(e) 15,000
Mexico .. ..	814,767	777,307	765,600	782,000	1,080,000	(e) 1,200,000
Nicaragua .. ..	—	—	—	r 3,200	2,500	5,500
United States .. ..	9,700,000	8,772,000	8,482,000	8,901,000	9,275,000	9,539,000
Argentina .. ..	113,000	142,691	177,161	(a) 211,594	(a) 139,334	(a) 148,125
Brazil .. ..	180,137	101,473	153,571	106,372	118,021	128,355
Chile .. ..	78,000	40,000	79,000	(e) 113,000	104,000	127,392
Colombia .. ..	70,000	70,000	75,000	82,000	100,000	105,800
Peru .. ..	54,000	62,000	62,000	60,000	51,726	64,655
Venezuela .. ..	(e) 65,000	(e) 57,000	(e) 59,000	(e) 62,000	63,449	(e) 65,000

(a) Including anhydrite.

(b) Estimated.

(c) Excluding a small production in Rheinland-Pfalz.

(d) Crude estimated on production of calcined.

(e) United States Bureau of Mines' estimate.

(f) Producers' shipments.

(g) West Pakistan.

PRODUCTION OF GYPSUM (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Burma .. .. .	1,925	1,035	840	(a) 1,000	(a) 1,000	(a) 1,000
Formosa .. .. .	10,178	10,461	11,746	16,028	26,168	16,824
Israel (a) .. .. .	60,000	60,000	80,000	80,000	100,000	100,000
Japan .. .. .	532,097	722,949	713,106	r 787,000	770,000	741,000
Jordan .. .. .	—	—	7,000	9,000	(a) 9,000	—
Philippine Republic .. .. .	1,739	8,934	8,271	14,225	30,209	40,311
Thailand .. .. .	3,400	13,000	11,850	21,000	23,512	41,238
Turkey (a) .. .. .	n.a.	60,000	60,000	140,000	180,000	200,000
<b>TOTAL*</b> .. .. .	<b>41,000,000</b>	<b>r38,000,000</b>	<b>r39,000,000</b>	<b>r41,000,000</b>	<b>44,000,000</b>	<b>45,000,000</b>

\*Excluding gypsum known to have been produced in Roumania, Cuba, China and many other countries. Also excluded is production of "Juss" (an impure sandy gypsum) in Iraq, recently amounting to over 300,000 tons annually.

(a) Estimated.

EXPORTS OF GYPSUM

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Calcined .. ..	9,179	11,147	12,762	7,516	6,723	7,602
Tanzania .. ..	6,758	4,350	280	2,165	1,864	2,910
Canada—						
Crude .. ..	4,329,086	3,815,775	3,410,129	3,716,962	4,199,212	4,515,404
Calcined .. ..	333	29	—	—	—	—
Jamaica .. ..	370,905	207,682	82,886	256,786	134,492	137,463
Cyprus—						
Crude .. ..	52,304	107,560	24,437	35,099	54,279	42,523
Calcined .. ..	1,538	2,144	1,830	1,919	1,616	1,670
India .. ..	756	(b) —	(b) —	(b) —	(b) —	(b) 5
Malaya—						
Crude and calcined ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	489	351	195
Australia (a)—						
Crude .. ..	58,717	84,110	89,960	94,008	157,375	181,021
Calcined .. ..	2,118	2,337	3,388	4,008	351	269
Irish Republic—						
Crude .. ..	64,978	87,056	82,131	85,262	94,399	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Austria—						
Crude .. ..	25,175	27,169	32,552	38,399	48,157	56,078
Calcined .. ..	486	888	1,266	838	745	998
Belgium-Luxemburg						
E.U.—						
Crude .. ..	6	116	563	238	617	338
Calcined .. ..	12,493	12,835	13,095	13,891	13,647	15,261
Denmark—						
Crude and calcined ..	13	30	19	27	20	7
France—						
Crude .. ..	432,459	493,079	550,593	553,907	513,583	636,357
Calcined .. ..	74,672	93,440	109,120	119,517	124,327	118,063
Germany (Federal)—						
Crude and calcined ..	147,262	197,395	175,975	184,008	187,466	262,879
Germany (East)—						
Calcined .. ..	33,204	34,961	37,210	35,251	36,460	49,943
Italy—						
Crude .. ..	6,765	1,325	889	422	1,497	13,157
Calcined .. ..	4,248	8,084	6,929	6,649	7,722	
Netherlands—						
Calcined .. ..	3,641	257	332	148	167	155
Portugal—						
Crude .. ..	628	636	369	146	194	153
Calcined .. ..	—	166	57	78	106	107
Spain—						
Crude and calcined ..	<i>n.a.</i>	<i>n.a.</i>	4,552	4,694	4,654	4,433
Sweden—						
Calcined .. ..	205	98	145	109	215	8
Switzerland—						
Ground and calcined ..	95	157	104	62	75	108
Yugoslavia—						
Crude .. ..	9,511	88	—	—	—	15
Ground and calcined ..	2,441	1,178	216	—	—	—
Algeria .. ..	1	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Crude .. ..	3,005	8,473	8,286	6,651	2,968	5,592
Egypt—						
Crude and ground ..	22,564	23,456	42,213	53,769	51,179	77,752
Calcined .. ..	9,970	16,713	11,290			

(a) Years ended June 30 of that stated. (b) Years ended March 31 following that stated.

## EXPORTS OF GYPSUM (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Morocco—						
Crude .. .. .	22,691	14,661	30,490	22,098	16,581	13,178
Calcined .. .. .	697	61	668	922	1,870	11,009
South Africa .. .. .	34,450	30,684	22,779	16,429	15,213	17,014
Dominican Republic .. .. .	130,471	332,840	374,802	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Crude .. .. .	772,398	656,530	700,667	628,768	1,043,436	1,118,913
Calcined .. .. .	3	28	5	6	6	13
United States—						
Crude and calcined .. .. .	12,778	15,182	17,744	17,531	15,000	18,468
Argentina .. .. .	1,006	3,059	945	3,899	8,237	9,122
Venezuela .. .. .	—	—	—	1	5,571	3,423
Iran (a)—						
Crude .. .. .	1,376	579	486	907	} 4,002	2,519
Calcined .. .. .	2,637	3,826	2,203	3,187		
Japan—						
Crude .. .. .	169	355	87	4,704	6,978	6,526
Calcined .. .. .	357	432	272	589	405	365
Syria .. .. .	12,136	<i>n.a.</i>	5,764	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 following that stated.

IMPORTS OF GYPSUM

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Crude, including alabaster .. ..	102,418	141,059	146,319	131,579	} 139,864	154,481
Calcined .. ..	945	726	1,072	1,251		
<b>Nigeria—</b>						
Crude .. ..	9,659	13,028	21,384	33,539	<i>n.a.</i>	<i>n.a.</i>
<b>Rhodesia (c)—</b>						
Crude and calcined .. ..	30,839	28,166	23,469	19,044	15,130	9,252
Zambia .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	7,617
<b>Bermuda—</b>						
Calcined .. ..	672	593	517	396	<i>n.a.</i>	601
<b>Canada—</b>						
Crude and ground .. ..	105,205	53,581	59,000	62,453	66,632	72,309
Calcined .. ..	15,855	11,155	8,545	6,296	7,484	3,712
<b>India—</b>						
Crude .. ..	1,101	(a) 825	(a) 287	(a) 32,418	(a) 41,627	(a) 98,872
Calcined .. ..	29	(a) 175	(a) 115	(a) 10	(a) 10	(a) 14
<b>Malaya—</b>						
Crude and calcined .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	23,600	26,752	53,834
<b>New Zealand—</b>						
Crude .. ..	57,662	65,363	76,524	85,800	(d) 89,014	<i>n.a.</i>
Calcined .. ..	11,180	14,708	16,566	4,103	(d) 1,696	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Crude .. ..	14,376	11,772	9,234	14,301	179	3,876
Calcined .. ..	1,125	2,187	3,523	3,456	4,409	3,736
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude .. ..	262,467	270,638	303,534	305,245	305,399	372,748
Calcined .. ..	34,943	36,759	40,683	43,649	45,797	50,469
<b>Denmark—</b>						
Crude .. ..	44,773	48,137	56,765	59,038	50,029	77,806
Calcined .. ..	5,991	5,710	5,797	6,289	6,332	6,739
<b>Finland—</b>						
Crude .. ..	63,099	58,914	68,664	59,135	79,206	76,309
Calcined .. ..	29,939	35,887	37,494	36,702	41,658	43,947
<b>France—</b>						
Crude .. ..	10,097	17,106	15,503	18,006	13,478	17,479
Calcined .. ..	2,702	3,194	2,511	2,490	3,383	2,595
<b>Germany (Federal)—</b>						
Crude and calcined .. ..	38,679	53,475	58,563	64,668	72,813	78,809
<b>Greece—</b>						
Calcined .. ..	125	188	129	174	207	197
<b>Iceland .. ..</b>						
	5,488	3,465	4,549	900	4,529	9,625
<b>Italy—</b>						
Crude .. ..	4	110	46	34	66	} 606
Calcined .. ..	301	338	544	362	481	
<b>Netherlands—</b>						
Crude .. ..	63,524	92,316	84,084	89,903	99,870	185,512
Calcined .. ..	44,651	48,114	45,705	48,213	50,983	57,468
Ground .. ..	622	(b)	(b)	(b)	(b)	(b)
<b>Norway—</b>						
Crude .. ..	39,996	42,970	53,584	49,252	52,056	41,608
Calcined .. ..	5,996	4,382	4,000	4,461	4,408	4,926
<b>Portugal—</b>						
Crude .. ..	9,517	10,875	10,146	12,598	11,161	15,380
Calcined .. ..	21	17	14	5	9	17
<b>Sweden—</b>						
Crude .. ..	133,813	180,185	184,334	242,181	204,283	307,065
Calcined .. ..	19,465	20,519	21,716	23,054	23,774	23,532
<b>Switzerland—</b>						
Crude .. ..	<i>n.a.</i>	9,263	14,954	16,628	21,424	27,740
Ground and calcined .. ..	1,633	7,168	8,153	5,593	4,441	3,980

(a) Years ended March 31 following that stated.

(b) Included with crude and calcined.

(c) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

(d) Year ended June 30 of that stated.

## IMPORTS OF GYPSUM (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Crude .. .. .	2,854	2,264	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcined .. .. .	9,938	11,167	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Crude and calcined ..	443	690	258	185	87	91
Congo Republic—						
Crude and calcined ..	9,146	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Calcined .. .. .	146	8	—	—	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic ..	3,140	83	1,634	1,125	2,159	1,228
Morocco .. .. .	28	63	12	48	—	—
Mozambique—						
Crude .. .. .	10,355	12,508	8,729	6,950	5,609	4,502
Calcined .. .. .	73	134	182	128	201	94
South Africa—						
Crude and calcined ..	1,945	2,580	2,040	2,397	2,562	3,167
Sudan .. .. .	318	717	194	201	395	260
Tunisia—						
Crude .. .. .	—	1	—	—	—	—
Calcined .. .. .	171	228	272	290	207	541
Costa Rica .. .. .	128	121	116	155	160	460
Cuba .. .. .	2,307	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Honduras—						
Calcined .. .. .	8	10	58	2	16	16
Mexico—						
Crude .. .. .	19	148	1	88	75	43
Panama Republic ..	3,256	3,450	6,053	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Crude .. .. .	846	1,429	1,445	1,382	998	984
Calcined .. .. .	34	337	41	35	49	46
United States—						
Crude .. .. .	5,474,665	4,733,236	4,434,876	4,840,068	4,902,052	5,587,234
Ground and calcined ..	915	1,035	1,006	1,589	202	1,218
Argentina—						
Crude .. .. .	27	24	146	22	47	27
Brazil—						
Crude .. .. .	26	22	23	31	39	916
Colombia—						
Crude .. .. .	17,884	24,743	2,491	3,467	1	7,876
Calcined .. .. .	411	616	504	586	463	596
Peru—						
Crude and calcined ..	88	76	168	69	23	148
Uruguay—						
Crude and ground ..	33,174	9,283	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	121	75	85	37	57	86
Formosa .. .. .	<i>n.a.</i>	24,325	24,822	35,423	22,263	58,669
Indonesia—						
Crude .. .. .	5,586	9,843	9,897	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcined .. .. .	53	309	205	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (a) .. .. .	<i>n.a.</i>	<i>n.a.</i>	103	40	65	144
Israel—						
Crude .. .. .	16	79	10	—	—	—
Calcined .. .. .	75	7	120	46	70	49
Japan .. .. .	22,997	75,620	53,745	78,411	106,601	89,551
Korea (South) .. ..	8,564	18,035	20,862	21,744	29,499	45,472
Lebanon .. .. .	42,248	45,144	18,197	30,988	37,468	<i>n.a.</i>
Philippine Republic—						
Crude .. .. .	<i>n.a.</i>	<i>n.a.</i>	35,031	39,225	19,790	<i>n.a.</i>
Calcined .. .. .	675	611				
Syria .. .. .	12	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand—						
Crude .. .. .	208	163	196	30	89	102
Vietnam (South) ..	415	633	780	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.



**IODINE**  
**PRODUCTION OF IODINE**

Lb. avdp.

Producing Country	1959	1960	1961	1962	1963	1964
Italy .. .. .	33,131	27,712	27,661	23,953	7,209	—
Chile .. .. .	2,780,525	2,407,463	5,406,587	5,166,000	4,753,000	4,764,000
Indonesia.. ..	785	7,923	6,931	<i>n.a.</i>	9,642	<i>n.a.</i>
Japan .. .. .	1,726,000	2,094,000	2,469,152	3,106,000	3,117,870	4,464,000

Iodine is also produced in the U.S.S.R. and the United States.

**EXPORTS OF IODINE**

Lb. avdp

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	115,936	127,694	47,634	45,780	36,053	54,215
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude .. .. .	9,900	2,200	19,600	700	16,535	<i>n.a.</i>
Resublimed .. ..	38,100	35,500	51,100	65,900	65,036	<i>n.a.</i>
<b>France—</b>						
Resublimed .. ..	39,200	40,100	9,900	7,000	15,400	16,400
Germany (Federal) ..	60,600	78,500	57,100	43,700	38,140	25,353
<b>Netherlands—</b>						
Crude .. .. .	} 26,000	{ —	<i>n.a.</i>	7,000	2,205	<i>n.a.</i>
Resublimed .. ..			18,000	4,000	4,409	<i>n.a.</i>
Chile .. .. .	2,932,831	3,800,758	5,021,193	5,021,741	4,010,000	4,211,000
<b>Japan—</b>						
Crude .. .. .	1,041,735	1,285,883	1,538,002	} 1,925,766	2,486,664	2,930,236
Resublimed .. ..	8,483	50,138	31,700			

## IMPORTS OF IODINE

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom ..	889,278	1,206,763	987,422	1,167,163	813,775	939,502
Canada—						
Crude .. .. .	111,812	83,035	243,935	150,558	240,292	178,800
India .. .. .	162,646	(a) 175,409	(a) 163,925	(a) 224,673	(a) 143,029	(a) 220,498
Australia (b)—						
Crude .. .. .	13,700	11,400	10,000	6,700	4,900	200
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	208,600	144,600	147,300	179,700	257,941	<i>n.a.</i>
Resublimed .. .. .	2,600	5,100	400	700	1,323	<i>n.a.</i>
Denmark .. .. .	1,100	14,800	2,000	7,000	2,205	4,409
France—						
Crude .. .. .	288,600	361,800	325,800	313,000	354,944	630,522
Germany (Federal) .. .. .	661,600	734,100	618,400	701,500	690,047	644,411
Greece .. .. .	3,512	3,607	7,103	7,663	4,850	9,004
Italy—						
Crude .. .. .	22,992	26,729	53,572	106,924	79,587	284,617
Resublimed .. .. .	19,568	3,336	22,267	45,636	64,816	2,866
Netherlands .. .. .	<i>n.a.</i>	29,120	<i>n.a.</i>	13,440	15,432	<i>n.a.</i>
Portugal—						
Crude .. .. .	} 4,738	2,000	3,500	4,900	4,630	—
Resublimed .. .. .		4,000	2,600	1,500	3,968	2,866
Spain—						
Crude .. .. .	46,835	11,035	12,857	41,910	31,526	52,933
Resublimed .. .. .	—	—	664	1,764	5,320	79
Sweden .. .. .	11,000	11,000	13,000	7,000	11,000	4,000
Morocco—						
Resublimed .. .. .	456	622	1,393	648	712	847
Costa Rica .. .. .	558	434	333	791	351	<i>n.a.</i>
Mexico .. .. .	19,861	18,647	15,130	21,905	25,554	81,847
United States—						
Crude .. .. .	1,466,238	1,893,958	3,016,641	3,025,711	3,336,000	2,592,000
Resublimed .. .. .	441	110	220	9,050	3,000	3,000
Argentina—						
Crude .. .. .	50,446	17,688	59,470	48,596	33,116	113,016
Resublimed .. .. .	19,096	23,087	16,431	12,337	14,826	12,547
Brazil .. .. .	38,233	24,630	23,041	35,784	23,343	24,959
Colombia .. .. .	6,285	6,744	4,048	4,786	6,788	4,676
Peru—						
Crude .. .. .	2,191	1,246	1,552	1,387	115	1,618
Resublimed .. .. .	1,248	1,385	2,363	1,204	1,556	2,928
Venezuela .. .. .	51,943	2,357	6,028	6,065	9,841	7,328
Turkey .. .. .	8,935	4,336	4,160	6,206	6,640	<i>n.a.</i>

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

**IRON AND STEEL**  
**PRODUCTION OF IRON ORE\***  
(including Manganiferous Iron Ore)

Long tons

Producing Country	ORE										Estimated Iron Content				
	1959	1960	1961	1962	1963	1964	1959	1960	1961	1962	1963	1964			
<b>COMMONWEALTH COUNTRIES</b>															
United Kingdom (a) ...	14,869,500	17,087,400	16,518,000	15,277,100	14,912,000	16,325,700	4,163,000	4,614,000	4,460,000	4,125,000	4,025,000	4,408,000			
Rhodesia ...	127,679	155,944	155,944	608,845	645,025	810,981	75,000	92,000	225,000	359,000	381,000	478,000			
Sierra Leone (f) ...	1,503,273	1,540,445	1,757,668	1,953,025	1,953,651	1,980,535	968,000	993,000	1,133,000	1,281,000	1,260,000	1,276,000			
Swaziland ...	...	...	...	...	...	59,242	...	...	...	...	...	57,000			
Canada ...	21,864,576	19,241,812	18,177,981	24,428,282	26,913,972	34,521,949	12,020,000	10,583,000	9,998,000	13,436,000	14,803,000	18,987,000			
Hong Kong ...	119,892	117,043	117,043	111,865	111,865	114,574	67,000	66,000	66,000	62,000	63,000	64,000			
India ...	7,853,757	10,514,543	12,073,779	13,150,643	14,758,570	14,645,922	4,870,000	6,410,000	7,370,000	8,020,000	9,000,000	8,950,000			
Goa ...	3,025,264	5,764,000	6,934,000	6,033,000	5,822,000	5,343,000	3,343,000	3,343,000	3,651,000	3,499,000	3,145,000	3,225,000			
Malaya ...	3,760,684	5,640,258	6,733,520	7,264,502	7,264,502	6,463,695	2,106,000	3,159,000	3,771,000	3,644,000	4,068,000	3,621,000			
Pakistan (g) ...	2,250	5,421	4,044	67	67	4,824	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.			
Malaysia ...	4,140,693	4,355,464	5,342,941	4,843,494	5,514,362	5,668,518	2,700,000	2,814,000	3,434,000	3,119,000	3,550,000	3,655,000			
Australia ...	11,692	24,000	10,280	6,229	3,074	2,550	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.			
Fiji ...	1,503	1,999	1,745	1,501	3,074	2,550	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.			
New Zealand (b) ...	...	...	...	...	...	...	...	...	...	...	...	...			
<b>TOTAL</b> ...	57,283,000	64,448,000	67,414,000	72,951,000	77,500,000	86,167,000	...	...	...	...	...	...			
<b>OTHER COUNTRIES</b>															
Albania ...	173,000	251,000	352,000	420,000	(d) 295,000	(d) 350,000	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.			
Austria ...	3,323,928	3,485,630	3,534,379	3,692,136	3,675,420	3,506,826	1,045,000	1,850,000	1,156,000	1,145,000	1,161,000	1,110,000			
Belgium ...	140,000	158,300	113,000	625,136	645,000	603,000	49,000	55,000	40,000	28,000	33,000	21,000			
Bulgaria ...	367,000	405,000	411,000	635,000	645,000	704,000	227,000	250,000	255,000	390,000	400,000	440,000			
Czechoslovakia ...	2,921,000	3,071,000	3,242,000	3,422,000	3,357,000	2,801,000	880,000	720,000	970,000	1,030,000	1,010,000	840,000			
Finland (c) ...	224,000	269,000	280,000	292,000	346,000	346,000	146,000	175,000	182,000	190,000	234,000	305,000			
France ...	59,975,714	65,906,692	65,554,359	65,254,680	56,977,556	59,976,000	18,077,000	19,768,000	19,492,000	19,369,000	17,124,000	18,149,000			
Germany—	...	...	...	...	...	...	...	...	...	...	...	...			
Federal Republic (e) ...	12,756,289	13,328,555	12,878,578	11,250,510	8,454,152	8,559,334	4,209,000	4,486,000	4,353,000	3,838,000	3,074,000	2,752,000			
Eastern ...	1,574,000	1,616,000	1,617,000	1,615,000	1,635,000	1,608,000	470,000	480,000	485,000	485,000	491,000	482,000			
Greece ...	153,371	252,496	287,182	268,442	35,000	74,000	74,000	130,000	134,000	127,000	18,000	15,000			
Hungary ...	507,932	507,932	595,935	670,738	721,044	795,000	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.			
Italy ...	1,217,465	1,241,861	1,215,935	1,132,671	1,067,917	899,470	613,000	642,000	613,000	574,000	510,000	450,000			
Luxemburg ...	6,406,000	6,867,107	7,340,152	6,404,404	6,879,912	6,574,181	1,817,000	1,935,000	2,043,000	2,171,000	1,868,000	1,852,000			
Norway ...	1,521,612	1,631,243	1,643,480	1,906,913	1,965,982	2,174,879	974,000	1,033,000	1,044,000	1,218,000	1,010,000	1,064,000			
Poland ...	1,982,000	2,148,000	2,348,000	2,398,000	2,568,000	2,638,000	670,000	723,000	800,000	826,000	920,000	1,000,000			
Portugal ...	241,350	297,000	245,000	258,000	258,000	258,000	120,572	148,000	133,000	123,000	120,000	106,000			
Roumania ...	1,046,937	1,437,015	1,709,659	1,714,107	2,250,000	1,901,000	470,000	653,000	770,000	770,000	1,010,000	850,000			
Spain ...	4,536,400	5,548,476	5,967,812	5,111,433	5,111,433	5,149,000	2,248,000	2,553,000	2,893,000	2,812,000	2,500,000	2,500,000			
Sweden ...	18,061,046	21,347,054	23,220,408	22,170,364	23,263,631	26,172,000	11,011,000	12,780,000	14,046,000	13,590,000	14,208,000	16,000,000			
Switzerland (d) ...	59,000	123,000	85,000	103,000	94,000	90,000	50,000	50,000	50,000	50,000	50,000	40,000			
U.S.S.R. ...	92,899,000	104,858,000	115,775,000	126,079,000	135,304,000	143,285,000	55,700,000	62,900,000	69,500,000	75,600,000	81,200,000	86,000,000			

\* For detailed figures see page 155.  
(a) In addition bog ore and iron ore (not used for smelting) are produced.  
(b) Used mainly or entirely for purposes other than iron production.  
(c) Concentrates.  
(d) Estimated.  
(e) Marketable production.  
(f) Exports.  
(g) West Pakistan.

PRODUCTION OF IRON ORE (cont.)

Long tons

Producing Country	ORE							Estimated Iron Content				
	1959	1960	1961	1962	1963	1964	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES (cont.)</b>												
Yugoslavia	2,062,000	2,165,000	2,150,000	2,155,000	2,261,000	2,271,000	930,000	970,000	970,000	970,000	1,000,000	1,000,000
Algeria	1,896,908	3,384,027	2,821,943	2,028,000	1,945,000	2,695,000	1,037,000	1,805,000	1,805,000	1,992,000	1,950,000	1,460,000
Algeria	343,470	648,547	789,311	741,710	666,620	880,448	223,000	420,000	524,000	480,000	410,000	580,000
Algeria	242,000	237,000	481,176	481,176	446,150	446,150	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Guinea	336,915	764,000	533,000	689,000	652,000	755,000	168,000	382,000	267,000	345,000	330,000	380,000
Guinea	2,664,960	2,915,686	2,701,829	3,741,059	6,355,687	12,900,000	1,812,000	1,983,000	1,898,000	2,544,000	4,322,000	8,800,000
Liberia (a)					1,407,000	4,573,611			194,000	646,000	923,000	2,957,000
Mauritania	1,245,043	1,552,116	1,438,829	1,130,709	1,018,249	4,573,611	620,000	780,000	815,000	664,000	598,000	518,000
Morocco	2,845,562	3,022,386	4,108,125	4,539,476	4,910,589	5,593,642	1,710,000	1,810,000	2,460,000	2,720,000	2,550,000	3,360,000
South Africa (b)					14,792	9,331			n.d.	n.d.	n.d.	n.d.
South West Africa					4,800	300			n.d.	n.d.	n.d.	n.d.
Sudan	966,148	1,017,069	r 865,000	749,000	851,000	923,000	527,000	554,000	470,000	403,000	460,000	500,000
Tunisia			n.d.		n.d.		n.d.	80,000	n.d.	n.d.	n.d.	n.d.
Cuba	12,000	120,806					8,000					
Dominican Republic	4,000	4,000	5,000	5,000	6,000	7,000	n.d.	80,000	n.d.	n.d.	n.d.	n.d.
Guatemala (j)	(c) 880,000	(g) 860,000	1,130,000	2,220,000	2,290,000	2,160,000	526,865	513,122	676,150	1,332,243	1,374,820	1,295,000
Mexico	60,549,000	69,290,000	71,425,000	71,959,000	73,737,000	84,850,000	32,000,000	48,000,000	39,000,000	39,000,000	41,000,000	48,000,000
United States (c)	108,000	157,000	136,424	119,153	92,916	83,008	54,000	79,000	68,000	60,000	46,000	27,000
Argentina	8,766,864	9,157,524	10,059,063	10,567,268	11,041,748	12,120,000	6,140,000	6,440,000	7,040,000	7,460,000	7,730,000	8,480,000
Brazil	4,172,623	5,945,899	6,879,064	7,064,499	8,372,649	9,697,552	2,889,826	3,744,203	4,353,287	5,040,000	5,298,000	6,137,000
Chile	3,519,000	6,870,486	6,665,716	7,670,000	6,840,000	7,000,000	2,114,000	3,885,000	4,648,000	3,390,000	3,750,000	3,769,000
Colombia	16,929,607	19,182,551	14,335,395	13,058,364	11,561,612	15,397,909	10,835,000	12,277,000	9,173,000	8,350,000	7,390,000	9,853,000
Venezuela	3,692	15,670		9,017	4,102		n.d.	n.d.	n.d.	5,000	2,000	n.d.
Burma (e)	45,000,000	55,000,000	45,000,000	35,000,000	50,000,000	50,000,000	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
China (f)	57,330	56,700	41,000	10,000	21,000	21,000	30,000	30,000	20,000	15,000	12,000	n.d.
Iran (g)	2,507,964	2,808,683	2,825,554	2,545,935	2,366,916	2,516,975	1,370,000	1,549,000	1,569,000	1,419,000	1,342,000	1,409,000
Japan (h)	277,211	385,900	481,200	463,300	492,800	508,600	141,000	197,000	243,000	236,000	251,000	326,000
Korea (South)	2,660,000	3,059,000	3,494,000	3,287,000	3,799,000	f 4,700,000	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Lebanon (North)	3,000	8,000					n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Philippine Republic	1,210,764	1,120,785	1,152,061	1,365,054	1,362,835	1,345,369	702,000	650,000	668,000	702,000	795,000	786,000
Thailand	5,978	11,11,294	54,912	44,592	15,493	960,248	4,000	7,000	34,000	28,000	10,000	9,000
Turkey	859,103	722,988	645,671	760,698	734,800	950,248	515,000	405,000	420,000	430,000	410,000	540,000
New Caledonia...	282,400	271,700	273,000	298,300	294,200	302,500	155,000	149,000	146,000	164,000	164,000	166,000
TOTAL	371,000,000	446,000,000	432,000,000	429,000,000	449,000,000	492,000,000	492,000,000	492,000,000	492,000,000	492,000,000	492,000,000	492,000,000
WORLD'S TOTAL	428,000,000	510,000,000	499,000,000	502,000,000	526,000,000	578,000,000	578,000,000	578,000,000	578,000,000	578,000,000	578,000,000	578,000,000

Iron ore is also produced in North Vietnam.

(a) Estimated. (b) Exports. (c) Usable ore.

(d) Including iron sand as follows (long tons): 1959—1,335,650;

1960—1,539,340; 1961—1,685,131; 1962—1,419,738; 1963—1,274,743; 1964—1,402,809.

(e) Used mainly or entirely for purposes other than iron production.

(f) United States Bureau of Mines' estimate.

(g) Years ended March 20 following that stated.

(h) Including by-product magnetite as follows (long tons): 1960—263; 1961—209,712; 1962—276,547; 1963—521,261; 1964—845,451.

DETAILS OF PRODUCTION OF IRON ORE IN CERTAIN COUNTRIES

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Hematite .. ..	447,900	434,900	414,000	378,200	393,900	427,100
<b>Jurassic ironstones—</b>						
Lower lias .. ..	4,764,000	5,411,600	5,547,800	5,516,000	5,268,900	5,440,900
Middle lias .. ..	2,137,900	2,551,100	2,061,000	1,507,700	1,392,000	1,590,000
Inferior oolite .. ..	7,519,700	8,656,500	8,495,200	7,875,200	7,857,200	8,867,700
<b>Sierra Leone (c)—</b>						
Lump .. ..	52,440	16,650	40	—	—	—
Concentrates .. ..	1,398,180	1,442,140	1,625,703	1,875,822	1,814,687	1,827,018
Fines .. ..	51,920	80,790	131,095	106,696	138,189	153,298
Ferromax .. ..	735	865	1,015	507	775	219
<b>OTHER COUNTRIES</b>						
<b>France—</b>						
Phosphoric .. ..	56,331,078	61,734,641	61,415,340	61,436,403	53,518,180	56,548,000
Medium phosphoric .. ..	3,301,552	3,804,362	3,845,260	3,624,684	3,378,933	3,346,000
Non-phosphoric .. ..	343,084	367,689	293,759	192,993	80,443	82,000
<b>Luxemburg—</b>						
Siliceous iron ore .. ..	2,785,000	3,218,654	3,361,895	3,081,546	3,343,640	3,419,260
Calcareous iron ore .. ..	3,259,000	3,333,523	3,584,754	2,883,330	3,103,315	2,787,177
Ferruginous limestone .. ..	362,000	314,930	393,503	439,528	432,957	367,744
<b>Portugal—</b>						
Hematite .. ..	150,227	189,000	105,000	69,000	58,000	42,000
Magnetite .. ..	87,678	108,000	125,000	160,000	162,000	128,000
Limonite .. ..	3,445	—	2,000	—	—	—
Manganiferous iron ore .. ..	—	—	13,000	29,000	38,000	42,000
<b>Sweden—</b>						
Manganiferous iron ore .. ..	68,000	92,000	75,000	138,000	181,000	n.a.
Other iron ore .. ..	17,993,000	21,255,000	23,145,000	22,032,000	23,083,000	n.a.
<b>By phosphorus content (a)</b>						
Under 0.006% .. ..	759,414	1,334,918	1,365,794	1,491,971	1,454,568	n.a.
0.006% to under 0.04% .. ..	2,007,354	2,739,281	2,953,101	2,302,191	2,647,784	n.a.
0.04% to under 0.1% .. ..	494,494	768,128	1,030,981	1,607,100	1,244,866	n.a.
0.1% to under 0.7% .. ..	5,901,942	6,795,149	7,322,106	6,020,284	6,313,641	n.a.
0.7% to under 1% .. ..	1,157,401	1,392,311	1,445,544	1,395,855	1,482,344	n.a.
1% and over .. ..	7,740,441	8,317,267	9,102,882	9,352,963	10,120,398	n.a.
<b>United States—</b>						
<b>Ore containing less than 5% Mn—</b>						
Hematite (b) .. ..	44,236,000	68,147,000	50,883,000	46,863,000	46,509,000	47,603,000
Magnetite (b) .. ..	12,867,000	18,205,000	18,295,000	20,788,000	23,891,000	34,392,000
Limonite .. ..	2,381,000	1,641,000	1,473,000	3,599,000	2,443,000	1,804,000
Pyrite cinder and sinter .. ..	791,000	791,000	678,000	579,000	757,000	1,032,000
<b>Ore containing 5 to under 10% Mn .. ..</b>						
	273,541	506,551	95,855	129,979	136,569	27,725

(a) Calculated on a basis of 50% Fe content.

(b) A small quantity of hematite is included with magnetite, and a small quantity of magnetite with hematite.

(c) Exports.

**EXPORTS OF IRON ORE**  
(including Manganiferous Iron Ore)

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. ..	974	563	555	364	482	403
Rhodesia (f) .. ..	—	649	14,506	118,557	207,239	282,045
Sierra Leone .. ..	1,503,275	1,540,445	1,757,853	1,983,025	1,953,651	1,980,535
Canada .. ..	18,552,487	16,942,140	14,868,166	21,645,758	23,854,973	30,473,700
Hong Kong .. ..	124,152	122,472	127,390	118,632	119,826	129,569
India .. ..	2,471,454	(b)3,140,124	(b)3,313,077	(b)3,737,436	} b9,712,220	b10,776,789
Goa .. ..	3,627,863	5,562,820	6,425,000	5,195,255		
Malaya .. ..	3,747,709	5,500,173	6,425,552	6,441,107	6,581,755	6,316,970
Australia (e)—						
Burnt pyrites .. ..	n.a.	n.a.	508,546	171,661	118,337	106,715
Fiji .. ..	6,925	21,994	8,906	7,339	1,227	—
Irish Republic—						
Burnt pyrites .. ..	17,003	30,434	17,366	12,576	1,639	n.a.
<b>OTHER COUNTRIES</b>						
Austria .. ..	48,698	19,704	9,862	30	39	63
Belgium-Luxemburg						
E.U.—						
Iron ore .. ..	121,645	126,649	186,897	232,968	271,060	222,103
Burnt pyrites .. ..	220,824	311,009	233,943	199,509	210,810	184,691
Denmark—						
Bog ore (a) .. ..	77,395	63,196	56,022	67,689	50,169	56,862
Burnt pyrites .. ..	96,650	96,835	94,727	93,310	84,442	101,999
Finland—						
Iron ore .. ..	210,643	282,755	219,331	171,626	85,674	167,236
Burnt pyrites .. ..	121,055	120,821	204,172	169,218	163,855	122,807
France—						
Iron ore .. ..	19,697,439	26,726,549	25,446,172	25,277,522	20,869,283	21,741,834
Burnt pyrites .. ..	360,063	497,461	395,713	355,744	338,289	286,846
Germany (Federal)—						
Iron ore .. ..	(d) 289,904	(d) 239,774	253,621	277,833	281,577	285,072
Burnt pyrites .. ..	9,028	17,661	4,968	4,436	2,566	14,259
Greece—						
Iron ore .. ..	159,453	301,364	270,466	243,811	93,389	56,577
Burnt pyrites .. ..	n.a.	39,238	41,653	24,357	42,488	22,153
Italy—						
Iron ore .. ..	2,428	7,366	25,813	238	43	6,429
Burnt pyrites .. ..	436,371	706,707	664,308	602,502	645,669	656,625
Netherlands—						
Iron ore .. ..	425	7,811	9,366	11,070	6,652	3,070
Burnt iron pyrites	195,706	435,932	225,388	120,076	125,148	244,879
Norway—						
Iron ore .. ..	924,823	1,173,143	1,119,787	1,248,534	1,203,570	1,527,988
Burnt pyrites .. ..	76,254	115,829	70,550	78,067	70,598	74,896
Portugal—						
Iron ore .. ..	189,125	234,152	93,540	97,937	71,771	36,277
Burnt pyrites .. ..	230,658	254,946	102,675	28,909	15,403	22,775
Spain .. ..	1,769,293	(c)3,123,329	(c)2,822,961	(c)1,873,512	(c)1,904,347	(c)2,414,014
Sweden—						
Iron ore .. ..	15,224,177	19,500,385	19,930,000	19,090,000	19,936,000	23,973,000
Burnt pyrites .. ..	146,345	168,140	178,000	197,000	227,000	341,000
Switzerland .. ..	48,760	(c) 120,867	(c) 60,314	(c) 74,253	(c) 88,509	(c) 62,634
U.S.S.R.—						
Iron ore .. ..	13,233,600	14,942,200	16,025,800	18,636,000	20,460,700	22,243,000
Burnt pyrites .. ..	n.a.	652,529	870,038	768,665	999,954	927,122
Yugoslavia—						
Iron ore .. ..	17,779	88,932	121,753	100,334	151,547	198,169
Burnt pyrites .. ..	19,840	—	—	—	—	1,037

(a) Used for purposes other than iron making.

(b) Years ended March 31 following that stated.

(c) Including burnt pyrites.

(d) Including ferruginous manganese ore.

(e) Years ended June 30 of that stated.

(f) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF IRON ORE (cont.)

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Iron ore .. .. .	1,991,343	3,517,342	2,736,684	2,097,344	1,928,060	2,783,645
Burnt pyrites .. .. .	2,000	10,338	31,953	34,144	32,381	31,642
Angola .. .. .	322,055	537,180	486,678	438,944	645,183	1,109,740
Egypt .. .. .	11,682	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Guinea .. .. .	186,031	715,413	509,959	685,000	551,000	<i>n.a.</i>
Liberia .. .. .	2,664,960	2,915,686	2,791,829	3,741,059	6,355,687	12,900,000
Mauritania .. .. .	—	—	<i>n.a.</i>	<i>n.a.</i>	128,000	4,900,000
Morocco—						
Iron ore .. .. .	695,005	798,129	1,879,282	1,130,303	1,061,784	977,997
Burnt pyrites .. .. .	9,698	1,087	17,423	23,241	19,547	25,738
South Africa .. .. .	166,208	466,911	558,135	732,216	679,779	1,116,481
Tunisia .. .. .	820,175	1,024,366	885,158	702,301	755,771	817,634
Dominican Republic .. .. .	50,424	99,546	12	—	<i>n.a.</i>	<i>n.a.</i>
Mexico .. .. .	114,120	153,355	120,829	144,733	1,095	21,148
United States .. .. .	2,967,000	5,273,000	4,916,173	5,897,667	6,812,793	6,963,375
Brazil .. .. .	3,925,454	5,157,051	6,182,424	7,529,034	8,137,174	9,575,964
Chile .. .. .	4,193,300	5,109,168	6,099,440	7,131,117	7,281,342	8,970,565
Peru .. .. .	3,267,400	5,088,840	5,484,569	5,067,878	5,657,870	5,122,981
Venezuela .. .. .	17,104,257	19,014,669	14,334,747	13,075,372	12,124,597	14,658,189
Iran (a) .. .. .	6,786	32,735	21,208	4,823	1,968	5,234
Korea (South) .. .. .	198,217	230,388	436,809	358,245	540,966	577,629
Philippine Republic—						
Iron ore .. .. .	1,258,347	1,217,550	1,289,210	1,313,820	1,450,668	1,324,083
Burnt pyrites .. .. .	<i>n.a.</i>	<i>n.a.</i>	7,578	11,220	8,169	<i>n.a.</i>
Turkey .. .. .	131,262	301,013	250,210	168,930	11,909	—
New Caledonia .. .. .	283,649	272,834	253,322	289,779	289,502	308,397

(a) Years ended March 20 following that stated.

**IMPORTS OF IRON ORE**  
(including Manganiferous Iron Ore)

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Iron ore .. ..	13,349,960	17,968,495	14,965,971	12,897,165	13,940,164	18,000,505
Burnt pyrites .. ..						
Canada .. ..	2,500,894	4,514,596	4,132,280	4,604,779	5,325,713	5,232,404
Hong Kong .. ..	11,080	5,728	3,724	8,250	12,250	1,545
India .. ..	839	(d) 109	(d) 1,218	(d) 270	(d) 100	(d) 150
Australia (a) .. ..	279,226	249,150	277,299	273,481	293,467	274,241
Irish Republic .. ..	—	14	20	15	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Iron ore .. ..	649,323	1,586,422	1,276,474	1,028,169	972,994	1,089,893
Burnt pyrites .. ..	330,520	459,295	423,255	371,504	356,078	368,068
<b>Belgium-Luxemburg E.U.—</b>						
Iron ore .. ..	17,836,735	20,337,109	20,214,909	20,810,570	19,409,036	22,535,724
Burnt pyrites .. ..	179,122	87,853	111,275	58,059	43,483	113,197
Czechoslovakia .. ..	6,284,000	7,097,000	7,844,000	8,188,000	9,186,000	9,162,000
Denmark .. ..	2,736	2,539	3,411	1,422	(b) 2,053	(b) 2,048
Finland .. ..	124,572	159,474	142,947	441,585	377,101	505,459
<b>France—</b>						
Iron ore .. ..	939,109	1,482,127	1,671,789	1,866,118	3,423,086	3,545,327
Burnt pyrites .. ..	2,594	13,876	14,504	18,668	26,865	38,921
<b>Germany (Federal)—</b>						
Iron ore (e) .. ..	19,719,971	33,122,454	32,112,290	28,609,917	26,573,630	34,470,471
Burnt pyrites .. ..	1,668,245	2,952,623	2,441,821	1,834,503	1,885,295	1,918,140
Germany (East) (c) .. ..	1,002,400	1,170,800	1,078,000	1,240,500	1,312,400	1,382,500
Hungary .. ..	1,662,762	1,845,717	2,001,905	2,207,495	2,314,180	2,619,766
Italy .. ..	1,608,330	2,579,586	3,254,662	4,354,252	5,144,832	4,965,003
Netherlands .. ..	1,888,875	2,284,179	2,219,398	2,280,542	2,501,403	3,011,856
Norway .. ..	2,945	10,700	13,486	21,163	3,343	19,635
Poland .. ..	6,114,700	7,204,400	7,548,400	7,976,000	8,666,900	8,943,200
Roumania .. ..	802,100	902,600	1,238,300	1,897,300	2,201,200	2,268,700
Spain .. ..	77,720	32,705	210,918	248,866	91,701	92,823
<b>Sweden—</b>						
Iron Ore .. ..	3,412	3,752	4,000	3,000	2,000	72,000
Burnt pyrites .. ..	9,653	14,868	18,700	19,684	15,000	10,000
Switzerland .. ..	45,148	(b) 8,840	(b) 7,738	(b) 1,309	(b) 3,669	(b) 1,958
Yugoslavia .. ..	123,794	127,203	379,735	347,565	424,751	375,248
<b>United States—</b>						
Iron ore .. ..	35,617,000	34,578,000	25,804,749	33,431,077	33,262,892	42,416,727
Burnt pyrites .. ..	10,157	5,884	3,504	4,248	3,263	
Argentina .. ..	181,877	436,786	312,389	506,912	745,428	1,003,020
Formosa .. ..	13,617	16,148	71,539	10,287	43,020	76,277
<b>Japan—</b>						
Iron ore .. ..	10,274,816	14,687,616	20,693,941	21,947,378	25,661,157	30,678,093
Burnt pyrites .. ..	21,036	110,968	209,897	143,461	191,905	64,820

(a) Years ended June 30 of that stated.

(d) Years ended March 31 following that stated.

(b) Including burnt pyrites.

(e) Figures for 1959—1960 include ferruginous manganese ore.

(c) Fe content.



Sweden - Iron ore



## PRODUCTION OF PIG-IRON AND FERRO-ALLOYS\*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	12,582,500	15,762,900	14,747,100	13,692,100	14,591,400	17,273,600
Rhodesia .. .. .	70,600	84,800	216,300	237,600	232,262	312,706
Canada .. .. .	3,855,625	3,961,057	4,521,448	r 4,838,000	5,409,552	5,988,038
India .. .. .	3,144,118	4,197,200	5,020,000	r 5,830,000	6,630,000	6,640,000
Australia (e) .. .. .	2,506,514	2,876,267	3,156,411	r 3,434,336	3,624,673	3,984,152
<b>TOTAL .. .. .</b>	<b>22,159,400</b>	<b>26,882,200</b>	<b>27,661,000</b>	<b>r 28,032,000</b>	<b>30,490,000</b>	<b>34,200,000</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	1,811,000	2,202,400	2,232,300	2,088,000	2,076,600	2,174,200
Belgium .. .. .	5,871,000	6,449,236	6,351,962	6,633,876	6,806,138	7,921,000
Bulgaria .. .. .	174,125	188,744	202,868	219,459	257,000	442,000
Czechoslovakia .. .. .	4,177,000	4,621,000	4,892,000	5,095,000	5,171,000	5,626,000
Finland .. .. .	94,690	102,931	145,387	336,126	369,265	583,000
France (a) .. .. .	12,275,033	13,921,857	14,336,328	13,738,471	14,080,508	15,612,200
Germany—						
Federal Republic .. .. .	18,222,000	25,481,000	25,174,000	23,977,000	22,652,000	26,882,000
Eastern .. .. .	1,868,400	1,963,200	1,998,800	2,042,400	2,115,900	2,224,200
Hungary .. .. .	1,103,602	1,237,980	1,299,065	1,378,278	1,379,266	1,470,000
Italy .. .. .	2,157,308	2,779,657	3,150,883	3,619,510	3,806,758	3,567,000
Luxemburg .. .. .	3,357,000	3,725,552	3,773,177	3,540,045	3,530,158	4,124,824
Netherlands .. .. .	1,121,400	1,324,300	1,433,300	1,546,500	1,681,400	1,916,200
Norway .. .. .	612,649	708,452	744,704	711,716	737,028	857,538
Poland .. .. .	4,305,000	4,491,000	4,695,000	5,227,000	5,310,000	5,554,000
Portugal .. .. .	35,260	40,424	120,382	221,455	236,453	263,895
Roumania .. .. .	832,983	998,116	1,081,872	1,486,942	1,679,000	1,894,000
Saar .. .. .	3,169,000	(c)	(c)	(c)	(c)	(c)
Spain .. .. .	1,696,623	1,897,002	2,089,512	2,120,045	1,952,717	1,826,000
Sweden .. .. .	1,479,426	1,606,169	1,869,610	1,932,333	1,993,065	2,306,000
Switzerland .. .. .	40,000	50,000	50,000	50,000	41,000	30,000
U.S.S.R. .. .. .	42,293,000	46,019,000	50,089,000	54,392,000	57,764,000	61,392,000
Yugoslavia .. .. .	888,000	1,003,000	1,036,000	1,086,000	1,043,450	1,056,616
Egypt .. .. .	116,000	146,000	171,000	201,000	201,473	189,062
South Africa .. .. .	1,779,000	1,961,700	2,291,200	r 2,361,100	2,389,200	2,853,700
Mexico .. .. .	567,000	675,000	771,534	814,001	845,468	954,000
United States .. .. .	55,516,456	61,219,986	59,433,091	60,352,980	65,817,167	78,511,112
Argentina .. .. .	35,000	177,267	390,211	390,200	415,800	580,000
Brazil .. .. .	1,562,709	1,755,231	1,830,836	r 2,086,070	2,479,921	2,218,000
Chile (b) .. .. .	285,000	262,000	281,000	377,000	411,000	430,000
Colombia .. .. .	124,436	164,447	186,000	143,000	199,000	201,728
Venezuela .. .. .	—	—	r 5,000	121,000	297,000	319,000
China .. .. .	20,200,000	27,100,000	d15,000,000	d15,000,000	d17,000,000	d18,000,000
Formosa .. .. .	8,280	n.a.	n.a.	n.a.	n.a.	n.a.
Japan .. .. .	9,790,986	12,234,395	r 16,294,968	18,197,975	20,154,399	24,100,000
Korea (South) .. .. .	8,153	13,714	r 8,962	—	5,340	1,314
Korea (North) .. .. .	680,000	r 856,000	r 935,000	r 1,219,000	1,165,000	d 1,348,000
Thailand .. .. .	7,000	6,000	5,000	5,000	6,000	5,000
Turkey .. .. .	232,448	243,000	184,500	149,000	210,900	110,192
<b>TOTAL .. .. .</b>	<b>198,500,000</b>	<b>227,600,000</b>	<b>224,000,000</b>	<b>r 233,000,000</b>	<b>246,000,000</b>	<b>278,000,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>220,700,000</b>	<b>254,500,000</b>	<b>252,000,000</b>	<b>r 261,000,000</b>	<b>276,000,000</b>	<b>312,000,000</b>

\* For details see page 160.

(a) Excluding electric furnace and aluminio-thermic ferro-alloys. For these see page 161.

(b) Excluding ferro-alloys.

(c) Included with Germany (Federal).

(d) United States Bureau of Mines' estimate.

(e) Including recovery from scrap and excluding ferro-alloys. For ferro-alloys see page 160.

DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS IN CERTAIN COUNTRIES

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Hematite .. .. .	1,021,000	1,187,100	1,136,800	875,700	816,800	956,800
Basic .. .. .	10,284,700	13,072,100	12,255,700	11,568,300	12,644,400	15,069,300
Foundry .. .. .	1,089,300	1,293,100	1,196,200	1,054,000	1,005,800	1,079,100
Forge .. .. .	39,300	5,200				
Direct castings .. .. .	500	100				
<b>Blast furnace ferro-alloys—</b>						
Spiegeleisen .. .. .	25,000	25,600	29,600	41,100	23,000	16,900
Ferro-manganese .. .. .	122,700	179,700	128,800	153,000	101,400	151,500
<b>Canada—</b>						
Basic .. .. .	3,172,255	3,213,031	3,753,195	r 4,072,565	4,540,073	5,052,547
Foundry .. .. .	204,324	258,973	345,218	r 227,506	275,849	388,947
Malleable .. .. .	358,041	366,254	317,678	r 411,315	465,325	398,397
Ferro-alloys (a) .. .. .	121,005	122,799	105,357	r 127,000	128,305	148,147
<b>India—</b>						
Basic .. .. .	2,265,491	2,973,314	3,536,000	4,240,000	4,750,000	4,640,000
Foundry .. .. .	767,604	1,015,660	1,067,000	1,100,000	1,364,000	1,297,000
Other pig-iron .. .. .	—	85,583	265,000	319,000	365,000	552,000
Direct castings .. .. .	44,026	34,976	40,000	r 48,000	20,000	
Ferro-manganese .. .. .	59,488	81,000	100,000	110,000	120,000	129,000
Ferro-silicon .. .. .	7,509	6,000	9,000	12,000	15,000	18,000
<b>Australia—</b>						
Pig-iron .. .. .	2,506,514	2,876,267	3,156,411	r 3,434,336	3,624,673	3,984,152
Ferro-manganese (b) .. .. .	17,511	6,440	—	17,000	34,000	33,729
Ferro-silicon (b) .. .. .	1,663	7,200	8,144	7,438	8,302	5,015
Ferro-nickel (b) .. .. .	—	646	1,426	—	—	—
Ferro-silico-manganese (b) .. .. .	162	—	—	—	—	n.a.
Silico-manganese (b) .. .. .	—	1,698	2,409	5,039	4,322	13,510
Ferro-chrome (b) .. .. .	610	597	705	571	1,094	2,441
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Basic .. .. .	1,757,885	2,184,202	2,142,834	2,061,747	2,037,632	2,139,502
Hematite .. .. .	25,924	—	65,568	16,057	35,102	29,575
Other .. .. .	23,744	12,297	18,172	6,417	—	—
Electric furnace ferro-alloys .. .. .	3,400	5,900	5,700	3,800	3,900	5,100
<b>Belgium—</b>						
Basic .. .. .	5,756,000	6,301,675	6,207,543	6,521,320	6,714,803	7,818,000
Forge .. .. .						
Foundry .. .. .	93,000	93,733	110,458	92,703	73,124	91,000
Ferro-alloys .. .. .	22,000	20,238	20,953	15,124	17,729	12,000
<b>Czechoslovakia—</b>						
Basic .. .. .	3,701,000	4,049,000	4,283,000	4,522,000	4,550,000	n.a.
Foundry .. .. .	424,000	507,000	539,000	498,000	544,000	n.a.
Ferro-alloys .. .. .	52,000	65,000	70,000	75,000	77,000	n.a.
<b>France—</b>						
<b>Phosphoric (over 1.4% P)—</b>						
Basic .. .. .	10,711,249	12,086,358	12,342,936	11,946,528	11,872,295	12,793,900
Foundry .. .. .	184,430	181,221	170,300	146,726	146,518	156,800
<b>Semi-phosphoric (from 0.5% to 1.4% P)—</b>						
Foundry .. .. .	202,288	237,002	286,204	294,265	293,879	288,100
Open hearth, basic .. .. .	—	—	66,726	—	—	—
<b>Hematite (less than 0.5% P)—</b>						
Foundry .. .. .	276,349	327,024	360,900	366,023	436,753	443,000
Open hearth and Bessemer .. .. .	269,880	400,228	352,526	265,488	769,698	1,279,200

(a) Factory shipments.

(b) Years ended November 30 of year stated.

## DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
France (cont.)						
Blast furnace ferro-alloys—						
Spiegeleisen .. ..	132,636	136,372	130,802	135,723	110,153	90,700
Ferro-manganese ..	212,283	243,877	270,148	267,393	252,510	315,000
Other pig-iron .. ..	285,918	309,775	355,786	316,325	198,702	245,500
Electric furnace and alumino-thermic ferro-alloys—						
Ferro-silicon (50% Si)	85,254	104,058	126,468	r 102,095	86,649	101,720
Silico-spiegeleisen and silico-manganese ..	13,014	14,041	15,409	12,279	18,442	11,505
Silico-aluminium and silico-manganese-aluminium ..	1,295	1,172	1,020	1,506	938	844
Ferro-manganese ..	20,370	27,429	25,836	28,080	28,500	n.a.
Ferro-chrome .. ..	52,369	58,980	66,333	56,019	53,722	61,480
Ferro-tungsten (W content) ..	779	846	1,112	898	657	457
Ferro-molybdenum (Mo content) ..	1,091	2,036	2,052	1,593	1,772	1,786
Ferro-vanadium (V content) ..	219	477	443	275	269	306
Titanium alloys .. ..	4,633	5,582	4,661	2,734	3,424	3,915
Germany (Federal)—						
Hematite and malleable Basic .. ..	648,000	933,000	1,001,000	950,000	959,000	1,234,000
Foundry .. ..	11,954,000	16,454,000	16,000,000	14,941,000	13,858,000	15,282,000
Stahleisen .. ..	522,000	696,000	678,000	657,000	593,000	493,000
Spiegeleisen (blast-furnace) ..	4,465,000	6,667,000	6,662,000	6,777,000	6,599,000	9,224,000
Ferro-manganese (blast furnace) ..	233,000	274,000	267,000	271,000	286,000	283,000
Siegerland special						
Other pig-iron .. ..	281,000	308,000	420,000	271,000	253,000	237,000
Ferro-silicon (blast-furnace) ..						
Electric furnace and alumino-thermic ferro-alloys .. ..	118,600	148,866	146,103	110,056	103,635	129,371
Germany (East)—						
Foundry .. ..	476,100	479,200	489,500	530,000	524,700	541,700
Open hearth .. ..	939,300	1,024,900	1,054,300	1,058,800	1,140,300	1,225,200
Basic Bessemer .. ..	419,400	437,000	421,900	432,600	430,100	437,400
Spiegeleisen .. ..	33,600	22,100	33,100	20,500	20,300	19,100
Other .. ..	—	—	—	500	500	800
Hungary—						
Basic .. ..	1,000,933	1,120,884	1,146,683	1,245,516	1,264,456	1,382,000
Foundry .. ..	84,458	100,227	137,548	110,357	99,149	88,000
Spiegeleisen .. ..	1,155	2,263	1,253	3,820	2,535	1,000
Ferro-manganese ..	12,444	10,826	8,715	12,704	6,952	—
Ferro-silicon .. ..	4,612	3,780	4,866	5,881	6,174	n.a.
Italy—						
Pig-iron .. ..	2,064,570	2,640,469	3,008,079	3,499,821	3,681,586	3,442,542
Spiegeleisen .. ..	3,811	6,500	6,838	4,333	5,481	1,330
Ferro-manganese ..	22,556	29,971	32,658	26,091	28,657	24,504
Ferro-silicon .. ..	22,501	45,335	50,994	43,212	43,514	44,099
Silico-manganese ..	21,448	24,277	25,827	24,789	33,739	26,990
Ferro-chrome .. ..	13,773	20,218	16,374	10,016	5,146	15,208
Ferro-titanium .. ..	123	173	151	162	199	232
Ferro-tungsten .. ..	52	96	87	34	33	21
Ferro-vanadium .. ..	36	92	83	49	80	129
Ferro-molybdenum ..	624	1,048	1,072	942	833	859
Silico-aluminium ..	596	636	1,090	619	634	1,090

## DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy (cont.)—</b>						
Silicon pig iron (10-12% Si) ..	3,018	4,573	2,522	2,217	967	1,631
Silico-spiegeleisen ..	249	1,538	1,305	1,326	1,750	2,053
Silico-chrome ..	90	—	312	1,117	—	2,885
Calcium silicide ..	3,765	4,605	2,875	4,081	3,676	3,049
Ferro-phosphorus ..	96	126	616	700	463	n.a.
<b>Luxemburg—</b>						
Basic ..	3,357,000	3,725,552	3,773,177	3,540,045	3,530,158	4,124,824
<b>Norway—</b>						
Pig-iron ..	332,429	368,377	372,065	389,572	400,594	431,430
Ferro-silicon ..	124,940	170,148	190,279	168,910	155,721	210,466
Ferro-manganese ..	57,257	47,764	52,107	54,423	57,091	74,278
Ferro-silico-manganese ..	58,807	76,650	88,994	77,149	89,026	108,041
Ferro-chrome and silico-chrome ..	37,522	44,844	40,210	21,022	33,346	31,563
Other ferro-alloys ..	1,694	669	1,049	1,259	1,250	1,760
<b>Portugal—</b>						
Basic ..	} 33,718	} 38,346	} 118,302	181,586	199,597	222,671
Foundry ..				36,689	31,284	35,930
Ferro-manganese ..				393	706	661
Ferro-silicon ..				2,787	4,866	4,633
<b>Saar—</b>						
Basic ..	} 3,169,000	(a)	(a)	(a)	(a)	(a)
Other pig-iron and ferro-alloys ..						
<b>Spain—</b>						
Pig-iron ..	1,645,956	1,855,747	2,043,997	2,066,682	1,880,923	n.a.
Ferro-manganese ..	29,976	25,686	21,937	27,571	27,145	n.a.
Ferro-silicon ..	19,555	14,697	22,185	24,771	27,601	n.a.
Ferro-tungsten ..	87	53	95	153	} 17,048	} n.a.
Ferro-chrome ..	725	405	805	868		
Ferro-phosphorus ..	324	414	493	—		
Other ferro-alloys ..	—	—	—	—		
<b>Sweden—</b>						
Pig-iron ..	1,379,884	1,487,008	1,732,388	1,792,577	1,854,282	2,161,200
Ferro-manganese ..	15,869	23,794	23,211	22,903	25,480	26,200
Ferro-silicon ..	20,468	23,355	31,203	25,561	23,148	26,900
Ferro-silico-manganese ..	10,741	11,609	11,803	14,023	10,970	10,700
Ferro-chrome ..	36,530	38,675	50,583	43,666	45,067	50,000
Ferro-titanium ..	128	—	—	60	—	n.a.
Ferro-tungsten ..	402	393	553	519	237	200
Ferro-molybdenum ..	1,132	1,744	1,761	1,241	1,460	2,100
Ferro-vanadium ..	200	338	344	282	312	n.a.
Metallic silicon ..	2,257	5,377	4,279	5,919	8,026	7,200
Silico-chrome ..	11,184	12,554	12,380	25,253	23,816	21,300
Other ferro-alloys ..	631	1,322	1,105	329	267	200
<b>U.S.S.R.—</b>						
Basic ..	34,441,000	37,864,000	41,354,000	44,859,000	47,602,000	50,779,000
Foundry ..	6,707,000	6,851,000	7,313,000	7,943,000	8,481,000	8,835,000
Spiegeleisen ..	70,000	80,000	95,000	89,000	90,000	80,000
Ferro-manganese ..	560,000	633,000	688,000	799,000	808,000	902,000
Other blast furnace ferro-alloys ..	515,000	591,000	639,000	702,000	783,000	796,000
<b>Yugoslavia—</b>						
Pig-iron ..	849,000	957,000	981,000	1,033,000	980,673	1,009,814
Ferro-alloys ..	39,446	46,083	54,772	52,626	62,777	46,802
<b>South Africa—</b>						
Pig-iron ..	1,676,200	1,792,000	2,099,900	2,192,700	2,182,800	2,614,500
Ferro-alloys ..	102,800	169,700	191,300	r 168,400	206,400	239,200

(a) Included with Germany (Federal).

## DETAILS OF PRODUCTION OF PIG-IRON AND FERRO-ALLOYS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Basic .. .. .	46,530,622	52,018,846	51,919,214	52,505,467	57,991,137	69,997,803
Bessemer .. .. .	2,728,371	3,038,928	2,322,452	2,520,245	2,472,682	2,435,272
Low phosphorus .. .. .	334,356	345,768	157,212	156,012	167,561	174,737
Foundry .. .. .	1,679,668	1,310,141	1,216,263	1,275,548	1,368,587	1,449,111
Malleable .. .. .	2,221,296	2,386,496	1,877,432	1,923,176	1,952,204	2,029,979
Other pig-iron .. .. .	250,371	257,543	213,397	227,431	194,306	279,691
Ferro-manganese and spiegeleisen .. .. .	606,815	784,054	699,329	716,067	606,635	773,712
Ferro-silicon and silvery pig-iron .. .. .	575,649	611,731	476,987	487,405	493,874	598,416
Other ferro-alloys .. .. .	589,308	466,479	550,805	541,629	570,181	772,391
<b>Brazil—</b>						
Pig-iron .. .. .	1,534,954	1,722,212	1,797,213	r 2,048,116	2,439,568	n.a.
Spiegeleisen .. .. .	—	137	273	124	—	n.a.
Ferro-chrome .. .. .	988	1,699	968	1,982	1,672	n.a.
Ferro-manganese .. .. .	14,580	18,827	18,196	r 22,646	20,527	n.a.
Ferro-nickel .. .. .	326	325	335	r 326	234	n.a.
Ferro-silicon .. .. .	7,033	7,273	7,373	r 7,931	11,804	n.a.
Ferro-silico-manganese	4,828	4,758	6,478	4,945	6,116	n.a.
<b>Japan—</b>						
Pig-iron .. .. .	9,359,418	11,786,361	r15,674,147	17,688,051	19,621,124	23,402,839
Spiegeleisen .. .. .	3,758	8,059	3,100	3,583	717	535
Ferro-chrome .. .. .	68,258	79,150	98,514	83,193	80,587	134,632
Ferro-manganese .. .. .	155,348	153,145	182,601	163,962	162,979	208,248
Ferro-molybdenum .. .. .	2,026	1,758	1,954	497	1,001	1,406
Ferro-phosphorus .. .. .	1,285	2,126	2,164	1,130	1,241	1,703
Ferro-silicon .. .. .	64,649	73,876	96,570	74,165	92,687	111,995
Ferro-titanium .. .. .	92	223	r 448	450	169	n.a.
Ferro-tungsten .. .. .	570	1,177	r 1,676	869	748	1,159
Ferro-nickel .. .. .	32,879	52,492	61,658	35,404	46,143	77,086
Ferro-vanadium .. .. .	419	845	r 1,269	598	1,267	1,110
Silico-manganese .. .. .	57,001	56,782	94,335	88,056	95,353	112,906
Silico-chrome .. .. .	30,816	43,926	58,632	43,206	31,989	58,209
Calcium-silicon .. .. .	5,230	7,753	9,222	7,361	6,922	9,477
Other ferro-alloys .. .. .	9,237	10,648	r 8,678	7,450	11,472	n.a.
<b>Turkey—</b>						
Pig-iron .. .. .	232,448	243,000	184,500	149,000	207,200	105,447
Ferro-chrome .. .. .	—	—	—	—	3,700	4,745

PRODUCTION OF STEEL INGOTS AND CASTINGS\*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	20,186,400	24,305,000	22,086,100	20,491,000	22,520,200	26,229,900
Rhodesia .. .. .	45,300	(c) 84,400	(c) 90,800	(c) 86,600	(c) 82,555	(c) 125,597
Canada .. .. .	5,269,184	5,186,703	5,793,131	r 6,404,941	7,312,748	8,152,467
India .. .. .	2,428,953	3,234,017	4,019,000	(c) 5,010,141	(c) 5,874,324	(c) 5,937,477
Pakistan .. .. .	r 10,725	r 11,321	r 11,655	r 10,537	11,590	12,067
Australia (f) .. .. .	3,395,261	3,693,770	3,884,929	r 4,170,830	4,574,546	5,017,530
<b>TOTAL .. .. .</b>	<b>r31,335,800</b>	<b>36,510,000</b>	<b>35,880,000</b>	<b>36,170,000</b>	<b>40,380,000</b>	<b>45,480,000</b>
Irish Republic (g) .. .. .	22,200	29,800	28,000	18,800	19,400	51,800
<b>OTHER COUNTRIES</b>						
Austria .. .. .	2,472,409	3,112,578	3,052,367	2,923,119	2,900,761	3,143,976
Belgium .. .. .	6,330,000	7,028,057	6,850,345	7,181,300	7,164,484	8,600,000
Bulgaria .. .. .	226,315	249,457	334,610	415,993	453,334	464,000
Czechoslovakia .. .. .	6,039,000	6,661,000	6,931,000	7,518,000	7,478,000	8,244,000
Denmark .. .. .	287,300	312,100	317,800	361,000	353,200	389,900
Finland .. .. .	232,358	253,392	276,548	308,197	310,000	352,000
France .. .. .	14,978,149	17,007,694	17,292,546	16,968,015	17,279,305	19,467,800
Germany—						
Federal Republic .. .. .	25,414,000	33,562,000	32,929,000	32,045,000	31,098,000	36,749,000
Eastern .. .. .	3,156,700	3,284,300	3,390,000	3,564,800	3,568,600	3,790,900
Greece .. .. .	89,000	(e) 125,000	(e) 130,000	(e) 150,000	206,000	(e) 210,000
Hungary .. .. .	1,731,495	1,857,114	2,020,693	2,295,710	2,336,634	2,326,633
Italy .. .. .	6,655,005	8,099,101	8,980,181	9,603,344	9,996,123	9,638,613
Luxemburg .. .. .	3,605,000	4,019,192	4,047,827	3,946,610	3,967,985	4,486,546
Netherlands .. .. .	1,643,400	1,911,800	1,939,500	2,053,300	2,310,100	2,604,600
Norway .. .. .	419,672	482,532	491,003	480,076	535,000	605,720
Poland .. .. .	6,062,000	6,575,000	7,120,000	7,563,000	7,878,000	8,437,000
Portugal .. .. .	—	—	n.a.	r 171,840	218,779	245,703
Roumania .. .. .	1,397,218	1,777,260	2,092,913	2,412,000	2,661,000	2,991,000
Saar .. .. .	3,536,000	(d)	(d)	(d)	(d)	(d)
Spain .. .. .	1,781,406	1,926,549	2,264,800	2,161,200	2,452,900	2,510,000
Sweden .. .. .	2,809,972	3,167,345	3,505,911	r 3,553,879	3,838,965	4,373,000
Switzerland .. .. .	246,000	271,000	292,000	313,000	317,000	340,000
U.S.S.R. .. .. .	59,003,000	64,261,000	69,634,000	75,101,000	78,959,000	83,691,000
Yugoslavia .. .. .	1,279,000	1,419,000	1,508,000	1,570,000	1,562,776	1,650,679
Egypt .. .. .	(e) 98,000	136,000	156,000	187,000	193,964	179,791
South Africa (a) .. .. .	1,089,100	2,032,400	2,390,300	2,537,600	2,707,400	2,955,000
Mexico .. .. .	1,306,782	1,515,222	1,648,334	1,656,000	1,935,398	2,300,000
United States (b) .. .. .	83,434,046	88,644,286	87,512,940	87,792,666	97,554,418	113,460,506
Argentina (c) .. .. .	210,853	272,669	434,513	634,300	880,600	1,247,000
Brazil .. .. .	1,772,000	r 2,224,400	2,404,600	r 2,524,700	2,795,900	3,000,000
Chile (c) .. .. .	408,243	414,896	357,140	486,748	481,000	536,000
Colombia .. .. .	107,926	151,041	176,000	136,100	195,422	192,979
Peru .. .. .	50,000	59,000	74,000	71,000	72,000	74,000
Venezuela .. .. .	(e) 50,000	46,000	74,000	221,000	358,000	433,000
China .. .. .	13,140,000	18,160,000	9,500,000	10,000,000	12,000,000	e 14,000,000
Formosa .. .. .	156,000	196,000	195,000	179,000	271,000	296,000
Israel .. .. .	23,000	40,000	61,000	79,000	66,000	(e) 66,000
Japan .. .. .	16,365,957	21,788,740	27,821,909	27,111,196	31,003,913	39,170,588
Korea (North) .. .. .	444,000	631,000	760,000	1,033,000	1,006,000	1,033,000
Korea (South) .. .. .	39,237	50,528	65,136	146,057	159,800	131,634

\* For details see page 166.

(a) Excluding steel castings for which the amounts produced for sale were 58,900 tons, 46,700 tons, 45,400 tons, 62,300 tons, 82,000 tons and 93,200 tons in 1959, 1960, 1961, 1962, 1963 and 1964 respectively.

(b) Excluding steel castings which were produced by companies not manufacturing steel ingots.

(c) Ingots only.

(f) Including recovery from scrap.

(d) Included with Germany (Federal).

(g) Years ended June 30 of that stated.

(e) United States Bureau of Mines' estimate.



PRODUCTION OF STEEL INGOTS AND CASTINGS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Philippine Republic ..	(a) 62,000	(a) 62,000	(a) 70,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Thailand .. .. .	6,000	7,000	8,000	7,000	(a) 7,000	(a) 7,000
Turkey .. .. .	210,872	(b) 294,295	(b) 317,824	r 288,778	356,900	438,908
<b>TOTAL .. .. .</b>	<b>268,300,000</b>	<b>304,100,000</b>	<b>309,000,000</b>	<b>318,000,000</b>	<b>340,000,000</b>	<b>385,000,000</b>
<b>WORLD'S TOTAL ..</b>	<b>299,700,000</b>	<b>340,600,000</b>	<b>345,000,000</b>	<b>354,000,000</b>	<b>380,000,000</b>	<b>430,000,000</b>

(a) United States Bureau of Mines' estimate.

(b) Ingots only.

**DETAILS OF PRODUCTION OF STEEL INGOTS AND CASTINGS  
IN CERTAIN COUNTRIES**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
<b>Ingots and castings—</b>						
Open hearth, acid ..	615,700	658,100	610,500	445,400	383,500	419,300
do. basic ..	16,708,300	19,874,700	r 17,768,300	r 16,274,700	16,725,600	18,069,600
Bessemer, acid (a) ..	214,700	294,400	254,000	r 193,000	213,700	290,300
do. basic (a) ..	1,196,400	1,680,700	r 1,699,000	r 2,013,700	3,041,900	4,432,300
Ingots, electric ..	984,000	1,252,000	1,207,100	1,102,900	1,692,300	} 2,938,700
Castings, electric ..	364,400	433,500	440,900	377,700	384,600	
All other ingots and castings ..	102,900	111,600	106,300	83,600	78,600	79,700
<b>Rhodesia—</b>						
Ingots ..	43,800	84,400	90,800	86,600	82,555	125,597
Castings ..	1,500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Canada—</b>						
<b>Ingots—</b>						
Open hearth, basic and oxygen ..	4,702,930	4,544,339	5,100,755	r 5,709,331	6,538,155	7,249,421
do. electric ..	475,066	552,628	592,197	r 583,796	662,623	758,600
<b>Castings—</b>						
Open hearth, basic ..	13,245	2,331	2,527	r 2,790	6,008	1,454
Bessemer ..	6	—	—	—	—	—
Electric ..	77,937	87,405	97,652	r 109,024	105,962	142,992
<b>India—</b>						
<b>Ingots—</b>						
Open hearth, basic ..	2,289,235	3,119,182	3,894,077	4,934,779	5,791,632	5,851,577
do. acid ..	16,910	—	—	—	—	—
Electric ..	76,208	72,035	69,339	75,362	82,692	85,900
Castings ..	46,600	42,800	56,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Open hearth ..	854,145	974,170	890,047	800,888	735,861	810,409
Electric ..	346,052	393,580	372,502	321,532	345,409	400,627
L.D. ..	1,272,212	1,744,828	1,789,818	1,800,699	1,819,491	1,932,940
<b>Belgium—</b>						
Ingots, open hearth ..	580,000	599,137	529,767	496,606	317,964	440,000
do. Bessemer, basic ..	5,430,000	6,004,490	5,872,962	6,265,329	6,465,435	7,090,000
do. electric ..	246,000	363,898	377,914	350,868	183,935	340,000
do. oxygen ..	—	—	—	—	134,091	630,000
Castings ..	78,000	60,532	69,702	68,497	63,059	<i>n.a.</i>
<b>Czechoslovakia—</b>						
Open hearth ..	5,060,000	5,612,000	5,781,000	6,266,000	6,192,000	6,891,000
Bessemer ..	238,000	243,000	231,000	226,000	219,000	230,000
Electric ..	741,000	806,000	919,000	1,026,000	1,067,000	1,123,000
<b>Denmark—</b>						
Ingots, open hearth ..	264,700	286,500	291,000	334,500	328,600	362,700
Castings do. ..	9,000	6,800	5,600	4,000	9,000	5,400
do. electric ..	13,600	18,800	21,200	22,500	15,600	21,800
<b>Finland—</b>						
Ingots ..	221,300	241,648	261,767	292,920	298,000	338,000
Castings ..	11,058	11,744	14,781	15,277	12,156	14,000
<b>France—</b>						
<b>Ingots and castings—</b>						
Bessemer, acid ..	107,281	100,128	110,423	99,836	79,742	92,000
do. basic ..	9,116,375	10,292,741	10,239,699	9,867,543	9,678,178	10,435,800
Open hearth, acid ..	—	—	—	} 4,848,203	4,698,713	5,100,500
do. basic ..	4,482,433	5,048,899	4,981,810			
Crucible ..	1,621	2,185	2,453	2,500	2,086	2,000
Electric ..	1,270,439	1,470,602	1,541,573	1,502,105	1,501,032	1,648,600
Kaldo, L.D., etc. ..	—	93,139	416,588	647,828	1,319,554	2,188,900

(a) Bessemer acid and basic includes V.L.N. from 1959, L.D. from 1960, Rotor from 1961 and Kaldo in 1964.

## DETAILS OF PRODUCTION OF STEEL INGOTS AND CASTINGS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France <i>(cont.)</i> —						
Of which—						
Ingots .. .. .	14,665,394	16,706,319	16,938,838	16,603,902	16,938,984	19,107,000
Castings .. .. .	312,755	301,375	353,708	364,113	340,321	360,800
Germany (Federal)—						
Ingots—						
Open hearth .. .. .	12,342,000	15,674,000	15,052,000	14,693,000	13,724,000	16,482,000
Bessemer, basic .. .. .	10,562,000	14,671,000	14,141,000	13,002,000	12,244,000	12,046,000
Electric .. .. .	1,444,000	1,707,000	1,836,000	2,035,000	2,150,000	2,451,000
Oxygen .. .. .	538,000	849,000	1,182,000	1,657,000	2,414,000	5,143,000
Castings—						
Open hearth .. .. .	128,000	158,000	160,000	117,000	72,000	87,000
Electric .. .. .	332,000	433,000	492,000	490,000	454,000	501,000
Other .. .. .	68,000	70,000	66,000	51,000	40,000	39,000
Germany (East)—						
Open hearth .. .. .	2,499,300	2,578,800	2,665,200	2,816,400	2,820,200	3,020,900
Bessemer, basic .. .. .	349,100	373,800	364,400	375,900	369,800	373,500
Electric .. .. .	307,800	330,600	340,600	363,700	378,600	396,500
Other .. .. .	500	1,100	19,800	8,800	—	—
Italy—						
Ingots .. .. .	6,521,665	7,922,632	8,782,674	9,409,042	9,803,095	9,473,766
Castings .. .. .	133,340	176,469	197,507	194,302	193,028	164,847
Luxembourg—						
Bessemer, basic .. .. .	3,520,000	3,939,227	3,973,662	3,883,634	3,903,032	4,418,512
Electric .. .. .	85,000	79,965	74,165	62,976	64,953	68,034
Norway—						
Ingots .. .. .	401,022	460,752	468,344	456,552	511,021	580,979
Castings .. .. .	18,650	21,780	22,659	23,524	24,000	24,741
Portugal—						
Ingots—						
L.D. .. .. .	—	—	<i>n.a.</i>	160,918	179,327	203,807
Electric .. .. .	—	—	<i>n.a.</i>	3,761	30,230	32,242
Castings .. .. .	—	—	<i>n.a.</i>	7,161	9,322	9,654
Saar—						
Ingots—						
Open hearth .. .. .	(b) 802,000	}	(a)	(a)	(a)	(a)
Bessemer, basic .. .. .	(b) 2,682,000					
Electric .. .. .	(b) 52,000					
Castings—						
Open hearth .. .. .	(c)					
Bessemer, acid .. .. .	(c)					
Electric .. .. .	(c)					
Spain—						
Open hearth and .. .. .						
Bessemer .. .. .	1,411,986	1,624,800	2,013,900	1,832,800	1,824,400	<i>n.a.</i>
Electric .. .. .	369,420	301,700	250,900	328,400	526,800	<i>n.a.</i>
Oxygen .. .. .	—	—	—	—	101,700	<i>n.a.</i>
Sweden—						
Open hearth, acid .. .. .	292,933	322,185	336,785	347,313	348,458	} 1,398,000
do. basic .. .. .	624,271	749,166	864,585	799,583	866,142	
Bessemer, acid .. .. .	35,465	33,497	25,295	—	—	} 450,000
do. basic .. .. .	398,853	415,636	477,544	438,372	437,336	
Electric .. .. .	1,358,402	1,538,551	1,600,866	r 1,541,204	1,658,952	1,815,000
Other .. .. .	100,048	108,310	200,836	427,407	528,077	710,000

(a) Included with Germany (Federal).

(b) Including castings.

(c) Included with ingots.

DETAILS OF PRODUCTION OF STEEL INGOTS AND CASTINGS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>U.S.S.R.—</b>						
Open hearth .. ..	50,310,000	54,239,000	59,101,000	63,899,000	66,994,000	70,496,000
Bessemer .. ..	1,767,000	1,837,000	1,865,000	1,879,000	1,940,000	1,954,000
Electric .. ..	5,066,000	5,728,000	6,201,000	6,710,000	7,346,000	8,043,000
Other .. ..	1,860,000	2,457,000	2,467,000	2,613,000	2,679,000	3,198,000
of which—						
Ingots .. ..	53,923,000	59,348,000	64,497,000	69,761,000	73,236,000	77,675,000
Castings .. ..	5,080,000	4,913,000	5,137,000	5,340,000	5,723,000	6,016,000
<b>Yugoslavia—</b>						
Open hearth .. ..	1,178,000	1,301,000	1,371,000	1,413,000	1,369,682	1,459,240
Electric .. ..	100,800	118,400	136,800	157,300	193,094	191,439
<b>South Africa—</b>						
Ingots—						
Open hearth (in-	1,591,800	1,755,300	2,112,300	2,234,500	1,656,200	1,675,300
cluding duplex) ..						
Oxygen .. ..					675,000	873,700
Electric .. ..	217,300	277,100	278,000	303,100	376,200	406,000
Castings (b) .. ..	58,900	46,700	45,400	62,300	82,000	93,200
<b>United States—</b>						
Ingots and castings (a)—						
Open hearth, acid ..	396,414	360,329	351,584	338,468	354,656	395,298
do. basic .. ..	72,522,333	76,753,515	75,096,694	73,730,566	78,961,348	87,191,754
Bessemer .. ..	1,232,396	1,061,782	786,661	718,719	859,517	765,702
Oxygen .. ..	1,664,587	2,987,639	3,542,105	4,957,765	7,628,641	13,787,666
Electric .. ..	7,618,316	7,481,021	7,735,896	8,047,148	9,750,256	11,320,086
Of which—						
Ingots .. ..	83,273,954	88,450,195	87,346,859	87,631,707	97,395,545	113,261,201
Castings .. ..	160,092	194,091	166,081	160,959	158,873	199,305
<b>Japan—</b>						
Open hearth .. ..	12,117,154	14,807,770	16,702,821	13,074,666	12,001,986	13,634,591
Bessemer, basic .. ..	1,186,262	2,587,061	5,272,273	8,307,354	11,854,960	17,303,032
Electric .. ..	3,062,541	4,393,909	5,846,815	5,729,176	7,146,967	8,232,965

(a) Excluding steel castings produced by companies not manufacturing steel ingots.

(b) Produced for sale.

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Pig-iron—						
Forge and foundry ..	109,943	83,359	65,833	88,730	20,780	10,877
Refined ..	13,502	15,135	20,869	20,082	16,155	7,422
Other ..	34,514	47,030	58,375	110,611	49,656	19,922
Iron and steel powders, shot and sponge						
Spiegeleisen ..	n.a.	n.a.	n.a.	n.a.	18,078	18,907
Ferro-manganese ..	596	1,621	662	873	76	60
Ferro-tungsten ..	1,282	1,048	1,445	1,584	940	10,036
Ferro-molybdenum ..	333	245	246	229	1,225	896
Ferro-titanium ..	502	276	533	552	160	130
Ferro-vanadium ..	14	94	19	5	1,024	1,076
Ferro-niobium and ferro-niobium-tantalum ..	71	97	83	68	3	5
Other ferro-alloys ..	7,963	9,333	2,609	2,810	173	153
Ingots, blooms, billets ..	82,660	25,611	103,333	85,283	3,240	3,371
Old and scrap (a) ..	933,063	17,858	29,636	1,084,785	32,579	81,053
Channel Islands—						
Scrap ..	(c) 2,444	(c) 3,108	3,320	3,584	1,066,609	703,085
Malta—						
Scrap ..	10,793	8,072	11,378	4,276	4,336	(c) 1,329
Kenya—						
Scrap ..	—	—	—	n.a.	2,908	22,562
Nigeria—						
Scrap ..	15,119	19,833	17,923	4,551	5,232	10,755
Rhodesia (e)—						
Pig-iron ..	35,603	44,814	117,837	201,960	213,277	214,947
Ferro-alloys ..	(d) 9,651	9,232	8,920	8,078	13,728	22,341
Ingots, etc. ..	—	13,761	29,410	9,153	184	33,421
Scrap ..	26,805	8,990	1,849	10,712	21,376	n.a.
Tanzania—						
Scrap ..	—	—	—	—	1,599	8,148
Barbados—						
Scrap ..	2,300	—	2,080	n.a.	643	—
Jamaica—						
Scrap ..	3,149	15,406	9,607	1,041	5,048	n.a.
Trinidad and Tobago—						
Old and scrap ..	12,240	14,036	9,081	—	742	n.a.
Canada—						
Pig-iron ..	418,156	431,433	537,656	414,215	435,745	527,711
Ferro-chrome ..	6,709	4,117	1,466	5,895	2,598	154
Ferro-manganese ..	172	651	212	121	9	2,999
Ferro-silicon ..	31,884	47,235	43,704	38,615	32,800	41,060
Other ferro-alloys ..	438	1,002	701	2,971	1,271	214
Ingots, blooms, billets ..	66,182	303,701	291,457	236,238	336,884	394,853
Old and scrap ..	341,872	376,293	718,545	349,063	383,919	554,071
Tin-plate scrap ..	33,963	32,640	30,509	19,707	21,776	25,033
Aden—						
Scrap ..	3,303	3,194	3,690	39	n.a.	n.a.
Hong Kong—						
Pig-iron ..	7,860	23,753	11,731	574	—	498
Old and scrap ..	200,634	244,016	206,010	105,163	133,126	149,429
Tinplate scrap ..	2,783	5,916	3,891	5,028	3,938	5,429
India—						
Pig-iron ..	50,566	(b) 98,720	(b) 72,594	(b) 19,011	(b) —	(b) —
Ferro-manganese ..	8,114	(b) 47,073	(b) 55,406	(b) 12,093	(b) 21,581	(b) 86,233
Ingots, blooms, billets ..	n.a.	(b) 67,479	(b) 22,718	(b) —	(b) —	(b) —
Old and scrap ..	280,711	(b) 317,222	(b) 263,371	(b) 176,325	(b) 377,863	(b) 470,175

(a) Excluding ships intended for breaking up as follows (gross tonnage): 1959—97,850; 1960—54,696; 1961—55,669; 1962—126,362; 1963—105,581; 1964—67,390.

(b) Years ended March 31 following that stated. (e) Figures for the years 1959 to 1963 relate to

(c) Jersey only.

Rhodesia and Nyasaland.

(d) Ferro-chrome only.

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<i>(cont.)</i>						
Malaya—						
Pig-iron .. .. .	275	127	53	656	—	3
Ingots, slabs etc. .. .. .	2,501	120	283	1	—	1
Scrap .. .. .	89,501	74,570	70,279	32,915	51,365	49,718
Tin-plate scrap .. .. .	1,647	1,959	3,518	3,124	2,316	1,164
Australia (a)—						
Pig-iron .. .. .	22,668	65,101	213,022	225,647	159,359	73,408
Ferro-alloys .. .. .	9	14	16	48	8	8
Ingots, blooms, billets .. .. .	561	21,431	2,038	159,248	23,885	20,291
Old and scrap .. .. .	137,333	176,169	205,870	151,038	196,453	336,041
Tin-plate scrap .. .. .	33,990	18,221	15,753	14,819	22,629	15,576
New Zealand—						
Scrap .. .. .	52,257	55,221	14,976	n.a.	(a) 285	(a) 578
Irish Republic—						
Old and scrap .. .. .	13,639	28,626	17,880	14,226	26,302	44,875
<b>OTHER COUNTRIES</b>						
Austria—						
Pig-iron .. .. .	73,669	36,790	9,990	2,167	1,022	729
Ferro-silicon .. .. .	1,787	251	2,619	2,380	2,361	3,354
Other ferro-alloys .. .. .	2,182	3,377				
Ingots and blooms .. .. .	11,310	58,598	59,887	25,799	11,540	3,626
Scrap .. .. .	7,146	3,365	4,462	4,427	3,386	3,825
Belgium-Luxemburg						
E.U.—						
Pig-iron .. .. .	46,909	58,940	43,894	53,204	137,478	64,931
Spiegeleisen .. .. .	4,231	3,290	4,253	4,163	1,964	4,080
Ferro-manganese .. .. .	13,698	16,017	16,644	22,946	29,017	36,731
Other ferro-alloys .. .. .	466	5,083	7,793	8,264	5,467	1,468
Ingots .. .. .	18,222	82,689	50,115	42,630	45,910	41,290
Blooms, billets, etc. .. .. .	497,200	827,505	679,312	456,788	400,985	647,265
Old and scrap .. .. .	270,462	439,159	329,671	356,644	512,353	161,640
Denmark—						
Blooms, billets, etc. .. .. .	1,128	2,112	1,756	2,143	3,742	3,329
Old and scrap .. .. .	44,879	24,033	20,127	27,501	38,174	48,868
Finland—						
Pig-iron .. .. .	22,446	32,205	40,818	106,425	229,944	473,189
Ferro-alloys .. .. .	—	—	—	—	16,844	39
Old and scrap .. .. .	5,642	2,733	1,950	3,055	2,974	4,173
France—						
Pig-iron .. .. .	160,885	228,551	254,134	218,112	149,744	99,370
Spiegeleisen .. .. .	8,041	12,036	14,142	17,332	12,733	15,821
Ferro-manganese .. .. .	98,939	132,693	156,294	152,040	147,755	192,878
Ferro-silicon .. .. .	12,881	24,923	30,275	18,534	18,677	23,653
Ferro-chrome .. .. .	21,100	18,526	16,218	15,070	16,112	15,980
Other ferro-alloys .. .. .	3,294	3,462	3,193	4,682	7,074	8,428
Ingots .. .. .	24,164	81,497	68,355	12,875	18,264	130,989
Blooms, billets, etc. .. .. .	227,861	138,312	185,893	147,177	345,805	513,941
Old and scrap .. .. .	1,217,162	1,203,386	1,142,799	1,171,229	1,176,547	1,478,046
Germany (Federal)—						
Pig-iron .. .. .	379,152	654,027	825,357	882,775	796,781	636,879
Spiegeleisen .. .. .	(b)	(b)	9,519	16,771	17,619	10,034
Ferro-alloys .. .. .	40,000	32,020	41,781	43,387	77,314	74,149
Ingots, blooms, billets .. .. .	938,779	1,014,155	1,353,355	1,015,174	1,392,207	1,380,083
Old and scrap .. .. .	944,529	1,202,068	1,442,667	1,188,214	1,278,191	1,287,500
Hungary—						
Pig iron .. .. .	19,679	76,075	33,977	27,050	14,588	61,754
Iceland—						
Scrap .. .. .	4,285	5,466	4,970	2,645	n.a.	n.a.

(a) Years ended June 30 of that stated.

(b) Included with pig-iron.

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Italy—						
Pig-iron .. ..	2,610	1,390	198	31	143	51
Spiegeleisen .. ..	139	325	240	101	8	37
Ferro-manganese .. ..	4,005	3,123	2,352	1,276	2,008	7,466
Ferro-molybdenum .. ..	(a)	(a)	(a)	(a)	(a)	12
Ferro-silicon .. ..	3,217	4,562	5,435	3,723	1,682	572
Ferro-silico-manganese .. ..	5,199	1,444	246	290	59	9
Ferro-chrome .. ..	8,743	7,488	10,797	2,276	1,942	4,119
Ferro-vanadium .. ..	(a)	(a)	(a)	(a)	(a)	39
Other ferro-alloys .. ..	7	2	18	2	20	40
Ingots .. ..	82,951	120,944	116,160	98,162	100,397	109,028
Blooms, billets, etc. .. ..	34,379	3,526	7,709	10,308		
Scrap .. ..	967	1,324	1,054	885	1,709	4,700
Netherlands—						
Pig-iron .. ..	141,528	158,926	162,858	200,698	142,883	93,188
Sponge iron .. ..	n.a.	83	113	421	154	209
Ferro-alloys .. ..	85	157	434	209	333	257
Ingots, blooms and billets .. ..	654	675	4,678	8,286	34,074	81,557
Old and scrap .. ..	272,101	326,392	338,507	230,706	277,612	415,942
Norway—						
Pig-iron .. ..	95,071	108,432	117,957	132,985	172,507	121,942
Ferro-chrome .. ..	30,604	34,097	21,252	16,797	27,043	33,672
Ferro-manganese .. ..	61,938	50,497	47,360	45,844	59,499	72,177
Ferro-silicon .. ..	120,950	154,976	159,373	133,763	151,627	215,382
Ferro-silico-manganese .. ..	67,411	80,466	84,891	70,570	83,022	105,999
Other ferro-alloys .. ..	3,842	9,536	4,348	3,540	6,550	10,244
Ingots, blooms, billets .. ..	18,545	55,405	25,457	48,119	86,990	103,908
Old and scrap .. ..	6,436	4,582	5,513	2,352	4,574	8,661
Poland—						
Pig-iron .. ..	1,476	1,566	2,077	27,500	57,576	15,200
Ferro-alloys .. ..	10,558	7,822	4,337	3,900	3,536	6,239
Portugal—						
Pig-iron .. ..	16,623	24,049	14,795	10,017	19,090	17,309
Ferro-alloys .. ..	630	2,824	987	2,398	3,464	5,627
Old and scrap .. ..	20,562	25,761	16,393	14,782	18,089	56,817
Spain—						
Pig-iron .. ..	186,103	422,245	283,134	142,339	148,192	145,569
Ferro-silicon .. ..	500	8,209	11,665	9,700	9,854	7,888
Other ferro-alloys .. ..	—	4,595	5,783	5,602	9,816	9,680
Ingots, blooms, billets .. ..	18,607	376,065	234,473	62,319	49,273	49,165
Sweden—						
Pig-iron .. ..	37,429	43,938	69,721	34,413	56,000	37,134
Sponge iron .. ..	22,890	25,603	27,121	28,485	35,577	44,127
Ferro-manganese .. ..	2,693	1,650	2,540	2,537	4,183	2,913
Ferro-silicon .. ..	159	955	5,785	4,549	2,825	4,667
Ferro-silico-manganese .. ..	226	25	15	25	20	
Ferro-chrome .. ..	15,597	15,952	18,656	17,057	22,613	20,231
Ferro-tungsten .. ..	184	126	20	104	169	71
Other ferro-alloys .. ..	955	1,727	1,602	2,902	2,318	2,321
Ingots .. ..	566	250	361	2,623	103,498	118,742
Blooms, billets, etc. .. ..	58,201	98,275	143,597	106,289		
Old and scrap .. ..	10,164	12,541	13,868	11,288	11,616	21,469
Switzerland—						
Pig-iron and steel, etc. .. ..	6,362	392	346	507	437	—
Ferro-alloys .. ..	2,200	8,979	11,590	8,929	13,911	15,086
Old and scrap .. ..	3,943	5,729	6,155	6,971	14,622	30,562

(a) Included, if any, with "Other ferro-alloys".

## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>U.S.S.R.—</b>						
Pig iron .. ..	1,419,700	1,772,400	1,785,400	2,238,300	2,498,100	3,147,900
Ferro-manganese .. ..	49,700	50,000	50,800	54,800	56,000	58,700
Ferro-silicon .. ..	43,600	57,200	55,900	53,300	13,900	65,600
Other ferro-alloys .. ..	35,800	45,300	46,300	36,900	61,000	22,200
Steel ingots and billets	647,900	759,000	804,600	829,700	782,600	802,300
Scrap .. ..	104,000	167,400	219,100	221,200	266,800	464,200
<b>Yugoslavia—</b>						
Pig-iron .. ..	8,315	—	4,206	59	—	—
Spiegeleisen .. ..	1,865	1,008	1,278	167	—	—
Ferro-chrome .. ..	7,871	8,822	7,303	5,763	7,184	6,906
Ferro-manganese .. ..	6,538	10,925	7,037	7,693	8,130	4,631
Silico-manganese .. ..	886	1,162	2,504	1,794	4,564	1,812
Ferro-silicon .. ..	9,723	9,322	8,105	9,561	16,168	7,191
Steel ingots .. ..	12,807	—	—	50,507	27,397	46
Scrap .. ..	116	1,166	11,187	2,757	682	281
<b>Algeria—</b>						
Old and scrap .. ..	39,804	51,597	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Morocco—</b>						
Old and scrap .. ..	38,801	52,445	39,355	20,138	27,152	30,884
<b>Mozambique—</b>						
Scrap .. ..	8,943	9,947	7,607	—	4,701	8,479
<b>South Africa—</b>						
Pig-iron .. ..	273,666	220,252	244,138	212,595	215,365	348,027
Ferro-manganese .. ..	75,299	103,511	130,214	104,861	77,444	120,324
Other ferro-alloys .. ..	—	27,056	28,298	15,131	38,322	52,893
Ingots, blooms, billets ..	34,207	19,551	17,268	30,469	2,889	<i>n.a.</i>
<b>Tunisia—</b>						
Scrap .. ..	21,322	29,811	19,732	18,238	7,978	10,926
<b>Cuba—</b>						
Old and scrap .. ..	36,725	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Mexico—</b>						
Ferro-alloys .. ..	2	—	2,574	2,795	1,260	—
<b>United States—</b>						
Pig-iron .. ..	9,235	99,797	371,132	137,839	62,637	157,193
Spiegeleisen .. ..	339	132	469	638	1,050	701
Ferro-phosphorus .. ..	44,556	42,765	26,839	12,616	36,930	145,684
Ferro-manganese .. ..	845	670	419	3,673	605	3,485
Ferro-chrome .. ..	5,470	13,918	7,004	2,745	2,102	8,957
Ferro-molybdenum .. ..	111	190	160	85	107	779
Ferro-vanadium .. ..	135	144	107	179	164	92
Ferro-silicon .. ..	9,427	4,912	31,040	3,662	2,795	5,165
Ferro-tungsten .. ..	34	—	—	5	1	—
Ferro-titanium .. ..	286	219	189	116	188	483
Other ferro-alloys .. ..	288	3,433	4,321	308	384	568
Steel ingots, slabs, blooms, billets and sheet bars .. ..	13,142	66,539	123,254	225,596	271,889	882,731
Scrap (a) .. ..	4,387,457	7,086,431	8,447,727	4,499,930	5,681,801	6,948,033
<b>Argentina—</b>						
Ingots, blooms, billets ..	9	237	3,296	1,633	43,876	11,725
<b>Brazil—</b>						
Pig-iron .. ..	984	14,369	37,862	—	—	146,601
Ferro-manganese .. ..	—	—	49	4,937	—	—
<b>Chile—</b>						
Pig-iron .. ..	1,476	295	—	364	<i>n.a.</i>	<i>n.a.</i>
Ferro-manganese .. ..	2,735	2,971	3,673	13,509	<i>n.a.</i>	<i>n.a.</i>
<b>Indonesia—</b>						
Scrap .. ..	26,544	6,428	8,312	984	1,673	<i>n.a.</i>
<b>Israel—</b>						
Scrap .. ..	<i>n.a.</i>	515	1,739	1,342	1,199	1,418

(a) Including tin-plate and terne-plate scrap.



## EXPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Pig-iron .. ..	76	148	235	1,867	288	514
Ferro-chrome .. ..	17,273	14,533	15,911	12,288	7,840	3,800
Ferro-manganese .. ..	33,269	38,914	14,249	21,091	14,158	8,724
Ferro-silicon .. ..	1,253	405	18	2,646	557	157
Ferro-silico-manganese .. ..	9,633	2,684	772	6,463	3,701	427
Other ferro-alloys .. ..	504	458	794	648	767	738
Ingots, blooms, billets .. ..	9,132	692	1,032	28,913	56,443	57,994
Scrap .. ..	23	23	95	663	1,715	4,239
Korea (South)—						
Scrap .. ..	663	—	500	445	90	30
Lebanon—						
Scrap .. ..	7,153	9,683	3,796	<i>n.a.</i>	154	<i>n.a.</i>
Philippine Republic—						
Scrap .. ..	162	—	—	—	492	<i>n.a.</i>
Thailand—						
Scrap .. ..	285	2,874	4,605	576	2,847	2,526
Turkey—						
Pig iron .. ..	—	9,694	10,039	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms, billets .. ..	—	9,842	34,595	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Old and scrap .. ..	1,020	1,041	5,388	584	276	<i>n.a.</i>

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Pig-iron—						
Charcoal .. ..	448	942	1,492	808	22,234	88,608
Forge and foundry ..	2,981	2,036	4,080	1,436		
Hematite .. ..	28,885	36,300	17,720	59,088	122,336	166,869
Basic .. ..	58,480	178,019	4,922	66,760	42,139	77,854
Other (vanadium-titanium pig-iron produced in electric furnace)	5,385	4,092	4,436	3,756	2,558	2,395
Sponge-iron .. ..	4,500	5,799	5,519	5,693	7,769	9,856
Spiegeleisen .. ..	28,807	35,375	41,830	44,206	345	35
Ferro-manganese .. ..					54,205	62,037
Ferro-silicon .. ..	63,334	95,967	85,234	75,804	87,825	109,673
Ferro-silicon-chrome ..	1,623	3,595	2,984	3,043	3,848	4,473
Ferro-chrome .. ..	31,901	46,606	42,358	24,510	34,458	47,254
Ferro-vanadium .. ..			71	24	59	85
Silico-manganese .. ..	22,685	29,185	26,497	25,056	27,297	35,837
Other ferro-alloys .. ..	1,175	1,611	2,144	2,016	2,578	4,092
Iron and steel ingots, etc.	833	30,551	28,369	4,627	556	15,019
Blooms, billets, slabs—						
Iron .. ..		202		127	1	11,089
Steel .. ..	1,768	222,574	70,757	151,719	255,428	430,383
Old and scrap (a) .. ..	2,873	277,609	22,648	4,524	4,201	5,004
Malta—						
Ingots, etc. .. ..		10	n.a.	306	1,093	2,590
Ghana—						
Pig-iron .. ..	n.a.	n.a.	382	191	288	231
Kenya—						
Pig-iron .. ..	279	862	1,387	493	493	619
Ferro-alloys .. ..	11	22	10	2	37	
Ingots, blooms, etc. ..	1,360	1,768	1,495	1,496	2,554	33
Mauritius—						
Pig-iron, ingots, etc. ..	30	40	34	62	33	43
Rhodesia (b)—						
Pig-iron, ingots, etc. ..	357	1,359	601	1,491	42	371
Ferro-alloys .. ..	927	1,475	1,353	1,820	1,904	1,164
Tanzania—						
Pig-iron .. ..	37	75	101	94	94	240
Ferro-alloys .. ..	790	666	394	723	860	
Ingots, blooms, etc. ..	271	310	231	163	282	n.a.
Uganda—						
Pig-iron .. ..				45	50	86
Ferro-alloys .. ..				192	162	
Ingots, blooms, etc. ..	79	80	133	338	182	n.a.
Zambia—						
Pig-iron .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	2,472
Ferro-alloys .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	389
Ingots .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	33
Canada—						
Pig-iron .. ..	18,937	7,662	308	9,023	15,751	14,188
Sponge iron .. ..	331	513	667	795	1,096	2,046
Ferro-manganese and spiegeleisen .. ..	2,084	13,835	10,772	13,332	20,211	19,491
Ferro-chrome .. ..	(c)	(c)	(c)	(c)	(c)	9,359
Ferro-silicon .. ..	2,263	3,455	3,846	5,332	3,415	3,065
Ferro-tungsten .. ..	370	438	231	127	279	77
Silico-manganese .. ..	2,669	2,112	1,940	2,434	2,102	1,557
Other ferro-alloys .. ..	10,352	8,613	5,939	8,468	8,144	1,566
Ingots, blooms, billets ..	11,254	27,396	5,144	5,595	3,743	5,715
Scrap .. ..	587,822	524,877	313,878	400,618	580,971	766,296

(a) Excluding ships intended for breaking up as follows (gross tonnage): 1959—38,051; 1960—284,532; 1961—37,407; 1962—16,413; 1963—14,956; 1964—13,511.

(b) Figures for the years 1959 to 1963 relate to Rhodesia and Nyasaland.

(c) Included with "Other ferro-alloys".

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Jamaica—						
Pig-iron .. ..	87	102	112	76	210	587
Trinidad and Tobago—						
Pig-iron .. ..	6	11	33	11	14	n.a.
Ingots, etc. .. ..	846	685	141	733	930	n.a.
British Guiana—						
Pig-iron, ingots, etc. ..	307	1,019	767	65	n.a.	229
Ceylon—						
Pig-iron .. ..	862	350	695	586	519	1,091
Ingots, blooms, billets etc. .. ..	1,600	2,425	3,809	4,385	2,142	3,714
Cyprus—						
Pig-iron .. ..	10	33	—	50	199	145
Ingots, etc. .. ..	1	629	901	714	961	972
Hong Kong—						
Pig-iron .. ..	10,433	29,908	13,688	5,834	9,576	7,578
Ingots, blooms, billets ..	594	1,418	640	4,644	2,992	818
Old and scrap .. ..	24,439	27,573	25,677	41,639	40,712	59,353
Tinplate scrap .. ..	13,093	16,660	12,055	12,891	14,822	17,722
India—						
Pig-iron .. ..	67,993	(b) 10,870	(b) 1,672	(b) 826	(b) 207	(b) 104,690
Ingots, blooms, billets ..	138,255	(b) 35,408	(b) 16,958	(b) 76,647	(b) 50,397	(b) 53,069
Ferro-chrome .. ..	271	(b) 410	(b) 803	(b) 656	(b) 477	(b) 1,280
Ferro-manganese .. ..	150	(b) 155	(b) 519	(b) 453	(b) 677	(b) 462
Ferro-silicon .. ..	689	(b) 3,637	(b) 5,614	(b) 534	(b) 118	(b) 403
Other ferro-alloys .. ..	1,111	(b) 1,435	(b) 922	(b) 760	(b) 2,486	(b) 1,318
Old and scrap .. ..	29,807	(b) 12,983	(b) 6,669	(b) 1,710	(b) 1,213	(b) 686
Malaya—						
Pig-iron .. ..	2,761	3,958	4,277	9,780	14,579	9,720
Ferro-alloys .. ..	27	11	30	38	107	155
Ingots, slabs, etc. .. ..	2,343	3,543	3,673	6,204	8,056	6,218
Scrap .. ..	1,197	1,426	718	1,752	1,009	1,084
Tinplate scrap .. ..	8,735	12,568	12,563	13,985	14,804	12,291
Pakistan—						
Pig-iron .. ..	67,432	63,876	42,920	76,343	50,714	64,364
Ferro-alloys .. ..	74	359	1,145	930	573	289
Ingots, blooms, billets ..	56,302	39,750	228,214	229,705	226,273	340,786
Old and scrap .. ..	94	145	518	49	872	972
Sabah—						
Ingots, etc. .. ..	475	553	322	730	n.a.	248
Australia—						
Ferro-manganese .. ..	9,910	30,340	40,276	8,723	12,897	5,893
Ferro-chrome .. ..	2,824	5,714	4,133	1,974	2,713	3,023
Ferro-molybdenum .. ..	108	219	283	63	149	249
Ferro-silicon .. ..	10,463	3,905	9,677	3,798	9,558	7,630
Other ferro-alloys .. ..	684	1,434	1,590	1,660	3,461	2,506
Ingots and billets, etc.(c)	6	7,504	410	(a) 191	117	245
Scrap (c) .. ..	(a) 20	(a) 221	(a) 2,466	15	81	224
New Zealand—						
Pig-iron .. ..	7,332	8,107	9,238	8,896	(c) 7,235	n.a.
Ferro-alloys .. ..	73	135	263	709	(c) 266	n.a.
Billets and blooms .. ..	1,089	157	2,762	6,729	(c) 2,817	n.a.
Irish Republic—						
Pig-iron and sponge iron .. ..	3,546	3,150	3,641	3,354	8,507	27,158
Ferro-alloys .. ..	519	655	573	491	541	950
Ingots, blooms, billets, etc. .. ..	13,015	3,601	5,658	9,349	1,403	20,096

(a) Excess of re-exports.

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
Albania—						
Pig-iron .. .. .	<i>n.a.</i>	1,837	2,185	4,960	<i>n.a.</i>	<i>n.a.</i>
Austria—						
Pig-iron .. .. .	7,771	156,408	67,021	35,299	95,090	188,679
Spiegeleisen .. ..	493	1,728	1,698	2,255	2,331	2,654
Ferro-manganese ..	5,818	9,473	8,679	8,481	9,407	11,784
Ferro-silicon .. ..	8,985	10,099	8,564	7,787	7,825	8,410
Other ferro-alloys ..	14,993	19,324	15,815	14,285	16,300	20,097
Ingots and blooms ..	14,824	10,197	3,212	375	8,521	5,587
Scrap .. .. .	47,787	119,810	78,267	41,119	52,361	141,326
Belgium-Luxemburg						
E.U.—						
Pig-iron .. .. .	336,614	364,542	379,182	418,972	465,048	281,271
Sponge-iron .. .. .	260	752	1,064	2,094	40	30
Spiegeleisen .. ..	7,118	7,099	16,143	22,537	19,010	18,284
Ferro-chrome, etc. ..	2,759	4,258	4,161	4,672	4,279	6,495
Ferro-manganese .. .	55,300	58,558	52,644	56,141	37,914	74,556
Ferro-silico-manganese	2,494	3,378	3,766	3,578	3,601	4,488
Ferro-molybdenum ..	265	482	532	498	297	379
Ferro-silicon .. .. .	15,204	20,333	20,881	15,636	14,311	17,808
Ferro-tungsten .. ..	71	80	234	132	82	57
Other ferro-alloys ..	571	943	896	744	1,115	1,771
Ingots .. .. .	22,618	26,439	57,914	14,344	25,175	196,335
Blooms, billets, etc. ..	65,176	52,486	32,634	81,943	125,637	167,059
Old and scrap .. ..	240,913	192,680	193,644	120,620	85,966	61,962
Czechoslovakia—						
Pig iron .. .. .	188,000	199,000	175,000	250,000	186,000	116,000
Denmark—						
Pig-iron .. .. .	55,407	84,814	74,175	108,880	80,361	117,078
Ferro-chrome .. .. .	321	450	437	413	308	347
Ferro-manganese, etc. ..	2,275	2,638	2,428	2,209	2,932	2,896
Ferro-silicon .. .. .	1,829	3,964	3,426	2,832	2,557	3,756
Other ferro-alloys .. .	187	522	259	97	118	37
Ingots, blooms, billets ..	21	3,672	20,625	11,656	12,163	36,362
Old and scrap .. .. .	3,007	977	1,289	905	1,172	2,212
Finland—						
Pig-iron .. .. .	3,788	2,927	2,682	3,379	6,945	13,063
Billets .. .. .	135,800	135,217	103,657	78,928	58,989	36,024
Ferro-manganese and spiegeleisen .. .. .	2,176	3,338	2,194	2,545	2,598	1 530
Other ferro-alloys .. .	5,145	6,997	7,019	7,026	7,266	5,576
Old and scrap .. .. .	75,693	94,006	101,353	126,029	81,072	138,641
France—						
Pig-iron—hematite .. .	93,560	115,784	148,191	138,468	169,837	158,757
do. other .. .. .	19,206	33,754	28,544	23,837	41,134	30,815
Sponge-iron .. .. .	<i>n.a.</i>	114	667	2,163	2,275	2,674
Spiegeleisen .. .. .	10,786	7,317	2,151	2,022	2,658	2,046
Ferro-manganese .. .	4,665	6,333	7,276	7,626	9,963	10,098
Ferro-silicon .. .. .	12	81	1	74	915	545
Ferro-chrome .. .. .	12	285	361	942	889	1,218
Ferro-nickel .. .. .	10,005	23,248	20,957	12,238	19,587	22,349
Other ferro-alloys .. .	267	154	674	1,073	1,716	3,083
Ingots .. .. .	19,430	86,139	80,314	126,196	145,552	154,117
Blooms, billets, etc. ..	315,174	637,978	680,485	495,074	495,417	499,818
Old and scrap .. .. .	305,955	487,660	730,655	361,304	568,078	575,246
Germany (Federal)—						
Pig-iron .. .. .	324,088	387,415	319,545	586,139	457,467	253,542
Spiegeleisen .. .. .	(a)	(a)	15,223	14,930	13,697	16,002
Ferro-alloys .. .. .	159,273	224,964	242,207	205,761	207,646	274,844
Rough blooms, ingots, bars, etc. .. .. .	272,956	563,425	279,656	229,154	662,770	1,052,298
Old and scrap .. .. .	612,524	1,008,926	926,736	611,407	628,197	1,736,761

(a) Included with pig-iron.

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (East)—						
Pig-iron .. ..	629,600	696,400	554,200	619,300	647,300	779,700
Greece—						
Pig-iron .. ..	74,830	13,658	25,346	43,833	28,671	15,128
Ferro-alloys .. ..	741	543	737	722	836	1,170
Ingots, blooms, slabs, etc.	78,661	104,174	74,602	102,482	69,276	41,875
Old and scrap .. ..	<i>n.a.</i>	<i>n.a.</i>	9,566	5,023	534	1,100
Hungary—						
Pig iron .. ..	59,246	41,767	38,239	100,939	87,394	76,289
Ferro-chrome .. ..	2,130	2,260	3,419	4,035	5,632	4,215
Ferro-manganese .. ..	6,672	6,649	7,621	10,485	11,208	11,651
Ferro-silicon .. ..	143	2,828	1,445	2,087	2,466	2,647
Other ferro-alloys .. ..	218	153	368	422	355	343
Ingots .. ..	158,117	207,816	173,756	323,002	366,817	370,803
Italy—						
Pig-iron .. ..	370,340	689,614	870,005	783,680	876,391	526,651
Spiegeleisen .. ..	2,265	6,778	12,335	13,201	19,064	6,524
Ferro-chrome .. ..	8,359	15,091	14,157	10,198	14,753	16,710
Ferro-manganese .. ..	20,182	27,526	30,620	42,949	53,853	53,118
Ferro-molybdenum .. ..	(a)	(a)	(a)	(a)	(a)	453
Ferro-silicon .. ..	2,853	1,492	1,420	6,122	7,386	7,221
Ferro-silico-manganese .. ..	1,767	1,991	2,913	2,670	5,535	3,203
Ferro-titanium .. ..	234	286	507	457	401	525
Ferro-tungsten .. ..	41	116	311	185	129	107
Ferro-vanadium .. ..	(a)	(a)	(a)	(a)	(a)	179
Other ferro-alloys .. ..	437	1,033	1,024	1,484	1,672	1,007
Ingots .. ..	83,008	213,500	77,703	73,169	712,099	1,365,092
Blooms, billets, etc. .. ..	109,174	397,059	669,605	354,908		
Old and scrap .. ..	2,588,339	3,181,660	3,345,502	3,902,135	3,783,838	3,099,701
Netherlands—						
Pig-iron .. ..	17,144	22,704	13,610	13,063	31,940	84,425
Sponge iron .. ..	<i>n.a.</i>	1,627	1,106	1,542	1,887	1,730
Spiegeleisen .. ..	1,672	6,199	935	483	1,075	708
Ferro-manganese .. ..	8,806	12,807	14,210	8,297	12,009	16,649
Ferro-chrome .. ..	290	499	302	438	396	820
Ferro-silicon .. ..	2,665	3,797	5,249	4,792	4,556	5,964
Ferro-silico-manganese .. ..	372	452	896	405	282	372
Ferro-molybdenum .. ..	21	46	51	99	56	50
Other ferro-alloys .. ..	644	564	984	1,476	1,018	1,142
Ingots, blooms, billets .. ..	91,672	164,442	114,113	57,835	257,322	219,732
Old and scrap .. ..	64,884	94,016	36,956	81,097	88,131	42,920
Norway—						
Pig-iron .. ..	9,566	9,944	16,813	8,352	10,036	8,679
Ferro-alloys .. ..	106	168	4,816	317	212	274
Ingots, blooms, billets .. ..	1,720	2,459	11,757	8,376	76,022	77,808
Old and scrap .. ..	65	14,055	52,430	43,490	33,350	26,885
Poland—						
Pig-iron .. ..	84,014	13,262	82,389	1,000	63,186	308,500
Ferro-alloys .. ..	1,035	3,287	2,126	1,000	1,884	2,504
Portugal—						
Iron and steel ingots .. ..	1,749	156	1,113	1,223	224	131
Old and scrap .. ..	2,622	3,656	1,176	1,108	1,340	1,371
Roumania—						
Ferro-alloys .. ..	20,100	24,900	27,300	34,800	33,300	42,300
Spain—						
Pig-iron .. ..	1,048	715	1,470	3,670	3,204	1,801
Ferro-manganese .. ..	629	140	1,421	1,397	1,483	1,610
Other ferro-alloys .. ..	1,256	816	1,911	2,670	3,468	5,252
Ingots and blooms .. ..	130	509	278	172,545	138,083	271,775
Old and scrap .. ..	115,641	113,583	242,981	301,751	145,188	303,755
Sweden—						
Pig-iron .. ..	142,842	212,019	128,436	178,431	185,024	225,753
Sponge iron .. ..	28	2,005	4,466	478	854	—

(a) Included, if any, with "Other ferro-alloys".

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Sweden (cont.)—</b>						
Spiegeleisen .. .. .	98	118	139	100	200	167
Ferro-manganese .. .. .	5,765	6,138	10,806	9,982	12,170	12,347
Ferro-chrome .. .. .	6,318	13,164	7,288	3,060	5,059	7,516
Ferro-silicon and ferro-silico-manganese .. .. .	6,024	8,989	9,496	9,628	14,631	11,984
Ferro-tungsten .. .. .	185	411	396	260	256	402
Other ferro-alloys .. .. .	1,518	5,273	3,689	1,289	3,568	6,775
Blooms, billets, etc. .. .. .	1,126	24,942	22,352	4,814	6,862	5,497
Old and scrap .. .. .	198,871	297,070	163,907	28,946	121,059	235,680
<b>Switzerland—</b>						
Pig-iron .. .. .	34,469	57,284	74,463	81,618	63,997	53,483
Ferro-alloys .. .. .	4,230	9,139	10,718	9,118	13,019	12,798
Ingots, blooms, billets .. .. .	118,065	157,509	217,092	278,244	299,047	214,904
Old, filings and scrap .. .. .	48,613	44,002	17,997	37,900	10,998	5,307
<b>U.S.S.R.—</b>						
Pig-iron .. .. .	135,900	205,100	132,100	138,800	226,000	192,300
Ferro-alloys .. .. .	2,400	13,200	16,000	12,200	12,200	2,900
Ingots .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	121,800	55,300	76,000
<b>Yugoslavia—</b>						
Pig-iron .. .. .	54,460	64,292	83,580	112,468	78,791	187,952
Ferro-alloys .. .. .	854	1,172	1,042	1,030	1,460	1,449
Ingots .. .. .	3,104	33,382	18,651	3,329	20,302	3,723
Scrap .. .. .	20,010	63,072	123,102	78,421	48,026	118,572
<b>Algeria—</b>						
Pig-iron .. .. .	641	403	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Spiegeleisen and ferro-alloys .. .. .	808	898	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms, billets .. .. .	14,665	13,858	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Old and scrap .. .. .	1,681	1,456	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Congo Republic—</b>						
Pig-iron .. .. .	95	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. .. .	285	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Pig-iron and spiegeleisen .. .. .	12,209	19,619	39,933	121,231	49,158	46,253
Ferro-alloys .. .. .	4,911	2,049	2,371	4,680	5,021	3,751
Ingots, billets, etc. .. .. .	26	295	2,950	16,851	<i>n.a.</i>	<i>n.a.</i>
Scrap .. .. .	7,721	4,783	8,088	26,244	50,962	43,653
<b>Morocco—</b>						
Pig-iron .. .. .	560	824	901	863	1,408	1,046
Ferro-alloys .. .. .	96	135	168	189	232	222
Scrap, etc. .. .. .	5,456	1,608	600	409	342	44
<b>South Africa—</b>						
Pig-iron and steel ingots .. .. .	6	689	307	148	359	<i>n.a.</i>
Ferro-silicon .. .. .	204	627	447	453	843	1,822
Other ferro-alloys .. .. .	240	189	379	417	141	216
<b>Sudan—</b>						
Crude iron and steel .. .. .	9,318	18,454	17,918	49,806	<i>n.a.</i>	<i>n.a.</i>
<b>Tunisia—</b>						
Pig-iron .. .. .	189	118	100	120	99	480
Old and scrap .. .. .	80	163	59	12	545	103
<b>Cuba—</b>						
Pig-iron .. .. .	8,668	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms, etc. .. .. .	27,932	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Honduras—</b>						
Ingots, blooms, etc. .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	950	1,865
<b>Mexico—</b>						
Pig-iron .. .. .	—	—	429	—	38	546
Ferro-manganese .. .. .	730	158	106	97	530	424
Other ferro-alloys .. .. .	3,032	1,673	1,446	1,415	1,413	2,547
Ingots, blooms, billets .. .. .	39,619	2,468	10	7	1	1
Scrap .. .. .	378,445	371,683	351,553	269,289	142,531	696,494
Tin-plate scrap .. .. .	10,804	12,184	8,942	12,348	15,163	13,108

IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)  
Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Salvador—						
Ingots, blooms, billets	106	1,218	2,037	47	337	1,378
Scrap .. .. .	298	321	154	411	401	106
United States—						
Pig-iron .. .. .	624,637	295,399	336,768	446,437	576,191	657,564
Ferro-chrome .. .. .	83,331	44,096	24,834	32,428	25,931	23,321
Ferro-manganese .. .. .	80,412	107,341	198,157	112,156	132,705	189,847
Ferro-silicon .. .. .	15,613	15,954	12,259	14,580	13,055	11,751
Ferro-titanium .. .. .	113	74	163	107	37	25
Ferro-tungsten .. .. .	294	100	191	294	487	108
Sponge iron .. .. .	7,665	4,299	3,928	5,126	4,338	11,138
Bar-iron, slabs, blooms, etc. .. .. .	73	65	54	189	237	222
Steel ingots, blooms, etc. .. .. .	81,937	60,502	159,746	152,326	232,460	307,822
Scrap .. .. .	239,142	123,828	210,134	215,016	174,449	231,409
Tin-plate scrap .. .. .	37,151	36,352	29,499	18,832	19,486	20,143
Argentina—						
Pig-iron .. .. .	135,456	129,223	41,270	12,035	35	22,937
Ferro-manganese .. .. .	—	292	415	452	178	292
Ferro-silicon .. .. .	9,578	13,392	23,796	706	173	1,143
Ingots .. .. .	559,085	442,721	720,552	270,872	81,147	149,160
Blooms and billets .. .. .	397,909	452,830	684,243	457,262	160,271	312,691
Old and scrap .. .. .	909	1,065	3,228	70	9,195	141
Brazil—						
Ferro-manganese .. .. .	819	45	171	44	58	24
Ferro-silicon .. .. .	2,156	355	57	160	82	85
Ferro-chrome .. .. .	269	585	881	895	985	472
Other ferro-alloys .. .. .	71	155	295	304	113	210
Chile—						
Pig-iron .. .. .	120	113	688	100	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. .. .	42	172				
Colombia—						
Pig-iron .. .. .	5	—	—	9	—	—
Ingots, etc. .. .. .	50	—	10	—	1,124	—
Blooms, billets, etc. .. .. .	20	—	—	4,867	10	44,658
Ferro-alloys .. .. .	4,058	3,611	2,105	1,855	3,634	3,447
Peru—						
Pig-iron .. .. .	197	113	137	298	81	1,053
Ferro-alloys .. .. .	460	428	1,042	371	429	620
Uruguay—						
Ingots .. .. .	34,439	29,314	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-alloys .. .. .	328	222	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Pig-iron .. .. .	10,512	231	234	741	6,355	97
Ferro-alloys .. .. .	682	274	607	4,556	1,973	3,959
Scrap .. .. .	9,315	—	4	11,000	<i>n.a.</i>	<i>n.a.</i>
Ingots, blooms and billets	1,116	13,345	9,991	43,225	6,503	1,007
Formosa—						
Blooms, billets, etc. .. .. .	1,942	4,092	10,061	10,956	994	3,007
Ferro-alloys .. .. .	326	584	1,027	600	125	240
Old and scrap .. .. .	68,843	142,146	180,443	291,292	170,944	246,196
Iran (a)—						
Pig-iron .. .. .	<i>n.a.</i>	<i>n.a.</i>	712	6,586	2,591	19,045
Old and scrap .. .. .	848	4,129	2,587	2,897	5,012	5,547
Israel—						
Pig-iron .. .. .	24,044	21,457	23,094	18,240	19,854	42,748
Spiegeleisen .. .. .	<i>n.a.</i>	1,821	118	1,676	984	980
Ferro-alloys .. .. .	1,121	1,820	839	4,471	4,467	2,106

(a) Years ended March 20 of year following that stated.

## IMPORTS OF PIG-IRON, FERRO-ALLOYS, STEEL INGOTS AND CASTINGS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Japan—						
Pig-iron .. .. .	272,621	980,531	2,027,909	1,424,473	1,524,730	3,305,559
Ferro-alloys .. .. .	2	10	21,445	6,541	2,081	25,303
Ingots, blooms, billets .. .. .	696	3,736	124,259	113,727	4,206	7,299
Old and scrap .. .. .	3,987,543	4,355,670	6,900,920	3,577,393	4,518,587	5,018,222
Jordan—						
Ingots, blooms, billets .. .. .	29,719	28,296	31,258	34,702	40,858	43,122
Korea (South)—						
Ferro-alloys .. .. .	<i>n.a.</i>	2,452	2,249	5,385	4,778	3,081
Ingots, blooms, etc. .. .. .	<i>n.a.</i>	6,593	18,737	1,465	43,719	25,207
Lebanon—						
Pig-iron .. .. .	7,191	5,442	6,968	4,030	6,016	<i>n.a.</i>
Ferro-alloys .. .. .	63	—	572	303	540	<i>n.a.</i>
Old and scrap .. .. .	2,449	2,281	7,554	1,672	2,665	<i>n.a.</i>
Philippine Republic—						
Pig-iron .. .. .	<i>n.a.</i>	17,241	14,097	10,945	9,944	<i>n.a.</i>
Ferro-alloys .. .. .	712	502	150	1,098	958	<i>n.a.</i>
Ingots, blooms, billets .. .. .	1,416	1,856	6,831	2,237	30,315	<i>n.a.</i>
Syria—						
Pig-iron .. .. .	842	1,383	645	1,414	968	1,913
Scrap .. .. .	1,426	1,337	1,475	1,952	2,086	1,626
Thailand—						
Pig-iron .. .. .	435	501	315	296	298	—
Ferro-alloys .. .. .	791	418	723	602	607	1,122
Turkey—						
Pig-iron .. .. .	5,023	4,562	5,015	8,033	12,819	<i>n.a.</i>
Ferro-alloys .. .. .	369	955	3,627	4,400	1,077	<i>n.a.</i>
Blooms, billets, etc. .. .. .	12,077	24,265	—	8,079	73,695	<i>n.a.</i>



**LEAD**  
**PRODUCTION OF LEAD ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,809	1,420	1,587	903	1,600	2,200
Nigeria (a) ..	378	199	6	—	—	—
Rhodesia ..	—	17	31	—	—	—
Tanzania (c) ..	5,715	6,185	345	—	—	—
Uganda ..	53	—	—	—	—	—
Zambia (b) ..	14,400	14,429	15,177	14,592	19,300	12,953
Canada (d) ..	166,693	183,616	205,745	192,258	179,611	178,915
India ..	4,790	4,456	3,997	4,523	4,248	4,434
Australia ..	316,293	308,163	269,656	370,110	410,291	374,867
<b>TOTAL ..</b>	<b>510,131</b>	<b>518,485</b>	<b>496,544</b>	<b>582,386</b>	<b>615,100</b>	<b>573,400</b>
<b>Irish Republic ..</b>	<b>1,318</b>	<b>1,322</b>	<b>249</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>OTHER COUNTRIES</b>						
Austria ..	6,028	5,695	6,021	5,887	5,442	5,830
Bulgaria ..	79,200	82,400	78,800	92,900	87,500	89,900
Czechoslovakia (e) ..	6,000	6,400	6,400	13,300	13,300	13,300
Finland (f) ..	1,898	1,567	3,071	2,822	1,127	1,860
France ..	16,370	18,260	18,558	14,050	8,263	11,582
Germany—						
Federal Republic ..	51,681	49,106	48,777	48,968	51,069	48,164
East (g) ..	7,000	7,000	7,000	7,000	10,000	10,000
Greece ..	9,840	9,087	11,382	12,597	(e) 13,000	14,200
Italy ..	50,585	48,683	46,622	37,396	28,482	30,622
Norway ..	2,220	2,482	2,254	2,815	2,944	3,522
Poland ..	34,800	38,600	37,600	37,300	38,100	37,800
Portugal ..	31	31	25	43	220	193
Roumania (b) (g) ..	11,000	11,000	11,000	12,000	12,000	12,000
Spain ..	68,992	71,744	78,449	69,877	61,212	56,456
Sweden ..	47,609	54,432	62,963	66,715	70,237	66,424
U.S.S.R. (b) (g) ..	320,000	340,000	370,000	400,000	400,000	400,000
Yugoslavia ..	90,990	89,780	95,153	100,383	99,972	99,991
Algeria ..	10,869	10,294	9,230	8,897	(g) 8,000	(g) 9,300
Angola ..	(h) 12	—	—	—	—	—
Congo (Republic of) ..	4,900	4,224	1,458	329	325	(e) 2,100
Egypt (e) ..	690	79	35	530	500	—
Morocco ..	90,300	93,254	86,874	88,681	72,804	70,164
South Africa ..	150	121	91	5	14	—
South West Africa ..	69,242	63,800	62,000	73,038	81,000	94,730
Tunisia ..	17,860	17,630	16,560	12,864	13,620	13,060
Greenland ..	10,386	6,820	9,021	795	—	—
Guatemala (f) ..	5,697	8,422	8,445	953	735	(e) 200
Honduras ..	4,111	5,279	6,037	5,823	n.a.	(e) 450

(a) Excluding native production.

(b) Smelter.

(c) Exports.

(d) Lead in base bullion plus recoverable lead in ores exported.

(e) United States Bureau of Mines' estimate.

(f) Amount estimated as recoverable.

(g) Estimated.

(h) Lead content of vanadium-lead ore.

## PRODUCTION OF LEAD ORE (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico (a) .. ..	187,668	187,658	178,462	190,245	186,986	167,272
United States (a) .. ..	228,202	220,240	233,858	211,568	226,222	255,366
Argentina .. ..	30,000	23,000	27,000	28,000	26,000	24,000
Bolivia (c) .. ..	21,652	21,031	20,002	18,184	19,622	16,951
Brazil (e) .. ..	6,000	10,900	13,700	15,000	17,100	n.a.
Chile .. ..	2,285	2,405	2,011	1,431	854	1,098
Colombia (d) .. ..	509	629	645	392	8	—
Ecuador .. ..	105	106	109	122	159	137
Peru (a) .. ..	113,396	129,551	134,244	126,152	145,954	146,882
Burma .. ..	19,000	17,000	16,500	20,000	19,700	n.a.
China (e) .. ..	70,000	80,000	90,000	90,000	100,000	100,000
Iran (e) (f) .. ..	14,500	14,500	14,500	10,000	10,000	15,000
Japan .. ..	35,575	38,908	45,549	52,611	51,884	53,224
Korea (South) .. ..	2,300	900	850	1,400	1,900	3,300
Korea (North) (b) .. ..	45,000	50,000	50,000	50,000	50,000	50,000
Philippine Republic .. ..	349	120	99	81	70	101
Thailand .. ..	1,500	2,000	2,300	2,500	2,200	3,600
Turkey .. ..	1,162	1,634	3,159	3,838	2,510	4,183
<b>TOTAL .. ..</b>	<b>1,800,000</b>	<b>1,800,000</b>	<b>1,900,000</b>	<b>1,900,000</b>	<b>1,900,000</b>	<b>2,000,000</b>
<b>WORLD'S TOTAL .. ..</b>	<b>2,300,000</b>	<b>2,400,000</b>	<b>2,400,000</b>	<b>2,500,000</b>	<b>2,600,000</b>	<b>2,500,000</b>

(a) Amount estimated as recoverable.

(b) Estimated.

(c) Exports of ore (metal content) and metal.

(d) Imports into the United States.

(e) United States Bureau of Mines' estimate.

(f) Years ended March 20 of year following that stated.

METAL PRODUCTION OF LEAD

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (h) ..	8,765	15,399	24,784	29,152	27,942	24,428
Zambia .. .. .	14,400	14,429	15,177	14,592	19,300	12,953
Canada .. .. .	120,800	141,527	153,422	135,908	138,393	135,154
India .. .. .	3,895	3,686	3,606	2,804	3,481	3,567
Australia (c) ..	236,115	242,546	210,354	263,235	305,266	280,552
<b>TOTAL .. .. .</b>	<b>384,000</b>	<b>417,587</b>	<b>407,343</b>	<b>455,691</b>	<b>494,382</b>	<b>456,654</b>
<b>OTHER COUNTRIES</b>						
Austria (b) .. ..	11,292	11,211	11,260	11,031	8,820	11,962
Belgium (b) .. ..	87,044	91,241	98,312	91,685	96,878	82,001
Bulgaria .. .. .	32,223	39,768	40,267	43,017	50,521	86,118
Czechoslovakia (a) ..	9,000	9,000	9,000	14,000	15,000	15,000
France .. .. .	68,824	73,212	69,705	69,452	76,401	88,372
Germany—Federal do. East (a) (b) ..	147,172	145,332	123,539	125,363	108,496	105,805
Greece .. .. .	25,000	25,000	25,000	25,000	25,000	25,000
Greece .. .. .	3,680	3,042	2,917	2,900	3,500	5,000
Italy .. .. .	43,346	40,993	42,332	38,127	41,275	37,311
Norway .. .. .	—	—	—	—	—	4,000
Poland .. .. .	38,100	39,100	39,200	40,100	38,300	40,800
Portugal .. .. .	782	891	1,485	1,988	1,100	1,344
Roumania (a) .. ..	11,000	11,000	11,000	12,000	12,000	12,000
Spain .. .. .	67,408	70,057	76,498	71,131	61,103	54,195
Sweden .. .. .	36,267	43,850	38,166	38,158	40,124	39,800
U.S.S.R. (a) .. ..	320,000	340,000	370,000	400,000	400,000	400,000
Yugoslavia .. ..	84,046	87,735	88,973	96,379	102,529	99,489
Morocco .. .. .	28,000	30,242	24,102	23,762	18,464	18,541
South West Africa ..	—	—	—	—	1,783	47,040
Tunisia .. .. .	21,464	19,548	18,160	15,578	12,600	11,890
Guatemala .. .. .	50	179	55	62	46	74
Mexico .. .. .	185,967	164,019	187,356	178,734	179,438	167,321
United States (e) ..	304,362	341,461	401,397	335,736	352,439	401,276
Argentina .. .. .	33,600	28,900	26,100	24,000	23,621	22,637
Bolivia (f) .. .. .	223	46	4	—	—	1
Brazil .. .. .	5,438	9,819	12,379	13,423	15,396	n.a.
Chile .. .. .	796	589	472	250	217	—
Peru .. .. .	55,910	72,970	75,226	67,282	81,765	88,307
Burma .. .. .	19,337	13,161	15,514	17,110	17,458	17,768
China (a) (b) .. ..	75,000	70,000	85,000	85,000	85,000	85,000
Iran (g) .. .. .	(d) 900	1,143	1,283	393	(d) 500	(d) 500
Japan .. .. .	59,957	68,273	74,532	86,371	99,460	106,256
Korea (North) (a) ..	25,000	25,000	40,000	40,000	40,000	40,000
Turkey .. .. .	1,612	393	623	627	1,851	1,142
<b>TOTAL .. .. .</b>	<b>1,800,000</b>	<b>1,900,000</b>	<b>2,000,000</b>	<b>2,000,000</b>	<b>2,000,000</b>	<b>2,100,000</b>
<b>WORLD'S TOTAL ..</b>	<b>2,200,000</b>	<b>2,300,000</b>	<b>2,400,000</b>	<b>2,400,000</b>	<b>2,500,000</b>	<b>2,600,000</b>

(a) Estimated.

(b) Including secondary metal.

(c) Including lead in base bullion as follows:

Year	Long tons	Year	Long tons
1959 .. .. .	50,310	1962 .. .. .	73,110
1960 .. .. .	52,723	1963 .. .. .	80,661
1961 .. .. .	48,090	1964 .. .. .	77,451

(d) United States Bureau of Mines' estimate.

(e) In addition the recovery of secondary lead was as follows:

Year	Long tons	Year	Long tons
1959 .. .. .	403,024	1962 .. .. .	396,609
1960 .. .. .	419,556	1963 .. .. .	440,599
1961 .. .. .	404,279	1964 .. .. .	483,555

(f) Exports.

(g) Years ended March 20 of year following that stated.

(h) Source: British Bureau of Non-Ferrous Metal Statistics.

## EXPORTS OF LEAD, ETC.\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Unwrought .. .. .	9,340	15,317	25,913	32,076	38,657	35,781
do. alloys .. .. .	2,796	2,697	3,086	3,570	3,657	3,729
Semi-manufactures (a) ..	2,613	3,064	2,489	2,049	1,963	1,887
White lead .. .. .	1,769	2,179	2,140	3,614	1,690	1,510
Red lead, etc .. .. .	3,532	3,811	3,876	3,928	4,050	4,269
Nigeria—						
Ore and concentrates ..	1,208	789	522	610	195	938
Tanzania						
Concentrates (Pb content) .. ..	5,715	6,185	345	—	—	—
Uganda—						
Ore and concentrates ..	200	67	—	—	—	—
Zambia (c)—						
Ore .. .. .	10	57	15	—	—	—
Unwrought .. .. .	13,124	12,052	10,951	13,916	14,029	13,177
Canada—						
Ore (Pb content) .. .. .	47,970	45,835	63,363	53,120	47,996	71,747
Unwrought .. .. .	82,368	86,115	105,033	112,323	86,736	85,596
Scrap .. .. .	2,701	5,971	(a) 2,238	(a) 1,589	(a) 3,561	(a) 4,712
White lead .. .. .	745	972	n.a.	n.a.	n.a.	n.a.
Hong Kong—						
Unwrought (a) .. .. .	382	578	281	700	667	701
Scrap .. .. .	70	67	225	45	13	4
Semi-manufactures (a) ..	6	9	4	—	1	8
Malaya—						
Unwrought (a) .. .. .	884	537	593	284	87	341
Semi-manufactures (a) ..	19	24	24	37	37	29
Australia (b)—						
Ore and concentrates (Pb content) .. .. .	69,574	60,054	60,655	59,802	106,289	95,928
Base bullion (Pb content) ..	59,273	48,920	53,365	46,140	77,564	82,715
Unwrought .. .. .	143,828	121,420	127,055	199,942	169,264	169,035
do. alloys .. .. .	365	921	4,933	1,390	1,495	6,829
Scrap (a) .. .. .	2,970	1,241	531	6	73	2,547
Semi-manufactures .. .. .	93	97	1,140	351	1,106	2,226
Red and white lead, etc.	1,489	1,798	2,061	2,468	2,373	1,981
Irish Republic—						
Ore and concentrates ..	2,121	2,245	1,249	—	—	—
Scrap .. .. .	356	285	196	912	283	310
OTHER COUNTRIES						
Austria—						
Unwrought (a) .. .. .	3,336	3,134	2,829	2,680	1,733	3,751
Scrap .. .. .	—	—	10	—	6	14
Red and white lead, etc.	678	1,199	961	611	1,078	655

\*In these tables the description "unwrought" lead corresponds to item 685.1 of the Standard International Trade Classification (Revised) and comprises base bullion, pigs, unwrought bars, etc. "Semi-manufactures" corresponds to S.I.T.C.(R). 685.2 and includes foil and powder as well as wrought bars, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(b) Years ended June 30 of that stated.

(c) Figures for the years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF LEAD, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg</b>						
E.U.—						
Unwrought .. ..	53,587	50,412	53,613	57,781	63,833	41,769
do. alloys .. ..	2,203	2,149	2,492	2,923	5,610	7,061
Scrap .. ..	555	1,668	1,191	2,031	2,088	3,298
Semi-manufactures (a)	5,016	4,327	6,479	6,994	6,351	6,209
Red and white lead, etc.	3,163	3,970	4,547	4,922	4,406	3,682
<b>Denmark—</b>						
Unwrought .. ..	7,967	4,055	5,230	1,091	1,443	2,623
do. alloys .. ..	3,773	4,398	3,251	3,267	2,566	2,188
Scrap .. ..	24	103	—	—	—	—
Semi-manufactures (a)	49	74	168	218	314	303
<b>Finland—</b>						
Unwrought (a) ..	400	369	124	57	2	67
<b>France—</b>						
Ore .. ..	4,536	19,170	8,367	4,837	123	4,976
Unwrought .. ..	11,478	6,243	4,699	3,408	2,792	3,316
do. alloys .. ..	1,462	942	1,382	1,993	1,340	2,570
Scrap .. ..	56	563	1,642	7,432	8,237	9,568
Semi-manufactures (a)	1,529	1,256	1,148	757	709	1,376
Red and white lead, etc.	6,430	7,286	4,850	4,809	4,897	6,334
<b>Germany (Federal)—</b>						
Ore .. ..	26	—	—	5	10,054	941
Unwrought (a) ..	27,276	24,529	25,271	22,482	17,684	21,251
Scrap (a) .. ..	23	702	2,770	5,066	8,690	9,215
Semi-manufactures (a)	4,103	3,332	4,293	3,268	2,950	3,855
Red and white lead ..	10,975	9,722	10,725	9,884	9,943	9,334
<b>Greece—</b>						
Ore .. ..	14,299	16,159	14,185	12,066	9,430	6,800
Unwrought .. ..	—	6	8	—	—	—
<b>Italy—</b>						
Ore .. ..	10,437	7,240	4,811	5,442	4,370	5,380
Unwrought (a) ..	286	18	4	89	112	189
Semi-manufactures (a)	20	1,281	184	74	400	52
Red and white lead ..	178	57	1,378	1,434	942	1,371
<b>Netherlands—</b>						
Unwrought .. ..	5,417	6,333	7,243	5,859	5,381	7,243
do. alloys .. ..	683	1,466	1,072	1,207	1,843	1,827
Scrap (a) .. ..	1,013	1,655	3,178	2,683	3,196	8,297
Semi-manufactures (a)	3,576	3,547	2,994	2,477	2,882	1,817
Red and white lead ..	1,811	1,416	1,520	2,038	1,664	1,502
<b>Norway—</b>						
Ore .. ..	3,400	4,364	3,386	5,070	3,378	7,338
Unwrought (a) ..	285	215	481	251	183	171
Semi-manufactures (a)	273	179	192	341	412	338
Scrap .. ..	1,677	2,050	2,356	2,369	2,692	3,297
<b>Portugal—</b>						
Unwrought (a) ..	47	26	8	5	11	13
Semi-manufactures (a)		50	20	22	37	52
Red and white lead ..		53	42	41	10	133
<b>Spain—</b>						
Ore .. ..	—	2,490	1,165	533	20	—
Unwrought (a) ..	29,387	37,762	35,795	28,791	11,444	1,879
Semi-manufactures (a)	1,036	3,100	39	152	42	32
<b>Sweden—</b>						
Ore .. ..	12,296	9,028	22,443	41,966	41,385	48,282
Unwrought .. ..	18,770	17,352	14,306	12,686	11,820	6,396
do. alloys .. ..	1,903	2,177	1,576	1,567	2,111	1,766
Scrap .. ..	157	231	167	52	170	238
Semi-manufactures (a)	6	154	196	233	27	19
Red and white lead, etc.	1,462	1,658	1,606	1,352	1,469	1,879

(a) Including alloys.

## EXPORTS OF LEAD, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Unwrought .. ..	83	—	6	1	15	854
Scrap .. ..	2,445	2,032	2,092	2,377	3,405	6,929
Semi-manufactures ..	1	83	78	101	105	83
U.S.S.R.—						
Unwrought .. ..	56,300	68,700	100,700	92,900	108,500	94,600
Yugoslavia—						
Unwrought .. ..	57,896	60,675	50,128	51,251	51,766	52,577
do. alloys .. ..	2,072	1,670	1,260	863	828	4,437
Semi-manufactures (a)	3,134	4,660	6,715	14,424	7,652	4,971
Red lead .. ..	154	307	245	411	695	736
Algeria—						
Ore .. ..	8,566	5,729	12,405	11,972	11,867	10,868
Unwrought (a) .. ..	39	51	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Scrap .. ..	2,485	3,692	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	5	14	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo (Republic of)—						
Ore .. ..	8,568	7,189	2,603	—	—	<i>n.a.</i>
Morocco—						
Ore .. ..	100,519	144,353	96,789	91,975	135,410	94,272
Unwrought .. ..	29,102	26,359	23,411	23,758	11,034	16,806
do. alloys .. ..	277	8	39	20	2,760	—
Scrap .. ..	—	86	32	—	—	20
South Africa—						
Unwrought .. ..	63	92	67	36	375	<i>n.a.</i>
Semi-manufactures ..	1	4	2	—	<i>n.a.</i>	<i>n.a.</i>
South West Africa—						
Complex concentrates (Pb content) .. ..	61,192	60,542	57,386	69,115	67,008	83,960
Lead-vanadium concentrates .. ..	4,612	7,716	8,296	7,594	10,510	10,548
Tunisia—						
Unwrought (a) .. ..	19,463	16,446	18,745	14,993	13,069	10,653
Scrap .. ..	284	457	415	329		
Greenland—						
Ore .. ..	10,654	10,602	12,567	2,290	—	—
Guatemala—						
Ore .. ..	2,070	8,901	15,139	2,929	1,392	902
Honduras—						
Ore and concentrates ..	7,632	5,407	7,847	8,438	9,743	10,223
Mexico—						
Ores and concentrates..	1,654	3,505	3,897	4,344	2,894	3,125
Unwrought—						
Refined .. ..	133,913	129,487	148,155	121,557	122,433	91,943
Base bullion .. ..	1,562	11,806	17,385	10,408	11,752	10,983
Antimonial .. ..	12,138	1,440	1,578	335	368	363
Semi-manufactures ..	—	—	—	—	—	375
Red and white lead ..	12,168	14,721	18,151	22,356	29,114	32,131

(a) Including alloys.

## EXPORTS OF LEAD, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Ore, mattes and base bullion ( <i>Pb content</i> ) ..	200	1,158	3,961	2,588	4	17
Unwrought ( <i>a</i> ) .. ..	2,460	1,756	1,904	1,882	972	9,470
Scrap .. ..	1,019	2,302	4,610	2,197	2,162	11,739
Semi-manufactures ( <i>a</i> ) ..	958	460	611	836	710	1,189
Red and white lead, etc.	2,838	1,891	2,056	1,714	<i>n.a.</i>	1,500
<b>Argentina—</b>						
Ore .. ..	—	—	—	—	266	309
Unwrought .. ..	—	—	—	1	2	—
<b>Bolivia—</b>						
Ore, etc. ( <i>Pb content</i> ) ..	21,429	20,985	19,998	18,184	19,622	16,950
Unwrought .. ..	223	46	4	—	—	1
<b>Chile—</b>						
Ore and concentrates ..	695	2,645	2,850	2,128	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Ore .. ..	952	1,107	—	—	—	216
<b>Ecuador—</b>						
Concentrates .. ..	692	979	410	<i>n.a.</i>	997	<i>n.a.</i>
<b>Peru—</b>						
Ore and concentrates ( <i>Pb content</i> ) ..	58,443	57,051	64,481	125,901	64,496	63,604
Unwrought ( <i>Pb content</i> ) ..	54,612	58,789	75,510	71,734	54,103	100,451
Refined .. ..	—	62	221	224	37	48
Unrefined .. ..	—	—	—	—	—	—
<b>Burma—</b>						
Ore .. ..	900	648	396	450	576	360
Unwrought .. ..	21,541	13,448	12,363	18,643	16,579	11,263
do. alloys .. ..	443	198	327	468	486	854
<b>Iran (<i>b</i>)—</b>						
Ore .. ..	23,875	12,298	20,938	30,045	28,048	43,590
<b>Japan—</b>						
Unwrought ( <i>a</i> ) .. ..	66	69	73	68	108	313
Semi-manufactures ( <i>a</i> ) ..	131	145	813	339	3,727	968
Red and white lead ..	19	13	18	( <i>c</i> ) 17	( <i>c</i> ) 4	( <i>c</i> ) 12
<b>Korea (South)—</b>						
Ore .. ..	1,721	1,805	1,596	1,420	4,903	10,817
<b>Philippine Republic—</b>						
Ores and concentrates ..	177	—	—	—	—	<i>n.a.</i>
<b>Thailand—</b>						
Ore .. ..	3,248	4,733	5,002	4,262	4,998	7,022
<b>Turkey—</b>						
Ore .. ..	3,199	2,323	2,313	2,411	5,008	<i>n.a.</i>

 (*a*) Including alloys.

 (*b*) Years ended March 20 following that stated.

 (*c*) Excluding white lead.

IMPORTS OF LEAD, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates (Pb content) (c) ..	<i>n.a.</i>	22,303	22,939	26,647	25,404	29,258
Unwrought (a) ..	175,242	208,820	179,865	180,282	179,622	189,767
Scrap (a) ..	2,098	2,671	886	2,135	1,593	4,173
Semi-manufactures (a)	216	507	475	203	232	202
Channel Islands—						
Unwrought and semi-manufactures (a) ..	119	131	150	139	78	1,262
Ghana—						
Unwrought (a) ..	277	236	52	40	18	3
Semi-manufactures (a)			291	235	383	36
Kenya—						
Unwrought (a) ..	82	52	80	119	104	94
Semi-manufactures (a)	12	13	10	17	7	10
Mauritius—						
Unwrought (a) ..	1	—	10	6	1	28
Semi-manufactures (a)	43	30	37	34	25	29
Nigeria—						
Unwrought and semi-manufactures (a) ..	537	595	505	1,179	414	1,123
Rhodesia (d)—						
Semi-manufactures (a)	100	129	106	67	84	728
Red and white lead, etc.	164	190	137	127	117	<i>n.a.</i>
Sierra Leone—						
Semi-manufactures (a)	13	32	92	45	36	30
Tanzania—						
Unwrought (a) ..	7	5	11	21	64	22
Semi-manufactures (a)	7	8	7	10	6	6
Uganda—						
Unwrought (a) ..	24	48	10	24	8	43
Semi-manufactures (a)	2	4	6	9	5	12
Barbados—						
Unwrought (a) ..	25	1	—	<i>n.a.</i>	4	10
Semi-manufactures (a)	55	152	51	34	80	63
Jamaica—						
Unwrought (a) ..	41	1	80	110	134	199
Semi-manufactures (a)	127	118	71	53	76	85
Trinidad and Tobago—						
Unwrought (a) ..	6	13	14	2	9	<i>n.a.</i>
Semi-manufactures (a)	46	96	39	46	119	<i>n.a.</i>
Red and white lead, etc.	31	23	16	13	9	<i>n.a.</i>
Canada—						
Unwrought ..	1,616	553	1,001	516	1,555	65
Scrap ..	221	137	83	41	49	<i>n.a.</i>
Semi-manufactures, etc.	117	40	56	61	87	<i>n.a.</i>
Red and white lead, etc.	1,346	1,090	1,008	921	1,122	1,357
British Guiana—						
Semi-manufactures (a)	—	22	29	19	<i>n.a.</i>	17
Ceylon—						
Unwrought (a) ..	97	62	100	156	428	243
Semi-manufactures (a)	33	(b) 1	59	91	4	34
Cyprus—						
Semi-manufactures (a)	54	33	125	164	63	81
Hong Kong—						
Unwrought (a) ..	336	228	310	515	259	346
Scrap ..	38	20	11	1	19	19
Semi-manufactures (a)	88	92	166	107	113	251

\*See footnote on p. 184 concerning the descriptions "unwrought" lead and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Excess of re-exports.

(c) Source: British Bureau of Non-Ferrous Metal Statistics.

(d) Figures for the years 1959 to 1963 relate to Rhodesia and Nyasaland.



## IMPORTS OF LEAD, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
India—						
Ore .. .. .	130	(b) 100	(b) 79	(b) 30	(b) 9	(b) 6
Unwrought .. .. .	23,034	(b) 23,694	(b) 27,781	(b) 33,088	(b) 35,955	(b) 32,514
do. alloys .. .. .	642	(b) 376	(b) 284	(b) 346	(b) 511	(b) 732
Semi-manufactures (a)	85	(b) 177	(b) 405	(b) 96	(b) 166	(b) 322
Litharge, red and white lead, etc. .. .. .	23	(b) 9	(b) 24	(b) 50	(b) 35	(b) 24
Malaya—						
Unwrought (a) .. .. .	296	454	670	324	290	309
Semi-manufactures (a)	73	151	156	570	615	543
Pakistan—						
Ore .. .. .	98	306	438	233	255	333
Unwrought (a) .. .. .	588	547	1,448	n.a.	1,126	6,063
Semi-manufactures (a)	35	104	248	n.a.	15	96
Litharge, red and white lead, etc. .. .. .	297	431	561	148	124	90
Sabah—						
Semi-manufactures (a)	19	23	25	24	n.a.	31
Australia (c)—						
Unwrought and semi-manufactures (a) .. .. .	6	10	2,395	4,296	2,283	235
Red and white lead, etc.	97	86	162	137	97	108
Fiji—						
Unwrought and semi-manufactures (a) .. .. .	10	32	47	78	80	89
New Zealand—						
Unwrought (a) .. .. .	3,347	4,337	5,215	4,379	} (c) 5,099	n.a.
Semi-manufactures (a)	4	6	6	111		(c) 1,156
Red and white lead, etc.	1,506	1,415	1,030	1,056		
Irish Republic—						
Unwrought (a) .. .. .	419	359	497	493	614	420
Semi-manufactures (a)	130	106	77	44	87	92
OTHER COUNTRIES						
Austria—						
Ore .. .. .	5,118	4,921	4,577	4,217	3,642	5,354
Unwrought (a) .. .. .	9,367	12,666	10,277	12,647	12,698	12,027
Scrap .. .. .	—	261	233	65	43	449
Semi-manufactures (a)	215	375	243	232	306	389
Belgium-Luxemburg E.U.—						
Ore .. .. .	151,180	137,252	152,380	149,660	123,621	100,008
Unwrought .. .. .	17,469	19,374	13,954	19,048	18,028	16,210
do. alloys .. .. .	365	853	169	754	670	773
Scrap .. .. .	1,109	1,185	4,599	3,522	3,988	17,441
Semi-manufactures (a)	417	795	508	632	812	823
Red and white lead, etc.	1,374	1,214	1,050	1,139	1,069	1,268
Denmark—						
Unwrought .. .. .	23,052	16,620	18,878	15,412	13,147	13,819
do. alloys .. .. .	949	307	107	308	581	1,199
Scrap .. .. .	4,813	4,972	3,692	3,789	3,631	4,574
Semi-manufactures (a)	100	210	294	625	871	794
Red and white lead .. .. .	1,838	1,985	1,988	1,637	1,540	1,485
Finland—						
Unwrought (a) .. .. .	10,116	14,395	10,904	10,655	15,254	10,853
Semi-manufactures (a)	1,009	833	1,275	969	685	643
Red and white lead, etc.	582	471	443	548	570	514

(a) Including alloys.

(b) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

## IMPORTS OF LEAD, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
France—						
Ore .. .. .	102,495	99,342	90,894	96,096	130,182	141,813
Unwrought .. ..	44,364	55,713	63,602	63,725	64,404	54,729
do. alloys .. ..	810	1,220	1,858	2,602	2,316	2,516
Scrap .. .. .	3,675	4,337	3,034	2,313	3,938	1,425
Semi-manufactures (a)	244	66	101	164	136	343
Red and white lead, etc.	1,613	1,978	2,110	2,511	2,764	2,172
Germany (Federal)—						
Ore .. .. .	140,707	151,751	144,394	142,462	107,473	107,333
Unwrought (a) .. ..	66,049	86,404	75,330	98,382	98,974	98,468
Scrap (a) .. .. .	1,050	1,028	1,243	1,265	1,226	10,184
Semi-manufactures (a)	98	198	470	1,214	1,815	2,115
Red and white lead, etc.	2,865	3,953	4,419	4,429	3,355	3,613
Greece—						
Unwrought .. ..	667	255	453	1,402	492	286
Hungary—						
Unwrought .. ..	8,185	10,540	11,020	10,286	10,951	12,231
Iceland—						
Unwrought .. ..	165	176	224	278	255	262
Semi-manufactures (a)	29	27	32	30	70	85
Red and white lead ..	28	24	21	11	19	14
Italy—						
Ore .. .. .	77	5,191	8,824	8,027	20,635	9,218
Unwrought (a) .. ..	16,128	24,560	38,608	47,120	38,350	35,764
Scrap .. .. .	2,842	7,242	13,194	20,298	21,044	15,941
Semi-manufactures (a)	67	894	2,862	4,636	3,752	3,559
Red and white lead ..	373	427	642	2,158	3,839	4,249
Netherlands—						
Ore .. .. .	4	3	1	3	2	—
Unwrought .. ..	35,557	33,291	41,707	39,738	31,846	35,948
do. alloys .. ..	9,300	11,932	13,853	10,007	8,086	12,270
Scrap (a) .. .. .	2,238	2,795	1,287	1,178	3,649	5,098
Semi-manufactures (a)	2,005	2,191	2,592	2,322	2,672	3,037
Red and white lead ..	5,494	6,014	5,952	6,545	4,029	4,414
Norway—						
Unwrought .. ..	8,177	8,606	8,454	7,990	9,348	8,017
do. alloys .. ..	1,378	1,479	1,224	1,381	1,692	2,129
Semi-manufactures (a)	848	1,014	1,083	1,334	868	1,096
Red and white lead ..	659	718	700	714	847	785
Poland—						
Unwrought .. ..	14,294	10,932	14,800	n.a.	13,352	20,532
Portugal—						
Unwrought (a) .. ..	5,429	5,708	6,593	6,385	7,784	8,909
Scrap .. .. .	56	27	37	47	44	94
Semi-manufactures (a)	75	73	12	4	10	26
Red and white lead, etc.	116	166	172	145	119	86
Sweden—						
Unwrought .. ..	9,384	9,474	8,688	11,782	6,957	6,382
do. alloys .. ..	802	1,405	1,264	893	1,133	680
Scrap .. .. .	142	375	325	307	584	409
Semi-manufactures (a)	2,066	2,068	1,619	2,333	2,038	2,160
Red and white lead ..	1,044	1,249	1,402	1,711	1,404	1,569
Switzerland—						
Unwrought .. ..	16,971	18,673	21,917	23,738	19,529	21,063
Semi-manufactures	570	414	683	677	560	439
Red and white lead ..	604	580	715	631	598	770
U.S.S.R.—						
Unwrought .. ..	39,100	39,100	38,900	25,700	38,200	49,100

(a) Including alloys.

## IMPORTS OF LEAD, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Ore .. .. .	35	54	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Unwrought .. .. .	3,862	3,940	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
do. alloys .. .. .	337	251	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Scrap .. .. .	—	20	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a)	658	739	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Red and white lead, etc.	147	197	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Semi-manufactures ..	13	8	59	59	74	85
Red and white lead ..	52	53	38	39	54	50
Congo Republic—						
Unwrought and scrap ..	58	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	108	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Unwrought and scrap ..	3,026	4,643	4,427	5,993	5,241	5,529
Semi-manufactures ..	3	57	40	37	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	822	718	678	1,757	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Unwrought (a) .. .. .	79	31	66	81	126	112
Semi-manufactures (a)	25	27	21	58	50	33
Red and white lead ..	16	17	11	18	25	17
Morocco—						
Semi-manufactures (a)	65	29	58	86	90	48
Red and white lead ..	84	117	152	160	110	105
Mozambique—						
Semi-manufactures (a)	96	150	132	35	109	120
Red and white lead ..	45	25	26	27	42	35
South Africa—						
Unwrought .. .. .	13,026	12,066	11,922	13,431	15,241	9,633
Semi-manufactures ..	117	22	27	75	48	<i>n.a.</i>
Red and white lead ..	149	154	106	89	80	<i>n.a.</i>
Sudan—						
Semi-manufactures ..	19	47	24	41	144	300
Tunisia—						
Ore .. .. .	1	3	3	1	8	6
Red and white lead, etc.	85	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Costa Rica—						
Unwrought (a) .. .. .	68	39	23	54	183	40
Cuba—						
Unwrought .. .. .	345	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures ..	479	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Unwrought .. .. .	12	11	9	7	9	10
United States—						
Ore, matte and flue dust (Pb content) .. .. .	121,898	122,592	122,196	118,821	120,040	114,345
Bullion and base bullion (Pb content) .. .. .	31	262	211	1,860	3,355	6,371
Unwrought (Pb content)	234,493	190,488	220,828	230,273	196,784	183,530
do. alloys (Pb content) .. .. .	7,831	4,846	6,405	7,626	3,966	4,988
Scrap (Pb content) ..	7,051	4,998	3,477	1,856	13,764	1,674
Semi-manufactures ..	3,221	2,549	2,540	2,032	2,169	2,890
Red and white lead, etc.	11,538	13,755	15,821	16,530	<i>n.a.</i>	19,085
Argentina—						
Unwrought .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	801	3,249	1
Brazil—						
Unwrought .. .. .	11,978	8,464	13,283	7,953	15,585	4,149
do. alloys .. .. .	38	112	28			
Red and white lead ..	636	612	1,008			
Chile—						
Unwrought .. .. .	1,200	687	296	724	<i>n.a.</i>	<i>n.a.</i>
Bars and sheets .. ..	342	43	5	182	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	260	152	151	196	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys.

## IMPORTS OF LEAD, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Colombia—						
Unwrought (a) ..	1,267	1,441	1,204	228	1,275	1,383
Semi-manufactures (a) ..	130	113	97	11	43	30
Red and white lead ..	356	403	514	767	998	1,102
Ecuador—						
Unwrought ..	139	<i>n.a.</i>	193	152	176	162
Red and white lead ..	101	<i>n.a.</i>	121	93	106	126
Peru—						
Semi-manufactures (a) ..	44	39	103	48	89	51
Red and white lead ..	73	62	52	40	47	12
Uruguay—						
Unwrought ..	2,280	1,866	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Red and white lead, etc.	277	298	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Unwrought ..	1,515	1,104	1,861	1,855	2,767	2,721
Semi-manufactures ..	<i>n.a.</i>	113	201	268	147	315
Red and white lead ..	1,611	1,525	1,496	1,575	1,140	656
Burma—						
Semi-manufactures (a) ..	152	56	36	62	5	5
Formosa—						
Unwrought (a) ..	1,218	1,423	1,205	1,873	2,481	2,443
Semi-manufactures (a) ..	37	30	50	24	84	142
Red and white lead, etc.	141	141	95	91	41	25
Indonesia—						
Unwrought and scrap ..	1,527	1,271	3,338	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a) ..	143	288	596	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Red and white lead ..	293	383	797	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (b)—						
Unwrought ..	35	22	43	38	59	367
Semi-manufactures ..	2	62	28	177	26	59
Red and white lead ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	376	506	692
Iraq—						
Semi-manufactures ..	70	170	46	24	58	<i>n.a.</i>
Israel—						
Unwrought ..	883	658	824	1,314	904	1,131
Scrap ..	<i>n.a.</i>	<i>n.a.</i>	201	311	14	65
Semi-manufactures ..	111	116	222	100	192	125
Red and white lead ..	<i>n.a.</i>	480	355	538	581	691
Japan—						
Ore ..	37,786	41,332	68,090	38,005	67,565	50,886
Unwrought ..	2,027	22,224	43,590	25,781	23,802	67,896
Scrap ..	1,128	1,062	856	781	873	1,409
Semi-manufactures (a) ..	11	1	3	4	13	—
Red and white lead ..	2	1	—	1	1	5
Jordan—						
Unwrought ..	<i>n.a.</i>	<i>n.a.</i>	189	275	281	<i>n.a.</i>
Lebanon—						
Unwrought ..	339	236	398	274	299	<i>n.a.</i>
Semi-manufactures (a) ..	190	159	273	75	43	<i>n.a.</i>
Philippine Republic—						
Unwrought (a) ..	1,203	1,312	1,638	3,577	1,911	<i>n.a.</i>
Semi-manufactures (a) ..			490	364	112	<i>n.a.</i>
Red and white lead ..			1,390	473	75	<i>n.a.</i>
Syria—						
Unwrought ..	282	255	664	<i>n.a.</i>	594	351
Red and white lead ..	111	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	112
Thailand—						
Unwrought (a) ..	1,026	701	643	1,023	674	816
Semi-manufactures (a) ..	96	103	66	48	64	100
Turkey—						
Unwrought (a) ..	2,328	1,690	549	2,103	2,303	<i>n.a.</i>
Semi-manufactures (a) ..	184	227	296	99	16	<i>n.a.</i>
Red and white lead ..	1,054	826	94	450	548	<i>n.a.</i>

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

**LITHIUM MINERALS**  
**PRODUCTION OF LITHIUM MINERALS**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia—						
Amblygonite .. ..	<i>n.a.</i>	—	77	31	46	—
Eucryptite .. ..	<i>n.a.</i>	1,191	1,678	773	1,039	720
Lepidolite .. ..	<i>n.a.</i>	13,826	21,462	18,967	14,426	20,485
Petalite .. ..	<i>n.a.</i>	56,818	24,730	19,379	26,738	32,544
Spodumene .. ..	<i>n.a.</i>	6,866	1,453	1,336	1,996	6,219
Uganda—						
Amblygonite .. ..	—	—	23	20	47	<i>n.a.</i>
Canada—						
Lithium minerals ( <i>Li<sub>2</sub>O content</i> ) .. ..	1,230	91	239	223	288	469
Australia—						
Petalite .. ..	—	1	96	84	390	} 260
Amblygonite .. ..	—	15	24	28	20	
Spodumene .. ..	—	—	5	24	22	
<b>OTHER COUNTRIES</b>						
Spain—						
Amblygonite .. ..	—	25	17	—	—	—
Mozambique—						
Lepidolite .. ..	89	<i>n.a.</i>	151	270	102	<i>n.a.</i>
Rwanda and Burundi—						
Amblygonite .. ..	2,648	2,294	1,655	321	362	290
South Africa—						
Amblygonite .. ..	9	154	232	1,128	372	160
South West Africa—						
Amblygonite .. ..	216	143	121	126	115	12
Lepidolite .. ..	1,936	868	1,266	1,590	77	363
Petalite .. ..	2,488	3,683	2,268	899	772	712
Argentina—						
Spodumene .. ..	167	137	396	443	1,147	<i>n.a.</i>
Brazil—						
Amblygonite ( <i>a</i> ) .. ..	527	49	—	—	—	—
Spodumene ( <i>a</i> ) .. ..	418	—	—	148	25	—
Surinam—						
Amblygonite ( <i>a</i> ) .. ..	—	—	424	738	507	<i>n.a.</i>

Lithium minerals are also produced in the United States and lithium chemicals recovered from Searles Lake brines in California.

(*a*) Exports.

## EXPORTS OF LITHIUM MINERALS

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia (a)— .. ..						
Lithium minerals .. ..	51,697	114,219	29,056	29,203	35,931	66,325
<b>OTHER COUNTRIES</b>						
Germany (Federal)— .. ..						
Lithium minerals .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	331	406	621
Mozambique— .. ..						
Lepidolite .. ..	—	<i>n.a.</i>	151	270	102	<i>n.a.</i>
Rwanda and Burundi— .. ..						
Amblygonite .. ..	2,943	1,476	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa— .. ..						
Lithium minerals .. ..	—	—	50	916	380	335
South West Africa— .. ..						
Amblygonite .. ..	117	—	68	130	176	—
Lepidolite .. ..	1,609	638	822	1,318	281	484
Petalite .. ..	1,261	1,753	2,104	310	681	1,028
Brazil— .. ..						
Amblygonite .. ..	527	49	—	—	—	—
Spodumene .. ..	418	—	—	148	25	—
Surinam— .. ..						
Amblygonite .. ..	—	—	424	738	507	<i>n.a.</i>

(a) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF LITHIUM MINERALS\*

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) .. ..	5,100	10,500	4,000	3,400	3,200	10,300
<b>OTHER COUNTRIES</b>						
France (a) .. ..	400	200	—	—	—	—
Germany (Federal) .. ..	7,730	10,093	9,814	10,307	9,809	14,701
Netherlands (a) .. ..	6,400	4,200	5,100	3,000	3,200	4,400
United States (a) (b) .. ..	38,900	92,000	18,000	19,000	19,000	32,000
Japan (a) .. ..	1,400	3,000	2,000	4,000	3,100	7,000

\*Imports of lithium minerals are not separately recorded in the trade returns of most importing countries.

(a) Figures represent exports to the country stated from the principal producing countries and are not necessarily complete.

(b) Official figures of United States imports for consumption, available from 1960 onwards, are as follows (long tons): 1960—45,624; 1961—23,954; 1962—27,419; 1963—20,056; 1964—24,123.

**MAGNESITE AND DOLOMITE**  
**PRODUCTION OF MAGNESITE AND DOLOMITE**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Dolomite, crude (a) ..	2,800,000	3,100,000	2,800,000	2,700,000	3,000,000	3,700,000
Kenya—						
Magnesite, crude ..	2,808	30	1,723	—	257	167
Rhodesia—						
Magnesite, crude ..	—	7,171	12,394	10,375	10,774	37,867
Dolomite .. ..	423	205	—	—	—	—
Tanzania—						
Magnesite, crude (c) ..	105	112	42	—	84	487
Canada—						
Magnesitic dolomite (b)	£1,132,435	£1,204,194	£1,079,395	£1,143,386	£1,138,999	£1,150,690
India—						
Magnesite, crude ..	155,472	153,862	206,431	209,526	230,861	204,451
Dolomite .. ..	335,982	639,417	709,186	886,311	1,068,300	499,358
Pakistan—						
Magnesite .. ..	396	434	160	300	864	607
Dolomite .. ..	n.a.	151	346	509	n.a.	n.a.
Australia—						
Magnesite, crude ..	60,586	62,166	98,795	62,191	56,946	32,828
Dolomite .. ..	160,084	190,868	191,624	180,697	214,339	227,383
New Zealand—						
Magnesite, crude ..	n.a.	795	581	635	781	603
Dolomite .. ..	3,165	3,390	3,550	5,748	4,387	9,164
<b>OTHER COUNTRIES</b>						
Austria—						
Magnesite—						
Crude .. ..	1,182,239	1,599,735	1,770,273	1,582,022	1,292,054	1,630,411
Caustic (d) ..	101,668	118,782	127,698	130,450	129,961	133,355
do. powder (d) ..	39,898	46,440	51,573	47,925	37,721	55,332
Dead-burned (d) ..	376,698	491,642	533,760	476,524	404,598	513,756
Bricks (d) .. ..	183,237	256,074	290,081	270,260	219,540	272,472
Belgium—						
Dolomite—						
Crude .. ..	378,080	443,210	481,940	576,760	681,420	894,140
Calcined .. ..	248,430	302,440	294,910	291,470	318,450	332,160
Bulgaria—						
Magnesite, crude (e) ..	147,000	147,000	147,000	n.a.	n.a.	n.a.
Finland—						
Dolomite .. ..	n.a.	n.a.	93,220	90,800	n.a.	n.a.
France—						
Dolomite, crude ..	686,241	754,843	757,558	832,941	935,076	1,102,505
Germany (Federal)—						
Dolomite, crude ..	n.a.	n.a.	n.a.	n.a.	n.a.	133,478
Greece—						
Magnesite—						
Crude .. ..	110,327	184,331	146,047	r 145,432	(e) 245,000	(e) 200,000
Caustic (d) .. ..	23,218	40,457	46,343	r 67,585	49,700	n.a.
Dead-burned (d) ..	21,599	25,826	23,059	r 28,872	41,648	n.a.
Hungary—						
Dolomite .. ..	274,980	330,189	447,889	423,966	424,981	n.a.
Italy—						
Magnesite, crude ..	6,752	5,879	6,677	8,281	6,707	6,209
Dolomite—						
Metallurgical ..	66,596	70,878	60,594	69,955	75,853	n.a.
Refractory, etc. ..	427,478	482,009	640,583	693,604	772,818	n.a.
Luxemburg—						
Dolomite, calcined ..	10,000	7,393	—	—	—	—

(a) Estimated.

(b) Including brucite, dead-burned magnesitic dolomite and serpentine.

(c) Exports.

(d) Derived from crude shown and not additional.

(e) United States Bureau of Mines' estimate.

## PRODUCTION OF MAGNESITE AND DOLOMITE (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Norway—						
Dolomite .. ..	154,144	208,882	209,839	213,811	251,175	275,000
Poland—						
Magnesite, crude .. ..	16,239	21,357	26,672	33,600	26,200	<i>n.a.</i>
Portugal—						
Dolomite .. ..	2,400	2,600	2,707	3,740	3,858	5,285
Spain—						
Magnesite .. ..	39,793	47,535	81,877	70,260	83,317	<i>n.a.</i>
Sweden—						
Dolomite—						
Crude .. ..	<i>r</i> 57,553	<i>r</i> 61,463	<i>r</i> 55,004	<i>r</i> 50,692	53,499	66,500
Calcined ( <i>d</i> ) .. ..	43,611	49,873	51,154	47,225	54,885	54,900
Yugoslavia—						
Magnesite, crude .. ..	240,939	247,869	268,752	367,465	405,453	489,564
South Africa—						
Magnesite, crude .. ..	52,574	59,637	60,475	91,386	96,704	83,431
Mexico—						
Dolomite .. ..	64,742	46,005	67,200	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States—						
Magnesite—						
Crude .. ..	530,631	445,114	538,979	439,706	471,121	<i>n.a.</i>
Caustic ( <i>b</i> ) ( <i>c</i> ) .. ..	48,297	58,978	71,493	77,508	120,426	143,000
Dead-burned ( <i>b</i> ) ( <i>c</i> )	462,447	451,706	534,794	514,038	636,370	750,000
Dolomite—						
Dead-burned ( <i>c</i> ) .. ..	1,774,792	1,740,411	1,770,321	1,658,427	1,740,137	1,935,288
Brazil—						
Magnesite .. ..	47,659	62,315	75,491	92,275	88,872	92,260
Dolomite .. ..	152,905	222,574	308,109	<i>r</i> 414,673	470,259	325,734
Colombia—						
Magnesite .. ..	<i>n.a.</i>	<i>n.a.</i>	100	100	250	217
Dolomite .. ..	<i>n.a.</i>	2,000	2,000	2,638	5,000	3,166
Peru—						
Dolomite .. ..	<i>n.a.</i>	696	870	963	<i>n.a.</i>	<i>n.a.</i>
Uruguay—						
Dolomitic limestone .. ..	927	975	11,145	692	26,383	26,512
Formosa—						
Dolomite .. ..	14,250	14,771	21,832	29,366	30,416	32,168
Iran ( <i>a</i> )—						
Magnesite .. ..	2,864	2,900	500	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Dolomite .. ..	1,309,430	1,675,402	1,844,771	1,768,000	1,723,000	1,809,000
Philippine Republic—						
Dolomite .. ..	—	12	7,137	4,916	5,009	5,138
Turkey—						
Magnesite .. ..	—	15	2,155	9,586	17,634	38,451
New Caledonia—						
Magnesite .. ..	2,969	—	—	1,157	12	991

Magnesite is known to have been produced in Czechoslovakia, U.S.S.R., Chile, Mexico, Korea and Manchuria. Dolomite is known to have been produced in other countries. Magnesia is extracted from sea-water in the United Kingdom.

(a) Years ended March 20 of year following that stated.

(b) Derived partly from crude shown and partly from other sources, e.g. sea-water, brucite, dolomite.

(c) Sold or used by producers.

(d) Derived partly from crude shown.



PRODUCTION OF MAGNESIUM

L 13 13

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	2,033	3,687	5,200	5,000	4,600	4,700
Canada .. .. .	5,448	6,508	6,817	7,871	7,951	8,054
<b>OTHER COUNTRIES</b>						
France .. .. .	1,730	2,109	2,042	2,087	1,715	973
Germany (Federal) (b) ..	500	300	400	500	500	500
Italy .. .. .	4,435	5,361	5,683	5,500	5,400	5,900
Norway .. .. .	9,435	10,154	14,302	14,352	17,795	24,521
U.S.S.R. (b) .. .. .	20,000	25,000	31,000	31,000	31,000	31,000
United States .. .. .	27,708	35,777	36,379	61,567	67,719	70,971
Japan .. .. .	1,539	2,110	2,212	2,054	2,401	2,891
<b>WORLD'S TOTAL*</b> ..	<b>73,000</b>	<b>91,000</b>	<b>104,000</b>	<b>130,000</b>	<b>139,000</b>	<b>150,000</b>

\*Excluding magnesium known to have been produced in China.

(a) Including re-melt alloys.

(b) "Metallgesellschaft" estimate.

## EXPORTS OF MAGNESITE, ETC.\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Magnesium and alloys..	2,649	2,152	1,807	2,013	(e) 2,967	(e) 2,324
Magnesium compounds	36,476	16,864	20,801	21,397	n.a.	n.a.
Rhodesia (f)—						
Crude and calcined ..	—	6,195	12,057	8,826	9,363	23,395
Dolomite .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	115
Tanzania—						
Crude .. .. .	105	112	42	—	84	487
Canada—						
Magnesium .. .. .	(£1,442,226)	(£1,118,531)	5,384	5,867	(£1,217,459)	(£1,311,446)
India—						
Crude and calcined ..	27,548	(c) 29,071	(c) 30,956	(c) 31,270	(c) 34,823	(c) 37,752
Chloride .. .. .	49	(c) 8	(c) 41	(c) 211	(c) 106	(c) —
Malaya—						
Crude .. .. .	—	493	—	59	63	614
Dolomite .. .. .	—	—	—	228	230	4
Australia (b)—						
Crude and calcined ..	32	53	240	2,629	318	731
Sulphate .. .. .	7	—	—	—	—	—
OTHER COUNTRIES						
Austria—						
Crude .. .. .	599	728	593	761	413	754
Caustic .. .. .	87,043	95,230	95,494	95,074	93,080	99,766
Dead-burned .. .. .	169,487	212,142	234,126	185,998	161,699	233,223
Bricks .. .. .	151,000	218,000	251,815	231,187	89,133	117,249
Dolomite .. .. .	5,500	12,969	15,654	15,234	18,358	33,241
Belgium-Luxemburg						
E.U.—						
Crude .. .. .	5,029	394	10	—	—	—
Calcined .. .. .	86	55	83	25	36	43
Carbonate .. .. .	12	4	—	—	4	—
Chloride .. .. .	2	1	3	1	1	—
Sulphate .. .. .	66	74	48	15	25	30
Dolomite, crude ..	164,206	184,212	163,686	212,206	271,599	313,567
do. ground .. .. .	30,824	(d)	(d)	(d)	(d)	(d)
do. calcined .. ..	132,482	150,174	164,296	166,637	169,707	175,390
Czechoslovakia .. ..	103,000	122,000	114,000	116,000	101,000	142,000
France—						
Crude and calcined ..	84	108	778	810	435	216
Magnesium metal (a) ..	51	59	93	62	92	148
Carbonate .. .. .	581	636	714	823	830	1,391
Chloride .. .. .	392	1,937	1,440	2,662	1,139	1,394
Oxide and hydroxide ..	567	819	934	1,589	1,404	1,491
Sulphate .. .. .	111	74	102	119	85	386
Dolomite, crude .. ..	8,742	12,326	15,347	17,085	18,725	21,108
do. calcined .. .. .	3,395	4,387	4,685	5,835	5,346	3,750
Germany (Federal)—						
Crude and calcined ..	3,685	2,143	4,135	2,484	3,858	8,132
Magnesium metal .. ..	200	698	607	231	427	900
Carbonate .. .. .	444	629	338	358	277	456
Chloride .. .. .	15,342	17,838	19,233	33,807	63,091	72,706
Oxide and hydroxide ..	694	874	938	1,104	1,574	1,874
Sulphate .. .. .	48,461	47,686	50,596	52,651	40,299	39,188
Dolomite .. .. .	89,385	67,118	69,658	83,540	56,597	72,729
Kieserite .. .. .	78,396	89,552	126,538	159,845	168,346	195,824
Germany (East)—						
Sulphate .. .. .	19,408	20,083	21,110	20,309	20,297	21,438

\* Magnesite unless otherwise stated.

(a) Including alloys and scrap.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

(d) Included with crude and calcined.

(e) Including scrap.

(f) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF MAGNESITE, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Greece—</b>						
Crude .. .. .	16,044	18,336	18,166	23,065	20,040	20,602
Calcined .. .. .	51,458	64,275	75,464	79,637	90,249	94,053
<b>Italy—</b>						
Crude .. .. .	7	90	103	101	19	20
Calcined .. .. .	22	133	74	99	88	57
Magnesium metal including alloyed ..	4,379	4,300	4,369	4,469	4,100	5,607
Carbonate .. .. .	136	155	106	127	138	147
Chloride .. .. .	6	22	22	16	10	16
Oxide .. .. .	161	294	317	253	290	348
Dolomite, crude .. r	2,104	2,128	2,285	2,415	11,344	1,518
do. calcined ..	2,749	5,849	7,694	8,725		
<b>Netherlands—</b>						
Crude .. .. .	369	628	722	775	802	1,073
Magnesium metal ..	n.a.	32	177	245	362	239
Calcined .. .. .	13,710	16,819	23,942	30,100	35,234	37,150
Chloride .. .. .	360	422	505	452	533	672
Sulphate .. .. .	964	836	889	374	716	425
<b>Norway—</b>						
Crude .. .. .	—	—	100	—	—	—
Magnesium metal ..	10,987	12,768	12,157	14,526	18,779	22,748
Dolomite, crude ..	37,876	43,053	45,782	58,834	65,095	76,303
<b>Poland—</b>						
Dolomite .. .. .	1,239	1,716	3,692	n.a.	2,226	2,426
<b>Spain—</b>						
Crude and calcined ..	n.a.	n.a.	14,715	7,733	17,571	28,620
Dolomite, crude ..	n.a.	n.a.	7,304	6,036	4,387	614
<b>Sweden—</b>						
Crude and calcined ..	—	10	291	196	193	156
Dolomite .. .. .	4,309	4,340	5,286	5,793	3,836	4,373
Bricks .. .. .	589	494	433	111	441	12
<b>U.S.S.R.—</b>						
Magnesium metal ..	1,000	1,300	1,800	1,900	2,100	2,800
<b>Yugoslavia—</b>						
Crude .. .. .	—	426	2,628	486	3,779	6,055
Ground and dead-burned Bricks .. .. .	57,046	62,262	55,718	61,787	84,285	119,744
Bricks .. .. .	7,922	10,114	10,347	13,651	11,533	25,904
<b>South Africa—</b>						
Crude and calcined ..	—	75	—	10	—	317
<b>Mexico—</b>						
Crude .. .. .	—	346	856	49	—	—
<b>United States—</b>						
Dead-burned .. .. .	77,008	82,310	109,501	64,166	69,312	70,821
Magnesium metal (a) ..	1,429	3,988	5,500	5,737	2,918	15,010
Brazil .. .. .	207	645	3,701	4,796	15,477	1,935
<b>Uruguay—</b>						
Dolomite, crude ..	n.a.	n.a.	—	14,724	10,472	13,717
<b>Japan—</b>						
Dolomite .. .. .	2,223	1,056	2,037	1,403	1,816	2,279
Magnesium metal ..	91	1	—	50	19	22
Carbonate .. .. .	955	1,288	2,109	2,438	3,334	2,448
Chloride and sulphate ..	889	316	346	(b) 57	(b) 145	(b) 136
<b>Turkey—</b>						
Carbonate .. .. .	n.a.	15	1,613	3,297	10,437	28,807

(a) Including alloys and scrap.

(b) Sulphate only.

## IMPORTS OF MAGNESITE, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude and calcined ..	19,128	94,652	151,454	46,833	37,378	85,728
Magnesium (c) ..	3,491	4,391	5,480	5,516	(d) 4,605	(d) 3,861
Chloride ..	6,097	7,636	5,012	4,930	3,974	6,826
Dolomite ..	n.a.	n.a.	n.a.	n.a.	10,051	12,061
Canada—						
Calcined and dead-burned ..	17,958	24,133	22,125	24,613	16,644	27,482
Magnesium metal do. alloys ..	n.a.	n.a.	n.a.	n.a.	n.a.	1,425
	n.a.	n.a.	n.a.	n.a.	n.a.	165
	(£101,495)	(£123,731)	(£150,252)	(£59,815)	(£60,178)	(£255,000)
Oxide ..	2,145	1,223	1,069	780	681	3,237
Carbonate ..						n.a.
Sulphate ..	2,430	2,173	2,314	2,505	3,001	n.a.
Other salts ..	1,996	1,162	1,674	1,889	10,581	n.a.
Bricks ..	(£162,590)	(£252,179)	(£173,117)	(£153,600)	(£71,261)	(£276,825)
Dolomite, calcined ..	n.a.	n.a.	n.a.	n.a.	n.a.	13,387
Trinidad and Tobago—						
Crude ..	12	50	49	39	31	n.a.
Hong Kong—						
Crude ..	256	158	73	109	99	270
India—						
Crude ..	120	(b) 4	(b) —	(b) —	(b) —	(b) —
Magnesium metal ..	43	(b) 76	(b) 85	(b) 147	(b) 270	(b) 157
Carbonate ..	1,119	(b) 1,206	(b) 782	(b) 676	(b) 439	(b) 550
Chloride ..	1	(b) 2	(b) 21	(b) —	(b) —	(b) —
Oxides ..	72	(b) 50	(b) 87	(b) 43	(b) 37	(b) 53
Other salts ..	46	(b) 37	(b) 22	(b) 26	(b) 69	(b) 34
Malaya—						
Crude ..	14	34	24	21	152	281
Dolomite ..	—	—	—	179	157	104
Pakistan—						
Chloride ..	3	47	131	32	130	140
Sulphate ..	215	428	129	12	n.a.	3
Other salts ..	355	179	n.a.	n.a.	248	41
Australia (a)—						
Crude and calcined ..	7,288	8,743	12,815	12,558	3,863	50,054
Magnesium metal and powder ..	97	90	148	125	203	489
Oxide ..	158	304	222	269	389	255
Carbonate ..	159	143	164	135	153	201
Chloride ..	332	—	—	—	—	—
Sulphate ..	202	248	—	—	—	218
New Zealand—						
Crude ..	88	26	46	302	(a) 146	n.a.
Sulphate ..	660	848	974	689	(a) 590	n.a.
Other salts ..	249	309	353	n.a.	(a) 1,414	n.a.
Irish Republic—						
Magnesium salts ..	449	344	349	378	42	5
<b>OTHER COUNTRIES</b>						
Austria—						
Crude ..	28	11	2,148	4,176	10,621	25,751
Magnesium metal ..	270	372	333	318	451	506
Chloride ..	2,023	2,052	1,840	2,481	1,764	1,685
Dolomite ..	2,012	2,250	2,246	1,982	2,470	3,084

\* Magnesite unless otherwise stated.

(a) Years ended June 30 of that stated.

(c) Including alloys.

(b) Years ended March 31 following that stated.

(d) Including scrap.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Belgium-Luxemburg</b>						
E.U.—						
Crude .. .. .	2,611	873	197	406	757	481
Calcined .. .. .	4,534	3,057	4,299	3,545	2,816	3,569
Bricks .. .. .	13,565	17,235	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Magnesium metal .. .. .	321	428	370	510	479	714
Carbonate .. .. .	330	225	243	249	261	284
Chloride .. .. .	1,389	1,761	382	458	646	668
Oxide and hydroxide .. .. .	390	519	407	455	642	734
Sulphate .. .. .	2,511	3,640	1,727	1,807	2,128	2,076
Dolomite, crude .. .. .	1,936	5,524	7,028	8,519	7,341	9,503
do. ground .. .. .	143	(b)	(b)	(b)	(b)	(b)
do. calcined .. .. .	4,437	6,541	5,863	5,292	5,527	6,874
<b>Denmark—</b>						
Crude .. .. .	2,071	2,513	2,419	2,506	3,315	3,756
Carbonate .. .. .	112	104	109	90	1,005	107
Chloride .. .. .	567	537	831	486	537	445
Sulphate .. .. .	1,149	1,409	1,474	1,754	2,210	4,760
Dolomite .. .. .	12,474	12,520	11,231	17,457	16,669	17,823
<b>Finland—</b>						
Crude and calcined .. .. .	753	906	1,140	1,862	1,884	1,546
Bricks .. .. .	1,999	2,920	2,896	3,875	3,574	3,960
Oxide .. .. .	156	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Carbonate .. .. .	139	87	105	88	60	63
Chloride .. .. .	370	222	411	214	222	263
Sulphate .. .. .	152	215	239	215	309	370
<b>France—</b>						
Crude .. .. .	3,212	4,553	3,660	4,456	3,163	1,689
Calcined .. .. .	17,944	20,131	23,232	23,729	22,714	33,114
Bricks .. .. .	25,953	29,686	<i>n.a.</i>	<i>n.a.</i>	29,477	32,540
Magnesium metal (a) .. .. .	134	467	456	1,176	1,847	2,622
Carbonate .. .. .	230	263	270	217	275	234
Chloride .. .. .	207	42	40	96	30	121
Oxide and hydroxide .. .. .	261	374	422	420	567	472
Sulphate .. .. .	2,649	2,371	2,103	2,765	2,621	1,974
Dolomite, crude .. .. .	16,819	18,157	29,999	47,669	49,733	50,063
do. calcined .. .. .	139,570	144,775	135,460	139,253	132,452	131,113
<b>Germany (Federal)—</b>						
Crude .. .. .	1,634	1,812	1,942	1,371	1,182	8,745
Caustic .. .. .	100,145	108,902	108,487	110,152	102,475	113,603
Dead-burned .. .. .	55,103	82,277	97,318	99,274	97,513	174,708
Magnesium metal (a) .. .. .	17,763	26,301	25,980	29,538	30,528	33,963
Carbonate .. .. .	295	429	291	210	223	783
Chloride .. .. .	12	4	—	33	92	15
Oxide and hydroxide .. .. .	507	1,043	2,061	3,170	4,007	2,361
Sulphate .. .. .	7	3	2	3	17	41
Dolomite .. .. .	18,108	23,298	103,213	59,155	117,379	116,361
<b>Hungary—</b>						
Dead-burned .. .. .	42,907	49,468	58,605	68,226	64,118	58,037
<b>Italy—</b>						
Crude .. .. .	3,136	8,069	11,328	14,913	12,413	15,282
Calcined .. .. .	16,219	27,160	41,434	32,005	26,054	29,363
Chloride .. .. .	3,001	3,352	3,399	3,917	4,259	4,204
Oxide .. .. .	154	173	205	271	379	307
Sulphate .. .. .	2,135	1,330	1,268	1,807	2,518	4,956
Dolomite .. .. .	354	649	963	2,132	1,065	1,070

(a) Including alloys and scrap.

(b) Included with crude and calcined.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Netherlands—</b>						
Crude .. ..	1,144	2,268	2,242	1,910	2,150	2,519
Calcined .. ..	15,357	22,629	31,488	34,188	37,580	48,778
Bricks .. ..	10,884	12,568	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Magnesium metal .. ..	175	189	154	309	387	485
Carbonate .. ..	508	533	441	455	457	6,576
Oxide and hydroxide .. ..	246	287	343	238	347	410
Sulphate .. ..	5,340	5,365	6,232	7,122	8,225	7,285
Chloride .. ..	1,882	2,092	2,264	2,386	2,593	2,688
Dolomite, crude .. ..	180,379	190,471	157,367	204,108	210,260	260,935
do. calcined .. ..	42,407	43,099	47,007	45,894	49,478	47,650
do. ground .. ..	68	(a)	(a)	(a)	(a)	(a)
Kieserite .. ..	17,654	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Norway—</b>						
Crude and calcined .. ..	383	2,948	4,864	7,547	7,221	7,643
Chloride .. ..	291	305	473	14,061	41,477	51,500
Sulphate .. ..	773	2,974	5,754	8,445	482	381
Dolomite .. ..	3,089	3,043	3,414	3,695	6,657	12,326
<b>Poland—</b>						
Calcined and caustic .. ..	62,600	59,200	78,200	<i>n.a.</i>	123,700	120,600
Magnesium metal .. ..	83	100	210	<i>n.a.</i>	422	276
Chloride .. ..	5,614	5,474	5,896	<i>n.a.</i>	7,860	5,867
<b>Portugal—</b>						
Crude and calcined .. ..	565	200	673	1,066	750	533
Carbonate .. ..	118	105	111	76	107	123
Chloride .. ..	116	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Oxide .. ..	512	508	271	29	18	73
Sulphate .. ..	1,344	1,581	1,141	1,240	1,586	1,728
<b>Spain—</b>						
Dolomite, crude .. ..	<i>n.a.</i>	<i>n.a.</i>	235	1,191	1,885	1,809
do. calcined .. ..	<i>n.a.</i>	<i>n.a.</i>	24	32	157	163
<b>Sweden—</b>						
Crude and calcined .. ..	1,385	2,397	5,369	4,417	6,722	9,204
Bricks .. ..	14,777	21,777	24,350	22,619	20,121	28,568
Magnesium metal .. ..	445	404	411	487	490	582
Carbonate .. ..	244	332	206	223	167	201
Chloride .. ..	1,647	1,609	1,243	1,243	1,482	1,154
Sulphate .. ..	1,515	1,924	2,443	2,302	4,512	11,976
Dolomite .. ..	9,683	11,600	22,303	24,488	20,043	31,187
<b>Switzerland—</b>						
Magnesium metal .. ..	<i>n.a.</i>	417	465	689	573	745
Calcined .. ..		2,699	3,467	3,933	3,557	4,242
Carbonate .. ..		186	205	184	126	283
Chloride .. ..	<i>n.a.</i>	4,448	4,991	5,596	5,547	5,729
Sulphate .. ..		1,291	1,327	1,632	923	641
Dolomite, calcined .. ..		7,198	7,854	8,094	7,777	8,870
<b>U.S.S.R.—</b>						
Crude .. ..	—	(b) 15,000	(b) 55,100	(b) 69,200	(b) 96,000	(b) 78,800
<b>Yugoslavia—</b>						
Bricks .. ..	66	134	5	10	2,015	—
Magnesium metal .. ..	179	292	574	153	269	487
<b>Algeria—</b>						
Calcined .. ..	5	8	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dolomite .. ..	2,126	2,489	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Congo Republic—</b>						
Oxide .. ..	1,037	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	262	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	30	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Magnesite and dolomite .. ..	1,454	6,309	3,663	4,551	4,587	623
Sulphate .. ..	785	494	197	696	<i>n.a.</i>	<i>n.a.</i>

(a) Included with crude and calcined.

(b) Magnesite "powder", mainly from North Korea.

## IMPORTS OF MAGNESITE, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Morocco—						
Chloride .. ..	4	46	3	204	346	262
Sulphate .. ..	35	92	147	123	227	168
South Africa—						
Carbonate .. ..	164	6,949	13,285	10,214	9,832	25,744
Chloride .. ..	241	179	184	125	174	n.a.
Sulphate .. ..	1,608	1,677	1,379	1,321	904	n.a.
Cuba—						
Oxide .. ..	28	n.a.	n.a.	n.a.	n.a.	n.a.
Carbonate .. ..	43	n.a.	n.a.	n.a.	n.a.	n.a.
Sulphate .. ..	512	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico—						
Crude .. ..	3,548	4,120	3,418	8,222	56	53
Magnesium metal .. ..	346	350	322	357	586	476
Oxide .. ..	704	605	1,535	1,139	1,187	1,011
Sulphate .. ..	197	173	286	263	370	289
United States—						
Crude .. ..	30	18	52	1,493	n.a.	2
Calcined .. ..	4,730	3,689	3,977	6,908	8,868	8,379
Dead-burned .. ..	134,199	102,346	46,437	87,283	77,348	53,657
Bricks .. ..	14,987	13,920	11,878	13,431	10,266	16,439
Magnesium metal, etc. .. ..	529	358	897	2,088	1,770	780
Oxide .. ..	244	238	221	163	83	113
Carbonate, precipitated .. ..	314	309	305	355	556	993
Chloride .. ..	848	1,048	903	1,316	596	671
Sulphate .. ..	11,027	9,037	8,956	8,301	7,628	8,526
do. calcined .. ..	28,500	24,255	44,803	n.a.	n.a.	n.a.
Kieserite .. ..	5,917	12,561	6,890	45,366	21,495	37,478
Argentina—						
Crude .. ..	316	1,124	2,549	2,718	2,367	4,712
Carbonate .. ..	852	346	370	347	368	536
Chloride .. ..	—	183	100	50	25	113
Oxide .. ..	2	12	9	31	23	44
Brazil—						
Magnesium metal .. ..	43	56	91	601	1,779	1,478
Carbonate .. ..	379	515	205	11	229	170
Chloride .. ..	107	43	61	140	58	64
Oxide .. ..	69	77	92	87	117	102
Sulphate .. ..	469	443	1,015	552	772	410
Chile—						
Crude .. ..	36	51	54	20	n.a.	n.a.
Calcined .. ..	1,952	2,628	2,308	3,579	n.a.	n.a.
Sulphate .. ..	122	2	4	—	n.a.	n.a.
Dolomite, crude .. ..	—	39	30,781	7,538	n.a.	n.a.
do. calcined .. ..	1,508	5,333	86,854	2,955	n.a.	n.a.
Colombia—						
Crude and calcined .. ..	386	25	48	19	36	47
Carbonate .. ..	15	14	114	14	14	9
Chloride .. ..	109	13	17	44	58	64
Oxide .. ..	44	45	118	121	159	127
Sulphate .. ..	446	297	513	338	600	296
Dolomite .. ..	1,947	4,527	4,607	2,605	4,724	4,524
Peru—						
Crude and calcined .. ..	1,019	21	906	1,172	941	990
Carbonate .. ..	31	28	34	41	46	55
Oxide .. ..	4	4	3	8	54	26
Hydroxide .. ..	35	45	49	16	27	73
Sulphate .. ..	153	121	153	301	67	128
Chloride .. ..	8	4	4	8	16	27
Venezuela—						
Crude .. ..	159	239	378	754	635	804
Sulphate .. ..	263	255	358	350	375	329

## IMPORTS OF MAGNESITE, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Iran (a)—						
Sulphate .. ..	<i>n.a.</i>	<i>n.a.</i>	167	260	256	319
Israel—						
Crude .. ..	<i>n.a.</i>	312	893	1,319	948	1,443
Japan—						
Crude .. ..	2,198	1,806	3,396	2,914	2,849	4,408
Dead-burned .. ..	110,555	97,491	90,320	67,062	20,234	19,220
Magnesium metal .. ..	—	—	6	3	488	917
Korea (South)—						
Crude .. ..	450	553	499	1,695	2,044	1,972
Philippine Republic—						
Crude and calcined .. ..	<i>n.a.</i>	<i>n.a.</i>	618	741	768	<i>n.a.</i>
Carbonate .. ..	255	170	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	239	188	<i>n.a.</i>	<i>n.a.</i>	180	<i>n.a.</i>
Dolomite .. ..	<i>n.a.</i>	<i>n.a.</i>	3,056	2,263	2,803	<i>n.a.</i>
Syria—						
Ground and calcined .. ..	54	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	56	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	40
Thailand—						
Chloride .. ..	55	54	59	66	41	67
Sulphate .. ..	344	95	344	321	393	677
Turkey—						
Carbonate .. ..	137	17	35	70	43	<i>n.a.</i>
Chloride .. ..	155	56	94	212	144	<i>n.a.</i>
Oxide .. ..	41	59	57	12	10	<i>n.a.</i>
Sulphate .. ..	215	292	141	535	422	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.



# MANGANESE

## PRODUCTION OF MANGANESE ORE (including Ferruginous Manganese Ore)

Long tons

Producing Country	Estimated Manganese Content							1964	1963	1962	1961	1960	1959	
	1959	1960	1961	1962	1963	1964	1964							
<b>COMMONWEALTH COUNTRIES</b>														
Bechuanaland ..	17,980	22,350	28,337	23,623	10,605	26,925	n.a.	251,000	n.a.	n.a.	207,000	262,000	n.a.	n.a.
Ghana ..	522,200	545,000	431,600	373,400	401,000	454,800	251,000	251,000	179,000	192,000	192,000	179,000	n.a.	218,000
Rhodesia ..	1,898	1,496	183	7,123	—	143	n.a.	24,900	n.a.	—	n.a.	n.a.	n.a.	n.a.
Zambia ..	53,837	52,945	r 52,247	r 56,636	34,694	37,410	24,900	25,500	27,000	18,400	25,000	27,000	18,400	20,200
British Guiana ..	—	r 122,726	r 212,126	r 271,103	140,473	116,881	—	52,000	114,000	59,000	89,000	52,000	114,000	49,000
India ..	1,159,351	1,179,832	1,210,597	1,206,204	1,083,395	1,242,973	500,000	500,000	500,000	450,000	500,000	500,000	450,000	520,000
Goa ..	108,072	105,294	98,027	86,368	192,000	95,000	40,000	40,000	30,000	64,000	35,000	30,000	64,000	32,000
Malaya ..	—	2,877	6,366	304	6,872	—	—	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pakistan ..	29	292	338	925	1,387	980	10	100	300	400	100	300	400	300
Australia ..	89,971	60,646	87,411	71,646	35,824	61,888	42,500	29,600	34,600	15,900	41,700	34,600	15,900	30,700
New Zealand ..	101	120	—	—	—	—	n.a.	n.a.	n.a.	—	—	n.a.	—	—
Papua ..	—	48	2	—	3	—	6,000	n.a.	—	n.a.	n.a.	—	—	—
Fiji ..	13,005	11,672	3,455	1,073	3,233	897	6,000	5,500	—	1,500	1,600	—	1,500	400
New Hebrides (b) ..	—	—	4,000	68,530	88,000	n.a.	—	—	—	22,000	1,000	—	22,000	n.a.
<b>TOTAL</b> ..	1,966,400	r2,105,300	r2,134,700	r2,166,900	1,997,000	2,200,000	50	—	—	—	—	—	—	—
<b>OTHER COUNTRIES</b>														
Austria ..	424	—	36,400	34,500	37,900	51,200	n.a.	20,000	n.a.	—	—	—	—	—
Bulgaria ..	25,589	24,600	99,000	82,000	84,000	83,000	n.a.	20,000	15,000	15,000	15,000	15,000	15,000	15,000
Czechoslovakia ..	154,000	152,000	892	1,340	1,285	1,257	407	235	300	280	197	300	280	277
France ..	1,853	1,068	—	—	—	—	14,000	12,000	5,000	6,000	11,000	5,000	6,000	13,000
Greece ..	35,000	30,723	27,853	r 13,480	14,633	a 29,600	14,000	14,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hungary ..	151,896	121,329	122,866	r 127,185	149,965	a) 127,900	14,400	14,600	13,100	13,300	14,500	13,100	13,300	14,100
Italy ..	51,357	48,715	48,389	r 43,719	44,525	47,028	2,889	3,074	4,750	3,201	4,685	4,750	3,201	2,616
Portugal ..	6,878	7,319	11,154	11,309	8,423	6,885	68,000	60,000	65,000	90,000	71,000	65,000	90,000	86,000
Roumania ..	194,000	172,000	203,000	186,000	256,000	a) 246,000	68,000	7,500	4,200	5,000	5,000	4,200	5,000	6,000
Spain ..	40,110	21,952	15,261	12,590	15,051	15,678	13,400	7,500	4,200	5,000	5,000	4,200	5,000	6,000
Sweden ..	10,303	8,523	16,399	3,266	7,201	5,800	1,824	1,278	572	1,210	2,641	572	1,210	1,000
U.S.S.R. ..	5,429,000	5,785,000	6,301,000	6,301,000	6,558,000	6,984,000	2,440,000	2,600,000	2,840,000	2,990,000	2,650,000	2,840,000	2,990,000	3,140,000
Yugoslavia ..	7,956	13,104	13,925	14,605	8,004	7,661	n.a.	10,500	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Angola ..	38,207	26,157	21,879	r 12,668	—	—	15,700	9,000	5,000	—	9,000	5,000	—	—

(a) United States Bureau of Mines' estimate.

(b) Production of ore as mined. Production of sintered ore (about 50% Mn) was as follows (long tons): 1962—19,517; 1963—25,015; 1964—59,312.

PRODUCTION OF MANGANESE ORE (cont.)

Long tons

Producing Country	Estimated Manganese Content											
	1959	1960	1961	1962	1963	1964	1960	1961	1962	1963	1964	
<b>OTHER COUNTRIES—(cont.)</b>												
Congo Republic ..	380,085	375,599	r311,246	r311,203	265,768	304,808	180,000	150,000	150,000	130,000	150,000	150,000
Egypt ..	125,062	271,648	274,049	182,749	47,883	322,831	85,000	80,000	55,000	15,000	95,000	95,000
Ethiopia ..	1,300	9,109	6,889	5,905	—	—	5,000	3,500	3,000	—	—	—
Gabon ..	—	—	—	200,034	626,533	933,326	—	—	102,000	320,000	476,000	476,000
Ivory Coast ..	—	60,600	122,770	105,274	136,867	134,407	29,000	56,000	51,000	66,000	65,000	65,000
Morocco ..	463,135	475,454	562,064	461,944	329,658	335,691	220,000	260,000	210,000	150,000	150,000	150,000
South Africa ..	954,645	1,175,118	1,395,294	1,441,606	1,336,420	1,444,512	354,000	540,000	r 567,800	558,600	600,000	600,000
South West Africa ..	44,145	60,214	44,906	—	—	—	21,200	21,600	—	—	—	—
Sudan ..	3,169	—	—	1,000	—	—	n.a.	—	n.a.	—	—	—
Costa Rica (a) ..	—	—	—	—	590	—	—	—	—	n.a.	—	—
Cuba (b) ..	15,597	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico ..	d 162,400	d 153,000	d 139,200	d 165,100	d 169,000	d 184,400	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United States (c) ..	350,963	152,803	146,191	194,360	357,848	208,734	51,991	32,191	33,621	47,084	34,707	34,707
Argentina ..	19,070	21,652	39,274	28,783	37,949	36,679	9,000	17,000	12,000	16,000	16,000	16,000
Bolivia (a) ..	—	—	47	r 260	—	—	—	—	n.a.	—	—	—
Brazil ..	1,016,652	983,383	1,000,301	1,152,199	1,234,579	1,330,428	443,000	450,000	518,000	556,000	599,000	599,000
Chile ..	38,164	45,173	31,260	42,480	45,746	20,045	20,000	14,000	19,000	21,000	9,000	9,000
Peru ..	2,503	1,477	3,463	6,610	408	433	1,100	1,600	3,000	200	200	200
Venezuela ..	3,013	—	—	—	—	—	—	—	—	—	—	—
Burma (b) ..	541	289	175	190	n.a.	—	200	70	80	n.a.	—	—
China (d) ..	980,000	1,180,000	790,000	790,000	980,000	980,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indonesia ..	42,118	10,739	13,090	4,875	1,699	(d) 500	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Iran (e) ..	2,600	7,600	2,067	1,969	(d) 1,000	(d) 2,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan ..	342,588	318,867	299,318	303,716	272,347	280,202	122,000	108,000	105,000	94,000	94,000	94,000
Korea (South) ..	443	1,361	1,355	986	4,089	4,244	500	500	400	1,600	1,700	1,700
Philippine Republic ..	34,254	17,106	18,737	11,750	7,545	7,879	7,500	8,300	5,200	3,400	3,500	3,500
Thailand ..	404	520	524	2,853	6,505	10,880	280	280	1,500	3,400	5,800	5,800
Turkey ..	35,126	27,778	30,000	20,912	6,204	19,970	11,000	12,000	9,000	3,000	9,000	9,000
TOTAL ..	11,200,000	11,800,000	11,700,000	12,300,000	13,100,000	14,200,000	—	—	—	—	—	—
WORLD'S TOTAL ..	13,200,000	13,900,000	13,800,000	14,500,000	15,100,000	16,400,000	—	—	—	—	—	—

Manganese ore is also produced in North Vietnam.

(a) Exports.

(b) Concentrates.

(c) Shipments.

(d) United States Bureau of Mines' estimate.

(e) Years ended March 20 following that stated.

## EXPORTS OF MANGANESE ORE, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Metal .. .. .	98	190	175	25	<i>n.a.</i>	<i>n.a.</i>
Spiegeleisen .. .. .	596	1,621	662	873	76 940	60 10,036
Ferro-manganese .. .. .						
Ghana—						
Ore .. .. .	526,653	546,715	385,073	476,379	387,866	486,667
Zambia ( <i>f</i> )—						
Ore .. .. .	47,589	40,525	41,577	45,138	42,874	26,546
Canada—						
Ferro-manganese .. .. .	172	651	212	121	9	2,999
British Guiana—						
Ore and concentrates .. .. .	—	76,765	187,383	230,162	( <i>d</i> ) 191,892	136,124
Cyprus—						
Ore and concentrates .. .. .	—	—	—	—	104	—
Hong Kong—						
Ore .. .. .	483	183	27	34	49	—
India—						
Ore .. .. .	913,741	( <i>b</i> ) 1,025,088	( <i>b</i> ) 789,148	( <i>b</i> ) 616,843	( <i>b</i> ) 634,422	( <i>b</i> ) 1,033,309
Ferruginous manganese ore .. .. .	56,388	( <i>b</i> ) 123,449	( <i>b</i> ) 160,168	( <i>b</i> ) 121,899	( <i>b</i> ) 304,902	( <i>b</i> ) 555,578
Ferro-manganese .. .. .	8,114	( <i>b</i> ) 47,073	( <i>b</i> ) 55,406	( <i>b</i> ) 12,093	( <i>b</i> ) 21,581	( <i>b</i> ) 86,233
Goa—						
Ore .. .. .	152,270	155,313	107,000	118,429	( <i>e</i> )	( <i>e</i> )
Malaya—						
Ore .. .. .	—	2,953	—	2,000	6,885	—
Australia ( <i>a</i> )—						
Ore .. .. .	17,432	52,598	46,976	87,361	25,054	27,157
Fiji—						
Ore .. .. .	20,630	1,788	2,265	10,335	10,182	761
New Hebrides—						
Concentrates—						
Unsintered .. .. .	—	—	—	—	—	4,630
Sintered .. .. .	—	—	—	14,188	22,791	64,703
Papua ( <i>a</i> )—						
Ore .. .. .	—	—	1,830	2	2	6
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Ore .. .. .	32	2,733	32	2,188	2,438	1,987
Ferro-manganese .. .. .	13,698	16,017	16,644	22,946	29,017	36,731
Ferro-silico-manganese .. .. .	355	4,935	7,260	7,743	4,912	<i>n.a.</i>
Spiegeleisen .. .. .	4,231	3,290	4,253	4,163	1,964	4,080
France—						
Ore ( <i>c</i> ) .. .. .	899	4,815	756	1,596	1,812	1,731
Metal .. .. .	42	108	29	20	199	1,027
Ferro-manganese .. .. .	98,939	132,693	156,294	152,040	147,755	192,878
Spiegeleisen .. .. .	8,041	12,036	14,142	17,332	12,733	15,821
Germany (Federal)—						
Ore .. .. .	5,078	5,014	6,477	5,885	6,600	7,197
Metal .. .. .	75	495	789	1,163	1,224	2,118
Ferro-manganese .. .. .	<i>n.a.</i>	<i>n.a.</i>	25,764	30,440	66,252	61,279
Spiegeleisen .. .. .	<i>n.a.</i>	<i>n.a.</i>	9,519	16,771	17,619	10,034
Greece—						
Ore .. .. .	29,302	30,395	27,189	7,657	509	13,179
Italy—						
Ore ( <i>c</i> ) .. .. .	28	262	547	634	726	668
Ferro-manganese .. .. .	4,005	3,123	2,352	1,276	2,008	7,466
Netherlands—						
Ore ( <i>c</i> ) .. .. .	8,240	5,190	5,562	5,590	6,983	8,452

(a) Years ended June 30 of that stated.

(c) Including manganiferous iron ore.

(b) Years ended March 31 following that stated.

(d) Provisional.

(e) With effect from April, 1963, figures included with those of India.

(f) Figures for the years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF MANGANESE ORE, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Norway—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	400	200	2,600	4,300
Ferro-manganese ..	61,938	50,497	47,360	45,844	59,499	72,177
Ferro-silico-manganese	67,411	80,466	84,891	70,570	83,022	105,999
Portugal—						
Ore .. .. .	5,047	4,321	1,976	866	6,048	8,326
Roumania—						
Ore .. .. .	76,900	65,500	73,600	71,000	70,900	72,700
Sweden—						
Ore .. .. .	1,086	717	743	484	1,290	581
Metal .. .. .	47	92	30	17	69	129
Ferro-manganese ..	2,693	1,650	2,540	2,537	4,281	2,913
Ferro-silico-manganese	226	25	15	25	20	1,004
U.S.S.R.—						
Ore .. .. .	963,500	957,600	881,800	947,800	970,400	963,500
do. (dioxide) ..	8,500	8,900	9,100	11,300	8,800	12,900
Ferro-manganese ..	49,700	50,000	50,800	54,800	56,000	58,700
Yugoslavia—						
Ferro-manganese ..	6,538	10,925	7,037	7,693	8,130	4,631
Silico-manganese ..	886	1,162	2,504	1,794	4,564	1,812
Angola—						
Ore .. .. .	38,752	33,546	21,828	9,375	2,869	9,484
Congo Republic—						
Ore .. .. .	297,837	(a) 300,000	(a) 300,000	(a) 250,000	(a) 350,000	(a) 325,000
Egypt—						
Ore .. .. .	158,993	205,846	235,969	157,095	120,830	179,566
Gabon—						
Ore .. .. .	—	—	—	91,108	594,139	867,823
Ivory Coast—						
Ore .. .. .	—	22,365	107,687	96,018	103,638	114,530
Morocco—						
Ore .. .. .	379,564	381,146	443,046	427,156	344,135	281,109
South Africa—						
Ore .. .. .	472,987	867,355	838,834	820,508	922,200	913,902
Metal .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,604	4,460	4,740
Ferro-manganese ..	<i>n.a.</i>	103,511	130,214	r 104,861	77,444	120,324
Sudan—						
Ore .. .. .	—	394	—	—	—	—
Costa Rica—						
Ore .. .. .	—	—	—	—	590	—
Cuba—						
Ore .. .. .	54,735	8,500	13,216	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Ore .. .. .	158,102	162,816	174,359	130,322	108,024	118,316
Mn content .. ..	75,720	70,686	58,872	61,060	53,085	53,749
United States—						
Ore .. .. .	5,091	4,588	6,722	7,717	7,407	12,896
Metal .. .. .	1,133	2,182	1,997	1,976	1,841	3,124
Ferro-manganese ..	845	670	419	3,673	605	3,485
Spiegeleisen .. ..	339	132	469	638	1,050	701
Bolivia—						
Ore .. .. .	—	—	47	r 260	—	—
Brazil—						
Ore .. .. .	899,776	852,636	857,784	747,913	827,431	819,763
Ferro-manganese ..	—	—	49	4,937	—	—
Chile—						
Ore .. .. .	23,858	20,735	7,511	9,723	<i>n.a.</i>	<i>n.a.</i>
Ferro-manganese ..	2,735	2,971	3,673	13,509	<i>n.a.</i>	<i>n.a.</i>
Silico-manganese ..	3,129	869	644	—	<i>n.a.</i>	<i>n.a.</i>
Peru—						
Ore .. .. .	1,022	—	913	6,858	694	831

(a) Estimated.

## EXPORTS OF MANGANESE ORE, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Venezuela—						
Ore .. .. .	<i>n.a.</i>	1	—	—	—	—
Indonesia—						
Ore .. .. .	31,832	24,400	4,200	6,517	<i>n.a.</i>	<i>n.a.</i>
Iran (a)—						
Ore .. .. .	5,062	5,708	1,250	246	11,950	26,431
Japan—						
Ore .. .. .	398	842	960	805	478	50
Ferro-manganese ..	33,269	38,914	14,249	21,091	14,158	8,724
Ferro-silico-manganese	9,633	2,684	772	6,463	3,701	427
Korea (South)—						
Ore .. .. .	709	198	492	—	—	541
Philippine Republic—						
Ore .. .. .	26,042	17,405	24,720	8,370	5,257	7,666
Thailand—						
Ore .. .. .	98	58	108	296	2,712	6,629
Turkey—						
Ore .. .. .	22,847	28,282	19,011	22,127	11,854	17,854

(a) Years ended March 20 following that stated.

## IMPORTS OF MANGANESE ORE, ETC.

Long tons.

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	342,839	528,856	470,929	342,390	305,196	524,393
Metal .. .. .	1,101	1,511	1,655	1,056	2,061	3,135
Ferro-manganese Spiegeleisen .. .. .	28,807	35,375	41,830	44,206	54,205 345	62,037 35
Silico-manganese .. .. .	22,685	29,185	26,497	28,056	27,297	35,837
Canada—						
Ore .. .. .	105,763	50,313	67,871	81,004	95,439	<i>n.a.</i>
<i>Mn content</i> .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	56,083
Ferro-manganese and spiegeleisen .. .. .	2,084	13,835	10,772	13,332	20,211	19,491
Silico-manganese .. .. .	2,669	2,112	1,940	2,434	2,102	1,557
Hong Kong—						
Ore .. .. .	468	53	56	35	49	406
India—						
Ore .. .. .	5,846	(c) 5,442	(c) 6,412	(c) 14,430	(c) 12,673	(c) 4,706
Ferro-manganese .. .. .	150	(c) 155	(c) 519	(c) 453	(c) 677	(c) 462
Malaya—						
Ore .. .. .	2,668	6,634	3,643	2,295	2,726	3,387
Australia (b)—						
Ore .. .. .	1,189	404	1,520	12,151	54,365	49,542
Metal .. .. .	76	96	78	177	208	346
Ferro-manganese .. .. .	3,650	18,634	36,026	31,300	6,364	11,672
OTHER COUNTRIES						
Austria—						
Ore .. .. .	6,115	65,414	55,408	14,018	681	621
Spiegeleisen .. .. .	493	1,728	1,698	2,255	2,331	2,654
Ferro-manganese .. .. .	5,818	9,473	8,679	8,481	9,407	11,784
Belgium-Luxemburg E.U.—						
Ore (a) .. .. .	146,434	219,132	268,274	205,208	219,683	266,806
Ferro-manganese .. .. .	55,300	58,558	52,644	56,141	60,318	74,556
Ferro-silico-manganese Spiegeleisen .. .. .	2,494 7,118	3,378 7,099	3,766 16,143	3,578 22,537	3,601 19,108	4,488 18,284
Czechoslovakia—						
Ore .. .. .	138,000	179,000	215,000	206,000	232,000	314,000
Denmark—						
Ore .. .. .	3,032	7,134	7,712	5,660	6,327	8,450
Ferro-manganese .. .. .	1,187	1,248	1,241	1,599	1,242	945
Ferro-silico-manganese Finland—	1,088	1,389	1,187	710	1,690	1,951
Ferro-manganese and spiegeleisen .. .. .	2,176	3,338	2,194	2,545	2,598	1,530
France—						
Ore (a) .. .. .	596,088	765,232	690,313	705,956	701,050	778,700
Metal .. .. .	—	45	315	302	953	603
Ferro-manganese .. .. .	4,665	6,333	7,276	7,626	9,963	10,098
Spiegeleisen .. .. .	10,786	7,317	2,151	2,022	2,658	2,046
Germany (Federal)—						
Ore .. .. .	312,140	350,870	500,742	440,778	639,156	679,792
do. (ferruginous) .. .. .	<i>n.a.</i>	<i>n.a.</i>	44,407	69,350	79,987	71,865
Metal .. .. .	1,312	1,892	1,577	1,638	1,452	2,711
Ferro-manganese .. .. .	<i>n.a.</i>	<i>n.a.</i>	81,005	78,794	70,203	88,867
Spiegeleisen .. .. .	<i>n.a.</i>	<i>n.a.</i>	15,223	14,930	13,697	16,002
Germany (East)—						
Ore (d) .. .. .	86,795	95,677	77,748	86,511	85,199	70,919
Hungary—						
Ferro-manganese .. .. .	6,672	6,649	7,621	10,485	11,208	11,651

(a) Including manganiferous iron ore.

(c) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

 (d) *Mn. content.*

— Canada  
Fe Mn alignment





## IMPORTS OF MANGANESE ORE, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Ore (a) .. .. .	72,323	136,729	136,582	101,760	165,732	104,178
Metal .. .. .	82	156	172	113	144	549
Spiegeleisen .. .. .	2,265	6,778	12,335	13,281	19,064	6,524
Ferro-manganese .. .. .	20,182	27,526	30,620	42,949	53,853	53,118
Ferro-silico-manganese .. .. .	1,767	1,991	2,913	2,670	5,535	3,203
<b>Netherlands—</b>						
Ore (a) .. .. .	75,110	47,271	83,177	36,650	12,723	16,561
Ferro-manganese .. .. .	8,806	12,807	14,210	8,297	12,009	16,649
Ferro-silico-manganese .. .. .	372	452	896	405	282	372
Spiegeleisen .. .. .	1,672	6,199	935	483	1,075	708
<b>Norway—</b>						
Ore .. .. .	214,651	303,505	225,348	279,620	229,759	354,317
<b>Poland—</b>						
Ore .. .. .	263,522	328,208	261,736	294,277	299,494	374,200
<b>Spain—</b>						
Ore .. .. .	50,171	37,497	66,369	60,762	100,754	147,304
Ferro-manganese .. .. .	629	140	1,421	1,397	1,483	1,610
<b>Sweden—</b>						
Ore .. .. .	79,490	54,006	86,962	56,894	76,133	56,085
Metal .. .. .	772	799	605	918	1,115	1,120
Ferro-manganese .. .. .	5,765	6,138	10,806	9,982	12,170	12,347
Spiegeleisen .. .. .	98	118	139	100	200	167
Ferro-silico-manganese .. .. .	1,287	2,559	3,279	3,583	7,277	6,214
<b>Yugoslavia—</b>						
Ore .. .. .	32,143	46,540	37,539	44,225	35,465	40,038
Metal .. .. .	—	—	92	41	17	98
Ferro-manganese .. .. .	359	575	253	265	334	362
<b>Algeria—</b>						
Ore .. .. .	31	30	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Mexico—</b>						
Ferro-manganese .. .. .	730	158	106	97	530	424
<b>United States—</b>						
Ore (over 35% Mn) .. .. .	1,676,843	2,033,009	1,917,136	1,764,840	2,133,500	2,700,211
Mn content .. .. .	792,572	966,395	920,591	842,553	1,003,669	1,277,171
Ore (10% to 35% Mn) .. .. .	7,013	2,400	5,500	6,536	7,373	9,862
Mn content .. .. .	2,162	817	1,763	2,101	<i>n.a.</i>	<i>n.a.</i>
Metal .. .. .	29	217	504	1,343	2,108	784
Ferro-manganese .. .. .	80,412	107,341	198,157	112,156	132,705	189,847
Mn content .. .. .	62,707	82,673	151,963	86,643	103,015	144,710
Silico-manganese .. .. .	—	—	—	—	—	—
Mn content .. .. .	11,156	8,970	12,027	15,315	12,883	6,133
<b>Argentina—</b>						
Ferro-manganese .. .. .	—	292	415	452	178	292
<b>Brazil—</b>						
Ferro-manganese .. .. .	819	45	171	44	58	24
<b>Chile—</b>						
Ferro-manganese .. .. .	—	1	3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Silico-manganese .. .. .	1	8	8	3	<i>n.a.</i>	<i>n.a.</i>
<b>Japan—</b>						
Ore .. .. .	274,188	238,172	362,774	316,740	361,922	550,123
Manganiferous iron ore .. .. .	50,132	61,265	134,594	169,237	96,698	68,851
<b>Turkey—</b>						
Ferro-manganese .. .. .	248	306	3,030	3,502	766	<i>n.a.</i>

(a) Including manganiferous iron ore.

**MERCURY**  
**PRODUCTION OF MERCURY**

Lb. avdp.

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	—	—	—	—	—	5,548
<b>OTHER COUNTRIES</b>						
Italy .. .. .	3,494,000	4,198,000	4,209,000	4,142,000	4,138,000	4,332,000
Roumania .. .. .	29,440	31,370	26,590	16,890	14,780	14,780
Spain .. .. .	3,927,689	4,056,099	3,891,355	4,012,668	4,328,536	5,696,700
U.S.S.R. (c) .. .. .	1,900,000	1,900,000	1,900,000	2,700,000	2,700,000	2,700,000
Yugoslavia .. .. .	1,010,000	1,070,000	1,210,000	1,240,000	1,200,000	1,320,000
Tunisia .. .. .	15,070	12,590	4,100	—	—	—
Mexico .. .. .	1,247,910	1,528,670	1,380,000	1,430,000	1,240,000	(c) 942,000
United States .. .. .	2,375,500	2,524,900	2,406,300	1,997,100	1,452,900	1,074,800
Bolivia (a) .. .. .	881	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chile .. .. .	152,500	218,560	114,700	60,131	46,623	20,310
Colombia .. .. .	7,200	11,320	14,525	—	—	265
Peru .. .. .	192,000	230,600	228,100	264,700	234,500	(c) 240,000
China (c) .. .. .	1,700,000	1,700,000	2,000,000	2,000,000	2,000,000	2,000,000
Japan .. .. .	1,230,000	2,553,000	1,930,860	1,250,000	1,450,000	827,000
Philippine Republic .. .. .	269,000	231,100	240,700	210,300	201,500	189,700
Turkey .. .. .	42,000	101,800	141,800	202,400	226,800	196,400
<b>WORLD'S TOTAL (b) ..</b>	<b>17,700,000</b>	<b>20,400,000</b>	<b>20,000,000</b>	<b>19,000,000</b>	<b>19,000,000</b>	<b>20,000,000</b>

Mercury is also produced in Czechoslovakia; an allowance has been made for this in the total.

(a) Exports.

(b) Estimated.

(c) United States Bureau of Mines' estimate.

## EXPORTS OF MERCURY, ETC.

Lb. avdp.

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Canada—						
Mercury .. ..	10,458	1,918	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Hong Kong—						
Mercury .. ..	4,090	2,715	9,920	16,133	1,151	1,341
Malaya—						
Mercury .. ..	2,543	3,104	915	1,444	724	84
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Mercury .. ..	23,100	17,400	18,300	63,100	27,778	22,046
Mercury compounds .. ..	3,700	—	200	<i>n.a.</i>	<i>n.a.</i>	25,794
Denmark—						
Mercury oxide .. ..	2,205	1,543	882	882	2,646	6,614
France—						
Mercury .. ..	10,800	22,300	24,700	18,000	24,251	11,023
Mercury compounds .. ..	11,200	14,800	16,300	4,000	8,818	13,228
Germany (Federal)—						
Mercury .. ..	34,200	996,900	467,400	78,500	57,982	102,515
Italy—						
Mercury .. ..	2,670,818	4,057,532	2,483,700	2,715,200	5,755,387	6,347,769
Mercury compounds .. ..	2,822	68,083	<i>n.a.</i>	<i>n.a.</i>	220	—
Netherlands—						
Mercury .. ..	40,000	1,074,000	463,000	40,000	8,818	15,432
Mercury oxide .. ..	<i>n.a.</i>	28,660	30,865	17,637	6,614	6,614
Portugal—						
Mercury .. ..	44	—	—	—	—	—
Spain—						
Mercury .. ..	3,269,470	3,998,964	3,654,583	3,487,713	3,733,598	5,376,789
Mercury compounds .. ..	101,329	224,228	259,455	285,106	394,003	111,567
Sweden—						
Mercury .. ..	<i>n.a.</i>	<i>n.a.</i>	13,000	7,000	6,600	20,000
Switzerland—						
Mercury .. ..	1,025	1,453	1,572	6,609	1,435	32,809
U.S.S.R.—						
Mercury .. ..	783,000	1,186,000	1,378,000	1,323,000	1,102,000	220,000
Yugoslavia—						
Mercury .. ..	380,260	520,899	735,916	724,452	800,928	824,348
Mercury compounds .. ..	144,334	460,001	301,509	381,483	199,018	181,855
Mexico—						
Mercury .. ..	1,587,465	1,720,776	1,462,837	1,651,791	1,433,005	1,017,819
United States—						
Mercury .. ..	48,652	27,166	21,626	17,053	14,212	195,689
Bolivia—						
Mercury .. ..	881	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chile—						
Mercury .. ..	202,038	207,316	183,171	80,826	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Mercury .. ..	1,984	—	9,193	—	—	—
Peru—						
Mercury .. ..	206,236	183,854	183,125	279,365	196,095	293,918
Japan—						
Mercury .. ..	11,460	2,873	1,554	1,786	3,492	58,956
Philippine Republic—						
Mercury .. ..	348,436	235,632	128,479	261,753	146,579	<i>n.a.</i>
Turkey—						
Mercury .. ..	52,600	143,300	162,000	166,000	208,462	245,480

## IMPORTS OF MERCURY, ETC.

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Mercury .. ..	1,578,819	1,592,576	1,418,269	1,136,261	1,575,810	1,689,576
Rhodesia (c)—						
Mercury .. ..	17,380	10,615	11,655	11,079	10,402	n.a.
Canada—						
Mercury .. ..	141,100	243,091	312,913	245,059	447,592	293,900
Mercury compounds ..	(£2,281)	(£2,542)	(£1,326)	(£1,284)	(£3,153)	n.a.
Hong Kong—						
Mercury .. ..	26,720	32,115	43,486	54,377	41,311	32,769
India—						
Mercury .. ..	134,752	(b) 284,354	(b) 273,373	(b) 477,625	(b) 398,545	(b) 407,540
Mercury compounds ..	37,334	(b) 17,603	(b) 17,633	(b) 47,329	(b) 26,579	(b) 38,287
Malaya—						
Mercury .. ..	2,945	2,873	3,112	3,778	4,615	9,866
Pakistan—						
Mercury .. ..	2,499	8,477	31,605	22,343	70,336	11,648
Australia (a)—						
Mercury .. ..	76,106	97,726	156,164	128,728	139,623	114,316
Mercury compounds ..	356,674	707,004	549,459	26,178	34,645	18,327
New Zealand—						
Mercury .. ..	10,906	10,545	5,804	8,360	(a) 11,445	n.a.
Mercury compounds ..	3,800	3,500	6,000	n.a.	n.a.	n.a.
OTHER COUNTRIES						
Austria—						
Mercury .. ..	35,100	102,100	103,600	61,300	52,690	29,321
Belgium-Luxemburg						
E.U.—						
Mercury .. ..	81,400	73,600	75,000	46,500	235,674	126,545
Mercury compounds ..	15,400	14,100	13,900	15,900	15,212	15,212
Denmark—						
Mercury .. ..	655,400	234,400	207,000	44,000	57,320	77,162
Mercury compounds ..	114,640	92,595	55,115	52,911	70,547	57,320
Finland—						
Mercury .. ..	150,468	92,594	55,000	62,000	57,320	33,069
France—						
Mercury .. ..	673,100	946,900	1,155,900	1,138,000	1,164,041	753,981
Mercury compounds ..	13,400	12,600	40,600	29,000	77,162	70,548
Germany (Federal)—						
Mercury .. ..	1,194,500	2,844,200	2,056,700	1,789,900	1,241,202	1,849,017
Greece—						
Mercury .. ..	2,125	1,843	2,584	6,598	7,919	1,828
Italy—						
Mercury .. ..	167,933	16,539	2,600	46,300	29,762	22,487
Mercury compounds ..	46,712	35,069	16,093	14,991	40,124	12,346
Netherlands—						
Mercury .. ..	163,000	1,162,000	578,000	110,000	138,891	152,119
Mercury compounds ..	60,000	126,000	121,000	126,000	132,277	143,300
Norway—						
Mercury .. ..	20,000	35,000	101,000	64,000	55,116	77,162
Poland—						
Mercury .. ..	293,400	420,400	403,200	n.a.	342,400	366,600
Portugal—						
Mercury .. ..	12,346	15,000	28,900	33,300	23,000	51,600
Mercury compounds ..	4,409	n.a.	4,600	4,400	4,900	5,700
Sweden—						
Mercury .. ..	194,000	159,000	196,000	282,000	308,647	138,891
Switzerland—						
Mercury .. ..	97,616	132,052	102,001	81,606	97,089	118,759
Yugoslavia—						
Mercury .. ..	n.a.	n.a.	37	n.a.	227,764	235,288
Mercury compounds ..	n.a.	n.a.	992	53	78,055	40,512

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Figures for years 1958 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF MERCURY, ETC. (cont.)

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Algeria—						
Mercury .. ..	6,800	9,000	n.a.	n.a.	n.a.	n.a.
Mercury compounds ..	200	200	n.a.	n.a.	n.a.	n.a.
Angola—						
Mercury .. ..	172	194	298	212	18,365	137
Mercury compounds ..	99	42	637	119	538	483
Congo Republic—						
Mercury .. ..	3,309	n.a.	n.a.	n.a.	n.a.	n.a.
Mercury compounds ..	152	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt—						
Mercury .. ..	11,912	9,916	322	38,638	n.a.	n.a.
Morocco—						
Mercury .. ..	697	840	1,528	2,405	7,994	580
Mozambique—						
Mercury .. ..	168	88	165	123	35	104
South Africa—						
Mercury .. ..	44,716	122,125	43,946	72,191	61,175	51,710
Sudan—						
Mercury .. ..	317	146	359	—	—	—
Tunisia—						
Mercury .. ..	397	400	747	1,499	48,998	661
Costa Rica—						
Mercury .. ..	n.a.	n.a.	n.a.	n.a.	3,968	n.a.
Cuba—						
Mercury .. ..	2,679	n.a.	n.a.	n.a.	n.a.	n.a.
Guatemala—						
Mercury .. ..	337	—	—	n.a.	n.a.	n.a.
United States—						
Mercury .. ..	2,290,715	1,481,076	935,813	2,395,216	3,277,576	3,127,629
Mercury compounds ..	40,302	114,305	90,700	46,368	14,899	8,625
Argentina—						
Mercury .. ..	127,163	36,654	13,532	24,332	38,116	216,113
Mercury compounds ..	1,625	2,930	1,453	3,840	4,810	6,920
Brazil—						
Mercury .. ..	58,180	84,146	192,089	101,071	255,134	228,231
Chile—						
Mercury .. ..	435	451	693	232	n.a.	n.a.
Mercury compounds ..	1,987	1,834	1,780	2,821	n.a.	n.a.
Colombia—						
Mercury .. ..	7,215	4,634	2,127	6,764	14,162	16,133
Mercury compounds ..	15,895	15,053	9,156	14,597	14,511	10,357
Peru—						
Mercury .. ..	915	562	1,512	n.a.	1,239	2,355
Mercury compounds ..	659	686	397	419	456	547
Uruguay—						
Mercury .. ..	90	551	n.a.	n.a.	n.a.	n.a.
Venezuela—						
Mercury .. ..	14,121	14,383	8,682	10,225	31,337	3,296
Mercury compounds ..	18,415	9,815	24,736	6,740	15,849	11,942
Formosa—						
Mercury .. ..	15,946	46,116	11,579	19,941	20,979	97,228
Indonesia—						
Mercury .. ..	9,129	8,278	3,691	n.a.	n.a.	n.a.
Iran (a)—						
Mercury .. ..	33	2,004	1,938	45,365	1,316	3,386
Japan—						
Mercury .. ..	1,032	825	700,025	1,570,328	1,961,444	3,849,145
Korea (South)—						
Mercury .. ..	22,000	22,000	37,000	55,000	848,780	2,169,348
Lebanon—						
Mercury .. ..	315	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Years ended March 20 of year following that stated.

## IMPORTS OF MERCURY, ETC. (cont.)

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Philippine Republic—						
Mercury .. .. .	295	888	9,405	276	606	n.a.
Thailand—						
Mercury .. .. .	1,411	4,645	17,170	1,179	2,427	7,068
Mercury compounds ..	985	915	2,304	2,434	2,663	3,777
Turkey—						
Mercury compounds ..	3,973	2,866	3,697	2,942	3,399	n.a.

**MICA**  
**PRODUCTION OF MICA**

Lb. avdp.

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Block and sheet .. .. .	21,908	1,244	222	2,293	1,760	—
Rhodesia—						
Crude .. .. .	—	752,000	102,300	172,888	225,819	156,355
Block and sheet .. .. .	1,220,000	90,000	64,011	33,136	58,452	74,910
Tanzania—						
Sheet .. .. .	120,000	180,000	190,000	210,000	235,000	} d 535,800
Waste .. .. .	190,000	—	—	—	—	
Uganda .. .. .	—	—	850	180	—	—
Zambia—						
Sheet .. .. .	248	530	—	—	—	3,305
Canada (a)—						
Rough mine-run or rifted .. .. .	8,641	118,407	73,541	72,187	12,021	—
Trimmed .. .. .	16,336	28,862	56,585	33,437	4,235	20,454
Splittings .. .. .	—	—	22,556	—	—	—
Sold for mechanical splitting .. .. .	23,250	27,900	24,577	26,400	—	68,100
Ground .. .. .	591,356	791,994	1,434,097	609,968	813,935	615,968
Scrap .. .. .	174,251	696,886	204,804	455,805	352,850	493,640
Ungraded .. .. .	—	38,556	—	6,237	—	—
By varieties—						
Phlogopite and biotite .. .. .	813,509	1,580,605	1,565,740	1,204,034	1,182,041	1,198,114
Muscovite and schist .. .. .	325	122,000	250,420	—	1,000	48
India(d)—						
Block .. .. .	6,306,400	c 5,036,165	c 4,676,619	c 4,274,029	c 3,896,919	c 4,149,430
Splittings .. .. .	15,998,800	c18,043,635	c18,479,395	c18,562,593	c17,408,950	c18,554,454
Ground and waste .. .. .	29,082,000	c39,484,982	c39,293,188	c52,112,644	c43,961,185	c26,226,650
Other unmanufactured .. .. .	160,900	(c) 39,787	(c) 35,382	(c) 404,958	(c) 216,734	(c) 218,890
Pakistan (e) .. .. .	—	—	—	—	2,000	9,000
Australia (b)—						
Crude .. .. .	170,000	649,600	185,920	—	—	—
Block .. .. .	44,665	9,500	—	—	—	—
Scrap .. .. .	7,000	—	—	—	15,680	—
<b>OTHER COUNTRIES</b>						
Austria .. .. .	220,000	317,000	194,000	33,000	—	—
France .. .. .	670,000	686,000	304,000	190,000	388,000	646,000
Germany (Federal) .. .. .	31,000	22,000	18,000	20,000	11,000	18,000
Italy .. .. .	22,000	66,000	22,000	n.a.	n.a.	n.a.
Norway—						
Crude .. .. .	11,500,000	5,700,000	7,700,000	—	—	—
Waste .. .. .	1,100,000	900,000	2,200,000	n.a.	—	—
Spain .. .. .	10,200	400	—	—	—	—
Sweden (a)—						
Ground .. .. .	328,000	348,000	110,000	130,000	44,000	n.a.
Yugoslavia .. .. .	4,000	4,000	r 4,000	r 4,000	77,000	77,000
Angola—						
Sheet .. .. .	20,258	r 26,910	3,571	—	—	—
Waste and splittings .. .. .	383,400	r 882,500	45,966	r —	—	—
Malagasy Republic—						
Phlogopite (block and splittings) .. .. .	2,193,000	2,227,000	2,224,000	2,961,000	2,120,000	1,500,000
Mozambique .. .. .	12,165	2,080	1,150	1,214	—	—
South Africa—						
Sheet .. .. .	492	1,724	1,341	2,608	} 4,680,000	6,868,000
Waste .. .. .	3,762,000	6,712,000	5,440,000	4,900,000		

(a) Sales.

(b) The following amounts of damourite were also produced (lb. avdp.): 1959—1,100,000; 1960—1,250,000; 1961—1,140,000; 1962—1,090,000; 1963—1,100,000; 1964—1,270,000.

(c) Years ended March 31 following that stated.

(d) Exports.

(e) West Pakistan.

PRODUCTION OF MICA (cont.)

Lb. avdp.

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
South West Africa ..	234,000	—	—	150,000	1,200,000	832,000
Sudan—						
Block .. .. .	} 882,000	—	—	—	—	—
Scrap .. .. .						
United States (a)—						
Sheet (uncut) ..	706,395	587,401	526,007	363,016	102,961	242,662
Scrap (b) .. ..	203,082,000	195,820,000	198,090,000	215,404,000	218,646,000	229,458,000
Argentina—						
Sheet .. .. .	110,000	110,000	120,000	110,000	75,000	241,191
Waste .. .. .	—	—	—	—	—	456,760
Brazil .. .. .	2,553,000	4,440,000	9,101,000	3,885,000	3,289,000	3,241,000
Uruguay .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	95,000	<i>n.a.</i>
Formosa .. .. .	45	—	—	—	—	—
<b>TOTAL*</b> .. ..	<b>282,000,000</b>	<b>284,800,000</b>	<b>291,000,000</b>	<b>307,000,000</b>	<b>298,000,000</b>	<b>295,000,000</b>

\* Excluding mica known to have been produced in Roumania, U.S.S.R. and China.

(a) Sold or used by producers.

(b) Including mica recovered from kaolin and mica schists.



EXPORTS OF MICA

Lb. avdp.

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Splittings .. .. .	} 2,964,000	4,435,000	5,652,000	6,279,000	7,728,000	9,538,000
Ground and waste .. .. .						
Kenya—						
Unmanufactured (a) .. .. .	8,400	6,000	—	500	1,800	—
Rhodesia (e)—						
Unmanufactured (a) .. .. .	986,423	313,417	122,378	33,327	139,877	777,053
Tanzania—						
Unmanufactured (a) .. .. .	309,000	180,400	197,100	218,600	241,100	535,800
Zambia—						
Block or sheet .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	5,760
Waste .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	960
Canada—						
Rough .. .. .	107,100	30,200	181,100	97,900	—	—
Trimmed block or sheet .. .. .	24,200	67,000	41,300	102,300	—	—
Ground .. .. .	46,000	24,000	—	—	—	—
Waste .. .. .	246,500	367,600	(d)	(d)	—	—
Hong Kong—						
Unmanufactured (a) .. .. .	14,700	1,200	2,600	—	2,000	—
Manufactured .. .. .	2,300	4,400	2,500	2,500	1,300	1,008
India—						
Block .. .. .	6,306,400	c 5,036,165	c 4,676,619	c 4,274,029	c 3,896,919	c 4,149,430
Splittings .. .. .	15,998,800	c18,043,635	c18,479,395	c18,562,593	c17,408,950	c18,554,454
Ground and waste .. .. .	29,082,000	c39,484,982	c39,293,188	c52,112,644	c43,961,185	c26,226,650
Other unmanufactured .. .. .	160,900	c 39,787	c 35,382	c 404,958	c 216,734	(c) 218,890
Manufactured .. .. .	479,054	c 377,577	c 449,194	c 175,113	c 459,205	(c) 534,921
Australia (b)—						
Unmanufactured .. .. .	33,818	86,332	98,096	57,344	60,397	68,418
Manufactured .. .. .	(£13,434)	(£13,738)	(£23,599)	(£12,858)	(£16,367)	(£23,813)
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured .. .. .	(a) 54,700	(a) 3,300	(a) 10,600	(a) 11,000	66,800	11,000
Manufactured .. .. .	11,700	31,300	28,200	40,800	17,000	24,000
Belgium-Luxemburg						
E.U.—						
Unmanufactured (a) .. .. .	161,000	49,200	55,600	45,000	19,600	50,900
Manufactured .. .. .	58,400	114,200	131,200	257,900	285,500	435,200
Denmark—						
Ground .. .. .	7,500	200	1,100	2,000	2,200	2,200
Manufactured .. .. .	15,900	3,600	900	2,000	—	1,100
Finland—						
Unmanufactured (a) .. .. .	—	<i>n.a.</i>	121,000	165,000	132,000	110,000
France—						
Unmanufactured (a) .. .. .	183,400	312,000	138,200	110,000	53,000	390,200
Ground .. .. .	298,900	303,100	224,000	254,000	<i>n.a.</i>	388,000
Manufactured .. .. .	316,800	480,800	504,400	518,000	615,100	716,500
Germany (Federal)—						
Unmanufactured (a) .. .. .	578,700	675,900	713,000	945,100	1,072,300	1,218,700
Manufactured .. .. .	169,500	213,400	241,000	220,700	187,600	277,300
Italy—						
Ground .. .. .	101,693	54,384	} 134,300	82,200	106,000	131,200
Waste .. .. .	16,535	44,092				
Manufactured .. .. .	32,439	33,283	32,400	48,900	52,700	87,300
Netherlands—						
Unmanufactured .. .. .	194,000	229,000	117,000	247,000	346,000	392,000
Manufactured .. .. .	4,400	6,600	13,200	15,400	24,300	—
Norway—						
Unmanufactured .. .. .	5,176,000	5,553,000	6,437,000	6,446,000	7,917,000	8,768,000
Waste .. .. .	—	134,500	26,000	214,000	—	71,000

(a) Including waste.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

(d) Included with "Rough".

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF MICA (cont.)

Lb. avdp.

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sweden—						
Unmanufactured ..	37,000	2,000	4,000	18,000	13,000	20,000
Switzerland—						
Unmanufactured (a) ..	<i>n.a.</i>	13,913	54,057	44,509	45,102	25,904
Manufactured ..	<i>n.a.</i>	357,603	458,815	528,302	367,881	434,456
U.S.S.R.—						
Unmanufactured ..	373,000	22,000	4,000	—	15,000	7,000
Yugoslavia—						
Waste .. .. .	252,932	35,693	70,394	—	—	—
Angola—						
Unmanufactured ..	20,020	17,472	11,720	<i>n.a.</i>	} 5,732	—
Waste .. .. .	2,486,371	1,316,779	3,660	<i>n.a.</i>		
Egypt—						
Unmanufactured ..	136,025	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Unmanufactured ..	2,006,716	2,192,431	2,715,173	2,356,741	1,856,881	2,125,805
Mozambique—						
Unmanufactured ..	9,623	3,014	2,923	1,214	—	—
South Africa—						
Unmanufactured (a) ..	2,256,000	3,166,000	6,756,000	5,312,000	4,704,000	5,076,000
Mexico—						
Unmanufactured ..	31,667	26,636	33,669	16,405	—	—
United States—						
Unmanufactured ..	1,072,894	701,926	334,211	430,856	594,427	542,516
Ground .. .. .	8,915,109	7,077,245	7,074,850	7,427,420	7,244,428	8,263,497
Manufactured ..	216,040	243,354	190,320	197,441	204,246	281,131
Argentina—						
Unmanufactured ..	404,061	396,722	727,459	650,088	1,067,716	2,011,037
Brazil—						
Unmanufactured ..	1,742,201	1,595,944	1,969,263	1,944,902	2,759,680	3,837,220
Manufactured ..	51,471	59,869	51,099	60,197	33,600	22,540
Japan—						
Unmanufactured (a) ..	13,000	57,000	692,000	40,000	33,000	126,000
Manufactured ..	37,232	54,132	56,780	88,851	33,788	32,952

(a) Including waste.

IMPORTS OF MICA

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Block .. .. .	1,033,000	858,000	856,000	473,000	677,000	867,000
Splittings .. .. .	1,541,000	2,910,000	2,999,000	1,693,000	2,556,000	2,589,000
Ground and waste .. .. .	6,933,000	14,531,000	11,872,000	10,385,000	21,726,000	10,940,000
Manufactured .. .. .	n.a.	n.a.	n.a.	n.a.	81,000	164,000
Kenya—						
Unmanufactured (a) .. .. .	7,500	20,100	35,300	15,500	29,400	20,200
Mauritius—						
Unmanufactured .. .. .	9	31	4	351	—	—
Manufactured .. .. .	5,016	8,962	981	7	271	—
Tanzania—						
Unmanufactured (a) .. .. .	81,800	75,400	13,200	24,500	16,700	8,800
Zambia—						
Block or sheet .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	42,540
Canada—						
Unmanufactured .. .. .	1,340,400	1,838,800	1,475,800	2,296,300	d 4,451,387	d 5,884,000
Manufactured .. .. .	(£156,720)	(£116,582)	(£126,259)	(£146,920)	d(£167,443)	d(£246,135)
Jamaica—						
Unmanufactured .. .. .	125,579	78,801	118,046	187,889	142,779	203,120
Manufactured .. .. .	548	192	473	147	842	270
Trinidad and Tobago—						
Unmanufactured (a) .. .. .	55,000	66,000	—	2,500	16,500	n.a.
Manufactured .. .. .	488	—	125	165	245	n.a.
Hong Kong—						
Unmanufactured (a) .. .. .	130,400	11,000	19,000	9,000	8,700	4,368
Manufactured .. .. .	11,200	1,700	4,100	14,800	12,300	22,400
India—						
Unmanufactured .. .. .	560	30,483	48,828	8,800	—	—
Manufactured .. .. .	5,719	8,951	423	2,200	4,400	—
Malaya—						
Manufactured .. .. .	2,341	3,144	2,366	7,558	21,625	2,968
Sarawak—						
Unmanufactured (a) .. .. .	(c) 2,000	(c) 4,000	4,000	—	—	n.a.
Australia (b)—						
Block or sheet .. .. .	21,215	26,772	43,859	15,150	40,393	74,571
Splittings .. .. .	130,356	228,914	237,818	144,714	178,034	246,699
Ground .. .. .	204,008	335,482	394,876	310,592	590,616	567,760
Waste .. .. .	543,656	1,818,880	531,280	663,261	575,472	718,587
Manufactured .. .. .	(£8,471)	(£4,267)	(£15,054)	(£8,583)	(£5,828)	(£6,094)
New Zealand—						
Unmanufactured .. .. .	(£NZ17,898)	(£NZ26,766)	(£NZ23,910)	} £NZ12,407	b£NZ9,542	n.a.
Waste .. .. .	(£NZ 2,457)	(£NZ 1,077)	(£NZ 4,094)			
<b>OTHER COUNTRIES</b>						
Austria—						
Unmanufactured (a) .. .. .	564,600	424,200	436,500	515,700	817,700	744,900
Manufactured .. .. .	43,400	49,600	74,500	56,000	45,000	63,000
Belgium-Luxemburg						
E.U.—						
Unmanufactured (a) .. .. .	2,231,300	1,694,700	1,568,400	1,965,400	1,675,300	2,330,300
Manufactured .. .. .	46,300	83,800	70,800	89,100	72,500	109,100
Denmark—						
Unmanufactured .. .. .	22,300	48,700	12,300	13,000	26,500	8,800
Ground .. .. .	1,509,100	234,400	338,000	245,000	482,800	412,300
Manufactured .. .. .	92,600	150,600	123,500	152,000	108,000	128,000
Finland—						
Unmanufactured (a) .. .. .	—	n.a.	574,298	686,709	1,091,337	801,400
Manufactured .. .. .	41,337	78,600	57,000	62,000	59,500	53,000
France—						
Unmanufactured (a) .. .. .	2,491,200	4,437,900	5,193,200	4,409,000	4,334,300	8,474,600
Ground .. .. .	1,962,300	2,166,500	2,587,600	2,919,000	3,661,900	3,785,300
Manufactured .. .. .	32,800	28,200	58,000	88,000	68,300	94,800

(a) Including waste.

(b) Years ended June 30 of that stated.

(c) Excess of re-exports.

(d) Owing to reclassification not strictly comparable with earlier years.

## IMPORTS OF MICA (cont.)

Lb. advp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Germany (Federal)—						
Unmanufactured (a) ..	8,921,000	11,559,100	10,260,300	9,882,700	9,886,800	14,050,500
Manufactured ..	195,300	286,800	229,700	181,200	237,400	318,800
Greece—						
Unmanufactured ..	8,459	36,471	24,341	63,160	50,797	62,576
Italy—						
Unmanufactured ..	1,004,263	3,284,411	2,656,800	3,670,000	1,475,300	1,142,200
Ground ..	1,225,045	1,556,761	} 3,355,900	4,481,000	2,568,400	2,933,700
Waste ..	4,068,461	6,245,234				
Manufactured ..	404,112	630,725	788,800	533,700	283,000	219,600
Netherlands—						
Unmanufactured (a) ..	1,329,000	1,052,000	1,257,000	1,565,000	1,389,000	1,748,000
Manufactured ..	119,000	128,000	137,000	123,000	126,000	4,000
Norway—						
Unmanufactured ..	37,000	42,000	791,000	55,000	71,000	754,000
Waste ..	4,833,000	7,613,000	5,767,000	9,231,000	7,520,000	7,416,000
Manufactured ..	66,000	64,000	71,000	368,000	88,000	77,000
Poland—						
Unmanufactured ..	769,600	916,900	1,322,300	n.a.	1,351,200	2,100,800
Portugal—						
Unmanufactured ..	172,448	203,000	226,600	284,400	205,500	289,500
Manufactured ..	10,615	4,000	11,900	15,000	15,200	16,800
Spain ..	271,052	287,816	409,284	838,257	1,467,831	1,037,292
Sweden—						
Unmanufactured (a) ..	1,720,000	2,540,000	2,648,000	2,496,000	2,544,000	2,324,000
Manufactured ..	53,000	51,000	71,000	93,000	90,000	108,000
Switzerland—						
Unmanufactured (a) ..	n.a.	1,578,267	1,773,683	2,042,483	2,027,829	1,519,957
Manufactured ..	n.a.	143,140	190,687	228,820	130,218	265,756
U.S.S.R.—						
Unmanufactured ..	2,621,000	2,441,000	1,404,000	730,000	441,000	529,000
Yugoslavia—						
Unmanufactured ..	11,830	15,677	—	13,227	50,521	—
Manufactured ..	3,849	2,423	20,682	21,314	73,921	101,911
Algeria—						
Unmanufactured (a) ..	70,100	1,100	n.a.	n.a.	n.a.	n.a.
Ground ..	261,000	154,100	n.a.	n.a.	n.a.	n.a.
Manufactured ..	5,700	7,500	n.a.	n.a.	n.a.	n.a.
Congo Republic—						
Unmanufactured ..	2,154	n.a.	n.a.	n.a.	n.a.	n.a.
Manufactured ..	2,088	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt—						
Unmanufactured ..	371,576	2,204	55,676	15,926	n.a.	n.a.
Manufactured ..	5,959	13,946	10,143	3,865	n.a.	n.a.
Malagasy Republic—						
Unmanufactured ..	15,276	5,481	25,353	17,637	1,653	4,411
Morocco—						
Unmanufactured (a) ..	2,204	2,205	—	—	—	—
Ground ..	—	500	3,000	2,425	7,055	3,300
Manufactured ..	2,718	2,427	2,659	2,383	2,077	2,354
South Africa—						
Mica and micante sheets	31,364	46,623	60,910	64,146	89,791	n.a.
Sudan—						
Unmanufactured ..	n.a.	n.a.	n.a.	n.a.	16,199	11,000
Manufactured ..	n.a.	n.a.	n.a.	n.a.	35,713	9,004
Tunisia—						
Unmanufactured ..	} 4	110	15	11,023	14,980	37,593
Ground ..						
Manufactured ..						
Manufactured ..	700	1,300	6,600	1,700	1,900	1,000
Guatemala—						
Unmanufactured ..	7,520	26,762	6,931	7,857	14,145	17,379
Manufactured ..	853	897	22	18	42	227

(a) Including waste.

## IMPORTS OF MICA (cont.)

Lb. avdp.

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Mexico—						
Unmanufactured ..	98,703	21,231	91,558	201,474	177,126	124,035
Waste .. .. .	484,724	248,318	309,077	417,604	263,946	77,329
United States—						
Unmanufactured ..	3,220,412	1,088,021	852,648	1,110,739	1,133,521	942,547
Ground .. .. .	46,049	46,000	23,000	69,000	31,000	23,000
Waste .. .. .	9,287,998	12,480,715	6,047,586	8,916,421	16,075,434	5,465,748
Films and splittings ..	9,866,427	8,256,530	7,457,035	10,460,437	8,442,887	9,830,594
Other manufactures ..	171,039	231,993	164,179	276,196	231,283	244,495
Argentina .. .. .	342	6,766	11,054	4,031	28,590	42,443
Bolivia .. .. .	<i>n.a.</i>	21,513	37	265	31,200	18
Brazil—						
Unmanufactured ..	—	119	60	2,244	661	500
Manufactured .. ..	8,649	11,711	7,247	11,188	58,784	14,654
Chile—						
Unmanufactured ..	9,886	11,813	51,399	64,146	<i>n.a.</i>	<i>n.a.</i>
Manufactured .. ..	15,322	13,327	14,808	6,942	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Unmanufactured ..	198,696	300,910	391,331	425,915	300,587	259,841
Manufactured .. ..	9,703	14,059	16,435	12,807	22,306	21,272
Peru—						
Ground and waste ..	167,296	140,000	210,283	205,594	225,046	285,307
Venezuela—						
Unmanufactured ..	855,457	578,879	905,387	733,473	312,657	657,489
Manufactured .. ..	15,346	4,301	40,812	21,308	4,376	7,553
Formosa—						
Unmanufactured ..	2,751	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Indonesia—						
Manufactured .. ..	51,456	8,490	21,213	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (a)—						
Unmanufactured ..	<i>n.a.</i>	<i>n.a.</i>	679,158	251,911	835,420	453,650
Manufactured .. ..	<i>n.a.</i>	<i>n.a.</i>	4,879	11,764	11,508	64,137
Japan—						
Unmanufactured ..	1,881,000	1,812,000	4,057,000	} 3,851,000	3,126,000	9,301,000
Ground .. .. .	1,978,000	128,000	207,000			
Waste .. .. .	4,074,000	5,130,000	5,456,000			
Manufactured .. ..	137	79	1,208	2,185	1,468	840
Lebanon—						
Unmanufactured ..	10,803	13,228	6,523	8,234	21,566	<i>n.a.</i>
Philippine Republic—						
Unmanufactured ..	81,721	42,099	149,264	84,957	109,989	<i>n.a.</i>
Thailand—						
Unmanufactured ..	7	73	5,364	1,107	4,273	10,911
Manufactured .. ..	1,614	2,544	1,325	3,565	7,824	4,969
Turkey—						
Unmanufactured ..	19,590	75	7	25,026	39,979	<i>n.a.</i>
Manufactured .. ..	6,003	4,343	2,297	5,150	16,506	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.

**MOLYBDENUM**  
**PRODUCTION OF MOLYBDENUM ORE**  
*(MoS<sub>2</sub> content or equivalent)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria .. .. .	—	—	—	—	2	—
Canada (a) .. .. .	557	572	574	609	621	952
Australia .. .. .	—	—	1	1	15	—
<b>OTHER COUNTRIES</b>						
Norway .. .. .	379	403	396	427	345	375
U.S.S.R. (b) .. .. .	7,400	8,200	8,900	9,300	9,300	9,800
Yugoslavia .. .. .	(b) 3	—	—	—	—	—
Mexico .. .. .	44	99	3	96	68	(b) 50
United States .. .. .	37,941	50,809	49,563	38,156	48,407	48,849
Chile .. .. .	3,771	3,041	3,004	3,913	4,765	6,249
Peru .. .. .	—	—	n.a.	8	875	747
China (b) .. .. .	2,500	2,500	2,500	2,500	2,500	2,500
Japan .. .. .	627	625	600	613	544	460
Korea (South) .. .. .	36	73	52	122	115	(b) 160
Philippine Republic .. .. .	72	46	185	186	176	173
<b>TOTAL*</b> .. .. .	<b>53,300</b>	<b>66,400</b>	<b>65,800</b>	<b>55,900</b>	<b>68,000</b>	<b>70,000</b>

\*Excluding molybdenum ore known to have been produced in Roumania, Spain, Argentina, North Korea and Turkey.

(a) Shipments.

(b) United States Bureau of Mines' estimate.

## EXPORTS OF MOLYBDENUM ORE, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ferro-molybdenum ..	333	245	246	229	160	130
Canada—						
Oxide .. .. .	1,673	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Ferro-molybdenum ..	—	61	246	143	2	—
France—						
Ferro-molybdenum ..	261	555	375	412	569	618
Oxide and molybdates..	4	7	2	10	57	38
Germany (Federal)—						
Metal .. .. .	35	34	27	22	35	80
Italy—						
Ferro-molybdenum ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	12
Netherlands—						
Metal .. .. .	<i>n.a.</i>	<i>n.a.</i>	58	70	55	65
Norway—						
Ore .. .. .	414	467	394	480	417	400
Sweden—						
Ferro-molybdenum ..	266	292	261	326	271	308
U.S.S.R.—						
Ferro-molybdenum ..	<i>n.a.</i>	2,700	4,400	2,500	3,000	5,300
Mexico—						
Ore and concentrates						
( <i>MoS<sub>2</sub> content</i> ) ..	44	97	3	96	68	88
United States—						
Ore and concentrates						
( <i>MoS<sub>2</sub> content</i> ) ..	14,037	22,520	26,553	11,582	19,765	18,570
Metal, alloys and scrap..	7	132	197	34	62	627
Ferro-molybdenum ..	111	190	160	85	107	779
Wire, powder and semi-						
fabricated .. .. .	15	11	14	21	25	29
Chile—						
Ore .. .. .	3,894	4,002	3,918	5,049	4,389	6,936
Peru—						
Ore ( <i>MoS<sub>2</sub> content</i> ) ..	—	—	—	8	264	773
Philippine Republic—						
Concentrates .. .. .	—	67	203	235	169	<i>n.a.</i>

## IMPORTS OF MOLYBDENUM ORE, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore .. .. .	4,658	7,783	7,961	5,510	5,780	6,398
Metal .. .. .	19	23	22	30	42	81
Canada—						
Oxide .. .. .	137	293	119	147	116	219
Australia (a)—						
Oxide .. .. .	3	4	26	66	61	90
Ferro-molybdenum ..	140	106	525	74	77	260
OTHER COUNTRIES						
Austria—						
Oxide .. .. .	172	184	208	237	291	296
Ferro-molybdenum ..	50	119	51	121	65	37
Belgium-Luxemburg						
E.U.—						
Oxide .. .. .	46	21	—	14	9	86
Molybdates .. .. .	17	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ferro-molybdenum ..	265	482	532	498	297	379
Denmark—						
Ferro-molybdenum ..	12	31	38	42	15	29
Finland—						
Ferro-molybdenum ..	102	173	185	133	59	67
France—						
Ore .. .. .	2,984	5,066	5,641	3,190	4,547	4,785
Metal and alloys .. .	7	24	33	26	34	73
Oxide and molybdates ..	10	15	32	42	39	7
Germany (Federal)—						
Ore .. .. .	6,041	8,626	9,047	4,790	9,227	7,847
Metal .. .. .	35	87	120	88	64	438
Hungary—						
Ferro-molybdenum ..	70	45	193	195	158	116
Italy—						
Ore .. .. .	680	1,479	1,500	1,150	1,115	1,221
Metal .. .. .	5	48	15	52	20	39
Ferro-molybdenum ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	453
Netherlands—						
Metal .. .. .	<i>n.a.</i>	17	21	14	12	12
Ferro-molybdenum ..	21	46	51	99	56	50
Oxide and molybdates ..	<i>n.a.</i>	10	269	206	183	218
Norway—						
Ferro-molybdenum ..	29	59	61	50	43	<i>n.a.</i>
Sweden—						
Ore .. .. .	1,643	2,590	2,751	1,891	2,295	3,022
Metal .. .. .	14	20	12	24	22	69
Ferro-molybdenum ..	394	967	1,141	351	596	405
United States—						
Metal .. .. .	30	69	1	20	154	110
Semi-fabricated .. .	20	9	8	14	8	5
Japan—						
Ore and concentrates ..	1,624	3,824	5,149	1,285	1,619	4,998

(a) Years ended June 30 of that stated.



**NICKEL**  
**PRODUCTION OF NICKEL ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia .. ..	—	25	65	105	159	231
Canada (b) .. ..	166,567	191,524	208,028	207,359	193,777	207,924
<b>TOTAL .. ..</b>	<b>166,567</b>	<b>191,549</b>	<b>208,093</b>	<b>207,464</b>	<b>193,936</b>	<b>208,155</b>
<b>OTHER COUNTRIES</b>						
Finland (c) .. ..	371	2,228	2,157	r 2,584	3,040	(a) 3,000
Poland .. ..	1,254	1,234	1,297	1,302	(a) 1,300	(a) 1,300
U.S.S.R. (d) .. ..	52,000	57,000	75,000	80,000	80,000	80,000
Morocco .. ..	237	250	254	282	270	300
Cuba (a) (e) .. ..	17,700	12,600	14,570	16,340	16,400	16,700
United States (f) ..	10,362	11,187	9,979	10,015	10,207	10,879
Bolivia (j) .. ..	2	—	—	n.a.	n.a.	n.a.
Brazil (i) .. ..	70	95	90	240	1,010	(a) 1,000
Venezuela .. ..	26	12	—	—	—	—
Burma (g) .. ..	r 89	r 86	r 137	106	90	n.a.
Indonesia .. ..	210	400	620	440	1,600	n.a.
Korea (South) .. ..	6	—	280	260	250	180
Philippine Republic ..	—	—	9	11	—	—
New Caledonia (h) ..	32,274	52,000	53,000	33,000	44,000	59,000
<b>TOTAL* .. ..</b>	<b>120,000</b>	<b>140,000</b>	<b>160,000</b>	<b>150,000</b>	<b>160,000</b>	<b>170,000</b>
<b>WORLD'S TOTAL* ..</b>	<b>290,000</b>	<b>330,000</b>	<b>370,000</b>	<b>360,000</b>	<b>350,000</b>	<b>380,000</b>

\*Ores containing nickel are also produced in Albania, East Germany and South Africa. Totals are approximate.

(a) United States Bureau of Mines' estimate.

(b) Refined nickel and nickel in oxide and salts plus nickel in matte exported.

(c) Nickel content of concentrates and nickel sulphate.

(d) Source: Metallgesellschaft.

(e) Estimated nickel content of nickel oxide and sulphide.

(f) Metal from domestic ore plus nickel produced as a by-product in the electrolytic refining of copper (partly from imported blister copper).

Secondary metal was recovered in the United States as follows:

	Long tons				Long tons					
1959 .. ..	..	..	..	..	8,427	1962 .. ..	..	..	..	9,918
1960 .. ..	..	..	..	..	8,421	1963 .. ..	..	..	..	16,961
1961 .. ..	..	..	..	..	9,543	1964 .. ..	..	..	..	20,637

(g) Nickel content of nickel speiss.

(h) Content of dry ore mined. The estimated content of matte and ferro-nickel produced was:

	Long tons				Long tons					
1959 .. ..	..	..	..	..	11,642	1962 .. ..	..	..	..	15,062
1960 .. ..	..	..	..	..	21,524	1963 .. ..	..	..	..	22,095
1961 .. ..	..	..	..	..	25,000	1964 .. ..	..	..	..	26,207

(i) Content of ferro-nickel.

(j) Exports.

## EXPORTS OF NICKEL\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought (a) ..	20,215	21,714	21,918	20,129	23,604	26,882
Semi-manufactures ..	1,647	2,113	2,396	2,273	2,910	3,072
do. alloys ..	2,162	2,917	3,390	3,292	3,528	4,441
Scrap (a) ..	1,415	1,309	2,088	2,141	2,738	3,237
Nickel oxide ..	452	595	519	476	481	149
Rhodesia (d)—						
Ore ..	32	158	224	262	570	698
Canada—						
Matte or speiss (Ni content) ..	58,623	65,991	82,980	69,116	74,457	66,755
Unwrought ..	91,171	96,741	119,200	108,672	97,461	114,580
Scrap (a) ..	n.a.	n.a.	552	865	854	965
Nickel oxide (Ni content) ..	3,712	11,837	16,090	9,929	13,579	31,965
Hong Kong—						
Semi-manufactures (a) ..	114	16	12	19	8	3
Scrap ..	n.a.	9	95	20	62	56
Australia (c) ..						
Unwrought and semi-manufactures (a) ..	77	131	133	103	115	192
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.—						
Unwrought ..	479	545	—	4	—	2
do. alloys ..	5	115	29	6	5	28
Scrap ..	276	73	920	367	606	494
Semi-manufactures (a) (b) ..	467	468	94	141	126	116
Denmark—						
Unwrought ..	2	2	—	—	—	—
Scrap (a) ..	47	65	43	199	221	201
Finland—						
Unwrought ..	—	n.a.	1,519	2,190	2,329	3,122
France—						
Matte and speiss ..	59	—	50	429	1,201	656
Unwrought ..	3,548	3,667	3,255	5,231	5,494	3,041
do. alloys ..	11	15	26	20	—	14
Scrap (a) ..	406	969	1,639	1,077	3,099	828
Semi-manufactures (a) ..	417	949	730	961	1,066	1,114
Germany (Federal)—						
Unwrought and scrap (a) ..	1,332	1,883	644	913	824	1,085
Semi-manufactures (a) ..	2,846	4,056	4,586	5,031	4,312	4,307
Italy—						
Semi-manufactures (a) ..	317	562	722	716	972	780
Netherlands—						
Scrap (a) ..	613	711	797	976	1,524	1,534
Semi-manufactures (a) ..	45	110	124	181	90	106
Norway—						
Unwrought ..	25,518	27,759	29,207	27,243	23,559	33,330
Scrap ..	167	230	337	244	212	150
Semi-manufactures (a) ..	515	643	648	602	500	498

\*In these tables the description "unwrought" nickel corresponds to item 683.1 of the Standard International Trade Classification (Revised) which excludes all electro-plating anodes. "Semi-manufactures" corresponds to S.I.T.C. (R) 683.2 and includes electro-plating anodes as well as sheets, bars, rods, etc.

(a) Including alloys.

(b) Excluding anodes.

(c) Years ended June 30 of that stated.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF NICKEL (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Sweden—						
Unwrought .. ..	2	—	6	122	9	—
Scrap .. ..	17	55	48	75	55	74
Semi-manufactures (a)	195	281	585	588	703	763
Switzerland—						
Unwrought and scrap (a)	466	406	467	517	474	589
Semi-manufactures (a)	971	992	868	675	775	773
Cuba—						
Nickel oxide .. ..	22,913	n.a.	n.a.	n.a.	n.a.	n.a.
United States—						
Ore, concentrates and matte .. ..	—	1	1,576	41	11	7
Unwrought and semi-manufactures (a) ..	6,216	10,246	8,258	8,996	10,534	12,790
Scrap (a) .. ..	5,456	38,065	39,714	15,643	43,854	48,364
Bolivia—						
Ore (Ni content) ..	2	—	—	n.a.	n.a.	n.a.
Burma—						
Unwrought .. ..	324	253	434	—	706	615
Indonesia—						
Ore .. ..	6,107	13,541	14,763	n.a.	n.a.	n.a.
Japan—						
Ferro-nickel .. ..	—	1	289	—	11	—
Unwrought .. ..	2	—	1	—	—	} 7
do. alloys .. ..	1	—	—	—	—	
Semi-manufactures (a)	14	3	60	176	133	240
Korea (South)—						
Ore .. ..	—	—	738	902	537	—
Philippine Republic—						
Ore .. ..	—	—	43	54	34	n.a.
New Caledonia—						
Ore .. ..	760,310	941,047	997,330	607,603	606,969	1,066,559
Matte .. ..	7,998	14,298	15,276	11,377	17,581	16,901
Ferro-nickel .. ..	17,905	42,960	45,791	20,943	29,003	46,591

(a) Including alloys.

## IMPORTS OF NICKEL\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Ore, concentrates and matte .. .. .	33,308	55,087	63,057	53,712	61,621	56,183
Unwrought .. .. .	11,644	23,319	19,769	7,594	7,485	18,612
do. alloys .. .. .	1,068	36	11	10	934	121
Semi-manufactures (a) .. .. .	1,448	6,111	4,799	4,162	3,078	4,818
Scrap (a) .. .. .	1,219	2,533	2,888	2,349	2,508	3,722
Nickel oxide .. .. .	552	1,667	1,273	1,064	1,027	1,674
<b>Rhodesia (f)—</b>						
Semi-manufactures (a) .. .. .	8	57	18	12	10	17
<b>Canada—</b>						
Unwrought (a) .. .. .	220	23	12	132	8,212	} (g) 11,257
Semi-manufactures (a) .. .. .	1,439	1,550	3,831	6,559	1,586	
<b>Cyprus—</b>						
Semi-manufactures (a) .. .. .	7	8	4	5	1	2
<b>Hong Kong—</b>						
Semi-manufactures (a) .. .. .	220	72	97	111	111	146
<b>India—</b>						
Unwrought .. .. .	695	(c) 1,040	(c) 1,316	(c) 1,304	(c) 1,663	(c) 1,249
do. alloys .. .. .	26	(c) 61	(c) 47	(c) 45	(c) 39	(c) 60
Scrap .. .. .	176	(c) 181	(c) 120	(c) 431	(c) 190	(c) 752
Semi-manufactures (a) .. .. .	106	(c) 268	(c) 385	(c) 202	(c) 266	(c) 396
<b>Australia (b)—</b>						
Unwrought .. .. .	641	1,212	825	355	624	947
do. alloys (d) .. .. .	<i>n.a.</i>	<i>n.a.</i>	143	96	162	213
Semi-manufactures (a) .. .. .	(e) 350	(e) 364	963	845	1,054	996
<b>New Zealand—</b>						
Unwrought (a) .. .. .	41	26	26	34	(b) 28	<i>n.a.</i>
Semi-manufactures (a) .. .. .	60	42	71	140	(b) 180	<i>n.a.</i>
<b>Irish Republic—</b>						
Unwrought (a) .. .. .	} 83	95	147	155	10	23
Semi-manufactures (a) .. .. .					141	116
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Matte and speiss .. .. .	15	263	244	120	293	385
Unwrought .. .. .	2,572	2,767	2,615	2,049	3,020	2,788
Scrap .. .. .	—	—	—	1	2	9
Semi-manufactures (a) .. .. .	164	323	358	365	341	423
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Unwrought .. .. .	1,390	1,839	1,082	1,098	984	1,143
do. alloys .. .. .	277	234	201	232	137	176
Scrap .. .. .	93	91	179	287	403	349
Semi-manufactures (a) .. .. .	207	306	467	536	611	689
<b>Denmark—</b>						
Unwrought .. .. .	68	105	137	93	69	65
do. alloys .. .. .	28	14	28	38	8	18
Semi-manufactures (a) .. .. .	324	372	523	613	568	574

\* See footnote on p.228 concerning the descriptions "unwrought" nickel and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Years ended June 30 of that stated.

(c) Years ended March 31 following that stated.

(d) Including scrap.

(e) Excluding anodes.

(f) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

(g) Owing to reclassification not strictly comparable with earlier years.

## IMPORTS OF NICKEL (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Finland—						
Unwrought (a) ..	276	468	473	387	145	227
France—						
Matte and speiss ..	7,881	13,312	14,511	13,554	12,501	11,079
Ferro-nickel ..	10,005	23,248	20,957	12,238	19,587	22,349
Unwrought ..	3,974	5,650	4,159	4,057	4,783	8,236
do. alloys ..	47	3	5	4	27	57
Scrap (a) ..	1,284	1,102	1,745	1,641	1,804	1,324
Semi-manufactures (a)	709	1,628	1,598	1,704	1,727	2,488
Germany (Federal)—						
Ore ..	35	—	16	20	682	119
Matte and speiss ..	349	530	1,205	481	1,240	3,622
Unwrought (a) ..	20,355	31,580	19,278	18,610	18,914	23,033
Scrap (a) ..			3,409	3,758	4,257	3,158
Semi-manufactures (a)			1,440	1,201	893	1,354
Italy—						
Matte and speiss ..	270	542	1,006	1,008	1,046	998
Unwrought (a) ..	2,203	5,307	5,008	4,363	6,067	7,098
Scrap ..	473	1,127	988	634	598	179
Semi-manufactures (a)	587	1,024	1,213	1,836	1,457	1,058
Nickel oxide ..	518	1,355	1,267	142	232	182
Netherlands—						
Unwrought ..	328	599	464	405	528	628
do. alloys ..	188	72	76	42	57	102
Scrap (a) ..	293	231	304	446	862	896
Semi-manufactures (a)	1,079	1,313	1,545	1,514	1,343	1,875
Nickel oxide ..	<i>n.a.</i>	<i>n.a.</i>	169	166	206	228
Norway—						
Ore ..	49	49	90	211	—	—
Matte (copper-nickel) ..	54,159	60,695	63,328	59,896	55,559	50,009
Scrap (a) ..	390	2,631	3,938	524	165	1,397
Semi-manufactures (a)	212	212	323	333	283	264
Portugal—						
Unwrought and semi-manufactures ..	77	47	112	200	82	151
Spain—						
Matte and speiss ..	602	873	819	374	291	326
Unwrought (a) ..			174	691	817	888
Semi-manufactures (a)			334	537	765	698
Sweden—						
Matte and speiss ..	1,264	1,823	898	358	340	375
Unwrought ..	6,512	8,729	8,592	6,980	8,047	11,352
do. alloys ..	230	498	374	398	198	246
Scrap (a) ..	173	439	225	94	266	620
Semi-manufactures (a)	538	718	930	965	968	815
Switzerland—						
Unwrought and scrap (a)	1,177	1,381	1,636	1,591	1,084	1,317
Semi-manufactures (a)	537	503	751	743	637	741
Yugoslavia—						
Unwrought ..	168	300	216	353	566	576
Semi-manufactures (a)	11	22	19	17	82	92
Algeria—						
Semi-manufactures (a)	13	89	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Semi-manufactures ..	40	225	181	45	<i>n.a.</i>	<i>n.a.</i>
Cuba—						
Semi-manufactures ..	141	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Unwrought ..	43	103	296	240	146	222
Semi-manufactures ..	150	220	182	209	253	214

(a) Including alloys.

IMPORTS OF NICKEL (*cont.*)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States—						
Ore and matte .. .. .	3,635	164	—	21	30	—
Unwrought and scrap..	74,560	71,247	103,806	104,083	97,170	94,616
Semi-manufactures ..	101	119	287	362	<i>n.a.</i>	3,014
Nickel oxide .. .. .	26,841	21,950	13,048	7,733	11,506	15,056
Argentina—						
Unwrought .. .. .	18	105	69	62	73	177
Semi-manufactures ..	40	101	288	136	127	331
Brazil—						
Unwrought ( <i>a</i> ) .. ..	201	346	741	866	322	352
Semi-manufactures ( <i>a</i> )	99	198	192	307	267	142
Chile—						
Unwrought .. .. .	36	41	38	19	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Unwrought ( <i>a</i> ) .. ..	16	21	30	34	48	37
Semi-manufactures ( <i>a</i> )	349	213	193	101	340	616
Formosa—						
Unwrought ( <i>a</i> ) .. ..	<i>n.a.</i>	55	91	99	177	101
Iran—						
Semi-manufactures ..	797	346	388	319	290	196
Japan—						
Ore .. .. .	712,242	930,731	1,030,024	664,212	668,764	1,125,173
Matte .. .. .	—	253	707	676	3,869	5,343
Unwrought ( <i>a</i> ) .. ..	36	176	251	1,054	169	2,438
Semi-manufactures ( <i>a</i> )	131	199	544	669	776	1,351
Philippine Republic—						
Semi-manufactures ( <i>a</i> )	19	65	37	21	12	<i>n.a.</i>
Turkey—						
Semi-manufactures ( <i>a</i> )	18	47	44	86	101	<i>n.a.</i>

*(a)* Including alloys.

**NITROGEN COMPOUNDS**  
**PRODUCTION OF NITROGEN COMPOUNDS\***

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a)—						
Nitrogenous fertilizers expressed as 25% NH <sub>3</sub> .. ..	1,784,400	2,086,700	2,235,900	2,257,300	2,630,200	2,782,500
Actual ammonium sulphate .. ..	1,020,200	1,066,000	1,084,000	1,090,000	1,152,600	1,170,000
Canada—						
Ammonium sulphate ..	291,345	268,501	269,070	253,589	246,740	299,764
Ammonium nitrate ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	311,312	404,538	390,721
Trinidad (b)—						
(N content)						
Nitrogen fertilizers ..	—	—	12,028	25,546	<i>n.a.</i>	<i>n.a.</i>
India—						
Ammonium sulphate ..	378,504	382,813	389,000	411,000	436,000	<i>n.a.</i>
do. (N content) ..	75,700	75,600	77,800	82,300	87,100	84,200
Pakistan (d)—						
Ammonium sulphate ..	42,078	44,711	50,506	51,964	49,724	40,002
Ammonium nitrate ..	—	—	1,321	41,884	66,955	61,199
Australia—						
Ammonium sulphate ..	105,380	100,750	103,840	100,980	86,410	100,370
<b>OTHER COUNTRIES</b>						
Austria (b)—						
(N content)						
Nitrogen fertilizers ..	151,800	159,400	159,400	169,600	170,700	168,300
Belgium—						
(N content)						
Synthetic ammonia, etc. .. ..	298,840	314,280	271,310	276,710	309,740	351,610
Ammonium sulphate ..	15,970	15,710	14,300	16,950	13,520	15,930
Mixed fertilizers ..	21,150	26,430	31,260	38,450	50,690	59,540
Technical products ..	9,610	11,700	12,800	14,520	19,760	23,690
Bulgaria—						
(N content)						
Nitrogen fertilizers ..	61,156	82,274	86,341	92,530	99,353	<i>n.a.</i>
Czechoslovakia—						
(N content)						
Nitrogen fertilizers ..	131,159	137,672	143,891	151,485	151,382	156,000
Finland (b)—						
(N content)						
Cyanamide .. ..	477	657	29	—	} 45,200	} 59,300
Ammonium nitrate ..	27,402	—	16,300	13,778		
Other nitrogen fertilizers	—	25,458	30,418	30,451		
Mixed fertilizers ..	—	4,461	5,639	6,029		
France (b)—						
(N content)						
Ammonium sulphate ..	74,300	70,800	74,200	79,600	73,100	89,600
Cyanamide .. ..	1,776	2,331	2,881	2,533	2,915	2,278
Sodium nitrate .. ..	1,400	500	—	—	—	<i>n.a.</i>
Calcium nitrate ..	38,800	37,600	37,700	39,200	31,600	41,400
Ammonium nitrate ..	292,800	329,200	394,800	451,000	432,800	<i>n.a.</i>
Ammonium phosphate	993	1,400	(c)	(c)	(c)	<i>n.a.</i>
Other nitrogen fertilizers	17,400	20,300	31,800	47,100	58,100	<i>n.a.</i>
Mixed fertilizers ..	102,600	103,800	118,800	140,900	142,900	<i>n.a.</i>
Germany (Federal)—						
Chemical nitrogen						
(N content)						
Fertilizer .. ..	1,001,229	1,108,141	1,124,441	1,154,680	1,201,683	1,244,842
Technical use .. ..	193,228	235,311	231,775	258,164	277,163	330,800

\*Includes by-product ammonium sulphate which is separately recorded as far as available on pages 85-88.

(a) Source: British Sulphate of Ammonia Federation.

(c) Included with mixed fertilizers.

(b) Years ended June 30 of the year stated.

(d) West Pakistan.

## PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
<i>(cont.)</i>						
Germany (East)—						
<i>(N content)</i>						
Ammonium sulphate	173,165	175,614	172,350	170,405	173,669	168,705
Cyanamide .. ..	17,869	16,196	15,752	16,401	15,947	17,854
Lime ammonium nitrate .. ..	116,312	120,081	117,687	119,377	117,790	119,436
Potassium ammonium nitrate .. ..	11,910	12,416	12,614	13,420	12,492	5,324
Hungary—						
Nitrogen fertilizers ..	241,079	273,695	324,870	347,533	380,839	440,918
Iceland (a)—						
Ammonium nitrate						
<i>(N content)</i> .. ..	5,300	6,300	7,000	7,300	6,400	6,600
Italy—						
Ammonium sulphate ..	1,147,817	1,240,055	1,342,846	r 1,315,190	1,312,500	1,313,346
Ammonium sulpho-nitrate .. ..	—	—	—	28,299	59,110	43,109
Cyanamide .. ..	166,570	125,007	77,449	r 119,298	111,750	81,181
Sodium nitrate .. ..	6,551	6,899	9,418	7,534	6,873	8,728
Potassium nitrate .. ..	107	1,993	6,762	9,441	17,419	71,160
Calcium nitrate .. ..	287,788	361,441	334,189	324,875	331,488	354,159
Ammonium nitrate .. ..	681,490	799,939	793,523	779,442	707,020	584,636
Di-ammonium phosphate .. ..						
Ammonium phosphate	198,398	200,039	243,097	339,535	387,151	491,722
Netherlands (a)—						
<i>(N content)</i>						
Ammonium sulphate ..	75,000	69,600	75,200	79,800	69,900	
Ammonium nitrate ..	233,400	229,800	219,400	214,000	200,800	
Calcium nitrate .. ..	22,300	26,700	28,100	20,500	23,600	466,700
Other nitrogen fertilizers	56,800	47,600	56,600	79,500	81,700	
Mixed fertilizers		26,000	31,000	34,700	60,600	
Norway—						
Cyanamide .. ..	7,665	4,990	4,058	2,788	4,104	4,349
Ammonium nitrate .. ..	11,237	10,784	12,350	13,856	14,034	18,455
Calcium nitrate .. ..	1,068,734	1,125,418	1,145,270	1,576,278	1,161,066	1,160,136
Sodium nitrate .. ..	1,389	1,724	2,740	3,015	1,402	1,775
Lime ammonium nitrate	39,736	46,478	94,535	115,266	95,265	118,356
Poland—						
Ammonium sulphate ..	116,000	127,000	145,000	159,000	170,000	n.a.
Cyanamide .. ..	170,000	173,000	178,000	r 161,000	149,000	n.a.
"Salezrak" .. ..	401,000	423,000	537,000	571,000	613,000	n.a.
Portugal—						
Cyanamide .. ..	9,774	7,529	14,875	5,511	10,369	8,724
Ammonium sulphate ..	186,525	177,557	177,721	178,479	244,985	240,856
Ammonium nitrate .. ..	n.a.	n.a.	62,723	82,766	166,092	195,646
Calcium nitrate .. ..	n.a.	n.a.	5,475	17,042	15,499	20,367
Roumania—						
Nitrogen fertilizers						
<i>(N content)</i> .. ..	8,335	18,641	29,461	43,256	83,510	106,276
Spain—						
<i>(N content)</i> .. ..						
Cyanamide .. ..	495	1,614	841	775	747	n.a.
Lime ammonium nitrate	17,225	30,123	39,983	49,415	65,676	n.a.
Ammonium sulphate ..	45,262	68,850	85,495	83,180	103,840	n.a.
Sweden—						
Ammonium nitrate ..	11,076	11,880	11,699	12,672	14,032	n.a.
Ammonium sulphate ..	6,600	5,687	3,326	10,059	9,369	n.a.
Cyanamide .. ..	23,810	23,345	26,150	17,977	9,057	n.a.
Lime ammonium nitrate	119,632	134,865	169,101	150,440	157,334	n.a.
Mixed fertilizers ..	35,814	67,625	85,377	92,751	141,078	n.a.

(a) Years ended June 30 of the year stated.



## PRODUCTION OF NITROGEN COMPOUNDS (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES (cont.)</b>						
Switzerland (a)—						
(N content)						
Cyanamide .. ..	1,800	2,000	2,100	2,100	2,000	n.a.
Ammonium sulphate	2,500	4,100	5,100	4,100	4,200	n.a.
Ammonium nitrate ..	5,100	5,400	5,300	5,700	7,200	n.a.
Calcium nitrate ..	3,000	3,000	3,000	3,000	3,700	n.a.
Mixed fertilizers ..	1,000	1,500	1,800	2,100	2,500	n.a.
U.S.S.R. (a)—						
Nitrogen fertilizers						
(N content) .. ..	704,000	729,000	n.a.	n.a.	n.a.	n.a.
Yugoslavia—						
Ammonium nitrate ..	23,620	24,971	24,255	20,440	11,356	n.a.
Ammonium sulphate ..	10,627	12,098	12,279	10,954	n.a.	n.a.
Cyanamide .. ..	12,078	7,266	10,572	29,274	n.a.	n.a.
Egypt—						
Ammonium nitrate ..	—	73,608	311,000	338,000	324,618	445,731
Calcium nitrate ..	241,820	253,099	266,935	268,323	256,916	251,288
Ammonium sulphate ..	—	—	—	—	28,375	90,205
South Africa (a)—						
Nitrogen fertilizers						
(N content) .. ..	20,692	21,900	37,600	58,400	n.a.	n.a.
Mexico (a)—						
Nitrogen fertilizers						
(N content) (b) ..	19,000	25,000	31,000	31,000	n.a.	n.a.
United States—						
Sulphate equivalent of ammonia produced (coke-ovens) ..						
	639,913	656,644	618,807	598,777	641,766	708,846
Actual ammonium sulphate (coke-ovens)						
	547,087	563,967	529,980	522,661	553,286	607,935
Actual ammonium sulphate (synthetic plants)						
	981,640	768,000	849,000	992,000	1,049,000	1,441,000
Anhydrous ammonia (synthetic plants) ..						
	4,035,451	4,301,521	4,649,000	5,187,000	5,948,000	6,750,000
Ammonium nitrate, original .. ..						
	2,557,947	2,780,000	2,888,000	3,041,000	3,536,000	3,906,000
Ammonium phosphate						
	n.a.	n.a.	(b) 1,103,000	(b) 1,420,000	2,353,000	2,764,000
Brazil—						
Ammonium sulphate ..	7,338	7,255	6,695	8,151	8,034	n.a.
Lime ammonium nitrate	47,764	68,465	58,696	56,144	54,484	n.a.
Chile—						
Sodium and potassium nitrate (natural) ..						
	1,243,901	915,612	1,092,868	1,085,127	1,117,941	1,155,526
Peru (a)—						
Nitrogen fertilizers						
(N content) (c) ..	36,059	45,100	49,000	61,800	65,200	n.a.
Formosa—						
Cyanamide .. ..	64,323	61,443	62,858	77,364	63,064	50,648
Ammonium sulphate ..	21,754	21,086	28,751	67,104	105,958	215,849
Nitro-phosphate ..	19,733	20,688	19,802	—	—	3,521
Nitro-chalk .. ..	42,674	42,430	52,177	56,743	54,221	62,156
Israel—						
Ammonium sulphate ..	63,690	60,381	32,475	65,438	68,252	78,520
Japan—						
Ammonium sulphate ..	2,591,993	2,385,070	2,464,079	2,470,000	2,224,000	2,250,000
Cyanamide .. ..	404,524	351,720	329,104	297,000	314,000	329,000
Ammonium nitrate ..	49,884	51,262	51,584	51,210	n.a.	n.a.
Ammonium chloride ..	141,290	237,510	363,039	332,531	485,965	478,503
Philippine Republic (a)—						
(N content)						
Ammonium sulphate	9,079	n.a.	7,300	7,300	} 7,600	n.a.
Ammonium phosphate	4,700	n.a.	—	—		
Turkey—						
Ammonium sulphate ..	2,948	4,549	4,200	n.a.	87,401	62,484

In addition, natural nitrate of potash is known to have been produced in India and Spain and nitrified earth in China.

(a) Years ended June 30 of the year stated.

(b) Estimated.

(c) Including guano.

EXPORTS OF NITROGEN COMPOUNDS

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ammonium sulphate ..	213,968	187,419	166,711	359,439	384,722	366,239
Ammonium chloride ..	11,042	15,310	16,227	11,162	11,248	13,938
Ammonium nitrate ..	1,043	496	487	} 454	3,104	11,621
Other manufactured nitrogen fertilizers ..	3,174	1,894	1,097			
Liquid ammonia ..	} 4,727	4,396	3,852	4,346	3,736	3,954
Anhydrous ammonia ..						
Canada—						
Ammonium sulphate ..	(£3,162,368)	(£3,151,628)	(£2,612,495)	(£2,376,851)	(£2,167,006)	(£2,010,432)
Ammonium nitrate ..	n.a.	n.a.	n.a.	(£3,891,663)	(£4,352,326)	(£3,654,737)
Other nitrogen fertilizers	(£5,375,164)	(£7,035,149)	(£7,880,620)	(£4,654,386)	(£5,241,100)	(£5,150,709)
Trinidad and Tobago—						
Ammonium sulphate ..	8,128	69,663	87,642	73,733	82,287	n.a.
Hong Kong—						
Potassium nitrate ..	356	190	286	307	283	240
Sodium nitrate ..	34	31	23	28	31	352
Ammonium sulphate ..	26,421	976	59,120	27,190	100,429	209
Synthetic nitrate ..	—	—	36,867	9,795	25,744	—
Ammonium chloride ..	47	38	27,124	16	173	49
India—						
Potassium nitrate ..	44	(a) 39	(a) 8	(a) 8	(a) 5	(a) —
Sodium nitrate ..	11	(a) 40	(a) 31	(a) 32	(a) 4	(a) 3
Malaya—						
Anhydrous ammonia ..	33	176	415	461	420	520
Other nitrogen fertilizers	767	1,200	1,315	1,307	1,392	1,861
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Potassium nitrate ..	25	36	—	1	1	1
Sodium nitrate ..	—	20	56	60	246	8
Calcium nitrate ..	—	5	344	—	—	—
Ammonium sulphate ..	747,867	553,855	552,353	390,206	390,893	259,044
Ammonium chloride ..	128	159	34	106	23	35
Ammonium nitrate ..	164,709	174,220	139,345	167,488	195,161	208,985
Ammonium phosphate	53,302	n.a.	n.a.	n.a.	n.a.	n.a.
Cyanamide ..	7,844	5,114	3,900	3,794	2,988	6,597
Anhydrous ammonia ..	4,197	6,389	n.a.	n.a.	25,887	45,952
France—						
Potassium nitrate ..	2,149	1,653	2,079	2,322	2,762	2,076
Sodium nitrate ..	1,725	7,580	1,298	455	800	571
Calcium nitrate ..	10,598	19,439	17,100	15,450	16,667	30,551
Ammonium sulphate ..	86,478	100,252	169,582	149,272	250,820	210,348
Ammonium chloride ..	23	44	58	4	4	47
Ammonium nitrate ..	76,343	253,731	124,102	206,484	46,514	44,005
Cyanamide ..	158	188	471	195	57	30
Anhydrous ammonia ..	305	307	18,294	5,138	16,040	7,858
Germany (Federal)—						
Potassium nitrate ..	9,633	13,082	11,582	12,254	12,746	14,305
Sodium nitrate ..	24,745	11,452	24,883	19,881	10,706	9,918
Calcium nitrate ..	173,985	113,140	125,679	104,923	109,446	122,481
Ammonium nitrates ..	892,138	864,779	780,638	886,430	1,012,752	700,956
Ammonium chloride ..	11,405	10,810	n.a.	n.a.	n.a.	n.a.
Other nitrogen fertilizers	862,376	796,054	831,309	759,096	814,711	728,474
Germany (East)—						
Nitrogen fertilizers (b)	100,657	112,167	104,222	99,512	91,245	65,620
Anhydrous ammonia ..	1,825	707	4,546	5,102	755	811
Hungary—						
Nitrogen fertilizers ..	n.a.	n.a.	40,835	25,313	—	—

(a) Years ended March 31 following that stated.

(b) N content.

## EXPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Potassium nitrate ..	235	606	971	925	910	80
Sodium nitrate ..	—	89	38	15	477	45
Calcium nitrate ..	4,876	15,455	9,635	12,795	16,999	—
Ammonium nitrate ..	434,903	385,538	432,115	553,468	411,979	197,948
Ammonium sulphate ..	609,206	570,986	808,354	669,886	908,035	728,796
Cyanamide ..	751	15,359	1,282	513	3,451	1,769
<b>Netherlands—</b>						
Potassium nitrate ..	53	68	84	134	70	104
Sodium nitrate ..	776	254	188	63	274	240
Calcium nitrate ..	67,268	64,003	63,887	47,774	37,502	48,750
Ammonium sulphate ..	307,377	261,387	183,802	296,552	363,209	277,931
Ammonium chloride ..	100	220	110	66	22	30
Ammonium nitrate ..	24	354,375	342,237	314,819	154,942	120,442
Lime ammonium nitrate	413,483					
Anhydrous ammonia ..	2,023	9,975	3,881	2,053	2,140	2,283
<b>Norway—</b>						
Sodium nitrate ..	1,903	2,120	2,405	1,912	83	1,901
Calcium nitrate ..	1,043,797	1,099,000	1,117,534	1,119,803	1,174,156	1,138,565
Ammonium nitrate ..	2,537	2,979	1,630	2,624	7,422	8,549
Cyanamide ..	5,391	1,808	1,372	536	1,718	1,215
Anhydrous ammonia ..	820	462	385	185	849	737
<b>Poland—</b>						
Ammonium chloride ..	1,509	1,569	3,105	<i>n.a.</i>	4,335	3,614
Nitrogen fertilizers ..	125,553	17,044	46,105	<i>n.a.</i>	19,979	25,500
<b>Portugal—</b>						
Ammonium sulphate ..	13,256	19,277	36,928	36,726	39,294	44,808
Ammonium nitrate ..	<i>n.a.</i>	—	113	24	23,146	56,754
Sodium nitrate ..	<i>n.a.</i>	38	99	458	73	140
Calcium nitrate ..	<i>n.a.</i>	1	1,179	4,440	8,391	10,257
<b>Sweden—</b>						
Ammonium nitrate ..	124	147	187	185	278	1,370
<b>Switzerland—</b>						
Potassium nitrate (crude)	15	—	—	—	—	—
Potassium and sodium nitrates (purified) ..	2	—	3	—	—	—
Ammonium sulphate, etc. ..	11,114	10,807	10,041	11,883	20,046	26,519
<b>U.S.S.R.—</b>						
Ammonium nitrate ..	80,000	86,500	126,900	75,400	157,000	41,800
Ammonium sulphate ..	67,900	167,500	265,900	397,400	404,000	220,300
<b>Yugoslavia—</b>						
Cyanamide ..	—	—	—	598	2,181	46
<b>United States—</b>						
Sodium nitrate ..	1,402	928	1,087	852	2,129	848
Ammonium nitrate ..	79,211	35,170	26,676	37,699	22,386	78,783
Ammonium sulphate ..	356,853	211,883	128,973	480,816	437,812	431,950
Other nitrogen fertilizers ..	35,178	56,445	16,201	55,962	11,877	53,953
Nitrogen phosphatic fertilizers ..	61,671	95,867	69,202	107,607	165,430	324,211
Anhydrous ammonia (a)	75,015	97,018	91,444	53,096	67,215	132,571
<b>Chile—</b>						
Sodium nitrate ..	1,027,701	713,191	1,012,080	822,000	895,704	870,154
Potassium nitrate ..	86,018	53,545	67,301	60,422		
<b>Israel—</b>						
Anhydrous ammonia ..	<i>n.a.</i>	971	1,156	2,762	<i>n.a.</i>	<i>n.a.</i>
<b>Japan—</b>						
Cyanamide ..	45,616	295	313	280	13	19,807
Ammonium nitrate ..	9,723	1,463	2,359	11,392	5,892	8,300
Ammonium chloride ..	132	2,646	52,670	63,207	322	234,773
Ammonium sulphate ..	1,019,287	870,435	792,563	850,923	1,207,225	833,218
Anhydrous ammonia ..	318	191	134	50	81	253
Other nitrogen fertilizers	1,575	1,222	3,042	60,805	6,456	37,350

(a) Ammonia content.

## IMPORTS OF NITROGEN COMPOUNDS

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Natural sodium nitrate ..	9,320	13,073	19,775	15,201	13,347	14,952
Manufactured fertilizers—						
Nitrogenous .. ..	309,095	191,825	204,663	199,274	314,539	292,196
Ammonium phosphate ..	10,834	11,730	17,912	14,820	10,904	11,557
Potassium nitrate ..	2,740	2,683	3,368	3,434	2,793	3,029
Malta—						
Ammonium sulphate ..	2,351	2,111	2,468	1,131	2,367	2,118
Gambia—						
Ammonium sulphate ..	1	1	2	—	—	—
Ghana—						
Ammonium sulphate ..	551	271	207	513	79,436	757
Other nitrogen fertilizers	45	19	426	94	7	7
Kenya—						
Ammonium sulphate ..	5,647	9,757	7,544	6,814	4,652	12,157
Other nitrogen fertilizers	2,333	4,975	7,914	10,317	12,916	19,502
Mauritius—						
Nitrogen fertilizers ..	38,352	37,188	34,860	41,861	36,743	26,908
Nigeria—						
Ammonium sulphate ..	567	878	996	3,448	} 3,040	8,821
Other nitrogen fertilizers	33	870	129	218		
Rhodesia (b)— .. ..						
Nitrates .. ..	202	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	19,270	25,923	33,528	35,720	31,964	53,522
Other nitrogen fertilizers	24,609	32,671	42,038	47,856	53,668	61,565
Sierra Leone—						
Ammonium sulphate ..	43	20	126	322	571	1
Tanzania— .. ..						
Ammonium sulphate ..	1,995	2,804	3,036	3,113	3,465	8,077
Other nitrogen fertilizers	345	501	631	1,959	3,180	5,118
Uganda—						
Ammonium sulphate ..	2,482	2,436	3,868	1,579	2,905	5,015
Other nitrogen fertilizers	1,369	1,623	2,940	2,040	505	1,195
Zambia—						
Ammonium sulphate ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,111
Ammonium nitrate ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	472
Canada—						
Potassium nitrate ..	662	662	818	815	760	789
Sodium nitrate ..	19,361	16,324	14,604	15,195	14,955	18,044
Ammonium sulphate ..	5,304	7,755	8,875	12,635	12,731	15,739
Ammonium chloride ..	541	414	276	261	229	<i>n.a.</i>
Ammonium nitrate ..	23	27	578	67	45	<i>n.a.</i>
Anhydrous ammonia ..	4,994	3,035	6,027	1,095	2,903	<i>n.a.</i>
Other nitrogen fertilizers	336	537	592	888	691	<i>n.a.</i>
Antigua—						
Nitrogen fertilizers ..	35	666	808	—	<i>n.a.</i>	3
Barbados—						
Nitrogen fertilizers ..	10,424	11,516	11,024	12,303	12,118	13,683
Grenada—						
Ammonium sulphate ..	591	419	450	595	827	392
Other nitrogen fertilizers	16	30	1,076	855	690	176
Jamaica—						
Ammonium sulphate ..	14,566	13,834	24,137	22,522	25,756	33,335
Other nitrogen fertilizers ..	2,210	1,391	2,606	1,099	2,831	2,139
St. Kitts—						
Nitrogen fertilizers ..	2,380	1,815	2,155	2,306	2,202	2,616
St. Lucia—						
Nitrogen fertilizers ..	331	350	640	445	899	<i>n.a.</i>
St. Vincent—						
Ammonium sulphate ..	653	325	1,135	868	420	205
Trinidad and Tobago—						
Ammonium sulphate ..	14,043	660	—	(a) 390	<i>n.a.</i>	<i>n.a.</i>

(a) Excess of re-exports.

(b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
British Guiana—						
Ammonium sulphate ..	18,531	17,927	19,855	20,703	n.a.	16,923
Ceylon—						
Natural sodium nitrate ..	—	45	25	59	99	61
Ammonium sulphate ..	142,029	128,863	138,588	170,669	166,419	179,036
Ammonium nitrate ..	55	465	220	181	180	334
Cyanamide ..	49	121	78	24	—	—
Cyprus—						
Ammonium sulphate ..	13,798	15,586	21,256	21,798	26,660	14,872
Other nitrogen fertilizers	14,627	6,217	10,819	9,293	15,945	11,543
Hong Kong—						
Potassium nitrate ..	621	378	585	991	908	663
Sodium nitrate ..	363	401	539	559	628	1,075
Ammonium sulphate ..	27,889	2,179	64,472	32,052	100,670	1,101
Synthetic nitrates ..	16	21	37,103	9,805	25,839	45
Ammonium chloride ..	709	763	26,971	1,067	1,392	1,104
India—						
Potassium nitrate ..	5	(a) 11	(a) 6	(a) 19	(a) 2	(a) 2
Sodium nitrate ..	36,876	(a) 13,261	(a) 19,844	(a) 21,771	(a) 18,929	(a) 9,398
Ammonium sulphate ..	248,158	(a) 248,589	(a) 238,243	(a) 564,238	(a) 444,729	(a) 445,983
Ammonium nitrate ..	986	(a) 2,140	(a) 12,881	(a) 10,114	(a) 1,486	(a) 1,032
Ammonium phosphate	228	(a) 5	(a) 8	(a) 9,846	(a) 23,581	(a) 35,632
Ammonium chloride ..	190	(a) 17	(a) 11	(a) 1	(a) 7	(a) 2
Other nitrogen fertilizers	27,700	43,322	43,380	20,365	(a) 26,826	(a) 6,553
Malaya—						
Nitrogen fertilizers ..	91,785	106,863	118,936	120,383	143,225	163,543
Anhydrous ammonia ..	2,956	4,242	3,878	4,905	4,678	5,045
Pakistan—						
Sodium nitrate ..	—	55,224	160	241	88	n.a.
Ammonium sulphate ..	—	29,683	103,860	107,164	150,873	n.a.
Ammonium chloride ..	—	128	523	443	329	154
Anhydrous ammonia ..	14	100	83	24	46	n.a.
Sabah—						
Ammonium sulphate ..	363	531	327	728	n.a.	n.a.
Other nitrogen fertilizers	—	31	115	35	n.a.	1,979
Sarawak—						
Ammonium sulphate ..	1,570	539	290	3,698	3,568	n.a.
Other nitrogen fertilizers	63	55	177	358	244	n.a.
Australia (b)—						
Potassium nitrate ..	354	451	519	355	424	403
Sodium nitrate ..	7,505	6,837	5,670	7,709	5,611	8,939
Ammonium chloride ..	150	50	90	1,162	1,424	1,517
Ammonium sulphate ..	19,979	11	110	17,493	37,458	117,593
Ammonium nitrate ..	478	162	469	576		
Fiji—						
Nitrogen fertilizers ..	n.a.	n.a.	n.a.	n.a.	18,648	29,014
New Zealand—						
Potassium nitrate ..	144	128	196	116	(b) 128	n.a.
Sodium nitrate ..	1,829	2,971	3,781	2,320	(b) 85	n.a.
Ammonium sulphate ..	5,818	7,736	8,226	6,608	(b) 9,850	n.a.
Ammonium chloride ..	512	407	784	n.a.	n.a.	n.a.
Ammonium nitrate ..	3,194	5,696	5,624	1,913	(b) 942	n.a.
Anhydrous ammonia ..	66	62	38	83	(b) 114	n.a.
Cyanamide ..	—	—	—	23	(b) 45	n.a.
Irish Republic—						
Sodium nitrate ..	6,150	4,265	4,316	4,350	2,865	n.a.
Ammonium sulphate ..	72,564	83,136	r 94,358	97,135	124,531	120,327
Anhydrous ammonia ..	100	107	110	113	119	—
Ammonium nitrate ..	20,471	20,253	26,449	29,063	39,147	28,996
Other nitrogen fertilizers	422	650	699	427	3,267	8,879

(a) Years ended March 31 following that stated.

(b) Years ended June 30 of that stated.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Calcium nitrate .. ..	1,050	1,303	927	798	861	807
Potassium nitrate .. ..	279	367	428	320	399	385
Cyanamide .. ..	1,875	1,640	2,251	2,949	2,758	2,211
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Potassium nitrate .. ..	2,053	2,007	2,279	2,156	2,631	2,809
Sodium nitrate .. ..	27,252	21,356	22,876	23,910	22,619	33,514
Calcium nitrate .. ..	9,010	15,804	5,816	10,299	7,437	8,890
Cyanamide .. ..	359	486	479	384	455	501
Ammonium sulphate .. ..	8,668	9,754	7,808	11,142	12,105	15,729
Ammonium chloride .. ..	2,213	2,462	1,892	2,314	2,064	2,567
Ammonium nitrate .. ..	32,216	14,856	24,162	21,705	82,758	82,477
Anhydrous ammonia .. ..	4	57	<i>n.a.</i>	<i>n.a.</i>	1,178	1,759
<b>Czechoslovakia—</b>						
Nitrogen fertilizers (a)	16,000	33,630	37,000	21,000	43,000	49,000
<b>Denmark—</b>						
Potassium nitrate .. ..	843	1,188	879	1,034	1,206	1,335
Sodium nitrate .. ..	16,379	20,134	16,092	11,079	25,567	37,275
Calcium nitrate .. ..	582,172	685,176	728,911	727,037	669,238	580,497
Ammonium sulphate .. ..	13,568	14,298	10,501	9,975	9,312	9,689
Ammonium chloride .. ..	864	832	966	695	1,086	954
Ammonium nitrates .. ..	6,970	7,904	14,728	25,279	23,718	58,368
Cyanamide .. ..	221	117	160	120	174	141
<b>Finland—</b>						
Potassium nitrate .. ..	249	140	263	383	168	528
Sodium nitrate .. ..	325	307	386	356	3,078	2,244
Calcium nitrate .. ..	39,621	95,534	69,352	60,311	61,758	86,283
Ammonium nitrate .. ..	3,855	4,232	33,327	2,918	13,657	7,508
Ammonium sulphate .. ..	32,098	42,478	34,221	34,336	40,031	38,158
Ammonium chloride .. ..	791	671	1,002	694	606	1,153
<b>France—</b>						
Sodium nitrate .. ..	69,216	72,163	66,823	63,885	49,685	64,820
Calcium nitrate .. ..	20	—	—	119	485	660
Ammonium sulphate .. ..	22,045	25,090	22,977	25,007	43,270	49,008
Ammonium nitrate .. ..	43	5	3,768	39,402	14,010	8,329
Ammonium chloride .. ..	1,859	1,554	1,572	1,710	1,961	2,171
Anhydrous ammonia .. ..	1,651	4,809	7,030	9,530	27,224	39,959
Cyanamide .. ..	7,346	27	192	492	2,582	4,171
<b>Germany (Federal)—</b>						
Potassium nitrate .. ..	331	337	756	1,069	1,188	2,202
Sodium nitrate .. ..	16,661	15,025	13,021	12,859	11,712	11,173
Ammonium nitrates .. ..	2,756	10,088	21,074	26,817	81,006	117,580
Ammonium chloride .. ..	<i>n.a.</i>	<i>n.a.</i>	21	158	359	860
Other nitrogen fertilisers	<i>n.a.</i>	30	25	2,182	517	791
<b>Greece—</b>						
Potassium nitrate .. ..	109	123	89	95	79	104
Sodium nitrate .. ..	6,593	1,972	2,362	2,882	6,084	5,597
Ammonium nitrate .. ..	96,387	77,670	49,145	40,174	56,869	38,671
Ammonium sulphate .. ..	141,028	130,834	129,696	159,907	182,769	125,699
Ammonium chloride .. ..	162	186	186	250	206	171
Lime ammonium nitrate	1,847	34,068	56,778	74,484	74,049	64,034
Other nitrogen fertilizers	35,918					
<b>Hungary—</b>						
Nitrogen fertilizers .. ..	180,798	150,249	147,779	299,208	463,763	475,095
<b>Iceland—</b>						
Calcium nitrate .. ..	—	30	177	198	—	5
Lime ammonium nitrate	8,857	1,968	—	30	6,308	10,266
Nitrophoska .. ..	1,526	1,673	2,116	—	—	4,486

(a) N content.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Italy—</b>						
Potassium nitrate ..	964	1,240	758	727	1,027	2,061
Sodium nitrate ..	40,428	8,500	15,571	9,723	4,724	141
Calcium nitrate ..	—	—	—	—	—	4,669
Ammonium chloride ..	489	373	444	488	1,492	1,396
Ammonium nitrate ..	3,284	2,341	3,284	3,397	2,999	2,616
Ammonium sulphate ..	1,586	114	853	3,256	4,043	112
Cyanamide ..	21	81	—	324	1,372	—
<b>Netherlands—</b>						
Potassium nitrate ..	1,755	1,293	1,841	2,477	2,807	2,914
Sodium nitrate ..	32,768	10,660	24,643	29,357	34,238	19,711
Calcium nitrate ..	1	3,730	1	13	14,042	1
Ammonium sulphate ..	83	1,330	2,009	245	2,271	455
Ammonium chloride ..	1,463	1,787	1,401	1,460	1,481	1,779
Ammonium nitrate ..	20,212	56,249	67,371	78,408	95,343	379
Lime ammonium nitrate	16,619		3,221	3,300	1,369	2,273
Cyanamide ..	4,404	872	n.a.	119	13,629	19,021
Anhydrous ammonia ..	9,968	1,585	n.a.	n.a.	n.a.	n.a.
Ammonium phosphates	6,515	n.a.	n.a.	n.a.	n.a.	n.a.
Other nitrogen fertilizers	17,051	17,330	17,797	16,060	7,113	35
<b>Norway—</b>						
Potassium nitrate ..	146	164	156	215	178	164
Ammonium chloride ..	210	242	331	336	412	416
Ammonium sulphate ..	319	343	354	456	479	407
Anhydrous ammonia ..	1,481	—	—	13,612	9,310	36,801
<b>Poland—</b>						
Nitrogen fertilizers ..	8,500	64,000	27,400	n.a.	49,300	50,200
<b>Portugal—</b>						
Potassium nitrate ..	377	321	402	291	296	286
Sodium nitrate ..	14,529	9,056	8,050	4,594	12,524	3,100
Calcium nitrate ..	11,318	7,984	6,681	—	—	—
Ammonium sulphate ..	39,551	46,828	28,145	—	10,039	24
Ammonium chloride ..	101	145	167	102	137	153
Ammonium nitrate ..	13,009	11,283	5,918	1,575	443	10
Cyanamide ..	974	974	—	—	—	—
Lime ammonium nitrate	67,756	n.a.	n.a.	n.a.	n.a.	n.a.
Nitrophoska ..	10,443	9,727	11,853	15,022	14,672	8,326
Anhydrous ammonia ..	84	3	15,849	2,872	12,823	—
<b>Roumania—</b>						
Nitrogen fertilizers (a)	7,800	8,500	4,400	1,200	3,445	1,900
<b>Spain—</b>						
Sodium nitrate ..	144,268	72,429	83,605	135,790	118,147	123,170
Ammonium sulphate ..	710,688	297,570	513,250	591,856	454,349	519,116
Calcium nitrate ..	176,581	123,149	83,422	131,325	126,785	143,124
Other nitrogen fertilizers	89,868	60,378	59,974	38,802	55,740	40,637
<b>Sweden—</b>						
Potassium nitrate ..	838	976	873	1,129	1,005	1,122
Sodium nitrate ..	31,446	31,033	39,410	27,813	24,815	31,160
Calcium nitrate ..	332,304	340,122	328,165	352,820	352,660	376,481
Ammonium nitrate ..	168	75	79	36	156	325
Ammonium sulphate ..	12,235	21,647	16,500	9,281	11,347	14,233
Ammonium chloride ..	1,093	1,238	1,182	1,215	1,055	1,265
<b>Switzerland—</b>						
Potassium and sodium nitrates ..	2,035	808	604	842	933	925
Ammonium sulphate, etc. ..	452	505	544	607	501	683
Ammonium chloride ..	689	1,197	830	793	889	993
Ammonium and calcium nitrates ..	n.a.	46	218	253	5,266	264

(a) N content.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Yugoslavia—						
Sodium nitrate ..	9,842	14,763	40	207	162	28,276
Ammonium sulphate ..	—	13,811	19,988	46,480	95,072	97,250
Ammonium nitrate ..	1,120	—	129	12,861	10,801	9,428
Lime ammonium nitrate	348,888	333,011	314,847	467,631	414,818	327,259
Other nitrogen fertilizers	29,467	18,366	15	85	6,107	28,009
Algeria—						
Potassium nitrate ..	244	151	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Sodium nitrate ..	1,307	794	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcium nitrate ..	3,410	3,986	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium chloride ..	7	18	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulphate ..	21,495	19,264	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ammonium nitrate ..	24,980	29,362	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Cyanamide ..	88	129	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Sodium nitrate ..	<i>n.a.</i>	<i>n.a.</i>	268	221	136	273
Ammonium nitrate ..	<i>n.a.</i>	<i>n.a.</i>	1,669	1,257	913	1,284
Ammonium sulphate ..	4,549	4,097	3,887	4,811	5,443	6,309
Cameroun—						
Nitrogen fertilizers ..	6,678	5,706	6,319	10,743	12,976	32,859
Canary Islands—						
Ammonium sulphate ..	67,356	60,085	51,095	62,688	50,112	62,396
Calcium nitrate ..	3,876	—	549	689	196	1,034
Other nitrogen fertilizers	7,421	1,946	5,722	6,249	3,622	3,246
Congo Republic—						
Ammonium chloride ..	17	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nitrogen fertilizers ..	3,695	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Sodium nitrate ..	49,368	18,715	36,805	248	10	139
Calcium nitrate ..	11,124	18,211	—	—	167,117	267,793
Ammonium sulphate ..	147,036	94,438	195,325	60,374	29,531	26,083
Ammonium chloride ..	308	179	299	—	<i>n.a.</i>	<i>n.a.</i>
Ammonium nitrate ..	127,880	432,692	181,313	44,293	<i>n.a.</i>	<i>n.a.</i>
Ammonium sulpho-nitrate ..	1,968	20,531	—	187,760	15,324	32,173
Malagasy Republic—						
Nitrogen fertilizers ..	1,808	2,476	2,150	1,376	1,049	1,803
Morocco—						
Potassium nitrate ..	21	26	62	308	231	254
Sodium nitrate ..	483	300	293	228	467	133
Calcium nitrate ..	1,125	725	524	829	745	458
Ammonium nitrate ..	11,579	11,361	12,467	16,329	7,156	3,626
Ammonium sulphate ..	13,725	14,126	18,984	24,240	24,215	31,378
Other nitrogen fertilizers	1,797	2,641	1,676	3,949	8,443	11,192
Reunion—						
Nitrogen fertilizers ..	7,627	11,051	10,794	7,797	9,967	10,688
South Africa—						
Potassium nitrate ..	199	329	605	849	1,273	<i>n.a.</i>
Sodium nitrate ..	955	1,010	1,459	1,008	983	<i>n.a.</i>
Ammonium sulphate ..	42,945	39,161	50,833	60,599	117,179	131,331
Ammonium chloride ..	1,380	1,557	2,116	801	1,111	820
Ammonium nitrate ..	16,020	49,928	33,626	21,957	49,355	727
Sudan—						
Sodium, calcium and ammonium nitrates (synthetic) ..	11,797	15,238	26,233	62,019	14,387	25,484
Other nitrogen fertilizers	21,824	34,162	41,521			
Tunisia—						
Nitrogen fertilizers ..	10,366	11,827	12,596	13,289	25,869	24,613
Costa Rica—						
Nitrogen fertilizers ..	19,796	14,105	13,416	16,613	11,487	11,948



## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Cuba—						
Potassium nitrate ..	953	n.a.	n.a.	n.a.	n.a.	n.a.
Sodium nitrate ..	725	n.a.	n.a.	n.a.	n.a.	n.a.
Ammonium nitrate ..	2,033	n.a.	n.a.	n.a.	n.a.	n.a.
Ammonium sulphate ..	72,597	n.a.	n.a.	n.a.	n.a.	n.a.
Anhydrous ammonia ..	4,813	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Republic—						
Ammonium sulphate ..	38,332	7,506	33,938	17,290	n.a.	n.a.
French West Indies—						
Guadeloupe—						
Nitrogen fertilizers ..	2,269	4,624	3,194	1,578	2,165	2,248
Martinique—						
Nitrogen fertilizers ..	9,219	11,788	10,436	8,310	8,132	7,605
Guatemala—						
Sodium nitrate ..	124	505	1,019	299	20	153
Other nitrogen fertilizers	9,005	13,039	10,872	7,291	16,216	16,907
Honduras—						
Nitrogen fertilizers ..	14,561	11,849	11,731	11,936	12,410	14,565
Mexico—						
Sodium nitrate ..	15,261	11,276	8,571	9,125	3,074	356
Ammonium chloride ..	515	646	837	343	—	1
Ammonium sulphate ..	24,510	621	1	3	4	8,264
Ammonium nitrate ..	25,932	9,286	11,411	826	6,129	18,834
Anhydrous ammonia ..	39,043	61,452	62,983	34,785	51,043	73,150
Nicaragua—						
Sodium nitrate ..	397	—	101	n.a.	389	423
Other nitrogen fertilizers	1,421	2,466	6,266	11,777	11,777	3,831
Panama Republic—						
Nitrogen fertilizers ..	9,860	11,172	14,670	n.a.	n.a.	n.a.
Salvador—						
Sodium nitrate ..	981	296	1,069	1,383	592	267
Other nitrogen fertilizers	37,363	47,774	52,886	50,026	76,450	100,810
United States—						
Potassium and sodium nitrates, crude ..	32,561	16,636	12,322	27,301	34,000	12,052
Potassium nitrate ..	2,080	2,739	3,961	3,187	3,970	2,824
Sodium nitrate ..	412,290	317,064	441,379	434,000	106,737	324,300
Calcium nitrate ..	61,472	55,378	65,837	51,935	37,210	48,875
Ammonium sulphate ..	194,172	188,706	216,845	215,177	209,381	185,682
Ammonium chloride ..	4,088	5,789	5,268	4,607	2,311	n.a.
Ammonium nitrate ..	304,497	219,249	222,521	302,322	185,375	212,389
Ammonium phosphates	192,596	107,087	100,887	75,034	115,812	85,845
Cyanamide ..	52,143	39,375	37,488	32,987	25,800	21,428
Argentina—						
Potassium nitrate ..	15	156	68	2	—	—
Sodium nitrate ..	30,367	1,493	16,352	13,791	9,845	10,667
Ammonium sulphate ..	18,650	7,820	12,580	4,324	23,866	38,110
Ammonium chloride ..	937	637	1,234	1,354	1,003	2,576
Brazil—						
Potassium nitrate ..	602	1,337	749	802	777	750
Sodium nitrate ..	48,237	36,151	53,131	32,122	34,309	25,304
Potassium and sodium nitrates ..	7,690	15,841	2,989	12,104	16,429	7,171
Ammonium chloride ..	763	1,292	1,617	1,948	1,363	2,078
Ammonium nitrate ..	13,916	18,179	8,884	5,758	2,180	7,577
Ammonium sulphate ..	84,724	154,889	124,441	115,893	178,611	141,295
Cyanamide ..	31	323	133	165	—	90
Other nitrogen fertilizers	9,462	12,926	9,685	7,324	6,876	9,483
Chile—						
Ammonium chloride ..	241	180	566	496	n.a.	n.a.
Ammonium sulphate ..	89	224	354	170	n.a.	n.a.
Ammonium nitrate ..	7,113	3,197	7,368	7,866	n.a.	n.a.
Anhydrous ammonia ..	94	48	109	50	n.a.	n.a.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Colombia—						
Potassium nitrate ..	222	205	247	208	401	196
Sodium nitrate ..	—	79	30	384	1,551	20
Ammonium chloride ..	354	292	540	478	684	606
Ammonium sulphate ..	1,166	7,163	9,728	4,758	4,508	491
Other nitrogen fertilizers ..	10,186	17,145	19,766	17,047	14,442	6,745
Anhydrous ammonia ..	95	161	133	207	122	2
Ecuador—						
Nitrogen fertilizers ..	5,814	n.a.	4,322	3,656	5,873	8,857
Peru—						
Potassium nitrate ..	78	129	76	63	9	95
Sodium nitrate ..	9,507	10,479	6,254	5,696	4,651	6,508
Anhydrous ammonia ..	195	68	37	24	46	65
Other nitrogen fertilizers ..	84,738	114,414	107,720	121,955	93,901	85,678
Uruguay—						
Potassium nitrate ..	2	111	n.a.	n.a.	n.a.	n.a.
Sodium nitrate ..	504	619	n.a.	n.a.	n.a.	n.a.
Ammonium sulphate ..	4,194	4,921	n.a.	n.a.	n.a.	n.a.
Venezuela—						
Potassium nitrate ..	158	137	172	105	210	177
Sodium nitrate ..	912	651	377	478	120	215
Calcium nitrate ..	32	1,769	4,090	—	—	—
Ammonium sulphate ..	21,040	17,333	18,894	19,146	18,562	2,267
Anhydrous ammonia ..	n.a.	619	698	598	798	716
Cyanamide ..	103	—	1	—	—	49
Burma—						
Nitrogen fertilizers ..	19	10,361	207	180	37,079	13,911
Formosa—						
Sodium nitrate ..	483	237	287	n.a.	440	707
Ammonium chloride ..	n.a.	173	1,322	633	3,562	400
Ammonium sulphate ..	477,107	291,426	187,826	231,550	105,704	171,009
Other nitrogen fertilizers ..	5,138	40,966	46,672	71,978	83,860	75,341
Indonesia—						
Potassium nitrate ..	219	181	76		n.a.	n.a.
Sodium nitrate ..	—	219	23		n.a.	n.a.
Ammonium chloride ..	301	311	575		n.a.	n.a.
Ammonium sulphate ..	208,573	139,950	116,902	224,510	n.a.	n.a.
Anhydrous ammonia ..	1,124	920	1,654		n.a.	n.a.
Other nitrogen fertilizers ..	662	6,167	57,216		n.a.	n.a.
Iran (a)—						
Ammonium chloride ..	n.a.	n.a.	n.a.	490	185	258
Nitrogen fertilizers ..	n.a.	n.a.	8,960	5,205	7,503	4,706
Iraq—						
Nitrogen fertilizers ..	716	2,859	3,932	6,680	n.a.	n.a.
Israel—						
Nitrogen fertilizers ..	6,858	2,954	—	19,916	n.a.	2,116
Japan—						
Sodium nitrate ..	15,831	16,354	20,285	18,701	20,143	20,408
Ammonium sulphate ..	—	3,839	886	2	n.a.	n.a.
Jordan—						
Nitrogen fertilizers ..	1,811	805	1,958	2,628	4,521	2,523
Korea (South)—						
Ammonium sulphate ..	391,960	508,218	573,008	602,762	600,023	204,738
Ammonium nitrate ..	22,613	24,180	2,416	14,114	1,604	1,968
Ammonium chloride ..	743	453	461	n.a.	n.a.	n.a.
Cyanamide ..	518	1,380	1,806	n.a.	n.a.	n.a.
Lebanon—						
Nitrogen fertilizers ..	26,158	36,787	42,275	30,431	52,983	n.a.
Philippine Republic—						
Potassium nitrate ..	989	3,512	n.a.	n.a.	28	n.a.
Sodium nitrate ..	—	142	309	1,123	732	n.a.
Ammonium phosphate ..	24,365	21,301	24,858	19,708	6,882	n.a.
Ammonium sulphate ..	95,269	47,955	60,050	102,754	30,844	n.a.
Other nitrogen fertilizers ..	30,504	34,959	33,283	35,785	10,122	n.a.

(a) Years ended March 20 of year following that stated.

## IMPORTS OF NITROGEN COMPOUNDS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Syria—						
Nitrogen fertilizers ..	19,824	30,908	46,198	38,307	<i>n.a.</i>	18,192
Thailand—						
Potassium nitrate ..	829	787	705	743	933	855
Ammonium chloride ..	595	741	1,358	1,297	1,533	2,016
Ammonium sulphate ..	22,321	28,757	29,621	28,520	42,349	32,311
Other nitrogen fertilizers	433	2,289	2,383	2,765	1,846	1,735
Turkey—						
Sodium nitrate ..	5	1,476	1,434	348	952	<i>n.a.</i>
Ammonium chloride ..	549	198	775	507	359	<i>n.a.</i>
Ammonium sulphate ..	88,368	39,583	121,679	136,731	15,922	<i>n.a.</i>
Ammonium nitrate ..	1,126	1,366	2,038	6,302	63	<i>n.a.</i>
Vietnam (South)—						
Nitrogen fertilizers ..	80,859	54,552	48,582	53,504	182,372	<i>n.a.</i>

# PETROLEUM AND ALLIED PRODUCTS

## PRODUCTION OF CRUDE PETROLEUM\*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Crude petroleum ..	82,700	85,400	105,800	110,900	122,800	127,400
Shale oil ..	60,500	59,900	43,100	15,500	—	—
Nigeria (b) ..	557,000	867,000	2,302,000	3,357,000	3,824,000	6,027,000
Canada (b) ..	24,637,133	25,271,229	29,446,411	32,551,451	34,457,973	36,715,182
Barbados (b) ..	20	419	241	18	3	—
Trinidad (b) ..	5,845,542	6,051,047	6,538,253	6,982,306	6,954,038	7,103,495
Abu Dhabi (c) ..	—	—	—	729,000	2,350,000	5,928,853
Bahrain Islands (c) ..	2,199,000	2,213,000	2,213,000	2,213,000	2,227,000	2,402,000
Brunei ..	5,262,702	4,473,867	4,015,618	3,720,253	3,383,789	3,488,000
India ..	434,250	442,240	502,000	1,060,200	1,626,560	2,177,240
Pakistan (b) ..	333,400	376,600	404,200	476,900	502,000	533,200
Qatar (c) ..	7,866,650	8,083,032	8,249,305	8,670,919	8,953,349	8,802,292
Sarawak ..	54,708	59,442	59,498	57,274	51,126	48,243
Australia ..	—	—	—	—	—	274,258
New Zealand ..	771	783	627	569	570	581
<b>TOTAL ..</b>	<b>47,334,000</b>	<b>47,984,000</b>	<b>53,880,000</b>	<b>59,945,000</b>	<b>64,453,000</b>	<b>73,628,000</b>
<b>OTHER COUNTRIES</b>						
Albania ..	471,000	717,000	759,000	r 773,000	739,000	743,000
Austria ..	2,419,951	2,409,722	2,318,657	2,355,883	2,578,480	2,620,829
Bulgaria ..	189,000	197,000	203,000	196,000	170,000	157,000
Czechoslovakia ..	121,000	135,000	152,000	174,000	177,000	192,000
France ..	1,590,169	1,941,896	2,129,211	2,327,419	2,476,219	2,800,000
Germany (Federal)—						
Crude petroleum ..	5,022,167	5,442,555	6,106,467	6,669,330	7,266,112	7,551,440
Shale oil ..	21,313	19,805	15,946	1,899	—	—
Hungary ..	1,019,551	1,197,475	1,433,945	1,614,641	1,728,000	1,773,000
Italy ..	1,668,663	1,966,568	r 1,940,497	r 1,791,744	1,756,007	2,644,568
Netherlands ..	1,745,207	1,887,382	2,014,169	2,123,000	2,180,000	2,230,000
Poland ..	172,100	191,300	199,400	199,300	209,100	278,000
Roumania ..	11,257,190	11,318,724	11,399,107	11,676,293	12,040,000	12,199,000
U. S. S. R. ..	127,511,000	145,524,000	163,445,000	183,301,000	202,815,000	220,100,000
Yugoslavia ..	583,128	928,662	1,319,574	1,501,393	1,585,181	1,770,194
Algeria (e) ..	1,215,000	8,395,700	15,419,724	20,174,000	23,273,000	25,817,000
Angola ..	49,721	65,794	102,780	463,793	787,028	890,448
Congo (Republic of) ..	—	51,028	101,313	121,440	107,495	31,987
Egypt ..	3,347,000	3,450,000	3,759,000	r 4,433,000	5,510,000	6,250,000
Gabon ..	741,433	787,470	762,217	813,958	875,629	1,041,650
Libya ..	—	—	861,000	8,691,000	21,748,000	40,913,000
Morocco ..	93,079	90,877	78,740	125,296	147,534	117,877
Senegal ..	—	1,600	2,100	400	—	—
South Africa—						
Shale oil (a) ..	26,125	25,062	6,045	—	—	—
Cuba (b) ..	r 28,000	(d) 15,000	r (d) 12,000	r (d) 13,000	(d) 10,000	(d) 12,000
Mexico (b) ..	13,576,000	13,951,000	15,040,000	15,750,000	16,178,000	16,278,000
United States (b) ..	343,278,700	343,324,400	349,567,700	356,825,200	367,029,700	371,576,300
Argentina (b) ..	6,278,900	9,001,100	11,888,800	13,821,175	13,670,100	14,123,500
Bolivia (b) ..	416,800	408,900	355,800	342,200	414,800	420,700
Brazil (b) ..	3,173,389	3,983,298	4,462,400	4,282,000	4,578,000	4,257,000
Chile ..	825,000	928,000	1,189,000	1,500,000	1,695,000	1,760,000
Colombia (b) ..	7,545,600	7,855,000	7,500,000	7,311,000	8,485,000	8,816,324
Ecuador (b) ..	367,545	367,206	389,861	342,806	321,499	373,000

\*Excluding Natural Gasoline. See page 248.

(a) Years ended June 30 of that stated.

(b) The following conversion rates have been used: 35 gallons=1 barrel, and the undermentioned barrels=1 ton—Nigeria 7.3, Canada 7.5, Barbados 8.1, Trinidad 7.0, Burma 7.4, Pakistan 7.0, Cuba 6.8, Mexico 7.1, United States 7.5, Argentina 7.1, Bolivia 7.6, Brazil 7.4 (1959—1960) 7.8 (1961 onwards), Columbia 7.1, Ecuador 7.5, Venezuela 6.95, Indonesia 7.5.

(c) British Protected State.

(d) Estimated.

(e) Including French Sahara.

## PRODUCTION OF CRUDE PETROLEUM (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Peru .. .. .	2,324,000	r 2,531,000	r2,546,000	r2,777,000	2,822,000	3,020,000
Venezuela .. .. .	145,417,118	149,767,000	153,229,000	167,827,000	170,448,000	178,538,000
Burma .. .. .	r 535,274	r 551,355	r 569,965	590,021	642,965	550,000
China (a) .. .. .	3,400,000	5,000,000	6,600,000	(e)6,500,000	(e)6,000,000	(e)6,000,000
Formosa .. .. .	1,720	1,870	2,190	1,850	2,450	8,040
Indonesia .. .. .	17,930,538	20,270,726	20,948,230	r22,424,000	21,923,000	22,960,000
Iran (b) .. .. .	46,709,000	50,991,000	57,094,000	63,461,000	70,497,000	81,114,000
Iraq .. .. .	41,080,000	46,534,398	48,054,764	48,214,537	55,576,822	60,350,313
Israel .. .. .	120,000	129,000	135,000	r 133,000	149,000	196,000
Japan .. .. .	397,000	514,000	642,000	743,608	767,296	642,096
Kuwait .. .. .	68,437,498	80,570,000	81,410,000	90,720,000	95,660,000	105,000,000
Mongolia .. .. .	34,000	28,100	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands New Guinea (c) .. .. .	241,106	244,579	164,791	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Saudi Arabia .. .. .	53,307,390	61,087,931	68,138,424	74,554,207	79,768,933	84,442,667
Turkey .. .. .	367,000	356,760	418,071	586,004	733,168	906,864
Neutral Zone (d) .. .. .	6,110,000	7,175,000	r9,349,000	r12,846,000	16,487,000	19,190,000
<b>TOTAL .. .. .</b>	<b>921,100,000</b>	<b>992,000,000</b>	<b>1,054,000,000</b>	<b>1,141,000,000</b>	<b>1,222,000,000</b>	<b>1,311,000,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>968,500,000</b>	<b>1,040,000,000</b>	<b>1,108,000,000</b>	<b>1,201,000,000</b>	<b>1,287,000,000</b>	<b>1,384,000,000</b>

(a) Including oil from shale and coal.

(b) 1954 Oil Agreement Area only.

(c) Exports.

(d) Neutral Zone of Kuwait and Saudi Arabia.

(e) Estimated.

PRODUCTION OF NATURAL GASOLINE

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	158,748	164,139	213,068	227,380	<i>n.a.</i>	<i>n.a.</i>
Trinidad (a) .. .. .	24,694	23,686	21,539	22,024	19,364	22,696
Brunei .. .. .	70,793	64,465	63,289	65,040	68,565	65,000
New Zealand .. .. .	—	—	—	374	398	405
<b>OTHER COUNTRIES</b>						
France .. .. .	101,895	159,872	214,272	254,104	265,496	291,000
Italy .. .. .	58,954	58,016	56,239	54,212	54,218	62,126
Poland .. .. .	18,100	18,800	19,900	21,100	19,400	<i>n.a.</i>
Roumania .. .. .	254,035	283,747	302,702	315,044	343,299	<i>n.a.</i>
Yugoslavia .. .. .	5,000	6,000	5,000	5,000	6,000	<i>n.a.</i>
Algeria .. .. .	—	35,000	134,000	199,000	237,000	<i>n.a.</i>
Egypt .. .. .	10,000	10,000	9,000	9,000	7,000	<i>n.a.</i>
Mexico .. .. .	1,085,000	1,126,000	1,162,000	1,127,000	1,270,000	<i>n.a.</i>
United States .. .. .	11,527,120	11,297,570	11,635,440	12,027,560	12,944,890	14,162,470
Argentina .. .. .	11,000	7,000	6,000	10,000	12,000	<i>n.a.</i>
Chile .. .. .	20,809	20,000	18,000	48,000	<i>n.a.</i>	<i>n.a.</i>
Colombia .. .. .	90,967	80,572	75,633	73,335	74,587	<i>n.a.</i>
Ecuador .. .. .	15,210	14,560	14,480	12,590	12,420	<i>n.a.</i>
Venezuela .. .. .	525,202	403,096	399,397	383,911	<i>n.a.</i>	<i>n.a.</i>
Formosa .. .. .	236	229	570	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan .. .. .	2,000	6,000	6,000	10,796	18,461	26,153
<b>WORLD'S TOTAL (c)</b>	<b>14,000,000</b>	<b>14,000,000</b>	<b>14,000,000</b>	<b>15,000,000</b>	<b>16,000,000</b>	<b>17,000,000</b>

(a) Incomplete, as about half the production is blended with crude petroleum at field storage.

(b) Including isopentane.

(c) Totals refer only to those countries reported above.

PRODUCTION OF NATURAL GAS\*

Million cubic feet

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	35	35	106	115	<i>n.a.</i>	<i>n.a.</i>
Nigeria .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,130	(b) 1,500
Canada .. ..	417,335	522,972	655,738	946,703	1,117,425	1,363,814
Barbados .. ..	r 62	r 62	r 85	r 100	111	80
Trinidad .. ..	25,206	27,042	29,375	30,018	29,365	38,452
Brunei .. ..	2,694	2,879	2,844	2,830	2,377	<i>n.a.</i>
Pakistan .. ..	22,365	29,842	34,665	42,076	49,459	59,102
Australia .. ..	—	—	12	56	96	106
New Zealand ..	5	5	5	4	5	5
<b>OTHER COUNTRIES</b>						
Austria .. ..	39,835	51,844	54,952	57,734	59,999	62,290
Czechoslovakia ..	47,000	45,700	44,600	37,720	35,200	<i>n.a.</i>
France .. ..	92,318	158,106	213,966	247,384	265,593	279,900
Germany (Federal) ..	r 17,016	r 19,996	r 22,158	r 28,345	39,752	61,375
Hungary .. ..	11,804	12,065	11,429	12,010	21,600	27,679
Italy .. ..	216,040	227,682	r 242,355	r 252,489	256,628	270,780
Netherlands .. ..	r 7,980	r 11,700	r 15,900	r 17,600	20,100	(a) 27,000
Poland .. ..	14,980	19,400	25,900	29,000	34,700	43,470
Roumania .. ..	328,600	358,200	385,400	455,800	503,700	546,800
U.S.S.R. .. ..	1,249,800	1,599,900	2,082,900	2,596,500	3,172,100	3,835,000
Yugoslavia .. ..	1,765	1,869	2,428	3,366	3,570	9,675
Algeria (Sahara) ..	—	—	21,600	30,700	40,360	45,700
Gabon .. ..	244	263	237	310	304	334
Morocco .. ..	350	300	300	350	<i>n.a.</i>	<i>n.a.</i>
Tunisia .. ..	223	253	256	253	258	277
Mexico .. ..	329,408	341,311	360,564	371,358	402,000	504,000
United States .. ..	12,046,115	12,771,038	13,254,025	13,876,622	14,746,663	15,546,592
Argentina .. ..	25,700	37,400	<i>n.a.</i>	218,299	213,240	232,712
Bolivia .. ..	250	210	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil .. ..	15,095	18,889	18,604	18,056	17,774	18,800
Chile .. ..	64,100	77,480	90,020	125,700	<i>n.a.</i>	<i>n.a.</i>
Colombia .. ..	r 13,700	14,300	r 14,700	r 20,900	24,800	29,500
Venezuela .. ..	r 148,040	r 161,907	r 170,117	r 183,236	198,111	215,521
Burma .. ..	178	730	333	634	570	<i>n.a.</i>
Formosa .. ..	930	898	1,309	1,356	1,789	5,982
Indonesia .. ..	79,415	86,576	91,455	96,000	99,000	<i>n.a.</i>
Iran .. ..	32,055	33,558	34,720	37,143	40,212	42,100
Israel .. ..	—	—	100	375	347	1,041
Japan .. ..	17,896	25,831	33,559	42,712	59,845	65,641

\*So far as possible the figures represent only that part of the gas produced which is actually utilized.

NOTE.—Production and shipments of helium in the United States were as follows (million cubic feet).

Production: 1959—477; 1960—642; 1961—r728; 1962—r713; 1963—2,232; 1964—4027.

Shipments: 1959—375; 1960—475; 1961—552; 1962—600; 1963—627; 1964—667.

(a) Deliveries for sale only. (b) Estimated.

PRODUCTION OF ASPHALT ROCK

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
France .. .. .	89,366	95,451	94,561	101,800	104,523	102,549
Germany (Federal) ..	86,302	88,485	81,025	97,329	91,000	120,054
Italy .. .. .	405,706	402,176	334,477	r 313,682	380,461	334,013
Angola .. .. .	27,500	r 25,366	22,423	r 35,665	53,876	43,469
United States (a) ..	1,356,040	1,109,709	1,014,000	1,067,200	1,088,900	1,289,500
Philippine Republic ..	11,601	18,081	6,546	6,824	5,104	—

(a) Shipments.

PRODUCTION OF NATURAL ASPHALT, ETC.

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Trinidad .. .. .	145,418	154,296	175,326	162,613	169,308	189,246
OTHER COUNTRIES						
Spain .. .. .	8,107	8,667	8,915	8,366	7,677	n.a.
United States (a)—						
Gilsonite .. .. .	338,716	341,997	377,100	403,300	n.a.	n.a.
Argentina—						
Grahamite ("Rafaelite")						
(b) .. .. .	1,553	2,125	1,152	713	828	1,052
Impsonite .. .. .	10,600	6,200	3,600	2,200	4,100	2,400

NOTE.—This table is incomplete owing to the fact that official statistics of production of natural asphalt are published by only a few countries.

(a) Shipments.

(b) Exports.

PRODUCTION OF OIL-SHALE

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom ..	708,476	668,816	467,813	156,000	—	—
OTHER COUNTRIES						
Austria .. .. .	224	751	542	606	320	44
France .. .. .	2,904	2,632	4,046	2,883	2,977	3,000
Germany (Federal) (c) ..	410,662	373,231	306,230	96,428	56,929	107,385
Italy .. .. .	108	138	173	n.a.	n.a.	n.a.
Spain .. .. .	831,482	819,361	842,908	719,077	798,608	701,140
Sweden (b) .. .. .	2,878,763	3,649,767	3,400,944	r 3,447,067	3,263,446	n.a.
South Africa (a) ..	134,706	144,971	n.a.	—	—	—

NOTE.—Oil-shale is known to have been produced in U.S.S.R. and Manchuria.

(a) Torbanite. Years ended June 30 of that stated.

(b) Alum shale. The amounts used as retort shale were as follows (long tons): 1959—2,614,052; 1960—3,316,000; 1961—3,122,535; 1962—3,174,219; 1963—3,049,010; 1964—3,174,128.

(c) The amounts used as retort shale were as follows (long tons): 1959—129,237; 1960—111,039; 1961—103,648; 1962—67,898; 1963—nil; 1964—nil.



PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES\*

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom (a)—</b>						
Aviation and motor spirit	7,531,000	7,917,000	8,353,000	8,493,000	7,634,000	8,656,000
Other spirit .. .. .	141,000	167,000	157,000	150,000	156,000	163,000
Kerosine .. .. .	1,772,000	2,284,000	2,683,000	2,610,000	3,083,000	3,169,000
Gas oil and diesel oil .. .. .	7,241,000	7,648,000	8,618,000	9,966,000	10,788,000	11,993,000
Fuel oil .. .. .	15,599,000	18,533,000	21,150,000	21,962,000	21,142,000	22,810,000
Fuel used in refineries .. .. .	3,032,000	3,290,000	3,470,000	3,619,000	3,803,000	3,972,000
Lubricating oil .. .. .	863,000	912,000	958,000	899,000	967,000	1,036,000
Bitumen .. .. .	961,000	1,037,000	1,133,000	1,220,000	1,305,000	1,458,000
Paraffin wax .. .. .	31,000	36,000	39,000	38,000	55,000	59,000
<b>Ghana—</b>						
Motor spirit .. .. .	—	—	—	—	32,288	141,436
Kerosine .. .. .	—	—	—	—	13,370	46,148
Gas oil .. .. .	—	—	—	—	71,754	260,561
Fuel oil .. .. .	—	—	—	—	48,785	255,616
<b>Barbados—</b>						
Motor spirit .. .. .	—	1,505	2,057	2,484	2,468	3,076
Kerosine .. .. .	—	1,852	2,127	2,102	2,123	3,010
Gas oil .. .. .	—	—	375	454	875	—
Diesel oil .. .. .	—	1,476	3,752	3,777	3,211	9,228
Fuel oil .. .. .	—	6,702	12,181	11,159	11,100	14,547
Asphalt .. .. .	—	—	790	1,321	1,090	2,803
<b>Canada (b)—</b>						
Aviation spirit .. .. .	55,158	123,373	109,716	164,765	173,007	162,561
Motor spirit .. .. .	10,947,289	11,412,518	11,654,678	12,389,273	13,321,500	13,929,830
Naphtha .. .. .	157,600	198,900	201,561	186,280	225,779	245,726
Kerosine .. .. .	1,771,633	1,912,900	2,007,569	2,242,058	2,397,362	2,334,603
Aviation turbine fuel .. .. .	535,093	611,166	813,779	868,034	948,340	899,853
Gas oil, etc. .. .. .	6,284,988	6,385,447	6,754,731	6,996,664	8,181,244	7,804,947
Diesel oil .. .. .	3,787,358	3,837,402	3,674,460	4,131,139	4,527,930	4,943,335
Fuel oil .. .. .	6,743,127	6,496,024	6,866,810	7,639,835	8,369,558	8,620,484
Lubricating oil and greases .. .. .	269,851	287,893	210,244	227,256	244,051	243,422
Coke .. .. .	468,958	575,951	333,365	268,139	222,143	169,205
Asphalt .. .. .	1,494,174	1,531,016	1,444,049	1,475,778	1,586,547	1,691,706
<b>Trinidad—</b>						
Aviation spirit .. .. .	441,238	469,935	432,917	433,791	(e) 107,765	(e) 108,562
Motor spirit .. .. .	1,297,949	1,214,450	1,481,959	1,516,930	(e) 2,153,195	(e) 2,087,839
White spirit .. .. .	7,657	8,577	9,250	7,650	8,222	7,260
Kerosine .. .. .	355,865	305,828	486,117	255,160	229,692	302,046
Aviation turbine fuel .. .. .	(d)	(d)	(d)	1,093,405	974,132	1,201,118
Gas and diesel oil .. .. .	1,809,615	1,824,563	2,256,397	2,397,588	2,747,295	2,692,921
Fuel oil .. .. .	5,374,073	6,845,265	8,668,667	9,301,140	10,195,646	10,967,287
Lubricating oil and greases .. .. .	340	331	153	278	343	67,640
Bitumen .. .. .	40,600	29,362	34,370	37,943	36,199	} 116,940
Other products .. .. .	180,003	783,362	1,047,194	69,787	57,681	
<b>Aden—</b>						
Motor spirit .. .. .	597,590	621,319	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	395,489	321,813	520,000	648,000	691,000	660,000
Fuel oils .. .. .	2,951,510	3,092,829	3,683,000	4,281,000	4,963,000	3,962,000
<b>Bahrain Islands (c)—</b>						
Motor spirit .. .. .	1,983,000	2,097,000	2,148,000	1,931,000	1,655,000	1,662,000
Kerosine .. .. .	716,000	715,000	617,000	569,000	531,000	437,000
Jet fuel .. .. .	—	—	—	746,000	645,000	823,000

\*This table refers to the more important products obtained and does not include in some cases items classified as "other products". It follows, therefore, that the sum of the products shown for a particular country does not necessarily represent the total refinery production.

(a) Including distillation plants.

(b) Including the amount used in the refineries.

(c) British Protected State.

(d) Included with "Other finished products".

(e) Owing to reclassification not strictly comparable with earlier years.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Bahrain Islands (c)—						
(cont.)—						
Gas oil and diesel oil ..	2,097,000	2,240,000	2,443,000	2,700,000	2,618,000	2,081,000
Fuel oil .. ..	3,835,000	4,356,000	4,630,000	5,121,000	4,906,000	4,069,000
Lubricating oil .. ..	—	39,000	28,000	n.a.	—	77,000
Bitumen .. ..	75,000	104,000	109,000	87,000	28,000	33,000
India—						
Motor and other spirits	935,960	1,030,600	1,051,906	1,142,900	} 7,529,230	8,317,020
Kerosine .. ..	724,340	916,550	1,001,311	1,149,100		
Gas and diesel oils ..	1,396,750	1,574,340	1,642,241	1,762,810		
Fuel oil, etc. .. ..	1,656,040	1,666,060	1,782,482	1,924,360		
Lubricating oils .. ..	21,190	21,250	24,994	25,270		
Bitumen .. ..	285,830	393,470	431,434	362,370		
Other refined products	50,820	64,580	69,697	126,660		
Malaya and Singapore—						
Motor spirit .. ..	—	—	—	(b) 775,000	1,071,000	b 1,191,000
Kerosine .. ..	—	—	—	(b) 397,000	271,000	b 427,000
Gas and diesel oils ..	—	—	—	b 1,257,000	1,376,000	b 1,745,000
Fuel oil .. ..	—	—	—	b 2,849,000	3,234,000	b 3,306,000
Pakistan—						
Motor spirit .. ..	82,000	89,000	89,000	108,000	110,000	54,000
Kerosine .. ..	14,000	19,000	24,000	28,000	33,000	16,000
Diesel oil .. ..	69,000	75,000	93,000	115,000	123,000	61,000
Fuel oil .. ..	109,000	105,000	114,000	127,000	144,000	75,000
Lubricating oil .. ..	6,000	6,000	10,000	12,000	12,000	6,000
Bitumen .. ..	12,000	20,000	20,000	22,000	22,000	16,000
Sarawak—						
Motor spirit .. ..	5,900	—	5,100	12,500	—	6,800
Gas and diesel oils ..	1,275,000	1,303,100	1,169,400	1,074,000	394,500	419,300
Fuel oil .. ..	—	—	11,100	43,300	15,700	48,600
Feedstocks (a) .. ..	1,090,900	1,022,600	1,075,100	1,069,800	1,717,800	1,849,900
Australia—						
Aviation spirit .. ..	37,363	47,651	43,054	31,880	27,022	30,354
Motor spirit .. ..	3,247,875	3,571,457	3,863,924	3,977,627	4,281,400	4,621,548
Kerosine .. ..	128,887	168,844	136,941	154,920	174,443	273,799
Aviation turbine fuel ..	197,660	239,052	298,573	271,595	279,734	346,112
Gas and diesel oils ..	2,059,246	2,522,443	2,513,954	r 2,501,940	2,646,557	2,462,321
Fuel oil .. ..	2,849,518	3,205,877	3,737,178	4,273,460	4,712,293	4,904,359
do. (used in refineries)	775,913	839,058	930,286	1,078,605	1,291,972	n.a.
Lubricating oil .. ..	31,102	30,235	22,279	15,363	77,581	194,848
Bitumen .. ..	274,399	279,775	288,485	r 298,990	320,872	355,531
New Zealand—						
Motor spirit .. ..	133	147	124	247	295	260
White spirit .. ..	39	47	41	47	34	41
Kerosine .. ..	138	140	127	158	136	108
Diesel oil .. ..	149	140	123	176	165	238
Fuel oil .. ..	217	209	184	275	299	301
Irish Republic—						
Motor spirit .. ..	108,000	278,000	301,800	319,000	332,000	376,000
Kerosine .. ..	12,000	26,000	8,000	} 9,000	n.a.	n.a.
Jet fuel .. ..	300	7,000	6,000			
Gas and diesel oils ..	170,000	406,000	445,200	463,000	487,000	531,000
Fuel oil .. ..	310,000	598,000	586,500	636,000	651,000	727,000

(a) Mainly gasoline-type and fuel oil-type feedstocks, previously included with motor spirit and fuel oil.

(b) Estimated.

(c) British Protected State.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<b>Albania—</b>						
Motor spirit .. ..	47,000	53,000	55,000	48,000	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	3,000	2,000	3,000	2,000	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	62,000	67,000	62,000	75,000	<i>n.a.</i>	<i>n.a.</i>
<b>Austria—</b>						
Motor spirit .. ..	282,087	277,099	241,041	273,725	368,211	505,653
Kerosine .. ..	33,013	38,964	45,237	36,017	57,021	68,269
Gas oil .. ..	618,975	596,441	627,668	771,203	831,366	845,773
Fuel oil .. ..	724,022	804,319	914,453	1,194,747	1,370,472	1,565,966
Lubricating oil .. ..	62,889	77,431	87,432	117,497	108,988	189,040
Bitumen .. ..	64,915	66,621	85,923	111,699	124,660	156,360
<b>Belgium—</b>						
Aviation spirit and aviation turbine gasoline ..	135,560	117,240	177,900	216,650	224,970	244,030
Motor spirit .. ..	1,151,650	1,143,200	1,269,250	1,286,240	1,458,880	1,590,977
White spirit, etc. ..	109,410	157,340	34,010	52,200	59,950	59,110
Kerosine, including aviation kerosine .. ..	248,710	237,630	224,120	236,170	324,260	421,230
Gas oil .. ..	1,355,450	1,423,170	1,586,340	1,533,980	2,338,950	2,462,830
Diesel oil .. ..	551,190	665,710	766,550	970,160	1,363,670	1,634,530
Fuel oil .. ..	2,068,060	2,130,480	2,447,060	2,573,640	3,889,990	4,215,265
Lubricating oil .. ..	29,290	31,010	27,350	29,800	30,570	36,825
Bitumen .. ..	234,580	294,590	336,800	381,150	472,960	504,150
<b>Bulgaria—</b>						
Diesel oil .. ..	29,000	34,000	38,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	54,568	63,830	46,838	41,413	261,000	<i>n.a.</i>
Lubricating oil .. ..	19,000	24,000	22,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Czechoslovakia—</b>						
Motor spirit .. ..	365,000	421,000	531,000	526,000	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	56,000	82,000	85,000	116,000	89,000	108,000
Diesel oil .. ..	966,000	1,152,000	1,342,000	1,434,000	1,627,000	1,751,000
<b>Denmark—</b>						
Motor spirit .. ..	}	}	47,827	198,929	361,341	656,726
Kerosine and gas oil .. ..					425,043	568,761
Diesel oil .. ..					33,848	182,726
Fuel oil .. ..	11,184	10,872	115,812	474,469	1,020,606	1,444,145
Lubricating oil .. ..	(a) 2,116	(a) 2,254	(a) 2,247	(a) 2,418	(a) 2,453	2,739
Grease .. ..	(a) 3,272	4,827	(a) 3,302	(a) 3,095	(a) 1,672	1,817
Asphalt .. ..	26,225	27,823	28,822	24,740	23,069	24,553
<b>France—</b>						
Motor spirit .. ..	6,126,000	6,325,000	6,946,000	r 6,923,000	7,805,000	8,600,000
Kerosine and jet fuel ..	1,136,000	1,344,000	1,550,000	r 1,672,000	1,789,000	1,770,000
Gas and diesel oil .. ..	3,272,000	3,315,000	4,274,000	4,422,000	4,479,000	4,828,000
Fuel oils .. ..	13,560,000	14,543,000	16,387,000	r 18,218,000	21,854,000	26,214,000
Lubricating oil .. ..	588,000	642,000	683,000	683,000	791,000	854,000
Other products (b) .. ..	1,958,000	2,242,000	2,494,000	r 2,900,000	3,148,000	<i>n.a.</i>
<b>Germany (Federal)—</b>						
Aviation spirit .. ..	594,408	757,987	832,718	839,962	1,084,771	1,358,162
Motor spirit .. ..	4,474,066	5,369,545	6,510,549	7,225,298	8,127,307	8,957,683
White spirit .. ..	98,476	116,619	129,233	134,634	130,369	143,571
Kerosine .. ..	261,308	255,625	409,012	619,415	632,715	669,029
Diesel oil .. ..	4,360,504	4,765,109	5,485,114	6,057,543	7,131,679	6,680,977
Fuel oil .. ..	8,444,428	13,143,837	17,138,325	19,018,595	22,701,996	31,585,781
Lubricating oil .. ..	421,899	473,257	509,474	555,014	544,939	590,062
Grease .. ..	12,408	16,537	16,951	17,867	16,962	21,740
Paraffin wax .. ..	48,120	57,166	69,208	76,303	95,842	87,207
Coke .. ..	296,810	302,168	341,987	382,796	422,777	436,773
Bitumen .. ..	1,060,776	1,142,057	1,365,205	1,775,578	2,267,779	2,776,008
<b>Greece—</b>						
Motor spirit .. ..	167,000	205,000	212,326	210,037	250,000	248,167
Kerosine .. ..	104,000	123,000	121,014	135,000	141,000	143,042
Aviation turbine fuel ..	88,000	70,000	66,500	44,488	24,000	30,963
Diesel oil .. ..	427,000	439,000	498,160	533,218	610,000	574,942
Fuel oil .. ..	657,000	703,000	727,606	688,877	700,000	629,043
Asphalt .. ..	39,000	41,000	36,956	46,137	<i>n.a.</i>	61,409

(a) Production in major establishments only.

(b) Other than butane and propane.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Hungary—</b>						
Motor spirit .. ..	296,065	324,190	333,057	342,905	327,000	364,000
Kerosine .. ..	44,546	49,139	63,786	67,221	70,943	<i>n.a.</i>
Diesel oil .. ..	630,813	718,995	779,987	847,326	847,000	945,000
Fuel oil .. ..	821,478	972,211	1,121,609	1,262,263	1,381,000	1,617,000
Lubricating oils .. ..	86,279	99,410	98,973	100,112	98,934	<i>n.a.</i>
Grease .. ..	17,029	17,921	18,242	18,476	18,399	<i>n.a.</i>
Bitumen .. ..	284,280	309,511	339,756	378,064	409,607	<i>n.a.</i>
<b>Italy—</b>						
Motor spirit .. ..	3,907,182	4,947,463	5,430,611	6,478,411	7,098,878	8,377,303
White spirit .. ..	31,192	32,460	36,977	36,730	46,306	39,757
Kerosine .. ..	1,011,188	1,043,725	1,356,829	1,350,744	1,504,246	1,597,528
Gas oil .. ..	5,107,497	5,850,372	6,276,158	7,487,436	8,811,322	10,171,158
Fuel oil and diesel oil .. ..	12,926,305	15,104,052	17,507,015	21,268,132	24,780,750	30,104,155
Lubricating oil .. ..	150,956	163,174	152,960	169,842	166,458	255,077
Bitumen .. ..	623,842	686,100	829,117	881,570	1,005,890	1,207,710
Other products .. ..	618,084	700,571	809,004	979,362	1,119,882	1,524,789
<b>Netherlands—</b>						
Motor spirit .. ..	2,567,000	3,164,000	2,898,000	3,446,000	3,602,000	2,725,000
White spirit and other solvents .. ..	<i>n.a.</i>	<i>n.a.</i>	130,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	1,278,000	1,405,000	1,611,000	935,000	955,000	940,000
Aviation fuels .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	950,000	843,000	961,000
Gas and diesel oil .. ..	3,381,000	4,380,000	4,668,000	5,379,000	5,082,000	5,930,000
Residual fuel oil .. ..	6,451,000	7,918,000	8,350,000	9,484,000	9,995,000	10,770,000
Lubricating oil .. ..	189,000	203,000	255,000	242,000	241,000	247,000
Bitumen .. ..	261,000	379,000	462,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Poland—</b>						
Aviation and motor spirit .. ..	101,100	116,800	132,900	240,200	296,600	<i>n.a.</i>
Kerosine .. ..	113,400	99,800	79,600	27,600	20,800	<i>n.a.</i>
Gas and diesel oil .. ..	200,600	236,000	276,700	411,500	470,400	579,000
Fuel oil .. ..	56,000	64,000	67,700	191,000	223,400	<i>n.a.</i>
Lubricating oil .. ..	157,100	139,500	150,300	155,200	180,500	<i>n.a.</i>
Grease .. ..	20,600	21,100	23,100	25,000	25,000	<i>n.a.</i>
Paraffin wax .. ..	7,000	7,700	9,200	9,900	7,800	<i>n.a.</i>
Bitumen .. ..	105,400	117,100	120,100	143,400	182,900	<i>n.a.</i>
<b>Portugal—</b>						
Motor spirit .. ..	300,673	294,669	320,203	356,104	373,610	372,554
Kerosine .. ..	202,904	202,940	164,864	150,303	162,901	181,174
Jet fuel .. ..	19,197	16,968	8,901	11,685	31,282	28,687
Gas and diesel oil .. ..	187,677	254,516	255,056	250,519	284,965	316,749
Fuel oil .. ..	412,071	446,668	443,453	448,475	502,407	560,832
<b>Roumania—</b>						
Motor spirit .. ..	2,654,958	2,747,883	2,625,182	2,362,293	2,396,000	2,472,000
Kerosine and white spirit .. ..	1,258,523	1,269,037	1,214,526	1,214,977	1,067,000	974,000
Gas oil .. ..	2,240,735	2,338,444	2,611,434	2,864,085	3,061,000	3,333,000
Fuel oil .. ..	3,884,991	3,763,158	3,623,280	3,889,435	3,995,000	3,778,000
Bitumen .. ..	207,000	245,000	272,000	264,000	290,000	316,000
<b>Spain—</b>						
Motor spirit .. ..	603,000	575,000	(a) 703,000	732,000	706,000	1,065,000
Kerosine and jet fuel .. ..	263,000	257,000	(a) 294,000	367,000	369,000	391,000
Gas oil .. ..	855,000	855,000	a 1,213,000	1,373,000	1,380,000	1,879,000
Diesel oil .. ..						
Fuel oil .. ..	1,943,000	2,000,000	a 2,087,000	2,548,000	2,679,000	3,089,000
Lubricating oil .. ..	36,000	36,000	(a) 56,000	94,000	90,000	173,000
<b>Sweden—</b>						
Motor spirit .. ..	331,467	372,400	365,921	358,749	386,741	<i>n.a.</i>
White spirit etc. .. ..	6,905	14,134	12,999	13,554	14,821	<i>n.a.</i>
Kerosine .. ..	125,159	105,200	5,789	8,017	4,000	<i>n.a.</i>
Fuel oil, etc. .. ..	1,795,800	1,962,800	1,747,000	1,808,000	1,873,000	<i>n.a.</i>
Lubricating oil .. ..	31,157	38,828	53,448	51,768	53,008	<i>n.a.</i>
Asphalt .. ..	240,604	252,506	324,888	334,482	367,016	<i>n.a.</i>

(a) United States Bureau of Mines' estimate.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Yugoslavia—</b>						
Motor spirit .. ..	245,347	272,869	288,919	316,540	338,525	379,471
White spirit .. ..	7,924	8,706	8,297	10,427	12,107	15,830
Kerosine .. ..	62,301	72,847	57,936	79,706	87,458	96,648
Gas oil .. ..	326,224	348,077	398,152	523,847	608,119	690,317
Fuel oil .. ..	352,169	389,141	402,891	484,394	472,471	672,656
Lubricating oil .. ..	50,455	60,211	71,095	97,506	110,127	124,321
Bitumen .. ..	81,060	70,740	78,766	112,036	<i>n.a.</i>	<i>n.a.</i>
Other products .. ..	6,958	7,749	6,151	6,317	<i>n.a.</i>	<i>n.a.</i>
<b>Angola—</b>						
Motor spirit .. ..	9,000	28,000	32,912	r 49,691	64,235	52,495
Kerosine .. ..	1,000	3,100	2,513	r 3,806	9,435	5,823
Gas and diesel oil .. ..	15,000	r 47,500	53,138	r 89,628	123,559	113,448
Fuel oil .. ..	39,000	94,900	110,398	r 184,731	251,901	310,739
Asphalt .. ..	—	—	—	r 2,105	6,304	7,149
<b>Canary Islands—</b>						
Motor spirit .. ..	379,570	344,043	394,615	506,807	570,501	552,320
Kerosine .. ..	104,382	134,388	103,418	120,767	135,744	182,680
Jet fuel .. ..	29,752	31,925	55,634	44,406	58,792	3,873
Gas oil .. ..	427,466	364,141	427,514	643,736	864,053	339,586
Diesel oil .. ..	241,422	223,121	207,331	236,325	214,624	269,026
Fuel oil .. ..	1,289,310	1,389,987	1,430,090	1,961,388	2,453,337	2,722,368
Lubricating oil .. ..	22,806	20,618	25,568	28,426	29,635	36,642
Asphalt .. ..	85,989	109,737	143,481	154,764	150,338	227,020
<b>Egypt—</b>						
Motor spirit .. ..	336,000	301,000	380,379	543,791	702,025	747,084
Kerosine .. ..	286,000	364,000	447,715	535,745	796,996	968,134
Jet fuel .. ..	30,000	27,000	26,496	47,117	29,215	11,629
Gas and diesel oil .. ..	431,000	579,000	706,458	880,753	1,021,560	1,186,579
Fuel oil .. ..	2,025,000	2,694,000	2,609,091	2,778,036	3,335,614	4,169,717
Asphalt .. ..	126,800	110,000	121,804	150,390	140,740	148,436
<b>Morocco—</b>						
Motor spirit .. ..	62,412	73,700	67,900	75,400	251,200	165,000
Kerosine .. ..	9,085	10,000	15,500	26,000	76,600	62,000
Gas and fuel oils .. ..	62,357	78,600	109,600	200,700	559,600	639,000
<b>Mozambique—</b>						
Motor spirit .. ..	—	—	82,933	90,337	92,814	100,022
Gas oil .. ..	—	—	98,372	110,448	114,890	131,706
Fuel oil .. ..	—	—	211,866	211,025	227,016	242,372
<b>South Africa—</b>						
Motor spirit .. ..	486,000	487,000	543,000	591,000	592,000	1,352,000
Kerosine .. ..	135,000	137,000	130,000	142,000	184,000	206,000
Jet fuel .. ..	8,000	22,000	30,000	31,000		
Gas and diesel oil .. ..	350,000	334,000	388,000	422,000	533,000	1,312,000
Fuel oil .. ..	284,000	270,000	323,000	343,000	840,000	1,227,000
<b>Cuba—</b>						
Motor spirit .. ..	639,000	575,406	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	133,000	142,056	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil and diesel oil .. ..	745,000	488,139	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	1,760,000	1,456,692	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	—	13,145	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Mexico—</b>						
Aviation spirit .. ..	41,723	45,850	76,346	71,057	71,935	<i>n.a.</i>
Motor spirit .. ..	2,908,540	2,927,226	3,249,296	3,141,662	3,191,105	<i>n.a.</i>
Kerosine .. ..	1,380,740	1,258,026	1,396,092	1,424,619	1,464,242	<i>n.a.</i>
Gas and diesel oil .. ..	1,655,635	1,995,777	2,335,114	2,821,797	3,131,505	<i>n.a.</i>
Fuel oil .. ..	6,410,317	6,130,273	6,911,873	6,584,388	6,194,844	<i>n.a.</i>
Lubricating oil .. ..	142,785	147,707	156,333	153,978	164,925	<i>n.a.</i>
Grease .. ..	3,373	3,760	4,807	6,276	6,400	<i>n.a.</i>
Paraffin wax .. ..	45,067	39,970	40,926	38,610	41,547	<i>n.a.</i>
Asphalt .. ..	232,000	302,000	283,000	328,000	319,000	<i>n.a.</i>

PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Netherlands Antilles (b)-</b>						
Aviation spirit .. ..	1,195,762	1,413,993	1,455,000	1,601,000	1,563,000	1,558,000
Motor spirit .. ..	2,492,642	2,568,964	2,524,000	2,424,000	2,508,000	2,825,000
White spirit .. ..	100,112	67,398	57,000	61,000	56,000	74,000
Kerosine .. ..	1,535,172	1,326,787	1,060,000	830,000	859,000	724,000
Aviation turbine fuel .. ..	2,006,922	1,660,951	2,155,000	2,264,000	<i>n.a.</i>	2,882,000
Gas oil .. ..	3,216,223	3,186,203	3,665,000	4,378,000	4,705,000	3,488,000
Diesel oil .. ..	1,848,607	1,470,405	1,296,000	1,302,000	1,465,000	1,678,000
Fuel oil .. ..	19,766,415	20,162,668	20,792,000	21,802,000	21,357,000	21,858,000
Lubricating oil .. ..	648,592	723,507	655,000	814,000	599,000	809,000
Asphalt .. ..	861,786	840,671	894,000	835,000	808,000	898,000
<b>Nicaragua—</b>						
Motor spirit .. ..	—	—	—	—	(a) 41,000	(a) 77,000
Kerosine .. ..	—	—	—	—	(a) 15,000	(a) 18,000
Gas and diesel oil .. ..	—	—	—	—	(a) 28,000	(a) 47,000
Fuel oil .. ..	—	—	—	—	(a) 58,000	(a) 95,000
<b>Panama—</b>						
Motor spirit .. ..	—	—	—	(a) 135,000	257,000	235,000
Kerosine .. ..	—	—	—	(a) 79,000	67,000	75,000
Jet fuel .. ..	—	—	—	(a) 5,000	25,000	48,000
Gas and diesel oil .. ..	—	—	—	(a) 187,000	597,000	614,000
Fuel oil .. ..	—	—	—	(a) 451,000	929,000	979,000
<b>Salvador—</b>						
Motor spirit .. ..	—	—	—	—	86,121	(a) 104,000
Kerosine .. ..	—	—	—	—	33,550	(a) 37,000
Diesel oil .. ..	—	—	—	—	202,662	(a) 257,000
<b>United States—</b>						
Aviation spirit .. ..	13,739,000	12,692,000	13,152,000	13,586,000	13,800,000	14,203,000
Motor spirit .. ..	156,664,000	161,605,000	162,503,000	167,668,000	172,246,000	178,973,000
Kerosine (c) .. ..	14,195,000	17,416,000	18,161,000	20,030,000	21,120,000	21,575,000
Jet fuels (military) .. ..	11,828,000	11,232,000	12,118,000	13,016,000	12,646,000	13,745,000
Distillate fuel oil .. ..	92,217,000	90,731,000	94,521,000	97,705,000	103,808,000	100,738,000
Residual fuel oil .. ..	50,735,000	48,438,000	46,022,000	43,120,000	40,237,000	38,912,000
Lubricating oil .. ..	7,856,000	8,314,000	8,296,000	8,605,000	8,832,000	8,914,000
Paraffin wax .. ..	703,800	737,000	723,000	669,000	641,000	669,000
Coke .. ..	7,342,300	10,716,000	13,452,000	14,058,000	14,409,000	15,058,000
Asphalt .. ..	15,851,000	16,018,000	16,529,000	17,778,000	18,173,000	18,649,000
Road oil .. ..	1,033,000	950,000	926,000	1,126,000	1,081,000	1,014,000
<b>Argentina—</b>						
Aviation spirit .. ..	54,700	51,200	47,000	44,800	35,100	42,700
Motor spirit .. ..	1,609,400	1,903,200	2,164,400	2,672,600	2,532,200	2,730,900
Kerosine .. ..	1,166,000	1,029,000	1,017,200	1,183,600	972,200	1,140,000
Gas oil .. ..	445,000	642,300	739,500	1,053,200	1,424,400	1,382,900
Diesel oil .. ..	1,157,600	950,600	929,800	971,700	1,184,000	1,048,800
Fuel oil .. ..	5,408,600	6,044,000	6,565,400	6,774,600	6,288,500	6,829,700
Lubricating oil .. ..	131,800	133,600	137,500	129,300	108,100	126,400
<b>Bolivia—</b>						
Motor spirit .. ..	98,608	103,556	105,494	117,799	115,719	129,094
Kerosine .. ..	44,245	50,886	50,774	54,775	54,736	59,410
Diesel oil .. ..	39,602	47,032	48,655	59,997	57,005	61,213
Fuel oil .. ..	91,222	78,959	73,331	92,193	106,352	115,127
<b>Brazil—</b>						
Motor spirit .. ..	2,200,000	2,453,000	2,718,000	3,532,000	3,764,000	4,068,000
Kerosine .. ..	294,000	513,000	502,000	555,000	516,000	577,000
Diesel oil .. ..	996,000	1,355,000	2,061,000	2,683,000	3,052,000	3,112,000
Fuel oil .. ..	2,995,000	3,438,000	4,214,000	5,653,000	5,993,000	5,726,000
Lubricating oil .. ..	—	2,473	1,175	1,788	6,934	400
Paraffin wax .. ..	—	—	—	16,189	10,410	600
Asphalt .. ..	177,059	199,443	202,132	227,216	253,941	205,000

(a) United States Bureau of Mines' estimate. (b) Exports. (c) Including commercial jet fuel.

PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Chile—</b>						
Aviation spirit .. ..	—	26,500	35,400	49,000	41,000	47,000
Motor spirit .. ..	425,600	509,900	537,000	676,800	652,000	689,000
Kerosine .. ..	90,700	139,900	150,500	203,900	234,000	242,000
Diesel oil .. ..	234,500	253,000	275,200	340,400	359,000	388,000
Fuel oil .. ..	245,400	294,300	375,700	583,000	563,000	547,000
<b>Colombia—</b>						
Aviation spirit .. ..	50,804	57,812	59,668	66,803	62,861	80,000
Motor spirit .. ..	(a) 923,511	1,029,681	1,166,584	1,181,487	1,190,552	1,259,000
Other spirit .. ..	14,900	14,900	56,200	65,100	58,400	n.a.
Kerosine .. ..	207,097	206,374	203,163	236,223	230,285	228,000
Jet fuel .. ..	3,033	5,553	15,448	22,152	19,539	19,000
Gas oil .. ..	18,772	12,990	1,229	—	7,431	n.a.
Diesel oil .. ..	425,655	467,674	513,758	556,314	549,533	564,000
Fuel oil .. ..	1,367,658	1,394,089	1,296,779	1,528,069	1,340,586	1,335,000
Lubricating oil and grease .. ..	14,224	13,603	17,048	19,443	20,107	47,000
Coke .. ..	99,485	96,885	96,345	91,835	93,549	n.a.
Asphalt .. ..	46,333	53,388	49,895	67,528	53,757	69,000
<b>Ecuador—</b>						
Motor spirit .. ..	100,940	172,310	139,870	110,160	134,430	n.a.
Kerosine .. ..	32,305	38,218	40,444	40,822	45,743	61,000
Gas and diesel oils .. ..	87,535	94,417	102,240	95,374	111,100	116,000
Residual fuel oil .. ..	99,910	180,520	224,950	177,550	169,870	189,000
<b>Peru—</b>						
Aviation spirit .. ..	26,000	11,000	6,000	7,000	5,000	6,000
Motor spirit .. ..	538,000	557,000	572,900	616,000	625,000	679,000
Kerosine .. ..	408,000	464,000	389,500	381,800	380,000	398,000
Aviation turbine fuel .. ..	8,000	32,000	41,900	62,700	62,000	92,000
Diesel oil .. ..	670,000	692,000	748,900	818,800	792,000	812,000
Fuel oil .. ..	337,000	358,000	351,500	404,000	661,000	740,000
Lubricating oil and grease .. ..	9,000	7,000	12,000	11,000	8,000	11,000
<b>Uruguay—</b>						
Motor spirit .. ..	226,254	238,439	234,647	284,842	251,538	257,373
Kerosine .. ..	167,797	183,422	172,269	167,212	165,549	175,300
Aviation turbine fuel .. ..	4,887	6,617	9,581	17,181	14,322	15,585
Gas oil .. ..	69,990	158,667	175,670	188,567	190,840	239,142
Diesel oil .. ..	48,508	41,261	37,891	47,988	66,041	62,390
Fuel oil .. ..	567,980	607,495	635,635	660,166	601,394	625,405
Lubricating oil .. ..	808	1,643	875	313	473	766
Asphalt .. ..	10,200	10,700	12,800	18,900	14,900	12,800
<b>Venezuela—</b>						
Motor spirit .. ..	4,885,035	4,453,686	4,882,540	5,570,306	5,824,489	5,469,000
Kerosine .. ..	1,630,746	1,193,124	1,379,521	1,294,876	1,125,419	1,490,000
Gas and diesel oils .. ..	7,463,514	7,739,831	8,632,145	10,187,728	10,792,154	10,534,000
Fuel oil .. ..	24,058,382	27,318,514	27,433,708	30,934,189	31,267,995	34,092,000
Lubricating oil .. ..	164,384	206,100	515,916	567,210	618,310	649,600
Asphalt .. ..	890,000	1,007,000	1,041,000	1,070,000	839,000	865,000
<b>Burma—</b>						
Motor spirit .. ..	r 133,010	r 148,680	r 143,910	r 148,194	r 142,090	r 144,000
Kerosine .. ..	r 91,953	r 104,700	r 88,629	r 89,229	r 108,720	r 126,000
Jet fuel .. ..	6,770	14,224	n.a.	21,842	25,000	n.a.
Diesel oil .. ..	r 99,500	r 106,860	r 125,680	r 167,940	r 171,130	r 191,000
Fuel oil .. ..	77,279	65,326	71,437	48,521	n.a.	n.a.
Paraffin wax .. ..	r 11,835	r 13,021	r 13,349	r 17,143	r 18,631	r n.a.
Coke .. ..	n.a.	n.a.	n.a.	12,000	n.a.	n.a.

(a) Including naptha.

## PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964	
<b>OTHER COUNTRIES</b>							
<i>(cont.)</i>							
<b>Formosa—</b>							
Aviation spirit .. ..	5,207	} 215,000	226,000	229,000	237,000	249,000	
Motor spirit .. ..	166,239		226,000	229,000	237,000	249,000	
Kerosine .. ..	32,482		29,000	28,400	31,000	31,500	31,300
Jet fuel .. ..	128,274		134,700	144,500	(b) 168,000	(b) 145,000	(b) 144,000
Diesel oil .. ..	151,470		177,700	175,200	219,900	185,800	234,200
Fuel oil .. ..	332,018		377,700	424,900	521,300	561,300	573,700
Asphalt .. ..	42,257		46,831	60,722	67,232	51,202	39,852
<b>Indonesia—</b>							
Aviation spirit .. ..	167,569	145,062	117,460	83,000	67,000	<i>n.a.</i>	
Motor spirit .. ..	2,194,597	2,106,696	1,982,879	1,805,000	1,738,000	<i>n.a.</i>	
Kerosine .. ..	1,614,317	1,656,183	1,704,781	1,742,000	1,828,000	<i>n.a.</i>	
Fuel, gas, diesel and lubricating oils .. ..	6,726,997	6,828,896	7,002,858	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Paraffin wax .. ..	100,197	102,462	89,985	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Asphalt .. ..	28,894	31,002	43,895	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
Other products .. ..	787,955	659,843	758,775	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	
<b>Iran (a)—</b>							
Aviation spirit .. ..	503,000	545,000	473,000	566,000	554,000	563,000	
Motor spirit .. ..	2,048,000	2,357,000	1,717,000	2,100,000	2,038,000	1,904,000	
Kerosine .. ..	2,085,000	2,142,000	1,913,000	2,127,000	1,925,000	2,217,000	
Aviation turbine fuel .. ..	441,000	514,000	522,000	712,000	896,000	925,000	
Gas and diesel oils .. ..	2,964,000	2,736,000	2,538,000	3,005,000	2,898,000	2,741,000	
Fuel oil .. ..	6,136,000	7,290,000	6,640,000	7,541,000	7,895,000	8,189,000	
Lubricating oil .. ..	15,000	18,000	19,000	19,000	25,000	35,000	
Bitumen .. ..	254,000	253,000	284,000	223,000	169,000	193,000	
<b>Iraq—</b>							
Motor spirit .. ..	(b) 250,000	244,990	(b) 309,000	264,756	257,996	<i>n.a.</i>	
Kerosine .. ..	(b) 241,000	313,529	(b) 363,000	371,524	382,116	<i>n.a.</i>	
Gas oil .. ..		196,926	} b 361,000	214,303	228,960	<i>n.a.</i>	
Diesel oil .. ..	} (b) 1,052,000	191,492		187,117	181,120	<i>n.a.</i>	
Fuel oil .. ..		847,363		(b) 949,000	1,032,469	1,004,215	<i>n.a.</i>
<b>Israel—</b>							
Motor spirit .. ..	180,945	203,946	192,805	272,105	310,000	347,000	
Kerosine .. ..	173,744	175,084	203,069	232,769	239,000	308,000	
Gas and diesel oils .. ..	299,692	374,011	426,747	548,444	717,000	791,000	
Fuel oil .. ..	514,328	531,535	660,887	890,849	1,091,000	1,241,000	
<b>Japan—</b>							
Aviation spirit .. ..	51,957	51,701	50,109	} 5,775,000	62,022	68,141	
Motor spirit .. ..	3,626,740	4,360,091	5,182,037		6,542,373	7,007,237	
Kerosine .. ..	1,246,126	1,693,398	1,857,440	2,372,000	3,160,616	3,611,012	
Jet fuel .. ..	217,990	288,302	383,491	432,000	546,788	806,754	
Gas oil .. ..	1,419,862	1,980,296	2,451,956	2,996,000	3,817,631	4,627,234	
Diesel oil .. ..	1,069,930	1,064,677	1,394,390	1,527,000	1,703,126	2,230,677	
Fuel oil .. ..	8,959,412	14,191,849	r 17,383,070	20,391,000	27,389,763	33,243,032	
Lubricating oil .. ..	465,999	564,978	647,932	714,000	828,321	945,415	
Paraffin wax .. ..	39,703	45,074	r 44,959	49,461	53,344	63,556	
Asphalt .. ..	414,088	461,803	596,016	838,000	929,404	920,744	
<b>Jordan—</b>							
Motor spirit .. ..	—	40,923	34,000	41,075	45,450	52,259	
Kerosine .. ..	—	43,197	38,000	51,386	53,833	64,915	
Gas oil .. ..	—	41,898	40,000	111,207	114,836	106,488	
Fuel oil .. ..	—	65,607	51,000	40,542	47,712	75,147	
Asphalt .. ..	—	8,607	12,000	18,677	27,049	26,474	
<b>Korea (South)—</b>							
Motor spirit .. ..	—	—	—	—	—	66,810	
Kerosine .. ..	—	—	—	—	—	40,133	
Diesel oil .. ..	—	—	—	—	—	157,170	
Fuel oil .. ..	—	—	—	—	—	396,563	

(a) Abadan Refinery only.

(b) Estimated.



PRODUCTION OF PETROLEUM REFINERY PRODUCTS IN CERTAIN COUNTRIES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Kuwait—</b>						
Motor spirit .. ..	85,000	139,000	95,000	162,000	180,000	186,000
Kerosine .. ..	40,000	39,000	51,000	56,000	64,000	67,000
Gas and diesel oils .. ..	1,642,000	1,968,000	1,725,000	2,084,000	2,402,000	2,623,000
Fuel oil .. ..	4,025,000	5,127,000	5,102,000	5,548,000	5,754,000	6,181,000
Bitumen .. ..	22,000	33,000	35,000	22,000	28,000	19,000
<b>Lebanon—</b>						
Motor spirit .. ..	112,993	108,280	99,514	121,433	159,000	221,054
Kerosine .. ..	64,396	71,798	63,451	100,813	121,900	119,920
Gas oil .. ..	161,836	155,903	175,438	161,053	173,500	216,146
Fuel oil .. ..	379,085	337,426	331,674	408,543	518,150	617,714
<b>Philippine Republic—</b>						
Motor spirit .. ..	384,000	411,000	718,800	841,700	965,500	1,050,000
Kerosine .. ..	70,000	85,000	237,000	294,800	273,000	292,900
Jet fuel .. ..	10,000		10,000		73,600	94,600
Gas and diesel oil .. ..	236,000	257,000	554,000	671,600	854,500	968,000
Fuel oil .. ..	411,000	422,000	710,600	940,500	1,118,000	1,401,000
<b>Saudi Arabia—</b>						
Aviation spirit .. ..	935,000	31,815	47,277	34,862	37,657	40,853
Motor spirit .. ..		1,122,306	1,038,129	955,557	1,219,834	1,519,692
Kerosine .. ..	621,613	757,097	742,985	480,420	487,585	415,685
Jet fuel .. ..	396,996	324,720	427,802	563,282	595,458	748,920
Diesel oil .. ..	1,441,801	1,454,250	1,786,261	1,683,032	2,071,339	1,898,714
Fuel oil .. ..	4,614,498	6,655,609	7,277,150	7,611,459	7,809,318	8,270,362
Asphalt, etc. .. ..	51,841	35,935	57,839	57,112	46,330	59,811
<b>Syria—</b>						
Motor spirit .. ..	38,000	105,000	(a) 118,000	(a) 130,000	123,000	(a) 145,000
Kerosine .. ..	28,000	95,000	(a) 108,000	(a) 93,000	104,000	(a) 122,000
Gas and diesel oil .. ..	60,000	177,000	(a) 199,000	(a) 199,000	255,000	(a) 300,000
Fuel oil .. ..	117,000	306,000	(a) 314,000	(a) 284,000	324,000	(a) 382,000
<b>Turkey—</b>						
Motor spirit .. ..	74,110	70,830	76,060	514,611	532,578	620,000
Kerosine .. ..	—	8,200	10,700	277,484	389,357	475,000
Diesel oil .. ..	34,370	24,190	37,660	605,993	865,845	1,088,000
Fuel oil .. ..	176,770	179,600	184,300	1,097,364	1,406,693	1,619,000
Asphalt .. ..	45,840	37,128	56,265	88,683	117,509	n.a.

(a) United States Bureau of Mines' estimate.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Crude petroleum (f) ..	121,266	48,629	110,166	994,829	1,420,842	338,542
Aviation spirit						
(bunkers) (a) ..	129,102	99,415	79,915	40,029	<i>n.a.</i>	<i>n.a.</i>
Aviation spirit ..	346,339	280,361	213,568	259,208	180,071	116,719
Aviation turbine fuel (d) ..	577,167	487,239	296,281	338,910	347,064	380,122
Motor spirit ..	855,078	977,179	968,353	1,096,401	877,657	} 774,103
Other spirit ..	35,874	37,165	44,150	50,799	167,783	
Kerosine (e) ..	346,918	635,411	797,842	815,140	697,914	729,159
Gas oil ..	1,637,752	2,276,444	2,050,963	2,684,097	2,956,580	2,964,586
Diesel oil ..	445,398	409,384	295,129	393,370	396,167	285,984
Fuel oil ..	2,956,371	3,184,389	2,361,820	3,251,910	3,169,343	3,250,717
do. (bunkers) (a) ..	4,146,422	4,242,121	4,281,575	3,227,644	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil ..	448,286	483,081	484,233	574,952	513,133	519,037
Greases (c) ..	26,638	31,418	32,398	32,834	33,846	34,966
Other heavy oils ..	8,996	8,598	10,674	11,383	81,688	190
Petroleum jelly ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	435	530
Petroleum waxes ..	8,245	6,411	6,094	6,643	8,348	6,077
Malta (bunkers) (b)—						
Aviation spirit ..	14,669	13,213	11,872	11,936	12,030	5,003
Aviation turbine fuel ..	31,339	35,109	33,202	31,282	38,265	1,793
Gas oil ..	8,443	2,150	2,449	6,000	6,580	12,048
Fuel oil ..	475	407	224	3,669	2,081	10,507
Ghana—						
Gas oil (bunkers) ..	—	—	—	—	151	13,198
do. do. (b) ..	4,119	6,119	6,731	9,323	1,311	2,780
Diesel oil (bunkers) (b) ..	2	2	2,056	2,805	282	23,673
Fuel oil ..	—	—	—	—	17,299	196,634
do. (bunkers) (b) ..	8,705	8,839	5,793	6,654	793	3,201
Lubricating oil						
(bunkers) (b) ..	19	59	47	113	16	282
Kenya (bunkers) (b)—						
Aviation spirit ..	9,527	13,955	19,264	3,658	4,605	2,964
Motor spirit ..	1	1	35	816	6	2
Aviation turbine fuel ..	—	—	—	41,710	41,008	41,649
Gas, diesel and fuel oils	113,835	103,557	143,820	135,371	124,472	44,183
Lubricating oil ..	433	458	577	522	490	375
Mauritius (bunkers) (b)—						
Aviation spirit ..	1,866	1,793	2,165	1,977	1,615	<i>n.a.</i>
Aviation turbine fuel ..	—	—	492	718	1,427	<i>n.a.</i>
Fuel oils ..	6,312	9,425	12,556	14,141	8,224	<i>n.a.</i>
Nigeria—						
Crude petroleum ..	491,883	827,702	2,224,140	3,367,504	3,694,981	5,782,608
Diesel oil (bunkers) (b) ..	1,991	2,478	1,026	3,220	294	132
Gas oil do. (b) ..	1,304	1,930	2,589	3,689	} 9,503	} 13,865
Fuel oil do. (b) ..	4,361	4,666	2,504	2,784		
Sierra Leone (bunkers) (b)—						
Aviation spirit ..	131	201	166	472	411	<i>n.a.</i>
Aviation turbine fuel ..	—	—	176	534	2,036	<i>n.a.</i>
Fuel and diesel oils ..	219,985	275,709	304,681	274,974	228,619	<i>n.a.</i>

\*Excluding the United Kingdom, the following rates have been used for converting Imperial gallons to long tons: Aviation spirit 315, Motor spirit 305, White spirit 280, Aviation turbine fuel 275, Kerosine 275, Gas oil 260, Diesel oil 256, Fuel oil 240, Lubricating oil 250, Asphalt 220, Road oil 220, Crude petroleum 245 (except for countries mentioned in footnote (b) on page 246).

(a) Including foreign produce.

(d) Wide cut gasoline.

(b) Foreign produce. See imports.

(e) Including kerosine jet type fuel.

(c) Including cable impregnating compounds.

(f) Including partly refined.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Tanzania (bunkers)</b>						
<i>(a)</i> —						
Aviation spirit .. ..	831	818	272	3,310	2,007	2,322
Aviation turbine fuel ..	—	—	—	2,954	6,615	5,911
Gas, diesel and fuel oils	832	224	1,245	835	3,873	512
<b>Uganda (bunkers) (a)</b> —						
Aviation spirit .. ..	2,002	2,891	3,585	3,534	2,676	2,466
Aviation turbine fuel ..	—	—	—	8,431	8,211	11,300
<b>Canada—</b>						
Crude petroleum .. ..	4,448,298	5,631,325	8,696,335	12,210,695	12,116,775	13,501,180
Motor spirit .. ..	62,043	156,109	65,426	110,676	55,178	119,423
Kerosine, etc. .. ..	21	2,209	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	132,221	105,704	152,390	285,768	310,417	337,289
do. (bunkers) .. ..	1,339,979	1,316,435	1,403,484	1,489,833	<i>n.a.</i>	<i>n.a.</i>
Diesel oil (bunkers) ..	456,365	433,036	426,577	454,043	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	948	852	(c) 280	(c) 4,635	(c) 9,138	(c) 4,546
Other oils .. ..	197	391	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mineral wax .. ..	159	248	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum coke .. ..	44,152	32,528	(e) 46,793	(e) 28,445	(e) 16,086	(e) 18,951
Natural gas ( <i>million cu. ft.</i> )	84,764	91,045	168,180	319,566	340,953	404,143
<b>Barbados (bunkers)—</b>						
Aviation spirit (a) .. ..	1,431	2,341	1,843	1,119	1,376	1,443
Aviation turbine fuel (a)	1,818	2,309	4,062	5,333	8,077	7,635
Gas, diesel and fuel oils	—	367	563	366	427	118
Do. do. (a) .. ..	393	594	521	64,057	258,000	98,881
<b>Bermuda (bunkers) (a) (b)</b> —						
Aviation spirit .. ..	78,630	78,009	79,655	66,028	<i>n.a.</i>	28,443
Motor spirit .. ..	2,479	3,478	3,629	3,872	<i>n.a.</i>	2,426
Aviation turbine fuel ..	37,448	40,225	63,567	67,350	<i>n.a.</i>	68,021
Kerosine .. ..	361	809	462	474	<i>n.a.</i>	377
Fuel oil .. ..	7,429	26,784	19,818	34,237	<i>n.a.</i>	33,541
Diesel oil .. ..	3,413					
Lubricating oil .. ..	518	269	92	36	<i>n.a.</i>	36
<b>Jamaica (bunkers) (a)</b> —						
Aviation spirit .. ..	25,889	25,446	9,444	12,987	7,703	<i>n.a.</i>
Gas oil .. ..	2,106	10,640	7,871	4,736	8,269	22,000
Diesel oil .. ..	48,941	64,054	53,006	32,352	22,437	
Fuel oil .. ..	106,347	145,991	155,072	88,780	2,309	67,000
<b>Trinidad and Tobago—</b>						
Crude petroleum .. ..	458,246	686,192	728,029	870,541	932,488	1,294,714
Aviation spirit .. ..	443,841	(d) 912,822	d 1,360,395	d 1,426,354	(d) 1,310,917	
do. (bunkers) .. ..	17,434	12,404	8,229	4,838	9,288	<i>n.a.</i>
Motor spirit .. ..	1,257,237	1,130,783	1,233,518	1,063,230	1,207,007	
do. (bunkers) .. ..	8,279	25	8,505	39	2,987	2,725,000
Kerosine .. ..	326,927	263,185	320,118	217,706	121,896	
do. (bunkers) .. ..	4,875	13,414	20,569	32,180	28,910	8,930,000
Gas oil .. ..	1,233,693	1,258,868	1,379,996	1,058,377	1,198,057	
do. (bunkers) .. ..	48,850	37,717	49,260	117,260	57,456	1,525,000
Diesel oil .. ..	179,945	176,124	356,034	874,695	1,367,307	
do. (bunkers) .. ..	370,833	310,011	364,342	356,270	186,619	8,930,000
Fuel oil .. ..	3,895,728	4,750,917	6,613,960	7,346,859	9,684,461	
do. (bunkers) .. ..	1,471,232	1,537,568	1,803,873	1,762,723	1,376,901	1,525,000
Lubricating oil .. ..	306	151	—	24	64	<i>n.a.</i>
Road oil .. ..	29,220	13,167	12,809	9,640	6,430	<i>n.a.</i>
<b>Asphalt—</b>						
Dried .. ..	48,414	52,748	57,980	65,344	67,728	79,067
Asphalt cement .. ..	12,317	5,873	7,749	4,261	3,180	3,100
Bituminous asphalt ..	28,765	32,547	30,182	49,575	36,109	<i>n.a.</i>

(a) Foreign produce. See imports.

(b) Including bunkers for military forces.

(c) Including grease.

(d) Including J.P.4 type aviation turbine fuel.

(e) Including pitch coke.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
British Guiana (a)—						
Aviation spirit (bunkers)	489	700	1,680	13,515	<i>n.a.</i>	926
Falkland Islands—						
(bunkers) (a)—						
Fuel oil .. .. .	27,135	38,453	17,758	16,996	—	5,605
Abu Dhabi (c)						
Crude petroleum .. .. .	—	—	—	—	70,415	5,919,230
Aden (f)—						
Aviation and motor spirits .. .. .	587,845	568,702	789,634	812,251	793,513	586,000
Kerosine .. .. .	412,961	320,716	497,969	559,129	601,913	640,000
Gas, diesel, fuel oils .. .. .	1,081,749	1,278,113	1,779,578	1,931,273	2,451,748	2,426,000
Fuel oil (bunkers) .. .. .	3,280,542	3,557,991	3,509,121	3,405,878	3,786,449	3,872,000
Bahrain Islands (c)—						
Aviation spirit .. .. .	10,000	} 1,608,000	1,549,000	1,836,000	1,900,000	1,793,000
Motor spirit .. .. .	1,537,000		451,000	526,000	474,000	596,000
Aviation turbine fuel .. .. .	304,000	289,000	687,000	716,000	640,000	557,000
Kerosine .. .. .	728,000	811,000	2,383,000	2,562,000	2,469,000	2,014,000
Diesel oil .. .. .	1,919,000	2,058,000	85,000	76,000	(e)	(e)
do. (bunkers) .. .. .	111,000	95,000	3,877,000	4,390,000	4,152,000	3,126,000
Fuel oil .. .. .	3,247,000	3,739,000	733,000	751,000	876,000	1,014,000
do. (bunkers) .. .. .	615,000	656,000	101,000	84,000	29,000	30,000
Asphalt .. .. .	75,000	106,000				
Brunei—						
Crude petroleum (b) .. .. .	5,295,552	4,505,041	4,379,000	3,757,077	3,424,099	<i>n.a.</i>
Natural gas (million cubic feet) .. .. .	2,540	2,693	2,656	2,653	2,204	<i>n.a.</i>
Ceylon (bunkers) (a)—						
Aviation spirit .. .. .	8,267	9,503	7,638	7,536	5,944	5,886
Gas oil .. .. .	6,637	4,127	3,878	3,484	6,614	3,679
Diesel oil .. .. .	39,974	49,341	52,854	49,305	24,035	29,045
Fuel oil .. .. .	374,075	397,339	330,513	247,529	161,690	210,985
Cyprus (bunkers) (a)—						
Aviation spirit .. .. .	2,583	2,296	1,196	1,143	1,506	1,737
Hong Kong—						
Aviation and motor spirit .. .. .	3,827	1,215	6,263	2,225	1,902	1,806
Kerosine .. .. .	1,855	2,111	2,660	3,552	4,310	3,951
Diesel oil and gas oil .. .. .	8,669	8,683	10,445	15,914	18,431	24,314
Fuel oil .. .. .	1,201	635	867	1,221	1,397	830
Lubricating oil .. .. .	563	553	833	2,343	4,359	8,578
Greases .. .. .	39	21	17	4	60	32
Petroleum jelly .. .. .	86	66	51	53	38	29
Paraffin wax .. .. .	107	170	220	139	80	107
Asphalt and bitumen .. .. .	278	563	85	172	158	104
India—						
Motor spirit .. .. .	61,581	} (d) 193,472	(d) 162,452	(d) 239,647	(d) 366,115	(d) 389,442
Other spirit .. .. .	11,210		(d) 6	(d) 24	(d) —	(d) —
Diesel oil .. .. .	122	(d) —	(d) —	(d) —	(d) —	(d) —
Fuel oil .. .. .	52,016	(d) 18,343	(d) 12,043	(d) 11,939	(d) 9,370	(d) 13,359
Paraffin wax .. .. .	22,540					

(a) Foreign produce. See imports.

(b) Exported to Sarawak for refining. Some, however, is re-exported from Sarawak and shown as exports from that country.

(c) British Protected State.

(d) Years ended March 31 following that stated.

(e) Included, if any, with fuel oil (bunkers).

(f) Domestic and foreign produce.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Malaya—</b>						
Crude petroleum ..	253,713	227,060	769,470	1,295,231	1,242,659	28,000
Aviation spirit ..	179,413	126,759	117,030	171,657	155,820	165,676
do. do. (bunkers)	24,269	32,202	41,793	50,398	51,786	59,002
Motor spirit ..	775,350	817,502	674,192	657,425	755,917	758,172
White spirit ..	71,796	77,852	90,204	70,330	61,486	36,662
Aviation turbine fuel ..	69,117	122,424	225,372	278,400	259,250	226,076
Kerosine ..	325,440	350,418	303,269	286,667	329,902	216,666
Gas oil ..	358,444	369,745	436,156	558,511	656,397	686,723
Diesel oil ..	169,871	249,268	285,397	286,132	318,456	292,734
Fuel oil ..	201,920	189,280	590,576	878,862	888,719	1,733,951
Fuel and diesel oil (bunkers) ..	1,841,517	1,917,555	2,373,984	2,636,187	2,636,758	2,506,852
Lubricating oil ..	5,420	4,392	4,552	5,210	22,161	44,824
Petroleum jelly ..	53	46	138	28	25	68
Grease ..	236	159	278	276	214	192
Paraffin wax ..	27	101	124	2,316	85	34
Asphalt and bitumen ..	3,718	5,298	3,445	9,343	48,470	49,290
<b>Qatar (e)—</b>						
Crude petroleum ..	7,857,631	7,977,915	8,143,706	8,614,642	8,971,403	8,754,450
<b>Sabah—</b>						
(bunkers) (b)—						
Aviation spirit ..	1,430	663	591	921	<i>n.a.</i>	825
Fuel oil ..	6,622	6,631	9,479	6,097	<i>n.a.</i>	833
<b>Sarawak—</b>						
Crude petroleum (c) ..	3,238,040	2,475,388	1,879,638	1,871,940	1,516,472	1,736,483
Motor spirit (d) ..	334,002	337,023	262,459	287,222	258,618	381,172
Kerosine ..	15	—	—	—	13,852	130,887
Gas oil ..	43,981	39,328	33,754	50,922	36,731	129,129
Diesel oil ..	1,112,390	1,121,445	951,764	1,090,062	1,095,426	1,074,032
Fuel oil ..	469,381	449,787	459,825	531,799	393,537	669,076
do. (bunkers) (f) ..	157,075	147,183	106,589	81,634	46,377	35,256
<b>Australia (a)—</b>						
Aviation spirit ..	1,440	8,748	10,319	8,031	1,983	1,344
do. do. (bunkers)	2,392	494	8,079	7,799	1,439	5,828
do. do. do. (b)	5,943	19,080	8,892	2,997	1,319	5,873
Motor spirit ..	159,070	50,803	81,971	138,370	126,490	141,515
Kerosine ..	14,234	50,997	73,667	13,965	20,810	3,650
Aviation turbine fuel ..	1,597	23,751	35,533	68,233	63,986	23,734
do. (bunkers) ..	403	13	4,371	6,680	5,125	32,881
do. do. (b)	1,608	3,248	10,834	1,965	792	2,400
Lubricating oil ..	688	1,101	5,872	4,467	14,813	50,610
Diesel and fuel oils ..	922,482	1,016,468	1,465,540	1,758,225	2,189,523	1,671,995
Fuel oil (bunkers)—						
Domestic produce ..	465,221	564,219	698,751	583,321	670,440	752,493
Foreign produce ..	9,602	10,537	6,652	8,410	5,448	8,845
<b>Fiji (bunkers)(b)—</b>						
Aviation spirit ..	15,288	6,324	5,398	5,381	2,353	2,085
Aviation turbine fuel ..	1,807	21,135	28,738	35,708	30,357	39,193
Diesel oil ..	3,772	8,313	11,660	12,429	13,415	9,574
Gas oil ..	584	331	382	2,129	1,521	1,460
Fuel oil ..	895	427	—	326	2,070	6,863
<b>New Zealand</b>						
(bunkers) (b)—						
Aviation spirit ..	7,192	3,649	5,063	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil ..	21,457	10,408	46,992	34,263	29,970	(a) 23,826
Fuel oil ..	7,511	4,100	55,065	43,362	24,110	(a) 40,911
Lubricating oil ..	1,247	1,287	1,547	1,632	1,660	(a) 1,848

(a) Years ended June 30 of that stated.

(e) British Protected State.

(b) Foreign produce. See imports.

(f) Including diesel oil bunkers.

(c) Including crude petroleum imported from Brunei as well as enriched waxy crude.

(d) Excluding motor spirit blended with crude petroleum and exported as enriched waxy crude.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>Irish Republic—</b>						
Aviation spirit (d) (b) ..	1,808	3,721	2,845	2,900	3,248	3,801
do. (d) (e) ..	75,644	57,392	44,239	34,574	20,045	15,857
Motor spirit ..	—	5,933	4,048	7,100	6,709	6,527
Aviation turbine fuel (e)	—	—	—	—	3,545	—
do. (d) (b) ..	12,543	11,838	10,699	12,137	14,073	15,399
do. (d) (e) ..	2,982	34,628	72,207	72,866	73,274	91,631
Gas and diesel oils	71,819	156,433	135,726	133,990	142,944	144,111
do. (bunkers) (d)(b)	5,147	—	—	—	—	—
do. do. (b) ..	3,298	9,885	9,509	7,405	9,359	11,036
Fuel oil ..	69,389	317,694	241,682	111,485	38,264	21,204
do. (bunkers) (d) (b)	23,914	15,013	11,282	5,255	—	—
do. do. (b)	29,692	78,012	86,045	70,130	81,632	93,248
<b>OTHER COUNTRIES</b>						
<b>Albania—</b>						
Crude petroleum ..	121,451	324,099	285,912	268,295	<i>n.a.</i>	<i>n.a.</i>
Natural asphalt ..	22,538	27,951	27,656	11,220	<i>n.a.</i>	<i>n.a.</i>
Other asphalt ..	155,898	204,321	166,134	134,639	<i>n.a.</i>	<i>n.a.</i>
<b>Austria—</b>						
Crude petroleum ..	1	1	1	1	—	1
Motor spirit ..	23	20	4	37	52	59
Gas oil ..	167,883	132,531	82,753	191,625	202,674	128,922
Fuel oil ..	5,713	4,884	201	10	—	2
Lubricating oil, etc. ..	2,474	7,776	4,487	10,780	14,936	75,865
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude petroleum ..	14,199	24	79	1,670	—	28
Motor spirit ..	455,321	478,521	369,321	426,213	832,347	613,902
Kerosine ..	237,453	218,489	161,043	177,712	206,528	396,171
Gas oil ..	679,892	842,658	782,454	794,451	1,207,982	1,303,896
do. (bunkers) (b) ..	(c)	64,829	80,180	83,470	85,465	109,033
Fuel oil, etc. ..	1,022,410	831,592	677,278	600,031	1,002,879	730,742
do. (bunkers) (b) ..	576,635	553,504	707,488	980,462	1,219,691	1,412,951
Lubricating oil ..	85,950	96,445	103,818	111,023	123,106	129,520
do. (bunkers) (b) ..	5,875	5,452	4,386	8,665	5,234	9,872
Other heavy oils ..	377	56	39	2,994	4	29,885
Petroleum jelly ..	917	1,392	1,581	1,665	1,311	804
Paraffin wax ..	89	37	76	65	80	93
Ozokerite and ceresin (a)	55	44	35	45	68	28
Petroleum coke ..	437	2,365	816	5,943	27,549	40,410
Natural asphalt ..	201	224	335	47	193	255
Pitch ..	122,289	163,704	196,472	223,005	287,945	234,859
<b>Denmark—</b>						
Aviation spirit ..	—	530	1,497	2,845	5,561	3,070
Motor spirit ..	100	18	1,411	138,147	80,335	171,466
White spirit ..	33	26	40	1,090	925	482
Kerosine ..	1,366	3	494	6,820	17,576	6,835
Gas oil ..	6	28	7,925	74,123	33,726	44,591
Diesel oil ..	—	—	328	11,463	8,313	65,087
Fuel oil ..	—	326	31,292	294,856	215,527	308,744
Gas oil (bunkers)	39,658	40,696	30,190	273,571	314,810	352,949
Diesel oil (bunkers)	99,115	90,096	78,919			
Fuel oil (bunkers)	122,454	104,965	89,062			
Lubricating oil ..	3,906	4,724	3,832	2,362	4,331	7,998
Grease ..	1,109	1,128	1,202	1,531	1,401	933
<b>France—</b>						
Crude petroleum ..	986	812	—	—	—	—
Aviation spirit ..	58,924	76,034	61,183	13,998	16,894	11,788
Motor spirit ..	1,305,656	1,566,194	1,688,088	1,398,105	1,356,938	1,752,649
White spirit ..	3,915	6,540	8,840	8,090	13,922	23,262

(a) Including montan wax.

(b) Bunkers for foreign ships or aircraft only.

(c) Included with fuel oil bunkers.

(d) Foreign produce. See imports.

(e) Exports to Shannon Free Airport.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>France (cont.)—</b>						
Kerosine .. .. .	479,247	603,366	648,016	589,058	444,225	220,200
Gas oil .. .. .	1,533,743	1,701,704	2,118,805	2,366,527	2,268,847	2,514,422
do. (bunkers)—						
Domestic produce ..	315,291	(a) 27,845				
Foreign produce ..	11,834	n.a.	n.a.	n.a.	n.a.	n.a.
Fuel oil .. .. .	2,117,398	1,954,598	2,694,757	2,203,474	2,585,524	3,025,240
do. (bunkers)—						
Domestic produce ..	1,762,514	(a) 298,892				
Foreign produce ..	117,885	n.a.	n.a.	n.a.	n.a.	n.a.
Lubricating oil ..	157,096	186,193	179,386	183,578	216,536	252,438
do. (bunkers)—						
Domestic produce ..	27,324	(a) 3,434				
Foreign produce ..	1,160	n.a.	n.a.	n.a.	n.a.	n.a.
Petroleum jelly ..	32	90	124	230	1,735	1,876
Paraffin wax .. ..	10,522	9,952	8,860	9,647	8,168	10,391
Ozokerite, ceresin, etc.	1,078	1,162	798	763	592	639
Petroleum coke ..	19	6	2,301	1	2,963	n.a.
Natural asphalt and bitumen .. .. .	18,150	22,435	27,054	21,063	20,183	20,106
Mastic asphalt .. ..	5,603	6,805	5,344	3,421	2,956	3,160
Bitumen .. .. .	164,206	174,562	183,885	126,846	130,436	235,651
<b>Germany (Federal)—</b>						
Aviation spirit						
(bunkers) (a) (b) ..	67,734	64,940	63,502	52,870	53,324	57,340
Motor spirit .. .. .	323,613	530,520	1,150,893	1,151,549	1,216,740	1,105,860
White spirit .. .. .						
Kerosine .. .. .	23,141	2,844	8,093	4,921	30,352	16,477
Aviation turbine fuel ..						
do. (bunkers) (a) (b) ..	31,401	18,326	9,606	205,686	19,414	104,652
Gas and diesel oil ..	528,283	682,850	736,148	770,568	1,128,708	964,552
do. (bunkers) (a) (b) ..	357,013	111,963	100,308	147,656	203,152	254,410
Fuel oil .. .. .	358,369	988,812	2,184,887	1,261,259	1,892,879	2,735,669
do. (bunkers) (a) (b) ..	729,892	419,366	501,512	737,826	835,672	1,222,496
Lubricating oil .. ..	51,804	68,316	80,027	73,770	87,891	97,296
do. (bunkers) (a) (b) ..	10,900	10,226	9,463	9,726	9,970	9,901
Petroleum jelly .. ..	4,623	5,173	5,266	7,189	9,031	10,648
Paraffin wax .. .. .	28,720	22,760	22,037	29,846	31,840	34,925
Ozokerite, etc. .. ..	175	140	74	26	38	36
Natural asphalt and bitumen .. .. .	164	190	568	567	504	2,055
Bitumen .. .. .	38,541	42,477	67,414	105,925	131,010	177,352
Petroleum coke .. ..	55,588	60,377	96,722	101,333	141,538	148,452
<b>Germany (East)—</b>						
Motor spirit .. .. .	59,078	256,051	364,455	381,854	412,176	418,138
Diesel oil .. .. .	399,721	370,770	370,316	364,062	426,783	435,901
<b>Hungary—</b>						
Motor spirit .. .. .	91,689	99,785	94,506	115,664	81,177	121,638
Kerosine .. .. .	183	163	10,070	140	236	208
Gas oil .. .. .	140,465	159,828	171,707	193,045	159,466	164,198
Fuel oil .. .. .	119,616	219,695	212,287	259,240	227,028	258,571
Lubricating Oil .. ..	12,996	13,091	13,222	13,401	13,319	13,546
Paraffin wax and ceresin	2,464	2,362	1,526	1,991	1,198	512
Bitumen .. .. .	118,795	132,178	148,956	169,773	194,237	165,822
<b>Italy—</b>						
Crude petroleum .. ..						
Aviation and motor spirits .. .. .	1,533,843	1,822,409	1,768,272	1,845,429	1,785,448	1,502,688
do. (bunkers) (a) ..	190,999	140,074	190,195	209,453	321,208	234,295
White spirit .. .. .	10,276	16,311	12,826	14,530	15,656	11,574

(a) Bunkers for foreign ships or aircraft only.

(b) Figures for 1959 include foreign produce.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Italy <i>(cont.)</i> —						
Kerosine .. .. .	333,551	438,971	558,119	634,485	779,177	635,796
Lubricating oil .. .. .	106,570	40,730	29,850	48,880	54,090	61,660
Gas oil .. .. .	1,958,298	2,412,466	2,507,906	3,342,514	4,073,429	4,270,806
do. (bunkers) (a) .. .. .	88,686	234,389	255,647	298,857	232,473	117,968
Fuel oil .. .. .	2,557,317	1,869,799	2,528,374	2,488,599	2,576,418	2,390,324
do. (bunkers) (a) .. .. .	1,352,742	1,949,803	2,246,633	2,405,779	2,553,257	2,797,867
Paraffin wax .. .. .	557	678	868	1,017	1,346	1,865
Natural asphalt and bitumen .. .. .	8,955	9,322	9,038	8,346	9,007	6,859
Pitch .. .. .	102,748	114,094	116,882	121,123	140,220	132,350
Netherlands—						
Aviation spirit (bunkers) (a) .. .. .	797	1,499	1,537	1,807	3,542	3,443
Motor spirit .. .. .	1,956,761	2,407,071	2,548,248	2,818,378	2,780,236	2,940,537
Kerosine .. .. .	566,235	573,198	607,625	631,326	558,292	647,964
Gas oil .. .. .	2,155,325	2,779,299	2,577,081	2,659,159	2,264,160	2,085,516
do. (bunkers) (a) .. .. .	259,254	335,332	455,390	415,683	330,132	352,607
Fuel oil .. .. .	3,876,710	4,947,274	4,896,176	4,800,485	3,451,824	3,511,260
do. (bunkers) (a) .. .. .	786,887	1,038,676	1,424,970	1,688,191	2,042,368	2,778,157
Lubricating oil .. .. .	213,637	246,767	223,686	263,329	239,328	309,681
Petroleum jelly .. .. .	5,245	4,083	4,944	6,104	6,315	7,620
Paraffin wax .. .. .	4,564	16,018	17,272	9,128	10,854	13,890
Ozokerite and ceresin (d) .. .. .	1,726	810	218	195	304	221
Pitch .. .. .	90,925	132,274	225,607	230,106	364,785	377,831
Natural asphalt .. .. .	17	176	31	—	43	—
Petroleum coke .. .. .	36,042	43,297	36,495	54,335	54,713	56,681
Norway—						
Motor spirit .. .. .	881	910	72,225	146,112	102,204	227,004
Kerosine .. .. .	267	8	4,962	12,559	7,977	2,651
Fuel oil and solar oil .. .. .	316	386	546,812	1,017,629	1,060,212	1,183,648
Lubricating oil .. .. .	12,159	15,776	15,865	17,944	18,613	20,581
Poland—						
Kerosine .. .. .	7,500	11,500	7,400	n.a.	14,271	} 576,700
Fuel oils .. .. .	174,900	192,400	269,800	n.a.	545,841	
Lubricating oil .. .. .	6,276	3,490	3,235	n.a.	3,530	
Paraffin wax .. .. .	3,046	5,167	5,597	n.a.	2,974	
Asphalt .. .. .	5,277	2,370	1,306	n.a.	9,928	
Portugal (b)—						
Motor spirit .. .. .	83,690	89,984	75,994	46,733	47,141	57,204
Kerosine .. .. .	35,568	13,919	40,979	28,242	44,589	18,742
Fuel oil .. .. .	164,004	167,924	98,214	73,056	113,912	151,212
do. (bunkers) (a) .. .. .	18,233	5,718	4,394	1,818	3,428	26,734
Lubricating oil, etc. .. .. .	2,135	2,020	1,660	1,591	2,363	2,693
Bitumen .. .. .	n.a.	61	79	5	20	204
Natural asphalt .. .. .	n.a.	1,057	522	55	274	487
Roumania—						
Motor spirit (c) .. .. .	2,526,000	2,426,900	2,044,100	1,841,600	1,764,500	1,629,200
Kerosine .. .. .	686,600	665,000	607,100	592,000	412,600	332,400
Gas oil .. .. .	1,368,900	1,266,000	1,740,000	1,621,800	1,583,400	1,869,800
Fuel oil .. .. .	970,100	1,210,000	1,283,600	1,444,600	1,618,500	1,864,500
Lubricating oil .. .. .	152,700	208,100	242,400	201,700	270,500	298,300
Paraffin wax .. .. .	12,200	19,300	30,200	23,100	24,700	20,600
Petroleum coke .. .. .	16,000	13,500	26,100	27,900	54,300	55,400
Bitumen .. .. .	61,300	79,900	84,900	97,700	99,300	103,200
Spain—						
Motor spirit .. .. .	15,431	14,410	63,717	53,887	61,555	246,501
Diesel oil .. .. .	4,322	—	—	—	216,834	269,462
Fuel oil .. .. .	31,410	165,651	41,423	20,679	34,290	1,034,767

(a) Bunkers for foreign ships or aircraft only.

(b) See imports for amounts imported for bunkering national ships.

(c) Including white spirit and special kerosine.

(d) Including montan wax.



## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Sweden—</b>						
Motor spirit, etc. ..	8,995	8,252	2,663	12,740	87,017	172,440
White spirit .. ..	591	818	510	1,194	9,372	505
Kerosine .. ..	3,406	16,407	2,361			
Fuel oil and gas oil ..	75,833	48,713	49,492	66,727	117,593	147,738
Lubricating oil and grease .. ..	23,430	31,191	36,135	40,013	41,330	47,649
Paraffin wax .. ..	18	29	27	14	11	3
Asphalt .. ..	1	3	3	23	42	26
Pitch .. ..	25,830	30,571	30,430	36,742	30,599	40,482
<b>Switzerland—</b>						
Motor spirit .. ..	<i>n.a.</i>	1	16	3	567	11,521
Fuel oil .. ..	<i>n.a.</i>	17	1	35	953	62,230
Lubricating oil and grease .. ..	<i>n.a.</i>	327	1,077	1,222	419	1,379
Petroleum coke .. ..	<i>n.a.</i>	4,802	3,713	8,733	15,570	17,568
Asphalt and bitumen ..	2,217	2,498	2,124	2,002	1,810	3,533
<b>U.S.S.R.—</b>						
Crude petroleum .. ..	12,288,100	17,543,400	23,018,900	25,864,400	29,765,300	36,111,200
Motor spirit .. ..	2,582,600	2,773,500	3,532,700	3,104,800	3,289,400	2,703,800
Kerosine .. ..	905,000	1,076,100	1,058,800	1,274,400	1,248,700	875,500
Diesel oil .. ..	4,570,100	5,083,900	5,607,700	6,286,500	7,370,100	6,743,200
Fuel oil .. ..	4,207,500	5,201,300	6,748,500	7,614,400	8,440,900	8,913,300
Lubricating oil and grease .. ..	342,100	374,000	416,000	431,700	381,200	290,000
Paraffin wax .. ..	21,800	23,900	23,300	30,000	28,700	32,900
Bitumen .. ..	31,200	36,500	73,600	21,700	18,300	23,100
<b>Yugoslavia—</b>						
Crude petroleum .. ..	—	—	175,692	551,867	447,903	310,843
Aviation spirit .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	654	17
Motor spirit .. ..	36,716	30,509	16,084	25,239	9,771	21,026
White spirit .. ..	50	34	167	189	247	379
Aviation turbine fuel ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,536	—
Gas oil .. ..	7,794	3,555	3,974	151,928	3,904	1,735
Fuel oil .. ..	9,547	32,903	60,926	75,724	65,276	73,660
Lubricating oil .. ..	5,508	6,614	10,160	24,931	46,016	44,757
Mastic asphalt .. ..	—	197	394	12	—	—
<b>Algeria—</b>						
Crude petroleum .. ..	821,801	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Motor spirit (d) .. ..	32,474	30,972	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	36	2	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil and gas oil (d) ..	476,892	454,788	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	12	3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Angola—</b>						
Crude petroleum .. ..	—	1	—	113,135	312,697	355,348
Fuel oil .. ..	10,049	45,188	71,690	85,451	168,262	196,979
<b>Canary Islands—</b>						
Motor spirit .. ..	308,873	(a) 199,054	(a) 176,533	(a) 318,511	(a) 189,775	(a) 246,218
Kerosine .. ..	92,561	(a) 59,018	(a) 53,976	(a) 61,422	(a) 68,377	(a) 122,899
Diesel (c) .. ..	240,559	(a) 99,796	(a) 114,486	(a) 147,944	(a) 166,484	(a) 154,187
do. (bunkers) (c) .. ..	149,314	128,070	174,217	121,209	119,693	92,134
Fuel oil (c) .. ..	583,105	(a) 201,927	(a) 201,776	(a) 255,730	(a) 375,377	(a) 592,709
do. (bunkers) (c) .. ..	246,518	256,055	288,411	345,175	342,856	319,201
Lubricating oil .. ..	19,472	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	578	(a) 225	(a) 327	(a) —	(a) —	(a) —
Asphalt .. ..	93,781	(a) 25,413	(a) 33,122	(a) 52,144	(a) 46,962	(a) 37,304
<b>Cape Verde Islands—</b>						
Fuel oil (bunkers) (b) ..	465,019	488,376	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Excluding exports to Spain and other Spanish Dependencies.

(b) Foreign produce. See imports.

(c) Including foreign produce.

(d) Bunkers of foreign produce.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Ceuta (b)—						
Diesel oil .. .. .	13,139	12,425	6,096	441	28	—
do. (bunkers) .. .. .	466,720	282,988	105,679	489,887	95,360	21,118
Fuel oil (bunkers) .. .. .	—	130,543	412,199	414,437	396,006	122,857
Congo (Republic of)—						
Crude petroleum .. .. .	—	<i>n.a.</i>	91,949	132,875	<i>n.a.</i>	77,951
Egypt—						
Crude petroleum .. .. .	1,063,877	854,045	1,780,886	2,802,844	3,386,654	2,982,145
Motor spirit .. .. .	27,059	82,466	46,764	266,709	145,663	470,451
Kerosine .. .. .	5,862	5,908	4,591	4,288	3,937	12,795
Gas and diesel oils .. .. .	7,335	7,393	7,323	12,184	82,969	143,694
Fuel oil .. .. .	3,250	65,313	29,347	171,508		
do. (bunkers) (c) .. .. .	8,828	22,844	137,281	84,146	<i>n.a.</i>	<i>n.a.</i>
Gabon—						
Crude petroleum .. .. .	768,447	795,990	726,155	804,758	928,871	1,051,237
Libya—						
Crude petroleum .. .. .	—	—	681,000	7,727,929	23,859,392	44,901,448
South Africa—						
Motor spirit .. .. .	27,943	9,897	47	4	137	<i>n.a.</i>
do. (bunkers) (a) .. .. .	5,826	7,030	5,318	13,121	5,823	<i>n.a.</i>
Kerosine .. .. .	29,937	13,834	1,765	98	9,100	<i>n.a.</i>
Gas oil (bunkers) (a) .. .. .	10,227	17,085	8,896	16,723	14,069	<i>n.a.</i>
Diesel oil .. .. .	70,504	32,764	45	153	25,410	<i>n.a.</i>
do. (bunkers) .. .. .	37,299	2,642	4,705	4,324	17,410	<i>n.a.</i>
do. (bunkers) (a) .. .. .	25,006	22,711	28,777	26,313	23,559	<i>n.a.</i>
Fuel oil .. .. .	55,011	37,967	12,146	241	36,074	<i>n.a.</i>
do. (bunkers) .. .. .	199,923	188,030	245,664	267,448	360,575	<i>n.a.</i>
do. (bunkers) (a) .. .. .	160,384	166,517	210,537	152,062	127,583	<i>n.a.</i>
Asphalt and bitumen .. .. .	58,106	50,127	43,414	43,263	26,614	<i>n.a.</i>
Sudan—						
Aviation spirit (bunkers) (a) .. .. .	15,909	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tunisia (bunkers)—						
Aviation spirit .. .. .	—	—	—	—	—	5,698
Fuel oil .. .. .	55	—	—	25	—	254
Lubricating oil and grease .. .. .	<i>n.a.</i>	247	185	116	123	143
Mexico—						
Crude petroleum .. .. .	15,827	147,349	913,531	1,038,797	989,559	1,113,693
Motor spirit .. .. .	3,816	4,789	40,920	3,115	20,141	4,739
Kerosine .. .. .	21,666	1	—	—	—	—
Fuel oil .. .. .	1,817,941	995,775	1,132,626	1,607,093	1,578,429	1,378,775
do. (bunkers) .. .. .	81,335	78,938	22,168	46,189	55,118	24,679
Gas oil .. .. .	10,295	10,654	7,132	5,778	37,166	302
Paraffin wax .. .. .	3,839	1,270	704	1,581	1,664	1,794
Natural gas ( <i>million cu. ft.</i> ) (b) .. .. .	51,488	46,989	51,756	49,888	47,621	59,510
Netherlands Antilles—						
Crude petroleum .. .. .	708,830	180,121	322,000	374,000	289,000	478,000
Aviation spirit .. .. .	1,195,762	1,413,993	1,455,000	1,601,000	1,563,000	1,558,000
Motor spirit .. .. .	2,492,642	2,568,964	2,524,000	2,424,000	2,508,000	2,825,000
White spirit .. .. .	100,112	67,398	57,000	61,000	56,000	74,000
Kerosine .. .. .	1,535,172	1,326,787	1,060,000	830,000	859,000	724,000
Aviation turbine fuel .. .. .	2,006,922	1,660,951	2,155,000	2,264,000	<i>n.a.</i>	2,882,000
Gas oil .. .. .	3,216,223	3,186,203	3,665,000	4,378,000	4,705,000	3,488,000
Diesel oil .. .. .	1,848,607	1,470,405	1,296,000	1,302,000	1,465,000	1,678,000
Fuel oil .. .. .	19,766,415	20,162,668	20,792,000	21,802,000	21,357,000	21,858,000
Lubricating oil .. .. .	648,592	723,507	655,000	814,000	599,000	809,000
Asphalt .. .. .	861,786	840,671	894,000	835,000	808,000	898,000
United States—						
Crude petroleum .. .. .	336,600	411,639	430,373	239,015	242,465	181,480
Natural gasoline .. .. .	249	144	942	995	2,224	1,661
Aviation spirit .. .. .	1,151,129	697,894	323,678	161,654	139,047	97,177
Motor spirit .. .. .	397,333	261,408	77,085	62,343	91,183	51,278

(a) Foreign produce. See imports.  
 (b) Imports into the United States.

(c) Bunkers for foreign ships only.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States <i>(cont.)</i> —						
Other finished light products .. ..	127,471	125,301	128,492	146,658	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	118,816	75,106	26,767	39,680	65,321	20,319
Aviation turbine fuel ..	22,221	14,382	15,452	10,585	21,173	21,597
Gas oil and distillate fuel oil .. ..	1,775,327	1,366,620	957,356	1,248,478	2,353,099	910,949
Residual fuel oil .. ..	3,109,005	2,742,096	2,080,066	1,874,269	2,228,511	2,790,584
Fuel oil (bunkers) .. ..	12,225,000	11,835,000	10,801,000	9,837,000	9,168,000	9,205,000
Lubricating oil .. ..	1,826,293	2,079,634	2,248,462	2,326,245	2,444,273	2,410,537
Transformer oil .. ..	31,021	34,229	43,181	43,188	51,194	57,372
Greases .. ..	51,998	51,885	47,551	52,678	50,244	52,362
Paraffin wax .. ..	102,163	137,697	123,440	144,801	148,049	179,597
Petroleum jelly .. ..	34,812	34,613	32,911	31,884	32,100	31,624
Natural asphalt and bitumen .. ..	26,499	28,571	29,455	40,790	36,478	34,161
Other asphalt, etc. ..	132,007	127,753	82,793	116,384	106,467	99,635
Petroleum coke .. ..	835,778	1,224,644	1,298,341	1,331,473	1,921,902	2,431,794
Liquefied petroleum gases .. ..	189,902	252,196	299,434	326,923	387,870	452,705
Natural gas ( <i>million cu. ft.</i> ) .. ..	18,413	11,332	10,747	14,835	15,964	17,275
Argentina—						
Crude petroleum .. ..	266	413	31,502	250,388	100,260	15,960
Kerosine .. ..	2	<i>n.a.</i>	1,997	24,758	7,482	—
Gas oil .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	33,458	—
Fuel oil .. ..	<i>n.a.</i>	<i>n.a.</i>	32,037	488,024	610,169	469,865
Paraffin wax .. ..	49	606	20	430	790	974
Asphalt .. ..	80	1,808	348	1,092	3,271	2,068
Grahamite ("Rafaelite")	1,553	2,125	1,152	713	828	1,052
Bolivia—						
Crude petroleum .. ..	119,854	130,912	83,514	106,000	<i>n.a.</i>	32,191
Motor spirit .. ..	355	3,491	7,035	976	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	—	16	—	81	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
Crude petroleum .. ..	1,444,260	579,081	1,035,867	292,855	354,445	<i>n.a.</i>
Fuel oil .. ..	44,204	59,057	73,643	75,926	31,732	728
Chile—						
Crude petroleum .. ..	66	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Crude petroleum .. ..	3,917,684	4,284,315	3,800,199	3,348,082	4,295,293	4,181,307
Gas and diesel oil .. ..	—	1,220	—	2,181	17,071	—
Fuel oil .. ..	627,469	576,704	395,166	597,856	344,781	686,455
Ecuador—						
Crude petroleum .. ..	37,316	—	—	145,892	160,972	76,000
Peru—						
Crude petroleum .. ..	291,416	331,032	330,958	362,406	370,882	393,550
Natural gasoline .. ..	1,613	1,501	919	3,168	—	—
Aviation spirit .. ..	52,081	54,838	6,580	1,654	—	225
Motor spirit .. ..	33,089	22,492	4,894	357	39	1
White spirit .. ..	515	—	—	—	—	—
Kerosine .. ..	101,518	83,214	36,513	671	322	40
Gas oil (a) .. ..	41,232	168,805	188,978	112,643	24,096	6,508
Fuel oil and diesel oil ..	94,026	80,485	68,568	105,617	75,851	62,964
do. (bunkers) .. ..	22,287	30,862	36,437	25,074	27,228	26,371
Lubricating oil and grease .. ..	732	109	331	1,211	2,585	1,365
Asphalt .. ..	—	—	20	—	—	2

(a) Including bunkers.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Uruguay (a)—</b>						
Motor spirit, etc. . . . .	5,000	10,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine . . . . .	100	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil and diesel oil . . . . .	32,000	48,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil . . . . .	98,000	201,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Venezuela—</b>						
Crude petroleum . . . . .	101,561,805	102,975,795	104,045,485	113,757,962	113,892,005	120,452,116
Motor spirit . . . . .	2,326,159	2,099,542	2,265,766	2,349,614	2,677,331	2,187,050
Kerosine . . . . .	790,185	601,461	877,551	1,160,292	1,208,577	1,524,263
Aviation turbine fuel . . . . .	16,117	185,740	263,987	552,917	218,864	305,882
Gas oil . . . . .	3,368,399	2,801,104	3,348,942	3,739,665	4,794,759	4,013,734
Diesel oil . . . . .	1,957,551	2,872,191	2,558,107	2,759,686	2,898,506	2,467,774
Fuel oil . . . . .	22,549,506	26,848,862	27,826,224	29,619,033	30,836,490	34,196,501
Lubricating oil . . . . .	150,600	208,144	194,323	242,623	259,662	233,360
Paraffin wax . . . . .	12,535	15,503	—	—	—	—
Asphalt . . . . .	435,256	453,222	490,927	539,476	500,893	478,564
<b>Burma—</b>						
Paraffin wax . . . . .	6,554	5,133	7,617	9,649	10,661	6,555
<b>Formosa—</b>						
Motor spirit, etc. . . . .	1,114	836	10,666	35,818	—	1,267
Fuel oil . . . . .	—	11,614	39,018	32,788	50,304	80,384
Asphalt . . . . .	9,395	6,933	31,573	36,745	27,639	12,776
<b>Indonesia—</b>						
Crude petroleum . . . . .	4,373,664	7,298,643	9,577,801	5,445,685	<i>n.a.</i>	<i>n.a.</i>
Motor spirit . . . . .	1,388,264	1,477,656	1,149,511	1,147,770	<i>n.a.</i>	<i>n.a.</i>
White spirit . . . . .	6,975	—	—	—	<i>n.a.</i>	<i>n.a.</i>
Kerosine . . . . .	487,694	484,569	427,653	484,418	<i>n.a.</i>	<i>n.a.</i>
Gas and diesel oils . . . . .	1,077,915	1,159,883	913,687	977,295	<i>n.a.</i>	<i>n.a.</i>
do. do. (bunker oil) . . . . .	85,878	104,131	123,817	82,538	<i>n.a.</i>	<i>n.a.</i>
Fuel oil . . . . .	2,484,688	2,753,259	2,423,030	3,323,435	<i>n.a.</i>	<i>n.a.</i>
do. (bunker oil) . . . . .	395,832	337,582	517,113	337,908	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil . . . . .	52,585	41,568	20,146	26,194	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax . . . . .	47,874	52,160	61,278	61,766	<i>n.a.</i>	<i>n.a.</i>
<b>Iran (b)—</b>						
Crude petroleum . . . . .	29,725,588	31,932,790	r41,162,557	r44,521,989	51,383,320	57,128,588
Motor spirit . . . . .	1,856,594	2,936,004	r 2,229,280	r 2,441,973	2,539,360	2,805,275
Kerosine . . . . .	1,673,307	1,268,221	r 855,041	r 796,876	654,616	826,136
Gas oil . . . . .	1,160,312	1,027,264	r 1,081,857	r 1,421,767	1,115,294	1,183,547
Diesel oil . . . . .	921,809	863,817	r 575,763	r 557,483	473,513	386,888
Fuel oil . . . . .	5,288,315	6,888,959	r 6,426,674	r 6,708,862	7,091,693	7,990,372
Pitch . . . . .	<i>n.a.</i>	<i>n.a.</i>	2,173	97,646	75,884	88,182
<b>Iraq—</b>						
Crude petroleum . . . . .	39,169,282	44,490,282	45,851,135	45,937,931	53,237,116	58,246,932
Motor spirit . . . . .	722	560	<i>n.a.</i>	<i>n.a.</i>	1,426	<i>n.a.</i>
Kerosine . . . . .	172	—	<i>n.a.</i>	<i>n.a.</i>	4	<i>n.a.</i>
<b>Japan—</b>						
Aviation spirit (foreign produce) (bunkers) . . . . .	58,153	94,662	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit . . . . .	237,502	262,060	460,436	319,111	238,943	260,413
Kerosine . . . . .	14,887	72,276	40,409	68,400	84,275	175,850
Gas oil . . . . .	14,816	82,761	77,450	75,022	75,125	163,658
Fuel oil, etc. (bunkers) -						
Domestic produce . . . . .	108,645	192,612	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Foreign produce . . . . .	2,413,814	3,775,913	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oils . . . . .	2,667	5,229	6,680	10,675	401,245	90,317
Paraffin wax . . . . .	11,656	11,310	9,080	8,355	8,270	11,696
Asphalt and pitch . . . . .	30,433	28,885	67,570	81,758	173,592	94,569
<b>Jordan—</b>						
Motor spirit . . . . .	<i>n.a.</i>	<i>n.a.</i>	440	691	484	<i>n.a.</i>
Kerosine . . . . .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	56	<i>n.a.</i>
Asphalt and bitumen . . . . .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	9,094	6,350

(a) Bunkers on foreign ships only.

(b) Years ended March 20 following that stated.

## EXPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Kuwait—</b>						
Crude petroleum ..	61,279,115	71,488,439	72,997,668	81,298,330	85,323,283	94,443,539
Light distillate ..	785,310	667,884	600,096	565,000	610,000	1,017,000
Gas oil .. ..	960,061	1,478,982	1,460,859	1,795,000	2,144,000	2,446,000
Diesel oil .. ..	382,536	271,357	48,348	91,000	26,000	34,000
do. (bunkers) ..	224,484	172,655	141,201	(c)	(c)	(c)
Fuel oil .. ..	1,697,631	2,176,610	2,094,033	2,035,000	2,064,000	2,291,000
do. (bunkers) ..	2,357,238	2,911,169	2,947,494	3,612,000	3,833,000	3,991,854
<b>Netherlands New Guinea—</b>						
Crude petroleum ..	241,106	244,579	164,791	n.a.	n.a.	n.a.
<b>Neutral Zone (a)—</b>						
Crude petroleum ..	(b)4,640,000	(b)5,605,000	7,463,000	9,394,000	13,273,000	15,527,000
Fuel oil .. ..	(b) 875,000	(b) 715,000	975,000	2,478,000	2,288,000	2,622,000
<b>Saudi Arabia—</b>						
Crude petroleum ..	44,758,739	49,948,993	55,955,606	62,089,088	66,472,079	70,832,950
Aviation spirit ..	—	2,300	18,700	25,200	12,700	16,000
Motor spirit .. ..	724,700	956,200	811,300	749,800	967,000	1,234,200
Kerosine .. ..	545,600	710,900	611,000	414,000	384,500	280,100
Aviation turbine fuel ..	402,400	317,900	411,600	562,200	566,400	752,600
Diesel oil .. ..	1,316,900	1,264,900	1,504,700	1,450,400	1,871,000	1,557,200
Fuel oil .. ..	r2,959,200	r 4,633,000	r5,332,400	5,339,500	5,759,700	5,922,700
<b>Syria—</b>						
Natural asphalt ..	217	n.a.	n.a.	n.a.	n.a.	100

(a) Neutral Zone of Kuwait and Saudi Arabia.

(b) Estimated.

(c) Included with fuel oil.

IMPORTS OF PETROLEUM AND ALLIED PRODUCTS\*

(Less Re-exports)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Crude petroleum (g) ..	39,238,039	44,611,161	48,900,509	52,240,771	54,173,381	21,313,007
Aviation spirit (a) ..	452,990	259,636	289,035	185,832	170,971	145,257
Aviation turbine fuel ..	100,205	96,447	144,719	103,576	51,227	39,081
Motor spirit ..	2,242,266	2,103,253	2,192,403	2,385,290	2,888,706	} 3,151,744
Other spirit ..	118,514	305,056	342,670	707,927	n.a.	
Kerosine ..	1,045,003	649,562	482,884	708,049	f 1,846,566	f 2,489,739
Aviation jet fuel ..	235,908	75,081	81,527	183,534	216,085	242,715
Fuel oil (a) ..	5,217,358	7,415,901	5,310,629	7,317,177	8,474,633	8,852,982
Diesel oil ..	233,923	76,042	121,856	170,544	154,312	226,710
Gas oil ..	1,980,289	2,116,763	2,042,461	2,164,449	2,766,285	2,711,069
Lubricating oil ..	410,355	489,117	515,185	503,072	528,036	532,319
Greases ..	3,710	3,489	2,503	2,805	2,589	752
Other oils ..	203,759	(c) 12,677	68,433	205,625	26,837	2,532
Mineral jelly ..	5,538	6,294	4,824	4,583	3,691	3,920
Paraffin wax ..	32,383	35,545	31,682	23,967	22,730	10,719
Other petroleum wax ..	54,605	58,677	53,579	836,787	764,142	159,074
Petroleum coke ..	66,114	61,459	44,272	58,869	68,012	94,884
Asphalt and bitumen ..	(d) 61,694	(d) 75,102	(d) 83,866	(d) 86,040	84,209	(d) 98,060
<b>Channel Islands—</b>						
Aviation spirit ..	3,977	4,503	3,558	3,975	3,427	3,514
Motor spirit ..	21,317	23,649	25,777	26,369	27,631	19,432
Other spirit (b) ..	65	657	42	309	299	51
Kerosine ..	4,906	7,223	9,854	12,796	14,037	14,425
Gas and fuel oil ..	68,485	93,220	100,449	126,333	167,218	174,609
Lubricating oil ..	1,493	1,406	1,504	1,679	1,645	1,831
Greases (b) ..	21	47	26	27	48	164
<b>Gibraltar (e)—</b>						
Aviation spirit ..	} 5,000	} 5,000	7,540	4,808	4,000	5,000
Motor spirit ..			5,000	10,400	8,400	10,000
Diesel oil ..			10,441	11,470	} 192,000	} 179,000
Fuel oil ..			3,288	3,288		
Lubricating oil ..	1,075	1,161	1,848	2,250		
Kerosine ..	250	220	41	50	65	90
<b>Malta—</b>						
Aviation spirit (a) ..	16,407	12,360	6,972	9,998	14,428	12,044
Motor spirit ..	18,258	18,674	20,330	16,167	21,445	19,238
Aviation turbine fuel (a) ..	43,435	37,005	26,097	30,595	47,607	38,831
Kerosine ..	23,069	27,624	27,339	25,137	24,112	30,026
Fuel oil (a) ..	62,667	39,272	38,701	55,251	58,597	91,040
Gas oil (a) ..	19,517	17,638	17,453	17,863	18,301	22,596
Lubricating oil ..	1,438	1,301	1,367	1,532	1,146	1,536
Paraffin wax ..	373	318	n.a.	441	421	400
Bitumen ..	1,451	1,302	n.a.	1,439	2,038	1,721
<b>Gambia—</b>						
Aviation spirit ..	39	—	284	—	—	—
Motor spirit ..	2,310	1,920	2,938	3,129	3,438	3,690
Kerosine ..	538	475	667	698	776	737
Aviation turbine fuel ..	(c) 76	(c) 32	415	175	—	—
Other fuel oils ..	(c) 3,484	—	—	115	14	—
Gas oil ..	2,060	1,446	2,808	2,908	3,001	1,554
Diesel oil ..	751	1,591	521	553	587	1,856
Lubricating oil ..	206	272	229	354	378	251
Asphalt and bitumen ..	295	70	296	867	689	827

\*Excluding the United Kingdom, the following rates have been used for converting Imperial gallons to long tons: Aviation spirit 315, Motor spirit 305, Aviation turbine fuel 275, Kerosine 275, Gas oil 260, Diesel oil 256, Fuel oil 240, Lubricating oil 250, Crude petroleum 245, Asphalt 220, Road oil 220.

(a) Including imports for bunkering purposes.

See exports.

(b) Jersey only.

(c) Excess of re-exports.

(d) Natural.

(e) Excluding imports for bunkers.

(f) Including white spirit.

(g) Including partly refined.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Ghana—</b>						
Crude petroleum ..	—	—	2	—	205,594	549,593
Aviation spirit (b) ..	4,146	5,838	2,518	3,192	2,859	4,937
Motor spirit ..	125,156	138,466	103,127	130,776	92,810	1,225
White spirit ..	243	1,300	1,312	2	18	345
Kerosine ..	45,690	49,742	34,498	45,126	26,421	20
Aviation turbine fuel ..	219	839	4,591	14,161	12,866	12,288
Fuel oil (b) ..	46,976	62,731	25,260	29,047	52,516	7,002
Gas oil (b) ..	112,938	165,427	145,518	181,824	156,137	222
Diesel oil ..	29,376	7,274	131,675	29,001	14,811	750
Lubricating oil (b) ..	12,004	12,678	12,423	15,424	14,359	15,095
Greases ..	475	561	540	752	1,398	954
Petroleum jelly ..	6	53	80	823	1,095	259
Asphalt and bitumen ..	13,910	16,027	15,415	39,136	7,480	9,489
<b>Kenya—</b>						
Crude petroleum ..	—	—	—	—	217,566	1,476,566
Aviation spirit (b) ..	10,774	20,450	14,959	13,358	15,033	11,319
Motor spirit (b) ..	109,227	110,711	106,527	117,334	105,171	14,689
Kerosine ..	43,391	63,878	74,264	(b)(d)96,570	(b)(d)89,171	(b)(d)38,628
Gas, diesel, fuel oils (b) ..	594,422	603,302	573,589	601,182	576,269	53,227
Lubricating oil (b) ..	1,952	9,127	14,296	13,256	5,455	8,529
Greases ..	355	649	922	832	679	134
Petroleum jelly and paraffin wax ..	215	312	354	459	617	447
Asphalt ..	17,726	12,783	16,178	16,910	9,493	4,244
<b>Mauritius—</b>						
Aviation spirit (b) ..	1,676	2,245	1,293	2,664	1,225	1,202
Motor spirit ..	28,426	27,559	12,109	23,509	24,161	21,692
Aviation turbine fuel (b) ..	3,037	254	1,361	836	1,620	3,019
Kerosine ..	4,264	2,797	5,491	5,165	7,668	7,668
Lubricating oils ..	1,436	1,779	2,065	1,881	1,792	2,130
Gas, diesel, fuel oils (b) ..	28,058	22,576	39,861	47,990	34,617	68,393
Grease ..	156	109	147	200	185	130
Asphalt and pitch ..	2,333	4,524	2,752	2,345	2,739	4,455
Asphalt, natural ..	515	479	1,333	417	498	512
<b>Nigeria—</b>						
Aviation spirit ..	17,091	28,939	21,624	(a) 3,919	(a) 19,374	50,661
Motor spirit ..	193,437	194,669	211,180	701,905	228,929	291,838
White spirit ..	(a) 5	222	101	21,932	23,736	1,336
Aviation turbine fuel ..	7,835	6,900	28,394	43,712	20,730	77,987
Kerosine ..	96,825	94,502	102,358	475,060	132,889	411,782
Gas oil (b) ..	78,821	100,453	169,050	185,837	259,010	320,850
Diesel oil (b) ..	76,141	91,293	45,150	26,256	6,866	2,613
Fuel oil (b) ..	58,856	58,630	166,526	140,383	199,517	229,817
Lubricating oil ..	13,806	18,540	18,100	20,744	22,916	24,352
Petroleum jelly ..	230	162	41	1,159	1,734	1,372
Asphalt and bitumen ..	32,661	41,849	11,634	19,329	9,739	8,698
<b>Rhodesia (e)—</b>						
Aviation spirit ..	10,062	11,486	10,267	9,417	7,542	4,333
Motor spirit ..	239,523	237,895	244,723	248,642	237,509	148,162
Kerosine ..	37,033	40,607	40,867	42,782	44,564	30,157
Aviation jet fuel ..	13,373	17,640	25,878	32,664	35,661	32,319
White spirit ..	n.a.	1,672	2,251	2,253	2,260	1,853
Other oils ..	2,482	2,203	1,396	1,372	1,052	1,064
Gas oil ..	154,371	164,331	174,185	191,788	202,243	148,703
Fuel oil ..	7,511	5,319	4,599	6,065	6,105	955
Lubricating oil ..	18,335	20,234	17,528	21,153	18,263	12,329
Greases (c) ..	2,063	2,050	1,803	2,040	1,601	1,286
Paraffin wax ..	1,210	1,637	1,462	2,022	1,437	2,095
Asphalt and bitumen ..	25,776	29,384	17,288	21,254	17,406	15,009

(a) Excess of re-exports.

(b) Including imports for bunkering purposes. See exports.

(c) Including mineral jelly.

(d) Including aviation turbine fuel.

(e) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>St. Helena—</b>						
Motor spirit .. ..	173	260	191	220	270	295
Kerosine .. ..	46	104	97	130	148	105
Fuel oils .. ..	78	168	141	208	115	264
Lubricating oil ..	7	6	10	15	17	19
<b>Seychelles—</b>						
Motor spirit .. ..	244	378	388	370	521	639
Kerosine .. ..	271	349	372	402	544	445
Fuel oil .. ..	227	584	650	860	1,660	2,538
<b>Sierra Leone—</b>						
Aviation spirit (a) ..	200	455	1,686	1,454	1,391	2,065
Motor spirit .. ..	21,109	15,377	19,372	21,571	21,680	20,973
Aviation turbine fuel (a)	39	—	—	802	1,924	n.a.
Kerosine .. ..	13,713	10,800	11,102	13,574	12,886	15,615
Gas oil (a) .. ..	15,194	7,069	138,696	158,084	131,787	244,060
Diesel oil (a) .. ..	81,450	122,733				
Fuel oil (a) .. ..	164,863	159,929	219,515	179,422	177,673	200,000
Lubricating oil ..	1,331	1,964	2,134	2,317	2,475	3,557
Asphalt and bitumen ..	1,788	1,587	2,900	2,972	5,676	2,947
<b>Tanzania—</b>						
Aviation spirit (a) ..	3,174	3,481	3,047	4,603	1,512	3,777
Motor spirit .. ..	66,926	64,085	58,566	63,316	61,057	43,446
Kerosine .. ..	30,351	29,741	30,636	37,525	39,115	32,543
Gas, diesel, fuel oils (a)	138,339	184,033	165,573	175,379	205,094	66,499
Lubricating oil ..	4,886	6,441	6,048	8,086	6,400	6,622
Greases .. ..	506	381	650	605	513	348
Petroleum jelly and paraffin wax .. ..	62	25	47	91	83	81
Asphalt .. ..	5,367	3,960	7,699	3,390	4,600	910
<b>Uganda—</b>						
Aviation spirit (a) ..	3,487	3,341	3,703	3,334	3,265	3,336
Motor spirit .. ..	55,805	57,820	54,719	55,768	62,152	24,449
Kerosine .. ..	22,457	23,315	27,536	(a)(b)30,108	(a)(b)32,828	(a)(b)19,499
Gas, diesel, fuel oils ..	38,612	38,586	37,289	42,658	44,465	19,998
Lubricating oil ..	3,648	3,671	3,544	3,797	3,874	4,059
Greases .. ..	422	419	302	362	305	317
Petroleum jelly and paraffin wax .. ..	70	85	93	126	156	193
Asphalt .. ..	2,891	977	4,568	1,755	709	626
<b>Zambia—</b>						
Aviation spirit .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	2,528
Motor spirit .. ..						72,769
Aviation turbine fuel ..						2,141
Kerosine .. ..						11,177
White spirit .. ..						123
Gas oil .. ..						50,529
Diesel oil .. ..						815
Fuel oil .. ..						816
Lubricating oil and grease .. ..	6,862					
Paraffin wax .. ..	381					
<b>Canada—</b>						
Crude petroleum ..	16,469,806	17,937,090	19,035,569	19,216,815	21,102,981	19,137,461
Tops for refiners ..	—	—	—	—	6,689	—

(a) Including imports for bunkering purposes. See exports.

(b) Including aviation turbine fuel.



## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Canada (cont.)—</b>						
Aviation spirit .. ..	314,011	193,585	115,909	75,947	38,818	38,279
Motor spirit .. ..	311,588	101,729	84,493	90,496	242,898	236,183
Aviation turbine fuel .. ..	(c)	(c)	(c)	(c)	(c)	166,594
Kerosine, etc. .. ..	74,946	108,926	33,485	34,782	25,058	(f) 189,119
Lubricating oils .. ..	163,686	163,903	153,765	150,563	157,164	(f) 187,759
Diesel oil .. ..	222,234	368,456	324,282	373,528	382,818	418,501
Fuel oil .. ..	3,909,523	3,511,635	2,962,946	3,094,324	3,416,641	f) 4,193,310
do. (e) .. ..	5,891	1,966	2,518	1,269	—	—
Other petroleum oils .. ..	3,740	3,992	7,208	5,178	5,226	n.a.
Liquefied petroleum gas .. ..	7,245	12,052	7,813	6,719	8,945	(f) 7,135
Grease .. ..	7,415	7,371	6,911	6,944	6,534	6,331
Petroleum jelly .. ..	(c)	(c)	(c)	(c)	(c)	1,478
Paraffin wax, etc. .. ..	21,723	18,614	18,610	(d) 17,006	(d) 16,751	(d) 15,510
Asphaltum oil, etc. .. ..	4,194	5,980	5,565	6,292	13,224	n.a.
Asphalt .. ..	31,639	24,743	28,289	15,397	38,082	n.a.
Petroleum coke .. ..	281,011	360,130	326,557	301,846	328,943	391,381
Other products .. ..	95,305	129,396	142,852	138,928	137,647	1,263
Natural gas (million cubic feet) .. ..	11,963	5,571	5,574	5,575	6,877	8,046
<b>Antigua—</b>						
Aviation spirit .. ..	2,265	1,437	2,906	2,888	5,178	4,096
Motor spirit .. ..	2,343	2,871	3,339	3,243	3,629	1,856
Kerosine .. ..	1,710	4,061	5,170	9,929	21,125	10,626
Fuel oils .. ..	3,660	3,657	5,988	6,745	7,482	5,314
Lubricating oil .. ..	574	163	378	100	235	229
<b>Bahamas—</b>						
Motor spirit .. ..	31,266	35,738	43,980	40,174	42,357	46,056
Kerosine .. ..	10,916	11,171	13,018	10,233	818	5,822
Fuel oils .. ..	42,521	41,246	59,900	88,204	80,258	113,587
Lubricating oil .. ..	928	964	1,492	1,112	1,220	1,680
<b>Barbados—</b>						
Crude petroleum .. ..	8,816	10,542	23,218	16,280	29,266	24,589
Aviation spirit (b) .. ..	1,906	2,316	2,232	2,252	2,512	1,443
Motor spirit .. ..	14,033	14,879	10,965	14,977	21,725	20,411
Kerosine (a) (b) .. ..	11,811	13,760	14,198	15,753	17,850	17,997
Gas oil and diesel oil (b) .. ..	22,932	19,764	16,384	221,696	262,301	93,853
Fuel oil (b) .. ..						
Lubricating oil .. ..	1,165	559	962	668	862	831
<b>Bermuda (b)—</b>						
Aviation and motor spirits .. ..	119,539	93,905	96,264	70,859	59,517	55,053
Aviation turbine fuel .. ..	26,528	27,985	38,113	43,838	37,794	20,711
Kerosine .. ..	21,253	14,872	22,069	22,768	16,583	27,398
Diesel oil .. ..	31,229	n.a.	41,375	48,411	40,413	41,819
Fuel oil .. ..	9,304	18,453	19,974	12,349	22,759	29,610
Lubricating oil .. ..	1,300	901	957	1,025	n.a.	941
Asphalt .. ..	1,990	1,884	577	1,614	n.a.	1,832
<b>British Honduras—</b>						
Aviation spirit .. ..	277	326	41	207	489	143
Motor spirit .. ..	5,390	4,974	4,258	8,089	6,688	9,288
Kerosine .. ..	2,959	2,884	2,236	4,744	3,497	3,633
Diesel and fuel oils .. ..	4,645	4,906	9,989	8,847	7,881	8,620
Lubricating oil .. ..	465	396	490	828	6,648	522
Asphalt, etc. .. ..	379	809	102	516	1,447	42
<b>Cayman Islands—</b>						
Aviation and motor spirits .. ..	1,657	1,688	1,716	1,537	1,584	2,295
Kerosine .. ..	481	933	1,380	857	754	1,083
Diesel oil .. ..	396	1,059	972	358	1,036	1,321

(a) Including aviation turbine fuel.

(c) Included with "Other products".

(e) Ex warehoused, for ships' stores.

(b) Including imports for bunkering purposes. See exports.

(d) Paraffin wax only.

(f) Owing to reclassification not strictly comparable with earlier years.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Dominica—</b>						
Aviation and motor spirits .. .. .	1,485	1,255	1,980	1,753	3,176	n.a.
Kerosine .. .. .	723	648	960	920	1,176	n.a.
Fuel oil and diesel oil ..	1,041	913	1,184	1,011	985	n.a.
Lubricating oil .. .. .	127	155	238	69	71	n.a.
Road oil .. .. .	968	149	246	291	239	n.a.
<b>Grenada—</b>						
Aviation and motor spirits .. .. .	2,680	3,418	2,933	3,587	3,498	3,878
Kerosine .. .. .	1,236	1,636	1,679	2,019	1,458	1,947
Fuel oils .. .. .	1,016	2,039	1,235	2,115	1,257	708
Lubricating oil .. .. .	149	146	209	71	90	108
Road oil .. .. .	1,143	1,571	1,496	56	27	605
<b>Jamaica—</b>						
Aviation spirit (b) .. .. .	19,568	17,674	12,341	12,007	16,174	11,843
Motor spirit .. .. .	69,657	71,021	78,190	84,927	83,602	43,082
Kerosine .. .. .	29,366	35,224	20,602	37,938	22,357	48,530
Gas oil (b) .. .. .	43,102	83,753	52,235	53,058	49,644	40,500
Diesel oil (b) .. .. .	77,409	70,213	91,862	89,606	83,216	76,243
Fuel oil (b) .. .. .	490,641	393,705	596,994	497,743	519,478	413,035
Lubricating oil .. .. .	4,853	4,717	5,179	5,545	5,135	5,818
Grease .. .. .	492	442	354	385	300	324
Petroleum jelly .. .. .	195	224	248	246	279	296
Paraffin wax .. .. .	20	23	12	12	23	57
Natural asphalt .. .. .	4,886	3,571	1,812	2,348	3,716	6,636
<b>Montserrat—</b>						
Motor spirit .. .. .	241	143	340	350	251	517
Kerosine .. .. .	156	129	213	232	105	326
Fuel oils .. .. .	237	348	359	606	322	517
Lubricating oil .. .. .	7	5	18	29	46	61
<b>St. Kitts—</b>						
Motor spirit .. .. .	2,301	1,298	1,280	(c) 2,443	1,559	1,707
Kerosine .. .. .	1,390	1,313	1,873	(c) 2,118	1,793	1,983
Fuel oils .. .. .	1,629	1,740	1,975	(c) 2,908	2,201	1,679
Lubricating oil .. .. .	132	145	135	(c) 172	146	161
<b>St. Lucia—</b>						
Motor spirit .. .. .	1,371	1,706	1,965	2,044	2,758	n.a.
Kerosine .. .. .	729	735	r 929	975	1,174	n.a.
Fuel oil .. .. .	1,806	1,704	r 2,513	2,702	2,761	n.a.
Lubricating oil .. .. .	82	142	112	142	143	n.a.
Road oil .. .. .	894	50	r 445	112	16	n.a.
<b>St. Vincent—</b>						
Aviation and motor spirits .. .. .	1,977	1,997	2,237	2,199	3,427	2,708
Kerosine .. .. .	978	1,355	1,247	1,401	1,232	1,643
Gas, diesel and fuel oils .. .. .	634	693	762	657	819	n.a.
Lubricating oil .. .. .	95	89	95	76	101	296
Road oil .. .. .	1,443	1,226	860	439	389	n.a.
Asphalt .. .. .	10	1	5	4	—	n.a.
<b>Trinidad and Tobago—</b>						
Crude petroleum .. .. .	4,394,648	5,642,917	8,795,309	9,036,205	9,740,022	10,820,714
Aviation and motor spirits .. .. .	2,029	1	—	—	13,496	6,097
Kerosine .. .. .	(a) 6	—	4	—	—	n.a.
Gas oil .. .. .	140,309	144,021	—	—	—	n.a.
Fuel oil .. .. .	22,278	6,681	—	18,337	8	n.a.
Lubricating oil .. .. .	6,161	7,000	6,558	6,572	8,286	5,040
Greases .. .. .	330	110	378	246	—	—
Petroleum jelly .. .. .	n.a.	365	100	88	146	n.a.
Paraffin wax .. .. .	29	21	18	27	21	n.a.

(a) Excess of re-exports.

(b) Including imports for bunkering purposes.

(c) Total imports.

See exports.



Aden Amtb.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Turks and Caicos Islands—</b>						
Aviation and motor spirit .. .. .	174	157	156	131	354	n.a.
Kerosine .. .. .	155	187	189	203	254	n.a.
Gas, diesel and fuel oils	752	804	98	204	347	n.a.
Lubricating oil ..	4	9	7	n.a.	n.a.	n.a.
<b>Virgin Islands—</b>						
Motor spirit .. ..	193	272	314	768	n.a.	1,241
Kerosine .. .. .	133	150	140	316	n.a.	317
Diesel oil .. .. .	82	162	122	430	n.a.	578
Lubricating oil ..	13	9	10	30	n.a.	31
<b>British Guiana—</b>						
Aviation spirit (c) ..	1,809	4,156	7,929	4,308	n.a.	3,472
Motor spirit .. .. .	19,241	19,705	21,967	18,618	n.a.	21,329
Kerosine .. .. .	14,452	16,203	16,385	17,927	n.a.	18,681
Gas, diesel and fuel oils	147,231	172,243	414,193	287,145	n.a.	480,647
Lubricating oil ..	2,378	3,809	2,780	2,620	n.a.	2,263
Grease .. .. .	199	331	292	273	n.a.	237
Paraffin wax .. ..	24	30	27	26	n.a.	33
Petroleum jelly ..	71	73	66	68	n.a.	54
Road oil .. .. .	697	1,340	1,345	527	n.a.	652
Asphalt and bitumen ..	327	436	2,850	1,433	n.a.	1,548
Asphalt natural.. ..	486	1,065	879	753	n.a.	191
<b>Falkland Islands—</b>						
Motor spirit .. .. .	205	244	259	253	77	303
Kerosine .. .. .	29	50	30	31	7	24
Gas and diesel oils	2,573	11,834	3,883	54	11,498	4,127
Fuel oil (c) .. .. .	57,365	589,463	63,178	31,168	14,944	5,705
Lubricating oil ..	227	184	128	25	12	40
<b>Aden—</b>						
Crude petroleum ..	4,139,454	4,205,582	5,284,281	6,216,214	6,305,476	6,000,000
Motor spirit .. .. .	18,108	35,822	26,921	33,792	35,393	40,000
Kerosine .. .. .	91,504	31,293	—	761	—	20,000 <sup>10,000</sup>
Gas and fuel oils (c) ..	1,445,233	1,745,475	1,591,976	1,138,797	1,621,335	1,510,000
Lubricating oil and greases .. .. .	4,287	4,319	4,097	6,479	n.a.	2,000
<b>Aden Protectorate (b)—</b>						
Motor spirit .. .. .	6,162	4,406	8,603	7,125	(e)	(e)
Kerosine .. .. .	9,849	6,963	7,260	8,267	(e)	(e)
Gas and fuel oils ..	4,632	2,193	5,109	3,691	(e)	(e)
Lubricating oil and grease .. .. .	173	170	98	198	(e)	(e)
<b>Bahrain Islands (a)—</b>						
Crude petroleum ..	7,011,000	7,943,000	8,444,000	9,533,000	8,799,000	7,666,000
<b>Brunei—</b>						
Aviation and motor spirits .. .. .	2,197	526	525	103	272	n.a.
Kerosine .. .. .	1,270	1,653	1,233	1,547	1,741	n.a.
Diesel oil .. .. .	47	—	(d) 24	(d) 27	(d) 98	n.a.
Fuel oil .. .. .	—	7	(d) 11	4	—	n.a.
Lubricating oil ..	1,294	928	1,188	1,670	934	n.a.
Grease .. .. .	23	24	29	117	50	n.a.
<b>Ceylon—</b>						
Aviation spirit (c) ..	8,215	3,041	2,877	1,985	1,683	929
Motor spirit .. .. .	151,838	154,445	164,435	134,160	136,683	102,780
Kerosine .. .. .	134,477	144,174	154,795	176,634	136,826	151,694
Gas oil (c) .. .. .	90,679	100,411	125,452	153,647	129,409	111,428
Diesel oil (c) .. ..	130,999	99,560	147,795	138,973	131,569	136,650
Fuel oil (c) .. .. .	415,232	355,677	421,599	391,499	332,784	305,286

(a) British Protected State.

(b) Exports from Aden to the Protectorate.

(c) Including imports for bunkering purposes. See exports.

(d) Excess of re-exports.

(e) Included with Aden.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Ceylon (cont.)—						
Lubricating oil ..	13,055	9,226	10,022	12,788	16,363	9,857
Other oils and greases ..	680	555	494	637	174	117
Paraffin wax ..	259	768	384	506	108	642
Asphalt (incl. natural) ..	24,560	18,102	1,719	3,718	4,183	10,314
Cyprus—						
Aviation spirit (d) ..	6,962	8,932	5,665	3,704	3,617	6,392
Motor spirit ..	53,864	59,430	55,396	59,408	56,798	54,782
Aviation turbine fuel ..	41,664	35,726	22,584	4,332	29,303	20,734
Kerosine, etc. ..	24,661	23,367	21,886	25,273	24,501	26,560
Gas oil ..	61,032	61,189	67,728	68,090	76,916	82,122
Other fuel oils ..	98,901	111,545	103,866	111,824	126,936	99,707
Lubricating oil ..	3,044	2,575	3,778	2,812	4,370	2,715
Paraffin wax ..	193	234	96	194	93	206
Asphalt and bitumen ..	5,293	7,771	10,925	13,527	15,872	10,480
Hong Kong—						
Aviation spirit ..	19,772	11,666	12,541	7,620	4,890	3,278
Motor spirit ..	69,344	65,097	66,274	56,341	68,242	66,160
White spirit ..	5,152	5,438	5,191	10,042	8,268	9,820
Aviation turbine fuel ..	17,676	38,547	54,288	83,149	106,830	98,127
Kerosine ..	85,396	97,514	109,870	123,990	146,018	134,626
Diesel oil and gas oil ..	180,325	194,218	230,244	259,630	289,547	288,754
Fuel oil ..	727,319	777,057	859,121	970,877	1,126,247	1,226,340
Lubricating oil ..	8,710	11,620	12,306	17,897	17,789	28,286
Greases ..	418	963	828	921	964	881
Petroleum jelly ..	89	267	310	318	353	405
Paraffin wax ..	1,406	1,168	1,249	1,549	1,397	1,248
Asphalt and bitumen ..	12,532	9,903	10,366	11,443	11,067	13,651
Asphalt (natural) ..	320	468	658	483	453	325
India—						
Crude petroleum ..	1,183,500	(b)2,658,517	(b)6,220,280	(b)4,258,742	(b)7,024,269	(b)4,161,948
Aviation and motor spirits ..	82,247	} (b) 85,472	(b) 105,168	(b) 98,559	(b) 80,038	(b) 63,114
Other spirit ..	113					
Kerosine ..	1,073,208	(b) 907,283	(b) 711,235	(b)1,590,508	(b)1,289,740	(b) 848,808
Diesel oil ..	261,000	(b) 276,310	(b) 343,502	(b) 452,200	(b) 560,081	(b)3,721,319
Fuel oil ..	32,330	(b) 71,785	(b) 164,983	(b) 200,920	(b) 905,390	(b) 296,173
Lubricating oil ..	198,339	(b) 310,333	(b) 232,834	(b) 272,903	(b) 380,703	(b) 281,209
Turpentine substitute ..	12,407	(b) 13,044	(b) n.a.	(b) n.a.	(b) n.a.	(b) n.a.
Greases ..	3,502	(a)	(a)	(a)	(a)	(a)
Petroleum jelly ..	1,962	(b) 1,857	(b) 1,735	(b) 1,513	(b) 1,570	(b) 3,622
Paraffin wax ..	6	(b) 7	(b) 11	(b) 16	(b) —	(b) 2
Asphalt and bitumen ..	6,126	(b) 11,533	(b) 18,042	(b) 10,525	(b) 6,963	(b) 3,056
Goa—						
Motor spirit ..	11,840	18,337	n.a.	n.a.	(c)	(c)
Kerosine ..	5,539	5,513	n.a.	n.a.	(c)	(c)
Lubricating oils ..	1,395	1,327	n.a.	n.a.	(c)	(c)
Other oils ..	12,183	17,854	n.a.	n.a.	(c)	(c)
Malaya—						
Crude petroleum ..	285,213	279,090	1,276,487	3,266,002	3,917,179	4,198,367
Aviation spirit ..	225,709	126,571	172,075	163,456	158,219	150,048
Motor spirit ..	1,021,451	1,048,410	837,632	662,154	721,112	574,597
White spirit ..	82,441	91,808	125,911	192,769	—	49,229
Aviation turbine fuel ..	170,689	234,370	253,647	273,934	206,981	159,112
Kerosine ..	396,954	475,298	502,454	453,848	364,526	303,444
Gas oil ..	757,751	912,781	836,643	796,766	930,847	742,500
Diesel oil ..	599,986	669,809	986,382	914,698	566,978	312,209
Fuel oil ..	2,174,469	2,193,394	2,878,306	2,575,167	2,775,373	3,234,918
Lubricating oil ..	31,056	36,020	40,237	49,884	66,217	68,472

(a) Included with lubricating oil.

(b) Years ended March 31 following that stated.

(c) With effect from April, 1963, figures included with those of India.

(d) Including imports for bunkering purposes. See exports.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
<b>Malaya (cont.)—</b>						
Paraffin wax .. ..	2,775	2,829	4,155	4,164	2,645	4,075
Petroleum jelly .. ..	733	1,271	705	667	875	502
Grease .. ..	1,169	1,839	1,712	2,236	2,198	1,343
Asphalt and bitumen .. ..	45,892	53,422	51,195	48,743	26,039	3,947
Natural asphalt .. ..	—	20	75	317	3,433	83
<b>Pakistan—</b>						
Motor spirit .. ..	62,800	n.a.	152,549	115,798	88,402	31,782
Other spirit .. ..	1,659	n.a.	n.a.	n.a.	n.a.	n.a.
Kerosine .. ..	152,872	n.a.	270,638	238,542	157,995	n.a.
Diesel oil .. ..	270,669	n.a.	1,374,823	769,334	827,844	1,039,519
Fuel oil .. ..	470,426	n.a.				
Lubricating oil .. ..	57,763	n.a.	48,628	47,147	84,816	52,903
Other oils .. ..	14,646	n.a.	n.a.	n.a.	n.a.	n.a.
Grease .. ..	1,381	n.a.	n.a.	n.a.	n.a.	n.a.
Paraffin wax .. ..	1,009	n.a.	1,384	1,107	1,155	2,293
Asphalt .. ..	9,299	n.a.	25,354	41,836	30,140	53,809
<b>Sabah—</b>						
Aviation and motor spirits (a) .. ..	19,917	13,752	16,872	22,646	23,974	21,584
Kerosine .. ..	9,145	9,346	6,886	9,425	12,771	11,115
Diesel oil (a) .. ..	24,651	26,067	27,184	35,590	44,314	49,016
Fuel oil (a) .. ..	7,160	8,418	8,941	7,561	8,519	8,819
Lubricating oil .. ..	2,670	3,799	3,441	3,640	3,292	3,323
<b>Sarawak—</b>						
Crude petroleum .. ..	5,313,995	4,505,041	3,708,753	3,840,782	3,382,548	3,494,507
Aviation spirit .. ..	928	878	693	594	226	1,921
Motor spirit .. ..	11,116	11,601	12,220	13,174	14,489	15,447
Kerosine .. ..	8,640	9,493	10,621	11,155	13,176	13,874
Gas oil .. ..	10,466	12,798	16,259	15,830	18,342	28,777
Diesel oil .. ..	3,982	2,814	3,527	4,635	4,319	7,130
Fuel oil .. ..	3,612	4,255	5,971	6,225	(c) 8,895	310
Lubricating oil .. ..	2,187	2,264	2,303	2,650	2,776	2,024
Paraffin wax .. ..	3	14	14	16	12	11
Mineral jelly .. ..	37	31	25	31	39	22
Natural gas (million cubic feet) .. ..	2,540	2,693	2,421	2,473	1,952	n.a.
<b>Australia (b)—</b>						
Crude petroleum .. ..	10,329,346	11,405,405	12,684,109	13,373,103	14,887,129	15,287,562
Aviation spirit (a) .. ..	86,634	62,793	38,643	48,004	46,889	63,736
Motor spirit .. ..	622,571	561,470	601,646	522,474	723,805	704,752
White spirit .. ..	56,456	49,108	55,807	46,806	49,014	49,279
Kerosine .. ..	334,945	320,990	345,107	254,197	224,597	166,176
Aviation turbine fuel .. ..	15,164	44,063	69,413	74,657	119,923	87,207
Lubricating oil .. ..	188,885	198,343	207,231	183,764	235,195	183,843
Gas, diesel and fuel oils (a) .. ..	52,995	75,102	55,229	271,150	359,396	512,360
Other oils .. ..	6,116	7,001	40,978	9,209	11,795	10,725
Petroleum jelly .. ..	2,001	1,951	1,586	1,236	1,817	1,711
Paraffin wax .. ..	7,345	7,638	6,728	5,405	8,871	10,764
Natural asphalt .. ..	1,768	2,610	1,369	1,277	1,777	1,494
Bitumen and pitch .. ..	768	978	1,011	544	6,175	1,610
<b>Fiji—</b>						
Aviation spirit (a) .. ..	13,647	12,681	8,431	9,517	3,733	5,557
Motor spirit .. ..	20,086	19,439	20,302	19,202	21,256	27,865
Aviation turbine fuel (a) .. ..	6,479	21,239	35,297	32,460	32,028	82,202
Kerosine .. ..	6,047	11,719	7,089	6,768	7,502	9,552
Gas oil (a) .. ..	13,983	23,665	13,731	14,337	10,113	20,526

(a) Including imports for bunkering purposes. See exports.

(b) Years ended June 30 of that stated.

(c) Excess of re-exports.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Fiji (cont.)—						
Diesel oil (a) .. ..	19,198	7,639	23,747	35,235	42,535	60,027
Fuel oil (a) .. ..	r 470	r —	r —	844	4,366	45,268
Lubricating oil .. ..	1,602	1,128	1,237	1,537	1,593	2,242
Greases .. ..	290	136	145	140	174	188
Bitumen .. ..	576	159	1,378	1,152	1,595	1,793
New Guinea (c)—						
Aviation and motor spirits .. ..	12,002	16,835	17,610	19,322	26,979	25,955
Kerosine .. ..	2,430	2,621	4,844	2,935	4,926	4,647
Fuel oils .. ..	15,198	14,718	23,329	21,049	27,587	26,122
Lubricating oil .. ..	1,020	1,029	1,110	1,115	1,261	1,342
New Hebrides—						
Aviation spirit .. ..	301	108	387	274	207	257
Motor spirit .. ..	2,731	2,490	2,239	1,825	1,882	1,992
Kerosine .. ..	996	915	966	1,218	1,049	593
Other oils .. ..	3,596	3,781	5,113	5,847	5,756	6,469
New Zealand—						
Crude petroleum .. ..	—	—	—	—	—	1,028,200
Aviation spirit (a) .. ..	27,314	34,612	33,847	960,435	(c) 980,930	818,000
Motor spirit .. ..	786,046	868,626	959,996			
White spirit .. ..	10,687	12,284	12,205	11,394	(c) 16,890	391,000
Aviation turbine fuel .. ..	12,559	23,238	34,837	46,338	(c) 47,763	
Kerosine .. ..	36,706	39,760	39,657	39,280	(c) 29,706	570,000
Gas oil .. ..	198,668	272,163	300,946	327,618	(c) 306,196	
Diesel oil (a) .. ..	143,204	160,919	168,860	138,262	(c) 95,430	40,000
Fuel oil (a) .. ..	249,758	230,533	226,312	306,157	(c) 366,137	
Lubricating oil (a) .. ..	34,006	44,286	43,044	46,712	(c) 39,990	n.a.
Transformer oil .. ..	526	1,586	930	1,767	(c) 1,327	n.a.
Petroleum jelly .. ..	215	244	158	240	(c) 346	n.a.
Paraffin wax .. ..	1,520	1,283	1,390	2,141	(c) 1,677	1,633
Ozokerite .. ..	3	3	8	n.a.	n.a.	n.a.
Asphalt and bitumen .. ..	50,768	53,180	65,901	63,722	(c) 63,636	n.a.
do. natural .. ..	462	709	610	240	(c) 637	n.a.
Papua (c)—						
Aviation and motor spirits .. ..	10,144	12,673	10,034	11,333	13,528	18,814
Kerosine .. ..	1,572	2,145	2,536	1,319	2,182	2,401
Fuel oil .. ..	7,293	7,426	5,972	6,588	6,781	7,947
Lubricating oil and grease .. ..	626	389	653	511	512	834
Solomon Islands—						
Aviation spirit .. ..	—	60	(b) 133	(b) 172	(b) 172	(b) 269
Motor spirit .. ..	566	713	1,244	1,100	899	1,020
Kerosine .. ..	556	518	602	543	591	708
Fuel oils .. ..	2,154	1,956	3,041	3,357	3,176	4,210
Lubricating oil .. ..	144	291	n.a.	119	145	189
Western Samoa—						
Motor spirit .. ..	2,556	3,154	3,433	3,708	4,019	4,575
Kerosine .. ..	712	1,038	771	781	910	1,000
Fuel oil .. ..	999	956	1,251	1,035	1,854	1,961
Lubricating oil .. ..	90	104	83	148	104	175
Irish Republic—						
Crude petroleum .. ..	811,106	15,240,053	1,551,140	1,616,420	1,741,558	1,861,734
Aviation spirit (a) .. ..	72,923	56,926	51,042	39,472	21,025	22,503
Motor spirit .. ..	165,114	13,194	4,960	9,313	7,876	25,055

(a) Including imports for bunkering purposes. See exports.

(b) Including aviation turbine fuel.

(c) Years ended June 30 of that stated.



## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>Irish Republic (cont.)—</b>						
White spirit .. .. .	3,368	3,402	3,379	3,315	2,984	4,539
Kerosine .. .. .	110,418	74,998	104,185	70,656	88,353	83,867
Aviation turbine fuel (b) }						
Gas and diesel oils (b) }	129,102	4,752	74,027	106,767	94,951	124,715
Fuel oil (b) .. .. .	21,948	138,240	159,347	193,884	255,502	277,448
Lubricating oil .. .. .	20,453	18,989	22,493	22,810	22,426	26,846
Greases .. .. .	280	233	246	246	241	352
Other oils .. .. .	1,866	2,233	3,069	3,423	3,028	2,341
Paraffin wax (c) .. .. .	1,753	2,396	2,634	2,111	2,783	1,930
Asphalt and bitumen .. .. .	61,919	69,505	68,756	87,755	3,244	5,089
do. natural .. .. .	61	—	136	152	15,101	3,198
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Crude petroleum .. .. .	18	4,416	266,994	618,378	811,662	775,394
Motor spirit .. .. .	247,919	291,571	408,912	519,430	514,900	468,158
White spirit .. .. .	6,555	6,182	6,864	6,933	6,409	6,589
Gas oil .. .. .	26,667	71,464	60,303	61,431	69,110	79,937
Fuel oil .. .. .	530,350	687,614	772,982	875,487	1,007,613	1,222,641
Lubricating oil, etc. .. .. .	31,556	34,099	37,696	38,103	43,412	48,044
Petroleum jelly .. .. .	239	212	269	280	272	293
Paraffin wax .. .. .	4,662	4,503	5,065	5,630	6,344	6,856
Ozokerite and ceresin (a) .. .. .	588	602	615	339	283	205
Natural asphalt .. .. .	906	826	1,089	1,695	2,392	1,921
Petroleum coke .. .. .	8,095	16,107	6,786	563	8,763	10,794
Bitumen, etc. .. .. .	53,286	53,879	82,926	82,807	106,379	112,647
<b>Belgium-Luxemburg</b>						
<b>E. U.—</b>						
Crude petroleum .. .. .	6,610,844	6,706,495	7,714,263	8,401,677	11,860,905	13,074,070
Motor spirit, etc. .. .. .	315,204	374,096	362,963	423,065	343,866	269,138
Kerosine .. .. .	27,940	23,731	25,563	40,460	22,002	28,607
Gas oil .. .. .	695,353	792,107	826,347	1,100,286	1,123,187	1,146,457
Fuel oil .. .. .	1,465,770	1,640,173	1,760,838	2,273,488	2,168,449	2,793,024
Lubricating oil .. .. .	178,291	155,437	169,413	196,278	205,704	220,214
Other heavy oils .. .. .	10,998	31,298	6,816	337	55,885	13,096
Petroleum jelly .. .. .	1,435	1,772	1,481	1,441	1,348	1,204
Paraffin wax .. .. .	4,730	5,851	5,908	6,507	6,711	8,007
Ozokerite and ceresin (a) .. .. .	401	250	335	145	163	109
Petroleum coke .. .. .	34,362	18,940	19,310	34,902	79,173	81,684
Natural asphalt .. .. .	2,758	2,492	2,693	2,747	4,264	4,972
Pitch .. .. .	59,947	23,445	13,527	18,521	25,515	26,967
<b>Denmark—</b>						
Crude petroleum .. .. .	36,885	5,350	232,875	1,263,488	1,719,782	2,924,240
Aviation spirit .. .. .	125,550	87,424	80,840	120,597	33,274	58,450
Motor spirit .. .. .	823,722	894,343	1,000,610	945,344	896,982	983,904
White spirit .. .. .	13,656	14,191	14,582	20,315	17,106	17,758
Kerosine .. .. .	162,696	252,393	298,157	298,983	391,897	150,999
Gas oil .. .. .	808,221	892,195	1,030,020	1,138,385	1,298,907	1,201,468
Diesel oil .. .. .	551,304	679,815	771,491	868,078	1,056,309	1,251,575
Fuel oil .. .. .	1,830,169	2,103,286	2,182,827	2,360,095	2,378,893	2,653,885
Lubricating oil .. .. .	71,047	64,177	70,133	80,244	66,115	85,701
Grease .. .. .	1,348	1,134	942	1,311	1,427	1,320
Petroleum jelly .. .. .	485	463	463	500	504	450
Ozokerite, etc. .. .. .	1,028	884	863	1,351	1,093	1,164
Paraffin wax .. .. .	4,831	5,036	5,735	5,890	5,768	6,328
Natural asphalt .. .. .	1,692	1,358	959	1,752	1,976	2,473
Other asphalt .. .. .	67,685	69,249	100,884	111,639	108,790	149,529
<b>Faroe Islands—</b>						
Motor spirit .. .. .	2,002	1,347	2,402	2,058	2,578	2,302
Kerosine .. .. .	2,440	733	2,751	2,687	2,080	3,398
Fuel oils .. .. .	25,338	14,383	28,354	31,485	31,553	30,280
Lubricating oil, etc. .. .. .	415	468	317	476	492	530

(a) Including montan wax.

(b) Including imports for bunkering purposes. See exports.

(c) Including other mineral jellies and waxes.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Finland—</b>						
Crude petroleum .. ..	1,072,737	1,118,972	1,361,407	1,488,311	1,524,865	3,040,341
Motor spirit .. ..	21,434	44,914	32,301	16,506	18,911	12,210
White spirit .. ..	3,650	3,585	4,733	6,145	5,255	5,189
Kerosine .. ..	17,415	29,954	26,923	24,392	26,507	17,300
do. Power .. ..	5,561	1,852	6	1	6	35
Fuel oil .. ..	720,281	1,418,626	1,459,568	1,863,309	1,913,954	2,192,472
Lubricating oil .. ..	26,493	36,069	45,170	48,796	46,839	59,540
Petroleum jelly .. ..	405	381	369	511	470	330
Paraffin wax .. ..	3,071	4,184	4,862	5,065	6,912	7,157
Asphalt, etc. .. ..	26,654	8,219	17,431	16,744	14,600	18,446
<b>France—</b>						
Crude petroleum .. ..	28,709,907	30,531,645	34,463,365	36,573,573	42,574,849	48,496,711
Aviation spirit .. ..	134,745	131,706	134,094	112,344	102,261	95,643
Motor spirit .. ..	475,812	679,668	572,603	636,937	586,656	499,056
White spirit .. ..	<i>n.a.</i>	2,157	3,542	3,844	8,913	8,725
Kerosine .. ..	3,659	5,836	8,154	3,040	10,028	5,227
Lubricating oil .. ..	14,833	14,717	10,309	18,453	19,269	25,898
Fuel oil .. ..	921,860	1,229,110	1,108,191	1,588,227	2,529,976	2,588,116
Gas oil .. ..	230,421	247,630	221,720	212,002	426,176	632,382
Petroleum coke .. ..	60,075	92,099	103,885	130,187	336,418	386,727
Paraffin wax .. ..	2,492	2,911	3,834	4,346	5,342	4,379
Ozokerite and ceresin .. ..	4,329	5,097	7,266	8,676	8,679	9,097
Petroleum jelly .. ..	534	755	686	671	696	706
Natural asphalt and bitumen .. ..	2,267	1,635	1,925	2,066	2,153	1,629
Bitumen .. ..	136	629	727	305	184	313
<b>Germany (Federal)—</b>						
Crude petroleum .. ..	16,543,067	22,692,143	28,830,783	32,677,499	39,444,856	50,466,543
Aviation spirit (a) .. ..		158,455	154,515	164,174	159,415	177,076
Motor spirit .. ..	416,891	414,173	359,996	398,946	424,246	646,571
White spirit .. ..		4,380	5,589	7,367	12,354	21,990
Kerosine .. ..		101,974	74,128	13,015	20,092	32,613
Aviation turbine fuel (a) .. ..	227,896	131,499	97,530	166,473	122,150	190,925
Gas and diesel oil (a) .. ..	846,537	880,516	717,760	1,083,065	1,419,579	2,137,570
Fuel oil (a) .. ..	3,587,682	4,375,587	4,635,838	9,237,703	10,267,190	8,882,234
Lubricating oil, etc. .. ..	143,111	149,286	170,688	215,742	175,330	242,406
Petroleum jelly .. ..	1,508	1,839	1,691	1,936	1,388	1,741
Paraffin wax .. ..	13,047	12,827	14,237	24,244	20,959	24,839
Ozokerite, etc. .. ..	982	725	163	27	5	3
Natural asphalt and bitumen .. ..	10,613	10,946	11,625	14,079	16,717	18,118
Bitumen .. ..	148,460	234,816	347,114	459,162	845,838	671,130
Petroleum coke .. ..	<i>n.a.</i>	63,728	98,658	120,920	165,580	194,787
<b>Germany (East)—</b>						
Crude petroleum .. ..	1,534,000	1,910,000	2,234,000	2,550,000	3,113,000	4,193,000
<b>Greece—</b>						
Crude petroleum .. ..	1,539,442	1,631,356	1,576,603	1,437,323	2,129,000	1,678,770
Aviation spirit .. ..	17,460	382	11,981	13,587	11,295	11,690
Motor spirit .. ..	19,936	13,381	1,678	13,029	16,175	15,202
White spirit .. ..	501	806	869	1,163	1,440	1,866
Kerosine .. ..	16,411	3,073	94	2,868	1,942	3,224
Fuel oil and diesel oil .. ..	389,937	605,065	747,423	1,094,241	1,385,879	1,220,547
Lubricating oil, etc. .. ..	20,626	19,952	22,054	23,358	26,809	31,839
Petroleum jelly .. ..	99	87	90	97	101	107
Paraffin wax .. ..	175	195	246	382	427	448
Asphalt and bitumen .. ..	4,688	2,132	680	1,628	7,223	16,083
<b>Hungary—</b>						
Crude petroleum .. ..	1,236,387	1,432,558	1,389,327	1,515,703	1,799,056	1,994,252
Motor spirit .. ..	4,907	10,903	56,137	61,602	88,136	120,656
Kerosine .. ..	—	—	—	—	—	29,320
Gas oil .. ..	3,937	19,716	89,243	118,676	177,466	221,783
Fuel oil .. ..	58,295	68,720	81,897	65,772	133,221	201,134

(a) Figures for 1959 include imports for bunkering foreign ships or aircraft.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Iceland—</b>						
Aviation spirit .. ..	13,175	12,557	10,848	12,118	12,857	14,991
Motor spirit .. ..	45,882	42,636	38,341	43,910	47,810	42,154
White spirit .. ..	337	464	466	470	491	833
Kerosine .. ..	18,083	8,462	7,705	1,488	1,272	3,868
Gas oil and fuel oil ..	308,936	308,359	278,895	306,887	343,875	346,170
Lubricating oil .. ..	4,044	4,406	4,074	4,794	4,267	4,380
Greases .. ..	140	145	137	184		
Paraffin wax .. ..	143	132	145	181	188	203
Petroleum jelly .. ..	2	9	14	4	18	6
Asphalt .. ..	560	1,215	832	1,527	885	416
<b>Italy—</b>						
Crude petroleum .. ..	24,402,201	28,336,147	32,803,729	39,328,656	45,366,105	54,103,961
Aviation and motor spirits .. ..	31,701	88,783	114,214	122,124	118,775	116,863
Kerosine .. ..	225	206	741	1,575	3,136	7,182
Gas oil .. ..	3,612	1,175	7,379	5,309	35,701	14,468
Fuel oil .. ..	598,060	1,470,520	1,964,600	2,821,695	3,102,497	1,338,614
Lubricating oil .. ..	44,277	78,552	108,141	120,030	155,336	127,502
Petroleum jelly .. ..	1,305	1,573	1,716	2,053	2,140	1,847
Paraffin wax .. ..	14,511	16,689	20,985	25,102	25,197	27,955
Pitch .. ..	282	5,999	180	690	200	1,895
Petroleum coke .. ..	54,430	100,440	132,035	151,873	191,438	224,759
Ozokerite and ceresin ..	601	485	666	328	280	285
Natural asphalt and bitumen .. ..	1,772	1,919	2,814	2,433	2,496	2,667
<b>Netherlands—</b>						
Crude petroleum .. ..	12,477,736	16,227,967	18,980,919	19,613,218	20,560,260	23,067,690
Motor spirit, etc. .. ..	118,304	128,812	113,062	109,550	120,656	277,575
Kerosine .. ..	193,684	180,412	209,526	235,305	345,505	369,995
Gas oil .. ..	1,108,850	1,286,182	1,014,940	989,196	1,232,137	1,365,985
Fuel oil .. ..	3,453,114	3,329,216	3,578,248	3,565,012	2,936,625	3,688,683
Lubricating oil .. ..	160,690	154,204	151,793	144,166	157,096	175,801
Petroleum jelly .. ..	2,855	2,711	2,291	2,559	2,734	2,570
Paraffin wax .. ..	28,301	29,839	23,588	17,966	16,939	25,577
Ozokerite and ceresin (a)	167	178	155	156	128	166
Pitch .. ..	20,184	24,246	36,089	60,569	92,933	115,106
Petroleum coke .. ..	11,662	16,785	10,949	13,619	39,033	51,592
Natural asphalt .. ..	985	1,303	1,413	1,738	1,417	1,336
<b>Norway—</b>						
Crude petroleum .. ..	105,201	216,795	1,711,949	2,317,740	2,495,638	2,655,006
Aviation spirit .. ..	29,283	22,593	24,964	24,600	32,381	36,874
Motor spirit .. ..	377,118	429,113	305,700	432,831	406,638	399,795
White spirit .. ..	13,943	14,622	17,436	18,923	16,372	19,013
Kerosine .. ..	75,726	86,508	80,929	89,198	116,888	111,214
Aviation turbine fuel ..	78,718	97,134	104,375	70,208	76,359	93,579
Diesel oil .. ..	428,071	332,888	321,783	269,015	239,655	295,300
Gas oil .. ..	710,308	877,440	563,515	715,108	813,741	777,961
Fuel oil .. ..	1,314,221	1,498,596	1,222,330	1,119,421	1,271,869	1,498,522
Lubricating oil .. ..	34,712	35,913	36,838	37,442	39,471	44,548
Petroleum jelly .. ..	143	172	221	306	273	299
Paraffin wax .. ..	2,034	2,306	2,684	2,541	2,735	3,149
Greases .. ..	1,358	1,669	1,788	1,633	1,690	1,791
Pitch .. ..	6,483	10,121	17,325	11,064	30,929	41,908
Petroleum coke .. ..	85,856	92,878	96,349	124,572	113,108	144,290
Asphalt, etc. .. ..	18,219	15,947	13,645	14,769	425	1,889
<b>Poland—</b>						
Crude petroleum .. ..	681,600	702,600	727,900	1,025,000	1,393,200	1,680,900
Motor spirit .. ..	739,700	839,700	1,029,900	n.a.	1,090,800	n.a.
Kerosine .. ..	52,300	52,300	45,500	n.a.	51,800	
Fuel oils .. ..	628,700	750,300	972,600	n.a.	1,454,700	
Lubricating oil .. ..	27,988	52,913	66,506	n.a.	81,178	

(a) Including montan wax.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Poland (cont.)—</b>						
Paraffin wax .. .. .	13,538	10,488	14,981	<i>n.a.</i>	16,640	} <i>n.a.</i>
Asphalt .. .. .	14,814	31,887	85,464	<i>n.a.</i>	68,991	
Petroleum coke .. .. .	4,267	15,446	22,674	<i>n.a.</i>	22,364	
<b>Portugal—</b>						
Crude petroleum .. .. .	1,242,219	1,280,678	1,285,538	1,312,884	1,474,027	1,495,275
Motor spirit .. .. .	12,599	18,882	22,212	23,285	21,628	51,366
do. (b) .. .. .	4,806	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	38,737	32,520	24,137	39,699	19,426	18,446
Aviation turbine fuel .. .. .	49	—	—	5	674	4,551
Gas oil and diesel oil .. .. .	145,366	295,511	296,801	293,974	322,393	316,220
Fuel oil .. .. .	115,522	210,332	247,877	275,512	284,625	266,167
Gas, diesel, fuel oils (b) .. .. .	203,717	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. .. .	27,284	30,467	34,184	32,363	34,796	39,059
do. (b) .. .. .	2,547	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. .. .	130	113	142	130	153	118
Paraffin wax .. .. .	2,245	2,889	3,512	2,818	2,832	3,582
Ozokerite and ceresin .. .. .	99	106	95	66	49	167
Bitumen .. .. .	118	(a) 29,712	(a) 37,046	44,508	39,084	40,960
Natural asphalt .. .. .	15,429	11,561	7,097	9,569	6,108	615
<b>Spain—</b>						
Crude petroleum .. .. .	4,020,534	3,941,274	4,653,518	5,425,060	5,798,073	12,419,356
Motor spirit .. .. .	204,436	(c) 56,087	(c) 80,149	(c) 83,164	(c) 37,715	(c) 56,676
Kerosine .. .. .	53,713	(c) 34,092	(c) 17,315	(c) 28,741	(c) 9,075	(c) 16,882
Diesel oil .. .. .	120,720	(c) 143,599	(c) 115,769	(c) 45,351	(c) 115,603	(c) 72,958
Lubricating oil .. .. .	84,920	(c) 32,097	(c) 11,082	(c) 39,333	(c) 6,779	(c) 45,645
Fuel oil .. .. .	277,360	(c) 807	(c) 9,818	(c) 9,210	(c) 34,390	(c) 73,003
Petroleum jelly .. .. .	295	(c) 298	(c) 732	(c) 931	(c) 850	(c) 1,409
Paraffin wax .. .. .	568	(c) 1,625	(c) 1,535	(c) 735	(c) 1,438	(c) 5,426
Asphalt .. .. .	90,327	(c) 13,846	(c) 713	(c) 536	(c) 1,062	(c) 866
<b>Sweden—</b>						
Crude petroleum .. .. .	2,335,773	2,604,355	2,551,145	2,421,148	2,633,817	3,440,800
Motor spirit, etc. .. .. .	1,251,949	1,505,209	1,540,238	1,832,333	2,696,592	3,001,259
White spirit .. .. .	43,832	56,021	47,305	50,000	69,802	84,815
Kerosine .. .. .	307,627	317,021	289,111	318,000	445,298	435,893
Fuel oil and gas oil .. .. .	6,651,825	8,406,037	8,590,473	9,622,528	11,941,440	12,779,669
Lubricating oil and grease .. .. .	103,389	117,070	114,944	130,866	123,743	151,360
Petroleum jelly .. .. .	650	764	647	810	858	979
Paraffin wax .. .. .	6,079	7,118	7,179	7,846	7,631	7,956
Ozokerite, ceresin, etc. .. .. .	1,233	1,137	1,421	1,521	1,925	2,129
Asphalt .. .. .	1,337	882	507	1,067	683	920
Pitch .. .. .	6,435	7,282	7,018	8,424	9,441	9,545
Petroleum coke .. .. .	6,188	4,698	12,849	9,947	12,700	10,053
<b>Switzerland—</b>						
Crude Petroleum .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	4,202	353,368	824,788
Motor spirit .. .. .	834,327	974,070	1,132,780	1,032,682	1,253,188	1,274,386
White spirit .. .. .	10,090	10,841	10,776	8,861	7,796	8,501
Kerosine .. .. .	63,167	15,425	15,424	16,425	19,844	16,235
Gas and diesel oils .. .. .	221,536	369,415	448,601	298,718	494,894	544,227
Fuel oil .. .. .	1,885,866	2,318,463	2,398,116	3,302,971	4,192,766	3,905,578
Lubricating oil and grease .. .. .	51,739	57,858	66,755	68,933	77,762	73,660
Petroleum jelly .. .. .	1,086	702	805	830	702	742
Paraffin wax and ceresin .. .. .	4,379	4,998	5,149	5,660	6,090	6,720
Asphalt and bitumen .. .. .	1,172	96,174	128,279	147,039	191,804	215,752
Petroleum coke .. .. .	<i>n.a.</i>	14,124	27,052	35,954	65,173	49,363
<b>U.S.S.R.—</b>						
Crude petroleum .. .. .	1,066,000	1,147,400	873,600	488,000	535,000	—
Motor spirit .. .. .	2,196,700	2,139,900	1,752,000	1,556,300	1,510,800	1,363,800
Kerosine .. .. .	352,100	300,400	268,500	240,200	200,400	148,800
Diesel oil .. .. .	352,900	336,700	261,800	223,100	237,700	226,500
Fuel oil .. .. .	50,300	47,900	47,000	42,900	50,200	51,700

(a) Including petroleum coke.

(b) Imported for bunkering of national ships.

(c) Excluding imports from Canary Islands.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>U.S.S.R. (cont.)—</b>						
Lubricating oil and grease .. .. .	126,500	120,800	143,700	115,300	144,500	152,100
Paraffin wax .. .. .	28,900	32,200	38,900	33,300	26,500	17,500
Bitumen .. .. .	175,500	199,400	177,600	61,600	67,000	71,700
<b>Yugoslavia—</b>						
Crude petroleum .. .. .	609,314	428,107	282,657	735,070	765,773	748,243
Aviation spirit .. .. .	30,508	23,625	10,370	16,564	10,466	23,186
Motor spirit .. .. .	829	707	103	—	1	—
Kerosine .. .. .	—	6,831	9,402	4,632	4,509	5,549
Aviation turbine fuel .. .. .	8	5	—	—	—	4
Fuel oils .. .. .	58,576	126,214	123,460	229,432	137,381	258,315
Lubricating oil .. .. .	16,073	17,996	23,381	19,761	21,671	49,722
Greases .. .. .	245	321	317	194	334	639
Paraffin wax .. .. .	939	1,646	1,786	2,682	2,755	3,856
Petroleum jelly .. .. .	748	524	444	571	648	691
Ozokerite and ceresin .. .. .	134	184	160	224	327	570
Petroleum coke .. .. .	6,698	2,046	15,698	13,653	15,255	18,553
Pitch .. .. .	5,320	768	5,022	1,820	21,240	76,349
<b>Algeria—</b>						
Crude petroleum .. .. .	—	11,116	n.a.	n.a.	n.a.	n.a.
Aviation spirit .. .. .	16,272	5,734	n.a.	n.a.	n.a.	n.a.
Motor spirit .. .. .	290,883	311,926	n.a.	n.a.	n.a.	n.a.
White spirit .. .. .	2,315	3,307	n.a.	n.a.	n.a.	n.a.
Kerosine .. .. .	87,588	93,976	n.a.	n.a.	n.a.	n.a.
Gas oil .. .. .	355,940	373,813	n.a.	n.a.	n.a.	n.a.
Fuel oil and diesel oil .. .. .	432,862	553,828	451,500	n.a.	n.a.	n.a.
Lubricating oil .. .. .	32,719	29,046	28,500	n.a.	n.a.	n.a.
Bitumen, etc. .. .. .	81,862	88,048	n.a.	n.a.	n.a.	n.a.
Paraffin wax .. .. .	580	607	n.a.	n.a.	n.a.	n.a.
Petroleum jelly .. .. .	52	—	n.a.	n.a.	n.a.	n.a.
Ozokerite and ceresin .. .. .	11	12	n.a.	n.a.	n.a.	n.a.
Natural asphalt, etc. .. .. .	4,598	1,215	n.a.	n.a.	n.a.	n.a.
Mastic asphalt .. .. .	3,495	4,877	n.a.	n.a.	n.a.	n.a.
<b>Angola—</b>						
Crude petroleum .. .. .	11,628	116,192	119,691	—	—	—
Motor spirit .. .. .	28,162	23,252	17,413	9,246	10,375	10,140
Kerosine .. .. .	8,867	10,046	10,000	9,579	6,834	6,019
Gas oil and fuel oil .. .. .	78,702	58,626	49,044	40,777	15,525	11,960
Lubricating oil .. .. .	6,458	7,510	7,360	7,818	9,680	9,463
Paraffin wax .. .. .	23	19	59	24	61	32
Petroleum jelly .. .. .	20	35	29	27	34	41
Asphalt and bitumen .. .. .	n.a.	n.a.	744	48	4,078	34
<b>Cameroun—</b>						
Motor spirit, etc. .. .. .	55,405	53,446	50,601	50,684	48,792	58,358
Kerosine .. .. .	15,191	16,925	26,062	24,327	26,760	30,008
Gas and fuel oil .. .. .	25,036	23,115	27,654	31,584	34,907	44,640
Lubricating oil .. .. .	4,303	2,695	3,596	3,939	4,107	8,171
<b>Canary Islands—</b>						
Crude petroleum .. .. .	3,080,585	2,447,564	2,658,809	4,100,273	4,554,742	5,044,962
Motor spirit .. .. .	10,018	10,470	14,860	37,897	—	16,157
Diesel (a) .. .. .	97,542	27,155	41,762	18,361	6,312	—
Fuel oil (a) .. .. .	—	9,021	—	22,637	—	—
<b>Cape Verde Islands—</b>						
Motor spirit .. .. .	455	562	551	783	599	629
Kerosine .. .. .	1,268	1,472	1,750	1,610	1,988	2,212
Fuel oil (a) .. .. .	476,416	328,451	n.a.	n.a.	n.a.	n.a.
<b>Central African Republic—</b>						
Aviation spirit .. .. .						88
Motor spirit .. .. .						11,414
Kerosine .. .. .	(b)	(b)	(b)	(b)	(b)	4,202
Gas oil .. .. .						8,872
Diesel oil .. .. .						835

(a) Imported chiefly for bunkering purposes. See exports.

(b) Included in Equatorial African Community.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Ceuta—</b>						
Motor spirit .. ..	7,859	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	3,112	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(a) —	(a) 84
Diesel (b) .. ..	136,662	(a) 125,279	(a) 111,055	(a) 130,299	(a) 121,271	(a) 47,924
Fuel oil (b) .. ..	384,079	(a) 268,213	(a) 267,007	(a) 303,399	(a) 292,915	(a) 44,762
Lubricating oil .. ..	2,797	(a) 3,487	(a) 3,811	(a) 367	(a) 3,523	(a) 3,212
<b>Congo Republic—</b>						
Motor spirit, etc. .. ..	187,279	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
White spirit .. ..	373	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	41,772	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil, etc. .. ..	183,800	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil and greases .. ..	16,803	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. ..	69	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	118	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. ..	1,664	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Congo (Republic of)—</b>						
Aviation spirit .. ..						10,635
Motor spirit .. ..						19,519
Kerosine .. ..	(c)	(c)	(c)	(c)	(c)	21,572
Gas oil .. ..						39,276
Fuel oil .. ..						4,273
Lubricating oil .. ..						3,498
<b>Dahomey—</b>						
Aviation spirit .. ..	197	660	373	832	<i>n.a.</i>	478
Motor spirit .. ..	15,299	20,728	14,140	13,335	<i>n.a.</i>	15,140
Kerosine .. ..	10,835	15,250	12,855	12,726	<i>n.a.</i>	13,664
Gas oil .. ..	7,241	14,335	12,409	14,795	<i>n.a.</i>	15,124
Fuel oils .. ..	106	550	837	535	<i>n.a.</i>	729
Lubricating oil .. ..	1,307	1,060	807	1,146	<i>n.a.</i>	1,264
<b>Egypt—</b>						
Crude petroleum .. ..	1,514,893	2,044,509	2,741,198	3,650,185	4,254,450	4,674,980
Motor spirit .. ..	20,769	12,941	9,821	5,529	23,149	8,743
White spirit .. ..	43	—	10	29	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	369,084	415,291	330,537	312,931	138,623	21,713
Fuel oil .. ..	426,646	378,437	100,229	81,696	106,839	88,800
Gas oil .. ..	110,200	183,625	149,218	156,576	63,206	34,677
Diesel oil .. ..	42,659	35,798	15,156	17,687	3,149	12,290
Lubricating oil .. ..	47,125	39,935	52,201	34,880	65,497	57,036
Petroleum jelly .. ..	568	200	324	169	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	1,102	1,992	1,104	151	<i>n.a.</i>	<i>n.a.</i>
Ozokerite and ceresin .. ..	212	112	100	151	<i>n.a.</i>	<i>n.a.</i>
Asphalt and bitumen .. ..	819	602	23	2,041	2,365	2
<b>Equatorial African Community—</b>						
Aviation spirit .. ..	24,346	29,008	26,411	23,616	<i>n.a.</i>	(d)
Motor spirit .. ..	47,234	49,538	50,181	56,702	<i>n.a.</i>	(d)
Kerosine .. ..	15,180	16,283	14,130	12,158	<i>n.a.</i>	(d)
Gas oil .. ..	53,499	72,698	71,450	73,760	<i>n.a.</i>	(d)
Fuel oil .. ..	8,671	4,540	5,789	6,321	<i>n.a.</i>	(d)
Lubricating oil, etc. .. ..	5,998	6,616	7,502	6,691	<i>n.a.</i>	(d)
<b>Ethiopia (e)—</b>						
Aviation spirit .. ..	7,372	6,473	9,346	<i>n.a.</i>	1,684	6,489
Motor spirit .. ..	85,584	75,495	79,534	<i>n.a.</i>	171,223	90,942
Kerosine .. ..	3,572	3,903	4,017	<i>n.a.</i>	3,995	3,758
Gas and fuel oils .. ..	14,273	22,481	28,644	<i>n.a.</i>	13,528	21,420
Lubricating oil and grease .. ..	7,515	5,686	5,396	<i>n.a.</i>	3,864	4,368

(a) Excluding imports from Spain and Canary Islands.

(e) Years ended September 10.

(b) Imported chiefly for bunkering purposes. See exports.

(c) Included in Equatorial African Community.

(d) See Central African Republic (Republic of) and Gabon.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
French Somaliland—						
Motor spirit .. ..	2,290	2,176	2,645	3,015	4,557	4,651
Kerosine .. ..	658	689	777	868	1,050	1,493
Fuel oil, etc. .. ..	3,731	4,682	5,013	6,055	6,772	8,928
Lubricating oil .. ..	261	295	400	467	457	585
Gabon—						
Aviation spirit .. ..						3,313
Motor spirit .. ..						11,793
Kerosine .. ..						4,621
Gas oil .. ..	(a)	(a)	(a)	(a)	(a)	35,620
Fuel oil .. ..						142
Lubricating oil .. ..						3,142
Ivory Coast—						
Aviation spirit .. ..	8,194	3,745	859	654	1,449	1,222
Motor spirit .. ..	86,943	59,426	90,757	88,203	86,259	107,574
Kerosine .. ..	33,570	26,047	28,396	28,171	28,983	32,951
Gas oil .. ..	29,040	29,573	35,251	42,730	52,088	69,090
Fuel oils .. ..	23,040	11,998	20,808	27,311	29,957	51,722
Lubricating oil .. ..	6,195	5,907	5,731	6,766	8,111	10,541
Liberia—						
Motor spirit .. ..	17,149	19,996	24,993	18,241	18,000	23,000
Kerosine .. ..	12,734	6,394	4,139	8,228	8,300	8,100
Diesel oil, etc. .. ..	17,767	27,130	26,884	57,398	58,000	58,000
Lubricating oil .. ..	1,040	1,461	2,328	4,135	4,000	4,500
Libya—						
Motor spirit .. ..	42,059	61,523	52,120	65,623	73,902	96,029
Kerosine, etc. .. ..	11,895	15,240	18,151	22,807	29,145	37,615
Gas oil and diesel oil .. ..	40,000	66,543	88,822	88,716	103,779	158,373
Fuel oil .. ..	9,536	43,658	6,731	7,280	17,208	24,237
Lubricating oil, etc. .. ..	4,096	6,890	6,047	6,946	8,260	12,170
Malagasy Republic—						
Aviation spirit .. ..	5,245	5,219	5,611	4,492	4,815	5,985
Motor spirit .. ..	48,226	51,522	51,533	54,354	55,918	60,557
Kerosine .. ..	15,299	17,236	16,972	17,710	18,167	20,236
Gas oil .. ..	43,102	41,495	38,832	46,105	50,385	50,523
Fuel oils .. ..	806	656	1,093	1,207	1,482	1,357
Lubricating oil .. ..	5,009	5,575	3,985	5,754	6,348	6,372
Road oil, etc. .. ..	3,927	4,104	5,289	3,520	4,759	6,063
Paraffin wax .. ..	25	22	117	761	665	1,427
Petroleum jelly .. ..	12	17	17	21	29	16
Asphalt and bitumen .. ..	69	107	34	18	427	347
Mali—						
Aviation spirit .. ..	<i>n.a.</i>	<i>n.a.</i>	2,195	3,048	5,702	
Motor spirit .. ..	<i>n.a.</i>	<i>n.a.</i>	17,058	21,985	27,028	
Kerosine .. ..	<i>n.a.</i>	<i>n.a.</i>	5,276	6,362	10,034	69,142
Gas and fuel oil .. ..	<i>n.a.</i>	<i>n.a.</i>	16,047	15,450	18,122	
Lubricating oil .. ..	<i>n.a.</i>	<i>n.a.</i>	1,531	2,306	2,378	
Melilla—						
Motor spirit .. ..	3,790	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	1,216	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	9,472	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	5,127	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	809	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	82	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Crude petroleum .. ..	74,014	88,228	127,134	119,293	451,162	1,094,507
Aviation spirit .. ..	12,069	10,488	13,095	11,331	6,084	3,873
Motor spirit .. ..	181,905	171,535	152,506	95,003	2,603	1,304
White spirit .. ..	1,648	1,581	1,435	1,422	1,739	1,444
Kerosine .. ..	41,222	46,618	45,724	28,057	17,290	21,883
Gas oil .. ..	131,870	165,749	199,121	70,981	6,846	9,185
Fuel oil .. ..	178,981	209,203	207,343	81,777	9,704	4,827

(a) Included in Equatorial African Community.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Morocco (cont.)—</b>						
Lubricating oil, etc. ..	14,761	18,403	19,052	17,072	17,673	13,866
Paraffin wax ..	5,637	5,267	5,325	8,390	5,193	7,522
Asphalt, bitumen, etc. . .	19,614	23,428	24,444	25,566	27,345	33,047
<b>Mozambique—</b>						
Motor spirit ..	34,929	39,349	36,760	18,516	10,421	27,488
Kerosine ..	19,104	19,131	20,357	16,523	15,878	25,168
Fuel oil ..	66,720	81,933	75,461	31,059	18,374	50,402
Lubricating oil ..	6,656	7,175	7,093	6,130	6,487	9,243
Paraffin wax ..	38	69	80	61	79	76
Petroleum jelly ..	27	56	38	20	43	44
Asphalt and bitumen (a)	6,025	4,716	5,269	6,061	4,303	8,014
<b>Niger—</b>						
Aviation spirit ..	673	<i>n.a.</i>	975	2,987	1,336	1,757
Motor spirit ..	3,291	<i>n.a.</i>	8,964	4,954	11,091	14,366
Kerosine ..	974	<i>n.a.</i>	2,361	3,001	3,634	4,747
Gas oil ..	1,460	<i>n.a.</i>	4,457	5,008	9,659	<i>n.a.</i>
Fuel oils ..	40	<i>n.a.</i>	335	1,767	2,485	3,251
Lubricating oil ..	89	<i>n.a.</i>	334	983	530	1,077
<b>Reunion—</b>						
Motor spirit, etc. ..	13,561	15,139	16,900	18,934	22,293	25,549
Kerosine ..	2,205	2,243	2,538	2,683	3,866	4,490
Fuel oil, etc. ..	7,098	6,577	7,895	6,469	8,732	9,153
Lubricating oil ..	743	1,092	1,033	1,209	2,360	1,083
<b>S. Tome and Principe—</b>						
Motor spirit ..	1,101	1,007	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine ..	432	530	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil ..	681	831	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Senegal—</b>						
Aviation spirit ..	10,654	8,779	5,878	3,928	5,563	4,696
Motor spirit ..	77,554	72,966	66,797	71,821	65,401	37,865
Kerosine ..	16,172	13,668	11,683	12,324	18,276	6,043
Gas oil ..	35,578	15,845	17,304	20,209	16,767	9,775
Fuel oils ..	95,372	88,420	116,451	140,973	146,546	51,348
Lubricating oil ..	5,764	7,878	3,547	4,231	3,645	4,022
<b>Somali Republic (c)—</b>						
Aviation and motor spirit ..	5,405	4,989	5,816	6,470	5,212	6,052
Kerosine ..	772	849	1,106	942	959	1,114
Gas oil ..	2,110	2,263	2,775	3,110	2,927	4,437
Lubricating oil ..	59	204	241	260	202	454
<b>South Africa—</b>						
Crude petroleum ..	1,375,984	1,368,412	1,583,306	1,726,547	2,267,049	4,958,000
Motor spirit (b) ..	1,110,949	1,124,744	1,173,318	1,191,633	1,056,403	<i>n.a.</i>
Other spirit ..	15,494	14,203	16,449	17,977	19,184	<i>n.a.</i>
White spirit ..	21,123	29,578	30,355	29,803	33,111	37,543
Kerosine ..	393,505	403,706	391,749	370,520	381,895	406,000
Gas oil (b) ..	519,406	532,016	593,715	621,562	581,604	<i>n.a.</i>
Diesel oil (b) ..	33,570	33,156	4,840	23,535	23,688	<i>n.a.</i>
Fuel oil (b) ..	197,287	164,933	208,296	228,396	128,292	<i>n.a.</i>
Lubricating oil ..	104,701	104,232	119,008	143,376	101,208	<i>n.a.</i>
Transformer oil ..	5,805	3,769	5,192	4,069	5,619	1,791
Road oil ..	2,836	2,144	2,261	346	9	<i>n.a.</i>
Other oils ..	3,509	17,832	4,004	21,990	25,209	<i>n.a.</i>
Paraffin wax ..	15,296	15,949	9,769	11,873	13,878	18,765
Asphalt and bitumen ..	32,997	39,169	33,633	31,014	32,208	<i>n.a.</i>
Petroleum jelly ..	2,981	4,537	2,645	2,976	3,434	3,472
<b>Sudan—</b>						
Aviation spirit (b) ..	19,314	15,684	12,789	10,169	8,613	10,463
Motor spirit ..	70,625	71,176	74,105	70,266	81,302	76,849
Kerosine ..	40,001	52,069	51,684	60,014	68,468	64,173

(a) Including coal tar and pitch.

(b) Including imports for bunkering purposes. See exports.

(c) Former British Protectorate only.



## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Sudan (cont.)—</b>						
Gas oil .. .. .	63,292	75,324	99,074	111,677	141,880	113,564
Diesel oil .. .. .	21,252	27,862	21,786	23,767	34,321	60,737
Fuel oil .. .. .	194,956	189,417	176,403	195,998	195,514	158,034
Lubricating oil, etc. .. .	6,585	7,722	11,339	12,085	13,471	11,902
Petroleum jelly .. .. .	<i>n.a.</i>	4	9	8	10	19
Paraffin wax .. .. .	29	14	10	30	172	36
Asphalt and bitumen .. .	2,755	3,162	6,799	8,631	8,040	7,455
<b>Togo—</b>						
Motor spirit .. .. .	6,851	8,231	8,008	8,070	7,282	7,868
Kerosine .. .. .	5,559	6,187	6,622	7,732	7,627	8,490
Fuel oil .. .. .	5,635	8,314	14,450	13,421	20,526	25,251
Lubricating oil .. .. .	448	623	1,020	526	776	1,155
<b>Tunisia—</b>						
Aviation spirit .. .. .	77,001	74,463	68,841	73,639	75,979	18,070
Motor spirit .. .. .						
White spirit .. .. .	174	200	140	323	441	577
Kerosine .. .. .	41,266	43,337	45,517	48,130	51,560	18,324
Fuel oil .. .. .	200,334	221,418	233,761	236,571	262,607	68,393
Gas oil .. .. .	86,916	99,720	109,910	119,112	136,013	25,164
Lubricating oil .. .. .	9,601	8,899	13,500	8,869	10,864	12,718
Petroleum jelly .. .. .	25	51	12	19	1	39
Paraffin wax .. .. .	60	68	83	58	171	<i>n.a.</i>
<b>Upper Volta—</b>						
Aviation spirit .. .. .	970	1,113	1,539	1,009	564	<i>n.a.</i>
Motor spirit .. .. .	671	7,266	13,111	10,774	11,816	<i>n.a.</i>
Kerosine .. .. .	146	3,370	5,664	4,918	4,681	<i>n.a.</i>
Gas oil .. .. .	346	2,716	5,976	5,345	5,362	<i>n.a.</i>
Fuel oils .. .. .	62	578	3,093	5,452	5,932	<i>n.a.</i>
Lubricating oil .. .. .	9	51	861	1,365	1,061	<i>n.a.</i>
<b>Costa Rica—</b>						
Motor spirit .. .. .	47,776	72,261	53,816	57,013	62,019	61,982
Kerosine .. .. .	7,758	13,471	9,901	13,054	13,398	12,143
Diesel oil, etc. .. .. .	56,189	74,094	65,124	91,641	99,964	136,016
Fuel oil .. .. .	9,276	20,239	27,049	12,308	15,070	—
Lubricating oil .. .. .	4,213	4,788	5,372	7,676	10,196	10,601
Grease .. .. .	227	296	244	337	266	293
Petroleum jelly .. .. .	125	99	129	117	125	128
Paraffin wax .. .. .	1,337	1,417	1,328	1,179	1,591	1,634
Asphalt .. .. .	3,513	4,735	4,221	4,828	2,841	7,119
<b>Cuba—</b>						
Crude petroleum .. .. .	1,682,722	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. .. .	54,947	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. .. .	620	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. .. .	1,196,866	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Gas oil .. .. .						
Lubricating oil .. .. .	91,502	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other oils .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. .. .	296	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. .. .	12,838	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt rock .. .. .	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other asphalt and bitumen .. .. .	231	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum coke .. .. .	6,522	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Dominican Republic—</b>						
Aviation spirit .. .. .	9,268	5,500	3,889	4,488	—	3,000
Motor spirit .. .. .	80,293	78,759	72,402	66,971	98,000	140,000
Kerosine .. .. .	11,776	14,562	15,366	16,035	19,000	23,000
Diesel oil .. .. .	51,891	60,851	74,204	63,291	50,000	58,000
Fuel oil .. .. .	177,633	147,975	126,152	<i>n.a.</i>	195,000	235,000
Lubricating oil, etc. .. .	7,204	7,736	7,038	7,135	7,000	7,000
Paraffin wax .. .. .	1,059	1,092	929	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	15,875	14,878	9,005	10,627	<i>n.a.</i>	<i>n.a.</i>

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>French West Indies—</b>						
Guadeloupe—						
Motor spirit, etc. ..	22,587	22,248	26,064	25,797	29,463	29,089
Kerosine ..	10,004	10,547	15,679	17,634	17,006	16,891
Gas and fuel oil ..	12,776	14,375	14,305	15,993	15,889	20,523
Lubricating oil ..	2,342	1,916	2,620	2,507	2,443	2,252
Martinique—						
Motor spirit, etc. ..	19,721	22,623	22,400	21,321	57,629	28,581
Kerosine ..	10,463	9,051	11,316	9,013	12,974	11,704
Gas and fuel oil ..	20,348	20,570	22,221	23,815	27,227	33,535
Lubricating oil ..	2,177	2,265	2,329	2,508	2,975	2,586
Greenland—						
Motor spirit ..	2,070	2,107	3,307	2,824	2,773	3,314
Kerosine ..	2,887	1,103	3,097	2,293	3,423	3,389
Fuel oil ..	40,249	29,722	50,592	45,226	53,904	66,478
Lubricating oil ..	508	569	343	470	644	613
Guatemala—						
Crude petroleum, etc. ..	180,979	208,476	209,557	220,532	157,902	188,765
Aviation spirit ..	117,182	121,529	122,374	103,000	92,205	89,915
Motor spirit ..						
Kerosine ..						
Diesel oil ..						
Fuel oil ..						
Lubricating oil ..	5,642	6,000	5,417	6,369	8,717	9,347
Grease ..	483	508	520	523	633	510
Asphalt ..	19,000	15,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax, etc. ..	4,000	6,000	5,428	5,664	5,529	7,133
Honduras—						
Crude petroleum ..	69,712	71,413	102,582	85,146	67,196	68,514
Motor spirit ..	38,782	37,576	40,291	43,587	44,006	50,651
Kerosine ..	7,353	10,666	10,623	12,387	13,397	15,230
Gas, diesel and fuel oils ..	71,848	71,239	75,227	72,883	92,640	83,545
Lubricating oil ..	5,914	5,492	5,828	4,892	4,003	4,073
Greases ..	374	565	513	465	392	
Mexico—						
Crude petroleum ..	10,468	—	26	2	20,798	82,290
Aviation spirit ..	52,797	50,800	6,353	6,528	3,129	3,715
Motor spirit ..	103,349	110,753	42,651	10,343	7,092	9,632
Kerosine ..	4,239	743	653	420	150	113
Gas oil ..	21,843	3,543	33,008	282	334	26,716
Fuel oil ..	258,652	89,525	82,802	91,288	159,354	207,153
Lubricating oil ..	11,149	12,789	21,823	14,768	5,204	7,776
Grease ..	5,940	3,588	2,945	2,443	3,718	2,597
Paraffin wax ..	17,408	21,249	20,353	1,822	22,655	19,967
Petroleum jelly ..	1,396	1,691	1,611	1,411	2,176	1,641
Asphalt ..	4,589	2,087	1,039	468	814	505
Asphalt rock ..	2,729	844	123	173	136	252
Natural gas ( <i>million cu. ft.</i> ) ..	10,327	9,877	8,900	9,620	9,384	9,299
<b>Netherlands Antilles—</b>						
Crude petroleum ..	38,180,175	38,151,901	39,327,000	39,155,000	38,356,000	40,252,000
Aviation spirit ..	82,650	286,885	463,000	425,000	483,000	700,000
Motor spirit ..	754,098	511,137	810,000	444,000	455,000	215,000
Kerosine ..	42,173	28,372	131,000	82,000	46,000	100,000
Fuel oil ..	1,840,249	1,032,264	1,274,000	3,358,000	4,000,000	2,542,000
Diesel oil ..	239,613	17,647	74,000	21,000	20,000	3,000
Gas oil ..	446,942	234,476	248,000	266,000	172,000	64,000
Lubricating oil, etc. ..	3,368	28,305	92,000	17,000	—	2,000
Asphalt ..	—	1,182	—	—	—	—

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Nicaragua—</b>						
Aviation spirit .. ..	56,974	60,379	63,110	64,355	40,796	14,173
Motor spirit .. ..						
Kerosine .. ..	16,077	16,423	17,393	18,145	17,432	10,480
Fuel oil .. ..	81,284	93,595	90,799	103,709	62,414	8,525
Lubricating oil .. ..	3,708	3,702	4,492	4,109	3,954	6,287
Paraffin wax .. ..	692	888	809	853	915	1,107
Petroleum jelly .. ..						
Natural asphalt .. ..						
<b>Panama Republic—</b>						
Aviation spirit .. ..	24,322	47,585	47,714	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. ..	78,132	81,018	88,013	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Kerosine .. ..	28,399	29,703	31,076	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Diesel oil .. ..	64,476	47,925	64,211	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fuel oil .. ..	123,876	133,778	146,244	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. ..	4,064	4,596	4,757	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Grease .. ..	317	301	240	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax, etc. .. ..	227	329	364	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>St. Pierre and Miquelon—</b>						
Motor spirit .. ..	437	552	521	504	563	645
Gas oil and fuel oil .. ..	8,307	10,666	21,225	12,743	10,957	20,194
Lubricating oil .. ..	315	301	446	332	217	365
<b>Salvador—</b>						
Motor spirit .. ..	73,530	72,754	63,624	64,146	7,422	18,218
Kerosine .. ..	29,040	26,774	28,564	32,523	25,118	4,425
Gas oil and diesel oil .. ..	24,220	31,580	38,536	53,254	31,750	8,915
Fuel oil .. ..	52,944	55,947	48,232	52,886	368,135	467,183
Lubricating oil .. ..	3,057	3,403	3,558	3,612	4,436	4,301
Grease .. ..	348	336	333	389	388	384
Paraffin wax, etc. .. ..	955	1,009	815	1,106	1,230	1,242
Petroleum jelly .. ..	208	236	228	241	239	193
Asphalt .. ..	7,934	5,526	4,858	5,124	5,056	6,202
<b>United States—</b>						
Crude petroleum .. ..	54,584,541	57,238,878	58,897,926	64,398,618	64,946,020	68,882,069
Aviation spirit .. ..	50,023	3,360	1,619	299,897	304,265	387,799
Motor spirit, etc. .. ..	2,041,739	289,595	215,765			
Naphtha, etc. .. ..	363,180	255,935	112,394	1,281,455	1,078,140	2,721,273
Kerosine .. ..	15,879	8,837	54,084	379	28,326	18,967
Aviation turbine fuel .. ..	(a)	1,615,884	1,476,386	2,213,007	3,325,304	3,102,997
Fuel oil .. ..	32,549,078	33,649,080	33,640,432	38,335,669	39,616,420	43,300,000
Gas oil and diesel oil .. ..	2,007,818	1,328,327	1,853,292	1,314,012	1,241,000	1,600,000
Unfinished distillates and topped oils .. ..	3,180,507	2,863,433	3,674,336	3,028,321	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil, etc. .. ..	128	3,222	2,381	3,961	3,473	5,223
Road oil, etc. .. ..	267,504	213,709	228,606	318,310	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax, etc. .. ..	2,634	759	356	205	668	1,331
Ozokerite and ceresin .. ..	2,660	1,918	2,835	3,058	3,067	<i>n.a.</i>
Petroleum jelly .. ..	513	6,238	4	7,930	<i>n.a.</i>	<i>n.a.</i>
Asphalt (petroleum) .. ..	1,028,791	774,746	837,810	719,124	819,876	995,000
Natural asphalt and bitumen .. ..	3,366	19,496	21,051	43,930	25,389	
Natural gas ( <i>million cu. ft.</i> ) .. ..	133,990	155,646	218,860	372,389	406,204	427,641
<b>Argentina—</b>						
Crude petroleum .. ..	5,374,095	3,262,806	1,771,838	1,097,826	854,790	1,454,214
Motor spirit .. ..	40,993	42,672	66,220	50,158	34,062	27,466
Kerosine .. ..	248,427	478,925	522,444	328,334	30,667	16,151
Gas oil .. ..	393,376	501,351	642,228	679,302	396,336	753,379
Fuel oil .. ..	1,555,257	366,176	2,336	—	—	—
Diesel oil .. ..	442,922	255,319	219,533	266,528	57,217	277,531
Lubricating oil .. ..	40,906	63,434	34,731	109,380	72,287	67,956
Grease .. ..	373	86	341	647	132	337
Paraffin wax .. ..	1	4	17	28	15	53
Petroleum jelly .. ..	2	6	14	40	53	234

(a) Included with motor spirit.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Bolivia—</b>						
Aviation spirit .. ..	10,895	10,387	9,280	10,893	11,931	12,530
Motor spirit .. ..	11	—	33	89	67	22
Kerosine .. ..	11	11	92	167	82	53
Fuel oil .. ..	11,980	25,882	<i>n.a.</i>	6,957	163	411
Lubricating oil and grease .. ..	3,301	3,448	2,356	2,785	1,363	1,052
Paraffin wax, etc. ..	1,013	1,280	1,644	1,699	1,845	1,989
Tar, pitch, etc. ..	589	588	957	5	10	5
<b>Brazil—</b>						
Crude petroleum .. ..	5,651,472	5,594,150	7,429,857	9,803,889	10,210,620	10,632,724
Aviation spirit .. ..	293,209	275,785	248,219	238,206	200,977	145,817
Motor spirit .. ..	401,011	601,128	548,472	174,457	313,385	145,522
White spirit .. ..	1,071	1,392	2,793	3	1	2
Kerosine .. ..	222,370	96,645	135,576	85,025	16,427	245,129
Diesel oil .. ..	1,251,348	1,244,422	589,916	37,549	53,631	<i>n.a.</i>
Fuel oil .. ..	1,227,811	1,689,975	1,269,636	122,001	—	<i>n.a.</i>
Lubricating oil .. ..	180,102	208,530	179,182	231,679	214,240	260,651
Transformer oil .. ..	2,411	359	1,772	6,669	10,291	7,335
Petroleum jelly .. ..	1,582	1,652	1,210	1,146	1,461	1,610
Greases .. ..	108	163	174	58	79	16
Paraffin wax .. ..	10,359	16,678	13,446	20,574	16,441	14,161
Ozokerite and ceresin ..	136	271	203	1	230	317
Asphalt and bitumen ..	1,716	1,085	4,175	626	515	498
<b>Chile—</b>						
Aviation spirit .. ..	35,313	15,552	8,847	12,855	39,000	5,800
Motor spirit .. ..	17,567	12,588	18,335	19,404		
Kerosine .. ..	150,772	102,136	37,449	43,384	26,000	57,000
Diesel oil .. ..	158,537	107,060	153,564	111,109	77,000	60,000
Residual fuel oil (a) ..	1,823,199	1,690,397	1,164,540	991,234	814,000	823,000
Lubricating oil .. ..	28,708	18,343	15,823	10,642	39,000	30,000
Petroleum jelly .. ..	107	178	205	139		
Greases .. ..	1,658	1,626	2,567	1,243	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. ..	7,959	6,496	8,730	5,558	<i>n.a.</i>	<i>n.a.</i>
Natural asphalt .. ..	1,500	566	234	230	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Aviation spirit .. ..	24,372	23,470	17,348	13,040	31,329	42,308
Motor spirit .. ..	9,308	36,202	104,631	169,079	3,814	1,100
Kerosine .. ..	5,090	2,915	5,948	407	402	55
Gas oil and diesel oil ..	3,154	9,599	12,692	468	—	28
Fuel oils .. ..	795	399	780	840	—	—
Lubricating oil .. ..	28,058	29,463	34,267	34,667	27,846	15,672
Petroleum jelly .. ..	393	435	429	510	692	409
Paraffin wax .. ..	19,519	23,483	28,020	23,225	24,783	27,860
Natural asphalt .. ..	3	1	9	7	9	12
<b>Ecuador—</b>						
Motor spirit .. ..	70,936	10,263	10,733	<i>n.a.</i>	29,656	<i>n.a.</i>
Lubricating oil and greases .. ..	5,024	<i>n.a.</i>	5,470	5,218	6,434	9,995
Petroleum jelly .. ..	53	<i>n.a.</i>	76	90	106	103
Paraffin wax .. ..	2,811	<i>n.a.</i>	2,946	3,506	3,909	3,894
Natural asphalt .. ..	8,257	<i>n.a.</i>	213	1,723	8,643	2,021
<b>French Guiana—</b>						
Motor spirit, etc. .. ..	2,528	2,500	2,856	2,891	4,036	4,236
Kerosine .. ..	549	715	1,086	577	1,107	655
Fuel oil, etc. .. ..	2,282	2,596	2,754	2,631	4,549	4,803
Lubricating oil .. ..	150	430	238	220	219	210
<b>Paraguay—</b>						
Motor spirit .. ..	29,000	32,000	36,000	39,000	40,000	41,000
Kerosine .. ..	15,000	18,000	15,000	18,000	19,000	17,000
Fuel oil, etc. .. ..	43,000	45,000	63,000	67,000	70,000	76,000
Lubricating oil .. ..	1,500	2,700	2,400	2,500	3,200	2,500

(a) Including crude petroleum.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES (cont.)</b>						
<b>Peru—</b>						
Aviation spirit .. .. .	72,739	93,221	36,591	24,774	27,954	29,018
Motor spirit .. .. .	3,981	6,965	3,212	17,984	44,382	74,149
Diesel oil and fuel oil ..	237,980	361,123	556,365	514,126	441,214	534,835
Lubricating oil .. .. .	14,063	15,844	14,882	16,352	15,025	13,883
Petroleum jelly .. .. .	141	139	185	122	228	197
Paraffin wax .. .. .	6,152	8,010	6,910	8,719	9,749	10,259
Asphalt and bitumen .. ..	4,198	317	4,293	947	339	2,397
Greases .. .. .	1,174	1,589	1,410	1,860	1,860	1,886
Ozokerite .. .. .	8	15	18	23	28	22
<b>Surinam—</b>						
Motor spirit .. .. .	12,349	16,634	<i>n.a.</i>	1,158	14,000	15,000
Kerosine .. .. .	4,046	5,025	<i>n.a.</i>	5,431	5,000	5,300
Gas oil .. .. .	5,343	3,739	<i>n.a.</i>	745	66,000	71,000
Diesel oil .. .. .	34,798	45,406	<i>n.a.</i>	59,999		
Fuel oil .. .. .	60,155	68,186	<i>n.a.</i>	73,526	78,000	92,000
Lubricating oil .. .. .	2,331	2,106	<i>n.a.</i>	3,731	4,000	3,000
Asphalt .. .. .	3,146	2,808	<i>n.a.</i>	2,997	<i>n.a.</i>	<i>n.a.</i>
<b>Uruguay—</b>						
Crude petroleum .. .. .	1,186,000	1,324,000	1,334,000	1,500,000	1,449,000	1,522,000
Motor spirit, etc. .. .. .	19,000	8,000	38,000	5,000	6,000	7,000
Kerosine .. .. .	9,000	—	—	11,000	—	15,000
Gas oil .. .. .	86,000	26,000	44,000	127,947	48,000	23,000
Diesel oil .. .. .	18,000	33,000				
Fuel oil .. .. .	240,000	167,000	39,000			
Lubricating oil and greases .. .. .	9,000	19,000	11,000	13,680	12,600	13,300
Paraffin wax .. .. .	418	420	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Venezuela—</b>						
Motor spirit .. .. .	2,370	42,843	18,124	12,086	3,088	16,075
White spirit .. .. .	2,893	1,423	535	430	856	1,215
Gas and fuel oils .. .. .	25	452	2	6	34	62
Lubricating oil and grease .. .. .	51,844	39,940	24,298	19,808	8,278	8,059
Paraffin wax .. .. .	2,918	2,519	2,756	4,325	5,761	9,128
Petroleum jelly .. .. .	175	411	506	607	424	625
Asphalt .. .. .	568	502	159	99	177	236
Bitumen, pitch, etc. .. ..	2,999	352	752	1,602	664	<i>n.a.</i>
<b>Burma—</b>						
Crude petroleum .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	—	—	156,615
Motor spirit .. .. .	10,869	14,172	10,554	14,077	5,341	—
Kerosine .. .. .	17	4,321	8,410	15,576	12,515	—
Gas and diesel oils .. .. .	24,224	30,920	23,360	78,378	14,720	21,442
Lubricating oil .. .. .	15,318	12,170	18,880	14,676	6,368	15,230
Grease .. .. .	766	615	1,358	542	480	511
Paraffin wax .. .. .	2	3	1	—	—	—
Petroleum jelly .. .. .	866	658	851	984	461	234
Asphalt .. .. .	14,263	16,605	11,971	19,722	15,530	21,304
<b>Formosa—</b>						
Crude petroleum .. .. .	(a) 684,756	1,043,567	1,340,871	1,238,626	1,470,384	1,265,815
Motor spirit .. .. .	27	21	1	—	—	4
Lubricating oil .. .. .	13,675	8,057	15,343	24,678	17,961	23,490
Grease .. .. .	397	798	535	1,067	372	1,316
Petroleum jelly .. .. .	5	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Paraffin wax .. .. .	1,052	1,318	1,519	1,847	1,836	1,965
Asphalt .. .. .	16	1,897	2,007	3,653	2,731	3,961
<b>Indonesia—</b>						
Crude petroleum .. .. .	1,144,503	349,122	2,108,305	1,372,260	<i>n.a.</i>	<i>n.a.</i>
Motor spirit .. .. .	138,970	460,543	365,170	209,510	147,000	126,000
Kerosine, etc. .. .. .	1,502	26,335	183,314	199,000	64,000	<i>n.a.</i>
Fuel and gas oils .. .. .	19,824	3,263	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lubricating oil .. .. .	50,174	45,089	63,913	80,930	65,000	70,000
Paraffin wax .. .. .	826	447	679	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Petroleum jelly .. .. .	1,505	271	1,067	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asphalt .. .. .	32,182	14,136	50,874	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including fuel oil.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Iran (a)—</b>						
Lubricating oil ..	17,301	25,603	25,414	25,041	8,130	3,975
Paraffin wax ..	2,576	1,198	1,353	414	1,100	1,287
Petroleum jelly ..	552	196	275	615	414	327
<b>Iraq—</b>						
Lubricating oil ..	844	2,003	2,909	2,237	1,279	1,400
<b>Israel (b)—</b>						
Lubricating oils ..	13,131	10,337	13,454	16,287	17,376	18,386
Paraffin wax ..	1,953	969	1,455	1,976	1,839	2,143
Petroleum jelly ..	82	77	109	112	295	117
Asphalt ..	235	219	340	179	156	204
<b>Japan—</b>						
Crude petroleum ..	18,772,137	26,628,519	33,344,140	39,451,896	51,075,352	64,806,881
Aviation spirit ..	60,197	50,575	65,649	80,217	69,302	37,982
Motor spirit ..	2,338	59,511	27,336	16,569	14,726	367,120
Kerosine ..	2,447	50	310	2,037	44,444	13,425
Aviation turbine fuel ..	15,139	47,730	82,647	75,794	62,465	14,410
Gas oil ..	54,712	79,372	66,358	10,222	1,840	26,878
Fuel oil ..	3,008,072	4,867,735	8,213,673	8,942,941	9,910,848	11,147,377
Lubricating oil ..	58,028	146,993	220,527	282,365	330,415	431,289
Grease ..	1,667	3,721	3,050	3,334	69,760	7,124
Petroleum jelly ..	3,513	3,735	4,205	3,413	1,814	3,846
Paraffin wax ..	2,207	3,743	3,557	5,253	4,096	5,252
Gilsonite ..	2,862	3,757	3,861	3,925	3,589	3,882
Asphalt and pitch ..	742	173	134	74	66	327
Petroleum coke ..	231,470	368,585	489,945	410,281	582,629	875,447
<b>Jordan—</b>						
Crude petroleum ..	16,898	75,550	203,794	248,432	324,039	353,597
Motor spirit ..	45,231	43,795	5,456	1,758	1,182	5,109
Kerosine ..	41,082	5,476	19,813	16,333	16,005	10,787
Fuel oil, etc. ..	89,006	97,300	58,734	50,848	30,985	6,411
Lubricating oil ..	3,537	4,511	3,749	5,833	4,691	5,776
Natural asphalt ..	8,612	8,851	2,004	307	9,094	n.a.
<b>Korea (South)—</b>						
Crude petroleum ..	n.a.	n.a.	n.a.	9,644	14,100	585,000
Aviation spirit ..	1,318	1,291	1,495	1,457	9,003	n.a.
Motor spirit ..	150,030	120,073	108,261	78,976	62,956	n.a.
Kerosine, etc. ..	60,458	31,805	39,380	49,546	51,141	n.a.
Gas, diesel and fuel oils	556,665	449,120	533,257	812,814	1,089,530	13,000
Lubricating oils ..	12,705	14,502	8,123	12,457	31,865	} 3,000
Greases ..	3,903	493	863	569	941	
Petroleum jelly ..	68	156	129	220	268	n.a.
Paraffin wax ..	8,029	13,400	9,470	7,826	6,983	n.a.
Asphalt and pitch ..	52,933	9,968	19,274	35,010	63,960	n.a.
<b>Laos—</b>						
Aviation spirit ..	3,363	4,710	10,085	15,500	21,000	15,000
Motor spirit ..	13,701	11,672	13,249	14,918	16,000	17,000
Kerosine ..	1,649	1,773	2,315	2,540	4,000	3,000
Gas oil ..	3,984	5,150	8,427	4,884	6,000	9,000
Fuel oil ..	1,606	1,444	1,995	2,286	3,000	4,000
Lubricating oil ..	1,174	1,496	1,115	980	1,000	3,000
<b>Lebanon—</b>						
Crude petroleum ..	731,128	721,709	721,019	198,462	1,087,000	1,366,000
Motor spirit ..	146,724	159,252	187,835	198,462	202,814	197,000
Kerosine ..	77,582	104,658	128,945	131,456	46,271	13,000
Fuel oil ..	399,403	415,363	444,816	363,367	473,280	356,000
Lubricating oil ..	7,233	7,318	3,783	1,284	9,218	7,000
Paraffin wax ..	302	222	234	231	239	n.a.
Natural asphalt ..	317	375	784	113	1,125	n.a.

(a) Years ended March 20 of year following that stated.

(b) Figures include amounts obtained from imported crude petroleum.

## IMPORTS OF PETROLEUM AND ALLIED PRODUCTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Philippine Republic—</b>						
Crude petroleum .. ..	932,760	789,891	2,248,718	2,988,521	3,559,994	4,912,000
Aviation spirit .. ..	29,804	32,658	18,902	17,621	20,248	22,000
Motor spirit .. ..	324,731	394,756	153,981	86,142	15,825	9,000
Kerosine .. ..	117,654	164,662	40,280	18,404	5,340	n.a.
Diesel oil .. ..	316,293	259,126	125,580	55,491	40,532	11,000
Fuel oils .. ..	278,314	299,849	66,790	57,124	3,594	2,000
Lubricating oils .. ..	44,355	61,326	60,626	41,934	56,423	} 82,000
Grease .. ..	4,035	3,969	4,155	3,544	2,906	
Petroleum jelly .. ..	1,693	1,723	1,248	717	1,213	n.a.
Paraffin wax .. ..	4,766	6,532	5,389	6,329	7,336	n.a.
Asphalt .. ..	15,842	22,556	19,229	6,238	955	n.a.
<b>Syria—</b>						
Crude petroleum .. ..	272,169	673,380	744,337	773,252	866,569	998,843
Motor spirit .. ..	25,745	8,253	6,294	5,686	7,332	17,236
Kerosine .. ..	31,586	4,397	5,724	5,424	7,606	8,109
Fuel oil and diesel oil ..	408,762	143,895	110,415	620	n.a.	33,780
Lubricating oil .. ..	10,467	11,748	12,805	21,743	16,925	10,709
Natural asphalt .. ..	869	1,259	405	9,322	8,504	2,122
<b>Thailand—</b>						
Aviation spirit .. ..	9,011	2,803	7,666	35,033	27,508	45,696
Motor spirit .. ..	298,395	361,084	353,943	399,155	361,583	337,535
Kerosine .. ..	96,882	114,421	103,756	100,179	128,123	223,642
Gas, diesel and fuel oils ..	520,955	568,742	681,050	812,819	990,294	1,009,916
Lubricating oil .. ..	26,833	34,745	30,471	47,896	39,540	52,411
Grease .. ..	1,843	1,719	1,537	2,588	2,917	3,028
Paraffin wax .. ..	1,160	2,197	1,714	2,943	2,057	3,123
Petroleum jelly .. ..	812	625	552	648	796	757
Asphalt .. ..	34,062	22,601	43,345	50,714	44,842	42,202
<b>Turkey—</b>						
Crude petroleum .. ..	—	—	162,911	1,990,006	3,032,060	3,626,000
Motor spirit .. ..	418,636	351,877	337,164	182,354	4,879	6,000
Kerosine .. ..	374,231	298,361	290,749	291,743	37,893	13,000
Gas and diesel oils .. ..	619,559	483,463	499,049	455,174	7	7,000
Fuel oil .. ..	36,550	44,494	70,847	57,314	100	—
Lubricating oils and grease .. ..	69,599	47,614	48,241	62,348	90,317	100,000
Paraffin wax .. ..	1,459	837	1,057	1,860	1,741	n.a.
Petroleum jelly .. ..	161	165	258	20	163	n.a.
Asphalt .. ..	1,970	3,005	1,002	14	14	n.a.
<b>Vietnam (South)—</b>						
Aviation spirit .. ..	1,463	1,758	527	1,822	} 137,100	{ 121
Motor spirit .. ..	157,209	147,160	149,678	125,266		
Kerosine .. ..	66,500	71,662	59,817	65,555	} 79,000	{ 72,845
Gas oil .. ..	53,033	57,944	71,368	85,469		
Fuel oils .. ..	182,458	192,989	256,839	230,314	} 354,700	{ 293,542
Lubricating oils and grease .. ..	13,548	13,953	13,346	16,422		
Petroleum jelly .. ..	90	124	153	100	120	n.a.
Paraffin wax .. ..	2,616	3,003	5,381	2,390	3,771	n.a.
<b>French Polynesia—</b>						
Motor spirit, etc. .. ..	4,284	4,560	6,022	5,744	} 25,464	{ 10,044
Kerosine .. ..	1,843	2,206	2,805	2,958		
Other oils .. ..	8,230	11,363	13,565	9,471		
<b>New Caledonia—</b>						
Motor spirit, etc. .. ..	14,665	14,403	16,528	16,843	16,690	18,923
Kerosine .. ..	3,640	3,302	3,725	3,670	3,789	3,542
Gas and fuel oils .. ..	19,225	47,183	66,709	49,463	47,549	16,971
Lubricating oil, etc. ..	35,636	30,250	31,345	17,324	64,243	11,669

**PHOSPHATES**  
**PRODUCTION OF PHOSPHATE-ROCK**  
(Including Apatite)

Long tons

Producing Country	Estimated Tribasic Phosphate of Lime Content or equivalent											
	1959	1960	1961	1962	1963	1964	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>												
Rhodesia (d)	1,676	3,437	446	—	—	1,964	1,000	2,000	300	—	—	1,000
Seychelles (a) (b)	5,526	6,988	7,455	5,338	6,965	3,787	3,000	4,000	5,000	3,000	4,000	2,000
Tanzania (c)	—	—	—	19	—	n.a.	—	—	—	10	—	n.a.
Uganda (d)	3,124	4,008	395	1,105	6,959	n.a.	1,600	2,000	200	500	3,500	n.a.
Jamaica (c)	27	64	32	22	—	—	10	20	6	—	—	—
Christmas Island (b) (g)	494,347	503,440	694,210	520,750	651,461	774,801	420,000	428,000	590,000	443,000	554,000	659,000
India (d)	16,092	14,685	19,822	28,560	12,920	3,985	6,000	5,000	7,000	10,000	5,000	1,000
Sarawak (c)	619	n.a.	n.a.	n.a.	n.a.	n.a.	300	n.a.	n.a.	n.a.	n.a.	n.a.
Australia—												
Phosphate rock	4,775	2,234	4,759	4,317	4,909	5,689	2,100	1,000	2,000	2,000	2,000	2,500
Guano	—	87	115	68	16	—	—	60	80	50	10	—
Nauru Island (b)	1,192,240	1,351,257	1,436,032	1,525,650	1,547,242	1,820,066	1,025,000	1,162,000	1,235,000	1,312,000	1,331,000	1,565,000
Ocean Island (b)	314,392	319,526	337,533	256,650	356,128	322,848	270,000	275,000	290,000	221,000	306,000	278,000
TOTAL	2,033,000	2,207,000	2,501,000	2,343,000	2,587,000	2,940,000	—	—	—	—	—	—
<b>OTHER COUNTRIES</b>												
Belgium (e)	12,973	8,113	13,795	12,285	14,000	f 16,000	3,000	2,000	3,000	2,000	3,000	3,000
France (e)	75,642	57,108	r 65,400	66,377	49,627	42,428	18,000	13,000	16,000	15,000	13,000	10,000
Poland	40,000	40,000	46,000	55,000	64,000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	387	3,198	—	—	—	—	250	2,000	—	—	—	—
U.S.S.R. (f)—												
Apatite	4,040,000	r 4,630,000	r 5,510,000	r 6,500,000	6,890,000	7,870,000	3,530,000	4,050,000	4,820,000	5,680,000	6,020,000	6,880,000
Phosphate rock	1,970,000	2,260,000	r 3,150,000	r 3,350,000	3,940,000	4,920,000	1,300,000	1,490,000	2,080,000	2,210,000	2,600,000	3,250,000
Algeria	562,733	554,154	432,666	384,000	343,000	70,800	380,000	370,000	290,000	260,000	230,000	47,000
Egypt	619,000	557,000	616,635	592,243	602,403	603,552	380,000	345,000	380,000	370,000	370,000	370,000
Malagasy Republic	7,000	—	—	—	—	—	5,000	—	—	—	—	—
Morocco	7,050,365	7,374,134	7,824,147	8,033,053	8,413,403	9,938,045	5,080,000	5,310,000	5,767,000	5,913,000	6,190,000	7,310,000
Mozambique (a)	90	103	—	—	—	—	n.a.	n.a.	—	—	—	—

(a) Phosphate guano.  
(b) Exports.  
(c) Bat guano.

(d) Apatite.  
(e) Including phosphatic chalk.  
(f) United States Bureau of Mines' estimate.

(g) In addition, the following amounts of phosphate dust were exported (long tons): 1959—68,733; 1960—n.a.; 1961—76,438; 1962—79,527; 1963—80,552; 1964—72,416.



PRODUCTION OF PHOSPHATE ROCK (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964	Estimated Tribasic Phosphate of Lime Content or equivalent				1964			
							1959	1960	1961	1962		1963		
<b>OTHER COUNTRIES</b>														
Senegal—														
Phosphate rock ..	—	105,985	400,541	489,239	462,656	666,000	88,000	333,000	406,000	384,000	553,000			
Aluminium phosphates ..	93,834	103,629	137,179	139,192	123,827	101,300	65,000	86,000	88,000	78,000	64,000			
Somali Republic (b) (f) ..	217	339	n.a.	n.a.	n.a.	n.a.	129	n.a.	n.a.	n.a.	n.a.			
South Africa—														
Phosphate rock (h) ..	228,005	263,423	291,904	302,312	447,729	569,754	92,000	173,000	184,000	264,000	394,000			
Guano ..	5,251	3,636	4,687	4,700	2,552	4,279	1,300	1,100	1,100	600	1,000			
South West Africa (f) ..	1,187	—	922	574	1,354	412	300	200	100	300	100			
Togoland ..	—	—	116,035	188,677	509,700	755,400	—	92,000	153,000	411,000	611,000			
Tunisia ..	2,150,455	2,062,894	1,951,000	2,064,000	2,330,000	2,707,000	1,398,000	1,341,000	1,342,000	1,515,000	1,760,000			
Mexico ..	29,000	27,000	29,000	(a) 30,000	(a) 30,000	27,000	n.a.	n.a.	n.a.	n.a.	n.a.			
Netherlands Antilles (b) ..	96,611	113,097	149,596	129,474	126,254	117,666	71,000	83,000	95,000	92,000	86,000			
United States (e) ..	15,869,000	17,516,000	18,559,000	19,382,000	19,835,000	22,960,000	10,791,000	11,892,000	13,118,000	13,579,000	15,797,000			
Brazil—														
Apatite ..	130,846	199,975	240,056	305,219	211,888	191,996	76,000	139,000	177,000	123,000	111,000			
Phosphate rock ..	859,638	665,763	408,951	251,406	62,503	50,334	n.a.	n.a.	n.a.	n.a.	n.a.			
Chile—														
Apatite ..	19,101	17,260	13,734	12,295	13,689	12,931	11,000	10,000	7,000	8,000	8,000			
Guano ..	21,000	18,000	19,000	16,000	22,000	15,000	8,000	7,000	6,000	9,000	6,000			
Peru (f) ..	125,000	155,000	157,000	203,000	189,000	202,000	30,000	40,000	50,000	50,000	50,000			
China (a) (d) ..	500,000	600,000	500,000	600,000	700,000	800,000	350,000	450,000	450,000	500,000	600,000			
Indonesia (g) ..	(c) 2,000	7,000	9,000	6,000	(c) 6,000	(c) 30,000	1,000	3,000	3,000	3,000	15,000			
Israel ..	201,500	220,639	r 217,000	r 207,000	295,000	236,000	125,000	137,000	130,000	185,000	148,000			
Jordan ..	332,292	356,135	415,839	670,254	604,732	555,539	243,000	304,000	489,000	441,000	406,000			
Philippine Republic—														
Phosphate rock ..	—	349	—	3,713	1,049	2,812	—	—	n.a.	n.a.	n.a.			
Guano ..	373	9,877	396	93	1,450	1,172	90	2,400	20	350	280			
Vietnam (North) (d) ..	256,000	480,000	555,000	667,000	a 740,000	a 980,000	220,000	480,000	580,000	640,000	850,000			
French Polynesia (Makatea)	362,967	406,684	374,679	312,081	330,150	382,000	298,000	307,000	256,000	271,000	313,000			
TOTAL ..	35,000,000	39,000,000	42,000,000	45,000,000	47,000,000	55,000,000								
WORLD'S TOTAL ..	37,000,000	41,000,000	45,000,000	47,000,000	50,000,000	58,000,000								

Phosphate rock is also known to have been produced in Venezuela and North Korea.

(a) United States Bureau of Mines' estimate. (b) Exports. (c) Estimated. (d) Apatite. (e) Marketable production. (f) Phosphatic guano. (g) Source : International Superphosphate Manufacturers' Association. (h) Including apatite and aluminium phosphates.

PRODUCTION OF SUPERPHOSPHATES

Long tons

Producing Country	Estimated P <sub>2</sub> O <sub>5</sub> Content					
	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Single .. .. .	682,372	719,624	654,224	609,776	516,477	505,687
Concentrated* .. .	148,852	160,679	172,139	179,452	70,500	73,688
Canada*—						
Single .. .. .	199,845	213,698	285,100	292,000	297,400	297,400
India—						
Single .. .. .	248,000	313,000	366,000	437,898	573,000	c 700,000
Pakistan (d)—						
Single .. .. .	1,529	3,879	8,048	7,842	6,651	7,160
Australia—						
Single (a) .. .. .	2,150,413	2,450,249	2,540,544	2,591,379	2,895,099	3,346,903
New Zealand—						
Single (b) .. .. .	843,000	1,000,000	1,050,000	1,000,000	1,204,000	1,455,000
TOTAL .. .. .						
	920,000	1,050,000	1,090,000	1,110,000	1,171,000	1,332,000
Irish Republic*—						
Single .. .. .	202,746	229,200	211,432	216,700	258,900	318,000
Concentrated .. .	—	—	22,858	(c) 20,600	28,000	29,700
<b>OTHER COUNTRIES</b>						
Austria*—						
Single .. .. .	133,899	150,857	183,998	243,691	256,300	282,300
Belgium*—						
Single .. .. .	201,821	185,807	191,216	209,400	219,000	250,500
Concentrated .. .	58,289	(c) 61,000	(c) 65,000	(c) 69,600	(c) 120,000	(c) 92,600
Bulgaria—						
Single .. .. .	c) 170,000	c) 220,000	c) 300,000	c) 380,000	c) 390,000	n.a.
Czechoslovakia—						
Single .. .. .	470,000	499,000	618,000	695,000	804,000	1,082,000
	36,200	40,900	39,700	40,100	47,800	57,200
	—	—	9,900	9,000	12,000	12,900
	24,100	27,200	33,100	43,900	46,100	50,800
	34,700	32,500	34,300	38,100	39,400	45,100
	25,600	27,000	28,000	31,000	53,000	41,000
	30,363	40,208	54,883	68,540	69,456	n.a.
	84,610	89,909	111,325	125,168	144,807	194,672

\*Source: International Superphosphate Manufacturers' Association. (a) Years ended June 30 of that stated.

(b) Superphosphate content of all fertilizers made.

(c) Estimated.

(d) West Pakistan.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964	Estimated P <sub>2</sub> O <sub>5</sub> Content				1964	
							1959	1960	1961	1962		1963
<b>OTHER COUNTRIES</b>												
<i>(cont.)</i>												
Denmark (a)---												
Single .. .. .	168,127	105,902	55,667	—	17,036	42,523	30,300	19,100	10,000	—	3,000	8,000
Finland*---												
Single .. .. .	222,394	225,646	210,600	224,116	321,690	371,882	42,300	42,900	40,000	42,600	61,100	70,700
Single .. .. .	143,520	152,977	138,012	111,556	122,590	138,515	27,300	29,100	26,200	21,200	28,200	26,300
Kotka-phosphate												
France---												
Single .. .. .	1,149,903	1,203,261*	1,286,826*	1,437,116*	1,417,400*	1,478,052*	195,000	212,000	231,000	r 259,400	260,200	276,400
Concentrated*	54,407	56,549	56,085	67,083	85,109	143,800	24,100	23,600	23,300	28,200	35,200	60,100
Germany (Federal)*---												
Single .. .. .	444,828	391,104	288,549	276,450	283,300	360,072	84,900	67,200	52,500	r 51,100	52,600	52,800
Germany (East)---												
Single .. .. .	427,000	544,000	596,000	608,000	674,000	673,000	76,800	98,000	107,200	109,500	121,300	121,100
Greece*---												
Single .. .. .	207,396	168,646	165,737	r 151,400	197,800	220,634	33,100	30,000	29,000	28,200	37,500	41,900
Hungary---												
Single .. .. .	227,251	262,241	322,204	417,651	504,722	530,776	38,700	42,700	53,800	71,200	85,800	90,000
Italy---												
Single .. .. .	1,732,433	1,473,313	1,507,065	1,393,756	1,452,408	1,258,879	341,000	292,000	299,000	r 276,000	281,000	240,000
Concentrated												
Netherlands*---												
Single .. .. .	498,897	525,984	499,039	350,519	373,000	451,013	89,100	94,600	90,100	r 63,600	67,700	84,300
Concentrated												
Norway---												
Single .. .. .	58,000	63,000	62,000	38,823	41,200*	41,151*	10,000	11,000	11,500	7,000	7,500	7,400
Concentrated*	39,332	36,847	25,650	26,054	30,475	29,674	12,800	11,000	9,700	8,300	9,900	8,900
Poland (b)---												
Single .. .. .	621,000	689,000	810,000	979,000	994,000	n.a.	102,000	114,000	134,000	162,000	164,000	n.a.
Portugal---												
Single .. .. .	409,472	438,705	448,197	413,582	435,384	424,524	73,700	79,000	81,000	74,000	78,000	76,000
Concentrated												

\*Source: International Superphosphate Manufacturers' Association.

(a) In addition the following amounts of potash superphosphate were produced (long tons): 1959—417,237; 1960—547,860; 1961—634,353; 1962—765,986; 1963—725,865; 1964—704,092.

(b) In addition the following amounts of superbasic slag were produced (long tons): 1959—166,000; 1960—236,000; 1961—242,000; 1962—253,000; 1963—263,000; 1964—n.a.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964	Estimated P <sub>2</sub> O <sub>5</sub> Content				1964		
							1959	1960	1961	1962		1963	1964
<b>OTHER COUNTRIES</b> (cont.)													
Roumania—													
Single ..	269,000	320,000	350,000	530,000	610,000	690,000	43,000	51,000	56,000	85,000	98,000	110,000	
Spain (a)—													
Single ..	1,950,000	1,979,000	1,810,000	1,823,000	1,980,000	1,980,000	329,200	318,600	293,200	295,400	321,200	320,200	
Sweden* (d)—													
Single ..	484,825	476,000	469,673	455,338	391,390	406,162	93,900	93,000	91,600	88,800	76,300	79,200	
Concentrated ..	6,960	8,552	19,251	21,596	35,750	39,024	2,400	2,500	5,600	6,300	10,400	11,300	
Switzerland*—													
Single ..	40,000	(c) 40,000	16,000	24,000	26,000	(c) 35,000	7,000	7,000	3,000	4,000	5,000	6,000	
Concentrated ..	—	100	—	—	—	—	—	45	—	—	—	—	
U.S.S.R.—													
Single ..	5,931,000	6,251,000	6,699,000	6,924,000	7,734,000	n.a.	1,130,000	1,190,000	1,270,000	1,320,000	1,470,000	n.a.	
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—	
Yugoslavia—													
Single ..	272,776	243,760	405,997	512,000	n.a.	n.a.	52,000	46,000	77,000	97,000	n.a.	n.a.	
Concentrated ..	—	—	—	—	—	—	—	—	—	—	—	—	
Algeria—													
Single ..	83,903	78,876	54,372	46,200	53,300	87,000	13,400	12,600	8,700	7,400	8,500	14,000	
Egypt*—													
Single ..	163,904	184,541	225,916	193,200	216,500	228,700	24,600	27,700	33,900	29,000	29,500	36,600	
Morocco—													
Single ..	87,000	77,000*	88,000*	93,000*	96,500*	97,200*	14,000	13,000	15,000	16,200	16,900	17,000	
South Africa*—													
Single ..	631,610	664,962	633,157	750,900	837,120	954,300	120,000	126,300	120,300	142,000	159,000	172,000	
Tunisia—													
Single ..	30,000	24,100	24,100	26,500	47,400*	48,000*	5,000	4,000	4,000	4,000	7,400	7,300	
Concentrated ..	122,000	122,700	133,000	144,000	136,000	150,000	52,000	52,000	57,000	62,000	58,000	65,000	
Cuba*—													
Single ..	(c) 40,000	46,002	(c) 40,000	(c) 40,000	38,300	n.a.	7,000	8,300	7,000	7,000	7,000	n.a.	
Mexico*—													
Single ..	100,758	134,994	c 140,000	107,700	120,300	c 135,000	18,600	25,000	25,000	19,400	22,000	24,000	
United States*—													
Single ..	66,922,130	6,355,487	6,201,851	6,017,100	6,084,800	5,980,200	1,246,000	1,144,000	1,116,000	1,083,100	1,095,200	1,026,400	
Concentrated ..	1,653,821	1,981,798	2,073,661	1,835,704	2,207,960	2,431,457	744,200	891,800	933,100	826,100	993,600	1,094,200	

\*Source: International Superphosphate Manufacturers' Association.

(a) Including Canary Islands.

(b) Including enriched superphosphate.

(c) Estimated.

(d) In addition the following amounts of potash superphosphate were produced (long tons): 1959—287,958; 1960—344,762; 1961—404,984; 1962—449,551; 1963—455,448; 1964—n.a.

PRODUCTION OF SUPERPHOSPHATES (cont.)

Long tons

Producing Country	Estimated P <sub>2</sub> O <sub>5</sub> Content					
	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Brazil—						
Single	194,302	205,648	219,745	252,288	330,841	n.a.
Columbia—						
Single	n.a.	5,403*	n.a.	n.a.	n.a.	n.a.
Peru—						
Single	(a) 34,000	23,400	(a) 24,000	27,600	33,400	(a) 15,000
Uruguay*—						
Single	(a) 30,000	26,997	(a) 28,000	(a) 26,000	27,400	n.a.
Venezuela*—						
Single	—	8,956	n.a.	(a) 10,000	n.a.	n.a.
Formosa—						
Single	116,875	119,542	127,947	141,444	169,441	181,931
Israel*—						
Single	71,248	80,196	79,224	79,559	70,800	64,306
Concentrated	6,840	296	1,709	1,111	n.a.	—
Japan*—						
Single	1,784,327	2,097,937	1,817,864	1,788,700	1,636,300	1,634,100
Concentrated	3,150	7,151	9,333	14,667	23,300	49,300
Jordan—						
Single	—	440	248	516	663	1,827
Lebanon*—						
Single	26,216	15,881	(a) 18,000	31,100	34,990	37,700
Philippine Republic*—						
Single	—	2,056	2,000	2,000	2,000	(a) 43,700
Turkey—						
Single	61,310	61,470	20,860	28,000	172,000	149,137
TOTAL	5,800,000	6,000,000	6,100,000	6,100,000	6,100,000	6,700,000
WORLD'S TOTAL	6,700,000	7,000,000	7,200,000	7,200,000	7,200,000	8,000,000

Single and concentrated superphosphates are also produced in Rhodesia but figures are not available for publication.

\*Source: International Superphosphate Manufacturers' Association.

(a) Estimated.

PRODUCTION OF BASIC SLAG

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Great Britain (a) ..	646,097	830,380	731,439	940,617	812,549	848,694
<b>OTHER COUNTRIES</b>						
Belgium (a) .. ..	1,108,000	1,208,000	1,127,000	1,210,000	1,184,000	<i>n.a.</i>
France .. ..	2,007,244	2,299,216	2,376,508	2,337,246	2,314,115	<i>n.a.</i>
Germany (Federal) ..	2,635,000	3,531,000	3,436,000	3,170,000	3,006,000	3,186,000
Germany (East) ..	100,000	107,000	108,000	115,000	112,000	118,000
Italy .. ..	78,016	97,303	115,506	123,272	110,082	86,361
Luxemburg .. ..	704,648	768,125	782,995	773,923	755,297	805,427
Sweden .. ..	60,076	50,166	35,574	33,691	29,363	<i>n.a.</i>
Egypt .. ..	<i>n.a.</i>	<i>n.a.</i>	18,300	26,202	19,723	29,014

Basic slag has also been produced in Czechoslovakia, Poland, U.S.S.R., United States and Japan.

(a) Years ended June 30 of that stated.

EXPORTS OF PHOSPHATES, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Phosphatic fertilizers ..	166	607	9,871	9,280	839	2,769
Seychelles—						
Phosphatic guano ..	5,526	6,988	7,455	5,338	6,965	3,787
Uganda—						
Phosphate-rock ..	3,121	4,004	453	584	464	n.a.
Canada—						
Phosphatic fertilizers ..	(£8,510,822)	(£7,684,873)	(£6,933,905)	(£6,475,384)	(£4,329,440)	(£3,403,812)
Christmas Island—						
Phosphate-rock ..	494,347	503,440	694,210	520,750	651,461	774,801
Phosphate dust ..	68,733	n.a.	76,438	79,527	80,552	72,416
Hong Kong—						
Phosphatic fertilisers ..	—	—	—	3	—	—
Malaya—						
Phosphate-rock ..	782	427	238	783	1,499	1,542
Phosphatic fertilizers ..	62	62	111	31	113	96
Australia (a)—						
Superphosphates ..	1,919	623	36	16	—	—
New Zealand—						
Superphosphates ..	93	98	37	110	(a) 172	(a) 250
Nauru Island—						
Phosphate-rock ..	1,192,240	1,351,257	1,436,032	1,525,650	1,547,242	1,820,066
Ocean Island—						
Phosphate-rock ..	314,392	319,526	337,533	256,650	356,128	322,848
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Phosphate-rock ..	3,204	3,124	9,863	20,197	25,056	28,629
Superphosphates—						
Single ..	95,835	109,567	107,832	148,388	} 211,812	} 277,817
Concentrated ..	58,506	61,366	65,694	69,485		
Di-calcium phosphate	200,018	n.a.	n.a.	n.a.	n.a.	n.a.
Basic slag ..	1,499,170	1,403,422	1,218,800	1,558,412	1,717,465	1,768,548
France—						
Phosphate-rock ..	1,956	1,846	3,508	1,209	2,549	2,329
Superphosphates ..	28,921	83,545	49,318	31,927	38,290	49,705
Basic slag ..	344,662	294,874	283,407	294,591	298,105	337,678
Di-calcium phosphates	940	750	805	595	465	267
Germany (Federal)—						
Phosphate-rock ..	16,142	24,960	29,687	33,013	35,653	42,555
Superphosphates ..	14,413	17,258	17,921	14,941	14,489	18,411
Basic slag ..	370,229	389,771	357,866	360,459	401,772	348,782
Other phosphatic fertilizers ..	4,875	3,922	23,017	21,465	9,252	1,759
Hungary—						
Superphosphates ..	31,300	33,741	6,289	31,586	15,957	n.a.
Italy—						
Superphosphates ..	130,146	109,646	96,820	68,480	47,705	31,417
Netherlands—						
Phosphate-rock ..	9,420	4,978	5,056	3,596	3,450	1,303
Superphosphates ..	413,186	468,076	421,792	364,472	370,075	457,518
Basic slag ..	n.a.	23	n.a.	—	39	187
Norway—						
Superphosphates ..	20,002	25,121	30,706	25,949	23,749	18,070
Portugal—						
Superphosphates ..	34,453	35,451	82,042	55,328	91,412	78,795
Spain—						
Superphosphates, etc. ..	57,856	45,254	76,269	59,682	32,342	123,814
Sweden—						
Phosphate-rock ..	—	—	—	—	628	—
Superphosphates ..	14,258	—	—	—	—	—
Di-calcium phosphates	2,055	716	808	1,333	7,330	13,479
Basic slag ..	33,439	14,166	5,345	8,020	6,712	22,166

(a) Years ended June 30 of that stated.

## EXPORTS OF PHOSPHATES, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>U.S.S.R.—</b>						
Apatite ore .. ..	91,600	119,500	164,200	140,600	80,100	63,900
do. concentrates ..	1,634,500	1,777,100	2,020,900	2,206,700	2,187,000	2,942,300
Superphosphates ..	117,200	200,000	334,900	316,600	290,400	223,300
<b>Yugoslavia—</b>						
Superphosphates ..	—	41,002	75,943	59,161	—	87,571
<b>Algeria—</b>						
Phosphate-rock ..	490,186	462,695	373,200	400,558	320,556	<i>n.a.</i>
Superphosphates ..	1,755	2,175	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Egypt—</b>						
Phosphate-rock ..	441,641	296,901	414,458	212,015	413,556	322,561
<b>Malagasy Republic—</b>						
Phosphate-rock ..	8,859	—	—	—	—	—
<b>Morocco—</b>						
Phosphate-rock ..	6,948,240	7,463,502	7,502,119	7,999,454	8,386,884	9,916,687
Hyperphosphates ..	983	5,955	5,636	3,723	5,040	4,309
Superphosphates ..	9,482	—	17,918	1	6,102	32,359
<b>Senegal—</b>						
Phosphate-rock ..	—	58,190	303,686	344,847	340,785	623,199
Aluminium phosphates ..	69,367	93,797	88,842	84,671	4,860	86,845
Phosphate fertilizers ..	16,500	7,222	18,681	32,292	13,364	22,687
<b>Somali Republic (a)—</b>						
Phosphatic guano ..	217	339	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>South Africa—</b>						
Superphosphates ..	540	843	3,296	1,746	3,731	<i>n.a.</i>
<b>South West Africa—</b>						
Phosphatic guano ..	762	—	—	237	<i>n.a.</i>	<i>n.a.</i>
<b>Togoland—</b>						
Phosphate-rock ..	—	—	56,259	181,808	434,462	788,808
<b>Tunisia—</b>						
Phosphate-rock ..	1,827,936	1,604,275	1,601,311	1,804,707	1,940,711	2,179,736
Hyperphosphates ..	101,690	56,838	63,432	35,780	72,448	109,052
Superphosphates ..	108,213	110,141	154,211	113,271	144,891	122,850
<b>Mexico—</b>						
Phosphate-rock ..	28,795	21,995	23,960	27,289	23,590	27,455
<b>Netherlands Antilles—</b>						
Phosphate-rock ..	96,611	113,097	149,596	129,474	126,254	117,666
<b>United States—</b>						
Phosphate-rock ..	3,239,722	4,250,970	4,122,733	4,239,121	4,612,300	5,652,574
<b>Superphosphates—</b>						
Single .. ..	140,917	136,786	131,927	115,928	601,887	172,215
Concentrated ..	271,714	280,146	337,271	442,260		
<b>Venezuela—</b>						
Superphosphates ..	<i>n.a.</i>	<i>n.a.</i>	6,810	20,038	23,501	55,133
<b>French Polynesia (Makatea)—</b>						
Phosphate-rock ..	305,678	357,381	362,960	321,574	316,173	368,208
<b>Israel—</b>						
Phosphate-rock ..	91,573	94,265	92,236	64,385	145,288	148,881
<b>Japan—</b>						
Phosphate-rock ..	12,130	10,686	4,698	11,815	11,128	701
Superphosphates ..	102,355	101,599	29,971	64,898	33,716	159,789
Thermal phosphates ..	10,169	25,779	37,620	117,582	41,212	35,914
Other phosphatic fertilizers ..	3,207	6,303	18,485	5,546	8,892	7,954
<b>Jordan—</b>						
Phosphate-rock ..	243,829	313,796	376,763	352,685	351,497	617,170
<b>Lebanon—</b>						
Superphosphates ..	20,902	11,034	11,215	<i>n.a.</i>	13,362	<i>n.a.</i>

(a) Former British Protectorate only.



## IMPORTS OF PHOSPHATES, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Phosphate-rock .. ..	1,055,685	1,429,515	1,355,649	1,399,288	1,413,829	1,485,010
Superphosphates .. ..	9,419	33,952	28,390	25,520	25,738	16,069
Basic slag .. ..	105,808	80,459	71,411	76,837	96,821	76,343
Ammonium phosphate	10,834	11,730	17,912	14,820	10,904	11,557
Ghana—						
Superphosphates .. ..	124	45	66	47	118	50
Other phosphatic fertilizers .. ..	31	210	459	1,595	1,039	192
Kenya—						
Phosphate-rock .. ..	52	937	—	—	—	—
Superphosphates .. ..	10,406	10,768	11,163	10,390	12,079	12,125
Other phosphatic fertilizers .. ..	3,637	2,204	1,382	1,276	1,893	45
Mauritius—						
Phosphate guano .. ..	8,292	9,620	10,521	7,494	8,928	7,295
Phosphatic fertilizers .. ..	1,883	2,879	5,496	7,016	7,910	7,093
Nigeria—						
Phosphate-rock .. ..	54	444	47	11	} 8,269	13,022
Superphosphates .. ..	495	308	159	3,199		
Other phosphatic fertilizers .. ..	693	999	1,807	8,628		
Rhodesia (b)—						
Phosphate-rock .. ..	64,570	59,466	66,236	66,504	84,816	<i>n.a.</i>
Superphosphates .. ..	14,140	17,296	21,188	20,203	27,491	5,735
Other phosphatic fertilizers .. ..	<i>n.a.</i>	81	529	3,991	1,744	5,998
Sierra Leone—						
Superphosphates .. ..	7	281	—	1	374	6
Other phosphatic fertilizers .. ..	52	3	467	10	566	200
Tanzania—						
Superphosphates .. ..	816	1,315	1,135	570	630	845
Other phosphatic fertilizers .. ..	(a) 31	67	8	33	15	13
Uganda—						
Superphosphates .. ..	1,440	1,033	1,185	1,402	647	1,489
Other phosphatic fertilizers .. ..	27	1,345	1	310	2	2
Zambia—						
Phosphatic fertilizers .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	922
Canada—						
Phosphate-rock .. ..	711,663	841,070	943,647	1,032,113	1,158,417	1,272,842
Superphosphates, triple do. other .. ..	57,436	74,234	60,210	49,548	37,452	100,527
Basic slag .. ..	126,913	106,865	111,218	98,043	74,944	56,481
Other phosphatic fertilizers .. ..	350	500	491	268	—	—
Other phosphatic fertilizers .. ..	3,558	5,575	6,008	19,232	33,051	<i>n.a.</i>
Antigua—						
Phosphatic fertilizers .. ..	—	3	3	52	<i>n.a.</i>	1,051
Barbados—						
Phosphatic fertilizers .. ..	10	345	10	34	50	35
Grenada—						
Superphosphates .. ..	600	599	310	635	33	20
Other phosphatic fertilizers .. ..	65	55	<i>n.a.</i>	90	368	46
Jamaica—						
Phosphatic fertilizers .. ..	1,409	1,588	812	1,568	2,075	3,546
St. Kitts—						
Phosphatic fertilizers .. ..	221	273	304	174	188	310
St. Lucia—						
Phosphatic fertilizers .. ..	376	290	83	1,280	7	<i>n.a.</i>

(a) Excess of re-exports.

(b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
St. Vincent—						
Superphosphates ..	150	48	24	—	—	285
Trinidad and Tobago—						
Superphosphates ..	1,377	1,815	1,287	1,029	299	n.a.
Basic slag ..	20	—	—	—	n.a.	n.a.
British Guiana—						
Superphosphates ..	113	2,817	1,711	555	n.a.	1,229
Basic slag ..	249	223	1,138	5	n.a.	5
Other phosphatic fertilizers ..	1,654	1,139	3,169	456	n.a.	1,400
Ceylon—						
Phosphate-rock ..	60,077	72,119	57,704	52,275	72,174	64,898
Superphosphates ..	3,258	966	847	1,452	1,193	2,128
Basic slag ..	184	135	40	26	25	20
Other phosphatic fertilizers ..	4,644	74	349	15	20	10
Cyprus—						
Superphosphates ..	31,124	35,140	37,421	32,403	33,305	31,261
Basic slag, etc. ..	1,059	340	683	198	27	—
Hong Kong—						
Phosphatic fertilizers ..	130	104	213	84	85	50
India—						
Phosphate-rock ..	188,864	(b)249,833	(b)249,956	(b)301,065	(b)331,458	(b) 419,577
Other phosphates ..	4,348	(b) 6,810	(b) 2,579	(b) 4,518	(b) 3,412	(b) 11,157
Superphosphates ..	5,348	(b) 596	(b) 737	(b) 2,213	(b) 534	(b) 136
Ammonium phosphate	228	(b) 5	(b) 8	(b) 9,846	(b) 23,581	(b) 35,632
Malaya—						
Phosphate-rock ..	65,637	64,879	78,960	79,881	103,212	94,546
Phosphatic fertilizers ..	3,334	18,050	8,932	6,570	7,904	6,656
Sabah—						
Natural phosphates ..	n.a.	n.a.	n.a.	n.a.	n.a.	238
Superphosphates ..	243	33	81	—	n.a.	n.a.
Other phosphatic fertilizers ..	475	476	44	1,279	n.a.	1,251
Sarawak—						
Natural phosphates ..	4	1	19	797	1,511	n.a.
Phosphatic fertilizers ..	3,138	5,026	5,146	5,018	6,999	n.a.
Australia (a)—						
Phosphate-rock ..	1,353,739	1,322,173	1,723,518	1,835,070	1,694,916	1,989,413
Superphosphates ..	—	—	96	126	95	—
Fiji—						
Phosphatic fertilizers ..	n.a.	n.a.	n.a.	n.a.	3,870	5,210
New Zealand—						
Phosphate-rock ..	469,373	608,202	597,568	580,620	645,756	} 924,000
Phosphatic guano ..	—	—	—	5,324	n.a.	
Superphosphates ..	70	—	54	49	(a) 82	
Basic slag ..	25,344	29,670	31,516	21,522	21,341	
Other phosphates ..	304	2,527	4,750	4,849	7,697	
Irish Republic—						
Phosphate-rock ..	135,840	163,030	221,938	221,806	226,935	235,691
Superphosphates ..	77,697	87,210	14,031	2,358	4,744	8,090
Basic slag ..	85,252	49,950	65,655	121,378	121,527	155,579
Other phosphatic fertilizers ..	18,415	11,226	13,637	16,179	24,328	24,548

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<b>Austria—</b>						
Phosphate-rock.. ..	109,921	121,905	124,248	190,273	195,017	265,880
Superphosphates (b) ..	72,437	76,495	26,902	11,750	9,750	10,327
Basic slag .. ..	242,540	267,189	264,049	269,146	316,404	344,641
<b>Belgium-Luxemburg</b>						
<b>E. U.—</b>						
Phosphate-rock.. ..	609,667	642,026	886,094	865,992	993,935	1,160,803
Superphosphates .. ..	71	255	1,254	6,307	304	1,616
Di-calcium phosphates ..	8	137	n.a.	n.a.	n.a.	n.a.
Basic slag .. ..	352	100	44	4	5	23
<b>Czechoslovakia—</b>						
Phosphatic fertilizers (a)	124,000	146,000	170,000	191,000	208,000	256,000
<b>Denmark—</b>						
Phosphate-rock.. ..	279,544	259,558	302,353	281,522	307,792	279,362
Superphosphates .. ..	99,666	167,709	188,398	126,929	101,733	87,627
Di-calcium phosphates ..	n.a.	26,868	23,544	25,981	26,214	33,785
Basic slag .. ..	7,818	6,024	6,146	9,365	8,370	9,118
<b>Finland—</b>						
Phosphate-rock.. ..	238,866	231,786	273,625	231,706	230,066	319,901
Superphosphates .. ..	15,843	68,293	73,302	62,335	16,187	35,533
Basic slag .. ..	25,194	24,292	10,089	10,947	10,366	9,873
Di-calcium phosphates ..	12,858	7,689	165	888	1,426	394
<b>France—</b>						
Phosphate-rock.. ..	1,655,983	1,707,582	1,762,437	1,998,572	2,118,068	2,382,588
Aluminium phosphates ..	71,497	103,067	87,427	85,189	81,271	100,411
Superphosphates .. ..	101,728	221,547	270,980	287,682	329,634	369,667
Calcined phosphates .. ..	15,796	15,427	13,195	19,123	16,957	20,009
Basic slag .. ..	284,680	428,223	598,419	871,444	873,203	775,525
Di-calcium phosphates ..	10,476	12,724	22,505	27,113	18,597	20,768
<b>Germany (Federal)—</b>						
Phosphate-rock, etc. ..	1,433,115	1,616,786	1,488,526	1,596,262	1,615,589	2,254,392
Superphosphates .. ..	5,197	6,303	18,636	34,935	38,160	22,680
Basic slag .. ..	592,224	866,335	521,858	436,911	406,447	416,930
Other phosphatic fertilizers .. ..	61	91	117	273	631	729
<b>Germany (East) (a)—</b>						
Phosphate rock .. ..	n.a.	207,900	231,100	236,100	246,400	320,000
Other phosphatic fertilizers .. ..	62,450	56,164	58,217	25,136	44,303	92,787
<b>Greece—</b>						
Phosphate-rock.. ..	178,902	180,675	141,260	145,632	200,842	25,408
Other phosphatic fertilizers .. ..	30,811	8,765	17,994	73,334	81,193	82,069
<b>Hungary—</b>						
Phosphate-rock.. ..	135,751	174,807	185,744	227,319	301,634	474,712
<b>Iceland—</b>						
Superphosphates .. ..	8,485	8,120	6,617	10,789	3,554	3,865
<b>Italy—</b>						
Phosphate-rock.. ..	1,180,856	1,444,811	1,363,315	1,548,820	1,455,257	1,688,722
Superphosphates .. ..	7,234	8,120	—	9	1,162	1,988
Basic slag .. ..	56,536	2,240	11,590	23,247	17,762	1,685
<b>Netherlands—</b>						
Phosphate-rock.. ..	605,289	719,800	700,260	555,807	664,480	797,667
Superphosphates .. ..	2,519	30,149	36,897	77,073	52,922	98,949
Basic slag .. ..	302,205	270,668	131,862	146,177	152,219	230,553
Di-calcium phosphates ..	26,114	14,456	3,621	185	9,490	2,863
Ammonium phosphates ..	6,515	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Norway—</b>						
Phosphate-rock.. ..	135,300	132,590	150,507	165,708	147,418	196,600
Basic slag .. ..	8,111	8,444	9,039	7,779	6,247	7,057

(a)  $P_2O_5$  content.

(b) Including other phosphatic fertilisers.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Poland—						
Apatite concentrates ..	227,400	269,200	334,900	<i>n.a.</i>	312,200	425,700
Phosphate rock ..	285,100	351,900	446,400	<i>n.a.</i>	475,800	549,400
Portugal—						
Phosphate-rock ..	245,200	251,360	271,063	238,388	268,982	252,341
Basic slag ..	22,811	13,028	11,417	9,351	9,900	14,311
Roumania—						
Phosphate-rock (a) ..	54,300	71,700	78,500	101,200	147,900	93,000
Spain—						
Phosphate-rock ..	1,005,055	926,232	926,640	1,010,040	985,844	1,084,069
Superphosphates, etc. ..	—	—	—	—	539	98
Basic slag ..	86,192	16,975	13,262	29,649	41,199	20,214
Sweden—						
Phosphate-rock ..	331,982	339,063	367,750	391,464	378,970	420,019
Superphosphates ..	3,026	13,085	938	10	281	2,724
Di-calcium phosphates	10,310	12,466	7,822	5,586	3,941	3,638
Switzerland—						
Phosphate-rock ..	(b) 23,000	37,054	34,530	30,641	34,021	35,993
Super phosphates, etc. ..	13,759	10,414	11,885	12,600	12,304	14,471
Basic slag ..	168,522	168,258	172,023	176,664	180,799	189,590
Di-calcium phosphates	<i>n.a.</i>	1,278	2,302	2,665	3,677	5,442
Yugoslavia—						
Phosphate-rock ..	157,259	197,183	250,616	319,154	532,056	634,749
Superphosphates ..	162,492	54,511	2,953	73,877	215,240	16,339
Basic slag ..	179,035	54,888	2,814	7,598	76,279	116,044
Algeria—						
Superphosphates ..	8,604	12,216	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Basic slag ..	1,910	3,263	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Di-calcium phosphates	2,618	1,736	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Superphosphates ..	1,177	623	715	1,565	982	2,689
Cameroun—						
Phosphatic fertilizers ..	340	93	257	405	265	734
Canary Islands—						
Phosphate-rock ..	16,573	11,420	16,598	14,293	16,500	14,587
Egypt—						
Superphosphates ..	—	29,365	129,647	73,921	<i>n.a.</i>	<i>n.a.</i>
Equatorial African Community—						
Phosphatic fertilizers ..	265	141	407	59	<i>n.a.</i>	106
Malagasy Republic—						
Phosphatic fertilizers ..	430	742	344	401	262	613
Morocco—						
Superphosphates ..	586	39	—	438	541	166
Di-calcium phosphates	4,378	6,066	2,923	1,756	487	10
Reunion—						
Phosphate fertilizers ..	4,512	3,745	1,729	790	873	882
South Africa—						
Phosphate-rock ..	338,797	378,114	364,471	443,691	313,926	<i>n.a.</i>
Phosphatic guano ..	500	—	—	—	—	<i>n.a.</i>
Superphosphates ..	1,204	1,743	2,662	6,321	13,069	<i>n.a.</i>
Basic slag ..	42,752	39,658	51,157	44,053	39,446	26,488
Sudan—						
Superphosphates ..	700	1,007	579	1,144	62	69
Tunisia—						
Phosphatic fertilizers ..	738	236	68	—	346	70
Costa Rica—						
Phosphatic fertilizers ..	27,160	34,725	21,495	8,675	387	2,555
Cuba—						
Superphosphates ..	35,939	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Calcium phosphates ..	9,887	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic—						
Superphosphates ..	8,154	3,749	4,732	5,321	<i>n.a.</i>	<i>n.a.</i>

 (a)  $P_2O_5$  content.

(b) Estimated on imports from producing countries.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
French West Indies—						
Guadeloupe—						
Phosphatic fertilizers ..	316	1,103	523	184	345	98
Martinique—						
Phosphatic fertilizers ..	2,064	2,815	3,041	2,470	1,071	1,616
Guatemala—						
Phosphatic fertilizers ..	2,346	2,133	508	5,395	3,123	5,431
Honduras—						
Phosphatic fertilizers ..	245	152	135	579	32	3,042
Mexico—						
Phosphate-rock ..	48,674	65,269	65,263	121,265	196,109	200,445
Superphosphates ..	11,639	20,059	34,195	6,513	5,961	744
Ammonium phosphates	13,371	14,893	11,509	16,720	3,527	7,339
Nicaragua—						
Phosphatic fertilizers ..	732	212	341	714	1,937	4,547
Panama Republic—						
Phosphatic fertilizers ..	323	519	674	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Salvador—						
Phosphatic fertilizers ..	4,342	1,707	1,109	1,131	1,338	3,449
United States—						
Phosphate-rock ..	139,891	129,290	134,004	133,628	160,708	155,819
Superphosphates—						
Single ..	128	1,112	1,151	13,860	} 64,144	70,512
Concentrated ..	856	915	1,946	44,352		
Ammoniated ..	2,733	237	140	954		
Basic slag ..	237	—	46	2,012	527	—
Di-calcium phosphates	3,287	5,164	10,149	9,193	4,326	6,291
Ammonium phosphates	192,596	107,087	100,887	144,722	115,812	85,845
Brazil—						
Phosphate-rock ..	89,191	66,836	56,632	54,997	218,387	178,892
Superphosphates—						
Single ..	12,454	8,655	20,534	14,012	9,626	5,420
Concentrated ..	49,327	61,850	51,376	43,502	70,282	48,488
Calcined phosphates ..	362	1,062	2,809	2,046	4,399	4,353
Di-calcium phosphate ..	747	2,566	2,708	2,879	2,398	1,673
Basic slag ..	3,083	2,896	4,310	2,262	4,650	5,788
Chile—						
Superphosphates ..	14,401	21,954	35,128	58,788	<i>n.a.</i>	<i>n.a.</i>
Basic slag ..	4,886	4,267	13,585	15,529	<i>n.a.</i>	<i>n.a.</i>
Di-calcium phosphates	21,057	21,241	35,137	31,498	<i>n.a.</i>	<i>n.a.</i>
Other phosphatic fertilizers ..	3,556	2,610	18,556	31,184	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Phosphate-rock ..	1,397	2,396	3,347	8,191	16,829	26,370
Superphosphates ..	1,578	8,477	4,351	13,983	28,963	27,464
Di-calcium phosphates	21,101	21,965	31,354	9,623	7,364	2,477
Peru—						
Phosphate-rock ..	11,530	14,461	11,993	13,119	11,606	14,114
Phosphatic fertilizers ..	72	1,975	2,568	3,472	206	1,242
Venezuela—						
Calcium phosphates and superphosphates ..	9,106	7,597	10,408	4,664	6,847	1,512
Burma—						
Phosphatic fertilizers ..	—	49	—	6,780	—	16,500
Formosa—						
Apatite ..	79,713	79,540	—	—	<i>n.a.</i>	<i>n.a.</i>
Phosphatic fertilizers ..	78,254	44,772	43,370	6,060	17,553	9,940
Indonesia—						
Superphosphates ..	18,328	22,204	121,553	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Phosphatic fertilizers ..	3,678	24,268	15,149	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Iran (a)—						
Phosphatic fertilizers ..	<i>n.a.</i>	<i>n.a.</i>	9,523	17,020	17,038	13,878

(a) Years ended March 20 of year following that stated.

## IMPORTS OF PHOSPHATES, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Iraq—						
Phosphatic fertilizers ..	655	1,581	2,113	1,073	1,608	n.a.
Japan—						
Phosphate-rock ..	1,695,122	2,013,932	2,070,072	1,864,237	2,026,148	2,279,150
Jordan—						
Phosphatic fertilizers ..	1,057	2,811	722	2,219	1,709	2,523
Korea (South)—						
Superphosphates ..	83,305	121,925	46,530	55,479	27	1,981
Lebanon—						
Phosphatic fertilizers ..	17,836	9,566	r 9,574	r 12,484	20,296	n.a.
Philippine Republic—						
Phosphate-rock ..	12,489	6,248	10,185	12,292	11,985	n.a.
Superphosphates ..	498	—	—	1,493	886	n.a.
Ammonium phosphate ..	24,364	21,301	24,858	19,708	6,882	n.a.
Other phosphatic fertilizers ..	7,895	7,720	17,086	52,430	4,682	n.a.
Syria—						
Phosphatic fertilizers ..	4,274	14,884	27,940	13,852	23,988	14,534
Thailand—						
Superphosphates ..	1,038	858	788	2,783	3,030	2,013
Phosphatic fertilizers ..	10,941	7,519	11,317	18,209	26,996	36,755
Turkey—						
Phosphate-rock ..	31,051	18,433	18,572	32,823	204,412	n.a.
Superphosphates ..	3,265	—	36,659	37,996	19,202	n.a.
Vietnam (South)—						
Calcium phosphates ..	n.a.	59,800	51,600	46,000	77,900	45,925
Other phosphatic fertilizers ..	5,752	5,707	6,084	8,078	23,629	n.a.

**PLATINUM**  
**PRODUCTION OF PLATINUM METALS**

Troy ounces

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada—						
Recovered from Ontario nickel-copper ores (c)—						
Platinum .. ..	150,382	} 483,604	418,278	470,787	357,651	374,988
Other platinum metals	177,713					
Australia—						
New South Wales—						
Concentrates (Pt content) .. ..	—	4	2	2	4	—
Tasmania—						
Osmiridium .. ..	3	—	—	—	—	—
New Guinea—						
Platinum .. ..	19	4	5	4	4	1
<b>OTHER COUNTRIES</b>						
U.S.S.R.—						
Crude platinum (d) .. ..	300,000	330,000	500,000	800,000	800,000	1,000,000
Ethiopia—						
Crude platinum .. ..	68	189	180	180	(d) 180	(d) 180
South Africa—						
Crude and matte (Pt metals content) (d)	375,000	400,000	350,000	300,000	300,000	600,000
Osmiridium (crude) .. ..	(b) 4,843	(b) 6,334	(d) 7,000	(d) 6,000	(d) 5,500	(d) 6,000
United States (a)—						
New platinum metals recovered by refineries from crude platinum and gold and copper ores of domestic origin						
Platinum .. ..	9,791	10,232	17,155	14,244	20,818	15,608
Palladium .. ..	4,179	8,274	22,668	14,141	28,099	22,863
Iridium .. ..	767	810	1,284	739	1,381	2,423
Osmium .. ..	103	118	147	95	189	366
Rhodium .. ..	83	769	932	439	1,073	2,757
Ruthenium .. ..	92	163	306	146	398	286

(a) Secondary platinum metals recovered in the United States were as follows (troy ounces):

	1959	1960	1961	1962	1963	1964
Platinum .. ..	58,945	33,861	51,218	71,817	54,084	66,043
Palladium .. ..	68,279	35,465	32,451	56,273	59,993	49,879
Iridium .. ..	1,188	914	193	767	440	764
Osmium .. ..	361	279	6	99	273	928
Rhodium .. ..	5,631	953	1,836	2,570	1,990	2,338
Ruthenium .. ..	1,592	385	267	576	319	195

(b) Sales.

(c) Metal content of concentrates produced from nickel-copper ores.

(d) United States Bureau of Mines' estimate.

PRODUCTION OF PLATINUM METALS (cont.)

Troy ounces

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Colombia (a)— Crude platinum ..	18,322	16,923	20,232	14,100	22,983	20,647
Japan— Platinum .. ..	470	1,396	2,247	1,872	1,714	2,199
Palladium .. ..	324	563	1,550	1,372	1,326	1,875
Philippine Republic— Platinum .. ..	—	—	177	172	—	—
Palladium .. ..	—	—	215	141	—	—
<b>WORLD'S TOTAL (b)</b>	<b>1,000,000</b>	<b>1,300,000</b>	<b>1,300,000</b>	<b>1,600,000</b>	<b>1,500,000</b>	<b>2,100,000</b>

(a) Exports. Total production may be very much greater.

(b) Estimated.



EXPORTS OF PLATINUM\*

Troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Platinum—						
Ingots, grain and powder .. ..	278,534	311,617	307,461	253,320	509,580	429,125
Other kinds (a) ..	34,740	37,583	39,616	58,018	76,307	79,084
Other platinum metals and alloys .. ..	145,840	308,309	363,471	259,998	279,899	273,418
Canada—						
Concentrates, etc. (b) ..	357,898	403,240	626,876	542,985	506,782	404,891
Platinum metals .. ..	<i>n.a.</i>	<i>n.a.</i>	4,619	28,262	42,845	3,901
Scrap .. ..	995	701	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Hong Kong—						
Platinum and platinum group metals .. ..	—	251	223	643	6,999	6,375
Australia (c)—						
Platinum and platinum group metals .. ..	57	369	677	101	417	548
<b>OTHER COUNTRIES</b>						
Austria—						
Unwrought platinum and platinum metals	611	12,700	1,157	579	354	514
Denmark—						
Rods, sheets, wire, scrap, etc. .. ..	—	32	<i>n.a.</i>	—	—	—
France—						
Unwrought platinum and scrap (a) .. ..	12,828	4,861	6,714	14,277	28,270	15,846
Palladium (inc. scrap)(a)	9,227	4,694	7,748	8,809	17,972	24,081
Drawn or rolled platinum .. ..	8,713	7,052	16,886	17,573	9,646	15,378
Germany (Federal)—						
Platinum metals (a) ..	69,145	61,491	90,439	123,041	121,147	174,061
Italy—						
Unwrought platinum ..	—	3,086	15,175	11,831	22,216	24,242
Netherlands—						
Unwrought platinum and platinum metals ..	63,787	5,787	21,541	8,359	22,120	8,552
Drawn or rolled ..	112,881	38,420	46,554	33,083	25,367	25,335
Norway—						
Platinum (incl. scrap) ..	21,380	15,465	10,706	15,786	10,610	18,551
Switzerland—						
Unwrought platinum ..	2,186	3,054	3,151	7,105	6,720	40,285

\*Official figures which, in many cases, do not include platinum sent by post.

(a) Including alloys.

(b) Platinum and platinum metals contained in concentrates and other forms.

(c) Years ended June 30 of that stated.

EXPORTS OF PLATINUM (cont.)

Troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
U.S.S.R. . . . .	(a)	(a)	(a)	(a)	(a)	(a)
South Africa—						
Crude platinum metals	} (£4,339,441)	} (£8,617,784)	} (£8,700,183)	} (£6,639,594)	} (£4,885,269)	n.a.
Osmiridium . . . . .						
United States—						
Ores, etc. (Pt content) . . . . .	} 18,560	} 49,497	} 41,385	} 49,651	} 51,236	} 125,139
Ingots, sheets, wire, etc.						
Palladium, rhodium, etc. and alloys . . . . .						
Colombia—	12,845	15,652	20,460	10,940	11,776	21,167
Platinum . . . . .	18,322	16,923	20,232	14,100	22,983	20,647

(a) Exports of platinum metals from U.S.S.R. are not published, but imports into the under-mentioned countries from U.S.S.R. were as follows (troy ounces):

	1959	1960	1961	1962	1963	1964
United Kingdom . . . . .	47,790	23,357	23,378	13,889	39,402	28,332
France . . . . .	7,941	25,688	49,470	87,808	56,824	67,323
Germany (Federal) . . . . .	108,156	127,778	113,653	141,017	163,916	152,471
Netherlands . . . . .	20,834	20,448	30,479	27,264	35,655	26,267
United States . . . . .	130,413	111,105	227,632	113,989	230,855	142,300
Japan . . . . .	56,725	66,842	100,905	127,171	92,933	167,339

## IMPORTS OF PLATINUM\*

Troy ounces

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom— Ores and concentrates	(£9,957,176)	(£15,906,931)	(£15,806,086)	(£14,532,560)	(£12,506,237)	n.a.
Platinum and platinum group metals .. .. .	101,755	76,033	89,344	99,373	78,474	n.a.
Canada— Platinum and platinum group metals.. .. .	<sup>b</sup> (£821,828)	(£1,671,639)	(£500,864)	(£1,432,386)	(£1,141,090)	n.a.
Nigeria— Platinum and platinum group metals .. .. .	3	—	—	—	7,712	2,356
Sierra Leone— Platinum and platinum group metals .. .. .	—	—	—	5	908	n.a.
Hong Kong— Platinum and platinum group metals.. .. .	6,714	5,470	5,811	11,275	22,426	30,757
India— Platinum .. .. .	2,135	<sup>(a)</sup> 1,607	<sup>(a)</sup> 2,827	<sup>(a)</sup> 2,117	<sup>(a)</sup> 2,336	<sup>(a)</sup> 2,929
Malaya— Unwrought platinum ..	12,900	40	430	220	4,395	161
Australia (c)— Platinum bars, rods, sheets, etc. .. .. .	229	604	784	362	138	410
Bars, rods, sheets, etc. of other platinum metals .. .. .	666	2,017	1,937	22	5	83
Platinum metal powder	1,102	5,780	669	1,071	2,914	3,850
Wire .. .. .	2,012	1,532	2,127	1,546	720	1,636
New Zealand— Platinum and platinum group metals.. .. .	1,415	2,027	2,874	2,763	<sup>(c)</sup> 2,557	n.a.
OTHER COUNTRIES						
Austria— Unwrought platinum and platinum metals	1,672	7,877	2,379	997	5,626	1,447
Denmark— Rods, sheets, wire and scrap .. .. .	1,318	2,058	1,640	1,800	1,865	2,379
Finland— Unwrought platinum etc.	5,057	6,398	8,809	21,380	4,003	n.a.
France— Unwrought platinum, alloys and scrap ..	68,642	63,057	87,319	101,198	107,607	83,076
Unwrought palladium, alloys and scrap ..	77,676	29,096	31,218	52,084	61,729	66,648
Drawn or rolled platinum	64	378	703	10,352	2,266	4,921
Germany (Federal)— Platinum metals and alloys .. .. .	187,344	224,910	219,439	215,803	325,349	358,687
Italy— Unwrought platinum ..	11,381	15,593	33,823	33,790	33,019	43,082
Drawn or rolled ..	4,790	4,180	31,894	11,060	7,652	5,916
Other platinum metals	15,175	11,896	20,416	33,983	22,698	21,284

\*Official figures, which in many cases do not include platinum sent by post.

(a) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

(b) Excess of re-exports.

## IMPORTS OF PLATINUM (cont.)

Troy ounces

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Netherlands—						
Unwrought platinum and platinum metals ..	150,433	57,646	66,359	48,194	65,427	42,953
Drawn or rolled ..	8,777	6,623	11,639	12,732	12,539	22,827
Norway—						
Unwrought platinum ..	2,765	6,945	2,218	1,640	1,350	547
Drawn or rolled ..	22,698	1,254	1,198	1,244	1,377	932
Portugal—						
Sheets, wire, etc. ..	144	12	41	130	22	100
Spain—						
Bars, sheets, wire, etc. . .	965	1,039	6,559	4,083	32	1,134
Switzerland—						
Unwrought platinum ..	23,599	24,402	26,524	32,569	42,117	49,866
Yugoslavia—						
Unwrought platinum ..	9,163	4,115	9,227	15,754	19,162	13,343
Egypt—						
Ingots, bars, sheets, etc.	4	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa—						
Platinum .. ..	512	1,243	845	2,403	1,687	1,523
Mexico—						
Platinum .. ..	263	204	240	149	17	133
Palladium .. ..	2,241	2,063	2,088	3,679	3,428	4,968
United States—						
Ore (a) .. ..	503	401	568	—	—	n.a.
Grains and nuggets (a) ..	77,763	30,338	22,997	23,366	50,691	35,916
Sponge and scrap (a) (b)	58,764	134,122	110,057	417,575	n.a.	491,490
Ingots, bars, sheets (a) (b)	205,890	107,273	138,352	93,202	n.a.	n.a.
Iridium .. ..	7,772	4,253	4,366	9,001	13,059	6,571
Osmium and osmiridium ..	3,344	277	3,067	1,086	2,091	3,947
Palladium .. ..	610,740	368,256	571,693	431,872	503,843	445,913
Rhodium and ruthenium ..	44,021	35,719	26,363	38,622	40,417	66,089
Brazil—						
Unwrought platinum ..	96	36	514	7,268	—	—
Palladium .. ..	—	23	900	1,125	—	—
Colombia—						
Unwrought platinum ..	—	129	1,254	932	64	129
Uruguay—						
Platinum metals .. ..	148	597	n.a.	n.a.	n.a.	n.a.
Venezuela—						
Unwrought platinum ..	1,575	53,049	3,762	13,310	36,523	12,603
Japan—						
Platinum .. ..	74,355	73,155	95,193	133,843	221,844	165,718
Palladium .. ..	46,296	56,465	96,541	87,494	147,070	168,287
Rhodium .. ..	2,530	2,199	1,605	1,711	2,950	4,127
Iridium, etc. .. ..	1,610	1,827	1,489	2,666	2,267	1,816
Lebanon—						
Unwrought platinum ..	4,783	3,903	2,861	4,559	2,875	n.a.
Turkey—						
Sheets .. ..	—	—	900	n.a.	3,440	n.a.

(a) Platinum content.

(b) As recorded in official trade returns. According to the U.S. Bureau of Mines, however, these items have been re-classified as follows:

	1959	1960	1961	1962	1963	1964
Sponge and scrap ..	5,666	3,905	11,550	6,185	7,647	5,127
Platinum metal ..	260,524	238,307	236,859	210,220	382,596	578,652

**POTASH MINERALS**  
PRODUCTION OF POTASH

Producing Country and Description	K <sub>2</sub> O Content or Equivalent						1964	Long tons					
	1959	1960	1961	1962	1963	1964		1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>													
Canada—													
Potash salts .. .. .	n.a.	—	—	n.a.	n.a.	n.a.	n.a.	41,500	—	—	c 130,000	559,696	770,036
<b>OTHER COUNTRIES</b>													
France (b)—													
Sylvinite, 12-22% K <sub>2</sub> O													
Fertilizer salts													
30-40% K <sub>2</sub> O .. .	9,382,550	9,788,231	10,717,502	n.a.	n.a.	n.a.	n.a.	{ 46,843	{ 37,773	{ 41,391	{ 47,151	{ 34,517	{ 36,553
Chloride								{ 124,047	{ 153,175	{ 124,887	{ 138,112	{ 116,234	{ 126,631
50% K <sub>2</sub> O and over								{ 1,267,920	{ 1,316,764	{ 1,516,573	{ 1,509,344	{ 1,543,591	{ 1,614,844
Germany—													
Federal Republic—													
Kainite, sylvinite, etc.	17,147,000	18,347,418	19,200,561	18,121,975	18,244,498	20,263,188	2,279,608	2,361,889	2,227,977	2,247,152	2,512,801	1,828,000	n.a.
Eastern—													
Potash salts .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,618,000	1,640,000	1,649,000	1,724,000	1,816,000	n.a.
Italy—													
Crude potash salts	75,208	326,272	849,009	1,022,188	1,243,738	n.a.	48,500	700	400	400	300	n.a.	
Netherlands (a)—													
Potassium chloride (over 45% K <sub>2</sub> O) .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	600	200	200	200	n.a.	
Potassium sulphate .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	200	200	100	200	n.a.	

(a) Years ended June 30 of that stated.

(b) Crude salts as mined. The K<sub>2</sub>O content by salts relates to the marketable product only.

(c) United States Bureau of Mines' estimate.

PRODUCTION OF POTASH (cont.)

Long tons

Producing Country and Description	K <sub>2</sub> O Content or Equivalent											
	1959	1960	1961	1962	1963	1964	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)												
Poland—												
Potash salts ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24,600	n.a.	n.a.	n.a.	n.a.
Spain—												
Carnallite, sylvinite, etc.	1,570,962	1,642,926	1,695,397	1,553,577	1,819,025	2,593,254	237,755	283,903	289,375	260,386	295,683	309,603
U.S.S.R. (a)—												
Potash salts ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,040,000	1,082,600	1,299,000	1,470,000	1,510,000	1,600,000
United States—												
Potash salts (b) ..	3,601,000	3,993,000	4,133,000	3,721,000	4,346,000	n.a.	2,127,910	2,355,870	2,439,823	2,190,108	2,558,536	2,586,600
Chile—												
Nitrate ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	13,823	(a)14,700	13,843	17,447	(a)18,300	(a)13,000
Israel—												
Chloride ..	103,150	c/d130,000	c/d140,000	d152,000	d185,000	251,500	63,000	81,500	83,600	89,500	110,000	153,000
Japan—												
Alunite ..	2,747	2,470	1,784	—	—	—	n.a.	n.a.	n.a.	—	—	—
WORLD'S TOTAL (c) ..							8,700,000	9,300,000	9,900,000	9,900,000	11,000,000	11,700,000

(a) United States Bureau of Mines' estimate.

(b) Marketable production.

(c) Estimated.

(d) Years ended March 31 of year following that stated.

EXPORTS OF POTASH SALTS

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Nitrate .. .. .	} 25	48	255	35	12	104
Sulphate .. .. .						
Other compounds .. .. .		3,678	4,312	4,117	4,473	n.a.
Hong Kong—						
Nitrate .. .. .	356	190	286	307	283	240
Chlorate.. .. .	265	242	340	343	306	208
India—						
Nitrate .. .. .	44	(a) 39	(a) 8	(a) 8	(a) 5	(a) 3
Malaya—						
Fertilizer salts.. .. .	68	95	139	130	88	255
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Fertilizer salts .. .. .	212	2,029	3,962	595	344	25
Carbonate .. .. .	2,754	2,775	1,469	2,496	2,352	2,560
Caustic potash .. .. .	5,918	n.a.	n.a.	n.a.	n.a.	n.a.
Chloride .. .. .	701,031	766,860	795,950	770,048	768,648	701,649
Chlorates .. .. .	—	—	—	1	6	10
Nitrate .. .. .	25	36	—	1	1	1
Sulphate .. .. .	236,885	265,584	279,715	250,789	286,197	262,756
Finland—						
Chlorate.. .. .	109	48	77	39	—	—
France—						
Sylvinite, etc. .. .. .	314,330	276,792	240,880	137,666	72,043	90,037
Carbonate .. .. .	9,123	12,165	13,916	13,154	16,165	20,638
Caustic potash .. .. .	13,139	10,126	9,820	11,111	10,459	11,774
Chlorate.. .. .	932	903	1,198	1,055	13,109	1,268
Chloride .. .. .	800,778	1,094,430	1,228,067	1,028,710	1,082,522	1,187,890
Sulphate .. .. .	231,269	38,739	10,830	13,291	11,327	5,795
Nitrate .. .. .	2,149	1,653	2,079	2,322	2,762	2,076
Germany (Federal)—						
Fertilizer salts .. .. .	1,370,091	1,568,379	1,650,061	1,343,640	1,507,028	1,542,227
Carbonate .. .. .	5,432	6,864	7,485	6,984	7,967	10,039
Caustic potash .. .. .	n.a.	n.a.	n.a.	n.a.	11,690	12,108
Chlorate .. .. .	61	351	736	597	542	545
Nitrate .. .. .	9,633	13,082	11,582	12,254	12,746	14,305
Germany (East)—						
Fertilizer salts						
(K <sub>2</sub> O content) .. .. .	1,025,000	1,075,000	1,030,000	1,129,000	1,143,000	1,199,000
Carbonate .. .. .	9,511	8,753	7,946	9,614	9,910	9,508
Caustic potash .. .. .	7,144	6,563	5,904	5,640	6,422	7,156
Italy—						
Nitrate .. .. .	235	606	971	925	910	80
Caustic potash .. .. .	49	1,417	1,750	3,455	4,162	2,631
Sulphate .. .. .	59	5,116	58,304	55,362	75,391	85,029
Netherlands—						
Carbonate .. .. .	220	101	57	93	1,248	844
Caustic potash .. .. .	7	17	10	10	32	37
Chloride .. .. .	916	1,267	643	738	786	461
Nitrate .. .. .	53	68	84	134	70	104
Sulphate .. .. .	405	362	233	373	518	497
Poland—						
Caustic potash .. .. .	1,197	1,170	1,729	n.a.	n.a.	n.a.
Chlorate .. .. .	470	459	739	n.a.	n.a.	n.a.
Portugal—						
Caustic potash .. .. .	n.a.	—	9	9	7	336
Chloride .. .. .	27	850	161	94	60	253
Sulphate .. .. .	n.a.	60	49	43	89	255

(a) Years ended March 31 following that stated.

## EXPORTS OF POTASH SALTS (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Spain—						
Chloride .. ..	290,861	354,176	288,349	225,113	253,374	305,150
Sweden—						
Carbonate .. ..	—	4	—	1	—	—
Caustic potash .. ..	2,441	2,703	2,491	2,278	2,462	2,770
Switzerland—						
Nitrate (crude) .. ..	15	—	—	—	—	—
U.S.S.R.—						
Fertilizer salts .. ..	431,800	619,000	749,600	863,800	976,500	742,300
United States—						
Chloride .. ..	471,348	698,323	644,614	717,856	593,113	821,407
Other fertilizer salts .. ..	28,653	29,821	48,981	39,241	38,171	95,062
Caustic potash .. ..	3,362	3,262	2,087	3,246	3,627	5,233
Other compounds .. ..	6,746	11,296	23,927	8,223	n.a.	14,017
Chile—						
Nitrate .. ..	86,018	53,545	67,301	n.a.	n.a.	n.a.
Israel—						
Fertilizer salts .. ..	102,571	118,549	72,264	n.a.	n.a.	n.a.
Chloride .. ..		985	80,368	n.a.	n.a.	n.a.
Japan—						
Chlorate .. ..	680	539	688	873	1,365	971
Chloride .. ..	1,498	1,850	6,604	3,520	5,665	10,005
Sulphate .. ..	59	2,291	2,153	105	267	297



## IMPORTS OF POTASH SALTS

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Fertilizer salts .. ..	43,564	41,976	52,997	52,165	28,855	37,025
Carbonate .. ..	4,819	6,943	5,535	4,719	5,836	8,374
Caustic potash and lyes .. ..	1,833	2,042	1,937	1,832	<i>n.a.</i>	2,327
Chlorate .. ..	960	1,099	1,031	1,077	(a)	(a)
Chloride .. ..	610,400	711,972	693,156	666,464	680,098	660,597
Nitrate .. ..	2,740	2,683	3,368	3,434	2,793	3,029
Sulphate .. ..	25,026	22,819	21,710	23,995	27,742	33,636
Other compounds .. ..	7,046	4,056	3,210	6,557	13,975	6,983
<b>Ghana—</b>						
Fertilizer salts .. ..	254	510	672	455	1,075	1,301
<b>Kenya—</b>						
Fertilizer salts .. ..	—	80	30	28	376	155
<b>Mauritius—</b>						
Fertilizer salts .. ..	8,527	9,296	8,450	11,143	13,304	12,988
<b>Nigeria—</b>						
Fertilizer salts .. ..	703	1,799	1,394	1,341	655	835
<b>Rhodesia (b)—</b>						
Fertilizer salts .. ..	22,987	28,958	28,973	26,263	31,005	37,342
Compounds .. ..	353	529	351	680	430	220
<b>Sierra Leone—</b>						
Fertilizer compounds .. ..	28	21	11	76	374	5
<b>Tanzania—</b>						
Fertilizer salts .. ..	536	609	537	667	1,659	898
<b>Uganda—</b>						
Fertilizer salts .. ..	191	136	521	2,835	1,981	1,685
<b>Canada—</b>						
Caustic potash .. ..	3,788	3,937	1,524	1,482	1,936	1,629
Chlorate .. ..	39	35	45	52	21	<i>n.a.</i>
Crude chloride .. ..	85,089	130,969	151,587	132,119	66,137	59,855
Nitrate .. ..	662	662	818	815	760	789
Crude sulphate .. ..	22,091	21,378	23,641	21,412	16,888	17,463
Other compounds .. ..	5,091	6,321	6,393	5,922	4,698	<i>n.a.</i>
<b>Antigua—</b>						
Fertilizer salts .. ..	—	92	5	2,928	<i>n.a.</i>	—
<b>Barbados—</b>						
Fertilizer salts .. ..	4,325	3,585	6,535	3,372	4,204	7,763
<b>Grenada—</b>						
Fertilizer salts .. ..	254	153	266	50	150	81
<b>Jamaica—</b>						
Fertilizer salts .. ..	5,809	4,539	5,434	2,121	6,430	10,151
<b>St. Kitts—</b>						
Potassic fertilizers .. ..	1,060	1,105	952	855	1,116	985
<b>St. Lucia—</b>						
Potassic fertilizers .. ..	460	157	100	200	586	<i>n.a.</i>
<b>St. Vincent—</b>						
Chloride .. ..	178	27	7	7	83	19
<b>Trinidad and Tobago—</b>						
Chloride and sulphate .. ..	2,758	1,794	3,300	2,755	2,966	<i>n.a.</i>
<b>British Guiana—</b>						
Fertilizer salts .. ..	4,663	2,355	3,625	3,862	<i>n.a.</i>	2,005
<b>Ceylon—</b>						
Kainite and sylvinite .. ..	331	245	417	100	120	382
Chloride .. ..	42,596	39,054	47,483	38,516	60,569	47,879
Nitrate of potash refuse .. ..	3	28	2	108	100	22
Sulphate .. ..	870	2,750	315	120	195	2,135
<b>Cyprus—</b>						
Fertilizer salts .. ..	390	512	507	468	385	273
<b>Hong Kong—</b>						
Nitrate .. ..	621	378	585	991	908	663
Chlorate .. ..	371	281	430	442	378	275
Other fertilizer salts .. ..	530	620	331	47	27	19

(a) Included, if any, with "Other compounds". (b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES (cont.)</b>						
India—						
Carbonate .. ..	1,015	(a) 630	(a) 1,207	(a) 1,227	(a) 1,172	(a) 1,224
Caustic potash .. ..	1,553	(a) 2,222	(a) 2,488	(a) 2,480	(a) 3,304	(a) 3,649
Nitrate .. ..	5	(a) 11	(a) 6	(a) 19	(a) 2	(a) 2
Sulphate .. ..	10,107	(a) 10,847	(a) 8,812	(a) 3,218	(a) 4,242	(a) 10,538
Chlorate .. ..	542	(a) 7	(a) 2	(a) —	(a) 74	(a) —
Chloride .. ..	52,544	(a) 22,535	(a) 43,815	(a) 76,661	(a) 69,684	(a) 75,315
Malaya—						
Fertilizer salts .. ..	13,865	16,538	13,001	15,285	22,327	24,001
Pakistan—						
Chlorate .. ..	300	516	694	599	145	1,157
Other compounds .. ..	204	766	n.a.	n.a.	87	176
Sabah—						
Fertilizer salts .. ..	336	118	157	155	n.a.	657
Sarawak—						
Fertilizer salts .. ..	47	25	30	552	443	898
Australia (c)—						
Carbonate .. ..	863	1,117	679	774	969	993
Caustic potash .. ..	958	981	805	898	969	1,099
Chloride .. ..	38,044	31,573	45,109	65,214	47,472	84,864
Nitrate .. ..	354	451	519	355	424	403
Sulphate .. ..	5,708	4,574	7,417	8,842	10,343	11,361
Other compounds .. ..	827	1,019	1,240	365	353	319
New Zealand—						
Chloride .. ..	73,016	82,383	120,366	96,945	100,460	} 128,714
Nitrate .. ..	144	128	196	116	(c) 128	
Sulphate .. ..	2,641	3,422	3,595	2,687	3,671	
Other fertilizer salts .. ..	13	140	248	7,873	1,080	
Compounds other than fertilizer .. ..	317	300	340	241	(c) 165	
Irish Republic—						
Fertilizer salts .. ..	1,653	1,741	3,082	r 3,322	4,967	4,548
Chloride .. ..	108,743	107,401	117,434	r 142,720	158,217	154,772
Other compounds .. ..	538	604	591	811	235	192
<b>OTHER COUNTRIES</b>						
Austria—						
Fertilizer salts .. ..	196,932	212,166	232,236	228,394	240,502	231,337
Caustic potash .. ..	358	429	397	385	435	418
Carbonate .. ..	908	763	968	821	966	1,050
Chloride .. ..	8,992	6,098	6,871	28,017	39,313	59,607
Nitrate .. ..	279	367	428	320	399	385
Sulphate .. ..	3,718	12,624	9,639	10,564	14,471	11,808
Belgium-Luxemburg						
E.U.—						
Fertilizer salts .. ..	158,864	185,644	223,108	190,310	65,290	78,293
Carbonate .. ..	663	1,084	866	997	899	974
Caustic potash .. ..	624	n.a.	n.a.	n.a.	n.a.	n.a.
Chlorates .. ..	542	544	591	298	482	522
Chloride .. ..	1,153,374	1,165,682	1,269,205	1,158,098	1,108,101	1,257,902
Nitrate .. ..	2,053	2,007	2,279	2,156	2,631	2,809
Sulphate (b) .. ..	10,932	17,682	24,246	20,837	22,944	18,545
Czechoslovakia—						
Fertilizer salts ( $K_2O$ content) .. ..	229,000	213,900	198,000	233,000	249,000	343,000

(a) Years ended March 31 following that stated.

(c) Years ended June 30 of that stated.

(b) Including patent potash.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Denmark—</b>						
Carbonate .. ..	317	304	379	363	354	393
Caustic potash .. ..	943	1,148	1,000	1,019	960	1,106
Chlorate .. ..	136	125	91	76	106	110
Chloride .. ..	303,945	326,710	371,940	281,323	279,700	278,982
Nitrate .. ..	843	1,188	879	1,034	1,206	1,335
Sulphate .. ..	1,434	1,874	1,833	2,238	1,963	2,696
<b>Finland—</b>						
Fertilizer salts .. ..	102,769	170,500	125,176	127,210	128,797	133,249
Carbonate .. ..	332	415	407	513	522	427
Caustic potash .. ..	188	168	215	301	203	266
Nitrate .. ..	249	140	263	383	168	528
Sulphate .. ..	1,473	<i>n.a.</i>	6,765	9,681	8,785	9,725
<b>France—</b>						
Chloride .. ..	1	8,829	—	1,467	—	69
Sulphate .. ..	10,005	10,624	19,441	40,936	47,942	55,622
Caustic potash .. ..	47	113	70	74	88	141
Patent potash .. ..	<i>n.a.</i>	2,709	4,409	4,784	5,356	7,509
<b>Germany (Federal)—</b>						
Fertilizer salts .. ..	22	27,412	27,934	36,327	47,807	47,437
Carbonate .. ..	70	409	1,439	1,678	5,647	5,273
Caustic potash .. ..	<i>n.a.</i>	572	621	718	813	2,526
Chlorate .. ..	631	650	599	1,074	959	589
Nitrate .. ..	331	337	756	1,069	1,188	2,202
<b>Greece—</b>						
Carbonate .. ..	913	610	677	1,076	1,497	1,071
Caustic potash .. ..	23	19	57	29	47	32
Nitrate .. ..	109	123	89	95	79	104
Sulphate .. ..	10,664	12,686	20,475	15,835	22,192	19,230
<b>Hungary—</b>						
Fertilizer salts .. ..	81,520	73,723	114,259	195,475	214,385	200,103
<b>Iceland—</b>						
Fertilizer salts .. ..	4,087	3,751	2,999	5,167	4,676	8,030
Carbonate .. ..	5	11	8	16	59	88
Caustic potash .. ..	42	35	30	53	66	71
<b>Italy—</b>						
Fertilizer salts .. ..	74,829	60,550	47,483	37,657	37,389	39,802
Carbonate .. ..	2,604	3,941	4,016	4,408	3,653	3,202
Caustic potash .. ..	2,901	2,518	1,678	1,411	1,059	707
Chloride .. ..	74,401	154,492	105,549	154,643	130,094	167,908
Nitrate .. ..	964	1,240	758	727	1,027	2,061
Sulphate .. ..	43,369	39,684	20,244	11,632	8,531	9,799
<b>Netherlands—</b>						
Kainite .. ..	46,427	39,228	23,098	22,271	25,236	40,753
Fertilizer salts						
(20% K <sub>2</sub> O)	38,112	40,238	25,001	17,144	26,833	37,948
do. (40% K <sub>2</sub> O)	219,990	194,019	152,510	120,810	132,461	159,654
Carbonate .. ..	5,207	6,950	5,156	6,306	7,081	6,576
Caustic potash .. ..	7,564	6,374	8,163	7,939	17,834	55,689
Chloride .. ..	52,158	67,947	89,881	104,518	112,758	123,585
Nitrate .. ..	1,755	1,293	1,841	2,477	2,807	2,914
Sulphate .. ..	26,113	47,326	46,291	64,275	53,672	66,567
Patent potash .. ..	48,997	49,363	44,296	44,093	47,365	45,857
<b>Norway—</b>						
Fertilizer salts .. ..	367	818	409	307	516	295
Carbonate .. ..	346	312	708	329	300	336
Caustic potash .. ..	1,182	1,323	1,276	1,265	1,350	1,325
Chlorate .. ..	131	154	132	137	126	126
Chloride .. ..	77,770	75,760	76,164	81,004	100,407	111,246
Nitrate .. ..	146	164	156	215	308	164
Sulphate .. ..	13,663	17,283	12,935	4,435	9,178	10,068

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Poland						
Fertilizer salts .. ..	769,900	808,900	791,200	n.a.	735,694	(d) 970,500
Carbonate .. ..	412	246	1,471	n.a.	1,713	2,030
Chloride .. ..	7,821	9,457	11,538	n.a.	14,271	(a)
Sulphate .. ..	n.a.	2,183	2,911	n.a.	3,364	(a)
Portugal—						
Carbonate .. ..	89	125	62	144	109	170
Caustic potash .. ..	30	56	100	707	257	320
Chlorate .. ..	148	227	214	220	178	195
Chloride .. ..	13,888	9,818	14,003	13,890	21,398	21,975
Nitrate .. ..	377	321	402	291	296	286
Sulphate .. ..	2,893	544	1,595	1,132	1,329	2,177
Roumania—						
Fertilizer salts (c) ..	1,100	3,900	11,800	10,100	5,700	8,700
Sweden—						
Fertilizer salts						
(40% K <sub>2</sub> O)						
do. (other) .. ..	825	2,057	448	736	826	838
Carbonate .. ..	1,083	1,408	920	890	966	1,012
Caustic potash .. ..	204	287	212	260	246	299
Chloride .. ..	127,671	152,547	137,821	144,294	134,849	144,780
Nitrate .. ..	838	976	873	1,129	1,005	1,122
Sulphate .. ..	8,495	13,843	13,646	13,673	20,602	29,660
Switzerland—						
Fertilizer salts .. ..	70,836	102,369	96,104	101,437	104,111	108,571
Carbonate .. ..	2,043	1,995	1,760	2,114	1,933	2,520
Caustic potash .. ..	1,793	2,227	2,143	2,033	1,483	1,705
Chloride .. ..	21,230	(a)	(a)	(a)	(a)	(a)
Nitrate .. ..	(b) 2,035	737	560	768	839	880
Sulphate .. ..	n.a.	1,331	1,037	950	540	921
U.S.S.R.—						
Caustic potash .. ..	3,000	4,300	3,100	2,700	6,600	7,200
Yugoslavia—						
Fertilizer salts .. ..	173,782	139,234	75,664	107,166	289,531	370,326
Caustic potash .. ..	412	335	636	482	738	746
Chloride .. ..	10,224	27,749	35,226	13,367	19,080	17,000
Sulphate .. ..	2,822	2,574	4,234	4,178	2,928	2,011
Algeria—						
Chloride .. ..	13,449	12,233	n.a.	n.a.	n.a.	n.a.
Sulphate .. ..	8,112	9,753	n.a.	n.a.	n.a.	n.a.
Carbonate .. ..	36	32	n.a.	n.a.	n.a.	n.a.
Caustic potash .. ..	44	46	n.a.	n.a.	n.a.	n.a.
Nitrate .. ..	244	151	n.a.	n.a.	n.a.	n.a.
Angola—						
Chloride .. ..	267	229	553	457	576	865
Sulphate .. ..	195	226	200	79	183	103
Cameroun—						
Fertilizer salts .. ..	1,748	1,722	2,212	2,010	782	4,049
Canary Islands—						
Fertilizer salts .. ..	50	81	—	—	—	—
Egypt—						
Fertilizer salts .. ..	11,791	1,968	—	—	n.a.	n.a.
Carbonate .. ..	208	298	272	401	n.a.	n.a.
Caustic potash .. ..	75	256	383	37	n.a.	n.a.
Chlorate .. ..	223	268	256	n.a.	n.a.	n.a.
Malagasy Republic—						
Fertilizer salts .. ..	1,482	1,159	946	382	694	518
Morocco—						
Chloride .. ..	4,290	4,396	5,063	4,214	4,672	4,264
Sulphate .. ..	4,587	3,203	7,513	6,877	8,001	6,639
Reunion—						
Fertilizer salts .. ..	2,421	1,951	2,154	755	1,092	2,416

(a) Included with fertilizer salts.

(b) Including sodium nitrate.

 (c) K<sub>2</sub>O content.

(d) Including chloride and sulphates.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
South Africa—						
Fertilizer salts .. ..	5,723	58,888	65,169	80,305	116,573	121,308
Nitrate .. ..	199	329	605	849	1,273	n.a.
Caustic potash .. ..	317	382	283	376	307	418
Chloride .. ..	57,449	2,992	—	—	—	n.a.
Other compounds .. ..	878	1,235	1,147	1,248	1,163	n.a.
Sudan—						
Caustic potash .. ..	n.a.	n.a.	n.a.	n.a.	67	75
Tunisia—						
Fertilizer salts .. ..	2,480	4,224	2,477	4,426	5,063	6,411
Caustic potash .. ..	4	13	2,340	2,203	2,836	3,841
Costa Rica—						
Fertilizer salts .. ..	352	550	968	3,000	671	2,732
Cuba—						
Nitrate .. ..	953	n.a.	n.a.	n.a.	n.a.	n.a.
Chlorate .. ..	197	n.a.	n.a.	n.a.	n.a.	n.a.
Chloride .. ..	17,389	n.a.	n.a.	n.a.	n.a.	n.a.
Sulphate .. ..	17,317	n.a.	n.a.	n.a.	n.a.	n.a.
Dominican Republic—						
Chloride .. ..	1,630	3,344	4,348	n.a.	n.a.	n.a.
French West Indies—						
Guadeloupe—						
Fertilizer salts .. ..	10,971	11,071	7,235	5,788	3,079	3,409
Martinique—						
Fertilizer salts .. ..	8,703	9,114	7,686	6,059	4,161	4,624
Guatemala—						
Fertilizer salts .. ..	1,202	745	82	68	73	824
Honduras—						
Fertilizer salts .. ..	48	24	88	1,820	1,711	5,896
Mexico—						
Carbonate .. ..	361	353	440	476	578	429
Chloride .. ..	12,209	9,878	13,981	20,790	19,986	26,961
Caustic potash .. ..	202	375	482	533	497	710
Sulphate .. ..	1,559	1,480	100	11	8	12
Nicaragua—						
Fertilizer salts .. ..	104	128	165	444	361	759
Panama Republic—						
Fertilizer salts .. ..	288	281	450	n.a.	n.a.	n.a.
Salvador—						
Fertilizer salts .. ..	1,411	2,616	1,083	902	1,129	431
United States—						
Carbonate .. ..	152	536	159	103	228	425
Caustic potash .. ..	621	594	856	1,125	932	824
Chlorates .. ..	470	415	392	601	704	338
Chloride .. ..	299,814	292,433	296,343	407,650	788,153	1,067,604
Cyanide .. ..	653	792	681	858	774	942
Nitrate .. ..	2,080	2,739	3,961	5,646	7,110	5,294
Potassium-sodium nitrate mixtures .. ..	32,561	16,636	12,322	24,376	34,000	12,052
Sulphate .. ..	117,280	58,133	80,512	99,322	92,593	73,516
Argentina—						
Carbonate .. ..	392	580	561	235	388	649
Caustic potash .. ..	503	543	484	432	794	3,330
Chlorate .. ..	541	596	1,096	419	461	404
Nitrate .. ..	15	156	68	2	—	15
Sulphate .. ..	25	85	355	98	20	493
Brazil—						
Caustic potash .. ..	573	592	553	907	1,541	733
Nitrate .. ..	602	1,337	749	802	777	750
Nitrate of potash and soda .. ..	7,690	15,841	2,989	12,104	16,429	7,171

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<i>Brazil (cont.)—</i>						
Chloride .. ..	89,048	166,491	109,374	104,082	144,184	108,759
Sulphate .. ..	4,811	6,197	7,333	6,266	4,232	4,218
Carbonate .. ..	464	543	523	541	891	455
Chlorate .. ..	—	—	20	—	10	—
<i>Chile—</i>						
Caustic potash .. ..	181	201	122	118	<i>n.a.</i>	<i>n.a.</i>
Chlorate .. ..	144	79	60	12	<i>n.a.</i>	<i>n.a.</i>
Chloride .. ..	9,762	394	1,669	1,472	<i>n.a.</i>	<i>n.a.</i>
Sulphate .. ..	2,245	3,785	8,411	6,538	<i>n.a.</i>	<i>n.a.</i>
<i>Colombia—</i>						
Chlorate .. ..	206	207	370	224	362	280
Chloride .. ..	11,348	12,746	14,671	15,691	29,593	38,432
Nitrate .. ..	222	205	247	208	401	196
Sulphate .. ..	2,766	3,592	3,710	1,771	4,444	4,361
Other fertilizer salts .. ..	49	99	143	—	—	—
<i>Peru—</i>						
Fertilizer salts .. ..	2,190	3,617	2,364	4,045	2,332	1,780
Nitrate .. ..	78	129	76	62	9	95
Carbonate .. ..	68	43	28	45	38	20
Chloride .. ..	30	28	24	110	35	96
Caustic potash .. ..	16	29	27	34	18	28
<i>Uruguay—</i>						
Nitrate .. ..	2	111	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Caustic potash .. ..	408	443	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Venezuela—</i>						
Carbonate .. ..	39	37	69	61	23	47
Chlorate .. ..	153	164	317	164	116	239
Chloride .. ..	1,084	2,540	2,740	1,970	2,288	4,905
Nitrate .. ..	158	137	172	105	210	177
Sulphate .. ..	2,003	7,363	7,021	5,746	4,145	7,698
<i>Burma—</i>						
Fertilizer salts .. ..	—	—	—	414	257	351
<i>Formosa—</i>						
Fertilizer salts .. ..	19,841	76,862	42,792	49,878	46,730	92,990
<i>Indonesia—</i>						
Fertilizer salts .. ..	18,244	18,311	13,434	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	219	181	76	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Iran (a)—</i>						
Fertilizer salts .. ..	<i>n.a.</i>	<i>n.a.</i>	3,141	704	1,477	689
<i>Iraq—</i>						
Fertilizer salts .. ..	246	344	247	615	200	<i>n.a.</i>
<i>Japan—</i>						
Kainite, etc. .. ..	50	—	492	1,279	5,445	16,513
Chloride .. ..	671,237	903,292	918,040	691,305	952,460	976,434
Sulphate .. ..	117,605	87,243	136,189	38,398	99,268	65,531
<i>Jordan—</i>						
Fertilizer salts .. ..	1,166	2,001	1,648	766	1,488	4,016
<i>Korea (South)—</i>						
Chloride .. ..	—	7,468	1	8,084	14,672	<i>n.a.</i>
<i>Lebanon—</i>						
Fertilizer salts .. ..	3,699	3,700	3,792	3,608	3,489	<i>n.a.</i>
<i>Philippine Republic—</i>						
Caustic potash .. ..	15	65	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Chlorate .. ..	612	711	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nitrate .. ..	989	3,512	<i>n.a.</i>	<i>n.a.</i>	28	<i>n.a.</i>
Sulphate .. ..	1,359	2,814	<i>n.a.</i>	2,686	4,592	<i>n.a.</i>
Other fertilizer salts .. ..	18,185	13,700	33,855	40,156	9,021	<i>n.a.</i>

(a) Years ended March 20 of year following that stated.

## IMPORTS OF POTASH SALTS (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Thailand—						
Chlorate .. ..	201	295	177	301	143	187
Chloride .. ..	238	415	64	72	53	984
Nitrate .. ..	829	787	705	743	933	855
Sulphate .. ..	794	463	305	886	937	787
Turkey—						
Carbonate .. ..	1,411	1,125	1,687	1,150	648	706
Caustic potash .. ..	456	213	379	363	246	355
Chlorates .. ..	810	158	70	221	170	156
Sulphate .. ..	7,992	1	31	1,547	570	1
Vietnam (South)—						
Fertilizer salts .. ..	8,625	7,666	15,399	7,597	11,600	n.a.

# PYRITES

## PRODUCTION OF PYRITES

(see also Sulphur)

(including Cupreous Pyrites)

Long tons

Producing Country	Estimated Sulphur Content						
	1959	1960	1961	1962	1963	1964	1964
<b>COMMONWEALTH COUNTRIES</b>							
United Kingdom ..	776	132	164	26,988	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Rhodesia ..	40,237	49,298	58,442	50,456	65,055	81,129	30,800
Canada (c) ..	981,754	921,686	461,837	401,882	425,391	318,169	154,627
Cyprus (a) ..	869,864	914,232	824,771	809,263	904,697	655,102	315,000
India ..	15	—	—	—	—	—	—
Australia (b) ..	223,004	238,630	213,423	148,566	194,059	236,859	104,500
TOTAL ..	2,115,650	2,123,978	1,558,637	1,497,155	1,600,000	1,300,000	—
Irish Republic ..	3,930	21,666	49,921	37,229	—	—	—
<b>OTHER COUNTRIES</b>							
Bulgaria (b) ..	112,789	116,638	119,785	140,056	128,000	144,500	61,000
Czechoslovakia (b) ..	365,000	384,000	363,000	395,000	342,000	355,000	140,000
Finland (b) ..	259,000	256,000	270,000	468,000	529,000	542,517	260,000
France (d) ..	289,738	272,717	280,930	299,153	248,325	188,319	78,434
Germany (Federal) ..	446,730	498,795	501,475	380,717	351,813	419,081	176,843
Germany (East) ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	41,000
Greece ..	127,050	161,407	184,917	141,891	135,925	138,000	62,000
Italy ..	1,496,373	1,522,965	1,555,229	1,559,772	1,380,224	1,374,523	627,000
Norway ..	732,410	819,562	721,808	797,077	710,052	708,040	317,000
Poland ..	217,000	223,000	198,000	219,000	213,000	200,000	85,000
Portugal ..	621,572	644,578	642,609	631,164	592,559	597,808	274,991
Roumania ..	231,000	263,000	259,000	300,000	328,000	<i>n.a.</i>	131,000

(a) Saleable.

(b) Pyrite concentrate.

(c) Producers shipments of pyrites produced as a by-product in the treatment of copper and copper-zinc ores.

(d) In addition the sulphur content of mispickel and auriferous pyrites was as follows (long tons): 1959—9,102; 1960—8,988; 1961—8,217; 1962—9,018; 1963—9,314; 1964—8,033.



PRODUCTION OF PYRITES (cont.)

Producing Country	Estimated Sulphur Content										Long tons	
	1959	1960	1961	1962	1963	1964	1959	1960	1961	1962		1963
<b>OTHER COUNTRIES</b>												
<i>(cont.)</i>												
Spain .. .. .	2,086,086	2,217,233	2,096,877	2,095,452	1,995,226	2,303,256	961,000	1,053,000	1,001,000	997,000	950,000	1,098,000
Sweden .. .. .	341,397	406,361	431,322	r 371,683	396,260	476,900	171,616	205,591	220,424	188,967	202,285	240,000
U.S.S.R. (c) .. .	2,559,000	2,756,000	2,756,000	2,953,000	3,149,000	3,149,000	1,358,000	1,457,000	1,457,000	1,565,000	1,673,000	1,673,000
Yugoslavia (a) ..	285,000	410,000	358,000	407,000	350,000	421,000	114,000	164,000	143,000	163,000	140,000	168,000
Algeria .. .. .	28,591	37,892	48,085	42,000	37,154	59,994	13,300	17,400	22,000	19,000	17,000	28,000
Morocco .. .. .	14,190	13,226	13,855	20,417	22,777	20,885	5,000	5,000	5,000	7,000	7,000	6,000
South Africa .. .	495,388	492,173	439,751	434,030	411,943	425,647	195,000	212,000	176,000	174,000	152,000	164,000
Cuba .. .. .	70,645	n.a.	n.a.	n.a.	n.a.	n.a.	32,000	n.a.	n.a.	n.a.	n.a.	n.a.
United States (b) ..	1,056,617	1,016,263	987,309	915,890	824,800	847,495	436,871	416,213	398,519	379,046	343,566	353,832
Venezuela .. .. .	4,193	—	—	—	—	—	1,000	—	—	—	—	—
China (c) .. .. .	837,000	984,000	984,000	1,083,000	1,181,000	1,279,000	374,000	443,000	443,000	492,000	531,000	575,000
Formosa .. .. .	33,243	42,318	46,717	44,772	46,021	45,592	12,500	15,900	17,500	16,800	17,300	17,100
Japan (d) .. .. .	2,099,850	2,278,185	2,476,924	2,539,396	2,514,762	2,728,646	955,217	1,036,740	1,132,112	1,170,121	1,162,706	1,261,439
Korea (South) .. .	506	1,058	723	—	—	—	n.a.	n.a.	300	—	—	—
Korea (North) (c) ..	197,000	246,000	295,000	344,000	394,000	413,000	79,000	98,000	118,000	138,000	157,000	167,000
Philippine Republic ..	24,791	25,000	50,776	55,409	57,138	43,218	9,900	11,900	24,000	27,000	27,000	20,000
Turkey .. .. .	87,275	41,617	96,863	105,389	95,549	111,307	42,000	20,000	46,000	51,000	46,000	51,000
TOTAL* .. .. .	15,200,000	16,300,000	16,300,000	16,900,000	16,600,000	17,500,000	7,900,000	8,400,000	8,200,000	8,500,000	8,400,000	8,700,000
WORLD'S TOTAL*	17,300,000	18,400,000	17,900,000	18,400,000	18,200,000	18,800,000	7,900,000	8,400,000	8,200,000	8,500,000	8,400,000	8,700,000

\*Excluding pyrites known to have been produced in Brazil.

(a) Concentrates.

(c) United States Bureau of Mines' estimate.

(d) Including pyrrhotite.

(b) Including by-product pyrites.

EXPORTS OF PYRITES

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Rhodesia (b)—						
Iron pyrites .. ..	1,972	—	—	—	—	—
Canada (a) .. ..	(£378,665)	(£462,923)	(£316,927)	(£297,827)	(£310,557)	(£291,585)
Cyprus—						
Iron pyrites .. ..	659,370	815,412	822,263	790,020	748,786	724,138
Cupreous pyrites ..	307,026	248,931	138,477	105,622	103,848	86,128
OTHER COUNTRIES						
Austria .. ..	19,451	27,102	18,285	3,925	—	131
Belgium-Luxemburg						
E.U. .. ..	—	—	828	—	—	—
Finland—						
Concentrate .. ..	40,969	124,984	68,047	69,889	53,761	77,458
Germany (Federal) ..	6,643	1,225	591	1	12	32
Greece .. ..	35,792	51,882	16,643	46,710	43,995	56,577
Italy—						
Iron pyrites .. ..	164,721	232,912	223,990	155,768	100,245	46,804
Cupreous pyrites ..						
Netherlands—						
Iron pyrites .. ..	195,706	435,932	225,388	120,076	118,495	244,879
Norway .. ..	401,708	458,782	431,799	550,880	629,369	622,815
Portugal—						
Iron pyrites .. ..	350,932	336,879	260,980	287,469	269,668	289,552
Cupreous pyrites ..	2,077	1,967	2,241	2,102	2,153	172
Spain—						
Iron pyrites .. ..	982,010	1,206,407	1,017,327	1,006,004	1,015,116	1,198,642
Cupreous pyrites ..	41,391					
Sweden .. ..	35,542	28,916	40,169	23,511	13,833	20,907
U.S.S.R. .. ..	n.a.	870,000	652,500	768,700	1,000,000	927,100
Yugoslavia .. ..	183,826	338,701	271,474	289,346	276,646	107,723
Algeria .. ..	10,383	16,849	31,953	34,144	32,381	31,642
Turkey .. ..	48,876	51,582	89,988	108,938	84,145	94,139

(a) Sulphur in ores (pyrite).

(b) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF PYRITES

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	213,448	269,981	267,719	281,527	200,323	284,306
Irish Republic .. ..	36,204	31,605	15,913	2,638	1,381	3,060
<b>OTHER COUNTRIES</b>						
Austria .. .. .	46,513	64,699	53,094	30,126	24,409	29,616
Belgium-Luxemburg						
E.U. .. .. .	265,988	422,917	331,394	313,586	297,329	277,572
Czechoslovakia .. ..	49,000	50,000	43,000	68,000	108,000	129,000
Denmark .. .. .	127,693	150,184	124,156	134,388	130,380	132,535
France .. .. .	444,501	473,394	464,090	432,379	389,375	363,157
Germany (Federal) ..	1,313,029	1,691,849	1,263,767	1,315,889	1,476,010	1,576,463
Germany (East) (a) ..	98,990	120,635	108,376	92,638	88,653	138,223
Hungary .. .. .	112,309	122,626	100,077	91,660	122,248	204,246
Italy .. .. .	154,422	300,377	523,877	679,026	754,010	840,611
Netherlands .. .. .	373,584	372,737	289,661	245,552	237,071	252,535
Poland .. .. .	79,600	40,400	59,700	<i>n.a.</i>	23,900	31,000
Sweden .. .. .	76,347	95,617	92,191	82,120	62,922	9,464
Switzerland .. .. .	<i>n.a.</i>	41,621	53,872	34,450	36,735	21,414
Algeria .. .. .	2,286	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3.a.
Egypt .. .. .	72,252	74,250	50,215	33,498	159,049	258,273
Morocco .. .. .	1,457	—	—	—	806	24,605
Tunisia .. .. .	8,971	4,500	6,520	3,861	12,750	16,890
United States .. ..	280,638	306,216	281,604	301,899	194,171	<i>n.a.</i>

(a) S content.

## RARE EARTH AND THORIUM MINERALS

### PRODUCTION OF RARE EARTH AND THORIUM MINERALS

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria—						
Monazite .. ..	13	12	7	10	11	12
Thorite (c) .. ..	<i>n.a.</i>	1	—	—	—	—
Canada—						
Thorium (e) .. ..	21	58	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Ceylon—						
Monazite .. ..	84	330	213	—	—	23
India—						
Monazite (j) .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	2,887	2,169	<i>n.a.</i>
Malaya (a)—						
Monazite .. ..	236	42	696	623	885	303
Australia (b)—						
High-grade concentrates	331	344	1,463	772	1,875	1,892
<b>OTHER COUNTRIES</b>						
Malagasy Republic—						
Monazite .. ..	—	420	448	627	605	949
Uranothorianite (f)	572	498	404	500	473	551
Mozambique—						
Monazite .. ..	—	1	—	—	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Monazite .. ..	(g) 2,145	—	—	(i) 4,755	(i) 2,054	—
Gadolinite .. ..	—	—	—	—	1	—
United States (d)—						
Monazite, bastnaesite and thorite .. ..	1,021	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Brazil—						
Monazite .. ..	1,091	1,029	(h) 830	3,445	1,673	<i>n.a.</i>
Indonesia—						
Monazite .. ..	<i>n.a.</i>	<i>n.a.</i>	99	137	<i>n.a.</i>	<i>n.a.</i>
Korea (South)—						
Monazite .. ..	58	12	1	674	—	—

(a) Exports.

(b) Monazite content. Estimated.

(c) Between 5% and 6% ThO<sub>2</sub>.

(d) Shipments from mine.

(e) Obtained as a by-product during the treatment of uranium.

(f) Containing an average of 60% Th.

(g) Rare earths and thorium oxides content 51.15%.

(h) Estimated.

(i) ThO<sub>2</sub> content as follows: 1962—5.4%; 1963—5.76%.

(j) Years ended March 31 of year following that stated. Source United States Bureau of Mines.

## EXPORTS OF RARE EARTH MINERALS, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Ceylon—						
Monazite .. ..	—	—	—	—	300	—
India—						
Monazite .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	279	1,919
Malaya—						
Monazite .. ..	236	42	696	623	885	303
Australia—						
Concentrates .. ..	150	158	1,802	1,460	2,313	2,041
OTHER COUNTRIES						
Austria—						
Salts of rare earth minerals (a) .. ..	79	192	266	143	201	—
France—						
Salts of rare earth minerals .. ..	132	147	207	888	275	249
Germany (Federal)—						
Compounds of rare earth minerals .. ..	6	7	20	838	13	59
Rwanda and Burundi—						
Bastnaesite .. ..	—	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Monazite .. ..	—	360	429	569	683	<i>n.a.</i>
Uranothorianite .. ..	591	49	394	535	474	<i>n.a.</i>
United States—						
Cerium ores, metals, etc.	12	7	3	2	57	731
Thorium ore, concentrates and compounds	101	32	46	489	21	32
Brazil—						
Cerium chloride ..	1,061	2,272	1,369	906	851	875

(a) Including uranium salts.

## IMPORTS OF RARE EARTH MINERALS, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Canada—						
Thorium and cerium salts .. .. .	(£16,206)	(£6,821)	(£10,892)	(£7,789)	(£2,570)	n.a.
OTHER COUNTRIES						
Austria—						
Salts of rare earth minerals .. .. .	(a) 382	(a) 1,004	(a) 974	(a) 1,128	(a) 1,042	(a) 934
France—						
Rare earth minerals ..	1,235	846	1,425	1,779	1,040	1,465
Salts of rare earth minerals .. .. .	327	602	626	42	45	32
Germany (Federal)—						
Rare earth minerals ..	n.a.	n.a.	—	(a) 25	(a) 20	(a) 28
Salts of rare earth minerals (a) .. .. .	697	1,144	931	838	723	529
United States—						
Monazite sand and other thorium ore .. .. .	2,112	—	2,691	6,830	5,741	1,879

Rare earth minerals are also imported into the United Kingdom and Canada but statistics of imports are not recorded in the trade returns of these countries.

(a) Including uranium salts.

**SALT**  
**PRODUCTION OF SALT**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Rock-salt .. ..	142,831	149,990	285,000	477,000	752,000	693,000
Brine-salt .. ..	1,132,419	1,232,979	1,189,354	1,259,960	1,388,788	1,347,000
Salt in brine (a) .. ..	4,185,058	4,385,010	4,194,854	4,243,786	4,251,621	4,598,000
Malta—						
Sea-salt .. ..	1,065	1,399	1,720	1,846	1,605	2,077
Ghana .. ..	(b) 22,000	12,000	18,000	19,000	n.a.	30,000
Kenya .. ..	19,242	21,916	22,650	18,568	32,683	40,056
Mauritius—						
Sea-salt .. ..	3,700	4,200	4,000	3,700	4,100	4,300
Nigeria .. ..	400	666	340	326	276	548
Tanzania .. ..	36,722	32,811	25,726	29,377	31,908	32,000
Uganda .. ..	8,781	4,891	6,493	3,159	3,072	n.a.
Zambia .. ..	—	—	—	125	—	—
Canada—						
Rock-salt .. ..	1,111,523	1,179,212	1,204,221	1,667,486	1,563,782	(e)1,673,035
Other salt (c) .. ..	1,850,118	1,777,460	1,745,602	1,604,605	1,740,738	(e)1,882,890
West Indies—						
Sea-salt—						
Bahamas (d) .. ..	176,571	171,286	168,643	154,571	105,857	220,786
St. Kitts (d) .. ..	2,496	156	722	1,332	783	2,777
Virgin Islands (d) .. ..	11	31	2	6	n.a.	3
Turks and Caicos Islands .. ..	31,546	24,408	29,651	(b) 30,000	(b) 25,000	n.a.
Aden .. ..	175,000	127,641	84,000	77,000	85,000	79,000
Ceylon .. ..	30,253	54,000	34,427	45,796	22,531	50,698
Cyprus .. ..	5,351	—	2,055	5,663	6,848	—
India—						
Rock-salt .. ..	3,637	4,243	4,232	4,400	3,300	2,800
Other salt .. ..	3,123,824	3,377,172	3,406,830	3,820,300	4,468,986	4,570,556
Goa .. ..	3,811	8,000	n.a.	10,000	n.a.	n.a.
Pakistan—						
Rock-salt .. ..	163,014	184,755	216,387	187,902	244,645	219,277
Sea-salt .. ..	130,645	248,176	183,580	252,484	213,733	183,990
Australia .. ..	467,532	463,296	508,657	536,019	581,537	545,491
New Zealand .. ..	20,300	17,020	5,017	8,900	11,000	21,332
<b>TOTAL .. ..</b>	<b>12,800,000</b>	<b>13,500,000</b>	<b>13,300,000</b>	<b>14,500,000</b>	<b>15,600,000</b>	<b>16,200,000</b>
<b>OTHER COUNTRIES</b>						
Austria—						
Rock-salt .. ..	1,022	1,697	3,316	5,033	5,005	1,359
Evaporated salt .. ..	123,601	130,379	136,517	144,366	163,444	164,168
Bulgaria .. ..	87,000	86,000	124,000	146,000	104,000	n.a.
Czechoslovakia .. ..	158,279	165,086	184,985	178,980	184,000	181,000
France—						
Rock-salt (incl. refined) .. ..	566,023	598,345	657,694	677,365	749,183	835,000
Salt in brine .. ..	2,086,440	2,353,322	2,252,198	r 2,266,430	2,291,092	2,357,000
Sea-salt .. ..	758,541	713,903	874,210	1,247,267	595,167	771,000
Germany (Federal)—						
Rock-salt .. ..	3,908,289	4,291,127	4,277,614	4,487,751	5,150,981	5,318,420
Brine-salt .. ..	323,994	333,739	335,744	340,491	357,515	392,518

(a) Used for purposes other than salt-making.

(b) Estimated.

(c) Including salt in brine.

(d) Exports.

(e) Shipments.

## PRODUCTION OF SALT (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (East) .. .. .	1,659,000	1,757,000	1,968,000	(a)2,000,000	(a)2,000,000	(a)2,000,000
Greece—						
Sea-salt .. .. .	96,000	95,131	117,000	113,144	(a) 84,000	(a) 100,000
Italy—						
Rock-salt and brine-salt	1,260,478	1,556,609	r 1,599,220	r 1,699,437	1,858,223	1,998,917
Sea-salt .. .. .	673,578	979,182	1,173,226	n.a.	n.a.	n.a.
Netherlands (brine-salt)	970,497	1,078,360	1,096,578	1,242,000	1,456,000	1,571,000
Poland—						
Rock-salt .. .. .	500,000	513,000	598,000	598,000	635,000	650,000
Brine-salt .. .. .	224,000	219,000	232,000	238,000	242,000	265,000
Other salt .. .. .	1,075,000	1,183,000	1,188,000	1,205,000	1,221,000	1,291,000
Portugal—						
Rock-salt .. .. .	61,282	68,845	71,689	72,631	77,723	87,632
Sea-salt .. .. .	211,000	211,000	262,610	309,836	263,527	228,325
Roumania .. .. .	827,000	1,028,000	1,309,000	1,454,000	1,611,000	1,780,000
Spain—						
Rock-salt .. .. .	550,294	528,027	604,591	616,200	688,344	n.a.
Sea-salt .. .. .	748,919	815,450	937,706	965,600	951,300	n.a.
Other salt .. .. .	17,373	14,087	17,871	18,036	13,976	n.a.
Switzerland .. .. .	135,058	146,953	154,793	165,291	187,704	178,703
U.S.S.R. (a) .. .. .	6,400,000	6,600,000	7,400,000	8,400,000	8,600,000	8,700,000
Yugoslavia—						
Sea-salt .. .. .	22,000	35,000	44,000	86,000	} 164,000	181,000
Evaporated salt .. .. .	113,000	114,000	114,000	126,000		
Algeria—						
Brine-salt and sea-salt ..	125,620	235,990	126,325	n.a.	n.a.	n.a.
Angola .. .. .	68,137	56,904	65,754	59,413	67,520	79,813
Canary Islands (sea-salt)	12,981	11,361	14,074	14,112	17,673	n.a.
Cape Verde Islands .. .. .	19,949	23,383	17,089	26,437	28,666	31,072
Congo Republic (rock-salt)	569	n.a.	551	n.a.	n.a.	n.a.
Egypt .. .. .	377,000	513,000	509,051	551,329	385,860	663,901
Ethiopia (d) .. .. .	139,000	155,000	149,000	r 195,000	251,000	n.a.
Libya (sea-salt) .. .. .	15,000	12,000	12,000	14,000	19,000	12,000
Morocco .. .. .	33,231	29,843	20,866	27,135	36,752	59,750
Mozambique (rock-salt)	n.a.	40	40	n.a.	40	n.a.
Senegal .. .. .	69,000	48,809	42,759	47,442	59,033	55,220
South Africa .. .. .	233,362	248,849	204,647	251,081	194,656	295,378
South West Africa—						
Rock-salt .. .. .	4,887	4,025	4,296	4,379	5,010	5,000
Other salt .. .. .	44,600	67,000	50,000	70,000	59,000	92,000
Sudan .. .. .	53,087	52,573	52,267	56,956	36,418	36,000
Tunisia (sea-salt) .. .. .	91,000	162,900	r 158,000	r 167,300	303,254	210,618
Costa Rica .. .. .	12,000	(b) 10,000	(b) 10,000	(b) 10,000	(b) 10,000	(b) 10,000
Cuba (sea-salt) .. .. .	79,432	57,671	n.a.	n.a.	n.a.	n.a.
Dominican Republic—						
Rock-salt .. .. .	62,818	65,259	74,506	31,704	28,854	2,185
Sea-salt .. .. .	19,831	19,210	19,782	9,740	n.a.	28,365
Guatemala (sea-salt) .. .. .	15,642	14,846	15,425	16,583	19,000	n.a.
Haiti (b) .. .. .	10,000	10,000	10,000	10,000	10,000	10,000
Honduras .. .. .	(b) 10,000	(b) 10,000	(b) 13,000	10,000	(b) 10,000	(b) 10,000
Mexico .. .. .	512,000	979,000	1,046,000	1,271,000	1,205,000	1,754,000
Netherlands Antilles .. .. .	300	(c) 112	(b) 150	(c) 119	(c) 106	(c) 47
Nicaragua (sea-salt) .. .. .	10,658	11,318	11,929	12,531	16,234	16,767
Panama (sea-salt) .. .. .	7,722	7,000	7,607	10,333	9,923	10,846
Salvador (b) .. .. .	n.a.	n.a.	30,000	30,000	30,000	30,000

(a) United States Bureau of Mines' estimate.

(b) Estimated.

(c) Exports.

(d) Years ended September 10 of year stated.



## PRODUCTION OF SALT (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
United States (e)—						
Rock-salt .. .. .	5,500,000	5,773,000	5,749,000	6,898,000	7,451,000	7,637,000
Salt in brine .. .. .	13,413,000	13,313,000	13,287,000	14,677,000	15,647,000	16,399,000
Evaporated salt .. .. .	3,554,000	3,664,000	3,917,000	4,146,000	4,260,000	4,198,000
Argentina .. .. .	511,000	540,000	410,900	505,946	170,000	385,203
Brazil (sea-salt) .. .. .	840,978	908,338	874,902	1,220,812	1,097,490	742,015
Chile .. .. .	41,998	<i>n.a.</i>	45,384	50,207	47,480	90,529
Colombia—						
Rock-salt .. .. .	210,104	231,624	262,368	262,030	258,770	284,396
Sea-salt .. .. .	50,053	66,775	68,610	38,602	33,622	49,855
Ecuador (sea-salt) .. .. .	21,434	26,868	31,000	26,024	(a) 30,000	(a) 30,000
Peru—						
Rock-salt .. .. .			8,922	10,678		
Sea-salt .. .. .			69,590	75,489		
Brine-salt .. .. .			7,452	5,996		
Venezuela (sea-salt) .. .. .	76,494	77,655	144,618	142,512	75,200	199,493
Afghanistan (f) .. .. .	27,100	25,500	22,400	30,500	32,400	24,000
Burma—						
Sea-salt .. .. .	110,048	154,006	123,242	151,971		
Brine-salt .. .. .	803	1,231	1,304	1,267	158,000	125,000
China .. .. .	10,870,000	<i>a</i> 13,000,000	<i>a</i> 11,000,000	<i>a</i> 10,000,000	<i>a</i> 10,000,000	<i>a</i> 11,000,000
Formosa (sea-salt) .. .. .	422,877	446,086	424,823	585,322	616,233	592,668
Cambodia .. .. .	49,000	37,000	54,000	(a)(b)r39,000	—	—
Indonesia .. .. .	309,775	194,614	142,376	299,000	<i>n.a.</i>	<i>n.a.</i>
Iran (d) .. .. .	131,185	128,000	143,000	r 265,000	340,000	<i>n.a.</i>
Iraq .. .. .	(c) 37,000	36,209	35,500	37,471	(b)(c) 39,000	(b)(c) 39,000
Israel .. .. .	33,451	36,632	43,412	44,302	50,799	<i>n.a.</i>
Japan—						
Government-licensed plants .. .. .	1,146,790	867,696	814,938	r 865,000	782,000	873,000
Jordan (brine-salt) .. .. .	15,500	12,077	17,486	17,799	17,444	19,614
Korea (North) .. .. .	(a)(b)433,000	319,000	386,000	414,000	(a)(b)450,000	(a)(b)390,000
Korea (South) .. .. .	383,733	392,962	119,823	381,947	226,454	379,516
Lebanon (sea-salt) (a) .. .. .	15,000	15,000	10,000	16,000	18,000	20,000
Philippine Republic—						
Sea-salt .. .. .	171,788	93,249	91,818	94,155	69,014	45,891
Syria .. .. .	8,000	10,000	7,000	18,000	15,000	20,000
Thailand .. .. .	452,000	329,000	246,000	147,000	196,000	(a) 330,000
Turkey—						
Rock-salt .. .. .	34,226	31,061	29,000	28,000	29,000	32,000
Lake and spring salt .. .. .						
Sea-salt .. .. .	448,823	407,455	234,000	396,000	362,000	317,000
Vietnam (North) .. .. .	128,000	115,000	104,000	142,000	126,000	(a)(b)150,000
Vietnam (South) .. .. .	153,230	103,355	98,000	190,000	126,000	<i>n.a.</i>
Yemen .. .. .	98,000	98,000	118,000	147,000	(a)(b)100,000	(a)(b)35,000
TOTAL* .. .. .	65,000,000	71,000,000	70,000,000	75,000,000	77,000,000	81,000,000
WORLD'S TOTAL* .. .. .	78,000,000	85,000,000	83,000,000	90,000,000	93,000,000	97,000,000

\*Salt is known to have been produced in many countries for which statistics are not available. An allowance has been made for these in the total.

(a) Estimated.

(b) United States Bureau of Mines.

(c) Years ended March 31 of year following that stated.

(d) Years ended March 20 of year following that stated.

(e) Sold or used by producers.

(f) Years ended March 21 of year following that stated.

EXPORTS OF SALT

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	295,575	310,007	323,755	319,928	362,866	357,127
Kenya .. .. .	18	5	752	681	85	12
Tanzania .. .. .	11,869	11,781	12,246	9,654	12,553	10,146
Uganda .. .. .	2,270	1,393	1,127	660	565	546
Canada .. .. .	1,137,569	3,090,505	2,526,016	3,560,418	<i>n.a.</i>	<i>n.a.</i>
Bahamas (d) .. .. .	176,571	171,286	168,643	154,571	105,857	220,786
St. Kitts .. .. .	2,496	156	722	1,332	783	2,777
Virgin Islands .. .. .	11	31	2	6	<i>n.a.</i>	3
Turks and Caicos Islands	19,095	31,717	16,150	(f) 22,700	(f) 26,000	<i>n.a.</i>
Aden .. .. .	168,506	101,279	116,379	99,858	72,574	<i>n.a.</i>
Ceylon .. .. .	—	4	—	—	—	—
Hong Kong .. .. .	529	464	534	676	616	306
India .. .. .	340,765	(c) 392,548	(c) 50,457	(c) 167,832	(c) 191,611	(c) 278,643
Goa .. .. .	—	152	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malaya .. .. .	2,754	2,369	1,993	2,108	1,641	454
Pakistan .. .. .	15,619	34,855	121,591	89,304	56,151	185,876
Australia (a)—						
Refined salt .. .. .	857	642	1,727	95	253	203
Other salt .. .. .	18,470	16,815	31,242	73,702	74,606	107,144
<b>OTHER COUNTRIES</b>						
Austria .. .. .	15	—	1,372	2,430	1,244	3
Belgium-Luxemburg						
E.U. .. .. .	332	162	238	648	526	1,747
Denmark .. .. .	343	300	481	298	235	245
France .. .. .	103,420	108,316	96,538	103,097	135,101	135,083
Germany (Federal) .. .. .	669,846	714,799	688,812	780,216	876,238	857,140
Italy .. .. .	40,665	18,509	42,400	28,365	74,266	53,967
Netherlands—						
Common salt .. .. .	7,652	8,371	507	—	—	—
Refined salt .. .. .	536,609	627,306	651,618	724,458	849,511	943,986
Norway—						
Common salt .. .. .	4,243	4,607	6,477	3,000	5,932	4,621
Refined salt .. .. .	15	18	2	2	—	—
Poland .. .. .	117,707	149,644	130,596	137,000	35,770	46,300
Portugal .. .. .	1,488	478	409	2,269	81	8
Roumania .. .. .	151,900	185,300	280,700	287,200	304,300	381,100
Spain .. .. .	435,712	(e) 490,912	(e) 427,791	(e) 503,206	(e) 457,880	(e) 329,155
Sweden .. .. .	35	14	53	292	1,225	32
Switzerland .. .. .	2	2	1	1	2,569	3,282
U.S.S.R. .. .. .	68,200	86,600	112,900	131,800	136,000	107,200
Algeria .. .. .	40,458	59,298	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola .. .. .	23,518	23,176	24,663	22,506	23,958	33,401
Cape Verde Islands	20,019	25,621	35,952	30,766	32,346	35,145
Egypt .. .. .	230,144	385,620	352,315	205,544	160,130	327,201
Ethiopia .. .. .	(b) 73,041	(b) 52,604	(b) 53,173	<i>n.a.</i>	57,276	78,417
Malagasy Republic	2,073	2,272	2,335	1,307	2,364	1,607
Mozambique .. .. .	4,323	4,778	4,079	4,296	3,378	3,692
Morocco .. .. .	104	143	—	13	10	12
Senegal .. .. .	10,628	10,226	10,519	12,212	44,685	11,725
South Africa .. .. .	11,344	16,555	19,229	24,725	23,494	29,707
South West Africa—						
Rock-salt .. .. .	1,831	1,794	2,093	1,895	2,271	2,882
Coarse salt .. .. .	37,788	31,843	36,704	35,854	42,558	50,930
Other salt .. .. .	398	1,405	1,487	1,104	1,512	1,409

(a) Years ended June 30 of that stated.

(f) Estimated.

(b) Years ended September 10 of that stated.

(c) Years ending March 31 following that stated.

(d) Converted from bushels at the rate of 28 bushels = 1 long ton.

(e) Excluding exports to Spanish Dependencies.

## EXPORTS OF SALT (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Sudan .. .. .	34,745	11,560	923	516	506	981
Tunisia .. .. .	135,142	87,255	146,600	128,764	263,206	191,600
Cuba .. .. .	226	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Dominican Republic ..	54,738	58,011	57,592	26,162	<i>n.a.</i>	<i>n.a.</i>
Honduras .. .. .	4,393	2,835	939	1,709	3,139	5,816
Mexico .. .. .	208,490	489,473	707,310	1,047,209	990,573	1,428,287
Netherlands Antilles ..	219	112	102	119	106	47
Salvador .. .. .	739	1,312	1,146	1,920	1,888	3,026
United States .. .. .	378,883	375,287	573,184	593,931	251,014	530,641
Argentina .. .. .	21,747	17,869	23,598	37,198	56,498	66,430
Peru .. .. .	104	395	472	1,011	578	336
Burma .. .. .	—	9,999	9,000	9,240	10,000	5,625
Formosa .. .. .	283,103	287,531	289,089	233,137	278,959	392,420
Iran (a) .. .. .	1,693	3,230	1,746	1,954	2,460	3,337
Japan .. .. .	99	86	6	20	39	13
Thailand .. .. .	257,105	220,356	187,071	132,874	114,933	122,903
Turkey .. .. .	31,396	142,676	78,487	52,611	57,809	126,902
Vietnam (South) ..	82,315	51,080	21,702	35,677	20,270	38,433

(a) Years ended March 20 of year following that stated.

IMPORTS OF SALT

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Salt for use of fisheries..	53,731	52,375	35,046	42,055	170,399	30,975
Other salt .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	5,575	5,864
Channel Islands .. .. .	621	698	631	535	593	641
Malta—						
Refined salt .. .. .	(£5,683)	(£4,526)	(£5,137)	(£3,774)	(£4,055)	(£4,863)
Other salt .. .. .	675	370	508	—	5	236
Gambia .. .. .	406	301	403	325	94	254
Ghana .. .. .	10,620	8,342	7,930	353	2,652	2,079
Kenya .. .. .	2,874	1,944	3,078	6,748	9,658	11,889
Mauritius .. .. .	7	1,021	74	35	158	19
Nigeria .. .. .	99,755	103,926	110,913	111,449	124,005	131,522
Rhodesia ( <i>d</i> ) .. .. .	34,705	38,251	36,208	39,858	38,570	28,750
Seychelles .. .. .	251	234	416	216	343	196
Sierra Leone .. .. .	6,204	7,394	7,230	6,361	8,720	8,859
Tanzania .. .. .	798	623	1,575	6,961	4,130	3,717
Uganda .. .. .	15,528	18,573	18,826	23,739	25,838	26,553
Zambia .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	10,136
Canada—						
Salt for use of fisheries..	56,955	58,125	54,031	42,564	59,674	40,772
Refined salt .. .. .	156	671	1,226	1,060	—	—
Other salt .. .. .	273,217	112,579	122,747	175,871	237,273	321,347
Antigua .. .. .	210	183	213	178	200	286
Barbados—						
Rock and coarse salt ..	184	109	51	53	<i>n.a.</i>	} (c) 7,543
Refined salt .. .. .	2,234	—	2,120	2,098	648	
Bermuda .. .. .	326	169	172	132	<i>n.a.</i>	183
British Honduras .. .. .	603	515	514	501	613	469
Dominica .. .. .	422	336	258	610	363	<i>n.a.</i>
Grenada .. .. .	586	14,215	520	528	585	293
Jamaica—						
Rock-salt .. .. .	24	3	48	36	56	192
Other salt .. .. .	12,211	10,863	11,392	10,865	11,360	11,209
Montserrat .. .. .	54	16	37	38	27	63
St. Kitts .. .. .	2	78	94	96	82	55
St. Lucia—						
Common salt .. .. .	341	306	719	854	474	<i>n.a.</i>
Refined salt .. .. .	85	39	38	78	14	<i>n.a.</i>
St. Vincent—						
Unrefined salt .. .. .	124	139	95	78	150	<i>n.a.</i>
Refined salt .. .. .	230	330	274	315	334	<i>n.a.</i>
Trinidad and Tobago—						
Rock and coarse salt ..	674	838	2,217	1,024	} 6,602	15,686
Refined salt .. .. .	5,259	5,003	3,949	5,114		
Virgin Islands .. .. .	3	3	7	9	<i>n.a.</i>	12
British Guiana—						
Rock and coarse salt ..	315	16	16	71	<i>n.a.</i>	17
Refined salt, etc. .. ..	2,242	2,662	2,669	1,505	<i>n.a.</i>	2,546
Aden .. .. .	37	101	67	45	29	<i>n.a.</i>
Brunei .. .. .	298	290	386	335	3,273	<i>n.a.</i>
Ceylon—						
Refined salt .. .. .	10	22	66	28	41	72
Other salt .. .. .	132	—	—	54,919	36,632	32,748
Cyprus .. .. .	233	190	262	211	270	227
Hong Kong .. .. .	30,796	29,867	36,156	38,733	34,280	32,958
India .. .. .	365	(b) 158	(b) 8	(b) 1,902	(b) 28	(b) 3,533
Malaya—						
Refined salt .. .. .	278	278	313	259	260	277
Other salt .. .. .	69,807	80,652	73,720	83,546	78,748	82,007
Pakistan .. .. .	(a) 2,170	(a) 1,100	5,775	8,910	1,915	2,601
Sabah .. .. .	3,073	3,856	3,054	2,916	<i>n.a.</i>	8,354

(a) Exports from India to Pakistan by land.

(c) Excess of re-exports.

(b) Years ended March 31 following that stated.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF SALT (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Sarawak .. .. .	4,849	4,516	5,115	5,036	6,117	5,008
Australia (a)—						
Rock-salt .. .. .	1,246	1,428	5	—	—	—
Refined salt .. .. .	1,054	681	923	366	11	16
Other salt .. .. .	5,590	10,406	14,730	7,766	7,203	7,056
Fiji .. .. .	1,563	1,899	1,795	2,066	2,308	1,767
New Guinea (a) .. .. .	966	982	1,219	1,386	1,352	1,695
New Hebrides .. .. .	161	98	162	164	276	207
New Zealand .. .. .	46,504	44,350	53,899	51,759	57,565	58,100
Papua (a) .. .. .	936	484	310	348	356	401
Solomon Islands .. .. .	—	51	65	54	65	80
Western Samoa .. .. .	297	219	360	352	n.a.	280
Irish Republic—						
Refined salt .. .. .	4,568	3,833	4,112	r 4,393	4,515	4,403
Other salt .. .. .	28,514	31,934	32,817	36,841	34,886	37,291
OTHER COUNTRIES						
Austria—						
Common salt .. .. .	10	153	67	102	364	90
Belgium-Luxemburg						
E.U.—						
Common salt .. .. .	493,253	528,804	514,646	585,304	426,605	480,278
Refined salt .. .. .	71,751	78,637	85,736	94,926	221,106	221,170
Denmark—						
Rock-salt .. .. .	50,655	68,159	62,963	68,436	89,707	82,869
Refined salt .. .. .	86,136	76,922	76,188	76,248	78,079	80,291
Faroe Islands .. .. .	14,763	14,133	16,241	19,605	33,292	25,453
Finland .. .. .	183,740	196,711	219,893	270,100	263,110	302,303
France .. .. .	47,279	45,524	68,269	76,521	61,720	131,660
Germany (Federal) .. .. .	7,329	15,920	15,091	24,759	55,520	94,592
Iceland—						
Common salt .. .. .	39,948	51,830	47,785	56,147	53,806	52,101
Refined salt .. .. .	189	212	172	207	238	289
Italy .. .. .	41,822	137,168	137,441	141,440	54,969	36,949
Netherlands—						
Rock-salt .. .. .	24,606	17,762	12,744	9,559	26,886	8,968
Sea-salt, etc. .. .. .	7,438					
Refined salt .. .. .	38	19,250	17,380	14,142	34,952	25,466
Norway—						
Common salt .. .. .	152,872	169,844	132,812	141,186	102,332	91,014
Refined salt .. .. .	61,058	75,799	91,286	101,625	157,581	157,259
Portugal .. .. .	182	170	3,028	5,776	11,495	9,535
Sweden .. .. .	454,869	510,095	544,803	586,971	628,295	661,591
Switzerland .. .. .	1,008	1,164	1,174	774	2,791	829
Yugoslavia .. .. .	38,154	79,384	131,876	27,722	88,186	104,255
Algeria .. .. .	284	370	n.a.	n.a.	n.a.	n.a.
Cameroun .. .. .	12,751	10,932	13,878	12,482	11,221	16,620
Canary Islands .. .. .	1,250	n.a.	n.a.	n.a.	n.a.	n.a.
Central African						
Republic .. .. .	(b)	(b)	(b)	(b)	(b)	3,754
Ceuta .. .. .	862	n.a.	n.a.	n.a.	n.a.	n.a.
Congo Republic .. .. .	49,809	n.a.	n.a.	n.a.	n.a.	n.a.
Congo (Republic of) .. .. .	(b)	(b)	(b)	(b)	(b)	2,701
Dahomey .. .. .	621	1,601	1,548	944	1,121	1,236
Egypt .. .. .	8	5	4	11	n.a.	n.a.

(a) Years ended June 30 of that stated.

(b) Included in Equatorial African Community.

## IMPORTS OF SALT (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Equatorial African Community .. ..	8,240	10,537	8,881	8,829	13,868	(d)
Ethiopia .. ..	(c) 1,387	(c) 594	(c) 172	n.a.	398	126
Gabon .. ..	(e)	(e)	(e)	(e)	(e)	1,327
Ivory Coast .. ..	15,286	15,874	17,502	5,629	24,937	22,673
Liberia .. ..	1,396	1,515	674	3,317	n.a.	n.a.
Malagasy Republic .. ..	194	253	315	3,408	526	626
Mali .. ..	n.a.	n.a.	8,003	15,007	17,088	17,673
Melilla .. ..	1,024	n.a.	n.a.	n.a.	n.a.	n.a.
Morocco .. ..	4,134	2,753	602	584	1,921	5,388
Mozambique .. ..	2,021	2,058	3,075	1,903	3,746	2,332
Niger .. ..	107	1,569	4,401	16,839	5,229	6,598
Reunion .. ..	1,421	n.a.	n.a.	n.a.	n.a.	1,611
Senegal .. ..	110	137	160	103	177	87
Somali Republic (b) .. ..	12	596	n.a.	n.a.	n.a.	n.a.
South Africa .. ..	3,702	4,092	3,005	2,284	2,419	1,728
Sudan .. ..	59	25	53	77	59	1,211
Togo .. ..	5,552	4,911	8,099	9,103	10,761	10,692
Upper Volta .. ..	1,024	926	5,168	7,315	10,858	n.a.
Costa Rica .. ..	156	96	141	95	103	272
Cuba .. ..	14,846	n.a.	n.a.	n.a.	n.a.	n.a.
Greenland .. ..	12,090	12,595	8,757	7,356	7,555	3,301
Guatemala .. ..	187	376	245	142	227	1,617
Honduras .. ..	750	1,156	968	1,876	1,755	1,620
Mexico .. ..	7,048	2,556	1,187	862	1,220	1,027
Netherlands Antilles .. ..	568	541	523	619	523	577
Nicaragua .. ..	574	595	677	681	580	1,939
St. Pierre and Miquelon .. ..	593	1,375	2,264	2,414	232	2,118
Salvador .. ..	4,344	2,741	983	1,724	2,764	4,202
United States .. ..	914,847	943,775	937,575	1,226,588	1,353,713	2,089,176
Bolivia .. ..	53	53	163	199	161	120
Brazil .. ..	10	46	26	r 37	175	51,395
Colombia .. ..	3	4	3	3	7	7
French Guiana .. ..	n.a.	n.a.	n.a.	n.a.	n.a.	277
Peru .. ..	86	74	91	2,420	3,439	3,271
Surinam .. ..	975	1,065	n.a.	1,000	1,001	n.a.
Uruguay .. ..	57,484	47,603	n.a.	n.a.	n.a.	n.a.
Burma .. ..	1,080	1,557	957	1,779	1,451	816
Indonesia .. ..	84	85	n.a.	n.a.	n.a.	n.a.
Iran (a) .. ..	—	99	98	119	82	78
Iraq .. ..	40	1,606	90	377	55	n.a.
Japan .. ..	1,911,882	2,323,639	2,366,506	2,610,880	2,901,189	3,583,607
Laos .. ..	675	2,234	1,341	n.a.	n.a.	n.a.
Lebanon .. ..	4,421	5,493	5,109	1,876	1,101	n.a.
Syria .. ..	47	n.a.	n.a.	17,818	23,109	—
Philippine Republic—						
Crude .. ..	2,943	8,931	3,971	582	553	n.a.
Refined .. ..	170	704	4,235	239	147	n.a.
French Polynesia .. ..	350	332	324	402	—	396
New Caledonia .. ..	444	411	446	419	474	551

(a) Years ended March 20 of year following that stated. (b) Former British Protectorate only.

(c) Years ended September 10 of that stated. (d) See Central African Republic, Congo (Republic of) and Gabon.

(e) Included in Equatorial African Community.

**SELENIUM**  
**PRODUCTION OF SELENIUM**

Lb. avdp.

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Zambia (a) .. ..	33,448	50,119	38,292	r 71,453	62,891	57,631
Canada .. ..	368,107	521,638	430,612	487,066	468,772	448,750
<b>OTHER COUNTRIES</b>						
Belgium (b) .. ..	124,600	72,500	51,800	29,500	54,000	87,100
Finland .. ..	13,196	11,358	13,296	11,797	15,417	14,500
Sweden .. ..	133,170	176,880	213,471	155,060	156,222	181,540
Mexico .. ..	8,891	6,945	5,642	2,458	5,463	n.a.
United States (c) ..	728,000	539,000	1,022,000	999,000	928,000	929,000
Peru .. ..	8,155	10,681	16,305	18,380	19,790	16,797
Japan .. ..	229,488	278,237	300,265	309,317	313,497	325,929
<b>WORLD'S TOTAL ..</b>	<b>1,650,000</b>	<b>1,670,000</b>	<b>2,100,000</b>	<b>r 2,080,000</b>	<b>2,020,000</b>	<b>2,070,000</b>

Selenium is also produced in Australia.

(a) Contained in copper slimes exported for treatment.

(b) Exports.

(c) Including selenium content of compounds and, during the years 1959 to 1961, small quantities of secondary selenium.

**EXPORTS OF SELENIUM**

Lb. avdp.

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Zambia (a) .. ..	33,448	50,119	38,292	40,526	62,891	57,631
Canada (b) .. ..	325,712	404,410	345,800	325,600	445,700	401,300
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U. .. ..	124,600	72,500	51,800	29,500	54,000	87,100
Germany (Federal) ..	70,300	50,500	n.a.	n.a.	n.a.	n.a.
Sweden .. ..	161,000	165,000	157,000	110,000	194,000	143,000
Peru .. ..	8,084	7,820	14,800	10,518	19,764	24,478
Japan .. ..	105,019	88,749	149,434	111,962	105,650	102,092

(a) Contained in copper slimes exported for treatment.

(b) Including salts.

IMPORTS OF SELENIUM

Lb. avdp.

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	201,167	308,174	258,372	241,330	276,167	321,938
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
E.U. .. ..	2,000	44,300	1,800	12,600	2,900	1,500
France .. ..	(b) 50,500	(b) 58,600	57,800	66,000	70,548	70,548
Germany (Federal) ..	162,500	248,200	261,200	160,300	230,383	203,487
Italy .. ..	24,700	47,000	46,500	50,706	46,738	61,509
Sweden .. ..	4,000	68,000	75,000	18,000	2,200	22,000
United States (a) ..	273,929	171,574	127,482	160,389	339,000	215,098
Argentina .. ..	7,760	8,314	7,641	12,613	5,719	12,710
Brazil .. ..	4,793	7,383	9,811	9,520	9,019	4,740
Peru .. ..	49	148	214	569	225	677

(a) Including salts.

(b) Including tellurium.



## SILLIMANITE, Etc.

### PRODUCTION OF SILLIMANITE, ETC.

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Kyanite .. ..	708	921	—	—	—	—
Mullite .. ..	755	344	—	—	—	—
Rhodesia—						
Kyanite .. ..	—	—	—	—	54	230
India—						
Kyanite .. ..	16,238	19,838	26,726	48,834	31,520	33,553
Sillimanite .. ..	7,574	8,349	7,985	8,125	11,311	12,167
Australia—						
Kyanite, sillimanite and andalusite (a) ..	3,633	1,524	1,787	2,637	3,515	2,634
<b>OTHER COUNTRIES</b>						
Spain—						
Sillimanite .. ..	—	—	—	—	454	<i>n.a.</i>
Cameroun—						
Kyanite .. ..	—	—	5	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Andalusite .. ..	3,343	9,154	6,934	18,048	9,850	13,752
Sillimanite .. ..	40,935	52,575	84,406	52,815	55,353	53,787
South West Africa—						
Kyanite .. ..	2,896	1,284	2,679	1,488	—	563
United States—						
Kyanite (b) .. ..	29,000	30,000	33,000	34,000	40,000	46,000
Korea (South)—						
Andalusite .. ..	2,177	241	502	450	657	110

Sillimanite is also known to have been produced in Argentina.

(a) In addition the following amounts of kaolinised sillimanite were produced (long tons): 1959—1,969; 1960—2,401; 1961—1,608; 1962—1,681; 1963—3,325; 1964—3,325.

(b) Estimated. In addition the following amounts of synthetic mullite were produced (long tons): 1959—16,266; 1960—19,194; 1961—13,212; 1962—16,983; 1963—26,418; 1964—32,200.

### EXPORTS OF SILLIMANITE, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Kyanite and mullite ..	1,787	1,750	—	—	—	—
India—						
Kyanite .. ..	22,335	25,439	31,226	36,364	27,886	28,363
Sillimanite .. ..	4,414	7,707	5,406	4,819	5,376	8,633
<b>OTHER COUNTRIES</b>						
France—						
Kyanite, sillimanite, etc.						
Crude .. ..	—	14	22	183	505	346
Calcined .. ..	20	21	258	750	311	563

## EXPORTS OF SILLIMANITE, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Germany (Federal)—						
Kyanite, sillimanite, etc.						
Crude .. .. .	<i>n.a.</i>	84	155	306	247	} 105
Calcined .. ..	<i>n.a.</i>	21	3	5	13	
Italy—						
Kyanite, sillimanite, etc.						
Crude .. .. .	246	6	} 54	298	215	438
Calcined .. ..	53	23				
Netherlands—						
Kyanite, sillimanite, etc.	<i>n.a.</i>	2,777	8,299	7,344	1,403	1,890
South-West Africa—						
Kyanite .. .. .	1,929	142	2,714	1,944	—	546
South Africa—						
Andalusite .. ..	2,215	3,636	4,787	5,974	5,041	6,179
Sillimanite .. ..	35,484	45,595	86,849	39,552	37,571	46,926
United States—						
Kyanite, etc. .. .	2,441	2,906	3,571	3,186	4,509	5,429

## IMPORTS OF SILLIMANITE, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Kyanite, sillimanite, etc.	(a) 15,100	27,966	35,763	31,123	19,503	27,335
Canada—						
Kyanite, etc. .. .	1,677	1,703	1,376	1,419	2,188	<i>n.a.</i>
Australia—						
Kyanite .. .. .	15	546	1,045	9	870	1,939
Sillimanite .. ..	135	259	191	190	37	218
<b>OTHER COUNTRIES</b>						
France—						
Kyanite, sillimanite, etc.						
Crude .. .. .	1,230	3,887	4,322	3,360	2,225	3,312
Calcined .. ..	544	1,001	1,717	1,193	1,554	1,482
Germany—						
Kyanite, sillimanite, etc.						
Crude .. .. .	10,388	12,939	18,775	20,879	20,716	15,128
Calcined .. ..	74	59	325	819	400	157
Italy—						
Kyanite, sillimanite, etc.						
Crude .. .. .	2,791	3,661	} 6,829	11,257	11,828	10,429
Calcined .. ..	239	270				
Netherlands—						
Kyanite, sillimanite, etc.	<i>n.a.</i>	4,631	14,910	6,886	2,963	4,626
United States—						
Kyanite, sillimanite, etc.	5,030	5,403	4,835	4,715	2,343	2,131
Japan—						
Kyanite, sillimanite, etc.	(a) 25,000	(a) 23,700	(a) 38,700	18,638	18,258	32,474
Thailand—						
Kyanite, sillimanite, etc.	<i>n.a.</i>	597	467	373	550	1,181

\*These minerals are not separately recorded in the trade returns of several countries.

(a) Figures represent exports from certain producing countries only and are not necessarily complete.

**SILVER**  
**PRODUCTION OF SILVER**  
*(Metal content)*

Fine troy ounces

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	13,355	7,098	4,744	514	<i>n.a.</i>	<i>n.a.</i>
Bechuanaland Protectorate ..	41	25	39	33	21	1
Ghana (a) ..	16,839	14,160	7,027	4,443	4,827	<i>n.a.</i>
Kenya ..	46,420	35,797	40,731	50,160	52,422	47,702
Rhodesia ..	328,947	392,026	106,801	83,540	83,741	88,463
Swaziland ..	—	58	103	132	120	130
Tanzania ..	(d) 535,366	(d) 595,357	(d) 64,001	24,463	22,249	(a) 25,329
Uganda (a) ..	54	109	70	38	9	—
Zambia (b) ..	937,678	920,601	738,558	r 943,932	966,868	1,001,267
Canada ..	31,923,969	34,016,829	31,381,977	30,422,972	29,919,212	31,111,943
India ..	124,800	132,700	191,000	138,700	128,300	152,200
Australia ..	15,160,631	15,215,956	13,059,166	17,553,691	19,641,925	18,411,611
Fiji ..	23,652	31,319	37,712	r 38,935	46,870	60,564
New Guinea ..	36,830	33,060	30,246	24,511	23,695	23,206
New Zealand ..	4,873	1,353	805	416	286	141
<b>TOTAL ..</b>	<b>49,154,000</b>	<b>51,396,000</b>	<b>45,663,000</b>	<b>r 49,286,000</b>	<b>50,891,000</b>	<b>50,930,000</b>
<b>OTHER COUNTRIES</b>						
Czechoslovakia (e) ..	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
Finland ..	522,739	390,374	456,155	380,495	579,967	607,906
France ..	944,750	1,039,900	1,128,800	898,970	730,110	965,000
Germany (Federal) ..	1,897,700	1,842,600	1,879,400	1,957,600	2,067,100	1,990,900
Germany (East) (e) ..	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000
Greece ..	150,300	105,500	113,400	138,700	160,000	<i>n.a.</i>
Italy ..	894,500	845,400	874,900	(h) 929,000	(h) 1,010,000	(h) 1,070,000
Portugal ..	54,140	52,920	48,260	52,920	48,420	48,770
Roumania (e) ..	600,000	600,000	600,000	600,000	600,000	600,000
Spain ..	2,206,700	1,739,700	4,526,600	5,684,120	4,955,200	<i>n.a.</i>
Sweden ..	3,098,100	2,756,000	2,949,800	3,367,300	3,788,300	3,125,000
Yugoslavia (h) ..	2,827,300	3,024,800	3,454,080	3,750,930	3,791,920	4,036,880
Algeria (g) ..	400,000	300,000	300,000	280,000	260,000	290,000
Congo Republic ..	4,768,180	3,962,840	3,457,880	1,595,500	1,097,200	1,480,300
Morocco ..	1,234,303	1,097,273	907,905	826,338	772,743	604,080
Mozambique ..	—	44	22	13	—	5
South Africa ..	2,020,780	2,226,204	2,288,279	2,549,206	2,736,868	2,916,660
South West Africa (c) ..	1,740,568	1,061,033	1,061,043	1,468,932	1,312,670	1,161,220
Tunisia ..	43,339	34,400	69,767	24,600	9,030	12,600
Cuba (i) ..	215,000	121,415	—	—	—	—
Guatemala ..	(f) 88,000	663,121	515,905	(f) 32,400	(f) 64,200	(i) 9,445
Haiti ..	—	(f) 19,600	61,424	94,761	107,022	(f) 93,700
Honduras ..	3,167,376	2,947,021	3,544,702	r 3,179,653	<i>n.a.</i>	3,220,371
Mexico ..	44,075,452	44,526,460	40,350,000	41,220,000	42,760,000	41,940,000
Nicaragua ..	274,993	326,673	417,253	500,050	405,252	332,370

(a) Exports.

(b) Recovered from copper-refinery slimes.

(c) Accounted for by smelters.

(d) Including silver in lead concentrates exported amounting to 512,728; 572,428 and 38,372 fine troy ounces in 1959; 1960 and 1961 respectively.

(e) "Metallgesellschaft" estimate.

(h) Refined.

(f) United States Bureau of Mines' estimate.

(i) Imports into the United States.

(g) Estimated.

PRODUCTION OF SILVER (cont.)

Fine troy ounces

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Salvador .. .. .	199,080	76,809	—	—	—	—
United States .. .. .	31,194,006	30,766,327	34,794,456	36,798,000	35,243,000	36,334,000
Argentina .. .. .	1,549,600	1,671,838	1,430,675	r 2,086,101	1,935,860	1,944,509
Bolivia (b) .. .. .	4,504,126	4,887,138	3,901,010	3,759,129	4,869,037	4,810,973
Brazil .. .. .	225,200	252,900	231,900	r 250,000	339,400	(c) 200,000
Chile .. .. .	2,021,800	1,741,400	1,734,600	n.a.	n.a.	n.a.
Colombia .. .. .	102,678	134,331	127,943	131,599	106,280	130,353
Ecuador .. .. .	162,600	126,400	101,200	127,700	121,800	117,100
Peru (d) .. .. .	27,225,216	30,755,496	34,161,710	32,930,780	36,800,350	37,043,220
Burma .. .. .	r 2,041,395	1,984,263	1,743,302	r 1,940,037	2,075,282	1,355,000
China (a) .. .. .	800,000	800,000	800,000	800,000	800,000	800,000
Formosa .. .. .	60,900	52,600	77,300	80,100	61,400	60,600
Indonesia .. .. .	333,050	310,512	324,079	248,236	279,840	(c) 262,100
Japan .. .. .	6,650,930	6,912,600	7,960,200	8,650,000	8,810,000	8,650,000
Korea (South) .. .. .	241,900	329,640	460,430	412,910	444,000	404,460
Korea (North) (a) .. .. .	500,000	500,000	500,000	500,000	500,000	500,000
Philippine Republic .. .. .	504,085	1,133,343	812,793	675,570	838,304	907,504
<b>TOTAL*</b> .. .. .	<b>156,000,000</b>	<b>159,000,000</b>	<b>165,000,000</b>	<b>r 167,000,000</b>	<b>172,000,000</b>	<b>171,000,000</b>
<b>WORLD'S TOTAL*</b> .. .. .	<b>205,000,000</b>	<b>210,000,000</b>	<b>210,000,000</b>	<b>r 216,000,000</b>	<b>223,000,000</b>	<b>222,000,000</b>

\*Totals exclude estimates for the U.S.S.R. for which no authentic figures are available. (In recent years Russian production has been estimated by the United States Bureau of Mines as 25-27,000,000 troy ounces.) An allowance, however, has been made for those other countries for which information is not yet available.

- (a) "Metallgesellschaft" estimate.
- (b) Exports.
- (c) United States Bureau of Mines' estimate.
- (d) Recoverable.

EXPORTS OF SILVER\*

(Metal content)

Fine troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Bullion .. .. .	10,177,065	6,316,238	11,394,246	19,794,688	15,886,206	14,218,779
Ghana—						
Bullion .. .. .	16,839	14,160	7,027	4,443	4,827	<i>n.a.</i>
Kenya—						
Refined bullion .. .. .	46,411	33,865	37,836	46,304	44,114	46,834
Rhodesia (b) .. .. .						
Bullion .. .. .	311,688	76,096	132,547	83,913	85,077	96,280
Tanzania—						
Concentrates .. .. .	512,728	572,428	38,372	—	—	—
Refined bullion .. .. .	22,818	23,053	25,860	23,959	22,521	25,329
Uganda—						
Bullion .. .. .	54	109	70	38	9	—
Zambia—						
Bullion .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	40,000
Canada—						
Ore, concentrates, etc.	6,814,865	8,897,402	10,352,700	8,801,332	8,286,756	9,478,317
Bullion .. .. .	15,140,830	12,761,063	10,783,414	9,445,094	10,834,629	10,583,439
Hong Kong—						
Bullion .. .. .	434,000	489,000	442,000	683,000	1,429,000	3,595,000
Malaya—						
Bullion .. .. .	1,023,000	1,087,500	703,000	2,299,000	1,735,000	635,000
Australia (a)—						
Ores and concentrates	2,495,782	2,362,204	2,723,394	2,748,415	3,045,752	3,766,059
Silver-lead bullion .. .. .	4,775,248	3,941,164	4,299,192	3,260,286	5,233,426	5,502,534
Bullion, refined .. .. .	3,500,045	3,404,372	1,756,486	732,480	239,166	4,536,735
do. unrefined .. .. .	—	—	—	—	—	4,308
Beaten, rolled or drawn	40,254	12,660	88,141	7,005	4,429	33,027
Fiji—						
Bullion .. .. .	6,007	19,652	—	1,840	2,560	(c) 60,260
New Guinea (a)—						
Bullion .. .. .	23,864	40,733	28,961	27,438	<i>n.a.</i>	<i>n.a.</i>
Irish Republic—						
Bullion .. .. .	10,500	7,700	9,400	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Bullion and scrap .. .. .	11,545,000	11,358,000	6,337,000	8,198,000	10,510,000	10,870,000
Denmark—						
Bullion .. .. .	50,000	55,000	54,000	40,000	15,000	36,000
Beaten, rolled or drawn	2,000	16,000	2,000	—	1,000	13,000
France—						
Bullion and scrap .. .. .	1,454,000	1,359,000	937,000	3,880,000	1,751,000	1,031,000
Beaten, rolled or drawn	456,000	799,000	693,000	557,000	1,096,000	3,077,000
Germany (Federal)—						
Bullion .. .. .	15,829,000	14,872,000	18,621,000	19,377,000	21,873,000	18,066,000
Italy—						
Bullion and scrap .. .. .	—	3,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands—						
Bullion and scrap .. .. .	1,680,000	631,000	646,000	2,673,000	1,432,000	588,000
Beaten, rolled or drawn	416,000	381,000	304,000	295,000	233,000	284,000
Spain—						
Bullion .. .. .	2,588,000	322,000	—	—	—	—
Sweden—						
Bullion .. .. .	1,213,000	997,000	1,382,000	1,591,000	1,222,000	482,000

\*Excluding silver coin, but including silver shipped for minting.

(a) Years ended June 30 of that stated.

(c) Owing to revised method of calculation not strictly comparable with earlier years.

(b) Figures for 1959 to 1963 relate to Rhodesia and Nyasland.

## EXPORTS OF SILVER (cont.)

Fine troy ounces

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Bullion .. .. .	72,000	38,000	107,000	362,000	470,000	211,000
Yugoslavia—						
Bullion .. .. .	1,901,000	2,293,000	2,572,000	2,850,000	2,572,000	2,415,000
Congo Republic—						
Bullion .. .. .	30,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Morocco—						
Bullion .. .. .	—	—	2,000	—	5,000	85,000
South Africa—						
Bullion .. .. .	1,860,220	1,570,306	1,629,320	2,120,592	1,679,079	1,699,777
South West Africa—						
Concentrates (b) ..	1,966,995	1,004,920	1,833,437	1,253,200	634,134	328,808
Guatemala (a)—						
Ore and base bullion ..	2,000	—	142,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Honduras—						
Ore and base bullion ..	2,792,165	2,584,984	3,327,020	2,905,530	4,556,000	2,350,740
Cuba (a)—						
Bullion, etc. .. .. .	215,000	121,000	—	—	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Bullion, etc. .. .. .	38,889,000	34,430,000	30,775,000	33,545,000	46,127,000	34,389,000
Nicaragua—						
Bullion .. .. .	237,000	212,000	241,000	288,134	203,514	168,791
Salvador—						
Bullion .. .. .	182,000	78,000	—	—	3,400	—
United States—						
Ore and base bullion ..	103,000	291,000	653,717	770,000	1,298,000	2,676,000
Refined bullion .. .. .	9,077,000	26,302,000	39,173,558	12,287,000	30,187,000	106,718,000
Argentina—						
Bullion, etc. .. .. .	522,000	641,000	70,000	786,000	731,000	268,000
Bolivia—						
Ores, etc. .. .. .	4,504,126	4,887,138	3,901,010	3,759,129	4,869,037	4,810,973
Chile—						
Ores, etc. .. .. .	1,568,503	1,319,804	2,004,068	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Colombia—						
Bullion and scrap ..	—	126,000	—	—	—	—
Ecuador (a)—						
Ore and base bullion ..	107,000	94,000	62,000	70,000	53,000	51,000
Peru—						
Ores and concentrates	14,502,819	15,511,489	15,399,592	14,387,584	14,166,621	14,413,403
Bullion .. .. .	11,857,528	13,875,412	17,446,202	19,620,308	17,000,000	23,000,000
Matte, slag, etc. ..	501,518	400,750	437,971	380,721	500,674	125,169
Burma—						
Bullion .. .. .	1,822,709	1,525,295	1,195,970	1,400,129	1,250,912	1,406,039
Japan—						
Bullion and scrap ..	24,000	10,000	12,000	(c) 386,000	(c) 94,000	(c) 2,913,000
Philippine Republic (a)—						
Ore and base bullion ..	158,000	2,195,000	602,000	359,000	403,000	351,700

(a) Imports into the United States from the country stated.

(b) Contained in lead complex concentrates exported.

(c) Including "beaten, rolled or drawn".

**TOTAL IMPORTS OF SILVER\***

*(Metal content)*

Fine troy ounces

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ores .. .. .	4,249,000	4,001,000	3,529,000	3,731,000	4,614,000	(d) 8,000
Unrefined bullion .. .. .	1,593,867	1,546,202	957,994	2,295,008	1,069,413	340,387
Refined bullion .. .. .	16,831,670	27,279,961	64,845,184	37,781,500	20,353,712	54,972,152
Malta—						
Bullion .. .. .	10,200	7,100	6,200	8,400	7,800	10,000
Ghana—						
Bullion .. .. .	16,475	32,025	20,499	36	6,368	400
Nigeria—						
Bullion, etc. .. .. .	45,337	32,189	562	13,737	19,363	22,284
Sierra Leone—						
Bullion .. .. .	—	2,305	4,349	3,450	6,936	1,344
Canada—						
Bullion .. .. .	2,807,774	3,849,115	12,278,469	15,182,336	7,949,829	c) 5,197,764
Jamaica—						
Bullion .. .. .	2,200	—	1,800	1,500	1,000	1,800
Trinidad and Tobago—						
Bullion .. .. .	12,564	9,306	9,480	15,062	13,103	n.a.
British Guiana—						
Bullion .. .. .	2,000	4,100	3,700	2,656	n.a.	3,260
Ceylon—						
Bullion .. .. .	14,500	7,600	—	19,800	18,000	n.a.
Cyprus—						
Bullion .. .. .	57,000	52,000	55,000	60,500	62,400	43,600
Hong Kong—						
Bullion .. .. .	60,000	24,000	26,000	26,000	86,000	107,000
India—						
Bullion .. .. .	4,079	(b) 37,500	(b) 70,500	(b) 44,000	(b) 33,070	(b) 7,901
Malaya—						
Bullion .. .. .	—	5,200	1,100	1,700	2,900	1,800
Sarawak—						
Bullion .. .. .	160	—	—	—	15	1,051
Australia (a)—						
Matte .. .. .	—	—	11,609	25,203	5,635	—
Bullion .. .. .	63,279	89,814	65,540	64,749	93,876	102,906
Beaten, rolled or drawn	—	197	340	5,429	12,850	11,529
New Zealand—						
Bullion .. .. .	62,072	70,158	19,079	71,901	(a) 77,423	n.a.
Beaten, rolled or drawn	9,000	13,000	22,600	871,608	(a) 20,965	n.a.
Irish Republic—						
Bullion .. .. .	1,400	—	—	—	—	216,981
<b>OTHER COUNTRIES</b>						
Austria—						
Bullion .. .. .	3,069,000	954,000	4,065,000	1,893,000	6,086,000	2,090,000
Belgium-Luxemburg						
E.U.—						
Bullion and scrap .. .. .	1,692,000	2,620,000	4,511,000	6,406,000	6,768,000	7,298,000
Denmark—						
Bullion .. .. .	1,360,000	1,269,000	1,045,000	1,122,000	665,000	678,000
Beaten, rolled or drawn	1,662,000	1,799,000	2,074,000	2,201,000	2,385,000	3,324,000
Finland—						
Bullion, etc. .. .. .	660,000	723,000	354,000	15,000	859,000	340,000

\*Excluding silver coin, but including silver shipped for minting.

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Including anodes.

(d) Owing to reclassification not strictly comparable with earlier years.

## IMPORTS OF SILVER (cont.)

Fine troy ounces

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
France—						
Bullion and scrap ..	19,094,000	26,526,000	12,856,000	18,813,000	24,732,000	27,822,000
Beaten, rolled or drawn	157,000	275,000	502,000	287,000	810,000	1,000,000
Germany (Federal)—						
Bullion .. .. .	30,455,000	35,109,000	44,001,000	39,554,000	40,895,000	45,180,000
Italy—						
Bullion and scrap ..	7,244,000	8,979,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Netherlands—						
Bullion and scrap ..	2,780,000	1,308,000	1,847,000	4,600,000	3,326,000	3,039,000
Beaten, rolled or drawn	395,000	779,000	847,000	775,000	814,000	1,399,000
Norway—						
Bullion .. .. .	864,000	988,000	919,000	830,000	629,000	1,105,000
Beaten, rolled or drawn	1,207,000	1,290,000	1,364,000	1,282,000	867,000	1,491,000
Portugal—						
Bullion and scrap ..	2,559,000	2,808,000	1,360,000	1,283,000	1,021,000	964,000
Beaten, rolled and drawn	19,000	22,000	24,000	90,000	45,000	58,000
Sweden—						
Bullion .. .. .	354,000	643,000	354,000	386,000	450,000	450,000
Switzerland—						
Bullion .. .. .	3,041,000	3,792,000	12,582,000	6,122,000	10,266,000	11,175,000
Algeria—						
Bullion and scrap ..	64,000	38,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Beaten, rolled or drawn	100,000	114,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic—						
Bullion .. .. .	67,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Bullion and scrap ..	2,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
South Africa—						
Bullion .. .. .	38,000	—	52,000	—	<i>n.a.</i>	<i>n.a.</i>
Guatemala—						
Bullion .. .. .	330,000	162,000	304,000	311,000	2,500	20,000
United States—						
Ore and base bullion ..	39,759,000	43,404,000	34,558,974	37,168,000	41,660,000	43,146,000
Refined bullion .. .	29,329,000	17,253,000	15,697,216	39,191,000	17,402,000	8,528,000
Brazil—						
Bullion .. .. .	313,000	500,000	1,007,000	1,076,000	1,195,000	<i>n.a.</i>
Colombia—						
Bullion and scrap ..	9,000	122,000	36,000	19,000	50,000	56,000
Japan—						
Bullion and scrap ..	1,426,000	6,834,000	3,826,000	(a)3,402,000	3,627,000	9,937,000
Lebanon—						
Bullion and scrap ..	6,500	74,000	6,400	89,200	42,700	<i>n.a.</i>
Turkey—						
Bullion, etc. .. .	5,000	36,000	10,000	64,000	6,000	<i>n.a.</i>

(a) Including "beaten, rolled or drawn".



## STRONTIUM MINERALS

### PRODUCTION OF STRONTIUM MINERALS

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Celestite .. ..	6,000	6,604	8,679	6,532	9,019	17,033
Pakistan (b)—						
Celestite .. ..	664	1,332	414	288	379	265
OTHER COUNTRIES						
Italy—						
Celestite.. ..	315	817	965	589	644	<i>n.a.</i>
Morocco—						
Strontium minerals ..	389	—	—	—	—	—
Mexico (a)—						
Celestite.. ..	2,269	2,650	2,488	4,202	6,092	4,815

Strontium minerals are also known to have been produced in Germany, the United States and Argentina.

(a) Exports.

(b) West Pakistan.

### EXPORTS OF STRONTIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Celestite .. ..	4,879	4,935	5,943	3,523	9,437	15,234
OTHER COUNTRIES						
France—						
Oxide .. ..	5	1	2	2	2	69
Italy—						
Strontianite and celestite	20	242	285	90	89	132
Mexico—						
Celestite.. ..	2,269	2,650	2,488	4,202	6,092	4,815

### IMPORTS OF STRONTIUM MINERALS, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
Germany (Federal)—						
Strontianite and celestite	446	280	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States—						
Strontianite and celestite	7,267	5,523	8,867	6,687	14,493	19,301
Strontium compounds..	1	—	—	—	4	6



PRODUCTION OF SULPHUR (cont.)

Long tons

Producing Country and Description	1959-1964						Estimated Sulphur Content					
	1959	1960	1961	1962	1963	1964	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES (cont.)</b>												
Netherlands (i) ..	30,700	30,000	r 28,000	r 31,000	34,000	n.a.	30,700	30,000	28,000	31,000	34,000	n.a.
Norway (i) ..	77,111	71,256	61,157	45,204	—	—	77,034	71,178	61,090	45,158	—	—
Poland—												
Native sulphur ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10,500	25,000	r 131,000	r 207,000	231,500	289,900
Portugal (i) ..	15,888	10,915	8,813	6,677	3,000	n.a.	15,682	10,773	8,698	6,590	3,000	n.a.
Spain—												
Sulphur rock	25,922	16,691	—	—	—	—	2,851	1,336	—	—	—	—
Refined sulphur (h) ..	25,719	40,194	48,323	41,836	68,036	n.a.	25,719	40,194	48,323	41,836	68,036	n.a.
Sweden—												
Sulphur ..	34,900	38,300	30,491	29,900	25,900	n.a.	34,900	38,300	30,491	29,900	25,900	n.a.
U.S.S.R. (d)—												
Native sulphur ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	600,000	800,000	900,000	950,000	950,000	950,000
By-product sulphur	180,000	210,000	275,000	370,000	400,000	400,000	180,000	210,000	275,000	370,000	400,000	400,000
Egypt—												
Native sulphur ..	6,013	18,000	44,692	r 30,561	4,675	—	800	2,300	5,000	3,000	500	—
By-product sulphur (a) ..	2,600	2,369	2,946	2,072	2,355	2,447	2,600	2,369	2,546	2,072	2,355	2,447
South Africa—												
By-product sulphur (a) ..	—	—	2,163	1,913	1,981	5,701	—	—	2,163	1,913	1,981	5,701
Mexico—												
Crude sulphur (f) ..	1,293,187	1,261,570	1,148,494	1,350,375	1,456,656	1,635,767	1,293,187	1,261,570	1,148,494	1,350,375	1,456,656	1,635,767
Sulphur ore (g) ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(d) 17,700	(d) 17,700	25,116	26,751	28,968	25,989
Refined sulphur (e) ..	47,454	45,025	51,086	46,545	43,308	36,296	47,454	45,025	51,086	46,545	43,308	36,296
United States—												
Crude sulphur (f) ..	4,553,634	4,942,935	5,385,468	4,984,578	4,881,512	5,228,207	4,553,634	4,942,935	5,385,468	4,984,578	4,881,512	5,228,207
Sulphur ore (g) ..	331,237	379,067	400,015	162,186	1,371	n.a.	86,182	94,357	92,025	40,840	415	158
Smelter gas (b) ..	969,678	1,056,890	1,016,731	1,088,397	1,089,523	n.a.	316,600	345,075	331,963	355,362	355,730	n.a.
By-product sulphur (c) ..	688,487	769,319	861,413	902,124	949,567	n.a.	686,407	766,566	858,169	899,598	946,753	1,021,361
Hydrogen sulphide and liquid sulphur dioxide (c)	104,887	114,359	126,923	115,670	136,509	n.a.	88,046	95,395	106,335	97,787	115,826	n.a.

(a) Recovered from petroleum refineries.

(b) Estimated sulphur content of gas driven off in the smelting of lead, zinc and copper concentrates, recovered as sulphuric acid.

(c) Produced in treatment of industrial gases.

(d) United States Bureau of Mines' estimate.

(e) Recovered from natural gas.

(f) Frasch-process mines.

(g) Other mines.

(h) Derived partly from sulphur rock above but in the main recovered from pyrites.

(i) Sulphur recovered from pyrites or other sulphide ores.

PRODUCTION OF SULPHUR (cont.)

Long tons

Producing Country and Description	Estimated Sulphur Content						
	1959	1960	1961	1962	1963	1964	1964
<b>OTHER COUNTRIES (cont.)</b>							
Argentina—							
Refined sulphur ..	25,207	39,261	22,445	26,376	22,141	21,955	21,955
Bolivia (f)—							
Refined sulphur ..	—	1,175	4,897	7,247	9,793	10,635	10,635
Chile—							
Smelter gases, etc. (g) ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	15,427
Refined sulphur ..	14,069	30,901	43,994	63,226	40,271	40,496	40,300
Colombia—							
Refined sulphur ..	9,000	9,000	9,900	10,046	13,000	11,942	11,942
China (c)—							
Native sulphur ..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	120,000
Recovered sulphur (d) ..	100,000	120,000	120,000	120,000	120,000	120,000	120,000
Formosa—							
Refined sulphur ..	5,533	5,725	5,472	7,462	7,945	9,170	9,170
Iran—							
Native sulphur ..	10,300	n.a.	n.a.	n.a.	(h)10,500	n.a.	n.a.
By-product sulphur (a)(c) ..	20,000	20,000	20,000	15,000	20,000	105,000	105,000
Japan—							
Refined sulphur (e) ..	215,668	243,683	r 238,455	219,000	218,000	237,000	237,000
By-product sulphur (a) ..	7,829	8,326	8,163	8,549	11,429	18,448	18,448
Philippine Republic (b) ..	—	n.a.	n.a.	n.a.	n.a.	n.a.	68
Turkey—							
Refined sulphur ..	13,174	16,830	15,506	18,246	19,123	21,800	21,800

Sulphur is also produced in the Netherlands Antilles and Iraq.

(a) Recovered from petroleum refineries.

(b) Including sulphur recovered from gold and silver mines.

(c) United States Bureau of Mines' estimate.

(d) Probably recovered from pyrites.

(e) From sulphur rock and sulphide ores.

(f) Exports.

(g) Sulphur contained in sulphuric acid.

(h) Year ended March 20 of year following that stated.

EXPORTS OF SULPHUR

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	3,145	4,148	3,978	1,738	2,045	2,162
Canada .. ..	23,684	127,715	194,523	357,166	732,972	1,155,881
Hong Kong .. ..	148	122	138	163	170	123
Malaya .. ..	25	43	36	3	26	30
Australia—						
Zinc concentrates						
( <i>S content</i> ) (a) ..	49,500	82,500	70,000	65,000	66,000	57,000
New Zealand .. ..	17	8	10	—	(b) 1	(b) 5
<b>OTHER COUNTRIES</b>						
<b>Belgium-Luxemburg</b>						
<b>E.U.—</b>						
Crude .. ..	1,014	875	1,546	3,752	422	283
Refined .. ..	2,758	2,457	3,245	5,529	7,674	7,438
<b>France—</b>						
Crude .. ..	220,358	412,821	561,958	534,930	993,977	1,017,792
Unrefined ground	3,077	4,542	2,775	2,707	2,413	1,638
Refined lump ..	791	770	1,161	767	492	504
Flowers of sulphur	5,022	4,920	5,411	5,346	6,527	8,274
Precipitated sulphur	—	2	1	21	38	—
Germany (Federal) ..	25,582	19,956	16,354	21,839	24,751	25,700
Germany (East) ..	14,306	23,554	33,022	41,060	20,316	11,702
<b>Italy—</b>						
Crude .. ..	28,737	25,824	17,550	3,103	75	87
Refined .. ..	8,715	22,980	22,920	8,746	7,461	4,303
Flowers of sulphur	440	517	365	297	436	286
Precipitated sulphur	29	1	12	30	21	3
<b>Netherlands—</b>						
Crude .. ..	8,449	5,236	5,005	5,042	6,833	4,388
Refined .. ..	30	29	14	38	6	37
Norway .. ..	64,424	56,389	34,271	32,251	7,287	425
Portugal .. ..	405	442	455	317	28	152
<b>Spain—</b>						
Refined .. ..	—	—	—	—	487	271
Sweden .. ..	411	432	286	330	187	189
U.S.S.R. .. ..	51,000	112,000	214,700	106,400	102,100	144,800
South Africa .. ..	109	65	151	—	—	115
Mexico .. ..	1,064,780	1,233,691	1,136,452	1,309,975	1,482,983	1,811,600
<b>United States—</b>						
Crude .. ..	1,612,158	1,775,526	1,585,531	1,537,419	1,603,438	1,920,392
Refined and flowers of sulphur	23,449	11,017	10,512	16,567	9,199	7,700
Bolivia .. ..	—	1,175	4,897	7,247	9,793	10,635
Chile .. ..	946	800	714	631	<i>n.a.</i>	<i>n.a.</i>
Japan .. ..	119	217	284	301	133	154

(a) Estimated amount recoverable.

(b) Years ended June 30 of that stated.

## IMPORTS OF SULPHUR

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Sulphur .. .. .	377,439	486,899	496,193	495,776	543,047	709,651
Wastes and residues .. .. .	14,765	13,531	20,079	16,986	12,751	—
Malta—						
Crude .. .. .	27	30	—	—	—	2
Flowers of sulphur .. .. .	(£8,225)	(£8,522)	(£9,109)	(£11,539)	(£12,347)	(£13,531)
Kenya .. .. .	225	162	150	287	365	1,388
Mauritius .. .. .	37	80	74	36	39	1
Rhodesia (a) .. .. .	78	8	110	220	118	n.a.
Tanzania .. .. .	235	269	460	328	272	239
Uganda .. .. .	215	1,050	402	2,676	1,699	1,539
Canada .. .. .	296,812	293,540	291,844	174,125	134,497	(b) 133,542
Jamaica .. .. .	5	16	4	16	1,103	1,004
Trinidad and Tobago .. .. .	6	8,151	27,277	9,753	11,130	n.a.
British Guiana .. .. .	—	1	—	1	n.a.	5
Ceylon .. .. .	2,794	2,803	3,467	958	4,055	2,562
Cyprus .. .. .	1,439	1,256	1,583	1,707	1,828	1,486
Hong Kong .. .. .	1,609	1,382	1,288	1,431	1,681	544
India .. .. .	134,783	176,078	188,410	244,114	256,896	237,352
Malaya .. .. .	1,135	1,107	1,517	2,077	3,516	4,448
Pakistan .. .. .	1,334	3,782	5,634	5,179	4,766	16,948
Australia .. .. .	170,770	221,778	182,052	229,195	222,527	376,639
New Zealand .. .. .	88,180	133,246	144,475	104,902	146,956	201,061
Irish Republic .. .. .	7,279	18,472	35,193	46,070	46,847	53,798
<b>OTHER COUNTRIES</b>						
Austria .. .. .	52,853	55,982	60,106	73,165	84,906	88,731
Belgium-Luxemburg E.U.—						
Crude .. .. .	133,578	180,462	163,476	167,455	176,660	210,204
Refined .. .. .	568	387	280	226	330	510
Czechoslovakia .. .. .	58,000	74,000	107,000	131,000	171,000	186,000
Denmark .. .. .	3,485	6,751	4,399	9,744	12,337	10,791
Finland .. .. .	69,997	98,722	84,749	82,571	58,589	66,329
France—						
Crude .. .. .	190,829	144,224	140,868	144,801	112,824	210,593
Unrefined ground .. .. .	—	69	33	225	118	156
Refined lump .. .. .	44	33	44	153	264	618
Precipitated .. .. .	12	16	48	50	38	77
Germany (Federal) .. .. .	100,251	174,622	158,316	216,554	288,081	398,384
Greece .. .. .	13,188	14,272	12,509	8,396	20,431	45,712
Hungary .. .. .	18,829	30,290	27,165	31,053	124,693	162,992
Netherlands—						
Crude .. .. .	57,486	95,330	125,167	120,697	133,317	163,227
Refined .. .. .	1,365	1,251	1,195	1,271	1,446	1,570
Norway .. .. .	1,382	7,275	9,854	14,085	35,009	45,966
Poland .. .. .	34,200	45,300	10,900	n.a.	26,700	19,200
Portugal .. .. .	2,710	8,039	11,953	20,614	31,597	37,552
Spain—						
Crude .. .. .	14,776	6,651	5,800	6,518	19,536	39,054
Refined, etc. .. .. .	15	—	—	—	—	—
Sweden .. .. .	67,667	77,163	95,916	81,370	84,615	126,086
Switzerland—						
Crude and ground .. .. .	34,832	69,482	54,038	61,497	63,600	52,111
Flowers of sulphur .. .. .	304	322	121	212	187	216
U.S.S.R. .. .. .	63,000	49,500	43,800	31,600	81,800	143,500
Yugoslavia .. .. .	7,957	13,291	18,633	11,426	12,473	18,187

(a) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

(b) Owing to reclassification not strictly comparable with earlier years.

## IMPORTS OF SULPHUR (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Algeria—						
Crude .. .. .	25,307	33,468	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Unrefined, ground .. .. .	1,843	1,953	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Refined .. .. .	202	369	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Flowers of sulphur .. .. .	306	104	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Precipitated .. .. .	—	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola .. .. .	197	162	578	364	236	485
Canary Islands—						
Crude .. .. .	—	4,823	6,769	6,498	687	1,257
Refined, etc. .. .. .	4,892					
Congo Republic .. .. .	135	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt .. .. .	13,213	14,117	8,757	8,444	17,935	5,977
Malagasy Republic .. .. .	18	15	7	3	18	29
Morocco—						
Crude .. .. .	9,198	9,194	3,386	7,752	2,894	4,581
Unrefined, ground .. .. .	434	487	1,246	1,153	984	966
Refined .. .. .	249	558	325	75	156	92
Flowers of sulphur .. .. .	2,913	2,530	2,535	2,540	2,872	3,492
Precipitated .. .. .	13	203	8	12	24	46
Mozambique .. .. .	411	649	659	778	482	583
South Africa .. .. .	114,028	114,595	111,326	116,393	122,151	142,962
Tunisia—						
Crude and unrefined .. .. .	2,137	6,592	8,593	4,962	9,637	21,152
Refined and flowers of sulphur .. .. .	1,091	657	823	1,623	1,019	203
Costa Rica .. .. .	163	126	147	10	132	40
Cuba .. .. .	81,899	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Guatemala .. .. .	173	74	95	104	35	2
Mexico .. .. .	238	173	146	145	151	340
Netherlands Antilles .. .. .	4,987	1,501	4,002	—	3,407	1,959
Nicaragua .. .. .	904	4,143	5,583	8,221	6,724	275
Salvador .. .. .	15	27	42	16	3,420	43
United States .. .. .	642,488	741,370	831,517	1,049,433	1,813,338	1,462,211
Argentina—						
Crude .. .. .	25,809	29,720	20,188	23,856	13,674	44,310
Refined and flowers of sulphur .. .. .	34	24	104	71	80	165
Bolivia .. .. .	<i>n.a.</i>	18	32	11	58	<i>n.a.</i>
Brazil—						
Crude .. .. .	103,782	137,844	128,018	150,351	173,814	138,577
Refined .. .. .	327	242	161	182	—	—
Precipitated .. .. .	44	47	12	13	35	23
Colombia .. .. .	61	68	95	4,773	3,346	1,537
Ecuador .. .. .	21	<i>n.a.</i>	96	22	87	134
Peru .. .. .	7,954	12,189	9,825	15,515	12,745	12,062
Uruguay .. .. .	3,275	6,443	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela .. .. .	3,866	2,553	8,839	10,390	10,284	22,381
Burma .. .. .	535	691	1,688	1,468	402	513
Formosa .. .. .	4,529	10,683	11,915	15,252	39,775	86,535
Indonesia .. .. .	11,254	8,447	9,290	8,310	<i>n.a.</i>	<i>n.a.</i>
Iran (a) .. .. .	<i>n.a.</i>	<i>n.a.</i>	5,148	15,521	6,517	269
Iraq .. .. .	378	1,004	869	1,370	2,402	<i>n.a.</i>
Israel .. .. .	51,231	59,965	43,079	67,816	49,449	69,057
Japan .. .. .	121	93	101	35	13,588	24,227
Jordan .. .. .	1,189	825	1,455	1,556	2,787	2,319
Korea (South) .. .. .	4,263	4,433	7,526	214	1,453	89
Lebanon .. .. .	5,751	3,504	3,692	3,501	9,586	<i>n.a.</i>
Philippine Republic .. .. .	1,374	1,815	535	2,744	3,905	<i>n.a.</i>
Syria .. .. .	853	1,151	904	1,032	558	1,363
Thailand .. .. .	591	3,216	2,268	3,746	6,644	9,288
Turkey—						
Refined and flowers of sulphur .. .. .	48	227	64	9	245	207

(a) Years ended March 20 of year following that stated.

**TALC**  
**PRODUCTION OF TALC**  
(Including Steatite and Pyrophyllite)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Great Britain .. ..	5,683	6,468	6,930	7,357	7,976	10,155
Rhodesia .. ..	—	—	—	20	19	14
Swaziland—						
Pyrophyllite .. ..	900	1,530	2,638	3,484	2,725	1,964
Canada (c) .. ..	34,979	37,175	42,961	41,215	48,437	51,027
India .. ..	63,467	91,917	96,264	108,705	119,069	133,169
Pakistan (f) .. ..	2,340	3,370	1,473	1,102	1,840	2,519
Australia—						
Talc .. ..	16,376	15,670	13,545	r 13,709	12,918	14,914
Pyrophyllite .. ..	347	501	1,288	r 1,282	837	611
<b>OTHER COUNTRIES</b>						
Austria .. ..	50,424	80,978	83,606	74,574	64,607	70,737
Finland .. ..	7,376	9,829	6,221	6,329	6,649	5,900
France .. ..	172,793	184,819	219,132	184,000	155,624	197,000
Germany (Federal) .. ..	27,111	28,819	29,193	27,152	24,069	30,004
Greece .. ..	292	1,793	1,825	2,377	(a) 2,500	(a) 2,800
Italy .. ..	107,532	122,426	r 132,773	r 127,465	137,134	130,154
Norway .. ..	68,774	r 75,537	r 89,999	r 89,321	71,908	75,880
Portugal .. ..	217	669	709	321	531	787
Spain .. ..	27,376	27,547	27,230	27,287	27,069	n.a.
Sweden .. ..	14,205	15,595	15,420	17,144	18,478	16,400
U.S.S.R. (a) .. ..	245,000	250,000	290,000	300,000	345,000	345,000
Egypt .. ..	5,989	5,905	5,862	6,029	4,714	16,555
Morocco .. ..	3,496	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa (b) .. ..	1,341	1,767	2,928	12,429	6,755	6,512
Mexico .. ..	3,625	4,303	4,121	(a) 3,900	(a) 3,900	(a) 3,900
United States—						
Talc .. ..	571,771	544,502	540,142	577,215	602,982	673,072
Pyrophyllite .. ..	134,978	111,278	140,554	111,828	115,195	121,525
Argentina .. ..	26,730	(g) 18,740	(g) 18,415	(g) 14,619	(g) 14,678	(g) 10,237
Brazil .. ..	20,865	19,603	23,400	37,695	34,364	44,500
Colombia .. ..	—	350	550	650	650	718
Paraguay (a) .. ..	100	100	100	100	100	n.a.
Peru—						
Talc .. ..	1,512	240	329	281	3,232	2,628
Pyrophyllite .. ..		1,306	2,561	1,411		
Uruguay .. ..	2,085	2,944	1,658	1,688	1,688	2,090
Afghanistan (d) .. ..	700	700	700	n.a.	n.a.	n.a.
Burma .. ..	n.a.	n.a.	1,377	n.a.	n.a.	n.a.
China (a) .. ..	150,000	150,000	150,000	150,000	150,000	150,000
Formosa .. ..	6,321	10,390	12,219	13,197	14,553	16,713
Iran (e) .. ..	300	300	300	n.a.	n.a.	n.a.
Japan—						
Talc .. ..	39,529	49,927	54,971	56,333	66,976	95,962
Pyrophyllite .. ..	438,275	533,068	569,593	523,713	776,373	745,275
Korea (South)—						
Talc .. ..	16,380	15,727	21,332	27,920	31,880	43,207
Pyrophyllite .. ..	827	6,497	23,606	17,826	31,309	45,429
Korea (North) (a) .. ..	2,000	3,900	14,500	20,000	20,000	20,000
Philippine Republic .. ..	—	5	187	116	93	96
<b>TOTAL*</b> .. ..	<b>2,270,000</b>	<b>2,440,000</b>	<b>r 2,650,000</b>	<b>2,610,000</b>	<b>2,930,000</b>	<b>3,120,000</b>

\*Excluding talc known to have been produced in Roumania.

(a) United States Bureau of Mines' estimate.

(b) In addition the following amounts of wonderstone were produced (long tons):  
1959—350; 1960—624; 1961—913; 1962—1,650; 1963—1,826; 1964—1,677.

(c) Shipments. (d) Estimated. (e) Years ended 20 March of year following that stated.

(f) West Pakistan. (g) Excluding pyrophyllite.



EXPORTS OF TALC

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Canada .. .. .	1,833	1,482	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
India .. .. .	7,387	7,108	9,484	15,418	14,015	11,771
Malaya .. .. .	574	361	552	350	390	386
Australia .. .. .	2,620	3,905	4,191	4,988	4,025	5,181
<b>OTHER COUNTRIES</b>						
Austria .. .. .	34,002	62,452	61,397	55,008	50,803	54,915
Belgium-Luxemburg						
E.U. .. .. .	33	40	8	8	37	91
France .. .. .	31,618	42,497	43,558	44,113	48,840	50,468
Germany (Federal) ..	1,160	920	1,137	1,041	1,187	1,196
Italy .. .. .	41,117	49,405	49,381	50,787	46,428	42,983
Netherlands .. .. .	72	120	144	193	159	144
Norway .. .. .	53,782	62,020	60,878	63,162	65,508	73,581
Portugal .. .. .	<i>n.a.</i>	13	20	5	6	87
Sweden .. .. .	2,836	1,838	1,352	1,968	1,435	4,131
Switzerland .. .. .	<i>n.a.</i>	23	121	1,091	1,507	1,256
Egypt .. .. .	701	1,273	2,012	<i>n.a.</i>	1,012	1,619
Mexico .. .. .	366	355	1	—	2	6
United States .. .. .	52,456	53,087	42,779	41,910	50,431	66,070
Japan .. .. .	810	1,000	1,178	1,687	2,975	629
Korea (South)—						
Talc .. .. .	14,198	6,964	14,279	249	17,293	26,482
Pyrophyllite .. .. .	8,187	8,208	12,360	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

IMPORTS OF TALC

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unground .. .. .	229	848	994	624	} 44,131	47,832
Ground .. .. .	39,239	41,595	38,881	42,515		
Canada .. .. .	16,507	17,101	18,040	21,561	24,589	28,803
Ceylon .. .. .	1,812	1,855	1,530	2,191	1,885	1,007
Malaya .. .. .	3,953	5,803	7,154	3,436	5,498	4,596
Australia (a) .. .. .	253	539	958	1,468	3,155	2,631
New Zealand .. .. .	1,290	1,231	1,217	n.a.	(a) 1,254	n.a.
<b>OTHER COUNTRIES</b>						
Austria .. .. .	205	281	1,373	1,759	1,100	883
Belgium-Luxemburg						
E.U. .. .. .	11,576	13,148	13,417	14,846	15,829	16,690
Denmark .. .. .	7,880	10,750	11,376	11,606	10,904	12,966
Finland .. .. .	2,785	4,042	2,774	2,799	2,542	3,766
France .. .. .	4,018	4,831	6,622	6,899	8,543	7,635
Germany (Federal) .. .. .	39,223	47,681	48,391	50,038	49,264	59,769
Greece .. .. .	34	25	54	83	61	405
Italy .. .. .	1,959	3,916	6,607	8,664	12,971	12,115
Netherlands .. .. .	10,511	11,241	10,946	11,822	13,430	13,498
Norway .. .. .	1,258	1,405	1,570	2,718	3,621	3,037
Poland .. .. .	9,200	38,400	30,900	n.a.	8,600	10,200
Portugal .. .. .	865	914	990	1,180	1,358	1,912
Sweden .. .. .	10,187	9,088	11,614	10,428	12,867	14,457
Switzerland .. .. .	n.a.	14,390	15,460	15,725	15,186	13,098
U.S.S.R. .. .. .	80,200	81,800	49,600	73,600	59,000	71,500
Yugoslavia .. .. .	354	335	400	348	670	6,602
Algeria .. .. .	2,651	4,317	n.a.	n.a.	n.a.	n.a.
Congo Republic .. .. .	348	n.a.	n.a.	n.a.	n.a.	n.a.
Egypt .. .. .	—	2	15	6	n.a.	n.a.
Malagasy Republic .. .. .	8	5	16	9	3	8
Morocco .. .. .	809	874	1,412	1,644	1,865	1,450
Tunisia .. .. .	438	654	498	655	688	619
Costa Rica .. .. .	62	80	85	83	133	103
Guatemala .. .. .	70	71	93	121	114	116
Honduras .. .. .	28	36	17	15	25	17
Mexico—						
Talc .. .. .	19,328	22,476	28,810	23,501	31,122	39,361
Pyrophyllite .. .. .	542	1,485	271	95	60	89
Salvador .. .. .	26	41	74	66	53	98
United States .. .. .	22,635	21,407	24,424	23,014	22,929	20,284
Argentina .. .. .	3	52	128	74	70	190
Brazil .. .. .	10	5	1	—	—	—
Chile .. .. .	42	34	67	53	n.a.	n.a.
Colombia .. .. .	1,129	1,126	976	1,111	991	981
Ecuador .. .. .	104	n.a.	159	86	164	169
Peru .. .. .	465	398	654	493	602	732
Venezuela .. .. .	1,533	1,212	1,446	1,741	1,914	2,733
Iran (b) .. .. .	n.a.	n.a.	20	454	377	125
Iraq .. .. .	366	348	389	282	325	n.a.
Japan .. .. .	33,296	27,809	40,029	40,816	15,604	26,403
Lebanon .. .. .	220	474	301	148	218	n.a.
Philippine Republic .. .. .	1,806	2,532	1,800	1,710	2,684	n.a.
Syria .. .. .	268	n.a.	n.a.	491	44	581
Thailand .. .. .	931	863	1,276	1,371	1,161	1,747
Turkey .. .. .	168	274	324	179	279	93

(a) Years ended June 30 of that stated.

(b) Years ended March 20 of year following that stated.

**TANTALUM AND NIOBIUM MINERALS**  
**PRODUCTION OF TANTALUM AND NIOBIUM MINERALS**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya—						
Columbite .. ..	1	(385 lb.)	—	(375 lb.)	—	—
Nigeria—						
Tantalite .. ..	12	11	13	17	13	10
Columbite .. ..	1,588	2,047	2,345	2,264	2,011	2,339
Rhodesia—						
Tantalum concentrates	52	48	62	72	67	63
Tanzania—						
Niobium concentrates (d)	(h) 100	(h) 150	(h) 120	—	—	—
Uganda—						
Tantalite and columbite	2	2	7	12	9	(d) 6
Canada—						
Niobium concentrates (Nb <sub>2</sub> O <sub>5</sub> content) ..	—	—	28	454	622	1,004
Malaya—						
Columbite .. ..	120	93	95	110	88	56
Australia—						
Tantalite and columbite	8	11	14	19	14	15
<b>OTHER COUNTRIES</b>						
Norway—						
Niobium concentrates (b)	285	341	316	344	377	320
Portugal—						
Tantalite and columbite	18	25	19	15	10	5
Congo Republic—						
Tantalite and columbite concentrates .. ..	177	(g) 232	(g) 66	(g) r 139	(g) 115	n.a.
Tin-tantalite-columbite	(c) 1,223	(f) 670	(f) 625	n.a.	n.a.	n.a.
Ivory Coast—						
Tantalite and columbite	1	3	4	3	1	1
Malagasy Republic—						
Columbite .. ..	10	10	21	(d) 7	17	13
Mozambique—						
Tantalite and columbite	143	142	133	101	79	43
Rwanda and Burundi—						
Tantalite and columbite concentrates .. ..	56	(g) 47	(g) 45	(g) 38	(g) 12	(g) 154
Tin-tantalite-columbite	(e) 15	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa—						
Tantalite .. ..	5	6	9	4	29	6
South West Africa—						
Tantalum and niobium concentrates .. ..	2	5	3	5	2	1
United States—						
Tantalum and niobium concentrates (a) ..	84	—	—	—	—	—

(a) Shipments from mine. Principally niobium-tantalum oxide content of euxenite concentrates.

(b) 50% Nb<sub>2</sub>O<sub>5</sub> in 1959; 55% Nb<sub>2</sub>O<sub>5</sub> in 1960; 55.3% Nb<sub>2</sub>O<sub>5</sub> in 1961; 57.9% Nb<sub>2</sub>O<sub>5</sub> in 1962; 56.2% Nb<sub>2</sub>O<sub>5</sub> in 1963; 53.8% Nb<sub>2</sub>O<sub>5</sub> in 1964.

(c) Estimated to contain 79 tons of tantalite-columbite.

(d) Exports.

(e) Estimated to contain 6 tons of tantalite-columbite.

(f) United States Bureau of Mines' estimate.

(g) Including tantalite-columbite content of tin-tantalite-columbite.

(h) 25% Nb<sub>2</sub>O<sub>5</sub>.

PRODUCTION OF TANTALUM AND NIOBIUM MINERALS (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Argentina—</b>						
Tantalite .. ..	(a) 1	—	(a) 2	(a) 2	(a) 2	(a) —
Columbite .. ..	(a) 2	—	—	(a) —	—	(a) —
<b>Brazil—</b>						
Tantalite and columbite	127	210	106	137	129	24
Pyrochlore concentrates	—	—	(c) 787	(c) 787	<i>n.a.</i>	<i>n.a.</i>
<b>French Guiana—</b>						
Tantalite and columbite	—	—	—	—	2	1
<b>TOTAL (b) ..</b>	<b>2,880</b>	<b>3,380</b>	<b>4,220</b>	<i>r</i> <b>4,930</b>	<b>4,250</b>	<b>5,100</b>

Small quantities of tantalite and columbite have been produced in Zambia, India and the Somali Republic.

(a) Imports into the United States.

(b) Total of tantalum and niobium concentrates produced in the countries listed above.

(c) Estimated. Production was 1,575 tons during the period 1961-1962.

## EXPORTS OF TANTALUM AND NIOBIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ferro-niobium and ferro-niobium-tantalum ..	71	97	83	68	173	153
Nigeria—						
Tantalite .. ..	16	11	11	13	20	11
Columbite .. ..	1,882	3,334	1,839	2,266	1,599	3,132
Rhodesia (d) .. ..						
Tantalum concentrates	32	46	38	74	87	74
Tanzania—						
Niobium concentrates ..	100	150	120	—	—	—
Uganda—						
Tantalite and columbite	1	3	3	9	6	6
Malaya—						
Columbite .. ..	47	99	138	98	65	6
Australia (a)—						
Tantalite and columbite	9	15	13	16	12	20
<b>OTHER COUNTRIES</b>						
Germany (Federal)—						
Tantalum metal, etc. ..	(5,700lb.)	(28,400lb.)	(22,000lb.)	(24,900lb.)	(13,200lb.)	(9,500lb.)
Niobium metal, etc. ..	(1,100lb.)	(3,300lb.)	(2,900lb.)	(4,200lb.)	(1,000lb.)	(1,500lb.)
Portugal—						
Tantalite and columbite	33	47	40	42	31	25
Norway—						
Niobium concentrates ..	331	270	192	264	281	308
Congo Republic (c)—						
Tantalite and columbite	355	(b) 200	(b) 120	(b) 130	(b) 140	(b) 374
Tantaliferous slag .. ..	151	806	n.a.	n.a.	n.a.	n.a.
Malagasy Republic—						
Columbite .. ..	7	24	14	7	26	16
Mozambique—						
Columbite .. ..	135	n.a.	40	101	136	60
South Africa—						
Tantalite .. ..	—	1	1	10	21	—
South West Africa—						
Tantalite .. ..	—	1	2	4	1	—
United States—						
Tantalum concentrates	5	14	97	62	25	89
Niobium concentrates	7	69	25	10	21	153
Tantalum metal, etc. ..	(6,141lb.)	(17,559lb.)	(15,554lb.)	(18,078lb.)	(44,390lb.)	(32,489lb.)
Niobium metal, etc. ..	(354lb.)	(3,910lb.)	(13,376lb.)	(16,827lb.)	(14,276lb.)	(4,674lb.)
Tantalum powder .. ..	(1,988lb.)	(1,174lb.)	(5,585lb.)	(14,292lb.)	(14,146lb.)	(32,217lb.)
Brazil—						
Tantalite .. ..	93	115	118	144	103	81
Columbite .. ..	15	12	17	17	19	11
Pyrochlore concentrates	—	—	—	—	753	n.a.

(a) Years ended June 30 of that stated.

(b) Estimated.

(c) Including Rwanda and Burundi.

(d) Figures for 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF TANTALUM AND NIOBIUM MINERALS, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
<b>United Kingdom—</b>						
Tantalum and niobium ores and concentrates	369	618	576	485	745	1,439
Tantalum metal ..	(1,119lb.)	(3,283lb.)	(5,444lb.)	(5,599lb.)	(8,394lb.)	(10,940lb.)
<b>OTHER COUNTRIES</b>						
<b>France—</b>						
Tantalum and niobium minerals ..	127	155	145	88	71	148
<b>Germany (Federal)—</b>						
Tantalum and niobium minerals ..	499	1,209	(b) 650	(b) 350	(b) 650	n.a.
Tantalum metal, etc. ..	(4,000lb.)	(4,900lb.)	(11,700lb.)	(13,700lb.)	(6,600lb.)	(11,500lb.)
<b>United States—</b>						
Tantalum concentrates	291	310	361	541	422	438
Niobium concentrates ..	1,516	2,262	1,328	2,255	2,628	2,054
Tantalum metal ..	(405lb.)	(1,960lb.)	(2,887lb.)	(1,788lb.)	(1,597lb.)	(3,491lb.)
Niobium metal (a) ..	(1,160lb.)	(3,133lb.)	(2,139lb.)	(9,489lb.)	(1,427lb.)	(3,792lb.)
<b>Japan—</b>						
Niobium minerals ..	3	86	55	11	76	300

(a) As recorded in official trade returns. According to U.S. Bureau of Mines includes ferro-alloy.

(b) Estimated.

**TIN**  
**PRODUCTION OF TIN ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	1,189	1,180	1,188	1,173	1,286	1,267
Nigeria ..	5,491	7,677	7,778	8,211	8,725	8,721
Rhodesia ..	605	642	715	706	525	536
Swaziland ..	5	6	5	5	4	2
Tanzania ..	65	138	169	214	242	287
Uganda ..	36	32	33	69	165	213
Zambia ..	1	—	1	5	1	9
Canada (b) ..	334	278	500	291	414	159
Malaya ..	37,521	51,979	56,028	58,603	59,948	60,004
Australia ..	2,351	2,202	2,745	2,715	2,860	3,604
<b>TOTAL ..</b>	<b>47,598</b>	<b>64,134</b>	<b>69,162</b>	<b>71,992</b>	<b>74,170</b>	<b>74,802</b>
<b>OTHER COUNTRIES</b>						
France ..	—	21	153	314	272	486
Germany (Eastern) (a) ..	720	720	720	720	720	n.a.
Italy ..	17	—	—	n.a.	n.a.	n.a.
Portugal ..	1,129	772	729	679	718	676
Spain ..	326	196	230	231	158	89
Cameroun ..	62	64	65	20	25	39
Congo Republic ..	9,193	8,636	6,314	6,875	6,883	7,688
Congo (Republic of) ..	32	35	47	46	43	35
Morocco ..	10	10	11	11	9	14
Niger ..	57	53	47	r 41	55	51
Rwanda and Burundi ..	1,127	1,277	1,474	(a) 1,325	1,271	1,360
South Africa ..	1,272	1,276	1,430	1,421	1,530	1,586
South West Africa ..	5	261	302	369	443	474
Mexico ..	377	365	530	576	1,055	1,206
United States ..	50	10	n.a.	n.a.	n.a.	n.a.
Argentina ..	225	238	515	r 231	220	(f) 200
Bolivia (c) ..	23,774	18,938	20,318	20,366	22,499	22,960
Brazil ..	461	1,556	581	731	1,153	(a) 1,200
Peru (e) ..	42	6	14	11	22	22
Burma ..	800	950	951	1,041	914	568
China (a) (d) ..	21,000	24,000	24,000	24,000	24,000	n.a.
Indonesia ..	21,613	22,594	18,573	17,310	12,947	16,345
Japan ..	998	842	853	859	856	782
Laos ..	294	383	332	367	(a) 400	(a) 500
Thailand ..	9,684	12,080	13,270	14,679	15,585	15,597
<b>TOTAL*</b> ..	<b>93,000</b>	<b>95,000</b>	<b>91,000</b>	<b>r 92,000</b>	<b>92,000</b>	<b>97,000</b>
<b>WORLD'S TOTAL*</b> ..	<b>141,000</b>	<b>159,000</b>	<b>160,000</b>	<b>r 164,000</b>	<b>166,000</b>	<b>171,000</b>

\*Excluding tin ore known to have been produced in Czechoslovakia, the U.S.S.R. and Vietnam.

(a) Estimated by International Tin Council.

(b) Tin in concentrates exported and in tin-lead alloy.

(c) Content of ore plus metal exported.

(d) Smelter.

(e) Recoverable.

(f) United States Bureau of Mines' estimate.

## SMELTER PRODUCTION OF TIN

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	26,614	26,374	24,449	18,749	17,444	16,849
Nigeria .. .. .	—	—	622	8,034	9,050	8,749
Rhodesia .. .. .	572	609	672	677	499	511
Malaya .. .. .	45,729	76,366	79,114	82,073	84,001	71,351
Australia .. .. .	2,226	2,254	2,546	2,704	2,626	3,021
<b>TOTAL .. .. .</b>	<b>75,141</b>	<b>105,603</b>	<b>107,403</b>	<b>112,237</b>	<b>113,620</b>	<b>100,481</b>
<b>OTHER COUNTRIES</b>						
Belgium .. .. .	6,608	8,515	6,372	9,507	8,280	6,804
Germany—						
Federal Republic .. .. .	1,010	782	947	1,309	1,052	1,178
Eastern (b) .. .. .	600	600	600	600	600	n.a.
Netherlands .. .. .	9,592	6,393	2,729	4,282	5,762	15,858
Portugal .. .. .	1,174	601	784	766	663	589
Spain .. .. .	346	464	731	r 909	1,505	2,175
Congo Republic .. .. .	3,291	2,532	275	945	1,441	1,485
Morocco (b) .. .. .	10	10	10	10	10	10
South Africa .. .. .	726	622	870	821	937	1,016
Mexico .. .. .	377	365	559	520	1,055	1,145
United States (b) .. .. .	10,700	13,500	8,500	5,500	1,500	3,900
Argentina (b) .. .. .	120	120	120	120	120	120
Bolivia (a) .. .. .	917	1,020	1,840	1,882	2,209	2,461
Brazil .. .. .	1,227	1,311	1,525	r 1,835	2,051	(b) 2,100
China (b) .. .. .	21,000	24,000	24,000	24,000	24,000	n.a.
Indonesia .. .. .	1,971	1,977	(b) 2,000	(b) 2,000	(b) 2,000	(b) 1,800
Japan .. .. .	1,271	1,215	1,555	1,903	1,976	1,954
<b>TOTAL* .. .. .</b>	<b>61,000</b>	<b>64,000</b>	<b>53,000</b>	<b>57,000</b>	<b>55,000</b>	<b>67,000</b>
<b>WORLD'S TOTAL* .. .. .</b>	<b>136,000</b>	<b>170,000</b>	<b>160,000</b>	<b>169,000</b>	<b>169,000</b>	<b>168,000</b>

\*Excluding tin metal known to have been produced in Czechoslovakia and the U.S.S.R.

In addition secondary tin recovered in the United States (as metal, in alloys, and in chemical compounds) was as follows:

	1959	Long tons		1962	Long tons
	.. .. .	23,700		.. .. .	21,040
	1960 .. .. .	22,050		1963 .. .. .	22,332
	1961 .. .. .	21,690		1964 .. .. .	23,508

(a) Exports.

(b) Estimated by International Tin Council.



## EXPORTS OF TIN, ETC.\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Unwrought .. .. .	29,245	7,777	9,799	7,156	8,450	6,443
do. alloys .. .. .	2,434	1,529	1,839	2,333	2,656	2,995
Semi-manufactures (a)	292	301	301	468	334	514
Nigeria—						
Ore and concentrates .. .. .	7,536	10,658	10,410	347	160	25
Unwrought .. .. .	—	—	600	7,542	9,673	10,557
Rhodesia— (c) .. .. .						
Ore and concentrates .. .. .	108	15	254	31	—	54
Unwrought .. .. .	324	483	486	549	463	473
Tanzania— .. .. .						
Ore and concentrates .. .. .	88	192	226	295	341	361
Uganda—						
Ore and concentrates .. .. .	55	46	42	87	230	320
Zambia—						
Ore and concentrates .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	155
Canada—						
Concentrates (Sn content) .. .. .	400	<i>n.a.</i>	480	287	800	329
Hong Kong—						
Unwrought (a) .. .. .	189	169	152	37	109	87
Scrap .. .. .	—	—	2	65	10	—
Semi-manufactures	3	2	2	5	12	3
India—						
Scrap .. .. .	40	(b) 65	(b) 123	(b) 34	(b) 3	(b) 53
Malaya—						
Unwrought .. .. .	44,671	76,366	78,025	81,392	86,094	71,314
do. alloys .. .. .	24	40	66	26	40	22
Semi-manufactures (a)	—	2	2	2	1	14
Australia—						
Ore and concentrates .. .. .						
(Sn content) .. .. .	43	2	178	27	139	326
Unwrought .. .. .	9	14	1	—	7	1
do. alloys .. .. .	21	24	1	2	39	8
<b>OTHER COUNTRIES</b>						
Austria—						
Unwrought (a) .. .. .	82	120	92	1	38	55
Belgium-Luxemburg						
E.U.—						
Unwrought .. .. .	6,212	7,981	4,405	6,803	6,319	4,506
do. alloys .. .. .	135	124	124	93	60	68
Scrap .. .. .	140	120	301	166	342	317
Semi-manufactures (a)	117	104	195	296	359	209
Denmark—						
Unwrought .. .. .	151	130	111	18	53	44
do. alloys .. .. .	8,580	2,780	3,873	632	653	729
Scrap .. .. .	—	2	—	—	4	—
Semi-manufactures (a)	25	35	24	19	29	31
France—						
Ore .. .. .	32	44	257	465	371	643
Unwrought .. .. .	24	35	32	18	35	70
do. alloys .. .. .	91	136	143	137	53	124
Semi-manufactures (a)	284	184	182	130	103	61
Germany (Federal)—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	84	81	81
Unwrought (a) .. .. .	10,294	18,299	18,557	1,651	1,365	1,478
Scrap .. .. .	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3	111	59
Semi-manufactures (a)	63	105	160	82	129	120

\*In these tables the description "unwrought" tin corresponds to item 687.1 in the Standard International Trade Classification (Revised) and comprises ingots, pigs, unwrought bars, sticks, etc. "Semi-manufactures" corresponds to S.I.T.C. (R) 687.2 and includes foil and powder as well as sheets, strip, wire, pipes, tubes, etc.

(a) Including alloys.

(b) Years ended March 31 following that stated.

(c) Figures for 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF TIN, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Italy—						
Unwrought (a) ..	5	131	27	213	23	241
Semi-manufactures (a) ..	32	18	19	28	9	6
Netherlands—						
Unwrought .. ..	19,721	12,234	8,583	4,157	4,187	13,813
do. alloys .. ..	2,192	5,164	3,989	504	666	605
Scrap (a) .. ..	226	156	311	281	555	323
Semi-manufactures (a) ..	282	184	233	322	260	367
Norway—						
Unwrought (a) ..	386	389	405	271	210	292
Semi-manufactures (a) ..	2	—	—	2	—	4
Portugal—						
Ore .. ..	78	145	65	—	116	122
Unwrought .. ..	79	314	806	486	203	375
Spain—						
Unwrought .. ..	251	—	10	—	—	494
Sweden—						
Unwrought .. ..	64	21	16	24	3	37
do. alloys .. ..	371	267	128	213	121	96
Switzerland—						
Unwrought .. ..	12	19	14	10	18	36
Scrap .. ..	180	166	254	195	164	132
Semi-manufactures (a) ..	26	17	33	37	35	23
U.S.S.R.—						
Unwrought .. ..	17,800	11,300	5,600	500	700	—
Algeria—						
Scrap .. ..	6	11	n.a.	n.a.	n.a.	n.a.
Cameroun—						
Ore .. ..	118	103	89	120	36	76
Congo Republic (c)—						
Ore .. ..	9,638	(b) 10,000	(b) 10,000	(b) 10,000	(b) 9,000	(b) 8,000
Unwrought .. ..	2,820	2,421	(b) 300	(b) 900	(b) 1,400	(b) 1,500
Congo (Republic of)—						
Ore .. ..	35	20	55	70	39	59
Niger—						
Ore .. ..	86	75	50	6	60	6
South Africa—						
Concentrates .. ..	1,273	1,499	1,394	1,422	1,730	978
Ore and concentrates ..	—	138	176	153	293	296
United States—						
Unwrought (a) ..	943	608	543	335	1,544	2,726
Scrap (a) .. ..	7,619	4,199	6,110	4,342	4,975	4,844
Semi-manufactures (a) ..	94	198	4,396	646	887	1,049
Argentina—						
Ore .. ..	202	109	183	137	47	70
Tin-silver ore .. ..	1,003	723	1,160	1,374	1,384	1,749
Bolivia—						
Ores, concentrates, etc. (Sn content) .. ..	22,857	17,918	18,478	18,484	20,290	20,499
Unwrought .. ..	917	1,020	1,840	1,882	2,209	2,461
Peru—						
Concentrates (Sn content) .. ..	46	30	16	23	21	39
Unwrought (Sn content) .. ..	11	—	29	7	6	—
Burma—						
Ore and concentrates (Sn content) .. ..	1,377	1,395	1,325	1,412	1,467	720
China—						
Unwrought (b) .. ..	25,000	22,000	18,000	15,000	12,000	10,000

(a) Including alloys.

(b) Estimated.

(c) Including Rwanda and Burundi.

## EXPORTS OF TIN, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Indonesia—						
Ore .. .. .	24,856	34,227	23,127	27,386	<i>n.a.</i>	<i>n.a.</i>
<i>Sn content</i> .. .. .	18,426	24,867	16,788	16,710	(b) 12,000	(b) 15,000
Unwrought .. .. .	285	1,765	1,796	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Japan—						
Semi-manufactures (a)	75	13	103	351	1,026	78
Laos—						
Ore ( <i>Sn content</i> ) ..	386	445	550	514	402	495
Thailand—						
Ore ( <i>Sn content</i> ) ..	10,100	12,618	13,122	19,527	21,656	1,142

(a) Including alloys.

(b) Estimated.

## IMPORTS OF TIN, ETC.\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates ..	61,494	58,268	51,364	50,058	44,883	43,518
Unwrought (a) ..	(b) 2,775	2,208	(b) 582	8,361	7,742	8,685
Ghana—						
Unwrought (a) ..	} 68	17	{ 10	7	6	7
Semi-manufactures (a) ..						
Kenya—						
Unwrought (a) ..	112	115	99	121	203	43
Mauritius—						
Unwrought (a) ..	10	16	5	4	5	5
Semi-manufactures (a) ..	8	7	11	—	8	17
Nigeria—						
Unwrought and semi-manufactures (a) ..	35	23	18	74	4	237
Rhodesia (d)—						
Unwrought and semi-manufactures (a) ..	n.a.	74	77	48	132	78
Tanzania—						
Unwrought (a) ..	71	79	67	47	58	20
Uganda—						
Unwrought (a) ..	28	39	41	36	39	32
Zambia—						
Unwrought and semi-manufactures (a) ..	n.a.	n.a.	n.a.	n.a.	n.a.	41
Canada—						
Unwrought ..	4,184	3,768	3,525	2,274	4,193	4,849
Semi-manufactures ..	8	9	12	6	6	n.a.
Barbados—						
Unwrought (a) ..	5	6	3	5	3	2
Semi-manufactures (a) ..	51	45	85	169	195	284
Jamaica—						
Unwrought (a) ..	33	28	21	36	28	186
Semi-manufactures (a) ..	—	154	945	428	479	148
Trinidad and Tobago—						
Unwrought (a) ..	91	274	72	60	38	n.a.
Semi-manufactures (a) ..	366	673	212	495	731	n.a.
British Guiana—						
Unwrought (a) ..	51	15	12	12	n.a.	16
Semi-manufactures (a) ..	12	8	9	3	n.a.	3
Aden—						
Semi-manufactures (a) ..	1,324	1,573	1,296	1,220	n.a.	n.a.
Ceylon—						
Unwrought ..	11	17	17	11	40	30
do. alloys ..	57	38	23	33	22	14
Semi-manufactures (a) ..	1,906	2,114	1,704	2,480	3,900	4,346
Cyprus—						
Unwrought (a) ..	19	14	12	14	9	8
Hong Kong—						
Unwrought (a) ..	189	169	222	203	213	101
Scrap ..	16	13	20	44	8	4
Semi-manufactures (a) ..	11	21	3	7	4	—
India—						
Unwrought ..	4,295	3,921	4,566	4,672	4,403	5,043
Semi-manufactures (a) ..	68	(c) 14	(c) 43	(c) 20	(c) 172	(c) 114
Malaya—						
Ore ..	11,853	29,704	26,356	33,313	27,964	13,230
Unwrought (a) ..	149	139	192	233	176	133
Semi-manufactures (a) ..	4	100	22	42	68	114

\* See footnote on page 369 concerning the descriptions "unwrought" tin and "semi-manufactures" used in these tables.

(a) Including alloys.

(b) Excess of re-exports.

(c) Years ended March 31 following that stated.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF TIN, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES (cont.)						
Pakistan—						
Unwrought (a) ..	130	457	489	461	380	683
Sabah—						
Unwrought .. ..	9	4	174	182	n.a.	7
Semi-manufactures ..	91	155	130	205	n.a.	25
Australia—						
Unwrought .. ..	1,294	1,708	778	1,778	1,751	1,283
Semi-manufactures(b) ..	15	12	23	6	17	20
Fiji—						
Semi-manufactures (a)	3	79	140	153	192	311
Sarawak—						
Unwrought and semi-manufactures (a) ..	2	16	7	3	33	6
New Zealand—						
Unwrought (a) ..	352	362	291	380	397	380
Semi-manufactures (a)	26	19	30	59		
Irish Republic—						
Unwrought (a) ..	69	67	56	44	49	70
OTHER COUNTRIES						
Austria—						
Unwrought (a) ..	651	848	788	722	782	632
Semi-manufactures (a)	5	17	26	24	36	37
Belgium-Luxemburg						
E.U.—						
Ore .. ..	8,740	9,955	10,107	9,976	8,630	6,560
Unwrought .. ..	2,026	3,404	764	1,575	2,417	3,023
do. alloys .. ..	122	117	164	130	1,556	148
Scrap .. ..	3	10	20	3	45	15
Semi-manufactures (a)	131	136	159	125	117	130
Denmark—						
Unwrought .. ..	7,198	2,663	3,653	508	576	631
do. alloys .. ..	521	365	72	102	185	548
Scrap .. ..	1,105	282	451	558	279	124
Semi-manufactures (a)	112	118	109	122	111	108
Finland—						
Unwrought (a) ..	606	609	645	512	330	315
France—						
Unwrought .. ..	10,927	11,676	10,043	11,209	10,998	11,061
do. alloys .. ..	93	206	598	63	51	24
Scrap .. ..	42	47	68	59	87	81
Semi-manufactures (a)	17	18	28	26	26	53
Germany (Federal)—						
Ore .. ..	4,944	3,993	6,285	7,977	8,365	7,539
Unwrought (a) ..	20,435	29,420	27,913	12,084	11,597	13,608
Scrap (a) .. ..	111	115	403	225	358	212
Semi-manufactures (a)	16	37	11	28	21	19
Greece—						
Unwrought .. ..	198	259	273	260	241	265
Hungary—						
Unwrought .. ..	1,152	940	1,053	962	1,162	991
Iceland—						
Semi-manufactures (a)	55	50	35	50	14	12
Italy—						
Unwrought .. ..	3,987	4,672	4,874	4,711	5,168	4,790
do. alloys .. ..	195	440	436	934	718	412
Scrap .. ..	16	—	12	9	9	1
Semi-manufactures (a)	39	66	61	78	120	72

(a) Including alloys.

(b) Years ended June 30 of that stated.

## IMPORTS OF TIN, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES						
(cont.)						
Netherlands—						
Ore .. .. .	13,291	8,351	4,154	7,527	7,804	28,782
Unwrought .. ..	9,261	2,171	2,148	2,515	2,954	1,227
do. alloys .. ..	4,912	10,885	11,966	195	129	275
Scrap (a) .. .. .	62	98	59	60	143	170
Semi-manufactures (a)	236	57	38	81	66	71
Norway—						
Unwrought .. ..	337	208	196	318	308	322
do. alloys .. ..	198	283	338	146	114	215
Semi-manufactures (a)	160	173	177	213	220	302
Poland—						
Unwrought .. ..	3,218	1,270	3,098	2,169	2,429	2,518
Portugal—						
Unwrought (a) ..	220	4	4	6	6	10
Semi-manufactures (a)		14	14	10	17	26
Spain—						
Ore .. .. .	20	559	2,269	1,041	2,779	3,168
Unwrought .. ..	295	513	206	25	74	29
Sweden—						
Unwrought .. ..	965	817	727	800	612	707
do. alloys .. ..	256	280	133	107	164	85
Semi-manufactures (a)	131	118	113	101	114	106
Switzerland—						
Unwrought .. ..	643	849	1,167	1,091	1,002	727
Semi-manufactures (a)	3	185	111	87	88	90
U.S.S.R.—						
Unwrought .. ..	20,500	17,500	11,000	9,700	700	5,400
Yugoslavia—						
Unwrought .. ..	1,010	1,156	1,375	897	2,151	1,373
Semi-manufactures (a)	3	7	10	21	23	19
Algeria—						
Unwrought (a) ..	46	74	n.a.	n.a.	n.a.	n.a.
Semi-manufactures (a)	132	78	n.a.	n.a.	n.a.	n.a.
Egypt—						
Unwrought and scrap ..	646	332	713	544	442	662
Semi-manufactures ..	32	23	86	4	n.a.	n.a.
Malagasy Republic—						
Semi-manufactures (a)	19	25	11	6	13	6
Morocco—						
Unwrought .. ..	163	245	261	280	298	250
Mozambique—						
Semi-manufactures ..	20	16	33	42	46	48
South Africa—						
Unwrought .. ..	621	1,000	670	504	794	n.a.
Sudan—						
Unwrought and scrap ..	23	19	34	35	22	38
Semi-manufactures ..	n.a.	n.a.	n.a.	n.a.	107	258
Tunisia—						
Unwrought (a) .. .	26	28	34	10	15	18
Semi-manufactures (a)	59	13	12	10	11	66
Cuba—						
Unwrought .. ..	56	n.a.	n.a.	n.a.	n.a.	n.a.
Semi-manufactures (a)	120	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico—						
Unwrought .. ..	816	626	178	191	525	347
United States—						
Ore (Sn content) .. .	10,773	14,026	8,917	5,364	1,473	8,743
Unwrought .. ..	43,578	39,538	39,898	41,064	43,151	31,582
do. alloys (b) .. .	3,350	809	612	2,517	268	1,198
Scrap .. .. .	1	1	18	6,570	2,154	976

(a) Including alloys.

(b) Including alloyed scrap, dross and residues.

## IMPORTS OF TIN, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Argentina—						
Unwrought .. ..	1,465	1,696	1,958	954	1,189	1,476
Brazil—						
Ore .. ..	1,705	2,411	2,143	1,843	2,942	923
Unwrought (a) ..	283	33	15	1	1	2
Colombia—						
Unwrought (a) ..	137	91	141	126	265	115
Semi-manufactures (a)	181	68	61	66	42	14
Chile—						
Ore and concentrates ..	10	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Unwrought .. ..	238	374	860	580	611	<i>n.a.</i>
Peru—						
Unwrought (a) ..	65	57	79	61	136	100
Uruguay—						
Unwrought and semi-manufactures .. ..	114	78	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Venezuela—						
Unwrought .. ..	385	123	139	174	191	147
Burma—						
Unwrought .. ..	105	20	29	21	5	44
Semi-manufactures (a)	157	64	51	24	6	—
Formosa—						
Unwrought (a) .. ..	207	145	106	165	185	102
Iran (b)—						
Unwrought .. ..	304	410	322	205	276	216
Iraq—						
Unwrought .. ..	20	16	16	27	123	<i>n.a.</i>
Semi-manufactures ..	35	1,575	68	63	65	<i>n.a.</i>
Israel—						
Unwrought .. ..	93	100	72	93	101	149
Japan—						
Ore and concentrates ..	79	83	763	927	1,509	2,811
Unwrought .. ..	9,706	11,722	11,969	11,613	14,357	16,026
Jordan—						
Semi-manufactures ..	34	<i>n.a.</i>	26	26	33	18
Korea (South)—						
Unwrought and semi-manufactures .. ..	318	137	161	313	215	261
Lebanon—						
Unwrought .. ..	4	4	13	11	10	<i>n.a.</i>
Philippine Republic—						
Unwrought (a) .. ..	280	282	214	469	597	<i>n.a.</i>
Syria—						
Unwrought and scrap ..	30	50	93	70	60	84
Turkey—						
Unwrought (a) .. ..	796	1,065	366	884	486	844
Semi-manufactures (a)	11	27	22	353	15	7

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

**TITANIUM MINERALS**  
**PRODUCTION OF TITANIUM MINERALS**

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Gambia (a)—						
Ilmenite.. .. .	13,202	—	—	—	—	—
Rutile .. .. .	898	—	—	—	—	—
Sierra Leone—						
Rutile concentrates ..	—	—	—	—	(a) 100	—
Canada (shipments) (b)—						
Ilmenite.. .. .	559,205	863,726	1,032,122	665,851	817,286	1,239,520
Ceylon—						
Ilmenite.. .. .	—	6,000	10,000	4,153	(a) 18,786	45,429
India— .. .. .						
Ilmenite.. .. .	298,236	245,807	171,445	135,824	25,553	10,579
Rutile .. .. .	383	966	802	1,590	1,841	1,841
Malaya (a)—						
Ilmenite .. .. .	72,851	118,085	106,871	101,368	146,718	129,222
Australia—						
Ilmenite concentrates (c)	83,577	106,586	166,400	179,494	201,530	306,696
Rutile concentrates ..	81,905	88,637	101,431	119,195	183,260	179,930
<b>OTHER COUNTRIES</b>						
Finland—						
Ilmenite concentrates ..	84,791	82,338	18,993	85,812	93,000	114,230
Norway—						
Ilmenite.. .. .	223,398	230,842	306,003	247,132	238,429	267,727
Portugal—						
Ilmenite.. .. .	1,887	895	97	67	40	56
Spain—						
Ilmenite.. .. .	7,244	10,952	29,629	41,014	49,772	39,604
Egypt—						
Ilmenite.. .. .	15,300	11,800	42,389	43,937	532	21
Rutile .. .. .	1,033	(f) 1,000	(f) 1,000	177	4	—
Malagasy Republic—						
Ilmenite.. .. .	588	2,686	3,250	3,134	3,595	4,800
Mozambique—						
Ilmenite.. .. .	10,251	700	—	—	—	—
Senegal—						
Ilmenite.. .. .	29,412	21,571	17,220	22,078	11,996	} 1,897
Rutile .. .. .	—	—	174	724	697	
South Africa—						
Ilmenite.. .. .	77,887	80,743	88,402	77,764	27,713	—
Rutile .. .. .	3,019	3,299	3,110	3,192	1,237	—
Mexico—.. .. .						
Ilmenite.. .. .	—	—	—	—	139	—
United States (e)—						
Ilmenite (d) .. .. .	566,862	702,118	653,939	721,183	793,214	893,868
Rutile .. .. .	8,452	7,864	8,076	8,912	10,638	7,198

(a) Exports.

(b) Production of titanium dioxide slag (70–72% TiO<sub>2</sub>) at Sorel was as follows (long tons):  
1959—209,527; 1960—345,213; 1961—413,675; 1962—269,150; 1963—338,679; 1964—486,358.

(c) Despatches.

(d) Contains a mixed product containing ilmenite, leucoxene and rutile.

(e) Production of metal (commercial titanium sponge) was as follows (long tons):  
1959—3,480; 1960—4,742; 1961—6,006; 1962—6,009; 1963—7,035; 1964—n.a.

(f) United States Bureau of Mines' estimate.



PRODUCTION OF TITANIUM MINERALS (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Brazil—						
Ilmenite.. .. .	(a) 5,000	n.a.	n.a.	n.a.	n.a.	n.a.
Rutile .. .. .	207	213	218	129	321	223
Japan (b)—						
Ilmenite.. .. .	5,062	5,138	5,883	4,705	4,376	4,778
Thailand—						
Ilmenite.. .. .	491	—	—	—	—	—
<b>WORLD'S TOTAL*—</b>						
Ilmenite .. .. .	2,055,000	2,500,000	2,660,000	2,300,000	2,400,000	3,100,000
Rutile .. .. .	95,900	103,000	115,000	134,000	198,000	189,000

\*Excluding the U.S.S.R.

(a) United States Bureau of Mines' estimate.

(b) Production of metal (commercial titanium sponge) was as follows (long tons): 1959—2,438; 1960—2,271; 1961—2,247; 1962—1,489; 1963—1,731; 1964—2,946.

## EXPORTS OF TITANIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ferro-titanium .. ..	502	276	533	552	1,024	1,076
Titanium oxide .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	128
Gambia—						
Ilmenite .. ..	13,202	—	—	—	—	—
Rutile .. ..	898	—	—	—	—	—
Canada—						
Titanium dioxide slag (70% TiO <sub>2</sub> ) .. ..	(a)	(a)	(a)	(a)	(a)	(a)
Ceylon—						
Ilmenite .. ..	—	1	—	2,750	19,857	36,982
Hong Kong—						
Titanium oxide .. ..	155	130	153	92	75	88
India—						
Ilmenite .. ..	276,618	225,301	123,235	99,649	75,248	26,102
Malaya—						
Ilmenite .. ..	72,851	118,085	106,871	101,368	146,718	129,222
Australia—						
Rutile .. ..	80,938	93,706	99,652	117,291	154,508	193,893
Ilmenite .. ..	68,649	75,319	144,009	155,075	152,040	246,056
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg						
E.U.—						
Titanium oxide .. ..		5,472	5,715	9,897	6,228	1,563
do, extended .. ..		3,549	134	34	3,975	10,648
Finland—						
Ilmenite .. ..	63,539	64,131	34,397	37,176	62,305	49,785
France—						
Titanium minerals .. ..	25	<i>n.a.</i>	725	175	70	5
Ferro-titanium .. ..	1,404	1,695	1,619	1,064	1,387	1,754
Titanium oxide .. ..		6,095	6,917	6,664	7,744	10,508
do, extended .. ..		4,065	10,230	14,293	17,714	23,507
Germany (Federal)—						
Titanium minerals .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	87	221	427
Titanium oxide .. ..	38,722	45,914	48,285	49,813	53,288	54,808
do, extended .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	85	1,267	14,100
Italy—						
Titanium oxide .. ..	6,636	7,046	7,287	11,519	15,066	13,055
Netherlands—						
Titanium oxide .. ..	956	2,369	598	106	2,575	6,090
do, extended .. ..		53	51	14	51	86
Norway—						
Ilmenite .. ..	214,311	257,091	298,549	230,094	236,711	275,039
Rutile .. ..						
Titanium oxide, extended						
do, extended .. ..	3,349	2,711	2,504	1,982	1,650	3,122
Portugal—						
Ilmenite .. ..	100	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Spain—						
Ilmenite .. ..	<i>n.a.</i>	<i>n.a.</i>	18,966	24,413	20,432	26,299
Sweden—						
Titanium minerals .. ..	15	14	48	26	25	25
Titanium oxide .. ..	28	5	21	26	18	24
do, extended .. ..	—	1	2	49	66	—
Cameroun—						
Rutile .. ..	5	28	—	10	—	—
Senegal—						
Ilmenite .. ..	20,849	32,102	21,317	22,599	13,658	2,114
South Africa—						
Ilmenite .. ..	57,490	99,453	80,494	59,356	14,459	16,194
Rutile .. ..	1,409	3,688	1,874	289	—	—

(a) Information not available. Most of the titanium dioxide slag produced in Canada (figures on page 376) is believed to be exported.

## EXPORTS OF TITANIUM MINERALS, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>United States—</b>						
Ores and concentrates..	4,157	1,125	1,282	1,093	1,082	1,929
Titanium metal (a) ..	889	1,164	1,134	1,231	1,567	2,395
Ferro-titanium .. ..	286	219	189	116	188	483
Titanium oxide and pigments .. ..	32,395	30,049	27,771	25,977	23,841	26,213
<b>Brazil—</b>						
Titanium minerals ..	—	—	20	—	—	—
<b>Japan—</b>						
Titanium sponge metal	1,757	1,702	1,620	989	1,189	1,549
Titanium oxide.. ..	13,916	18,803	16,199	21,692	23,576	35,411
<b>Thailand—</b>						
Ilmenite.. .. .	394	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

(a) Including alloys and scrap.

## IMPORTS OF TITANIUM MINERALS, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ilmenite .. .. .	243,886	338,517	273,354	275,890	226,810	178,969
Rutile .. .. .	7,276	10,521	13,842	15,629	18,267	34,879
Titanium sponge .. .. .	—	44	(c) 7	31	n.a.	} (d) 1,706
Other titanium metal .. .. .	1	1	9	9	n.a.	
Titanium oxide .. .. .	1,747	840	1,915	1,880	3,895	
Canada—						
Titanium oxide .. .. .	} 27,319	24,015	23,769	{ 11,268	3,006	1,642
do, extended .. .. .					8,321	9,324
Hong Kong—						
Titanium oxide .. .. .	1,861	2,452	1,941	2,338	2,212	2,324
India—						
Rutile .. .. .	100	146	332	95	—	336
Titanium oxide .. .. .	1,456	(b) 926	(b) 1,477	(b) 2,392	(b) 2,793	(b) 3,002
Australia (a)—						
Titanium oxide .. .. .	5,847	4,100	7,046	4,644	6,075	3,149
New Zealand—						
Titanium oxide .. .. .	2,441	3,477	3,558	3,494	(a) 3,783	n.a.
Irish Republic—						
Titanium oxide .. .. .	n.a.	1,378	1,358	1,356	1,594	2,096
OTHER COUNTRIES						
Austria—						
Ferro-titanium .. .. .	452	289	192	139	162	103
Titanium oxide .. .. .	2,649	3,437	3,605	3,805	4,221	4,815
Belgium-Luxemburg						
E.U.—						
Ferro-titanium .. .. .	113	175	319	182	216	225
Titanium oxide .. .. .		4,949	4,748	5,425	6,398	6,862
do, extended .. .. .		4,063	950	1,658	1,361	1,659
Denmark—						
Titanium oxide .. .. .	3,077	3,839	3,649	4,607	4,709	5,362
do, extended .. .. .	335	246	204	218	189	172
Finland—						
Titanium oxide .. .. .	4,277	4,785	3,949	2,269	1,072	1,526
France—						
Titanium minerals .. .. .	63,914	71,512	75,933	80,702	95,020	134,711
Titanium metal .. .. .	25	65	73	175	262	250
Titanium oxide .. .. .	4,985	5,797	6,441	9,661	9,595	12,727
do, extended .. .. .	18	39	220	40	83	87
Germany (Federal)—						
Ilmenite .. .. .	205,796	280,514	264,845	208,954	220,473	207,808
Other titanium minerals .. .. .	13,930	18,948	96,282	68,574	58,792	142,654
Titanium metal .. .. .	116	131	189	274	352	693
Titanium oxide .. .. .	2,311	855	321	592	1,082	1,583
do, extended .. .. .	n.a.	n.a.	n.a.	2,402	3,486	4,345
Greece—						
Titanium oxide .. .. .	530	r 788	890	1,023	1,339	1,580
Hungary—						
Ferro-titanium .. .. .	60	48	87	88	88	98
Iceland—						
Titanium oxide, extended .. .. .	169	261	242	215	227	236
Italy—						
Titanium minerals .. .. .	36,288	51,645	81,323	67,587	97,351	110,456
Ferro-titanium .. .. .	234	286	507	457	401	525
Titanium oxide .. .. .	4,039	7,079	7,958	10,653	13,478	14,302
do, extended .. .. .	281	282	198	147	156	139

(a) Years ended June 30 of that stated.

(b) Years ended March 31 following that stated.

(c) Excess of re-exports.

(d) Owing to reclassification, not strictly comparable with earlier years.

## IMPORTS OF TITANIUM MINERALS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Netherlands—						
Ferro-titanium .. ..	32	36	43	28	37	40
Titanium oxide .. ..		18,006	16,234	17,054	11,210	2,218
do, extended .. ..		1,621	1,413	1,341	9,019	14,839
Norway—						
Titanium oxide .. ..	5,129	5,380	1,866	820	1,079	n.a.
do, extended .. ..	303	1	2,647	5,507	5,290	5,183
Poland—						
Titanium oxide .. ..	1,013	1,398	1,990	n.a.	2,891	3,144
Portugal—						
Rutile .. ..	75	n.a.	255	326	n.a.	200
Titanium oxide .. ..	857	1,236	1,271	1,430	1,670	1,999
Sweden—						
Titanium minerals .. ..	2,981	2,533	3,418	4,423	3,612	3,419
Ferro-titanium .. ..	725	1,029	644	264	736	1,167
Titanium oxide .. ..	7,780	9,269	9,085	11,778	12,524	13,147
do, extended .. ..	1,603	1,064	911	788	701	—
Switzerland—						
Titanium oxide .. ..	n.a.	4,550	4,943	6,078	5,503	6,721
Yugoslavia—						
Rutile .. ..	1,059	1,458	424	680	1,645	1,194
Titanium oxide .. ..	851	852	897	1,382	1,589	3,008
Algeria—						
Titanium minerals .. ..	229	130	n.a.	n.a.	n.a.	n.a.
Titanium oxide .. ..	267	355	n.a.	n.a.	n.a.	n.a.
Congo Republic—						
Titanium oxide .. ..	430	n.a.	n.a.	n.a.	n.a.	n.a.
Morocco—						
Titanium oxide .. ..	149	178	236	286	391	331
Tunisia—						
Titanium oxide .. ..	32	50	83	87	148	182
Costa Rica—						
Titanium oxide .. ..	n.a.	n.a.	n.a.	157	141	n.a.
Mexico—						
Titanium oxide .. ..	4,234	4,600	207	60	1,537	21
United States—						
Ilmenite (a) .. ..	331,863	237,183	174,853	148,602	179,357	143,238
Rutile .. ..	20,740	26,102	24,551	32,112	42,626	99,090
Titanium metal .. ..	1,396	1,992	2,223	825	1,320	1,835
Ferro-titanium .. ..	113	74	163	107	37	n.a.
Titanium compounds .. ..	2,515	5,521	8,056	14,800	22,569	36,348
Argentina—						
Titanium oxide .. ..	2,495	3,634	4,534	4,363	2,887	7,159
Brazil—						
Titanium oxide .. ..	2,727	3,482	4,278	5,371	6,982	6,464
Chile—						
Titanium oxide .. ..	927	1,190	1,652	n.a.	n.a.	n.a.
Colombia—						
Titanium oxide .. ..	1,183	1,499	1,745	2,119	2,742	2,234
Peru—						
Titanium oxide .. ..	394	497	635	755	721	1,012
Venezuela—						
Titanium oxide .. ..	637	94	107	194	196	314
do, extended .. ..	1,411	1,156	2,086	2,108	2,257	3,207
Formosa—						
Titanium oxide .. ..	n.a.	306	374	526	721	1,363

(a) Including titanium dioxide slag (70% TiO<sub>2</sub>) imported from Canada.

## IMPORTS OF TITANIUM MINERALS, ETC. (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Iran (a)—						
Titanium oxide ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	97	116	304
Japan—						
Ilmenite. . . . .	81,144	126,586	139,792	120,366	139,649	183,049
Titanium oxide..	108	147	2,122	59	65	193
Korea (South)—						
Titanium oxide ..	657	775	999	1,291	967	1,580
Philippine Republic—						
Titanium oxide..	<i>n.a.</i>	<i>n.a.</i>	1,954	2,682	841	<i>n.a.</i>
Turkey—						
Titanium oxide ..	456	238	910	973	1,383	1,386

(a) Years ended March 20 of year following that stated.

**TUNGSTEN**  
**PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES**

Long tons

Producing Country and Description	Estimated WO <sub>3</sub> Content						
	1959	1960	1961	1962	1963	1964	1964
<b>COMMONWEALTH COUNTRIES</b>							
Rhodesia—							
Concentrates .. .. .	30	9	46	19	3	—	—
Tanzania—							
Wolfram .. .. .	—	—	9	—	—	n.a.	n.a.
Uganda—							
Wolfram .. .. .	51	102	115	11	2	n.a.	n.a.
Canada (a)—							
Concentrates .. .. .	—	—	—	3	n.a.	n.a.	n.a.
Hong Kong—							
Wolfram .. .. .	39	31	17	15	7	1	1
India—							
Concentrates .. .. .	1	3	9	10	4	7	5
Malaya—							
Wolfram .. .. .	14	13	14	9	6	5	3
Scheelite .. .. .	6	23	17	—	—	(b)	1
Australia—							
Wolfram .. .. .	903	1,131	1,142	492	394	380	276
Scheelite .. .. .	1	420	1,017	995	958	1,020	720
New Zealand—							
Scheelite .. .. .	9	8	5	8	5	5	3
<b>TOTAL</b>							
	756	1,239	1,696	1,092	980	1,010	1,010
<b>OTHER COUNTRIES</b>							
Austria—							
Concentrates .. .. .	116	185	242	250	192	93	62
Finland—							
Concentrates .. .. .	n.a.	—	n.a.	—	—	—	—

(a) Shipments (chiefly scheelite).

(b) Exports.

PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964	Estimated WO <sub>3</sub> Content					
							1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>												
<i>(cont.)</i>												
France—												
Concentrates .. .. .	791	597	647	614	—	—	514	403	432	414	—	—
Italy—												
Concentrates .. .. .	5	7	2	r 1	2	1	3	5	1	1	1	1
Portugal—												
Scheelite .. .. .	52	62	68	52	1,309	1,401	34	40	44	34	956	1,043
Wolftram .. .. .	1,990	2,403	2,442	1,947			1,293	1,682	1,710	1,444		
Spain—												
Concentrates .. .. .	173	336	441	248	46	n.a.	102	215	286	179	32	19
Tin-tungsten concentrates	721	686	775	568	212	n.a.	355	336	352	237	55	
Sweden—												
Concentrates .. .. .	290	331	366	r 334	334	—	144	166	185	158	161	—
U.S.S.R. (b) .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5,300	5,600	5,900	6,200	6,500	6,500
Yugoslavia .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	46	46	5	r 31	10	(b) 10
Congo Republic—												
Concentrates .. .. .	542	n.a.	n.a.	n.a.	n.a.	n.a.	483	541	319	217	119	(b) 295
Tin-tungsten ore .. .. .	657	n.a.	n.a.	n.a.	n.a.	n.a.						
Egypt—												
Concentrates .. .. .	—	—	n.a.	—	—	—	—	—	49	—	—	—
Rwanda and Burundi—												
Concentrates .. .. .	141	415	527	136	14	43	92	270	393	88	7	28
South Africa—												
Concentrates .. .. .	33	31	24	22	7	4	21	21	16	14	4	2
Tin-scheelite concentrates	n.a.	—	—	—	—	—	2	—	—	—	—	—
South West Africa—												
Scheelite .. .. .	—	2	6	2	—	—	—	1	4	1	—	—
Tin-wolfram concentrates	4	483	579	575	753	660	1	82	105	91	148	133
Mexico .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	74	108	103	47	20	5
United States—												
Concentrates (a) .. .. .	3,258	6,540	7,362	7,526	5,051	8,254	1,955	3,924	4,417	4,515	3,031	4,952

(a) Shipments from mine. (b) United States Bureau of Mines' estimate.



PRODUCTION OF TUNGSTEN ORES AND CONCENTRATES (cont.)

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964	Estimated WO <sub>3</sub> Content									
							1959	1960	1961	1962	1963	1964				
<b>OTHER COUNTRIES</b>																
<i>(cont.)</i>																
Argentina— Concentrates .. .. .	684	689	735	513	148	n.a.	443	478	478	340	85	39				
Bolivia (a)— Concentrates .. .. .	2,254	1,971	n.a.	n.a.	n.a.	n.a.	1,431	1,270	1,667	1,499	1,347	1,224				
Brazil— Wolfram and scheelite ..	1,713	1,390	1,013	1,018	456	505	1,028	834	608	611	274	303				
Peru— Concentrates .. .. .	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(c) 290	(c) 288	(c) 229	(c) 234	(c) 306	(c) 398				
Burma— Tungsten concentrates ..	444	348	r 352	r 212	88	n.a.	270	210	210	130	50	n.a.				
Tin-wolfram concentrates	r 1,305	r 1,104	r 1,203	r 1,152	1,279	n.a.	520	440	480	460	510	n.a.				
China— Concentrates (b) .. .. .	20,000	20,000	20,000	20,000	20,000	20,000	12,000	13,000	13,000	13,000	13,000	13,000				
Japan— Concentrates .. .. .	906	822	812	906	640	704	640	580	553	621	459	513				
Korea— South— Concentrates .. .. .	2,878	4,837	6,203	r 5,706	4,662	4,582	1,900	3,100	4,000	3,700	3,000	3,000				
North— Concentrates (b) .. .. .	4,000	5,000	5,000	4,000	4,000	4,000	2,000	3,000	3,000	2,000	2,000	2,000				
Thailand— Concentrates .. .. .	457	401	467	387	187	391	300	260	303	r 252	122	254				
TOTAL .. .. .							31,000	37,000	39,000	37,000	32,000	34,000				
WORLD'S TOTAL .. .. .							32,000	38,000	41,000	38,000	33,000	35,000				

(a) Exports.  
(b) Estimated.  
(c) Recoverable.

## EXPORTS OF TUNGSTEN, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Tungsten ore .. ..	81	86	35	20	—	45
Ferro-tungsten .. ..	1,282	1,048	1,445	1,584	1,225	896
Tungsten metal, etc. .. ..	50	43	31	41	53	58
Nigeria—						
Tungsten ore .. ..	1	—	—	—	—	—
Rhodesia (d) .. ..						
Tungsten ores .. ..	62	12	33	26	2	n.a.
Tanzania—						
Wolfram ore .. ..	—	—	9	n.a.	—	—
Uganda—						
Wolfram ore .. ..	12	68	189	—	6	18
Hong Kong—						
Tungsten ore .. ..	74	30	—	—	—	70
India—						
Wolfram ore .. ..	—	—	—	2	—	—
Malaya—						
Wolfram .. ..	53	11	18	4	10	10
Scheelite .. ..	29	22	14	—	—	1
Australia (a)—						
Wolfram ores and concentrates .. ..	596	1,192	1,055	760	452	475
(WO <sub>3</sub> content) .. ..	431	862	767	555	327	343
Scheelite ores and concentrates .. ..	167	185	816	974	295	1,045
(WO <sub>3</sub> content) .. ..	119	131	567	676	205	727
New Zealand—						
Scheelite .. ..	14	15	6	n.a.	n.a.	n.a.
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. ..	155	268	196	298	207	79
Belgium-Luxemburg E.U.—						
Ferro-tungsten .. ..	6	14	101	118	96	19
France—						
Tungsten ore .. ..	416	359	388	478	106	63
Ferro-tungsten .. ..	149	187	301	274	215	168
Tungsten metal, etc. .. ..	32	56	68	65	71	171
Germany (Federal)—						
Tungsten metal, etc. .. ..	245	248	240	217	248	246
Netherlands—						
Ore .. ..	24	61	77	114	187	217
Portugal—						
Tungsten ores .. ..	2,449	2,380	2,584	2,008	1,133	1,292
do. residues .. ..	—	371	31	—	—	87
Ferro-tungsten .. ..	124	149	—	n.a.	n.a.	265
Spain—						
Tungsten ore .. ..	596	616	703	281	37	50
Sweden—						
Ore .. ..	87	67	47	—	18	222
Tungsten metal, etc. .. ..	37	56	45	26	96	31
Ferro-tungsten .. ..	184	126	20	104	169	71
Congo Republic (c)—						
Tungsten ores .. ..	1,212	1,123	(b) 600	(b) 100	(b) 100	(b) 300
South Africa—						
Tungsten ore .. ..	30	—	—	—	4	20
South West Africa—						
Tungsten ore .. ..	—	—	—	3	—	—
Tin-tungsten ore .. ..	13	—	360	530	761	680

(a) Years ended June 30 of that stated.

(b) Estimated.

(c) Including Rwanda and Burundi.

(d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF TUNGSTEN, ETC. (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Mexico—</b>						
Tungsten ore and concentrates .. ..	126	185	445	60	85	14
(WO <sub>3</sub> content) .. ..	73	109	103	47	20	5
<b>United States—</b>						
Ore and concentrates .. ..	1	565	185	35	44	69
Ferro-tungsten .. ..	34	—	—	5	1	—
Tungsten metal, alloys and scrap .. ..	169	359	113	55	71	228
Tungsten powder .. ..	71	74	50	66	80	100
<b>Argentina—</b>						
Tungsten ore .. ..	—	350	15	2,067	1,026	5
<b>Bolivia—</b>						
Tungsten ore (WO <sub>3</sub> content) .. ..	1,431	1,270	1,667	1,499	1,347	1,224
<b>Brazil—</b>						
Tungsten ores .. ..	1,223	1,545	861	615	785	323
<b>Peru—</b>						
Tungsten ore and concentrates (WO <sub>3</sub> content) .. ..	381	232	186	234	172	578
<b>Burma—</b>						
Ore and concentrates .. ..	1,001	841	686	278	551	406
Tin-tungsten ores .. ..	174	171	264	397	381	521
<b>Japan—</b>						
Tungsten metal .. ..	1	1	18	23	55	15
<b>Korea (South)—</b>						
Tungsten ore .. ..	3,283	3,936	5,833	4,639	5,026	5,377
<b>Thailand—</b>						
Tungsten ore .. ..	367	609	246	190	253	74

## IMPORTS OF TUNGSTEN, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Tungsten ores .. ..	4,357	5,639	5,132	5,389	4,904	5,008
Tungsten metal, etc.	8	13	9	6	24	32
Canada—						
Tungsten ore .. ..	350	516	224	1,274	288	<i>n.a.</i>
<i>W</i> content .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	174
Ferro-tungsten .. ..	370	438	231	127	279	77
India—						
Tungsten ore .. ..	—	—	—	2	35	226
Malaya—						
Wolfram .. ..	12	—	—	—	—	—
Australia (b)—						
Tungsten metal .. ..	9	18	10	10	16	34
<b>OTHER COUNTRIES</b>						
Austria—						
Tungsten ore .. ..	2,525	3,105	2,934	2,686	2,851	3,228
Tungsten metal, etc. ..	13	33	37	35	44	79
Ferro-tungsten .. ..	415	254	244	302	—	226
Belgium-Luxemburg						
E.U.—						
Tungsten ore .. ..	543	29	99	70	11	3
Ferro-tungsten .. ..	71	80	234	132	82	57
France—						
Tungsten ore .. ..	1,513	1,817	2,298	1,980	2,156	1,538
Tungsten metal, etc. ..	33	23	35	36	40	67
Germany (Federal)—						
Tungsten ore .. ..	4,634	5,124	5,240	4,681	3,913	4,831
Tungsten metal, etc. ..	103	264	161	122	79	347
Italy—						
Tungsten ore .. ..	101	176	92	116	78	59
Tungsten metal, etc. ..	13	27	23	34	40	28
Ferro-tungsten .. ..	41	116	311	185	129	107
Netherlands—						
Tungsten ore .. ..	113	341	457	203	20	60
Ferro-tungsten .. ..	3	3	4	21	2	14
Sweden—						
Tungsten ore .. ..	705	972	1,070	1,312	1,277	1,285
Tungsten metal, etc. ..	60	62	82	75	68	93
Ferro-tungsten .. ..	185	411	396	260	256	402
U.S.S.R. (a)—						
Tungsten concentrates	<i>n.a.</i>	18,600	18,000	12,800	11,800	5,900
Yugoslavia—						
Tungsten metal, etc. ..	10	7	4	6	16	30
Tungsten concentrates ..	28	115	91	422	15	203
Ferro-tungsten .. ..	103	59	128	60	1	—
United States—						
Tungsten ore .. ..	4,325	2,722	1,767	3,260	2,413	2,449
( <i>WO<sub>3</sub></i> content) .. ..	3,059	1,983	1,195	2,239	1,366	1,405
Tungsten metal and carbide .. ..						
( <i>W</i> content) .. ..	88	71	25	222	37	27
Ferro-tungsten .. ..	294	100	191	294	487	87
Tungsten ingots, bars, scrap, etc. .. ..	201	154	100	119	156	179
Japan—						
Tungsten ore .. ..	455	2,835	4,022	2,162	2,290	2,807
Tungsten metal .. ..	—	—	—	7	—	2

(a) Imports from China.

(b) Years ended June 30 of that stated.

**URANIUM MINERALS**  
**PRODUCTION OF URANIUM MINERALS**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Zambia .. .. .	29	—	—	—	—	—
Canada (a) .. ..	12,032	9,652	7,299	6,382	6,323	5,235
	£ 122,918,724	99,132,645	68,929,772	52,701,539	45,332,644	41,791,660
Australia .. .. .	(b) 950	(b) 1,150	(b) 1,250	1,040	919	329
<b>OTHER COUNTRIES</b>						
Finland .. .. .	(b) 25	(b) 40	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
France .. .. .	719	968	1,168	1,019	1,006	960
Italy .. .. .	1	1	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic ..	1,761	900	121	—	—	—
Gabon .. .. .	—	—	(b) 300	(b) 350	(b) 450	430
Malagasy Republic (c) ..	88	(b) 60	(b) 50	(b) 85	(b) 80	126
South Africa .. ..	4,867	4,874	4,149	3,789	3,435	3,375
	£ 654,500,000	654,000,000	645,000,000	648,000,000	647,000,000	646,000,000
United States (d) .. ..	12,410	13,364	13,136	12,879	10,765	8,972
	£ 107,000,000	118,000,000	103,000,000	97,000,000	80,400,000	68,000,000
Argentina .. .. .	(b) 10	(b) 11	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>WORLD'S TOTAL (b) ..</b>	<b>40,000</b>	<b>40,000</b>	<b>37,000</b>	<b>35,000</b>	<b>31,000</b>	<b>27,000</b>

(a) Producers' shipments.

(b) Estimated.

(c) Uranium content of uranothorianite (average content 12% uranium).

(d) In addition, the following quantities of uranium were recovered from phosphate rock (long tons): 1959—23; 1960—86; 1961—39; 1962—nil; 1963—nil; 1964—nil.

Uranium is known to have been produced in the U.S.S.R., in several Eastern European countries, Portugal, Spain, Sweden, Western Germany, Mozambique and elsewhere. An allowance has been made for these countries in the world's total.

## EXPORTS OF URANIUM MINERALS, ETC.

Exporting Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Canada—						
Ores and concentrates	£ 115,949,495	96,890,046	67,883,901	55,549,230	45,540,191	24,777,024
OTHER COUNTRIES						
Congo Republic—						
Radium products						
(Ra content) Mgrams ..	101,619	27,600	26,900	28,700	18,300	18,100
Gabon—						
Concentrates Long tons ..	—	—	954	1,157	1,228	1,370
Malagasy Republic—						
Uranothorianite Long tons	152	572	772	935	1,109	n.a.
South Africa—						
Concentrates (U <sub>3</sub> O <sub>8</sub> content) Long tons	n.a.	n.a.	n.a.	4,117	3,696	n.a.
£	n.a.	n.a.	n.a.	36,876,796	33,381,194	29,034,237
Prescribed minerals						
(a) .. .. .	£ 53,866,953	54,266,382	39,685,813	37,195,326	n.a.	n.a.
United States—						
Ores, concentrates and compounds Long tons	9	9	19	12	5	1
Metal and alloys Long tons .. .. .	6	5	10	—	3	3
Radium metal (Ra content) Mgrams.	2,207	712	334	328	311	177

(a) Mainly uranium but includes some thorium.

## IMPORTS OF URANIUM MINERALS, ETC.

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
Canada—						
Radium and compounds ..	£ 142,745	111,075	98,158	76,205	197,000	105,823
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Ore Long tons	627	3,058	2,443	—	—	—
France—						
Ore Long tons	n.a.	n.a.	120	1,396	1,912	1,880
United States—						
Concentrates Long tons (U <sub>3</sub> O <sub>8</sub> content) ..	16,179	14,080	11,531	10,429	7,859	1,879
Radium salts Mgrams.	32,967	23,333	12,947	46,962	44,660	n.a.
Brazil—						
Radium and radium products Mgrams.	681	—	—	—	—	—

**VANADIUM**  
**PRODUCTION OF VANADIUM ORES**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Zambia .. .. .	—	129	100	3	—	—
<b>OTHER COUNTRIES</b>						
Finland .. .. .	496	558	626	562	688	(e) 690
France (a) .. ..	47	100	54	—	56	n.a.
Angola (b) .. ..	3	—	—	—	—	—
South Africa .. .	286	586	1,271	1,244	1,237	1,142
South West Africa ..	642	749	1,023	904	1,015	966
United States (c) ..	6,600	7,185	5,678	6,828	5,399	4,629
Argentina .. .. .	4	n.a.	(e) 4	8	(e) 5	n.a.
<b>WORLD'S TOTAL (d) ..</b>	<b>8,078</b>	<b>9,300</b>	<b>8,800</b>	<b>9,549</b>	<b>8,400</b>	<b>7,500</b>

(a) By-product vanadium from aluminium plants.

(b) Vanadium content of vanadium-lead ore.

(c) Shipments.

(d) Totals represent the sum of the countries shown and exclude vanadium ore known to have been produced in Mexico and other countries. Vanadiferous iron concentrates (about 0.5% V) are produced in Norway.

(e) United States Bureau of Mines' estimate.

**EXPORTS OF VANADIUM, ETC.**

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Ferro-vanadium ..	14	94	19	5	3	5
<b>OTHER COUNTRIES</b>						
Belgium-Luxemburg E.U.— Ferro-vanadium ..	—	10	95	228	387	n.a.
Finland— Oxide .. .. .	—	1,878	1,981	1,286	1,560	2,187
France— Ferro-vanadium ..	73	336	166	68	10	86
Italy— Ferro-vanadium ..	n.a.	n.a.	n.a.	n.a.	n.a.	39
Oxide .. .. .	2	1	45	—	—	—
Sweden— Ferro-vanadium ..	97	183	141	155	197	139
Congo Republic— Ore .. .. .	—	1,834	n.a.	n.a.	n.a.	n.a.
South Africa— Oxide .. .. .	521	1,034	(b) 2,258	1,463	(c) 1,728	(d) 3,252
South West Africa— Concentrates (V content) (a) ..	350	600	700	600	900	900
United States— Ore, concentrates, etc. (V content) .. ..	1,107	3,294	1,858	902	26	33
Flue dust and other waste (V content) ..	37	35	82	73	829	97
Ferro-vanadium ..	135	144	107	179	164	92

(a) Estimated.

(b) Including 46 tons of ammonium vanadate.

(c) Including 24 tons of ammonium vanadate.

(d) Including 60 tons of ammonium vanadate.

## IMPORTS OF VANADIUM, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom (a)—						
Ferro-vanadium ..	—	—	71	24	59	85
OTHER COUNTRIES						
Belgium-Luxemburg						
E.U.—						
Ferro-vanadium ..	19	36	21	37	24	20
Oxide .. .. .	14	55	264	437	501	968
France—						
Ore .. .. .	<i>n.a.</i>	<i>n.a.</i>	—	252	—	—
Oxide .. .. .	424	1,006	1,025	652	218	398
Germany (Federal)—						
Ore .. .. .	—	5	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Hungary—						
Ferro-vanadium ..	89	59	89	138	109	129
Italy—						
Ore .. .. .	—	—	1	—	—	—
Ferro-vanadium ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	179
Oxide .. .. .	40	69	127	39	113	228
Netherlands—						
Ferro-vanadium ..	3	4	11	9	4	6
Sweden—						
Ferro-vanadium ..	39	67	61	37	52	76
United States—						
Ore .. .. .	5	4	—	—	—	99
(V content) .. ..	3	2	—	—	—	18
Japan—						
Ore .. .. .	814	284	981	593	—	—

(a) Excluding vanadium contained in petroleum soot, slags and residues.



**VERMICULITE**  
**PRODUCTION OF VERMICULITE**

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Kenya .. .. .	100	253	—	20	91	33
Rhodesia .. .. .	45	—	—	—	—	—
Tanzania .. .. .	111	18	140	64	27	129
India .. .. .	2	210	622	426	666	416
<b>OTHER COUNTRIES</b>						
Egypt .. .. .	296	118	—	279	<i>n.a.</i>	<i>n.a.</i>
South Africa .. .. .	46,784	61,627	63,498	76,370	88,177	99,886
Sudan .. .. .	98	—	50	—	—	—
United States (b) .. .. .	184,446	177,743	184,497	183,703	202,034	202,053
Argentina .. .. .	(a) 785	312	483	2,645	1,368	2,989
<b>WORLD'S TOTAL*</b> .. .. .	<b>233,000</b>	<b>240,000</b>	<b>249,000</b>	<b>264,000</b>	<b>292,000</b>	<b>306,000</b>

\*Excluding vermiculite produced in the U.S.S.R. and Brazil.

(a) United States Bureau of Mines' estimate.

(b) Sold or used by producers.

**EXPORTS OF VERMICULITE**

Long tons

Exporting Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Rhodesia (a) .. .. .	7	4	1	4	4	22
<b>OTHER COUNTRIES</b>						
South Africa .. .. .	52,614	56,666	63,455	69,527	80,768	96,298

(a) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

**IMPORTS OF VERMICULITE**

Long tons

Importing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) .. .. .	15,263	14,558	16,608	23,437	25,275	30,805
Canada .. .. .	(£167,364)	(£153,603)	(£162,116)	(£178,211)	(£189,842)	(£157,530)
Australia (c) .. .. .	<i>n.a.</i>	1,198	1,866	1,780	1,711	1,997
<b>OTHER COUNTRIES</b>						
France (b) .. .. .	8,193	7,711	14,480	15,436	13,019	15,806
Mexico .. .. .	808	795	706	334	367	607
United States (a) .. .. .	10,597	11,068	11,529	10,802	12,801	16,444
Venezuela .. .. .	262	162	150	57	280	335

(a) Exports from South Africa to country stated.

(b) May include perlite, etc.

(c) Years ended June 30 of that stated.

**ZINC**  
**PRODUCTION OF ZINC ORE**  
*(Metal content)*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	—	250	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Zambia (c) .. .. .	29,895	29,794	29,861	39,800	48,670	45,974
Canada (h) .. .. .	353,579	363,279	371,432	413,522	422,967	608,950
India .. .. .	5,401	5,298	5,037	5,344	5,767	5,821
Australia .. .. .	275,411	317,489	311,157	337,532	351,470	344,622
<b>TOTAL .. .. .</b>	<b>664,286</b>	<b>716,110</b>	<b>717,487</b>	<b>796,000</b>	<b>829,000</b>	<b>1,005,000</b>
Irish Republic .. .. .	1,163	1,229	164	—	—	—
<b>OTHER COUNTRIES</b>						
Austria .. .. .	8,030	8,741	8,064	8,713	9,025	9,609
Bulgaria .. .. .	54,700	57,800	54,600	61,700	57,000	<i>n.a.</i>
Finland (b) .. .. .	53,200	41,364	45,860	51,347	65,305	61,996
France .. .. .	15,729	16,905	15,432	17,175	17,911	16,795
Germany (Federal) (i) .. .. .	80,800	84,964	85,883	85,707	91,716	94,318
Germany (East) (g) .. .. .	7,000	7,000	7,000	8,000	10,000	10,000
Greece .. .. .	11,508	13,813	17,104	r 16,747	17,900	17,500
Hungary .. .. .	<i>n.a.</i>	2,100	2,200	r 2,300	2,600	(g) 2,600
Italy .. .. .	130,444	128,549	r 134,211	121,823	93,468	101,670
Norway .. .. .	9,739	10,174	9,183	11,659	12,842	12,296
Poland .. .. .	127,300	141,800	137,372	142,800	144,800	148,800
Portugal .. .. .	—	—	—	11	168	937
Spain .. .. .	84,505	84,750	86,592	77,281	90,284	87,946
Sweden .. .. .	77,276	73,058	78,176	80,560	92,871	75,987
U.S.S.R. (c) (e) .. .. .	330,000	340,000	400,000	r 430,000	440,000	450,000
Yugoslavia .. .. .	59,715	55,491	58,936	60,148	60,298	65,027
Algeria .. .. .	38,191	39,500	41,472	41,000	(e) 34,000	(e) 38,000
Congo Republic .. .. .	66,139	107,457	97,525	93,681	101,910	103,874
Congo, Republic of .. .. .	—	—	1,261	823	42	5,408
Morocco .. .. .	54,733	48,392	40,135	33,876	32,516	41,677
South Africa .. .. .	—	—	15	—	—	—
South West Africa .. .. .	19,273	24,000	24,000	25,000	22,900	29,732
Tunisia .. .. .	3,270	3,760	3,340	4,267	4,300	3,200
Cuba .. .. .	(d) 168	(d) 69	—	—	—	—
Greenland .. .. .	8,239	9,960	6,714	2,145	—	—
Guatemala (b) .. .. .	—	9,883	7,801	803	1,150	—
Honduras (d) .. .. .	1,274	4,208	6,117	6,293	7,352	6,883
Mexico .. .. .	259,767	258,280	264,725	246,724	236,030	241,064
United States (b) .. .. .	379,735	388,774	414,634	451,331	472,548	513,266
Argentina .. .. .	40,155	34,841	31,698	30,970	28,200	22,547
Bolivia (a) .. .. .	3,339	3,963	5,248	3,588	4,574	9,604
Chile .. .. .	996	1,035	160	488	497	1,136
Colombia (g) .. .. .	700	300	1,200	300	100	100
Peru .. .. .	(b) 140,838	(b) 175,309	(b) 171,123	(b) 159,678	(b) 193,207	(b) 227,317
Burma .. .. .	10,486	9,759	7,233	8,068	8,100	<i>n.a.</i>
China (g) .. .. .	60,000	80,000	100,000	100,000	100,000	100,000
Iran (f) .. .. .	6,600	8,400	13,300	7,400	(g) 10,000	(g) 15,000
Japan .. .. .	140,089	154,259	165,602	189,000	195,000	213,000
Korea (South) .. .. .	3	40	450	400	1,100	2,500
Korea (North) (g) .. .. .	80,000	80,000	90,000	90,000	100,000	100,000

(a) Exports.  
(b) Recoverable.  
(c) Smelter production.  
(d) Imports into the United States.  
(e) Estimated.

(f) Years ended March 20 of year following that stated.  
(g) United States Bureau of Mines' estimate.  
(h) Refined zinc plus recoverable zinc in ores, etc, exported.  
(i) Excluding zinc in pyrites.

PRODUCTION OF ZINC ORE (cont.)

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b> (cont.)						
Philippine Republic ..	5	4,899	3,261	4,390	3,832	2,102
Thailand .. ..	750	r 1,043	r 886	(a) 900	(a) 900	1,358
Turkey .. ..	3,572	3,287	8,149	6,072	4,518	7,888
<b>TOTAL .. ..</b>	<b>2,400,000</b>	<b>2,500,000</b>	<b>2,600,000</b>	<b>r 2,700,000</b>	<b>2,800,000</b>	<b>2,900,000</b>
<b>WORLD'S TOTAL ..</b>	<b>3,100,000</b>	<b>3,200,000</b>	<b>3,300,000</b>	<b>r 3,500,000</b>	<b>3,600,000</b>	<b>3,900,000</b>

Zinc ore is also produced in Czechoslovakia, Roumania and North Vietnam.

(a) Estimated.

METAL PRODUCTION OF ZINC

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom .. .. .	72,966	74,303	92,884	97,276	99,028	109,282
Zambia .. .. .	29,895	29,794	29,861	39,800	48,670	45,974
Canada .. .. .	227,952	233,007	239,292	250,141	253,590	301,543
Australia .. .. .	116,461	120,230	138,694	167,928	179,777	185,531
<b>TOTAL .. .. .</b>	<b>447,274</b>	<b>457,334</b>	<b>500,731</b>	<b>555,145</b>	<b>581,065</b>	<b>642,330</b>
<b>OTHER COUNTRIES</b>						
Austria .. .. .	11,257	11,339	11,876	11,897	11,673	12,692
Belgium .. .. .	220,759	243,653	241,670	202,904	203,070	218,634
Bulgaria .. .. .	8,950	16,642	21,772	50,908	55,179	57,700
France .. .. .	143,945	150,400	164,000	166,500	170,600	190,900
Germany (Federal) .. .. .	178,331	179,499	182,594	168,458	154,262	153,528
Germany (East) (a) .. .. .	—	—	1,000	5,000	10,000	10,000
Hungary .. .. .	n.a.	700	1,200	1,500	1,100	(d) 1,100
Italy .. .. .	72,783	78,608	r 78,256	r 76,835	72,403	71,497
Netherlands .. .. .	31,647	35,510	38,967	36,464	35,197	37,107
Norway .. .. .	48,007	43,268	46,009	44,266	45,821	47,594
Poland .. .. .	165,000	173,000	179,000	178,000	178,000	184,000
Spain .. .. .	24,142	44,254	51,665	61,591	63,708	62,041
U.S.S.R. (a) .. .. .	330,000	340,000	400,000	r 430,000	440,000	450,000
Yugoslavia .. .. .	31,446	35,367	36,286	38,683	41,577	43,809
Congo Republic .. .. .	53,944	52,515	56,060	55,017	51,893	54,676
Mexico .. .. .	54,787	52,070	50,999	56,009	55,854	58,487
United States (b) (c) .. .. .	713,095	713,854	756,067	785,174	796,950	851,861
Argentina .. .. .	12,594	15,756	14,211	16,506	19,388	21,876
Peru .. .. .	25,659	31,886	31,255	32,236	53,850	58,798
China (d) .. .. .	60,000	65,000	90,000	90,000	90,000	90,000
Japan .. .. .	153,079	172,686	203,734	235,832	277,810	305,185
Korea (North) (d) .. .. .	24,000	50,000	60,000	60,000	65,000	65,000
<b>TOTAL .. .. .</b>	<b>2,300,000</b>	<b>2,500,000</b>	<b>2,700,000</b>	<b>2,800,000</b>	<b>2,900,000</b>	<b>3,000,000</b>
<b>WORLD'S TOTAL .. .. .</b>	<b>2,800,000</b>	<b>2,900,000</b>	<b>3,200,000</b>	<b>3,300,000</b>	<b>3,500,000</b>	<b>3,700,000</b>

Zinc is also produced in Czechoslovakia, Roumania and North Vietnam.

(a) Estimated.

(b) In addition secondary zinc recovered was as follows (long tons):

1959 .. .. .	246,655	1962 .. .. .	233,944
1960 .. .. .	237,339	1963 .. .. .	239,513
1961 .. .. .	212,471	1964 .. .. .	266,423

(c) The production by grades (including redistilled secondary) was as follows (long tons):

	1959	1960	1961	1962	1963	1964
A—High grade—Special .. .. .	295,814	318,933	315,595	350,804	367,191	418,525
Ordinary .. .. .	64,100	63,689	79,907	84,094	93,126	100,050
B—Intermediate grade .. .. .	15,619	14,144	13,721	12,590	16,404	17,009
C and D—Brass special .. .. .	67,237	74,560	62,215	67,813	87,670	72,352
Selected .. .. .	1,262	65	—	116	3,490	291
E—Prime Western .. .. .	320,686	303,829	333,947	322,328	282,912	307,559

(d) United States Bureau of Mines' estimate.

PRODUCTION OF ELECTROLYTIC ZINC IN CERTAIN COUNTRIES\*

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Zambia .. .. .	21,200	18,800	22,600	26,500	<i>n.a.</i>	<i>n.a.</i>
Canada .. .. .	227,952	233,007	239,292	250,141	253,590	301,543
Australia (Tasmania) ..	116,461	120,230	138,694	167,928	179,777	185,531
<b>OTHER COUNTRIES</b>						
Austria .. .. .	11,257	11,339	11,876	11,897	11,673	12,692
France .. .. .	61,800	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Norway .. .. .	48,007	43,268	46,009	44,266	45,821	47,594
Poland .. .. .	69,500	72,600	77,700	80,800	82,200	<i>n.a.</i>
Congo Republic .. ..	53,944	52,515	56,060	55,017	51,893	54,676
United States .. ..	250,279	285,515	289,642	316,195	319,726	347,663
Japan .. .. .	98,222	107,096	132,265	154,206	174,330	199,029

\*This production is already included in the Metal table.

PRODUCTION OF ZINC DUST IN CERTAIN COUNTRIES

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom ..	12,194	14,265	11,862	10,861	13,343	13,581
Australia .. .. .	2,575	2,697	3,131	3,660	4,030	1,057
<b>OTHER COUNTRIES</b>						
France .. .. .	2,438	3,719	4,885	4,845	4,441	4,055
Germany (Federal) ..	9,035	10,503	8,592	8,641	7,156	8,145
United States .. ..	29,248	27,489	31,046	36,587	36,037	41,053
Japan .. .. .	4,880	5,959	7,591	9,142	9,201	10,183

PRODUCTION OF ROLLED ZINC SHEETS, PLATES AND STRIPS  
IN CERTAIN COUNTRIES

Long tons

Producing Country	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom (a) ..	23,852	25,350	27,401	<i>r</i> 24,178	23,007	25,395
<b>OTHER COUNTRIES</b>						
France .. .. .	66,223	61,456	68,605	69,740	61,130	71,550
United States (b) ..	36,310	33,031	35,355	36,346	36,623	38,361
Japan .. .. .	6,722	6,856	6,995	7,157	5,822	6,795

(a) Including wire.

(b) Excluding strip and ribbon zinc re-rolled from scrap originating in fabricating plants operated in connection with zinc rolling-mills, as follows:

Long tons			Long tons		
1959	.. ..	13,083	1962	.. ..	12,104
1960	.. ..	10,080	1963	.. ..	10,837
1961	.. ..	11,338	1964	.. ..	12,991

## EXPORTS OF ZINC\*

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom—						
Ore and concentrates ..	4	4,976	38	2,192	1,382	1,138
Unwrought .. ..	1,441	2,942	2,135	7,048	(a) 8,792	(a) 5,852
Scrap .. ..	n.a.	n.a.	n.a.	n.a.	1,080	2,752
Semi-manufactures(a) ..	(d) 5,165	(d) 7,303	(d) 5,998	(d) 7,218	4,338	5,513
Oxide .. ..	11,094	7,911	9,479	9,644	7,036	5,413
Lithopone, etc... ..	4,450	6,264	6,194	5,447	3,897	2,955
Nigeria—						
Ore and concentrates ..	—	346	n.a.	—	—	200
Zambia (f)—						
Ores and concentrates ..	—	—	952	1,843	1,518	n.a.
Unwrought .. ..	30,473	29,435	25,258	41,051	46,546	45,151
Canada—						
Ore (Zn content) .. ..	161,682	151,691	177,966	216,479	190,218	359,912
Unwrought .. ..	160,315	184,903	185,957	188,146	178,573	212,568
Scrap (a) .. ..	5,343	4,761	3,165	4,903	5,109	6,955
Oxide .. ..	1,153	645	497	1,563	—	—
Hong Kong—						
Unwrought (a) .. ..	443	1,256	1,388	523	1,098	2,115
Scrap .. ..	77	175	7	30	1	—
Semi-manufactures (a) ..	346	282	215	164	153	131
Oxide .. ..	45	91	24	17	8	17
Lithopone .. ..	407	29	593	47	106	227
India—						
Concentrates, etc. ..	12,417	(c) 9,638	(c) 10,190	(c) 11,653	(c) 9,765	(c) 7,364
Dross, scrap and ashes..	1,593	(c) 260	(c) 500	(c) 140	(c) 1,102	(c) 2,898
Semi-manufactures (a) ..	179	(c) 349	(c) 314	(c) 67	(c) 184	(c) 231
Zinc white .. ..	—	(c) —	(c) —	(c) 112	(c) 336	(c) 455
Malaya—						
Unwrought (a) .. ..	8	4	2	2	2	6
Semi-manufactures (a) ..	194	274	249	302	308	129
Australia (b)—						
Ores and concentrates ..	152,414	136,706	175,231	145,035	153,818	131,690
(Zn content) .. ..	44,998	31,904	30,322	73,148	98,730	83,534
Unwrought .. ..	(e) 275	(e) 544	6,024	156	308	66
Scrap .. ..	1,351	1,272	5,003	1,943	801	2,023
Semi-manufactures ..	127	105	79	94	51	4
Oxide .. ..						
Irish Republic—						
Ores and concentrates ..	2,599	2,891	1,537	—	—	—
<b>OTHER COUNTRIES</b>						
Austria—						
Ore .. ..	20	86	39	21	—	1,562
Unwrought (a) .. ..	4,630	5,198	5,015	3,631	2,736	4,098
Scrap .. ..	154	107	59	84	859	1,001
Lithopone .. ..	2,042	2,347	2,402	2,034	2,060	2,496
Belgium-Luxemburg						
E.U.—						
Ore .. ..	63,884	44,970	70,357	75,661	50,306	20,704
Unwrought .. ..	121,181	141,351	143,640	110,074	120,874	124,740
Scrap .. ..	6,629	8,803	6,056	4,031	5,743	8,440
Semi-manufactures (a) ..	23,766	24,570	28,461	27,587	30,773	32,014
Lithopone, etc... ..	15,050	21,321	22,311	19,686	18,705	18,066

\*In these tables the description "unwrought" zinc corresponds to item 686.1 in the Standard International Trade Classification (Revised) and comprises blocks, pigs, slabs, etc. "Semi-manufactures" corresponds to S.I.T.C.(R). 284.0 (8) and 686.2, and includes zinc dust as well as rods, wire, sheets, tubes, pipes, etc.

(a) Including alloys.

(d) Including unwrought alloys.

(b) Years ended June 30 of that stated.

(e) Including shavings.

(c) Years ended March 31 following that stated.

(f) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## EXPORTS OF ZINC (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Denmark—</b>						
Unwrought .. ..	1,169	2,309	406	129	150	83
do. alloys .. ..	3,104	2,186	2,471	1,980	904	1,142
Scrap .. ..	1,191	1,374	887	1,836	1,917	2,195
Semi-manufactures .. ..	65	8	5	156	284	9
<b>Finland—</b>						
Concentrates .. ..	118,853	88,451	85,509	99,870	140,685	144,929
Unwrought .. ..	1,054	193	85	—	238	—
<b>France—</b>						
Ore .. ..	12	23,821	23,719	7,167	491	708
Unwrought .. ..	4,256	5,648	2,182	4,559	14,020	11,156
do. alloys .. ..	279	262	95	183	324	578
Semi-manufactures (a) .. ..	2,267	2,690	4,061	3,729	4,557	2,715
Oxide .. ..	3,402	5,354	4,824	4,309	4,536	4,016
Lithopone, etc. . . .	716	1,629	1,543	1,082	1,268	1,116
<b>Germany (Federal)—</b>						
Ore .. ..	16,938	16,659	18,867	12,737	32,574	43,503
Unwrought (a) .. ..	19,658	27,374	31,200	24,991	29,398	21,162
Scrap (a) .. ..	79	132	871	2,035	3,180	2,682
Semi-manufactures (a) .. ..	8,975	9,104	7,473	6,633	7,280	7,514
Zinc-white, zinc-grey .. ..	17,709	15,767	10,686	9,820	11,463	10,324
Lithopone .. ..	39,572	38,523	41,778	35,833	33,688	36,347
<b>Greece—</b>						
Ore and concentrates .. ..	32,441	30,631	29,692	30,647	18,766	22,053
<b>Italy—</b>						
Ore .. ..	82,724	58,848	75,147	65,663	39,049	48,485
Unwrought .. ..	17,253	10,429	6,265	2,088	297	1,468
Semi-manufactures (a) .. ..	359	501	359	488	304	452
Oxide .. ..	449	207	96	370	681	555
Lithopone, etc. . . .	5,488	4,137	4,028	3,524	3,420	2,664
<b>Netherlands—</b>						
Ore .. ..	1,632	1,766	4,719	3,819	3,809	8,032
Unwrought .. ..	25,487	23,461	20,355	20,893	23,064	25,378
do. alloys .. ..	456	257	109	47	46	35
Scrap (a) .. ..	2,869	2,446	4,557	7,681	7,829	9,140
Semi-manufactures (a) .. ..	2,011	1,380	1,281	1,173	1,279	1,332
Oxide .. ..	<i>n.a.</i>	<i>n.a.</i>	9,297	8,775	10,134	10,601
Lithopone, etc. . . .	<i>n.a.</i>	<i>n.a.</i>	11,462	10,207	10,224	11,890
<b>Norway—</b>						
Ore .. ..	10,296	14,166	9,534	14,961	14,276	14,377
Unwrought .. ..	36,146	31,900	31,232	31,641	32,335	38,089
do. alloys .. ..	729	817	810	1,347	783	1,252
Scrap .. ..	296	653	421	707	704	584
Semi-manufactures (a) .. ..	28	42	334	663	1,124	1,499
Zinc-white .. ..	377	408	773	614	766	299
<b>Poland—</b>						
Unwrought and sheets .. ..	88,412	96,160	89,510	82,870	74,327	<i>n.a.</i>
Unwrought alloys .. ..	6,938	6,784	6,797	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Zinc-white .. ..	8,855	9,908	5,310	<i>n.a.</i>	<i>n.a.</i>	8,921
Lithopone .. ..	279	629	734	<i>n.a.</i>	468	424
<b>Portugal—</b>						
Ore .. ..	<i>n.a.</i>	—	—	—	385	718
Zinc-white .. ..	19	21	9	45	72	91
<b>Spain—</b>						
Ore .. ..	129,526	73,912	29,653	29,123	32,178	23,924
Unwrought (a) .. ..	407	19,972	21,707	23,469	23,437	19,057
<b>Sweden—</b>						
Ore .. ..	141,555	137,120	143,140	147,158	146,049	146,258
Unwrought (a) .. ..	449	327	146	108	71	286
Scrap .. ..	1,006	869	1,196	1,738	1,080	1,476
Zinc-white .. ..	747	870	998	750	945	467
Lithopone .. ..	10	13	71	73	63	59

(a) Including alloys.

## EXPORTS OF ZINC (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Switzerland—						
Unwrought and scrap ..	4,945	919	751	1,085	1,111	1,258
Semi-manufactures (d) ..	57	35	51	74	37	66
Zinc-white, etc. ..	317	(e) —	(e) 12	(e) 1	(e) 2	(e) 1
U.S.S.R.—						
Concentrates .. ..	65,700	48,200	38,600	19,100	—	—
Unwrought .. ..	72,100	89,000	114,400	106,300	81,100	147,400
Yugoslavia—						
Concentrates .. ..	27,987	18,336	18,552	29,563	24,662	31,673
Unwrought .. ..	9,301	8,762	7,830	7,097	5,710	3,063
Semi-manufactures ..	4,210	4,748	5,181	6,791	8,674	10,553
Oxide .. ..	1,639	2,062	1,301	558	750	1,157
Lithopone .. ..	883	651	96	400	443	2,028
Algeria—						
Ore .. ..	73,571	64,781	74,900	67,509	57,352	51,596
Unwrought (a) .. ..	40	25	n.a.	n.a.	n.a.	n.a.
Scrap .. ..	428	513	n.a.	n.a.	n.a.	n.a.
Semi-manufactures (a) ..	57	31	n.a.	n.a.	n.a.	n.a.
Oxide .. ..	—	119	n.a.	n.a.	n.a.	n.a.
Congo Republic—						
Ores and concentrates ..	73,748	(c) 96,000	(c) 90,000	(c) 60,000	(c) 75,000	(c) 85,000
Unwrought .. ..	52,836	(c) 50,000	(c) 50,000	(c) 60,000	(c) 45,000	(c) 45,000
Morocco—						
Ore .. ..	97,941	69,511	74,101	62,327	65,187	63,352
South Africa—						
Unwrought .. ..	11	17	7	12	—	n.a.
Fume, dust, shavings, etc. .. ..	81	90	111	139	84	n.a.
South West Africa—						
Ores and concentrates (b) .. ..	19,273	24,046	23,052	38,191	38,421	30,787
Tunisia—						
Ore .. ..	6,020	4,190	9,544	6,653	6,970	8,842
Greenland—						
Ore .. ..	9,367	17,567	10,247	10,213	—	—
Guatemala—						
Ore .. ..	—	15,387	13,437	4,288	2,919	831
Honduras—						
Ore and concentrates ..	—	6,565	12,131	9,631	10,561	10,689
Mexico—						
Ores and concentrates ..	345,842	375,624	395,153	393,102	351,785	270,107
Unwrought .. ..	40,397	29,779	27,324	28,946	28,911	28,710
Oxide .. ..	2,155	2,810	2,456	1,281	2,619	3,201
United States—						
Ore and concentrates (b) ..	1	12	1,491	122	15	35
Unwrought .. ..	10,383	67,093	44,691	32,233	30,226	23,675
Scrap (b) .. ..	10,118	10,865	5,268	7,090	1,602	5,757
Semi-manufactures (a) ..	4,572	5,955	6,224	5,211	5,398	10,924
Oxide .. ..	2,247	1,908	1,949	1,840	2,644	2,174
Lithopone .. ..	480	170	543	312	749	1,057
Argentina—						
Ore .. ..	—	26,235	50,141	19,372	46,624	29,383
Unwrought .. ..	16	n.a.	—	—	3,134	1,070
Bolivia—						
Ores (b) .. ..	3,339	3,963	5,248	3,588	4,574	9,604

(a) Years ended March 20 following that stated.

(b) Zn content.

(c) Estimated.

(d) Including alloys.

(e) Zinc white only.



## EXPORTS OF ZINC (cont.)

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
OTHER COUNTRIES (cont.)						
Chile—						
Concentrates .. ..	—	—	—	103	n.a.	n.a.
Peru—						
Ores, etc. (Zn content) ..	128,862	131,171	173,423	142,088	145,800	199,557
Unwrought (Zn content)	25,237	24,106	29,859	36,710	38,179	71,074
Burma—						
Concentrates .. ..	29,706	20,022	12,403	15,462	16,002	15,407
Iran (a)—						
Ore .. ..	6,729	15,567	21,219	14,970	24,704	73,062
Japan—						
Unwrought .. ..	8,589	5,821	1,329	293	1,121	5,320
Semi-manufactures ..	30	50	66	176	784	844
Oxide .. ..	44	24	82	49	157	170
Lithopone .. ..	—	1	20	n.a.	n.a.	n.a.
Korea (South)—						
Ore .. ..	n.a.	1,083	551	714	3,094	5,878
Philippine Republic—						
Concentrates .. ..	—	11	3,051	7,431	11,779	n.a.
Turkey—						
Ore .. ..	3,486	1,968	11,263	7,261	837	n.a.

(a) Years ended March 20 following that stated.

IMPORTS OF ZINC\*

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
COMMONWEALTH COUNTRIES						
United Kingdom—						
Ore and concentrates ..	152,325	189,112	206,184	188,130	212,113	303,531
Unwrought ..	173,810	185,878	163,070	142,109	(a) 159,171	(a) 187,109
Waste and scrap ..	n.a.	n.a.	n.a.	n.a.	2,713	2,298
Semi-manufactures (a) ..	(c) 754	(c) 934	(c) 1,777	(c) 1,027	848	601
Oxide ..	n.a.	n.a.	n.a.	n.a.	n.a.	189
Lithopone, etc. . .	2,685	2,615	2,524	1,867	2,083	2,251
Malta—						
Semi-manufactures ..	(£3,101)	(£8,396)	n.a.	(£7,454)	(£9,161)	(£7,376)
Ghana—						
Unwrought (a) ..	} 65	} 73	18	47	42	29
Semi-manufactures (a) ..			184	19	56	30
Kenya—						
Unwrought (a) ..	68	77	100	204	1,379	1,419
Semi-manufactures (a) ..	40	46	9	—	16	8
Nigeria—						
Unwrought and semi-manufactures (a) ..	50	67	35	37	37	950
Rhodesia (d)—						
Semi-manufactures (a) ..	120	124	49	86	537	1,085
Tanzania—						
Unwrought (a) ..	—	1	4	5	301	1,407
Semi-manufactures (a) ..	31	26	36	26	23	25
Uganda—						
Semi-manufactures (a) ..	3	5	4	16	3	5
Canada—						
Unwrought (a) ..	750	44	688	634	571	19
Semi-manufactures (a) ..	1,648	1,550	1,548	1,477	1,749	2,390
Zinc-white ..	646	678	1,999	2,443	1,993	1,045
Lithopone ..	875	798	562	—	—	481
Barbados—						
Semi-manufactures (a) ..	5	5	7	11	7	5
Jamaica—						
Semi-manufactures (a) ..	12	17	43	39	91	79
Trinidad and Tobago—						
Semi-manufactures (a) ..	29	25	59	48	32	n.a.
Ceylon—						
Unwrought (a) ..	91	101	91	85	182	85
Semi-manufactures (a) ..	29	57	18	74	35	19
Cyprus—						
Semi-manufactures (a) ..	61	34	40	49	46	55
Hong Kong—						
Unwrought (a) ..	2,390	4,006	5,366	4,501	4,455	8,179
Scrap ..	357	456	431	37	77	265
Semi-manufactures (a) ..	1,050	897	547	544	522	531
Oxide ..	527	538	573	794	648	733
Lithopone ..	2,102	1,716	2,327	1,319	1,185	1,500
India—						
Unwrought ..	46,921	(b) 66,725	(b) 64,345	(b) 83,847	(b) 79,856	(b) 65,345
do. alloys ..	869	(b) 2,888	(b) 1,522	(b) 2,306	(b) 3,023	(b) 3,600
Semi-manufactures (a) ..	248	(b) 1,403	(b) 964	(b) 1,292	(b) 1,140	(b) 1,115
Zinc-white ..	7	(b) 17	(b) 5	(b) 2	(b) 182	(b) 102
Lithopone ..	163	(b) 379	(b) 352	(b) 474	(b) 501	(b) 343
Malaya—						
Unwrought (a) ..	4	16	27	308	619	1,037
Semi-manufactures (a) ..	878	1,305	1,253	800	897	284
Pakistan—						
Unwrought (a) ..	1,525	1,899	3,574	220	2,781	4,960
Zinc-white ..	248	464	413	499	378	15
Lithopone ..	507	1,639	1,364	1,832	1,557	1,369

\*See footnote on p. 398 concerning the descriptions "unwrought" zinc and "semi-manufactures" used in these tables.

(a) Including alloys.

(c) Including unwrought alloys.

(b) Years ended March 31 following that stated. (d) Figures for years 1959 to 1963 relate to Rhodesia and Nyasaland.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964	
<b>COMMONWEALTH COUNTRIES (cont.)</b>							
Sarawak—							
Semi-manufactures (a)	204	402	432	935	303	120	
Australia (b)—							
Unwrought and semi-manufactures (a) ..	129	911	2,531	1,687	1,839	195	
Oxides .. .. .	5	37	—	—	—	—	
Lithopone .. .. .	1,623	1,582	1,531	1,454	1,497	1,073	
New Zealand—							
Unwrought (a) ..	2,088	2,549	2,664	2,580	} (b) 3,048	n.a.	
Semi-manufactures (a)	326	345	755	459			
Oxide .. .. .	31	108	79	101			(b) 1
Lithopone .. .. .	184	174	136	133			(b) 134
Irish Republic—							
Unwrought (a) ..	1,524	2,163	2,464	2,729	2,733	3,439	
Semi-manufactures (a)	296	99	80	149	164	312	
<b>OTHER COUNTRIES</b>							
Austria—							
Ore .. .. .	11,555	10,127	9,271	12,921	12,441	13,366	
Unwrought (a) ..	3,070	6,485	7,905	5,913	5,541	8,293	
Semi-manufactures (a)	331	476	499	443	422	502	
Zinc-white and zinc-grey .. .. .	786	629	658	721	483	512	
Lithopone .. .. .	20	19	3	96	372	221	
Belgium-Luxemburg E.U.—							
Ore .. .. .	526,753	540,052	496,045	440,448	416,148	442,420	
Unwrought .. ..	491	2,991	17,436	35,155	24,023	25,719	
Scrap .. .. .	861	368	133	1,186	405	1,012	
Semi-manufactures (a)	279	97	143	201	430	958	
Oxide .. .. .	1,234	1,421	1,433	1,799	2,013	1,991	
Lithopone, etc. . .	1,980	1,637	1,608	1,349	1,361	1,646	
Denmark—							
Unwrought .. ..	11,296	11,544	9,733	10,770	8,765	11,231	
do. alloys .. ..	380	430	216	238	636	254	
Scrap .. .. .	513	142	32	63	67	89	
Semi-manufactures (a)	5,513	5,232	6,257	6,740	5,084	6,449	
Zinc-white .. ..	1,940	1,642	1,623	1,496	1,428	1,467	
Lithopone .. ..	1,883	1,854	1,963	2,020	2,060	1,843	
Finland—							
Unwrought (a) ..	5,361	4,729	6,286	4,642	5,770	3,781	
Scrap .. .. .	54	5	—	—	—	—	
Semi-manufactures (a)	466	540	587	501	302	523	
Zinc-white .. ..	802	725	490	424	403	268	
Lithopone .. ..	1,631	1,919	1,833	1,786	1,737	1,767	
France—							
Ore .. .. .	236,309	285,755	320,391	293,211	276,635	362,325	
Unwrought .. ..	13,597	21,699	31,108	31,881	20,207	21,767	
Scrap .. .. .	4,035	6,050	8,474	10,542	13,156	18,585	
Semi-manufactures (a)	1,670	5,603	4,755	4,665	6,528	6,918	
Oxide .. .. .	541	714	1,534	883	1,341	2,219	
Lithopone, etc. . .	16,165	19,217	21,051	20,134	21,385	23,592	
Germany (Federal)—							
Ores .. .. .	142,087	158,346	136,247	131,494	122,680	143,539	
Unwrought (a) ..	103,970	136,444	139,343	126,580	133,960	164,635	
Scrap (a) .. ..	695	555	409	851	780	535	
Semi-manufactures (a)	9,206	10,012	9,454	12,154	14,795	14,731	
Zinc-white and zinc-grey	2,151	2,365	3,254	3,438	3,763	5,292	
Lithopone .. ..	2,659	2,965	3,714	3,160	2,867	2,816	

(a) Including alloys.

(b) Years ended June 30 of that stated.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Greece—						
Unwrought .. .. .	2,773	3,754	4,923	5,260	4,905	5,537
Semi-manufactures (a)	499	373	286	253	485	179
Zinc-white .. .. .	241	232	241	246	325	395
Lithopone .. .. .	3,009	3,207	3,187	3,230	3,606	3,921
Hungary—						
Crude .. .. .	8,403	10,663	9,225	9,897	10,777	11,630
Iceland—						
Unwrought (a) .. .. .	36	18	20	22	12	12
Semi-manufactures (a)	23	43	52	63	61	80
Zinc-white .. .. .	32	77	37	57	37	17
Italy—						
Ore .. .. .	—	982	2,513	1,075	8,922	1,023
Unwrought .. .. .	6,749	11,299	12,748	26,412	28,952	41,636
do. alloys .. .. .	309	856	2,040	2,504	1,879	1,162
Scrap .. .. .	4,744	4,395	4,550	5,155	7,005	4,499
Semi-manufactures (a)	252	177	436	134	3,683	2,961
Oxide .. .. .	489	705	741	684	2,281	3,526
Lithopone, etc. . . . .	1,078	1,002	1,221	294	757	1,399
Netherlands—						
Ore .. .. .	72,952	70,653	90,282	72,593	75,554	103,926
Unwrought .. .. .	9,973	11,584	13,437	14,308	13,490	13,482
do. alloys .. .. .	1,398	2,011	2,068	2,194	2,165	2,102
Scrap .. .. .	796	756	451	317	424	249
Semi-manufactures (a)	5,449	5,567	5,995	4,879	6,458	7,876
Oxide .. .. .	1,468	1,557	1,037	1,568	1,768	1,838
Lithopone, etc. . . . .	1,731	1,976	1,980	1,926	1,986	2,714
Norway—						
Ore .. .. .	61,278	83,668	65,874	68,368	83,521	77,485
Unwrought .. .. .	260	1,151	1,040	2,259	1,720	2,234
Scrap .. .. .	750	902	923	474	941	774
Semi-manufactures (a)	1,464	1,373	2,374	2,857	5,289	2,414
Zinc-white .. .. .	496	470	453	588	451	568
Lithopone, etc. . . . .	358	334	329	354	235	242
Poland—						
Concentrates .. .. .	141,041	109,498	145,104	122,000	146,200	164,600
Portugal—						
Unwrought and scrap ..	2,682	3,128	4,866	4,552	5,008	4,979
Semi-manufactures .. .	148	251	192	241	264	296
Oxide .. .. .	617	430	460	486	436	299
Lithopone .. .. .	1,926	2,221	2,276	2,234	2,113	2,741
Spain—						
Unwrought and scrap ..	7,719	1	—	—	1	11
Semi-manufactures (a)	32	17	19	36	13	29
Sweden—						
Unwrought .. .. .	29,107	32,206	23,844	33,174	25,134	26,059
do. alloys .. .. .	1,049	1,765	2,038	2,729	2,442	2,579
Scrap .. .. .	61	103	50	231	55	61
Semi-manufactures (a)	1,114	1,283	1,206	1,122	1,281	1,617
Zinc-white .. .. .	4,703	4,502	4,389	4,053	3,541	3,355
Lithopone, etc. . . . .	6,173	5,863	5,603	4,466	4,348	3,927
Switzerland—						
Unwrought .. .. .	14,180	23,552	26,594	19,997	20,082	20,342
Semi-manufactures (a)	2,504	3,860	3,505	3,018	3,551	3,125
Zinc-white, lithopone, etc. .. .. .	8,496	(b) 1,998	(b) 1,713	(b) 1,811	(b) 1,560	(b) 1,820
U.S.S.R.—						
Unwrought .. .. .	40,900	59,900	69,300	50,800	49,200	70,600
do. alloys .. .. .	4,921	6,299	6,299	5,708	5,905	5,807
Semi-manufactures .. .	3,937	3,937	3,937	4,134	3,937	3,838

(a) Including alloys.

(b) Zinc-white only.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
Yugoslavia—						
Unwrought .. ..	227	770	—	—	2,090	1,604
Semi-manufactures .. ..	6	202	5	7	75	182
Oxide .. ..	32	11	49	19	785	1,451
Lithopone .. ..	<i>n.a.</i>	453	146	49	507	601
Algeria—						
Unwrought (a) .. ..	3	263	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a) .. ..	921	789	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Oxide .. ..	733	555	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lithopone, etc... ..	1,401	1,683	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Angola—						
Semi-manufactures (a) .. ..	107	94	60	93	57	90
Oxide .. ..	30	29	35	49	42	59
Congo Republic—						
Unwrought and scrap .. ..	—	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Oxide .. ..	92	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lithopone .. ..	481	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egypt—						
Unwrought .. ..	1,149	1,688	951	2,088	2,411	1,954
Semi-manufactures .. ..	604	637	511	330	<i>n.a.</i>	<i>n.a.</i>
Zinc-white .. ..	477	893	950	73	<i>n.a.</i>	<i>n.a.</i>
Lithopone .. ..	1,614	5,247	2,691	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Malagasy Republic—						
Semi-manufactures (a) .. ..	102	99	99	126	87	76
Oxide .. ..	4	4	5	4	—	6
Morocco—						
Unwrought .. ..	387	502	463	613	557	454
Semi-manufactures (a) .. ..	173	149	152	187	284	240
Oxide .. ..	325	449	405	562	560	566
Lithopone .. ..	926	986	1,112	977	1,358	1,217
Mozambique—						
Semi-manufactures .. ..	30	21	22	29	25	9
Oxide .. ..	34	52	72	65	93	88
South Africa—						
Unwrought .. ..	14,622	28,201	22,596	26,667	33,767	<i>n.a.</i>
Semi-manufactures .. ..	124	150	166	255	154	<i>n.a.</i>
Lithopone .. ..	1,646	1,609	1,214	1,233	1,097	<i>n.a.</i>
Oxide .. ..	273	264	234	154	270	<i>n.a.</i>
Sudan—						
Unwrought .. ..	7	3	8	8	20	—
Semi-manufactures .. ..	113	25	146	94	195	58
Tunisia—						
Unwrought and scrap (a) .. ..	63	49	84	94	25	—
Semi-manufactures (a) .. ..	69	107	107	67	80	86
Oxide .. ..	75	134	90	157	144	200
Cuba—						
Unwrought .. ..	226	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures .. ..	1,470	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Mexico—						
Semi-manufactures .. ..	78	76	41	30	32	45
Oxide .. ..	38	27	35	34	43	45
United States—						
Ore ( <i>Zn content</i> ) .. ..	378,691	341,909	319,333	345,822	332,071	278,067
Unwrought .. ..	146,841	107,969	111,774	121,425	118,154	119,748
Dross and scrap .. ..	1,016	1,075	1,259	2,471	2,568	3,371
Semi-manufactures .. ..	888	824	1,133	1,986	3,696	5,003
Oxide .. ..	14,741	11,335	9,127	11,509	12,377	7,546
Lithopone .. ..	65	55	66	87	142	156
Argentina—						
Unwrought .. ..	6,955	412	313	84	428	439
Sheets and plates .. ..	—	70	219	102	63	71
Zinc-white .. ..	1	1	1	4	2	10

(a) Including alloys

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>OTHER COUNTRIES</b>						
<i>(cont.)</i>						
<b>Brazil—</b>						
Unwrought (a) ..	21,825	30,275	32,318	41,567	38,288	30,222
Semi-manufactures (a) ..	27	74	38	545	17	344
Zinc-white .. ..	1,200	455	621	82	120	70
Lithopone .. ..	7,516	7,477	9,540	9,621	7,708	6,483
<b>Chile—</b>						
Unwrought .. ..	1,477	2,776	4,158	3,524	<i>n.a.</i>	<i>n.a.</i>
Bars and sheets (a) ..	163	205	185	108	<i>n.a.</i>	<i>n.a.</i>
Zinc-white .. ..	—	15	2	7	<i>n.a.</i>	<i>n.a.</i>
Lithopone .. ..	4	—	10	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Colombia—</b>						
Unwrought (a) ..	1,433	2,497	721	1,223	4,739	4,301
Semi-manufactures (a) ..	309	397	533	403	148	168
Zinc-white .. ..	616	787	1,013	1,209	1,642	1,121
Lithopone .. ..	316	547	506	577	790	489
<b>Peru—</b>						
Semi-manufactures (a) ..	173	146	237	248	284	196
Zinc-white .. ..	17	14	23	25	21	15
Lithopone .. ..	394	350	406	417	337	414
<b>Uruguay—</b>						
Unwrought and sheets ..	1,421	1,351	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Lithopone .. ..	1,000	771	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Zinc-white .. ..	365	372	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Venezuela—</b>						
Unwrought .. ..	56	115	191	162	301	2,987
Oxide .. ..	710	606	617	766	784	983
Lithopone .. ..	543	348	535	523	400	490
<b>Burma—</b>						
Unwrought .. ..	158	—	223	—	22	318
Semi-manufactures (a) ..	150	365	201	505	327	188
<b>Formosa—</b>						
Unwrought (a) ..	605	1,318	1,915	3,000	3,740	4,132
Semi-manufactures (a) ..	271	257	279	263	145	254
Lithopone .. ..	<i>n.a.</i>	1,214	1,210	1,325	1,394	1,238
<b>Indonesia—</b>						
Unwrought and scrap ..	42	127	242	520	<i>n.a.</i>	<i>n.a.</i>
Semi-manufactures (a) ..	961	974	1,514			
Zinc-white .. ..	1,332	2,141	3,271	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Iran (b)—</b>						
Unwrought .. ..	30	34	<i>r</i> 97	383	157	166
Semi-manufactures (a) ..	84	110	<i>r</i> 53	446	85	66
Oxide .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	294	448	314
Lithopone .. ..	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,459	1,717	1,242
<b>Iraq—</b>						
Semi-manufactures ..	63	42	88	93	15	<i>n.a.</i>
<b>Israel—</b>						
Unwrought (a) .. ..	2,385	2,855	2,861	1,896	2,019	2,748
Semi-manufactures ..	512	564	268	631	401	291
Oxide .. ..	349	1,100	1,293	522	423	612
Lithopone .. ..	753	1,256	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<b>Japan—</b>						
Ore .. ..	58,695	107,790	185,432	142,414	145,176	283,891
Unwrought .. ..	9,295	25,736	47,118	8,007	8,271	67,948
Scrap .. ..	170	48	59	64	27	43
Semi-manufactures (a) ..	1	8	87	33	79	21
<b>Korea (South)—</b>						
Unwrought .. ..	3,216	2,270	4,638	4,938	10,302	4,741
Semi-manufactures ..						
Lithopone .. ..	1,088	1,521	1,680	1,428	1,500	1,761

(a) Including alloys.

(b) Years ended March 20 of year following that stated.

## IMPORTS OF ZINC (cont.)

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964		
<b>OTHER COUNTRIES</b>								
<i>(cont.)</i>								
<b>Lebanon—</b>								
Unwrought .. ..	467	512	710	777	690	<i>n.a.</i>		
Semi-manufactures .. ..	135	98	148	146	248	<i>n.a.</i>		
Oxide and lithopone .. ..	172	65	77	66	57	<i>n.a.</i>		
<b>Philippine Republic—</b>								
Unwrought (a) .. ..	11,864	11,355	5,520	7,624	7,694	<i>n.a.</i>		
Semi-manufactures (a) .. ..			883	1,225	1,541	<i>n.a.</i>		
Oxide .. ..			1,045	891	1,676	1,009	880	<i>n.a.</i>
Lithopone .. ..			332	389	677	159	422	<i>n.a.</i>
<b>Syria—</b>								
Oxide and lithopone .. ..	494	784	953	657	568	869		
<b>Thailand—</b>								
Unwrought (a) .. ..	431	2,160	5,589	7,089	9,147	10,341		
Semi-manufactures (a) .. ..	1,040	1,821	1,587	1,715	1,594	1,660		
Oxide .. ..	142	215	236	299	343	392		
Lithopone .. ..	323	506	301	707	538	653		
<b>Turkey—</b>								
Unwrought .. ..	1,570	3,248	3,851	3,339	1,920	2,238		
Semi-manufactures (a) .. ..	2,471	2,864	1,526	2,500	3,289	2,728		
Oxide .. ..	1,880	1,204	1,449	1,803	1,718	2,088		
Lithopone .. ..	1,764	1,466	131	140	73	129		

(a) Including alloys.

## ZIRCONIUM MINERALS

### PRODUCTION OF ZIRCONIUM MINERALS

Long tons

Producing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria .. .. .	1,116	1,757	743	—	791	153
Malaya (a) .. .. .	81	57	56	60	258	145
Australia— Zircon concentrates ..	113,356	102,362	136,462	133,844	184,830	183,165
<b>OTHER COUNTRIES</b>						
Egypt .. .. .	290	341	94	168	39	40
Malagasy Republic .. .. .	44	130	315	348	382	504
Senegal .. .. .	8,533	10,186	5,303	2,299	3,022	<i>n.a.</i>
South Africa .. .. .	5,289	6,577	6,792	6,769	2,364	—
Brazil (b) .. .. .	9,684	5,677	6,612	2,359	350	508

Zirconium minerals are also known to have been produced in Ceylon, India, the U.S.S.R., the United States and Cambodia.

Production of zirconium sponge metal in the United States was as follows (long tons):

1959—1,254; 1960—1,271; 1961—1,515; 1962—1,136; 1963—912; 1964—*n.a.*

(a) Exports.

(b) Zircon and baddeleyite.

### EXPORTS OF ZIRCONIUM MINERALS, ETC.

Long tons

Exporting Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
Nigeria— Ores and concentrates	873	674	—	495	876	<i>n.a.</i>
Malaya (a)— Zircon .. .. .	81	57	56	60	258	145
Australia— Zircon concentrates ..	108,820	104,630	140,333	131,843	179,697	198,664
<b>OTHER COUNTRIES</b>						
Germany (Federal)— Ore .. .. .	<i>n.a.</i>	1,085	591	575	567	1,669
Senegal— Zircon .. .. .	8,149	10,602	5,280	2,054	3,247	—
South Africa— Zircon concentrates ..	4,821	5,400	5,240	5,950	2,504	71
United States— Ores and concentrates	1,349	1,234	1,140	1,487	1,266	2,232
Zirconium metal, etc. ..	40	475	80	97	131	238
Brazil (b) .. .. .	49	—	53	—	—	—

(a) Years ended March 31 of year following that stated.

(b) Zircon and baddeleyite.



## IMPORTS OF ZIRCONIUM MINERALS, ETC.

Long tons

Importing Country and Description	1959	1960	1961	1962	1963	1964
<b>COMMONWEALTH COUNTRIES</b>						
United Kingdom— Zirconium ores ..	28,063	33,712	30,756	32,924	32,356	49,351
Canada—						
Zirconium oxide ..	(£14,443)	(£8,735)	(£11,462)	(£19,503)	(£20,172)	n.a.
Zirconium silicate ..	(£56,104)	(£59,402)	(£74,780)	(£73,485)	(£105,702)	n.a.
<b>OTHER COUNTRIES</b>						
France—						
Zirconium ore .. ..	9,285	15,389	16,387	18,641	19,374	22,695
Germany (Federal)—						
Zirconium ore .. ..	16,869	18,653	23,018	23,568	25,176	28,661
Italy—						
Zirconium ore .. ..	4,176	8,007	6,700	7,420	10,980	13,029
United States—						
Zirconium ore .. ..	48,998	30,607	30,183	27,565	46,913	39,655
Zirconium metal ..	3	1	1	1	—	24

## OTHER MINERALS AND METALS

These minerals are not separately recorded in the statistical returns of several countries.

Country and Description	1959	1960	1961	1962	1963	1964
<b>Germanium</b> (in terms of metal)						
PRODUCTION*—						
Italy .. .. Lb.	3,000	12,000	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Congo Republic Lb.	30,080	55,340	29,870	17,650	16,060	18,230
South West Africa Lb.	16,000	42,000	34,580	r 79,505	31,132	—
United States (b) Lb.	40,000	54,000	40,000	37,000	20,000	15,000
EXPORTS—						
South-West Africa Lb.	16,000	42,000	34,580	r 79,505	468	11,434
<b>Indium</b>						
PRODUCTION†—						
Japan Troy ounces	62,890	<i>n.a.</i>	<i>n.a.</i>	150,700	150,800	<i>n.a.</i>
<b>Nepheline Syenite</b>						
PRODUCTION—						
Canada .. .. Ton	204,216	214,854	214,571	227,159	226,786	260,752
Norway .. .. Ton	—	—	8,008	19,625	22,000	30,258
EXPORTS—						
Canada .. .. Ton	159,036	172,587	173,748	172,909	181,484	202,653
IMPORTS—						
United Kingdom £	70,115	89,619	145,540	206,721	<i>n.a.</i>	<i>n.a.</i>
United States .. Ton	165,421	175,059	167,379	168,635	175,749	183,656
<b>Perlite</b>						
PRODUCTION—						
United Kingdom Ton	413	1,135	823	1,730	3,895	1,765
Australia .. Ton	708	796	394	608	340	489
New Zealand .. Ton	378	348	387	387	564	914
Greece .. .. Ton	1,999	27,400	16,911	r 29,209	<i>n.a.</i>	<i>n.a.</i>
Mexico .. .. Ton	3,259	5,935	7,124	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
United States .. Ton	396,000	344,000	334,000	364,000	361,000	381,000
Turkey .. .. Ton	<i>n.a.</i>	<i>n.a.</i>	200	700	1,000	—
EXPORTS—						
Greece .. .. Ton	3,164	12,204	9,099	16,622	<i>n.a.</i>	<i>n.a.</i>
IMPORTS—						
United Kingdom £	101,062	154,349	180,198	287,414	<i>n.a.</i>	<i>n.a.</i>
<b>Sodium Carbonate</b> (Natural)						
PRODUCTION—						
Kenya .. .. Ton	151,405	124,510	142,430	122,120	101,870	80,380
United States (a) Ton	656,000	722,000	720,000	873,000	999,000	1,138,000
EXPORTS—						
Kenya .. .. Ton	148,177	115,208	142,673	111,201	106,873	63,997
<b>Sodium Sulphate</b> (Natural)						
PRODUCTION—						
Canada .. .. Ton	160,299	191,257	224,104	220,243	229,387	294,802
Spain .. .. Ton	15,496	16,864	17,793	20,373	32,936	<i>n.a.</i>
United States (a) Ton	360,000	402,000	416,000	409,000	388,000	513,000
Chile .. .. Ton	<i>n.a.</i>	8,401	13,089	<i>n.a.</i>	31,918	33,984
Argentina .. Ton	<i>n.a.</i>	<i>n.a.</i>	11,022	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Turkey .. .. Ton	472	613	2,446	4,699	1,244	2,387
EXPORTS—						
Canada .. .. Ton	42,787	56,992	77,795	66,115	58,346	95,820

\*Germanium is also produced in the United Kingdom.

†The United States is also a substantial producer of indium but statistics of production are not available.

(a) Sold or used by producers.

(b) From primary material of both domestic and foreign origin. Estimated.

## OTHER MINERALS AND METALS (cont.)

Country and Description	1959	1960	1961	1962	1963	1964
<b>Tellurium</b>						
PRODUCTION—						
Canada .. Lb.	13,023	44,682	77,609	58,725	76,842	79,789
United States (a) Lb.	177,000	271,000	205,000	264,000	201,000	145,000
Peru .. Lb.	62,600	59,343	76,300	50,473	26,234	46,758
Japan .. Lb.	2,760	13,671	16,487	23,168	13,256	7,573
EXPORTS—						
Germany (Federal) Lb.	220	—	1,102	5,952	1,543	441
Peru .. Lb.	58,934	51,039	74,673	9,202	2,121	22,992
IMPORTS—						
Germany (Federal) Lb.	18,100	16,100	22,900	22,000	8,800	14,100
<b>Wollastonite</b>						
PRODUCTION—						
New Zealand .. Ton	—	—	—	6	9	14
Finland .. Ton	n.a.	2,342	2,605	2,382	2,091	n.a.
South West Africa Ton	—	—	—	—	—	116
Sudan .. Ton	—	20	—	—	n.a.	n.a.
Mexico (b) .. Ton	5,000	5,000	5,000	5,000	5,000	5,000
United States—						
Industrial .. ..	(c)	(c)	(c)	(c)	(c)	(c)
Ornamental .. Ton	n.a.	n.a.	6,853	2,400	(b) 2,143	3,500

(a) Including tellurium content of compounds.

(b) Estimated.

(c) In the range 30,000 to 40,000 tons per annum.

# MINERALS PRODUCED IN COUNTRIES OF THE COMMONWEALTH AND STERLING AREA

*The following list comprises those minerals produced in Commonwealth and Sterling Area countries during the period 1959-1964 for which data have been given in the preceding tables. Minerals outside the general coverage of the statistics in this Summary are excluded. Where the name of an element appears alone, the word "ores" or "minerals" is implied to follow; this list does not extend to the production of metals.*

<p><b>Abu Dhabi</b> (Protected State) Petroleum</p> <p><b>Aden</b> Salt</p> <p><b>Australia</b> Antimony Asbestos Barytes Bauxite Bentonite Beryl Cadmium China Clay Chrome Coal Cobalt Copper Diamonds Diatomaceous earth Feldspar, China stone Fluorspar Fuller's earth Garnet Gold Gypsum Iron Lead Lithium Magnesite, Dolomite Manganese Mica Molybdenum Monazite Natural gas Perlite Petroleum Phosphate Platinum, Osmiridium Pyrites Salt Selenium Sillimanite, Andalusite Silver Sulphur Talc, Pyrophyllite Tantalite, Columbite Tin Titanium Tungsten Uranium Zinc Zircon</p> <p><b>Bahamas</b> Salt</p>	<p><b>Bahrein</b> (Protected State) Petroleum</p> <p><b>Barbados</b> Natural gas Petroleum</p> <p><b>Basutoland</b> Diamonds</p> <p><b>Bechuanaland</b> Asbestos Gold Kyanite Manganese Silver</p> <p><b>British Guiana</b> Bauxite Diamonds Gold Manganese</p> <p><b>Brunei</b> Natural gas Natural gasoline Petroleum</p> <p><b>Canada</b> Arsenic Asbestos Barytes Bentonite Bismuth Cadmium Coal Cobalt Copper Diatomaceous earth Feldspar Fluorspar Garnet Gold Graphite Gypsum, Anhydrite Indium Iron Lead Lithium Magnesite, Dolomite Mercury Mica Molybdenum Natural gas Natural gasoline Nepheline syenite Nickel</p>	<p><b>Canada—(cont.)</b> Niobium Petroleum Platinum Potash salts Pyrites Salt Selenium Silver Sodium sulphate Sulphur Talc Tantalite, Columbite Tellurium Thorium Tin Titanium Tungsten Uranium Zinc</p> <p><b>Ceylon</b> China clay Feldspar Graphite Gypsum Ilmenite Monazite Salt Zircon</p> <p><b>Christmas Island</b> Phosphate</p> <p><b>Cyprus</b> Asbestos Bentonite Chrome Cobalt Copper Gypsum Pyrites Salt</p> <p><b>Fiji</b> Gold Iron Manganese Silver</p> <p><b>Gambia</b> Titanium</p> <p><b>Ghana</b> Bauxite Diamonds Gold Manganese Salt Silver</p>
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**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

**Hong Kong**

China clay  
Feldspar  
Graphite  
Iron  
Tungsten

**India**

Asbestos  
Barytes  
Bauxite  
Bentonite  
Beryl  
China Clay  
Chrome  
Coal  
Copper  
Columbite  
Corundum  
Diamonds  
Feldspar  
Fluorspar  
Fuller's earth  
Garnet  
Gold  
Gypsum  
Iron  
Lead  
Magnesite, Dolomite  
Manganese  
Mica  
Monazite  
Nitrate of potash  
Petroleum  
Phosphate  
Pyrites  
Salt  
Sillimanite, Kyanite  
Silver  
Talc  
Titanium  
Tungsten  
Vermiculite  
Zinc  
Zircon

**Jamaica**

Bauxite  
Gypsum  
Phosphate

**Kenya**

Asbestos  
Beryl  
China clay  
Columbite  
Copper  
Diatomaceous earth  
Feldspar  
Gold  
Graphite  
Gypsum  
Kyanite  
Magnesite  
Mica  
Pumice

**Kenya—(cont.)**

Salt  
Silver  
Sodium carbonate  
Vermiculite

**Kuwait**

(Protected State)

Petroleum

**Malaya**

Bauxite  
China clay  
Coal  
Columbite  
Gold  
Iron  
Manganese  
Monazite  
Tin  
Titanium  
Tungsten  
Zircon

**Malta**

Salt

**Mauritius**

Salt

**Nauru Island**

Phosphate

**New Guinea**

Gold  
Platinum  
Silver

**New Hebrides**

Manganese

**New Zealand**

Asbestos  
Bentonite  
Coal  
Copper  
Diatomaceous earth  
Gold  
Iron  
Magnesite, Dolomite  
Manganese  
Natural gas  
Natural gasoline  
Perlite  
Petroleum  
Pumice  
Salt  
Silver  
Tungsten  
Wollastonite

**Nigeria**

China clay  
Coal  
Gold  
Lead  
Molybdenum  
Monazite, Thorite

**Nigeria—(cont.)**

Natural gas  
Petroleum  
Salt  
Tantalite, Columbite  
Tin  
Zircon

**Ocean Island**

Phosphate

**Pakistan**

Antimony  
Barytes  
Bauxite  
Bentonite  
China clay  
Chrome  
Coal  
Dolomite  
Feldspar  
Fuller's earth  
Gypsum  
Iron  
Magnesite  
Manganese  
Mica  
Natural gas  
Petroleum  
Salt  
Strontium  
Talc

**Papua**

Gold  
Manganese

**Qatar**

(Protected State)

Petroleum

**Rhodesia**

Antimony  
Arsenic  
Asbestos  
Barytes  
Bauxite  
Beryl  
China clay  
Chrome  
Coal  
Copper  
Corundum  
Diatomaceous earth  
Fluorspar  
Gold  
Iron  
Kyanite  
Lead  
Lithium  
Magnesite, Dolomite  
Manganese  
Mica  
Nickel  
Phosphate  
Pyrites

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

<b>Rhodesia—(cont.)</b>	<b>Trinidad—(cont.)</b>	<b>Zambia—(cont.)</b>
Silver	Natural gas	Salt
Talc	Natural gasoline	Selenium
Tantalite	Petroleum	Silver
Tin	Sulphur	Tantalite, Columbite
Tripoli		Tin
Tungsten	<b>Turks and Caicos</b>	Uranium
Vermiculite	<b>Islands</b>	Vanadium
	Salt	Zinc
<b>St. Kitts</b>		
Salt	<b>Uganda</b>	
	Beryl	<b>Burma</b>
<b>Sarawak</b>	Bismuth	Antimony
Antimony	Cobalt	Barytes
Bauxite	Copper	Bismuth
Gold	Gold	Coal
Petroleum	Lead	Copper
Phosphate	Lithium	Gold
	Mica	Gypsum
<b>Seychelles</b>	Phosphate	Iron
Phosphate	Salt	Lead
	Silver	Nickel
<b>Sierra Leone</b>	Tantalite, Columbite	Petroleum
Bauxite	Tin	Salt
Chrome	Tungsten	Silver
Diamonds		Talc
Gold	<b>United Kingdom</b>	Tin
Iron	Barytes, Witherite	Tungsten
Titanium	Bromine	Zinc
	China clay	
<b>Swaziland</b>	China stone	<b>Iceland</b>
Asbestos	Coal	Pumice
Barytes	Copper	Diatomaceous earth
Beryl	Diatomaceous earth	
China clay	Fluorspar	<b>Irish Republic</b>
Coal	Fuller's earth	Barytes
Gold	Germanium	Coal
Iron	Gypsum, Anhydrite	Copper
Pyrophyllite	Iron	Gypsum
Silver	Lead	Lead
Tin	Magnesite, Dolomite	Pyrites
	Natural gas	Zinc
<b>Tanzania</b>	Oil-shale	
China clay	Perlite	<b>Jordan</b>
Coal	Petroleum	Gypsum
Copper	Pyrites	Phosphate
Corundum	Salt	Salt
Diamonds	Strontium	
Garnet	Sulphur	<b>Libya</b>
Gold	Talc	Gypsum
Graphite	Tin	Petroleum
Gypsum	Zinc	Salt
Lead		
Magnesite	<b>Virgin Islands</b>	<b>South Africa</b>
Mica	Salt	Antimony
Niobium		Asbestos
Phosphate	<b>Zambia</b>	Barytes
Salt	Beryl	Bentonite
Silver	Cadmium	Beryl
Tin	Cobalt	Bismuth
Tungsten	Copper	China clay
Vermiculite	Gold	Chrome
	Lead	Coal
<b>Trinidad</b>	Manganese	Copper
Gypsum	Mica	Corundum
Natural asphalt		

**Minerals produced in countries of the Commonwealth and Sterling Area (cont.)**

**South Africa—(cont.)**

Diamonds  
 Diatomaceous earth  
 Feldspar  
 Fluorspar  
 Fuller's earth  
 Gadolinite  
 Garnet  
 Gold  
 Graphite  
 Gypsum  
 Iron  
 Lead  
 Lithium  
 Magnesite  
 Manganese  
 Mica  
 Monazite  
 Nickel  
 Oil-shale  
 Phosphate  
 Platinum, Osmiridium  
 Pyrites

**South Africa—(cont.)**

Salt  
 Silver  
 Sillimanite, Andalusite  
 Sulphur  
 Talc  
 Tantalite  
 Tin  
 Titanium  
 Tungsten  
 Uranium  
 Vanadium  
 Vermiculite  
 Zinc  
 Zircon

**South West Africa**

Beryl  
 Bismuth  
 Cadmium  
 Copper  
 Diamonds

**South West Africa**

—(cont.)

Feldspar  
 Fluorspar  
 Germanium  
 Gold  
 Graphite  
 Iron  
 Lead  
 Lithium  
 Manganese  
 Mica  
 Phosphate  
 Salt  
 Sillimanite, Kyanite  
 Silver  
 Tantalite, Columbite  
 Tin  
 Tungsten  
 Vanadium  
 Wollastonite  
 Zinc

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